

**BEFORE INDEPENDENT HEARING COMMISSIONERS
AT NAPIER & WAIPAWA**

**I MUA NGĀ KAIKŌMIHANA WHAKAWĀ MOTUHAKE
KI AHURIRI & WAIPAWA**

IN THE MATTER

of the Resource Management Act 1991

AND

IN THE MATTER

**of the hearing of submissions on applications for
the take and use of water from the Ruataniwha
Basin.**

**WRITTEN REPLY SUBMISSIONS
ON BEHALF OF THE TRANCHE 2 APPLICANTS**

1 DECEMBER 2022

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1. INTRODUCTION

- 1.1 These submissions represent the Applicants' right of reply to the Commissioners' questions, the evidence and presentations of submitters on 16 and 17 November, the Council's very short oral presentation on 17 November, and the written document provided on 18 November 2022.

Amended conditions of consent

- 1.2 An amended set of conditions is attached to these submissions, with explanatory notes in the comment boxes alongside those conditions. As requested, these draft conditions are provided in Word format. The key changes are described in these reply submissions and in the comment bubbles on the conditions.

Council staff reply

- 1.3 The Council staff presentation at the close of the hearing comprised one question of Mr Thomas, the reading of a summary statement by Ms Lough on behalf of all technical witnesses, and a short oral comment from Mr Barrett.
- 1.4 The Applicants' response to that Council staff reply is included in these reply submissions. The Council staff reply did not resile from any of the agreed positions recorded in the JWS filed in advance of the hearing, except perhaps Mr Thomas' brief oral comment around uncertainty arising from the additional augmentation volume, with that having been responded to by Mr Weir in his reply evidence (see below).

Reply evidence – Leave sought if necessary

- 1.5 Filed together with these submissions are short reply statements of evidence from Mr Weir and Dr Keesing. In respect of the evidence, I consider it more appropriate for this to be attached as reply evidence, so that it is clear that it is evidence, rather than include it within the text of these reply submissions. That material is strictly in reply. In Mr Weir's

case it responds to the changes made during the hearing that were themselves made in response to material received for the first time at the hearing, and in Dr Keesing's case it responds directly to some criticisms received, again for the first time, at the hearing, which he had not had any opportunity to respond to. (This evidence includes responding to factual inaccuracies in the evidence given by Mr Deckard arising from a misinterpretation of Dr Keesing's evidence.) A memorandum from Ms Rabbitte is attached to these submissions as Appendix 1, given the limited (but still important) nature of Ms Rabbitte's response.

- 1.6 That reply material is provided in advance of the deadline for filing the written submissions, and accordingly there is no prejudice to the timeframe. To the extent it is considered necessary by the Commissioners, leave is formally sought for reply evidence to be provided.
- 1.7 Both witnesses can be made available, if the Commissioners have any questions for them about this reply evidence. That could potentially occur via AVL, such as TEAMS, or potentially in person. Furthermore, the Commissioners may want to ask Mr Willis about aspects of his planning evidence that were not explored with Mr Willis at the time he presented his evidence (refer discussion below).

Potential for an interim decision and/or further conferencing

- 1.8 Furthermore if, after reviewing that reply evidence, the Council staff considered that conferencing might be helpful, then the Applicants' experts remain willing and able to accommodate that request; in Ms Rabbitte's case she is available up until 10 December 2022. Equally, if the Commissioners were minded to grant consent but considered that further expert conferencing was required on the conditions, then I would invite the Commissioners to consider issuing an interim decision together with directions as to which aspects would benefit from further conferencing.

Summary of Issues

- 1.9 These reply submissions are structured on an “issue by issue” basis. While only some submitters’ evidence is directly referred to, all of the evidence presented has been carefully considered. I refer to my opening submissions in which I set out the relevant principles for both assessing expert evidence, and lay evidence which can trespass into technical areas.
- 1.10 These reply submissions:
- (a) Describe the nature of the Ruataniwha Basin groundwater resource, and “declining” groundwater levels within the basin.
 - (b) Describe the Objectives and Policies of the RRMP providing for the Tranche 2 take, and providing for augmentation of streams as a means of addressing the effects of this take.
 - (c) Explain how, in the Applicants’ opinion, the NPSFM 2020 and the concept of Te Mana o te Wai is to be applied in this consent process, and prior to the completion of the NPSFM 2020’s implementation process.
 - (d) Summarise the new groundwater modelling and the proposed location of takes and discharges.
 - (e) Discuss the evidence of effects relating to:
 - (i) augmentation discharge;
 - (ii) nutrient/nitrate discharges from subsequent land use;
 - (iii) domestic wells;
 - (iv) irrigation and stockwater wells; and
 - (v) Inglis Bush Scenic Reserve.
 - (f) Discuss the lack of a cultural values assessment in the application material or evidence for this hearing, and the

reasons for that (noting that cultural values were otherwise identified insofar as that was possible in the absence of a cultural values assessment).

- (g) Discuss the evidence of positive effects relating to:
 - (i) augmentation;
 - (ii) stream enhancement;
 - (iii) fish salvage; and
 - (iv) the ability for the Applicants to transition to higher value land uses with a lower environmental impact.
- (h) Describe the final set of consent conditions.
- (i) Explain the caselaw on one legal matter arising in the hearing, namely the relevance of the extent of submissions in opposition to a project.
- (j) Conclude by drawing attention to several process matters that counsel is obliged to bring to the Commissioners' attention as part of this reply.

2. NATURE OF THE RUATANIWHA GROUNDWATER RESOURCE

2.1 Submitters repeatedly referred to the fact that 15M m³ will be taken from the aquifer each year. That is incorrect. The expert evidence demonstrates that:

- (a) The total volume of water in the groundwater system in the Ruataniwha Basin is estimated at approximately 15 billion m³ (refer to Weir, 2022, Section 3.14).¹ If the full 15 million m³/year is removed (in an extreme dry year, which is only predicted to occur in 1 of the 40 years modelled), this equates to around 0.1%

¹ Weir (2022): *Ruataniwha Basin. Tranche 2 Groundwater Modelling (Revised 2)*. Report prepared for Various Collaborative Participants. WL18045. 28 September 2022.

of the volume of water stored in the aquifer system. In an extreme year, more than 44% of the water taken is discharged into streams (ie the increased volume is taken for environmental mitigation and enhancement).

