

**BEFORE A COMMISSIONER APPOINTED BY THE OTAGO REGIONAL  
COUNCIL AND THE CENTRAL OTAGO DISTRICT COUNCIL**

**UNDER THE**

Resource Management Act  
1991 (the **Act**)

**IN THE MATTER**

of applications by Cromwell  
Certified Concrete Limited  
for Resource Consents to  
expand Amisfield Quarry

**BETWEEN**

**CROMWELL CERTIFIED  
CONCRETE LIMITED**

**Applicant**

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**SUBMISSIONS OF COUNSEL ON BEHALF OF AMISFIELD ESTATE  
SOCIETY INCORPORATED**

**DATED 16 DECEMBER 2021**

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## **SUBMISSIONS OF COUNSEL ON BEHALF OF AMISFIELD ESTATE SOCIETY INCORPORATED**

### **May it please the Court:**

1. Amisfield Estate Society Incorporated is responsible for delivering drinking water to at least nine (currently connected to the scheme) and up to 12 rural residential sections near the Cromwell Certified Concrete Proposal. The development is located on the opposite side of the Amisfield Burn, downstream of the quarry.
2. Amisfield obtains its drinking water from Bore G41/0111. The scheme is a registered drinking water supply and is obliged to comply with requirements under the Water Services Act 2021. One of these obligations is to ensure drinking water supplied is safe<sup>1</sup> and complies with the drinking water standards<sup>2</sup>. The Amisfield committee have a statutory duty of care to exercise due diligence with respect to provision of the drinking water supply. This includes understanding the hazards and risks associated with the supply.<sup>3</sup>
3. Amisfield Estates members also carry out activities on their land that have been affected by the operation of the quarry to date. For example, they are required to close windows periodically during particularly windy periods. Some members have their horticulture activities affected, including the dust affecting their crop covers. AES's members are hopeful that a more robust suite of conditions will help address these matters and improve the situation moving forward.

### **AMISFIELDS POSITION**

4. I note that Counsel for Certified Concrete appeared to suggest that AES may not qualify as a drinking water supplier. Presumably on the basis that there may only be 2 people occupying the 9 properties currently served. However, AES members can and do have more people than that occupying their properties and would certainly exceed 25 people for 60 days a year. In my submission your analysis should

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<sup>1</sup> Water Services Act 2021 Section 21

<sup>2</sup> Ibid at Section 22

<sup>3</sup> Ibid at Section 29

be undertaken on the basis that the AES scheme is a drinking water supply, as it was registered as such pursuant to the Health Act 1956 (now the Water Services Act 2021).

5. Amisfield is primarily interested in ensuring that the suite of resource consents are granted subject to conditions that will appropriately manage the effects and risks associated with the proposed quarry activity. Whilst its members would prefer not to see the activity expanded and extended it accepts that there are potential improvements that might be achieved by a more comprehensive suite of consents to manage the activity at the site.
6. The key matters of concern for Amisfield Estate relate to the following:
  - (a) The change in the quarry activity that will see gravel extraction directly interacting with groundwater and the risks this presents for its drinking water supply.
  - (b) The increased intensity of the activity and the increasing risk this presents for the drinking water supply – in particular the risk of events that might cause contamination – such as fuel spills, use of Polymers on the haul roads etc.
  - (c) Potential issues associated with site rehabilitation.
  - (d) Issues arising from dust migration and poor dust mitigation measures.
7. Amisfield have been engaging with the Applicant in relation to conditions. Attached with these submissions are amendments to the draft conditions proposed by Amisfield that it considers are necessary to address the above. Most of these have been discussed with the Applicant, but some matters have arisen out of discussions during the course of the hearing so far.
8. I have endeavored to review the conditions circulated yesterday to provide updated comments.

**Change in quarry activity**

9. In Amisfield's view the proposed quarrying activity is changing in two ways that may have a material effect on its drinking water supply.
  - (a) the increased depth of gravel extraction and the likelihood that this will lead to groundwater interception; and
  - (b) the increased scale (in terms of volume of material extracted) which will increase groundwater abstraction, the volume of gravel to be cleaned and more water being discharged to the soakage pits.
10. The larger volumes will also lead to more machinery, more fuel (or refueling) and a corresponding increase in risk of spill events (from refueling or machinery failure) that may affect groundwater. Amisfield also notes the use of polymer's on the haul roads. We expect these products do not present a risk to human health, but would be appreciate the provision of information to confirm the same.
11. Amisfield is relatively comfortable with the robustness of the evidence presented by the Applicant and reviewed by the Council regarding the potential effects that might arise. However, it does consider that a more robust ongoing monitoring program is required to ensure that the assessments are borne out and to pick up any unintended or unanticipated consequences.
12. To this end Amisfield proposes a number of changes to the 'Bore Consent' and the Discharge to Land' consent including:
  - (a) A requirement for ongoing monitoring of groundwater quality – as opposed to a short period of monitoring after which time only limited monitoring is required.
  - (b) A requirement for the results of monitoring to be provided to Amisfield so that it is made aware of them as soon as possible.
  - (c) A requirement for an investigation to take place in the event that there is an exceedance of the drinking water quality standards

