

MINUTES OF MEETING

STRATHALBYN COMMUNITY CONSULTATIVE COMMITTEE

Thursday 16 February 2012 @ 7.00 pm

Senior Citizens Hall, 6 Parker Street, Strathalbyn

PRESENT:

Charles Irwin - Ben Brazzalotto Susan Jettner Fred Carrangis
Chair
Rhonda McCarthy Malcolm Twartz Anne Woolford Mark Dale
Julia Currie Karen Hawke Adrian Pederick MP Merri Tothill – Sec
Gallery approx 20, including Terramin staff

DMITRE:

Hans Bailiht Greg Marshall Dr Ted Tyne

TERRAMIN:

Matt Daniel Ian Holman Nic Clift, Managing Director and CEO Yullinah Wylie

EPA:

Glenn Sorenson

APOLOGIES:

Mike Farrier, Adam Dean.

Meeting commenced at 7.15 pm

1. WELCOME, INTRODUCTIONS AND APOLOGIES

Charles Irwin welcomed all and thanked everyone for attending.

Apologies were accepted, as outlined above.

Ian Holman introduced himself and gave the group a brief background. Since Rob Howie left, Ian has filled in as GM. He has been the Chief Engineer with Terramin for about a year. He is very familiar with mining operations but tonight he is relying on the technical experts who are here. He is happy to take questions on board and report back.

Thanks to Rob Howie. He has a new position with BHP. Rob did a great deal to address issues on site and he progressed things at Board level, that was not easy and we commend that. We have come along way on issues raised at these meetings and we all appreciate his efforts.

2. REVIEW OF MINUTES OF LAST MEETING

Corrections to 17 November 2011 minutes:

- In the Action list 2nd, 3rd and 4th items, dust to be replaced by noise and vice versa and volume replaced by area.

Minutes, amended as above accepted as true and correct record.

NB Minutes available on the DMITRE website.

Review of Action items – achieved or to be addressed at tonight's meeting.

3. DMITRE: COMPLIANCE OVERVIEW

Inspections and compliance report - Hans Bailiht

Greg and Hans have had a number of inspections on site, including with ATC an inspection of the tailings dam – looked at survey markers, piezometers and double liner marker. Noticed that scats being used in a clean area and asked for these to be removed and this was done. Also inspected plumbing to check action had been taken.

Have had many meetings re the Environmental Direction, concluding with the *Water Reduction Report* and are finally comfortable with this. Comfortable with assurance that the water program will get water down by end of the year (2012).

Greg Marshall

The Environmental Direction requested the company to submit a plan for managing water reduction on the TSF. We are satisfied that the company understands the water situation and the plan can achieve the target i.e. back into compliance by the end of 2012. The target is no positive head on the single liner. The company must monitor progress regularly.

DMITRE also addressing non-conformances and went out on the site to see this first hand. All but one of the nine have been done in the timeframe allowed. Terramin will talk in detail about the plan. There are 2 other ongoing things to conclude towards the end of February:-

1. Review criteria in PERP re management of the TSF.
2. Two independent assessments of site rehabilitation/bond.

Questions:

Looking at the water level graph and aware that now the trend is down, how come it took so long to address this?

GM - It has been a topic for the committee for a long time and we have seen a number of water management plans. Terramin has introduced more RO capacity and other ways to get water off site. CI – It has taken a long time to deal with the complexities and some things were not expected. Maybe hold any more comments until after the Terramin presentation. The current Water Management Plan is rectifying non-conformance and we can see the milestones.

Thank you to DMITRE for up dates.

4. TERRAMIN: REVIEW OF MINING OPERATION - Matt Daniel

Please see Terramin Quarterly Report #21 (October – December 2011) by Matt Daniel, available in full on the PIRSA/DMITRE website www.pir.sa.gov.au/minerals/sa_mines/approved_mines/angas under Wider Community Engagement and also emailed to all members prior to the meeting. Hard copy also made available at the meeting. Presentations available on website also.

Ian Holman introduced the report process, stating that the initial focus would be on answering questions and addressing action list from the last SCCC meeting.