- (b) The average (1 in 2 year) irrigation volume under the 13M m³/year scenario with the Red Bridge low flow trigger in place is approximately 7.1M m³/year, and the augmentation in that average year is approximately 2.5M m³/year. The total average take each year therefore equates to 9.6M m³/year.

2.2 Questions were also asked about whether or not the aquifer recharges each year; presumably based on a concern that the aquifer will be “mined” and will continue to be reduced over time. In that regard:

- (a) Land surface recharge to the aquifer has been calculated by IrriCalc. River recharge is calculated by the groundwater model. The total combined recharge is then verified by the simultaneous calibration to groundwater levels and river flows (including river losses to groundwater).
- (b) From Table 5 of Weir (2022), the average recharge into the aquifer system is approximately 9 m³/s (made up of 3.9 m³/s from land surface recharge and 5.1 m³/s from river recharge, under the Status Quo scenario), which is approximately 284 M m³/year.
- (c) The T2 Water allocation of 15 Mm³/year is approximately 5% of this total and the average T2 Water take of 7.1 Mm³/year is approximately 2.5% of this total

2.3 Finally, the “declining trend” shown by some of the graphs presented to the Commissioners during the hearing have been responded to by Mr Weir’s reply evidence. That can be summarised as:

- (a) A small decline since the late 1800s;

- (b) The effects of the Tranche 1 takes being fully realised;
- (c) The effects of removal of the water races from around 2005 which reduced recharge into the aquifer;
- (d) Local adjustments to bores (eg deepening);
- (e) Very recent data showing a raising of the groundwater levels in some bores in response to climatic changes (ie a recent very wet year).

2.4 Both Ms Rabbitte's Well Interference assessment and Mr Weir's model includes an allowance for further declining rainfall due to climate change. In other words, the assessment of effects has assumed further declines. If that does not happen, or does not happen to the extent assumed, then the effects on groundwater levels within the Basin will be "less" than that predicted.

3. **SPECIFIC PC6 POLICY PROVISION FOR THE TRANCHE 2 TAKE AND RESULTING EFFECTS**

- 3.1 Even some submitters strongly in opposition to the taking of the T2 Water acknowledged that Plan Change 6 (**PC6**) made specific provision for the taking of up to 15M m³ of water as a discretionary activity.
- 3.2 It is not rational to conclude that in making that volume of water available, the Board of Inquiry did not also assume that there would be some response in groundwater levels and other associated effects (eg on existing bores, and on small streams). Indeed, the recognition of those effects was what led to the requirement for the augmentation specified in the policy. (Contrary to the submissions from some submitters, the provision of the T2 Water is not "subject to" or "contingent" on the Ruataniwha Storage Scheme going ahead.)
- 3.3 The Commissioners will recall that the availability of the T2 Water is set out in Policy TT1(ca):

Enabling additional groundwater to be abstracted as a discretionary activity (Table 5.9.5 Tranche 2) **provided that river flows are augmented to maintain the relevant minimum flows specified in Table 5.9.3** commensurate to the scale of effect of the Tranche 2 groundwater take.

3.4 The Applicants say that the uncontested expert evidence demonstrates that there is sufficient certainty provided by the model to conclude that those minimum flows will be maintained – ie they will either be significantly improved at times, and at other times will be only very marginally lower than what they would reach currently (in the order of 1-3 l/s) (refer Tables 1-3, Weir Reply evidence).

3.5 The Chair also drew attention to Objective TT1, and expressed some disquiet about how the proposal could be consistent with that objective. The objective reads:

To sustainably manage the use and development of land, the discharge of contaminants including nutrients, and **the taking**, using, damming, or diverting of **fresh water in the Tukituki River catchment** so that:

(a) **Groundwater levels, river flows**, lake and wetland levels and water quality **maintain or enhance the habitat and health of aquatic ecosystems, macroinvertebrates, native fish** and trout;

(b) Water quality enables safe contact recreation and food gathering;

(ba) **Water** quality and **quantity enables safe and reliable human drinking water supplies;**

(c) The frequency and duration of excessive periphyton growths that adversely affect recreational and cultural uses and amenity are reduced;

(d) The significant values of wetlands are protected;

(e) The mauri of surface water bodies and groundwater is recognised and **adverse effects on aspects of water quality and quantity that contribute to healthy mauri are avoided, remedied or mitigated;** and

(f) **The taking and use of water for primary production** and the processing of beverages, food and fibre is provided for.

3.6 The Applicants' submissions in response are as follows:

(a) Objective TT1 is not a “no effects” objective.

(b) There is no priority between the elements of Objective TT1 in each of the sub-paragraphs.

- (c) Policy TT1(ca) and Objective TT1 were promulgated together and must have been considered to be internally consistent. In other words, the Board of Inquiry must have been satisfied that the T2 Water could be made available without compromising the values in Objective TT1.
- (d) The proposal before you is consistent with Objective TT1:
- (i) While the taking of the T2 Water will lower the groundwater levels by a very small degree across the Basin, and may result in some of the streams drying out several days earlier or these streams being dry for a couple of days longer, the use of up to 6.6M m³ of augmentation discharge will, in an overall sense, maintain the health and habitat of the aquatic ecosystem. It is agreed by experts that augmentation will mean fewer days when Tukituki River flows are below minimum levels.
 - (ii) This augmentation proposal, together with the stream enhancement project, and fish salvage, will mitigate the adverse effects on the freshwater and instream values of freshwater.
 - (iii) The proposed well interference assessments and conditions will ensure that domestic water supplies are not any less reliable than currently, and may, if the mitigation options are taken up, improve the reliability.²
 - (iv) The T2 Water will provide for primary production, with significant local benefits accruing through the use of that water (refer discussion below).
- (e) In terms of Policy TT8(ca), the purpose of the augmentation is to maintain the relevant low flows. This must mean preserving the

² For example, if the proposed mitigation payment is used to install either upgraded pumps or install a large domestic water tank.

low flows at the relevant flow monitoring sites within the basin. Mr Weir's reply evidence has updated his tables which, in my submission, demonstrates that these minimum flows are maintained overall (and in many cases are improved).

4. NPSFM 2020 AND TE MANA O TE WAI

4.1 The Applicants' position on the NPSFM 2020 policies and Te Mana o te Wai have been explained in the planning evidence of Mr Willis and in the opening submissions filed on their behalf.

