(11).
+3 attachments

Introduction

My name is Des Ward I am a farmer and I live on the property [redacted] that adjoins the mine site to the NW. The property has been in the family almost 100 years.
My wife and I have operated our business there for 46 years and our son and his family are now involved in the business.
I was a member of the original CCC which was formed as part of the original consent conditions.
I am a member of the current CCC.

If there is to be no adverse impact on our lives or our business then we are not opposed to the project. In fact it has our full support as it has the potential to bring substantial benefits to the local area.

However, we have substantial and we believe justifiable concerns regarding:

1) The mine excavation cutting the aquifer and causing loss of groundwater quantity
2) The surface water as it passes through the mine site; thus leaving downstream farmers without the normal surface flows for their dams. Also the Water Storage Dam
3) The emissions
4) Lack of local meteorological data

History of Modifications

It is hard to address the issues in Mod 4 without looking at the modifications that CleanTeQ have applied for prior to this.

The company acquired the project in late 2014 or early 2015 according to Mod 3. They lodged Mod 3 on April 2016 in which they stated on Page 6 under the heading landholders that they had provided landholders with quote

"Scandium21 provided briefing packages describing the modification to landholders (including Forestry Corporation NSW) in April 2016. Consultation with these landholders would be ongoing".

This did not happen at least not to myself or any landowner that I have been able to find and not any landholder adjoining the project.

This Mod3 had many changes included in the Consolidated Consent which no one are around this project were able to comment on as the we were not informed and had no knowledge of the Mod3 being lodged. The original CCC had been disbanded prior to Mod 3 EIS appearing.

The so-called 'contemporisation' of the Mod 3 Consent removed many management plans and the land acquisition provisions.

My first knowledge of CLQ and the activities on the site was a phone call from James Fisher in late May 2017.

Ground Water

The original EIS and DA made no reference to fracturing the aquifer on the mine site only that some seepage could occur. In Mod 3 CLQ in response to a submission by DPI in reference to ground water stated that

"the open cut pits will not intersect this local ground water table".

In Mod4 CLQ states the excavation of the open cut pits would result in the intersection of the groundwater in the deepest area of the open cut pit, resulting in grounds water inflows.

The Company also states that they have acquired a 243ML/year license for pit dewatering. *Copies of Mod3 answer to submissions.*

We believe that the groundwater modeling should be redone given the conflicting statements made by CLQ, as the model was done 20 years ago and is out of date.

On our property we have three bores 2.8, 4.0 and 4.2 kms from the mine site. **We rely on the bores for stock water and household use.** We are very concerned about any adverse effect on the quality and quantity of the water from these bores. The viability of our family farm, not to mention our mental health and wellbeing will be dramatically impacted if we lose any access to our water.

We believe the Compensatory Water Supply Process outlined would be hugely time consuming and provides no natural justice to farmers who would have to battle with the company and Government agencies. We ask the wording of this condition be significantly revamped to provide protection to farmers and their rights.

We asked the DoPE on 7 March 2018 for an independent peer review of the modeling done by the Company, but they have refused to address the issue. I contacted Tim Baker of DPI Water at Dubbo in April 2018 about the issue and asked for a meeting so we could look at the modeling and the possible effects. Tim said he would have to ask DoPE if he could meet with us. In a follow up conversation with Tim he said that he had been advised by DoPE not to meet with us and could not do so. I find it extraordinary that DPIWater, a separate Govt entity with its own statutory responsibilities has to dance to the tune of DPE. It is simply unacceptable.

Following a question I put to Mike Young regarding this matter at the CCC meeting in August 2018 a meeting was arranged for just last week. Too late to have anything done except to receive vague assurances that the Water Management Plans would address our issues.

During that meeting it was also stated that we may or may not see the water management plans as they would be the property of the company. It would be up to the DPE and CLQ to decide if they would be made available to the landholders.

We have little faith in 'into the future' management plans settled well after the project has approval. The devil is in the detail and we need to see it now, BEFORE any contemplation of consent being granted.

Surface Water

Garry Sunderland - who lives immediately downstream of the site - and myself have tried to advise CLQ about the amount of surface water that flows through the mine site. We had a meeting at the site with John Hanrahan of CLQ and tried to talk to him but felt our concerns were not being taken seriously. We raised the issue again at a meeting with DoPE on 7 March 2018 but again the Department did not appear interested.

On the 30 June 2018 we submitted to the DoPE a report which local residents prepared, highlighting the storm events which have occurred in 2005 and 2007 across the mine site and surrounding properties. These storms have occurred many times in past years but we concentrated on the most recent events. I table the report for your consideration now.

It highlights the lack of suitable rainfall data and the severity of the storms. It also highlights the BOM lack of information in this area. This report has been reviewed by a hydrologist with 20 years experience and he has raised questions about the design of the diversion channels and the

location of one hard up against the wall of the tailings dam. Seems risky in the event of a major storm.