and for the Applicant to be responsible for costs associated with provision of an alternative supply if necessary.

- (d) Improved control of onsite activities including refuelling.  
Amisfields preference is for all refuelling to take place in the bunded and contained refuelling area. However, we understand that there is a need for refuelling to take place within the pit. This is a high risk activity and as such it will be important that best practice methods are employed when this activity is carried out.
- (e) Requirement for an annual report to be submitted that address the various monitoring obligations contained in the consent.
- (f) Quarry Management Plan requirements implemented across the suite of the consents.

#### **Potential issues during site rehabilitation**

- 13. We understand that the applicant does not currently intend to receive material to the site for the purpose of rehabilitation. However, it is noted in the draft rehabilitation plan that there may be a market for cleanfill in the future. It is this that is of concern to Amisfield because the introduction of new material to the site has the potential to change the composition of contaminants entering the groundwater. It is also possible that contaminated material could be inadvertently disposed of at the site.
- 14. The genesis of Amisfields concern in this regard is their observation that material from outside the site has been brought to the application site historically and they are aware of circumstances where concrete has been emptied into the pit.
- 15. There are two ways to address this:
  - (a) Prohibit the disposal of cleanfill as a condition of consent; or
  - (b) Ensure that if it is brought to site there is a process in place to require records to be kept so that if contamination emerged material could be relatively easily identified and addressed.

16. Amisfield are promoting the second option because it considers this to be a pragmatic response to the issue and is proportionate to the risk identified. We understand the applicant has been resistant to this on the basis cleanfill material is unlikely to be brought to site, although it has proposed a condition in the most recent version.
17. It is submitted the condition as significant potential upside if the consent holder does begin to receive product. It provides an opportunity for Amisfield to review its own water safety plan in light of the change and the information necessary to help identify and isolate material if an issue were to arise. This approach also dovetails with Amisfields view that long term monitoring is also important to ensure that adverse effects are quickly identified and addressed which would be further supported by the bespoke ground water monitoring bores that would provide an opportunity to identify changes more readily.
18. In light of the discussions with Mr Freeman yesterday Amisfield also consider it necessary to require monitoring to take place for a period after quarry activities and rehabilitation is completed to ensure that the ponds that are to remain do not result in unanticipated adverse consequences on ground water quality. As discussed, this water will now be surface water and more exposed to contamination risks. Further to that how those ponds will behave and interact with groundwater on an ongoing basis is unknown. Amisfield members are concerned that this water may become stagnant, resulting in algal growth and attracting insects which may present a biosecurity risk to the horticultural operations surrounding the former quarry site.
19. Given the fact that a drinking water supply may be adversely affected, and consequently human health it is submitted that a precautionary approach is warranted.
20. We also note the recommended changes to conditions in the JWS for the groundwater experts. We support their recommendations regarding monitoring as we consider their suggestions to be consistent with the

direction of the Amisfield changes<sup>4</sup>. At the time of writing we were yet to see how those recommendations would translate into conditions and would welcome the opportunity to consider any changes further. I do note that in the updated conditions not all the agreed matters appear to have been pulled through.

### **Dust Migration**

21. The members of Amisfield have experienced adverse effects arising from the existing operation and there is significant concern that if consent were to be granted without improved mitigation methods these effects would be exacerbated. It is of particular concern to those members growing commercial fruit crops, but also results in amenity effects for other members. For example, members often have to close their windows to stop dust coming in and those with crop covers notice that they are deteriorating more quickly than at other locations.
22. Amisfield consider the proposed consent conditions to be a step in the right direction and that if all mitigation methods proposed by the Air Quality Experts are employed then Amisfield is comfortable that the effects would likely be reduced.
23. However, Amisfield also consider that there are some improvements that could be made to the conditions to assist. Those changes are included in a copy of the Air Discharge consent condition attached and are summarized as follows:
  - (a) A clear condition requiring the dust management plan to be complied with once approved.
  - (b) A robust and detailed complaints procedure including an obligation to consider what (if any) changes should be implemented to the dust management plan in response to the complaints. The feedback loop created by complaints and responses to them is an important feature of consents such as this. The consent holder should be committed to a pathway of continual improvement so that adverse effects are reduced

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<sup>4</sup> Groundwater JWS at [25]-[27]

overtime. Learning from complaints has an important role to play in this and in my experience when done well creates a virtuous cycle and develops social license.