4.2 In short:

- (a) The Applicants have acknowledged that the additional taking is expected to lower the groundwater in the Basin by a very minor amount, noting that the largest drawdowns are expected to occur on the Applicants' land or very close to the point of taking. In making this assessment Mr Weir's model has made a number of conservative assumptions, and the appropriateness of the model was supported by the 2 peer reviews undertaken. Ultimately, the appropriateness of the model was confirmed in the JWS signed by all groundwater experts appearing at this hearing.
- (b) However, despite that reduction in level over parts of the Basin, the health of the water has been maintained overall in this case through the augmentation regime and other mitigation measures, including enabling a more productive and long term sustainable land use that will cause less water quality impacts, and through other proposed mitigations including the stream enhancement package (condition 15, Water Take permit) and the proposed fish recovery plan (condition 18, Water Take permit). That fish recovery plan includes an obligation on the consent holder to consult Manawhenua and ask whether Manawhenua would be interested in being contracted to undertake that salvage operation. (In that respect, the focus of Te Mana o te

Wai is not on the *volume* of the waterbody per se, it is on the *health* of the waterbody. And in considering the health of that waterbody, consideration must be given to any steps taking to mitigate the effect on that health or provide an offsetting benefit. In this case, consistent with the concept of Ki Uta ki Tai, we interpret the water body as the connected surface and groundwater within the Ruataniwha Basin and the Tukituki River below the Basin.)

- (c) The NPSFM 2020 implementation process has not yet occurred. That process will allow the community and Manawhenua to decide what Te Mana o te Wai means to them in this region, and in the particular parts of the region (including the Ruataniwha Basin). The short point is that, *exactly* what Te Mana o te Wai is, as far as Central Hawkes Bay is concerned, remains undefined.
- (d) While that process to come *might* result in changes to the allocation regime, and *might* result in a reduction in takes or further increase in minimum flows, and *might* result in the removal or reduction of the Tranche 2 allocation altogether, decisions must be made on the policy framework as it exists today. That policy framework provides a discretionary activity pathway for accessing the T2 Water, and the Applicants' submission is that this policy threshold has been met.
- (e) It is simply wrong to say, as many submitters did, that the aquifer is overallocated. Legally, it is not overallocated. The T2 Water is part of the aquifer allocation specified in the RRMP.
- (f) There is no legal obligation for a resource consent to "give effect to" the NPSFM 2020, and nor, in the Applicants' submission does the NPSFM 2020's policies represent any sort of "bottom line". Those policies simply represent one element to which regard must be had in the context of a resource consent application.

5. GROUNDWATER MODELLING

5.1 In my submission, there was no expert evidence that challenged the finding that the latest iteration of Mr Weir's model is fit for purpose and appropriately calibrated, and the uncertainties reduced to an appropriately narrow range. Mr Weir's reply evidence has confirmed that those uncertainties remain within the original range, despite the additional augmentation water now proposed. (Refer Section 3, Weir Reply evidence)

Implications on uncertainty from changes to augmentation volume

5.2 At para 3.3 of the Council's reply, Ms Lough says that the additional 2M m³ of augmentation results in 4 matters needing to be assessed.

5.3 Mr Weir has addressed in his reply evidence (at paragraphs 5.1-5.4) the implications on his modelling of the provision of the additional augmentation water and has commented specifically on para 3.3 of the Council's reply; noting that this additional 2M m³ of augmentation water *only starts* to be used in 1 year out of 10. In other words, it might *in part* be used for 2 years out of the 20 year consent term sought.

5.4 Mr Weir's conclusion is that there is no material change to the uncertainty parameters agreed to by Council's experts in the JWS.

Effects of changes to augmentation/irrigation mix

5.5 Mr Weir's reply evidence addresses the effects of the changed augmentation regime, noting that the only difference is that in 1 year out of 10, more water will be taken from the augmentation bores (in 9 out of 10 years, none of the additional augmentation water will be used). In that regard, the 2M m³ can be regarded as a "strategic reserve" that will remain within the aquifer and will not be at risk of being allocated in the future for consumptive use.

Effects of changes to augmentation discharge locations

- 5.6 It is not practically possible to augment each and every stream that might be potentially affected by the drawdown, and, even if that were possible, the volume of augmentation in each stream might be completely ineffective. Rule TT4(c) refers to the discharge of augmentation water being as high in the catchment as practicable, however issues of practicability must include land ownership (ie it would be the highest point in the catchment of the Applicants' property and could not be at the very source of those streams), and the higher up the catchment in some smaller streams, the more likelihood of encountering dry reaches. Accordingly, a choice has to be made about where to augment.
- 5.7 I note here the potential inconsistency in the Council staff's position on this issue. On the one hand, the Council staff point to the policy that refers to the role of augmentation in maintaining the reliability of downstream low-flows triggers – hence the water should be placed into a perennial stream to ensure it reaches those flow recorders quickly. On the other hand, discharging augmentation water into permanently flowing water provides little benefit for streams that currently flow with very little water or even totally dry out.
- 5.8 If water is placed in those drier streams, then not only would it not reach the flow recorders as quickly, but it would also potentially cause ecological impacts by, as the Commissioners mentioned, “conning fauna into thinking there was flow in the stream”. (To address this, the Applicants propose to only allow discharge into a dry stream reach if it will enter the gravels within 100m. If necessary this could be enabled by constructing a gallery discharge point within the stream bed; but in any case the location of the discharge point would need to be confirmed and certified by Council as complying with the conditions of consent.)
- 5.9 In short, the augmentation regime must achieve a balance between:

- (a) Maintaining the downstream minimum flows commensurate with the level of effects, as directed by the policy (noting that commensurate does not mean exactly the same as);
 - (b) Providing augmentation to affected streams, but not spreading the augmentation so thin that the augmentation has little ecological benefit and/or is too delayed in reaching the downstream flow recorders;
 - (c) Providing ecological benefit to stream reaches potentially affected by the slightly lowered shallow groundwater;
 - (d) Avoiding ecological effects by changing the existing flow patterns of streams, some of which have reaches that dry out (some regularly and for considerable periods);
 - (e) Avoiding other effects (eg erosion etc) by discharging too great a rate at any one location (noting that the TAFT augmentation discharge will be a significant rate).
- 5.10 It is apparent that, with over 3,000,000 m³ of augmentation water that might be required from the TAFT property, there will need to be additional augmentation discharge locations identified. To assess the potential effects of this, Mr Weir has also re-run the model to show a split in the discharge locations of the augmentation bores on the TAFT property and also to show these locations at the upper extents of the stream reaches.
- 5.11 While specific augmentation conditions are proposed, to ensure absolute standards for some aspects, the final location of the augmentation discharge location is proposed to be the subject of an Augmentation Discharge Management Plan, a draft of which is attached to the final set of proposed consent conditions.