Our report shows that the BOM figures for 1 -100 year rainfall events are exceeded many times in the Fifield area. We have local farm rainfall data to verify these conclusions.
The CLQ has used rainfall figures from Murrumbogie rainfall station 20 kms south east of the project site. Rainfall is recorded at 9:00 am each day and does not give an indication of rainfall intensity. A meteorological station was located at the mine site but no longer appears to be there and CLQ have not installed one even after 4years of work on the project. I would have thought that local meteorological data would be essential in developing the modeling for emissions, dust and noise.
With the increase in severe storm events happening in Australia and around the World it is more than possible that these severe storms will increase in the vicinity of the mine site.

The water storage dam also causes concern as it is designed with a spillway. In Mod 4 6.2.2 Recycled Water it states " overflow is possible from the WSD spillway during extreme rainfall events however , no overflow occurred during dry or average conditions." Table 22 shows overflow in a wet climate of 895ML.This is contaminated water from the TSF ..It would cause serious problems for landholders downstream. We have raised this with both the DoPE , EPA and CLQ but have not received a response.

Emissions

Although there is a large increase in the amount of sulphuric acid production (700,000 tonne to 1,050,000 tonne). Emissions are still predicted to be under the acceptable limits. These figures are based on a pilot plant in Perth

We note that the resin in pulp process has never been used in Nickel and Cobalt processing anywhere in the world. Meaning that this plant is experimental.

The company has used wind data from Condobolin for dispersion modeling which in our opinion is not relevant to the project site.

We the locals seek live, real time monitoring data readily available via the internet so we can see for ourselves the air quality performance. Also seek the same for groundwater, noise and dust.

Monitoring stations should be placed outside the project site, especially on sites already projected by CLQ to have exceedances and in the village of Fifield.

If CLQ is to build trust with the local community then it needs to back its promises with provision of the performance data – LIVE, so we can judge for ourselves whether the promises are fact or fiction.

Summary

In summary

1. We request that the land acquisition condition be reinstalled to provide us with some means of redress if the impacts are unacceptable.

2. That an independent peer review of the groundwater modeling at and around the mine site and the surface water diversion channels.

3. A rewording of the compensatory water supply, to provide protection for farmers and their rights.

4. That the meteorological station Schedule 3 – 25 of the Draft Consent Conditions be installed immediately so that site specific data is available.

5. We the locals seek live, real time monitoring data readily available via the internet so we can see for ourselves the air quality performance. Also seek the same for groundwater, noise and dust.

6. Please consider how this project will affect our agricultural businesses, surely you the IPC will not allow a private mining company to make substantial profits while outsourcing costs to us, the landholders and the public.

The draft consent conditions do not protect the landholders. We feel that our voice is not being heard by the DoPE or the company.

I request that you do all within your power to place the burden of proof on the miner to demonstrate that it has NOT caused any adverse impact on us. Its bad enough to live this close to a mine. It's doubly costly if we have to try and move heaven and earth for justice if things do impact us adversely.

If we do not get satisfactory conditions for this project it will impact on our lives, but it will have a far greater impact on our children, grandchildren and future generations who will have to live with the outcomes.

Thank you for listening

DES WARD 11

Sunrise Mine Project: Modification 4

Runoff from Bullock Creek Catchment During Storm Events

– Review of Proposed Stormwater Diversion Channels & Tailings Storage Facility

30th June 2018

Fifield Community Action Group

1. Introduction

The Fifield community writes to advise that, based on first-hand and hard-won experience, we are of the view that:

a) The stormwater flows in the Bullock Creek upstream catchment during flood times appear to be too large to be safely accommodated in the proposed Mod 4 clean stormwater diversion channels;
b) This assertion is supported by local property rainfall data, photographic evidence enclosed and the flood volumes as calculated herein;
c) The proposed mine layout with the tailings dam abutting the southern diversion channel is high risk and the tailings facility should be relocated away from the channel to more adequately safeguard the downstream farming families from contaminant risks during extreme flood flow events; and
d) The routine stormwater flows in the watercourses must be permitted to pass through the mine site as farmers downstream are often totally reliant on this flow to fill dams to supply water for stock, for example on 'Currajong Park' which adjoins the mine site.

Please note we have been guided in this commentary by an independent hydrologist with over 20 years consulting experience.

2. Local Rainfall Data

The local rainfall data to which we refer is listed in Table 1 below. The data is sourced from the local properties 'Sunrise' (now owned by the proponent) and the adjoining neighbour Mr D Ward on 'Berrilee'. We have the original rainfall charts if you wish to seek verification.

Please also note that in the three weeks preceding the 8 Nov 2005 storm 'Sunrise' received 62 mm of rain and 'Berrilee' 68mm, so the catchment was already quite wet. That rain was in addition to a wet five month period from June that year.