Actions in order are:-

1. **Explanation of difference between RL and surface area** – will be covered in water presentation.
2. **Why the East noise monitor is consistently above limit** - Logger at incorrect location (see pg 9 of QER), it was 150m too far south and so not capturing the right data.
3. **Explanation of high reading (peak) at west noise monitor on the 14th November** - Noise source located in close proximity to logger; on review with AECOM and Terramin employees appeared to be idling vehicle now moved on (pg 7 QER); Not representative of the of the noise limits at the nearest receivers
4. **Why is PM10 located so close to Hi-Vol sampler** – this was specified in EPA protocol-statement provided from dust consultant, standard practice to have them about 2 metres apart
5. **Update presentation with events table - when event occurred, action taken and date** - included in presentation (pg 17 QER)
6. **Correct Graph of Drain Flows (missing secondary axis)** - Circulated in email, graph in the July-September 2011 QER
7. **Ask ATC to define “excessive movement” and to determine the accuracy of survey/measuring equipment** - Data sent monthly to ATC and they analyse and report back if excessive movement, it is their judgment call. NB Survey equipment accurate to <10mm

8. Respond to letter from Strathalbyn Museum regarding support for mine display -
Museum has been contacted, Terramin providing mineral samples.

Matt Daniel reported on the QER, focusing on exceptions, the unusual and any exceedances.

Activity report

- Underground decline extended to over 10,229m
- 112,750 tonnes of ore processed
- Weed management continued including weed survey
- Rabbit fumigation
- PM10 trial commenced
- Weather station installed
- 4 community incidents, 2 environmental incidents

Questions

Have neighbours been addressing rabbit problem?

Some are but haven't formally asked them, nor Council, to address this issue.

Noise Monitoring

Noise monitoring undertaken in December as part of schedule.

Western Monitor (box cut)

Microphone malfunction, so additional monitoring in January (no equipment over Christmas break), also a number of peaks associated with high winds.

Eastern Monitor (mill)

Showed high results in November, so further two weeks of monitoring undertaken but similar results observed, further investigation found logger in wrong location. So monitored in January at correct location, average decreased from 61.7dB to 57.1 dB. A number of peaks occurred early in the morning, believed to be loading of mill balls, also exceedances at night. Have placed extra bunding and no complaints received. This will be re-checked in March

Questions

Has the loader refuelling been rectified?

Yes.

Dust Monitoring

High volume samplers - all TSP & lead results for reporting period were within MARP criteria & EPA early indicator report limits. All dust management initiatives are being maintained. Additional watering of the site used on site due to the dry conditions to minimise dust generation

Dust Deposition Gauges - all lead deposition results were within MARP criteria. In November the following gauges were above the EPA early indicator report level;

- Offsite gauges 2 and 10
- All onsite gauges, with the exception of 1 and 6

Levels decreased again in December (rainfall)

Numerous TSP results above MARP criteria

- 7 and 5 closest to mill and box cut area remain compliant
- The highest TSP results recorded gauges 6, 11 and 12
- Gauges 12 and 11 are located in bare open areas and bird excrement (as solid particles) is consistently observed in the collection bottles
- Gauge 6 is located next to an access road behind the staff car park

Monitoring occurs on site and the off site monitors are considered controls.

Blast Monitoring

137 blasts recorded over the quarter, 100% of all blasts that occurred.

Residence monitor data not available in December - geophone malfunction but always a portable monitor used so no blasts missed.

All blast vibrations were well within MARP criteria for the period.

Overpressure (as discussed previously) is not a useful measure (SAROS, Review of Overpressure Monitoring, 16th Nov 2011).

Community/ Environment feedback

4 community events recorded

- 2 internal records – late firing of stope blasts due to wet holes
- 2 blast complaints – firstly stope blast query - three development blasts in quick succession, they are now spaced out, and secondly alleged damage to dwelling - roving monitor placed in backyard to compare at residence with compliance location. Report has been supplied to persons involved with suggestion that damage relates to cracking clay soils.

Questions/Comments

How is this to be recorded if it happens again? Suggest that need an independent body to have a look at this, it is part of good neighbour relations.

2 internal environmental events recorded

- Pipe work damaged – picked up in inspections and due to pipe fatigue, immediately repaired and strengthened, others have been checked since.
- Casing of a re-injection bore broke - bore immediately isolated, no water left the mine site.