Sensitivity of ultimate bore locations on other bores

- 5.12 There were questions asked about the effect from Applicants' bores that are close to other neighbouring bores, and whether changing the bore locations could affect other nearby bores. Mr Weir has responded to this in his reply evidence (at paragraphs 3.4-3.5). Ultimately, because of the uncertainty of the ground conditions, the degree to which nearby neighbouring bores might be affected can only be conclusively demonstrated after the Applicants' bores are drilled and the aquifer pump testing and analysis is able to be completed.

6. EFFECTS OF AUGMENTATION

Water quality of discharge

- 6.1 These matters are addressed at para 3.12 and 3.13 of the Council's reply.
- 6.2 There is no legal or evidential basis to conclude that the discharge of the augmentation water will have adverse impacts on the downstream water quality:
- (a) Effects associated with the augmentation structure and erosion control etc will be managed through any regional consent (or permitted activity standards) required to install that structure.
 - (b) Specific discharge limits were proposed on the discharge, relating to DIN, DRP and DO. This was based on ecological advice. While the Council staff reply at para 3.13 mentioned that "other parameters were required" but at no point up until the evidence have any such parameters been discussed or proposed or included in any draft consent conditions, despite augmentation with deep groundwater being a fundamental component of the proposal from the outset. The Applicants' expert has recommended the 3 parameters to be used, and has also added Ammoniacal-N and Arsenic, with the limits being less than 0.24 mg/L and 0.01 mg/L respectively (see Conditions 19(a))

and (b), Water Use consent). If the Council staff have any remaining concerns, the Applicants would welcome any further specific feedback on exactly what further parameters and associated limits might be.

6.3 The consent authority must assume that the conditions of consent will be complied with: refer *Barry v Auckland City Corporation* (see opening submissions).

6.4 While there are no adverse effects associated with the discharge, there are significant and on-going positive effects which are discussed below.

Effects on flows in the major rivers that discharge from the Basin

6.5 The Council's reply at para 3.4 identified 4 matters relating to the potential effects on flows on the major rivers that discharge from the Basin. Of those, the addition of the Red Bridge low flow trigger has been added, and so that leaves 3 matters each of which is responded to below:

- (a) Augmentation volumes in dry years – this is addressed by Mr Weir's reply evidence at paragraphs 5.1 – 5.4. The additional 2M m³ of augmentation water will provide a 1 in 40 year level of security in the augmentation supply, compared to the 1 in 10 years that was previously proposed. (Noting that the irrigation security remains at a much lesser security of 1 in 10 years.)
- (b) Staging of the augmentation – as noted by the Council's reply, this is addressed in the consent conditions. Mr Weir's reply evidence also addresses this, at paragraph 7.1. The Council also says that the proposed requirement to gain approval from nearby bore owners might hamper staging (para 3.4(b)). As the Commissioners will appreciate, this requirement was inserted in order to address the potential effects on adjacent bore owners and to ensure that, unless they were satisfied, there could be no material effects on them. If there are material adverse effects, and if the approval is not given by the neighbouring bore owner,

then the T2 bore cannot be used for either augmentation or irrigation. This is one of those issues where there must be a balance; rather than requiring the consent holder to adopt one approach to solve one issue, but then say that raises a significant problem in another respect. The location of the augmentation discharges is addressed by paragraphs 4.1-4.5 of Mr Weir's reply evidence, and also discussed elsewhere in these submissions.

- (c) Augmentation site effectiveness: The Council's reply indicated that it could not understand how the model accounted for flows into dry river beds. I would have expected that would have been dealt with in expert conferencing, however as discussed elsewhere in these submissions there is a balance between adding water to dry or near dry riverbeds (and mitigating the effects of shallow groundwater drawdown) and causing an adverse ecological effect in doing so. The Applicants could not understand the Council's reference to "All of the waterways below augmentation points experience times of complete drying reaches (the Ongaonga, Kahahakuri, Tukituki, Waipawa, and Mangaonuku)" and what that means in practice. The Applicants are not able to completely remedy that existing situation, and so if the Council's position is that that is a fundamental problem (for reasons not explained) then that would appear to be a complete barrier to any augmentation proposal. (What the Council's comment does confirm, however, is the fact that migratory species already have to deal with drying reaches in all of those rivers referred to.) Furthermore, it is unclear why the Council staff could not find the I&P Farming tributary, and we are unsure whether the staff called anyone to ask about its location. The location of that tributary is shown on the Google Map extract in Appendix 2 attached.

Effects on smaller streams, rivers and wetlands

6.6 The Council's reply addressed these matters at paras 3.5 to 3.8. Dr Keesing's reply evidence has responded to those matters in the context of responding to other new material raised at the hearing on Days 2 and 3. As an overall comment, the Council's evidence on this aspect did not express any particular view as to the magnitude of effect, and did not undertake any level of analysis to justify that. The concern simply seemed to be that the analysis undertaken by Dr Keesing was insufficient or that the modelling results retained an apparent unacceptable degree of uncertainty in terms of ecological effects (despite the expert groundwater modellers agreeing on the uncertainty envelope from a modelling perspective).

7. EFFECTS OF NUTRIENT/NITRATE DISCHARGES OF ACTIVITIES ENABLED BY T2 WATER

7.1 The Commissioners will be aware that 7 of the 8 Applicants have lodged land use consents to use the T2 Water.

7.2 The Council did not require those land use consent applications to be heard together with this take and use consent. (That would have been open to the Council under s 91, RMA.)

7.3 In respect of the evidence on nutrient/nitrate discharges:

- (a) There is no evidence that there *will* be an impact on water quality from the activities enabled by the use of the T2 Water.
- (b) To the contrary, the evidence is that the activities enabled by the T2 Water will either maintain existing N leaching or improve it.
- (c) A consent authority cannot make assumptions about the ultimate end use of the T2 Water. That is a matter for those land use consent applications, and the controls on land use changes enabled by the T2 Water will be controlled by the conditions of those consents.