Table 1: Local Records of Major Rainfall Events

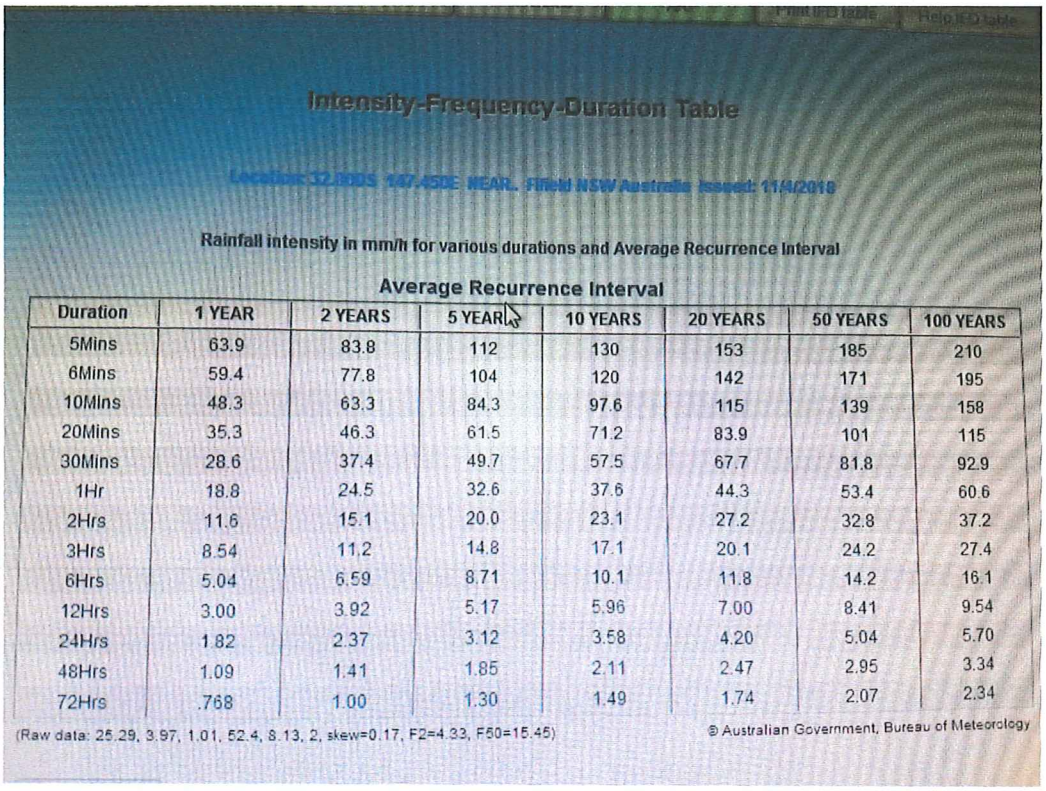
Date	Property	Rainfall Measured (mm)
8 Nov 2005	'Sunrise'	134
8 Nov 2005	'Berrilee'	180
22 Dec 2007	'Sunrise'	104
22 Dec 2007	'Berrilee'	113

'Sunrise' and 'Berrilee' are approx. 8 kms apart. Note the storm cell on 8 Nov 2005 tracked east to Trundle, which recorded 200mm.

The BOM met station at Murrumbogie (#050028), used by the proponent for its calculations, is approximately 17 km south-east of the mine site and received 120mm from the 8 Nov 2005 storm.

Other major floods in the district were in April 1991 coinciding with the flooding of Nyngan and in 1976. Hence, **extreme storm events occurred in at least 1976, 1991, 2005 and 2007, namely four times in that 30 year period.**

3. I in 100 years ARI Rainfall Event Data



Intensity-Frequency-Duration Table

Location: 32.80S 147.45E NEAR Fifield NSW Australia Issued: 11/4/2018

Rainfall intensity in mm/h for various durations and Average Recurrence Interval

Duration	Average Recurrence Interval						
	1 YEAR	2 YEARS	5 YEARS	10 YEARS	20 YEARS	50 YEARS	100 YEARS
5Mins	63.9	83.8	112	130	153	185	210
6Mins	59.4	77.8	104	120	142	171	195
10Mins	48.3	63.3	84.3	97.6	115	139	158
20Mins	35.3	46.3	61.5	71.2	83.9	101	115
30Mins	28.6	37.4	49.7	57.5	67.7	81.8	92.9
1Hr	18.8	24.5	32.6	37.6	44.3	53.4	60.6
2Hrs	11.6	15.1	20.0	23.1	27.2	32.8	37.2
3Hrs	8.54	11.2	14.8	17.1	20.1	24.2	27.4
6Hrs	5.04	6.59	8.71	10.1	11.8	14.2	16.1
12Hrs	3.00	3.92	5.17	5.96	7.00	8.41	9.54
24Hrs	1.82	2.37	3.12	3.58	4.20	5.04	5.70
48Hrs	1.09	1.41	1.85	2.11	2.47	2.95	3.34
72Hrs	.768	1.00	1.30	1.49	1.74	2.07	2.34

(Raw data: 25.29, 3.97, 1.01, 52.4, 8.13, 2, skew=0.17, F2=4.33, F50=15.45)

The above graph sourced from the Bureau of Meteorology website for Fifield indicates that a 1 in a 100 year two hour duration storm event would deliver 37mm/hr, that is a total of 74mm over a two hour period.

