



Note that minutes are paraphrased to an extent and may not match actual statements exactly.





Project	Hydro Kurri Kurri site redevelopment project	From	Emma Heaton
Subject	Community Reference Group Meeting	Tel	1800 066 243
Venue/Date/Time	Thursday 15 February 2018 Hydro Aluminium 6.00pm – 6:50pm	Job No	2218982
Copies to	All committee members		
Attendees	Mr Andrew Walker – Hydro Kurri Kurri Project Manager (AW) Mr Richard Brown – Managing Director, Hydro Kurri Kurri (RB) Mrs Kerry Hallett – Hunter BEC (KH) Mr Kerry McNaughton – Environmental Officer, Hydro Kurri Kurri (KM) Mr Toby Thomas – Community representative, Towns with Heart (TT) Mr Brad Wood – Community representative (BW) Clr Darrin Gray – Cessnock City Council (DG) Mr Rod Doherty – Kurri Kurri Business Chamber (RD) Ms Debra Ford - Community representative (DF) Mr Michael Ulph – CRG Chair, GHD (MU) Emma Heaton – GHD (Minutes)		
Guests/observers			
Apologies	Clr Robert Aitchison – Maitland City Council (RA) Mr Allan Gray – Community representative - Retired Mineworkers (AG) Mr Gareth Curtis – Cessnock City Council (alternating with Martin Johnston) Mr Bill Metcalfe – Community representative (BM)		
Not present	Ms Tara Dever – CEO Mindaribba Local Aboriginal Land Council Mr Mark Roser – Strategic Planner, Maitland City Council (MR)		



Table of Contents

1	Welcome and Acknowledgement of Country	3
2	Meeting agenda	3
3	Welcome and meeting opening	3
4	Last meeting minutes.....	3
5	Project update	4
6	CRG Questions and Answers and all other business	13
7	Meeting close	13

Notes	Action
<p>1 Welcome and Acknowledgement of Country</p> <p>Meeting commenced at 6:00 pm</p> <p>Michael Ulph (Chair)</p> <p>Acknowledgement of country.</p>	
<p>2 Meeting agenda</p> <ul style="list-style-type: none"> • Welcome and meeting opening • Apologies • Acceptance of minutes from the last meeting • Project update • CRG questions and answers • All other business • Next meeting / Meeting close 	
<p>3 Welcome and meeting opening</p> <p>Michael Ulph welcomes the committee and notes apologies.</p> <p>Michael asked those present to declare any pecuniary interests.</p> <p>None besides paid staff from GHD and Hydro.</p>	
<p>4 Last meeting minutes</p> <p>Michael Ulph requested a motion that the minutes be accepted as a true and correct record of the last meeting.</p> <p>Moved: Kerry McNaughton Seconded: Toby Thomas</p> <p>MU: Any questions or clarifications from the last minutes?</p> <p>Nil reported?</p> <p>I'll now pass over to Andrew who will give a project update.</p>	

5 Project update

AW: Noted that the current meeting is the 25th meeting.

Moving ledge bath (bath around the perimeter of the pots).
Crushed and bagged. Currently have moved approx. 1150 tonnes and by the end of the year will be up to 3000 tonnes

There is still around 3080 tonnes of anode cover material that still needs to be allocated a home

RB: We've even had another attempt at Tomago in the last couple of weeks

MU: They didn't want it?

RB: No

AW: Pot bottoms (solidified aluminium metal pad). We've been shipping that to Western Aluminium. 800 tonnes has been shipped to date. 400-500 tonnes left to go.

RD: Are you tolling or selling it to them?

AW: We are selling it at the moment. We are looking at going back to the tolling arrangement.

We are working on a design for a water treatment plant with some consultants. Working through physical and chemical separation to remove the fluoride. They are working on samples they took from eastern surge pond which has low concentrations of fluoride. They will be come back in a few weeks to get some leachate out of the capped waste stockpile which is the higher concentration of fluoride. The process needs to be able to be tuned from low to high, and anything in between. The cell designer which is GHD, recommended off site treatment by a third party contractor but we are looking at having our own water treatment plant as a backup. Investigating the costs. It might be a combination of both off site and on site treatment. Will have to go off-site anyways towards the end of the project when the cell is capped. Because a water treatment plant would produce residue that we'd want to put into the cell. After the cell is capped and in the longer term if there's any leachate it would have to go offsite.

Ledge Bath Shipments



6,080T of ledge bath & anode cover material was on site - 1,147T of ledge bath has now left site. 3,000T to be shipped by the end of 2018. Approx. 3,080T of anode cover material will be left (still need to find a home for it).

Pot Bottoms



813T shipped to date. Approx. 400-500T left to go (photo taken 7/2/18).

Leachate Treatment



Have engaged a WTP design firm to do some further analysis on leachate treatment options and to provide a design for a potential water treatment plant that can be tuned for different concentrations of fluoride.

Note that the cell designer's recommendation was for off-site treatment by a third party contractor, however Hydro is investigating a combination of both on-site and off-site water treatment to confirm the best solution in terms of environmental risk, cost and practicality.

Leachate Interception Trench



Additional (third) leachate interception trench to be installed during Q1'18. Will go into northern veg impact area. Work to commence 19/2/18.