- (d) The evidence is that the T2 Water will enable increased productivity and decreased inputs that can result in increased environmental risk to water quality. For example:
- (i) there will be no increase in the number of dairy cows
 - (ii) there will be no increase in stock units, and in fact there will be a likely reduction (62,319 to 60,029)
 - (iii) Nitrogen fertiliser use reduces, from 293,307 to 251,405 kg per year
 - (iv) supplementary feed use reduces, from 8,422 to 6,031 tonnes of dry matter imported per year
 - (v) the modelling suggests no increase in N loss to water
 - (vi) Irrigation provides surety and certainty for land owners to move to horticultural options, which have a lower environmental impact. (As an example TAFT has an N loss of 23 kgN/ha, whereas a horticultural block (applies) is losing only 5kgN/ha. This land use is not an option without irrigation and secure water.)
 - (vii) The horticulture use enabled by T2 Water will generate 10 times the economic benefit of the current land use.
 - (viii) If horticulture use is enabled, the number of people employed in the community will significantly increase by 3.5 people per hectare, which will in turn have much wider social and economic benefits.

7.4 The Council's reply dealt with "Effects on water quality related to subsequent land use change" at paras 3.10-3.11. That reply merely reiterated the earlier concern that the use of the T2 Water might result in further degradation, and therefore there is a need for the "use of water for irrigating [to be] carefully managed under the separate land use consents required". That is exactly what the Applicants propose, and it is

unclear what the Council staff's concern is in this regard; especially considering that the Council agreed with the take and use consents proceeding to hearing ahead of the land use consents.

- 7.5 The Council's reply notes (at para 3.11) that the Applicants have modelled that there will be no net increase in nitrogen leaching. The veracity of that modelling is not then disputed by the Council staff; the comment is simply that the outcomes modelled are dependent on the users of the T2 Water implementing the farm system changes as proposed.
- 7.6 There is no evidential basis to disagree with the expert evidence of the Applicants in respect of future land use intensification and the fact that that can occur without increasing N leaching from what is currently occurring. (Exactly how the intensification occurs, and the conditions to achieve the predicted outcome, will be assessed under a separate consent process.)
- 7.7 On the other hand, the benefits of using T2 Water are directly relevant to this hearing, are substantial, and are described in the Applicants' evidence and supporting reports. There has been no contrary evidence presented at the hearing that disputes those benefits.

8. EFFECTS ON DOMESTIC WELLS

- 8.1 Evidence was given from a number of submitters about effects on existing wells. Evidence included the fact that, around Ongaonga in particular, a number of wells were upgraded or other steps taken to address recent effects on their wells. No specific evidence was given as to what works were undertaken, however one could assume that whatever steps were taken would have improved what were previously unreliable domestic wells.

Domestic and stockwater wells

Original proposal

- 8.2 The Applicants were originally proposing a two-tiered approach to managing effects on domestic wells in condition 8, with wells listed in Appendix 1A (within 2km of a Tranche 2 bore) automatically receiving \$5,000 as a mitigation payment to be put towards either upgrading their pump or installing new or additional above ground tanks, while those wells in Appendix 1B (between 2km – 4km) needed to show a drawdown effect of at least 20% of available head of water in an aquifer pump test and subsequent analytical assessment to qualify for the mitigation payment. These offers applied to all identified domestic wells, whether they were considered efficient or inefficient. On the basis of a domestic household using 1,000 litres per day, a 25,000 litre tank will offer a 25-day period of security. (That assumes a 4.5 person household at 227 litres per day – for a smaller household, or a larger tank, there would be greater security.) The Applicants understand that Farm Source currently has a 30,000 litre tank for \$4,140 including GST. That will allow time for groundwater levels to recover. The tanks could also be supplemented by rainwater collection, and topped up by any rain events that did occur in this period of time.

Amended proposal

- 8.3 The Applicants have now simplified and expanded the mitigation proposal by:
- (a) expanding the scope of the condition to also include both Domestic and Stockwater Supply Wells;
 - (b) extending the scope of the condition to all Domestic and Stockwater Supply Wells within 4km of any Tranche 2 take; and
 - (c) removing any requirement for the well to be “efficient” or to show a drawdown of more than 20% of available head water.

- 8.4 The only new additional requirement to qualify for the mitigation payment is for the well to have a top screen of between 2m and 7m below ground level (bgl). The Applicants understand that wells with top screen depths of less than 2m bgl are already likely to have existing reliability issues, and wells with top screen depths greater than 7m bgl are likely to already have a sub-surface pump and will be much less likely to be affected by the reduced groundwater level arising from the Tranche 2. These amended conditions have been addressed in Ms Rabbitte's memorandum attached to these reply submissions as Appendix 1.

Duration of Mitigation Payment eligibility

- 8.5 While previously the mitigation payment was limited to a 5 year period, this has now been extended to 15 years (by which the time effects will be fully understood) (see condition 15, Water Take permit).

Unregistered domestic water supplies / unknown wells

- 8.6 The Council's reply stated at para 3.9 that "The conditions do not currently allow for community drinking water supplies, that may not be currently registered." It is unclear what these wells might be, or how an unregistered supply could exist in respect of the new drinking water regulations.
- 8.7 Ms Johansen asked Council officers whether they are aware of any such unregistered suppliers and where they might be. The response from Council was that this related to registered wells under the Water Services Act 2021 (**WSA**) which, according to Council, came into force on 14 November 2022.
- 8.8 The WSA is focussed on water quality rather than water quantity. The WSA arose from an Inquiry that was launched in the aftermath of the Havelock North drinking water contamination event. That contamination was caused by very shallow wells becoming contaminated. That event drew attention to the nationwide issues around contaminated drinking water supplies, with one estimate suggesting there were 34,000 cases of

waterborne illness every year from the consumption of poor water quality.

- 8.9 The WSA does not apply to domestic self-supply – ie if your bore just supplies your house. But if you own a water supply that provides water to more than one dwelling then you are considered a drinking water supplier and must register under s 55 of the WSA (s 23, WSA). Any existing drinking water supply that was operating before 15 November 2021 must be registered by November 2025. Until registration, drinking water suppliers have a duty of care to ensure their water supply is of an acceptable quality. After registration, all drinking water suppliers must meet the Drinking Water Standards.
- 8.10 The Applicants say that the WSA has no direct implication for their proposal. The Tranche 2 takes will not adversely impact water quality. If anything the mitigation payment, described above, could be used to upgrade a water supply or install other treatment to help achieve the Drinking Water Standards. The Applicants also say that, to the extent there are Drinking Water Suppliers that are taking from very shallow bores, then to comply with the WSA and the Drinking Water Standards, those bores may need to be deepened.
- 8.11 Finally, in respect of potential effects on Takapau, Ms Rabbitte’s memorandum draws attention to the fact that there is a community supply well in Takapau. The modelling indicates that that well will not be adversely affected by the Tranche 2 proposal (refer to Ms Johansen EIC Section 10.8 (c).]

