

MINUTES OF MEETING
STRATHALBYN COMMUNITY CONSULTATIVE COMMITTEE

Tuesday 19 December 2006

@ 7.00 pm

Senior Citizens Hall, 6 Parker Street, Strathalbyn

PRESENT:

Dean Brown - Chair	Dr Fred Carrangis	Julia Currie	Barry Davis
Mike Farrier	Susan Jettner	Adrian Pederick MP	Trevor Riches
Roz Twartz	Anne Woolford, Deputy Mayor		

PIRSA

Hans Bailiht

TERRAMIN

David Gladwin	John Burgess	Jol Jardine
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APOLOGIES:

Paul Heithersay	Dr Ted Tyne	Greg Marshall	Ben Brazzalotto
Kirstie Murphy			Gallery: 9

1. 7:10pm	WELCOME BY THE CHAIRMAN Meeting commenced with a welcome from the Chairman.
2.	APOLOGIES As shown above
3.	MINUTES OF PREVIOUS MEETING Roz Twartz and Anne Woolford were present at the previous meeting. Correction to Anne Woolford's title as she is the Deputy Mayor of Alexandrina Council. The Minutes of the previous meeting were accepted as a true and correct record of proceedings with the above amendments.
4.	ACTIONS ARISING FROM MINUTES <ul style="list-style-type: none"> • Tabled a number of documents – <ul style="list-style-type: none"> (a) Terramin Quarterly Environmental Report dated 6 November 06, (b) Terramin's answers to Trevor Riches's questions, (c) PIRSA's MARP Guideline requirements, (d) Terramin's Lease Conditions, and (e) Letter from Peter & Carol McSherry.

	<ul style="list-style-type: none"> • Baseline dust monitoring is outlined in the Quarterly Environmental Report • Chair has discussed with Terramin and resolved that the baseline survey of rainwater tank locations is to be confidential. <p>Tabled letter from Susan F Jettner subject Rainwater Tanks (locations) dated Nov 2006.</p> <ul style="list-style-type: none"> • Updated layout plan forwarded from Terramin to be emailed to members • Labelling of the graphs from the last meeting has been completed. • Answers to Trevor Riches's questions have been completed and distributed. • Copies of the draft MARP (November 06) have been distributed to SCCC members. Additional hard copies of the appendices are available to members who are finding the digital copies too hard to read. • Copy of the draft MARP has been placed in the Strathalbyn Library for the public and there is also a copy at the Council Offices. • PIRSA to update the web site as some of the Minutes are not on the site yet. • PIRSA will also put a copy of the draft MARP (November 2006) on the site. • "Appendix T" in the electronic copy is incorrect (this is the old version)
5	<p>Presentation by Terramin as a general overview of the MARP document (November 2006)</p> <ul style="list-style-type: none"> • Modelling of the Crown Pillar – Appendix T has been updated. • Forced Evaporator has now been included in the MARP to deal with the expected 4 to 5 litres per second of dewatering water from the mine for the life of the mine. New water balance is now located in Appendix AI. For excess water on site there will be a three stage method to address this issue:- <p>(a) Process water through RO plant and then water new tree plantation on land to the east of the TSF</p> <p>(b) Reinjecting back into the existing aquifer</p> <p>(c) To use forced evaporators on the site.</p> <p>A verbal arrangement with Garwoods for the purchase of their land, is in the final stages prior to signing. There will be no co-existence. Terramin will take the EML. This will satisfy PIRSA with the issues that they have had.</p> <p>Negotiations with Garwoods, are in final stages and it is anticipated that Terramin would purchase the land and that there will be no co-existence with Garwood's EML. It is proposed that there will be an interim transitional arrangement, which will be inserted into the MARP. Terramin propose to supply Garwood's with quarry material from the box cut until approximately May 2007. The crusher will be removed within four weeks of taking possession of the EML.</p>
6	<p>Questions and Concerns by the Committee on the MARP document</p> <p>The SCCC members did not receive an accompanying letter (which the Chair received dated 11 Dec 06) with the delivered MARP documentations, asking for submissions by the 20 December 2006.</p> <p>The Terramin's letter to the Chair is formally tabled with these minutes.</p>
S6.1	<p>The expectation that the SCCC could comment on the document in the time given is unreasonable and to go through the changes. It was stated that the issues of the MARP document could not be competently be addressed at this meeting at this time.</p>