- (c) A community liaison committee – the purpose of this is to provide a forum to allow the consent holder and interested parties to discuss and engage on what is working and what isn't. The positive obligation for this is time bound in anticipation for the fact that if new consent conditions are met then the need for the forum would reduce over time. However, it can continue to operate should the parties agree it is useful. It is also noted that such forums are also useful places for sharing data, such as the RCS data that Mr Cudmore (for the applicant) considers only needs to be shared with the Council.
- (d) A process for selecting the location of the temporary monitors to ensure that they are placed in a location where they can serve their purpose.
- (e) Shortening the period of time of the trigger level breaches<sup>5</sup>. In Amisfields view the applicant should be responding as soon as the trigger level is breached such that further breaches are avoided. Given the mitigation methods (water application, slowing vehicles etc) these should be able to be implemented immediately. Residents should not be exposed to dust levels in excess of the trigger levels for up to an hour before changes are made. I note that the JWS also recommends that an immediate response is required<sup>6</sup>. Amisfield also support the recommendation to utilise video to assist with monitoring and mitigation steps.

## STATUTORY CONTEXT

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<sup>5</sup> Not that this is a matter raised by some of the experts in the Air Quality JWS

<sup>6</sup> Air Quality JWS at 29.3

24. Because Amisfield is primarily interested in the nature of conditions I don't not intend to work through the statutory framework for granting consent. Instead, I just wish to focus on matters relevant to the imposition of conditions.
25. I also consider it is important for the Commissioner to understand the current context within Otago, because it is particularly unique.
26. By way of background in 2019 The Minister for the Environment appointed Professor Skelton to investigate the ORC's freshwater management and allocation functions<sup>7</sup>. The outcome of that investigation was a conclusion that the existing Otago Water Plan framework is inadequate, not fit for purpose and does not give effect to the higher order planning documents<sup>8</sup>. In particular, successive National Policy Statements for Freshwater Management.
27. In reliance on that report the Minister issued a recommendation to the ORC to quickly initiate an interim planning and consenting framework until such time as new discharge and allocation limits could be set for Otago. In response to that the Otago Regional Council developed and notified *inter alia* Plan Change 7 and 8 to the Otago Regional Plan: Water which were then heard (or are currently being heard) by the Environment Court.
28. PC7 and 8 are only obliquely relevant to this application because they primarily relate to water permit renewals or new permits, farming activities and subdivision earthworks. However, what is relevant are the conclusions regarding the planning framework. In my submission you need to cognizant of the recognized deficiencies in the Regional Plan Water and as a result of those give greater weight to the higher order planning documents in your analysis under section 104(1)(b).

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<sup>7</sup> Letter from David Parker (Minister for the Environment to Otago Regional Council Councilors regarding the Minister's investigation of freshwater management and allocation functions at the Otago Regional Council (18 November 2019).

<sup>8</sup> Peter Skelton "Investigation of freshwater management and allocation functions at Otago Regional Council – Report to the Minister for the Environment, November 2019.

29. In my view the National Policy Statement for Freshwater Management 2020 and the Proposed Regional Policy Statement 2021 should feature strongly in your analysis of this application and from Amisfield's point of view the need to carefully manage risks associated with the application.
30. With reference to the NPSFM, the objective requires prioritization between the health needs of the water body first, followed by the health needs of people, and then the needs of the community to provide for their social, economic and cultural wellbeing.
31. Therefore, the policy direction is clear – the needs of Amisfield sit ahead of the needs of Certified Concrete. In this case, I don't think that means the consent needs to be declined in its entirety, but it does support the need for robust conditions to ensure the effects of the activity are monitored so that adverse effects are identified if the assumptions in the water quality assessment are not borne out.
32. Mr Freeman's evidence yesterday was clear – there are potential risks. Whilst they might be relatively low, they cannot be eliminated and there remain some uncertainties regarding their probability.