9. EFFECTS ON IRRIGATION WELLS

- 9.1 All irrigation wells will be at a reasonable depth – likely to be greater than 20m. They will also be registered with the Council and will have a resource consent.
- 9.2 The proposed conditions require an aquifer pump test to be undertaken by all Tranche 2 wells. Those conditions have been further enhanced

following the hearing with further detail added regarding the pump testing regime, including referring to a recognised pump test regime (or any future regime developed by Council), and for a requirement that the pump test includes the cumulative effects of all bores operating for Tranche 1 and Tranche 2 bores within 2km of the proposed new Tranche 2 bore (refer condition 7(k)).

- 9.3 There was some discussion about the Applicants' experts' choice of 20% drawdown of available head as an effects-threshold, and likewise the proposed process in the conditions about how to otherwise check quantify the potential effect other bores (ie a standard well interference process). (Ms Rabbitte has also confirmed that there was agreement between the experts in conferencing that the 20% value was agreed as an appropriate effects-threshold.) Generally, there can be no criticism of the Applicants' experts in that regard. Despite the number of wells within the Hawkes' Bay Region, surprisingly there is no standard process for a well interference assessment and nor is there any Council-endorsed minimum effects standard. Accordingly, when, in early consultation the Council officers indicated that there needed to be certainty as to what might constitute an effect on any existing bore, the Applicants' experts had no choice but to develop their own method. Finally, despite the questions about this methodology/threshold of effects, neither the Council officer nor any of the Councils' experts, suggested any alternative.
- 9.4 In the Applicants' submission, there can be no material adverse effects on irrigation takes that would warrant declining consent to the Tranche 2 applications. The pump test regime is rigorous and includes an assessment of cumulative effects of both the Tranche 2 and the Tranche 1 takes. If there is an effect that is more than 20% of the available water column in a bore, then the Applicants would need to provide evidence of agreement by that well owner or would need to modify their take (or location of take) so that the effect is less than 20%. This amended regime would then be certified by Council and would constitute a restriction on the take. If the effect is 20% or less, then there remains at least 80%

available water column within any potentially affected well. There was no evidence presented that the neighbouring well would be affected in those circumstances.

10. EFFECTS OF T2 TAKES ON INGLIS BUSH

- 10.1 The importance of Inglis Bush to Manawhenua and to the wider community, including the Applicants, is acknowledged.
- 10.2 While the combined takes will have some impact on the Basin-wide groundwater levels, the modelling demonstrates that almost all of the potential effects on Inglis Bush will arise from the Tuki Tuki Awa take. This is particularly important given that the take is only proposed to operate at times when the surface water take is suspended due to low flows, although acknowledging that the augmentation takes will occur whenever the low flow is triggered, irrespective of whether any water is being taken for irrigation.
- 10.3 There is difference of opinion between the experts as to the likely cause of the death of the Kahikatea. As noted earlier, Dr Keesing has responded in reply evidence to the evidence presented at the hearing.
- 10.4 Notwithstanding, in order to provide some long term certainty as to the impact of the taking of the T2 Water, the Applicants are proposing to monitor groundwater levels in two monitoring bores at locations indicatively shown in Figure 1 in the conditions below; or one or more existing bores within or adjacent to the reserve provided that there must be a least two monitoring bores in operation. This will allow the connections – if any – between the T2 Water takes and any movement of the Inglis Bush shallow groundwater levels to be identified. This is set out in condition 27(a), (b) and (d).
- 10.5 Finally, the Applicants are proposing that, if the Commissioners consider it necessary and if the Department of Conservation agree, to make available the Tuki Tuki Awa augmentation flow to be used to irrigate Inglis Bush. It would be the Department of Conservation's responsibility to design and

implement that irrigation; however Tuki Tuki Awa would make available the augmentation water for that purpose.

11. EFFECTS ON INSTREAM ECOLOGICAL VALUES

- 11.1 Dr Keesing addressed these instream ecological effects in his evidence and in his oral presentation. Ms Drummond, for the Council, also presented a short reply addressing these effects. No other expert evidence was presented to the Commissioners.
- 11.2 The Commissioners' comments indicated that they thought that Dr Keesing appeared to "understate the adverse effects". In my submission, that criticism is unfounded. Dr Keesing gave his professional opinion based on his extensive experience, as he described, assessing more than 1,000 streams over a 30 year period. He was forthright in his evidence and his answers about the potential effects. In assessing those effects, he compared the effects of this proposal against the existing environment (ie what is occurring now), as he is legally required to do under the RMA. While Ms Drummond raised some concerns about the extent of the assessments undertaken by Dr Keesing, Ms Drummond's evidence demonstrated an extremely limited site visit/ecological survey, and on my reading of the evidence she did not dispute the quality or tolerance of the aquatic environment affected or the magnitude (draw down) of the effects predicted by Dr Keesing.
- 11.3 The Commissioners heard presentations from submitters, including those that attached a variety of visual material. None of the material was expert evidence and it was not pre-circulated. It was evident from the Commissioners' comments that this material was considered to be relevant. Accordingly, I have asked Dr Keesing to provide reply evidence to respond to that material where he considers it necessary to do so.
- 11.4 In my submission, the expert evidence before the Commissioners is that while the taking of the T2 Water will cause some effects, those effects will not be significant and in some respects will be positive particularly in light of the conditions (including, in particular, the augmentation proposed).

12. EFFECTS ON CULTURAL VALUES

12.1 The importance of cultural values is acknowledged, and the law relating to the assessment of cultural values within the context of RMA decisions is set out in my opening submissions.

Lack of a Cultural Values Assessment

12.2 In my submission, the Applicants cannot be criticised for failing to attach a cultural values assessment (**CVA**) or failing to engage with Manawhenua. The efforts to engage with Manawhenua were not disputed by those Manawhenua who were asked about that engagement. Mr Cottrell confirmed that he had made some 190 attempts over 2 years to engage with Manawhenua.