In contrast, on the night of 8 Nov 2005 on 'Berrilee' the majority of 180 mm fell over about two hours. It thus appears that the storm was much rarer than a 1 in 100 year event.

With weather events becoming much more volatile due to climate change, extreme storm events such as were witnessed at Fifield on 8 Nov 2005 are becoming more frequent. The Fifield community strongly urges the DPE to require the proponent to undertake a detailed analysis of the local data and use the analysis for the design of drainage infrastructure. The climate change factor should be applied on top of the local rainfall analysis.

4. Local Hydrology

Figure 1 below shows the existing natural watercourses which drain the upper Bullock Creek catchment through the mine site. Numbers 1 to 4 marked on Figure 1 represent the locations where photos of the 8 November 2005 flood were taken. Note the storm fell primarily during the two hour period 8.30 – 10.30 pm on 8 November 2005. The photos were taken well after the main storm surge had passed at approximately 9 am the next day. Below Figure 1 are the four photos referred to above.

Figure 1: Local Hydrology

5. Flooding Evidence

Photo No 1 Below: On Melrose Plains Road just east of the intersection with Fifield Road. Looking east on 9 November 2005, that is some 10 hours after the flood peak had passed. The photo shows flood water approx. 600 mm deep and spread 500 m wide down the roadway. Note a large log on roadway indicative of the volume and force of the flood flow.

Photo No 2 Below: On Melrose Plains Road just west of the intersection with Fifield Road. Looking east on 9 November 20005 some 10 hours after the flood peak had passed. The photo shows floodwater approx 600 mm deep and 500 m wide down the roadway and across 'Currajong Park'.

Photo No 3 Below: Looking south from the driveway of 'Currajong Park' which adjoins the Sunrise mine site downstream on 9 November 2005. Photo taken some 10 hours after the flood peak had passed. Shows floodwaters approx. 400mm deep stretching 1 km across the property to the Melrose Plains Road which is the northern boundary of the mine site.

Photo No 4 Below: The driveway of 'Currajong Park' which adjoins the Sunrise mine site downstream on 9 November 2005. Photo taken some 10 hours after the flood peak had passed. Note parallel to the road on the left hand side 1 kilometre of fencing washed away (the fence line was just to the right of the tree).

6. The Size of Proponent's Proposed Diversion Channels

The EIS for Mod 4 contains a water management assessment report undertaken by Golder Associates (Report No 039-1524361 Rev 2). Page 49 of the report provides details regarding the proposed channels.

Table 2 below also shows the previous, approved channel dimensions – shown in italics.

Table 2: Proposed Surface Water Diversion Channels[1]

Surface Water Diversions	Catchment Area (ha)	Channel Depth (m)	Channel Width at Base (m)	Channel Length (m)
Northern diversion				
Mod 4 proposal	2,700	1.0 with 2.4 in central & lower sections	12 with 16 in central & lower sections	3,600
Previously approved	*2,700*	*1.5 with 1.7 in 'central & lower' sections*	*10 with 15 in 'central & lower' sections*	*3,500*
Southern diversion				
Mod 4 proposal	1,950	2.0 – 2.7	15 throughout	3,000
Previously approved	*1,950*	*1.5 throughout*	*10 throughout*	*2,450*

1 Sizing intended to also allow for a 400 to 500 mm freeboard.

The figures in Table 2 suggest:

- The proposed Mod 4 **northern** diversion channel may be even shallower than previously approved; and
- The proposed Mod 4 **southern** diversion channel may be made somewhat deeper, wider and longer.

We note there is no transparency in the EIA documentation on how the sizing of the proposed surface water diversion channels was calculated. The design is not only dependent on the volume of runoff but also the peak flow rate. A more detailed, publicly available analysis is requested for estimating the flow rate and the subsequent design of the channel.

7. Estimated Amount of Water to be Diverted

Whilst we are not hydrological experts the Fifield community believes, in summary, that during the 180 mm extreme storm event of two hours duration that occurred on the night of 8 Nov 2005 the catchments in question generated the following amounts of runoff:

- Catchment of the northern diversion channel: approx. 4 ML of runoff; and
- Catchment of the southern diversion channel: approx. 3 ML of runoff.

These numbers were calculated as follows:

- assumed 90% runoff due to high intensity storm of two hours duration on a catchment already wet due to five months of steady rainfall plus 60mm having fallen in the previous three weeks
- assumed 100mm/ha @ 90% runoff = 0.9 ML/ha
- 180 mm/ha @ 90% runoff = 1.62 ML/ha
- 1.62 ML/ha x number of ha in the catchment to calculate the total amount of runoff water

This 3 - 4 ML volume of water is an exceptional amount and the Fifield community needs to be assured that the diversion channels are designed appropriately.