S6.2	<p>It was discussed that one can not go through some 140 pages of the MARP within the proposed time given and do it any sort of justice and come up with meaningful issues.</p> <p>It was requested that in future any changes to the MARP document should be tracked by highlighting so it would be easier to follow.</p>
S6.3	<p>The chairman asked PIRSA to explain the TSF variations in more detail.</p> <p>The maximum size of the free pond on the TSF was detailed which then predetermines the area of the double lining which must be at least twice the distance of the pond size. If the pond increases due to unforeseen circumstances beyond that maximum size then Terramin must reduce this back to the predetermined pond size within 7 days.</p> <p>The maximum pond size would be marked on site so that it is easy to determine whether the pond is within the maximum size.</p>
Q6.4	<p>There still seems to be some doubt about the lining of the TSF whether it will be single or double lined, and for the closure capping liner the MARP states that “cover trials will be established to determine the most appropriate measures for covering the encapsulated sections” (page 245) – we were led to believe that this was under control and now we are told that trials will be carried out. Can you please explain?</p>
A	<p>The tails are encapsulated as described in drawing 8.20 (page 213) outlining the details for the closure plan showing the HDPE liner and the cover material. The trails are vegetation trails for testing various types of cover plants suitable for final cover vegetation for the site. It was clarified that cover means liner, liner protection layer, subsoil, topsoil and vegetation. PIRSA stated that the final cover over the TSF is critical to the safe closure of the TSF.</p> <p>The Chairman requested that editorial changes need to be made to the MARP document to clarify the TSF cover issues.</p>
Q6.5	<p>There are three features in the MARP document that have given rise to some concern:-</p> <ol style="list-style-type: none"> 1. With the partial double lining of the TSF (page 112), what further risks are involved of the potential of the breach to the single lining? 2. What is the potential of the AMD forming, and what monitoring will there be in place? 3. The MARP is designed for five years of mining but discussions up to date have been for seven years, modelling and other reports have been based on a seven year mine life are there any problems here?
A	<p>The mine life is for 2.4 million tonnes reserves and at 400,000 tonnes per year equates to six years plus the lead in and closure times.</p> <p>On page 113 there is a diagram that is much easier to follow regarding the lining of the TSF. Double lining will be up to RL 69m high. The maximum pond size chosen by Terramin is to be 3900m². The double lining will take more than a 1:100 storm event. The double lined area will cover 68,000m². Richard Jewell and ATC are currently still ironing out some issues.</p> <p>Terramin has undertaken to satisfy Richard Jewell's (and PIRSA's) concerns and to date the broad principles have been agreed upon.</p> <p>The Chairman has requested that when PIRSA and Terramin agree on the final issues of the TSF that this be distributed to the SCCC for their information. (Terramin has no objection to this, and have offered to “track change” the changes to the document to make it easier to identify them.)</p>