Environmental Activities

Rehab trial – started in middle of last year and is ongoing. Looking at two different top soil depths over membrane to determine if plants will grow and not run out of water. Interim report produced and circulated to members. Findings so far that no significant difference between the two soil depths

TSF rehabilitation plan (engineering) to be written by ATC Williams in 2012

PM 10 Trial – will be completed end of January, data currently being analysed and will be presented at next meeting.

Action – Terramin to present results of PM10 trail at next meeting.

Community Interaction

All activities very successful, including Strathalbyn Show; presentations to Angus Bremer Water management group in Langhorne Creek; Strathalbyn and District Soldiers Memorial Hospital and year 9 students at Eastern Fleurieu School.

Numerous tours of the mine including; Adelaide entrepreneur group; Adelaide High School chemistry class; Indigenous TAFE Cert 4 in Mining group and parliamentary tour. Also donations to CLASS.

Upcoming Activities

- Noise monitoring (March), trials for bunding on eastern boundary
- Environmental Direction targets
- 2011 MARCR (Annual compliance report) due in March 2012
- Program for Environmental Protection and Rehabilitation (PEPR) review due in June 2012.
- Rabbit baiting and weed control
- Increased water release to local primary producers
- Direct seeding of native vegetation in western paddock (winter)
- Exploration – have been looking for 12 months to extend life of mine. Sunter shoot insufficiently robust; will look at mine design to see if can be exploited (not at current prices but maybe later). Also looking at depth to see how ore body has displaced geologically to determine additional lower drilling targets. Also looking elsewhere in Fleurieu region based on historical evidence, all very preliminary at the moment.

Questions

On page 18 on TSF monitoring, notes a small amount of leakage – how and why?

This is through the drains, it goes through the liners by osmosis and is collected in drains to the decant tank. The total amount has been increasing into the drains but it is two different systems.

5. TERRAMIN: UPDATE ON WATER MANAGEMENT – Ian Holman and Matt Daniel

Please see presentation available on the DMITRE website

www.pir.sa.gov.au/minerals/sa_mines/approved_mines/angas under Wider Community Engagement.

Water in the TSF - RL and Surface Area - what does it mean?

Level RL 68m is the double liner boundary. Water must be below this level by December 31st 2012. Once RL 68m is reached, compliance will be measured in terms of TSF decant pond surface area i.e. criteria <15,000m² will take precedence. Note that there is no direct correlation between RL and surface area.

Currently TSF water level is above the double liner and so RL is a more useful measure than surface area. Tailings deposition over time raises the sub-surface level of the TSF, subsequently increasing the RL. TSF Collection Drains keep the phreatic surface level below the double liner (surface area <15,000m²)

Current RL 71.65m (14th February 2012), this has reduced by 690mm since November 2011. Current Surface Area 46,922m² (Jan 2012).

Update on Environmental Direction

Recommendation to move from weekly to monthly water update reports emailed to all members.

After engineering support and modelling a Water Reduction Plan was sent to DMITRE. The following is a summary of some of the main points in this plan:-

- Includes water balance – where water is coming in and where it is going out. Note that average is much lower at the moment as it is summer. This has been up dated as of January 2012 as last January was very wet.
- Use of sprinklers directly related to evaporation, so use of more sprinklers is an option.
- Contingencies involve removing water off site:-
 - Pipeline to local primary producer (have internal approval to do this) and this will be on line in June 2012 as need other approvals. This will remove 750mg/l per day and will take up some of the volume in winter. The disposal of infrastructure associated with this development is currently subject to discussion. Terramin is confident that approvals will be in place by the peak water time.
 - Burnside Creek: not being pursued in the immediate future
- There is on site disposal but there are problems with water logging.

Questions/comments

How will water logging be dealt with off site?

Once the water is received off site it becomes the receiver's issue.

Are these contingencies for the long term?

Yes, as the STEDS ponds are council owned and we do not know when they will be decommissioned. Meanwhile we are happy to support the irrigation of the Polo grounds via the STEDS.

NB It is not in the Council's 5 year plan to remove the STEDS ponds.