8. Action Requested of the DPE and subsequently the IPC

Based on first-hand and hard-won experience the Fifield community is of the view that:

a) With weather events becoming more volatile due to climate change, extreme storm events such as occurred on 8 Nov 2005 are becoming more frequent. The Project must be designed to accommodate such events;
b) The design proposed for the two stormwater diversion channels through the mine site appears to be less than adequate to manage the peak flow rate and the volume of water that flows through the catchment during extreme storm events, especially given the proposed large tailings storage;
c) Locating the southern diversion channel against the toe of the tailings dam entails high risk due to likely toe erosion. This risk is likely to increase after mine closure when the channel is less likely to be maintained, increasing the risk of toe erosion of the tailings dam. To avoid this risk, the tailings dam should be located away from the channel.

Thus the Fifield community kindly requests that the DPE and Crown Lands & Water:

1) **Require the proponent to undertake a revised hydrological analysis incorporating known extreme storm events, a high degree of saturation across the catchment and future climate change scenarios to identify peak flow rates and runoff volumes and to hence recalculate the required size of the surface water diversion channels and the tailings dam;**
2) **Require the proponent to relocate the tailings dam elsewhere on the mine site, away from the southern diversion channel, to help minimise water contamination risks;**
3) **Engage an independent hydrologist to review and pass judgement on same;**
4) **Provide the results of same to the Fifield community;**
5) **Ensure that the routine stormwater flows in the watercourses be permitted to pass unhindered through the mine site as farmers downstream are often totally reliant on this flow to fill dams to supply water for stock, for example on 'Currajong Park' which adjoins the mine site;**
6) **Revise the consent conditions pursuant to surface water to better protect the interests of downstream farmers; and**
7) **Ensure post mine closure monitoring and site management requirements are strengthened to better protect downstream farmers, given the large tailings storage proposed on site.**

The current consent conditions pursuant to water are shown in Attachment 1, together with comments by the Fifield community highlighted. The community would greatly appreciate definitive responses to the comments we have made herein.

We apologise that this note was not more timely to assist you earlier in your preparation of the Assessment Report and drafting of consent conditions, however as farmers we have limited time and little hydrological technical expertise, especially in these very difficult times of punishing drought, combining with lambing ewes and hordes of kangaroos.

If you have any queries about this matter please contact Des Ward [redacted] on [redacted] or email [redacted]

Attached: Attachment 1

ATTACHMENT 1

SUNRISE MINE PROJECT: Extract of the Water Related Consent conditions as at May 2018

(Ed: the highlights and bolding is made by the Fifield community group)

WATER

Water Supply

26. The Applicant must ensure that it has sufficient water for all stages of the development, and if necessary, adjust the scale of development on site to match its available water supply.

Note: Under the Water Act 1912 *and/or the* Water Management Act 2000*, the Applicant is required to obtain the necessary water licences for the development.*

Water Pollution

27. Unless an EPL authorises otherwise, the Applicant must comply with Section 120 of the POEO Act.

Compensatory Water Supply

28. The Applicant must provide a compensatory water supply to anyone whose basic landholder water rights (as defined in the *Water Management Act 2000*) are **adversely and directly impacted** as a result of the development. This supply must be provided in consultation with DPI Water, and to the satisfaction of the Secretary.

What defines 'adverse'? What defines 'directly impacted'? The Fifield community requests the Government place the burden of proof on the miner to show it has NOT caused these impacts. If left to the farmer it is an intolerable burden as it requires an enormous amount of time and cost engaging experts. And despite conducting such studies the miner's lawyers and experts can argue to the contrary. Meanwhile the farmer may have no water and face intolerable economic loss and loss of physical and mental wellbeing because of the powerlessness he/she feels dealing with an unsupportive process. Please reverse the burden of proof.

The compensatory water supply measures must provide an alternative long-term supply of water that is equivalent to the loss attributable to the development. Equivalent water supply must be provided (at least on an interim basis) **as soon as possible after the loss is identified**, unless otherwise agreed with the landowner.

The term 'as soon as possible' is too vague. Is that 3 months, 12 months? Needs to be a measurable timeframe eg 4 weeks. The Fifield community requests the Government agree to this.

If the Applicant and the landowner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Secretary for resolution.

If the Applicant is unable to provide an alternative long-term supply of water, then the Applicant must provide **alternative compensation** to the satisfaction of the Secretary.

The Fifield community requests that 'alternative compensation' should be defined now in

consultation with the farmers. At present is vague and ill defined. Leaves too much wriggle room for the company to decide, to the farmer's detriment.

Water Management Performance Measures

29. The Applicant must ensure the development on site complies with the performance measures in Table 9, to the satisfaction of the Secretary.