<p>S6.6</p>	<p>All the discussions of the lining for the TSF have been for double lining and now to turn around and introduce partial lining at this late stage – something has gone wrong somewhere.</p> <p>The lease condition is that the TSF will be double lined, why is the whole area not required to be double lined – why can't the TSF be reduced in size and double line the complete TSF?</p> <p>Why is something required to be so large and then only use 40% of what is built?</p>
<p>A</p>	<p>The area covered by any water is where any potential leakage is likely to occur. This is why that area and a safety buffer zone are double lined. This is the requirement of PIRSA and the EPA. Double lining of the dam has always meant that the double lining is in the area of hydraulic head plus a safety factor which the EPA have stipulated.</p> <p>The RO plant is expected to achieve 73% efficiency, which will be suitable for tree plantation irrigation but not suitable for drinking.</p>
<p>Q6.7</p>	<p>What size HDPE liner will be used?</p>
<p>A</p>	<p>The size as stated in the MARP document is 1.5mm thick, double lined for the area as shown in green on the plan. The second layer is welded into the top layer and between the two layers there will be a collection zone with a leak detection system where any drained is to a pit on the low side of the TSF wall.</p>
<p>Q6.8</p>	<p>How far up the walls does the double liner go?</p>
<p>A</p>	<p>The walls will have a 500mm clay lining and a single HDPE liner so in effect they will be double lined but with only one layer of HDPE. The double liner stops up about one metre up the wall and is terminated by welding into the single liner.</p>
<p>Q6.9</p>	<p>On page 243 of the MARP document there is a statement that it is intended to monitor the TSF for three years after closure. What is meant by monitoring the TSF?</p> <p>Is there an assumption that once there is no water coming out of the tail that the whole system is then chemically stable?</p> <p>It is believed that three years is an insufficient time for monitoring the whole site and if an unforeseen event happens how is this covered?</p>
<p>A</p>	<p>The leak detection system will be monitored. If there is any water in the decant tower it will need to be pumped out and check that there is no water coming into the system. There is general monitoring of the revegetation of the whole lease area. In the closure plan there is money set aside for the ongoing rehabilitation of the site.</p> <p>If there is no water in the tailings, it is assumed that the site is stable. PIRSA will only approve the relinquishing of the lease when they are satisfied that there is no impact on the groundwater, i.e. the groundwater levels and the chemical composition is similar to what it was prior to mining. Terramin believe the proposed system will have very little impact on groundwater. Terramin stated that 91% of the mine will be below sea level and every stope will be backfill to exclude any void space.</p> <p>All site monitoring will be carried out on a regular basis well beyond the three-year period until it is shown that the site is stable.</p>
<p>Q6.10</p>	<p>Does Terramin have to stay in business for the whole mine life plus the future monitoring period to fulfil their obligations?</p>

A	<p>If Terramin sell their operation the new owner would be required take on the liabilities of the site and also the rehabilitation bond to cover that liability should the company default. Any sale would have to have the approval of PIRSA.</p> <p>Terramin stated that they would put a caveat on the title of the land to prohibit building on the area of the TSF. Closure planning at this stage will be to create parklands but if the community decides on a suitable alternative for the site then that will be addressed.</p>
Q6.11	<p>There is a parcel of land that has been earmarked for either a recreational facility or residential housing area, this has not been approved as part of the redevelopment of the town because it is too close to the TSF. That is detrimental to the town and has now been put out of bounds and cannot be used as part of the town expansion. What is the position on that issue?</p>
A	<p>Planning SA have concerns with this location because it is within the 1:100 year flood level and should not be developed due to this issue – this area flooded in 1992. Council have applied to include this area within the town boundaries but at this stage this application has been refused.</p>
Q6.12	<p>The question is to do with Appendix M2. The Tonkin 1:100 year flood level shows mapping for Burnside Creek. The flood risk statement and the contours don't match the water levels. It shows the water going up hill. Can this issue be clarified? Is the engineering advice correct?</p>
A	<p>The main issue is the culverts under the road are not large enough, and hence this holds the water back. A bund wall 150m long 300mm high would be formed. This will hold any floodwaters back from the TSF wall area. This was discussed at an earlier meeting with Chris Purton of Tonkin's where the advice was that the bund wall as shown would be adequate at this location.</p> <p>Terramin can only go by the modelling advice that has been supplied but if there is an issue in a storm event the bund wall could be extended at that time by sand bagging the area in a short period. The mine manager would ensure that the water would not encroach on the toe of the dam.</p>
Q6.13	<p>Question on where the weather data for the site was being taken from? In the MARP document it refers to both the Post Office and the Racecourse. There is a difference in weather patterns between the mine site and the racecourse. How has this issue been addressed?</p>
A	<p>The rainfall may vary slightly but this would not greatly effect Terramin's modelling.</p>
Q6.14	<p>Question on blasting (page 95). It says "blasting will be done at the end of each shift Monday to Sunday" – does that mean blasting will be carried out three times a day? It was agreed that blasting would only be carried out twice a day. This has now been increased by 50%.</p>
A	<p>We have to comply with noise and vibration limits set in the conditions and the public would not feel blasting 300m below the surface. The surface and major blasts would only be done in the afternoon and they are the larger blasts for the site. We are planning at this stage to work a Monday to Friday at three shifts to give a better life style for our workers.</p> <p>The Chair asked that Terramin reconsider the proposed blasting times and frequencies Terramin agreed to "<i>One major blast per day will occur at period to be discussed further with the SCCC to agree on the time of day when this would occur</i>"</p> <p>Minor blasts will occur at changes of shifts on other occasions.</p>
Q6.15	<p>In the MARP it says, "drivers will be instructed on school timetables and bus routes". Is it possible to arrange that when there are school buses on the Callington Road that there will be no trucks carting explosives or other hazardous chemicals?</p>