*What does this mean for the imposition of conditions?*

33. It is submitted that the risk of potential effects of concern here might be relatively low, but their impact (i.e. effect on human health) are potentially high. As such, this requires a cautious approach to be taken to managing these effects.
34. There is policy direction to this effect in the Proposed Regional Policy Statement 2021.<sup>9</sup>
35. The Proposed Regional Policy Statement also encourages integrated management. In particular managing environmental interconnections.<sup>10</sup>

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<sup>9</sup> Otago Proposed Regional Policy Statement 2021 IM-p15 – Precautionary approach: *“Adopt a precautionary approach towards proposed activities whose effects are uncertain, unknown or little understood, but could be significantly adverse, particularly where the areas and values within Otago have not been identified in plans as required by this RPS.”*

<sup>10</sup> Otago Proposed Regional Policy Statement 2021 IM-P5 – Managing Environmental Connections

36. It is submitted that this is a classic example of the need for integrated management. As I mention above, this proposal requires a suite of consents and the activities authorized under each one is inextricably linked to the other. They need to be managed as a whole with cross-consent methods such as the quarry management plan and common monitoring requirements where appropriate.
37. A precautionary and integrated approach also supports the need for robust and ongoing monitoring of the Certified Concrete activity. To this end Amisfield seeks a number of changes to the condition suite proposed by the Applicant. Which I will discuss by reference to the version of conditions circulated yesterday.
- (a) Discharge consent (sediment ponds)
- (i) JWS for Groundwater indicated that monitoring should extend to routine drinking water profile, alongside the matters such as hydrocarbons etc. The list in the condition does not appear to address this. For example, does not include Copper, zinc, lead, Arsenic and E-coli.<sup>11</sup>
- (ii) Counsel for the applicant and Mr Freeman indicated monitoring would occur quarterly. However Condition 6 indicates this is only to take place for 20 samples then would reduce to annually. In light of the evidence I would submit that monitoring should continue at a higher frequency than that on an ongoing basis.

It is also considered that monitoring needs to continue for a period following the completion of rehabilitation. This is because of the intention to retain 'ponds'. It is unclear exactly how these ponds will interact with groundwater and the potential for them to result in contamination. In particular arising from increased waterfowl (and risk of microbial contamination), if the water quality is poor (effectively stagnant) whether it results in accumulations of

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<sup>11</sup> Air Quality JWS at [28].

insects that might create a biosecurity risk for the adjoining cherry operations. It is my opinion that further consideration is required in relation to the obligations post quarry activity. These issues can be addressed in the rehabilitation.

It is my submission that it is a stretch to compare these groundwater sourced ponds (and their risk profile for drinking water sources) with the water quality in Lake Dunstan as Mr Freeman did yesterday.

- (iii) The location of the monitoring does not appear to reflect the agreed position in the JWS which recommended a bespoke suite of monitoring bores.<sup>12</sup> In light of the comments from Ms Badenhop yesterday there appears to be a strong basis for fit for purpose monitoring bores.
- (iv) I also agree with the discussions yesterday, that the process to follow the production of the analysis regarding sediment migration through groundwater should be set out. Amisfield also seek to be considered as part of that assessment and for monitoring of its bore to be included in this process. As a general comment, I think there would be a lot to be gained by better alignment between the conditions of the discharge consent and the land use consent. Particularly with respect to the groundwater monitoring regime, quarry management plan and rehabilitation. This proposal requires a suite of consents to be carried out. There will not be activity pursuant to one of the permits without activity pursuant to the others. As such common monitoring conditions and quarry management plan requirements would significantly enhance the efficacy of the conditions in my submission. It would facilitate more integrated management of the activities at the site as a whole.

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<sup>12</sup> Groundwater JWS at [25]-[27]

- (v) At the very least a specific review condition is required to enable a review following the outcome of the report in condition 7 – particularly if that condition is not amended further to address the consequences of that report.
- (b) ‘Bore consent’
- (i) My comments above at (i)-(iii) apply equally in relation to this consent.
  - (ii) Condition 7(c) could benefit from minor tweek as follows:  
*“within one month of receipt of the escalated sample results, submit the report completed in accordance with condition (b) above ~~by a suitably qualified water quality expert.~~”*
  - (iii) Add “of the New Zealand Drinking Water Standards” after ‘guideline values’.
  - (iv) Condition 8 –
    - (1) (a) will require updating if groundwater monitoring bores are relied on.
    - (2) At paragraph (d) it is not clear if this actually refers to the method of extracting aggregate within groundwater, or just extracting the water? In my submission it should cover both, but the aggregate extraction is the more important of the two.
    - (3) Paragraph (e) – in my submission this clause would benefit from expansion to list the key operations and procedures, such as, refueling processes, spill responses, etc.
  - (v) Condition 10 –