Table 9: Water Management Performance Measures

Feature	***Performance Measure***
Water management – General	• Maintain separation between clean and mine water management systems • Minimise the use of clean water on site
Construction and operation of infrastructure	• Design, install and maintain erosion and sediment controls generally in accordance with the series *Managing Urban Stormwater: Soils and Construction including Volume 1, Volume 2A – Installation of Services and Volume 2C – Unsealed Roads* • Design, install and maintain infrastructure within 40 m of watercourses generally in accordance with the *Guidelines for Controlled Activities on Waterfront Land (DPI 2012)*, or its latest version • Design, install and maintain any creek crossings generally in accordance with the *Policy and Guidelines for Fish Habitat Conservation and Management (DPI, 2013)* and *Why Do Fish Need To Cross The Road? Fish Passage Requirements for Waterway Crossings (NSW Fisheries 2003)*, or their latest versions
Clean water diversion infrastructure	• Maximise the diversion of clean water around disturbed areas on site
Sediment dams (mine and limestone quarry)	• Design, install and/or maintain the dams generally in accordance with the series *Managing Urban Stormwater: Soils and Construction – Volume 1 and Volume 2E Mines and Quarries*
Mine and limestone quarry water storages	• Design, install and/or maintain mine and limestone water storage infrastructure to ensure no discharge of mine or limestone quarry water off-site (except in accordance with an EPL) • On-site storages (including mine infrastructure dams, groundwater storage and treatment dams) are suitably designed, installed and/or maintained to minimise permeability • Ensure that the floor and side walls of the Tailings Storage Facility, Evaporation Basin and Surge Dam are designed with a minimum of a 900 mm clay or modified soil liner with a permeability of no more than 1 x 10^{-9} m/s, or a synthetic (plastic) liner of 1.5 mm minimum thickness with a permeability of no more than 1 x 10^{-14} m/s (or equivalent) • Design, install and maintain the water storages to capture and convey the 100 year, 72-hour ARI rainfall event • Design, install and/or maintain the facilities to meet the requirements of the DSC • The design of the Tailings Storage Facility should conform to: – DSC3A – Consequence Categories for Dams (DSC); and – DSC3F – Tailings Dams (DSC)
Chemical and hydrocarbon storage	• Chemical and hydrocarbon products to be stored in bunded areas in accordance with the relevant Australian Standards
Irrigation Area	• Manage the irrigation area in accordance with the EPA's *Environmental Guidelines: Use of Effluent by Irrigation*

Water Management Plan

30. Prior to carrying out any development after 6 May 2017, the Applicant must prepare a Water Management Plan for the development in consultation with DPI Water and the EPA, and to the satisfaction of the Secretary. This plan must include:

(a) a Water Balance that:

• includes details of:

- sources and security of water supply, including contingency planning for future reporting periods;

- water use and management on site;
- reporting procedures, including the preparation of a site water balance for each calendar year; and

• describes the reasonable and feasible measures that would be implemented to minimise clean water use on site and maximise the reuse of recovered tailings water at the facility;

(b) a **Surface Water Management Plan,** that includes:

• **baseline data** on water flows and quality in the watercourses that could be affected by the development (if available);
The Fifield community considers a two year timeframe is the bare minimum time period for data to be collected to represent an adequate baseline. The Fifield community requests the Government stipulate this. The rainfall data collected by local farmers should be used in the calculations.

• a detailed description of the water management system on-site, including the:

- clean water diversion systems; **(Ed: essential to protect the downstream environment and supply clean water to the farmers)**

- erosion and sediment controls; and

- water storages; and

- irrigation area;

• objectives and performance criteria, including **trigger levels** for investigating any potential or actual adverse impacts associated with the development, including the:

- surface water flows and quality;

- downstream flooding;

The Fifield community requests that the trigger levels be set now in collaboration with its members. Will the Government agree to this?

• a program to monitor and report on:

- the effectiveness of the water management system and tailings storage facility; and

- surface water flows and water quality;

- the performance measures listed in Table 9;

- impacts on water users;

- downstream flooding;

• a plan to **respond to any exceedances** of the trigger levels and/or performance criteria, and minimise and/or offset any adverse surface water impacts of the development;

(c) a Groundwater Management Plan, that includes:

- baseline data on groundwater levels, yield and quality in the region and privately-owned groundwater bores that could be affected by the development in the vicinity of the borefields;
- groundwater assessment criteria, including trigger levels for investigating any potentially adverse groundwater impacts associated with the development in the vicinity of the borefields;
- a program to monitor and report on:

- groundwater inflows into the open cut pits, if relevant;

- the seepage/leachate from the tailings storage facility and evaporation ponds; and

- the impacts of the development on:

    o groundwater supply of any potentially affected landholders, particularly around the borefields;

    o regional and local aquifers; and

    o post-mining groundwater recovery;

- a plan to respond to any exceedances of the groundwater assessment criteria, and mitigate any adverse impacts of the development.

31. The Applicant must implement the approved Water Management Plan for the development.

Des Ward **Wednesday, 23 May 2018 at 8:53:36 PM Australian Eastern Standard Time**

Subject: CleanTeQ Sunrise Project (formerly Syerston)
Date: Saturday, 28 April 2018 at 5:21:09 PM Australian Eastern Standard Time
From: Des Ward
To: [redacted]
BCC: Helen Quade

Dear Ms Livingstone,

I am writing to you because I am concerned about the appearance of undue influence being exerted over a member of your team by the Department of Planning and Environment and would appreciate your consideration of the matter and a response to me.