A	<p>Explosives would be OK but chemicals would be hard to control, as they would come in at different times.</p> <p><i>JJ will advise the explosives company delivering one delivery per week, not to be on the road during that period. Terramin are happy to do this.</i></p> <p>SCCC requests that any other dangerous chemicals delivered to site be treated in the same way.</p>
Q6.16	<p>In page 2 of the MARP there is discussion of 10 residences within 400m of the mineral lease. Terramin have stated that they have receive waivers for most of the Exempt Land – how many waivers are in place?</p>
A	<p>There are 14 waivers required and 7 of those have signed a waiver.</p>
Q6.17	<p>The MARP (Page 145 146) refers to “the use of mechanical evaporators”. I don’t recall that this issue has been discussed in the past and have concerns about spray drift impact on bird life and the hours of operation. Could Terramin comment on this issue? Has the noise been taken into account with the noise modelling?</p> <p>Will the company have property damage insurance for damage of crops etc? What is the composition of the water that is thrown out by the evaporators?</p>
A	<p>It is true this issue has not been raised previously. We were unaware that we have to up every contingency in the MARP when we did our updated water balance for PIRSA. If there is excess water we stated that we would use it on the tree plantation first, secondly we would reinject back into the aquifer and thirdly we will use mechanical evaporators. It was insisted that we have a model for these evaporators, Tonkins modelled this for us with the machines throwing only 30 metre high. They proposed that up to a wind speed of 18 km/h that any spray drift if it did not evaporate would fall back onto the TSF. The proposal is to install up to four of these evaporators on site.</p> <p>The section in the MARP where it says two evaporators we will change to four. This system is not new. Stawell Gold Mine is currently using evaporators. There have been some discussions with the EPA who are not happy with this proposal at this stage.</p> <p>Terramin have requested from Tonkins an odour model to show how the evaporators will affect odour on the site.</p> <p>Noise modelling has not been taken into account but Terramin intend to model this shortly.</p> <p>The Chair asked whether it is feasible to put more water through the RO plant and sell the water to adjacent users? Terramin will report back on this.</p> <p>The evaporator is linked to a weather station and will only run when the wind speed is less than 18km/h and the evaporators are directed over the TSF throwing a max of 30.5 metres high. Terramin has Pollution Insurance up to \$50 million and it would definitely be covered by that policy.</p> <p>The water thrown out is basically groundwater with salts about 10,000 tds but the salt will drop out onto the TSF.</p>
Q6.18	<p>Noise is still a concern – is there any flexibility in the operation of the crusher plant (7am to 10pm)?</p>
A	<p>We are governed by the noise legislation so that is what we have to do. The crusher is actually over designed by a factor of 3 so in actual fact we would not need to crush for the time we are saying but in case of breakdown we need the flexibility to run the hours.</p> <p><i>It is anticipated that the crusher will not have to operate for the full hours, as there is surplus capacity in the crusher.</i></p>
Q6.19	<p>How many hours of the day will the machinery have white noise beepers?</p>

A	The white noise beepers will be installed on all machinery and this will operate 24 hours a day
Q6.20	Could a “Glossary of Terms” be inserted as part of the MARP document?
A	Terramin will consider inserting a Glossary of Terms for the MARP.
9.	<p>NEXT MEETING</p> <p>Wednesday 24 January 2007.</p> <p>Meeting to commence at 7.00 pm @ Senior Citizen’s Hall.</p> <p>Issues to be discussed: -</p> <p>All the issues and concerns about the MARP should be at that meeting so that the SCCC can respond at the same time frame as the other government agencies.</p> <p>Any other issues that the committee member consider needs to be addressed;</p>
10.	MEETING CLOSED @ 10.15pm