- (1) Paragraph (a) – there is a little uncertainty about the trucks that are to be excluded. I understand it is the vehicles that come to and from the site to pick up aggregate. Further as the paragraph is drafted it implies cleaning will occur off-site?
- (2) Paragraph (b) - Given the exposure of groundwater and the potential for machinery failure to result in contamination of the water it is considered important to have a backstop on maintenance frequency. Amisfield initially promoted 6 monthly, but we understand maintenance is carried out more frequently than that. On this basis we suggest a 2 monthly requirement or more frequently if required. Alternatively, the management procedures should be set out in greater detail in the Quarry Management Plan.
- (3) (c) and (e) – there is an apparent inconsistency between these provisions, in particular that the refueling areas are to be bunded and contained. This indicates that refueling will occur in designated locations only. However, (e) indicates that refueling of machinery might take place elsewhere.

It is my understanding that not all refueling takes place at the refueling area and that a mobile tanker is used.

The conditions do not specifically address this aspect of the activity which I consider to be a significant flaw given it is likely to be one of the higher risk aspects of the activity. It is submitted that either:

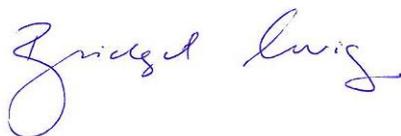
- (4) Refueling only occur within the bunded and contained areas; or
  - (5) More robust conditions be included setting out the measures to be utilized for refueling from the mobile tanker.
- (vi) It is submitted that a requirement to remain 10m from water is on its own is insufficient in this instance.
- (vii) Condition 13 – records of the complaints received and recorded in condition 12 should be provided as part of the annual report. It is submitted that complaints records can provide invaluable information to Council's about any emerging compliance issues and the consent holders responses to them.
- (c) Air Discharge Consent
- (i) Amisfield is pleased to see condition 9 remaining in place to ensure clarity that once approved it is necessary to the consent holder to comply with the dust management plan.
  - (ii) Condition 11 – Amisfield is concerned about the rolling one-hour average in this condition. It seems like a long time for potentially nuisance level dust to be generated before the conditions to actively respond kick in. It is submitted that a breach of any 10 minute period should at least result in a requirement to assess what further mitigations can and or should be deployed to avoid effects increasing to an unacceptable level.

- (iii) Condition 12 (a) – there appears to be a lack of clarity (in the conditions at least) about what the ‘site access road’ encompasses. And it did not appear to be identified on the site plan included in the original application. I assume this is intended to be limited to the area outside of the working pit, and that heavy vehicles would not be travelling along the gravel haul roads within the pit. In my view this needs to be clear, given the fact that fugitive emissions caused by vehicles has been identified as the key source of dust emissions and the potential challenges in controlling this source highlighted in discussions between Mr Cudmore and the Commissioner yesterday. In my submission the area of the access road that can continue to be used should be identified on a site plan for the purposes of this condition. I also note that in condition 15(m) it is only necessary to seal 50m of the access road, so there is still potential for emissions to arise from the site access road and would be authorized to continue under the conditions proposed.
- (iv) Condition 14 – it is mildly unusual for a standard to be offered in a condition for the purposes of offering protection without being clear that it serves the intended purpose. It is submitted that this condition as currently drafted has a number of short-comings:
- (1) There is no mechanism for it to be certified by the Council;
  - (2) There is no process set out in the event that the report concludes that the trigger level is not adequate. In my submission the condition needs to set out the steps to follow in this circumstance – such as a requirement for the consent holder to comply with the trigger level the report determines

as being appropriate and for it to submit an application to amend condition 10 to reflect the new value within 3 months of the report being submitted to Council.

- (3) A specific review condition should also be included to allow the Council to review the consent condition to implement the outcomes of the report if the consent holder fails to do so. I would also suggest that the condition provides for the consent holder to bear the costs of this review so they are not motivated to leave this process to the Council.
- (v) Condition 15 (l) – the speed restriction appears to have been removed. It was previously 15km/hr.
- (vi) Condition 15(o) – Does not reflect the Air Discharge JWS which required all stockpiles to be maintained below natural ground level (as opposed to the level of the bunds).
- (vii) Condition 28 - Annual report should include a requirement to report on volumes extracted as this is a key constraint on the consent and to provide minutes of the community liaison processes.
- (viii) Amisfield consider that a community liaison committee would be a useful addition to this consent and I have proposed a condition to that effect.

Dated 16 December 2021



Bridget Irving

Partner

Counsel for Amisfield Estate Society Incorporated