By way of background I am a farming landholder neighbouring the Clean TeQ mine near Fifield in Central West NSW; approved in 2001 but never constructed. I have objected to a proposed modification of the development consent (Mod 4) currently being considered by DPE. One of my major concerns relates to the impact the mine may have on ground and surface water in the area.

In trying to gather together information so as to be better informed about the local water situation, I have had telephone discussions with Mr Tim Baker of your Dubbo office. I have always found Tim to be very knowledgeable and polite, if somewhat guarded in his responses to my queries. However, in my last conversation with him, Tim told me that he had been advised by the DPE not to meet with me, or other neighbours with similar concerns, until the DPE had received a response to the questions that it had put to the mining company and had time assess those responses.

I believe the advice to Mr Baker came from Mr Clay Preshaw of the DPE, or one of his team, who is overseeing the Clean TeQ modification application. Given Crown Lands and Water is a separate administrative entity to the DPE, I was very surprised by this. Certainly, it does nothing to alleviate my concerns regarding the transparency of the planning process. Is it usual practice for a member of one department to "gag" a member of another department from speaking or meeting with a tax paying member of the public with a legitimate enquiry?

I have serious concerns about the cutting of aquifers by the proposed mining operations and the adverse impact that will have on our bores that are only 2.6 kms from the mine pits. The mining company has acquired a WAL of 243 share components for mine dewatering. We are totally reliant on our bores for stock water and any effect on them will have a huge impact on the viability of our agribusiness.

The groundwater impact modelling was conducted way back in 2000, was poorly done and needs to be upgraded to today's standards. I urge you to require such modelling work to be undertaken now, and shared with all adjacent landholders, before the Modification is examined by the Independent Planning Commission.

If you or a member of your team would like to discuss the above, please feel free to contact me by email or ph [redacted]

I look forward to your reply.

Regards,
Des Ward

NSW GOVERNMENT | Natural Resources Access Regulator

Natural Resources Access Regulator
Level 11, 10 Valentine Ave, Parramatta
PO Box 3720,
Parramatta NSW 2124
T 1800 633 362
www.industry.nsw.gov.au/nrar

BN18/3290

Des Ward
[redacted]

Dear Mr Ward

CleanTeQ Sunrise Project (formerly Syerston)

Thank you for your email of 28 April 2018 to Ms Liz Livingstone, Deputy Secretary, Lands and Water regarding contact with Mr Tim Baker, Senior Water Regulation Officer, and your concerns about potential adverse impact of mining operations. Ms Livingstone has asked me to respond on her behalf. I note that I recently called you in relation to these issues.

The Department of Planning and Environment (DP&E) has the primary role of managing the coordination, assessment and approval of State Significant Developments; Natural Resources Access Regulator and the Department of Industry – Water (DoI Water) provides advice to DP&E to assist in this process. Following your request for a meeting, DP&E recommended Mr Baker not to meet with you as yet, but to await additional information that would assist in clarifying a number of the issues you have raised. Mr Baker therefore postponed the meeting.

NRAR and DoI Water will continue to collaborate with DP&E to assess water related impacts for this project and to provide input to development of a Water Management Plan when required.

Should you have any further enquiries about this matter, I have arranged for Ms Jeanette Nestor, A/Senior Water Regulation Officer to assist you. Ms Nestor may be contacted at the NRAR's Dubbo Office on [redacted]

Yours sincerely,

[redacted]

Graeme White
Director Regional Water Regulation (West - Murray Darling)
Natural Resource Access Regulator

14 June 2018

Mr D Ward
[redacted]

Your Ref: BN 18/3290

15th June 2018

Mr Graeme White
Director Regional Water Regulation (West – Murray Darling)
Natural Resource Access Regulator
Locked Bag 5123
PARRAMATTA NSW 2124

Dear Mr White,

Cleanteq Sunrise Mine Project (Formerly Syerston Mine Project)

Thank you for your letter dated 14 June 2018 in response to my email dated 28 April 2018.

I am a landholder adjacent to the CleanTeq Mine Site. My primary motivation for wishing to talk with Mr Baker (Senior Water Regulation Officer, DoI Water) is that without a reliable secure supply of groundwater my agribusiness is doomed – as is my superannuation. Hence, I wish to know what the NSW Government's water experts think about the mine and its likely impacts. I hope you can understand my sentiments and would agree this is a reasonable request.

In your letter you state that the Department of Planning and Environment recommended that Mr Baker not meet with me "as yet", but to "await additional information that would assist in clarifying a number of the issues" that I raised.

Further to your correspondence I would greatly appreciate answers to the following questions please:

1) What additional information is Mr Baker seeking/waiting for?
2) Who is to provide said information to Mr Baker?
3) When will this information be provided to Mr Baker?
4) When can I expect Mr Baker to contact me to arrange to hold our postponed meeting?