12.3 Based on my understanding of Tikanga and based on the discussions with Applicants' experts, which has been confirmed by Mr Cottrell, it would have been entirely inappropriate for a CVA to be prepared by someone who was not Manawhenua or, as a minimum, someone who was acceptable to Manawhenua. Despite numerous attempts to do so, Manawhenua did not agree to provide a CVA and nor was anyone able to be found who felt able to complete the work.

12.4 While the Applicants respect that Manawhenua are entitled to oppose the proposal in its entirety, repeated requests by TAFT (in keeping with tikanga) for an assessor that was acceptable to Manawhenua for a CVA was not forthcoming. In addition, a wide cross-section of Manawhenua did engage with TAFT, many of whom chose, however, not to present at the hearing. Of those who did present, particularly on 16 November, several did acknowledge TAFT had engaged with them. TAFT had engaged with Iwi representatives also, leaving Taiwhenua representatives only who freely admitted that they chose not to engage (i.e "our position) [in complete opposition] was clear").

13. POSITIVE EFFECTS: AUGMENTATION

- 13.1 Mr Weir has provided an updated MALF flow table, with the inclusion of the 2M m³ of additional augmentation water now proposed.
- 13.2 There is no realistic prospect of this water “running out”. Only in 1 year in 10 would the additional 2M m³ of augmentation volume *start* to be used. (In other words, 90% of the time, there will be 2M m³ of surplus augmentation water remaining within the aquifer.
- 13.3 With the further 2 Mm³/year assigned to additional augmentation, and including the Red Bridge low flow trigger, then there would be 1 season in 40 where the additional augmentation volume would be insufficient to meet all augmentation requirements. The one season is 1997/98, though the limit is reached mid-1998. In that year there would have been 7 days where augmentation was triggered after the augmentation limit had been reached. In other words, the augmentation would be “short” for 7 days (1 week) out of 40 years.

14. POSITIVE EFFECTS: STREAM ENHANCEMENT AND IN-STREAM MONITORING

- 14.1 The proposed small stream enhancement package will be material.
- 14.2 The Council’s reply at para 3.8 simply says that Ms Drummond “continues to be concerned on [sic] the adequacy of the new consent conditions, including the small stream enhancement plan, and proposed fish salvage plan”. Given that these are new conditions, it is unclear what those concerns actually are. It is difficult to understand how or why the proposed fish salvage plan would be a “bad idea” in any respect. Likewise, how could the proposed \$50,000 upgrade of an identified small stream be something that an ecologist would have concerns about. The list of matters in condition 15(b), Water Take permit, are specifically designed to avoid riparian planting further drying out streams (which can occur in intermittent streams). (The Applicants had originally proposed that each of the Applicants would plant 750m both sides of the adjacent stream, however the agreed position between both the Council’s and

Applicants' ecologists might be counterproductive, which we understood related to the potential further drying out of streams referred to above.) It would be helpful to understand exactly what concerns Ms Drummond has about these revised proposed conditions.

- 14.3 Also at paragraph 3.8, the PDP reviewers are noted as having “major concerns on [sic] the ability of the proposed stream monitoring to be able to confirm the reliability of the groundwater predictive monitoring, due to it being extremely difficult to isolate any impacts associated with the Tranche 2 abstraction.” While that may be difficult, it can be partly overcome by having a period of baseline monitoring in place – and the Applicants intend to install these stream monitors as soon as possible – but more importantly having this information is better than not having it. It will provide further information to be able to calibrate the groundwater model in the future, and may also assist in managing the broader interaction of groundwater/surface water within the Basin. In my submission, this additional monitoring is a positive step and should be included within the consent conditions. Even if a link to causation is not able to be established, it will still provide useful monitoring on the water levels within these streams for the next 20 years.

15. POSITIVE EFFECTS: ECONOMIC BENEFITS

- 15.1 There is no evidence challenging the economic benefits arising from the use of the T2 Water that were described in the AEE, supporting reports, and the evidence presented to this hearing.

16. OTHER MATTERS

“It’s not a numbers game” – Environment Court case law

- 16.1 Comments were made by the Commissioners about the “widespread opposition” to the Applications, and it appeared that some weight might be being placed on the relative number of submissions in opposition compared to those in support.

- 16.2 The Environment Court has confirmed that the focus of a consent/designation hearing should be on the issues in dispute, not the number of submitters in opposition (or in support). See for example: *Estate of PA Moran v Transit New Zealand Environment Court*, Wellington, 30/4/1999, W055/99, at [96]-[99] (footnotes omitted, emphasis added).

[96] The submissions received in respect of the notice of requirement are a relevant consideration pursuant to s.171. CBC submitted it was relevant to consider the fact that of the 1145 written submissions received in respect of the notice, only 21 were in favour of the proposal in the bypass destination areas of Wellington (being the eastern and southern suburbs) and then there was some opposition to the proposal from residents' groups in those areas.

[97] In response, Transit submitted that the process is not a numbers game. It is a long standing principle of planning and resource management law that the mere fact of opposition to a proposed use - even by a large number of residents in the vicinity - is not of itself a relevant consideration. Rather, it is the weight to be attached to the grounds of submissions which should influence the outcome of the application. ...

[99] We accept it is not a matter of numbers in terms of submissions lodged, but rather a matter of the issues raised in those submissions.

Hearing procedure

- 16.3 Any council hearing of an RMA application is a quasi-judicial process and must accord with the principles of natural justice.
- 16.4 While those principles have been described in various ways, they are best summarised by the following quote from *Judicial Review: A New Zealand Perspective* 2018, 4th Ed, at Section 13.12 Fairness terminology (footnotes omitted) which summarises a range of Privy Council, Court of Appeal and High Court decisions:

Application of the duty to provide natural justice had historically been held to involve the two duties to hear both sides and not to be or appear to be biased. ...

Natural justice, he said, does not require that a trial be held or that there is one size to fit all circumstances. In saying this he was really only echoing Lord Loreburn in 1910, when he said:

But I do not think they are bound to treat such a question as though it were a trial. ... They can obtain information in any way they think best, always giving a fair opportunity to those who are parties to the controversy for correcting or contradicting any relevant statement prejudicial to their view.