ED's 31 December 2012 target measurement will be by area; we will continue to comply thereafter and reach below 15,000m² as 15,000m² is the maximum without any buffer. We are targeting 5,000m² at mine closure. The RO will treat whatever water is left.

Note that the tailings are saturated until we reach 68RL. The TSF is there to hold solids and so we need to manage the water by draining it out of the tailings. With more tailings we raise the level. With a phreatic surface the tailings become drier. When it rains only the top of the tailings get wet.

The interface of the 2nd liner with the single liner is welded. There are 5 drains to take any water away and it has been purposely designed this way so that if there is any leakage through the 2nd liner, there is no head on it. We can check this by monitoring the drains.

Currently the Decant Tower is blocked, so there is a temporary pontoon pump to the RO. Note that the TSF Audit report also recommended clean out of decant drain.

Need to get the TSF rehabilitation plan (Mine Closure) back on the agenda, it is a work in progress.

Is there likelihood that other drainage will experience blockage as the Decant Tower has?

No, because it is of a different structure and has sediment and air in it. The under-drain systems have membranes so no sediment and less air. The decant tower has been a significant failure of an expertly designed structure. The designers did not appreciate the water quality issues.

Thank you for this explanation; it has been very clearly put.

DMITRE Comment

We are happy with the modelling and that it is achievable. It is a workable solution to the problem of getting rid of water.

Questions

Of the scenarios presented, only ones current are the STEDs and primary producer – is this sufficient?

One active contingency is sufficient and it is a workable plan. Note the additional re-injection bores need approval. The contingencies are not mandatory and we are convinced that all options now/short term with additional re-injection and use of water for dust suppression will equal 1500cubic metres per day. The contingencies are there if the options are not available and as part of risk management. All issues are manageable.

Are recent weather anomalies built into the plan?

It has the scope to cope with this as it has been based on adaptable model. The weak link has been the RO plants, they need to keep running. Terramin has access to more spare parts and are now working with a new company. They have been looking for more cost effective engineering.

OSMOFLO provides a better integrated approach and can optimise both in performance and use of funds and can manage the entire water balance.

These results are positive and it has been better explained.

SHORT BREAK TAKEN AT 8.45PM. Note that Margaret and Bill McKinnie are helping Ruth out tonight as Don is recovering from illness.

Paste Backfill

A new machine is being put together to replace the rental unit. In January, a total of 14,205m³ of paste fill was delivered underground in January 2012. This is more than double the monthly forecast of 6,600m³. Already in February 7,000m³ delivered. The new plant will be commissioned in mid March with the phasing out of the old plant. New plant has low noise generation and with more bunding noise will be within limits.

TSF Audit

ATC Williams came in last week of January. Have been looking at records and are writing a report which will be reviewed soon. No issues of concern flagged. Will continue to be surveyed in the 1st week of every month.

Decant tower cleaning, a complex engineering process, is scheduled to be completed before the end of February. Disposal of water into the wetlands is a contingency and not a prime focus, so this has been put on hold.

6. TERRAMIN; COMMUNITY ENGAGEMENT PROGRAM UPDATE

Mine Site Inspection 16 February

Today's site inspection has been very useful. We saw a number of new developments including the TSF and silt entrapment. It has clarified a lot of issues. Photos have been useful also. Thanks to Terramin for that.

Email up dates and tables have been appreciated, enables information to be passed onto the community.

DIMITRE does not require the emailed water up dates to go out weekly. Monthly schedule is fine and can incorporate the Water Management Plan milestones. Also the QER can deal with this. It is possible to make a transition when the community sees progress.

Action – Terramin to email Water Updates on monthly basis.

Newsletter (distributed to all members at meeting) has a circulation plan and 20,000 copies have been printed. It has been inserted into the Argus and was well received, also inserted into the Mt Barker Courier. Has also been distributed as give-aways and at the Strathalbyn races. Any comments on this can be directed to Terramin.

Terramin will be sponsoring Strathalbyn races in March.

Next week (22 February) giving a presentation to locals NRM groups at the NRM centre with an up date on water concerns.