Please understand water supply is a front-of-mind issue for all the farmers in this area I look forward to your prompt response. Based on the mining-related experiences of other farmers in the state promises of the development of a water management plan do not alleviate our concerns. We simply seek to protect our water supplies and for the miner to be held fully and utterly accountable for redress if and when things go awry.

SCANDIUM 21

MOD 3

Table E1-1 (Continued)
Responses to Submissions

Number	Organisation	Submission	Scandium 21 Response
DPI-3	DPI	*The proponent currently does not have adequate entitlement to supply the maximum water demand of 17.5ML/d (approx. 6385ML/yr). It is recommended the proponent consider the market depth and the capacity of the borefield to obtain the necessary water entitlement for water supply. Additional groundwater assessment and development of mitigation and contingency options will be required if additional entitlement is to be traded to the existing borefield. The proponent may be required to consider alternative water supply options such as additional borefields or access from the regulated Lachlan River to meet the maximum water demand.*	Acknowledged. As described in Section 4.2.1 of the Environmental Assessment (EA), Scandium21 would obtain and hold appropriate volumetric licences in accordance with the relevant Water Sharing Plan. Scandium21 currently holds sufficient volumetric licences (i.e. 8.64 ML/day) to supply the Initial Production Phase of the modified Project. Additional volumetric licences would however need to be obtained and held prior to the Project water demand exceeding 8.64 ML/day.
DPI-4	DPI	*The EIS* [EA] *refers to water to be sourced internally from runoff, however the volume potentially available has not been detailed.*	As described in Section 2.10.2 of the EA, the site water management system would be generally unchanged from the approved Project. In accordance with Condition 4.1(a), Schedule 2 of *Development Consent DA 374-11-00*, Scandium21 would prepare a Site Water Management Plan that would include the management of the quantity and quality of surface water at the Mine and Processing Facility (MPF) site to the satisfaction of the DPI-Water. Scandium21 would obtain and hold appropriate volumetric licences in accordance with the relevant Water Sharing Plan for surface water runoff collected on-site (if required).
DPI-5	DPI	*The EIS* [EA] *indicates the proposed multiple pits are not expected to intercept groundwater. However no additional groundwater assessment or interpretation of monitoring results has been provided to support this.* *The original EIS referred to minimal groundwater inflows to be encountered in the pits and if groundwater inflows did occur it would be pumped out for use in the process plant or allowed to evaporate. This has not been considered further in the current EIS* [EA] *and has not been assessed in terms of the requirements of the NSW Aquifer Interference Policy. The proponent will be required to hold sufficient entitlement to account for groundwater take in the pits either via pumping or inflows. The proponent currently does not hold any water entitlement in the water source where the pits may encounter groundwater, which is the Lachlan Fold Belt MDB Groundwater source.*	The approved Project includes the development of two large open cut pits that will be up to approximately 55 metres (m) deep and have a combined footprint of approximately 410 hectares (ha). Groundwater inflows into the open cut pits is expected to be negligible as the floor of the open cut pits will not intersect the local groundwater table (Black Range Minerals, 2000). Observations during exploration drilling activities undertaken at the MPF site are consistent with this conclusion (i.e. no groundwater has been intersected during drilling activities). The Initial Production Phase of the modified Project would include the development of multiple small-scale open cut pits that would be up to approximately 30 m deep and have a combined footprint of approximately 35 ha.

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Table E1-1 (Continued)
Responses to Submissions

Number	Organisation	Submission	Scandium 21 Response
DPI-5 (cont.)	DPI		These small-scale open cut pits would be either incorporated into the larger approved open cut pits or backfilled during the Full Production Phase. It is therefore considered that the Modification would not result in significant changes to the approved groundwater impacts of the Project. Given the smaller scale (footprint and depth) of the Initial Production Phase open cut pits relative to the approved open cut pits, it is expected that groundwater inflows during the Initial Production Phase would be negligible (i.e. as per the approved Project). Notwithstanding the above, Scandium21 would prepare a Site Water Management Plan that would include the management of the quantity and quality of groundwater at the MPF site to the satisfaction of the DPI-Water in accordance with Condition 4.1(a), Schedule 2 of Development Consent DA 374-11-00. Scandium21 would obtain and hold appropriate volumetric licences in accordance with the relevant Water Sharing Plan for groundwater inflows into the open cut pits (if any).
DPI-6	DPI	*Sediment and erosion control during construction and operation will be key issues for the project. It is expected this would be addressed through relevant management plans and in accordance with industry standards, eg. Managing Urban Stormwater: Soils and Construction (Landcom 2004).*	In accordance with Condition 4.2(a), Schedule 2 of Development Consent DA 374-11-00, Scandium21 would prepare an Integrated Erosion and Sediment Control Plan in accordance with the requirements of *Managing Urban Stormwater: Soils and Construction* to the satisfaction of the DPI-Water.
DPI-7	DPI	*The proponent detail the water supply demand for the initial phase of production, the adequacy of existing water supply options to meet these demands and also for the maximum project demand. This is to include history of water extraction from the borefield and pump tests where available.*	Refer to Response DPI-2.

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