This is considered to be the preferable view. It is in accordance with Privy Council authority and the acknowledged variable content of natural justice that depends on what is needed to be fair. This variable content was stated classically by Tucker LJ in *Russell v Duke of Norfolk*, and has been repeatedly cited:

There are, in my view, no words which are of universal application to every kind of inquiry and every kind of domestic tribunal. The requirements of natural justice must depend on the circumstances of the case, the nature of the inquiry, the rules under which the tribunal is acting, the subject-matter that is being dealt with, and so forth. Accordingly, I do not derive much assistance from the definitions of natural justice which have been from time to time used, but, whatever standard is adopted, one essential is that the person concerned should have a reasonable opportunity of presenting his case.

- 16.5 In respect of the testing of the planning evidence, counsel’s submissions are that the approach taken to the evidence of Mr Willis for the Applicants was not entirely consistent with these principles. This is illustrated by:
- (a) Despite Mr Willis saying that aspects of his evidence were now not relevant (because of the removal of the proposed Manawhenua allocation), the Chair continued to make repeated public references to numerous paragraphs within section 10 of that evidence being “BS”. The Chair did not give Mr Willis any opportunity to respond to the concerns raised, and in fact the Chair did not explain those concerns further other than to repeat that he had written “BS” in the margin.³

³ Because the potential Manawhenua allocation has now been taken off the table due to Manawhenua who presented submissions and evidence making it clear that such a proposal was not welcome, counsel’s reply submissions no longer address the legal basis for that original proposal in detail. However there is a strong legal basis for that proposal which is founded in appellate-level Court decisions such as *McGuire v Hastings District Council* [2002] NZLR 577, *Ellis v R* [2022] NZSC 114, *Federated Farmers of New Zealand Inc v Bay of Plenty Regional Council* [2021] NZRMA 271 (in the context of a regional plan), ss 5, 6(e), 8, 104(1)(ab), 108, and in particular the *Augier* principle. The *Augier* principle confers an almost unlimited scope for an applicant to address a s 104 effect (or provide a s 104(1)(ab) benefit) – both of which the proposed Manawhenua allocation would have done - through a commitment that can be recorded in a consent condition irrespective of there being no jurisdiction on the decision maker to impose such a condition. Likewise the *Augier* principle allows a consent holder to be legally held to a commitment to do something in the future, such as transfer part of a consent allocation, if that commitment is volunteered by an applicant and made in the context of obtaining that consent: see eg, *Frasers Papamoa Ltd v Tauranga City Council* [2010] 2 NZLR 202, at [22]-[33] (copy **attached**).

- (b) Furthermore, the Commissioners did not ask Mr Willis any questions about that part of his evidence that responded to Mr Barrett's s 42A Report. The Applicants' recollection is that the Chair said that "questions on that subject would wait until he had heard from Council". However no later opportunity was given to Mr Willis to respond to any questions that the Chair might have had about those key aspects of his evidence.
- (c) The experience of Mr Willis was in contrast to that of Mr Barrett. There were limited questions of Mr Barrett, and the Chair simply made a point of saying words to the effect that "I've looked at my notes and I have simply written 'I agree' alongside your points, which makes it difficult to ask questions."

16.6 While there is obviously no procedural difficulty with a commissioner not having questions of a witness if the commissioner agrees with that witness, questions should, as a matter of natural justice, be asked if a hearing commissioner *does not* agree with aspects of a witness's evidence. That is particularly important where, as here, there are only two expert statements of planning evidence, and where there is a complete divergence of opinion between the two expert opinions. Giving a professional expert witness an opportunity to respond to questions about their evidence is also essential if any adverse comments are to be made about that witness's evidence in any written decision.

16.7 Counsel is obliged to bring the above matters to the Commissioners' attention now given the importance of a first instance hearing for the Applicants' businesses and given the amount of time and money (over \$1.6M to date) that they have collectively invested in this process.

17. CONCLUDING SUBMISSION

17.1 The Applicants acknowledge that the proposal is contentious in the Central Hawke's Bay community, and respect the right of those in opposition to make their position clear.

- 17.2 The Applicants are also members of the Central Hawke's Bay community and they are entitled to make the application that they have. The Applicants' submit that the proposal meets the policy threshold in the RRMP for the Tranche 2 take (because the effects on low flows have been commensurately mitigated), meets appropriately the other policy and effects tests under the policy instruments and the RMA, and can be appropriately granted consent on the basis of the conditions now offered.
- 17.3 The Applicants have prioritised the health and well-being of the waterbodies, and rather than these concerns being cast aside, those concerns have formed the basis of the amended conditions now proposed. However, as noted earlier, if the Commissioners did consider that some of those conditions required further attention – or further conferencing between the experts – then the Applicants will ensure that occurs in as timely a manner as possible.



B J Matheson

Counsel for the Tranche 2 Applicants

APPENDIX 1 – MEMORANDUM FROM MS RABBITTE**MEMO**

29 November 2022

RE: CHANGES TO TRANCHE 2 GROUNDWATER TAKE DRAFT CONDITION 8

Changes are proposed to Condition 8. of the draft Tranche 2 groundwater take consent. These changes are aimed at simplifying the eligibility criteria and focusing the mitigation efforts to the areas with the greatest drawdown impact from the proposed Tranche 2 abstractions. They also seek to now include provision for stock water takes at the same level as that previously offered for domestic use.

I have reviewed the potential impact of this change on existing water users within the Ruataniwha Basin area.

The key difference with the newly proposed strategy is that some distant shallow domestic wells on which the predicted impact is <0.2m, in the Takapau area this is about 0.11m, will not be compensated. Also, there are a few slightly deeper ones in the Takapau area that were previously identified in the Appendix lists that will also not be compensated. Wells that are unable to tolerate such small levels of potential impact under the worst-case, biggest drawdown T2 numerical modelling scenario, will already have a very low level of reliability. It is noted that there is already a public supply well option in Takapau to address this existing low level of reliability from some wells. The well interference assessment indicated no adverse impacts on this public supply well from the Tranche 2 taking.

However, in contrast the proposed changes will focus the compensation on wells located within the zone of greatest drawdown influence from the T2 takes. They now consider both domestic and stockwater taking at the same level in terms of compensation. More wells will be captured within this area and at the specified depths, than were previously listed in Appendix 1A & 1B. The requirements for eligibility for them are greatly simplified and open to less interpretation.

I think this approach is reasonable and justifiable and will better target the mitigation of a larger number of both stock and domestic wells.

Regards



Susan Rabbitte BA(Hons) MSc DIC
Consultant Hydrogeologist

APPENDIX 2 – GOOGLE IMAGE OF AUGMENTATION DISCHARGE POINT ON I&P FARMING LAND