7. OTHER BUSINESS

Terms of Reference

DMITRE has put a scope of work together for a consultant to review the community consultation committee process and to develop new terms of reference for all. They will be consulting with members of committees and looking at governance for selection of members and the Chairs, so that there is confidence in the process. Community engagement is still important and so we are looking at the essential elements including in remote locations. This will be a selected tender process to be completed in next 6 months.

All committees are different so delighted to hear this is happening. If you think of key issues, please feed into this process, this goes for members, the community, EPA and Terramin. It is a chance to get this sorted and a good learning experience; it is important to feed into this process and will be a good investment of time.

Mine Closure Plan

Some delay resulted from a search for Appendix that is now incorporated into the MARP. Existing planning is for 4 domains with a level of detail yet to be added by the company, heading community comment. Terramin have already started some soil depth trials but need other community input. We need to reactivate the process and will work on this in next 3 months.

Absent members

We are currently not short of members. Re Schools linkage, Chair has emailed Adam Dean and will take this further; there is a new headmaster at the school to contact. The contact list will tell of any changes. Barry's lack of attendance indicates lapse in membership (see terms of reference). Chair will write to him and thank him.

We do not have a formal process of appointing new members. Previously canvassed suggestions and it has worked well.

Action – Chair to write to Barry Davis to inform him of his lapsed membership and thank him for his contribution to the Committee.

Chair meeting with Minister

Endeavoured to pass on information but are exploring better formats for doing this. Note that he hasn't visited the site and by doing so, he could be made more ware of the issues. This is an ongoing issue.

Round Table

Photos from the mine tour can be sent around to members but they are not emailable (too large). Would be beneficial to have them on a public site i.e. Terramin website?

Malcolm - How does a substantial new ore find affect the tailings dam?

It was built to take all of the mine's capacity. It is a current lease condition that the mine needs to be backfilled, so there is plenty of capacity. The MARP would need to be reviewed if there was more than 2.5 million tonnes, so that managing the risks.

Ian Holman thanked the committee for participation and also the Terramin team.

Adrian is glad to finally see some progress.

Sue – How does the hydro survey and modelling match now?

We are up to date on economic contribution. At the Strathalbyn Show we indicated our regional expenditure.

Action – Matt to email regional spending as presented at Strathalbyn Show out to committee

Sue – what are we to do with the Rehab trials interim report?

It is for interest and will be on agenda for next meeting with further information.

Action – Terramin to present on progress with Rehab Trials at next meeting

Karen – can we put new Water Plan targets on the water report graph?

Action – Terramin to put targets on monthly water report graph

Ben – If the mine is further develops and continues to intercept water, has this been factored into the water management plan?

Terramin has already separated the mine water and stopped it going into the TSF. So the amount will be minimal and the RO can treat this. Also mine development has slowed down, so this will happen less. Even if there is an increase in development we are not anticipating extra flows and have modelled this. DMITRE are happy with this i.e. the separation of mine water and tailings water, so there is heaps of capacity.

Fred – the dam walls are dry and covered in wood chips. What is the plan for vegetation on the wall?

There is no plan to do this but will be looking at this. While it does not stand out now, things will grow there. There is a requirement for this in the PEPR, so it should be looked at. Also need a plan. DMITRE – last year in Autumn the embankment was seeded but there is no evidence of this.

Action – Terramin to address vegetation management on embankment wall and vegetation management plan at next meeting in May.

Thanks to Ruth, Margaret and Bill for hall and catering and thanks to all in attendance.

8. FUTURE MEETINGS

Next meeting on Thursday 17 May 2012 at 7pm.

Meeting Schedule – 16 August; 15 November 2012.

9. MEETING CLOSE.

Meeting closed at 9.50pm.

ACTION LIST

Terramin	<i>Present results of PM10 trail at next meeting.</i>
Terramin	<i>Email Water Updates on monthly basis (no longer weekly).</i>
Charles	<i>Write to Barry Davis to inform him of his lapsed membership and thank him for his contribution to the Committee.</i>
Terramin	<i>Email regional spending as presented at Strathalbyn Show out to committee.</i>
Terramin	<i>Present on progress with Rehab Trials at next meeting.</i>
Terramin	<i>Put new Water Plan targets on monthly water report graph.</i>
Terramin	<i>Address vegetation management on embankment wall and vegetation management plan at next meeting.</i>