We are about to start the third interception trench on Monday – the job was awarded to Les Edwards Plumbing. They also installed an isolation valve (Dec 18th) so water can be supplied to these three buildings and can shut the water off on the main water tower. Done because tracking big machines on the west side of the site, demolishing pot lines and felling structures, and if there was any damage to the ring main, water needs to be turned off in a hurry and not lose water to our building.

Line 3 is almost to the half way point of demolition. Images shown washing inside line 3. Firehose to remove dust out of the roof. A water truck also being used on site to keep dust levels down for vehicles around site roads.

Stage 1 Demolition Progress



Water truck in use to wash down roads to suppress dust (photo taken 25/1/18)

Stage 1 Demolition Progress – CMA Contracting



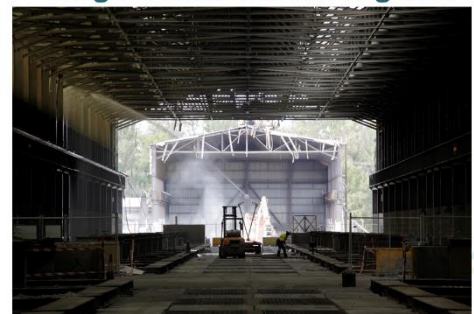
- Contract awarded 13/4/2017
- Site meeting to discuss the demolition methodology and Demolition Risk Assessment Workshop (DRAW) process with SafeWork NSW on 15/5/2017
- DRAW a 1 – site establishment held on 6/5/2017
- Handover of western part of the site to CMA as FC occurred on 16/5/2017
- Meeting held with Cessnock City Council staff on 17/5/2017
- Management plans submitted to CCG for approval on 26/5/2017
- DRAW a 2 – planning for the demolition of first structures held on 7/6/2017
- Management plans approved on 26/5/2017 and demolition commenced thereafter
- Demolish a 3 structures between Line 1 and 2 held on 7/6/17
- DRAW a 4 Building 3 Demolition held on 14/11/2017
- Demolish a 5 Ceiling demolition to be held 22/2/18

Potable Water Isolations



Valve installed in Dec 18 so that water leaving the main tower can be isolated in the event of a major failure of the fire & domestic ring main

Stage 1 Demolition Progress



Washing the inside of Line 3 building to remove dust (photo taken 25/1/18)

RB: Is that just potable water?

AW: Yes, its potable water. So if we do lose water supply we will see a main loss of their water supply. At the moment we supply

them with potable water, we will have a hydrant they could fill up that truck from.

PTA cranes are being pulled out of the building – line 3. Opening created in the building of about 12 bays. Other end of the building crane pulled off the rails, landed on the ground, diced it into scrap and then pulled the next one out. Four cranes were taken out this way. Crane runaway beams – 11m long, 2 bays of the buildings, weight 6 tonnes each. Up to 9000 tonnes of scrap now removed from site.

Stage 1 Demolition Progress



Pot Tending Assembly being pulled out of Line 3 with part of a pot shell in the foreground (photo taken 8/1/18)

The Southern end of line 3. Focusing on removing the rest of the southern end of the building. Once the cranes were out and scrap processed they have started moving north again. Cathode bus bar, that's aluminium bus bar, that was down around the pot shells and that has been put over on the pad. Being put out to tender later in the year, for sale.

DG: So that could go to Weston?

AW: It could, the last lot went to Norway. We are also talking to some of the Australian smelters. Boyne might be an option because they have some spare capacity or possibly Tomago.

RB: It's really probably a level up from what Weston could take. A. The furnaces aren't big enough to take those pieces, and B They only produce some secondary type products.

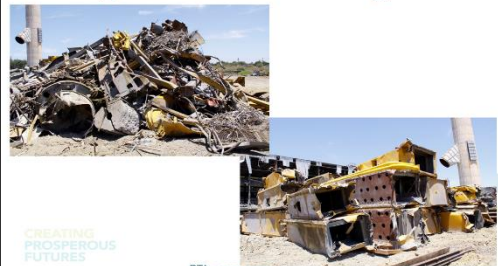
Here we have been stockpiling concrete from the floor slabs and pot columns. We are going to use that concrete to backfill some of the voids. We've been getting it tested and samples taken just to check for fluoride before it gets used. Last few bays of line 3, being demolished in February.

Stage 1 Demolition Progress



Crane runway beams from Line 3 (each length is 11m long and weighs ~6T)

Stage 1 Demolition Progress



PTA crane scrap

Stage 1 Demolition Progress



Line 3 South demolition area with cathode busbar in the foreground (photo taken 24/1/18)

Stage 1 Demolition Progress



Cathode busbar stockpiles (photo taken 12/1/18)

Stage 1 Demolition Progress



Line 3 South demolition area with concrete stockpile in foreground (photo taken 18/1/18). Concrete is being progressively analysed for contaminants.

Barricading on the bridge between line 2 & 3 at the southern end, after it was demolished. Image looking towards southern end of line 3, the other end of the building is gone. Here machines are pulverising concrete separating steel from aluminium. A few bays are demolished, they tidy up the site, scrap is segregated, then they load out and move on.

DG: Half of line 3 has been demolished?

AW: Yes. Just some bus bar and steel scrap left to go and then half of line three will be demolished.

Stage 1 Demolition Progress



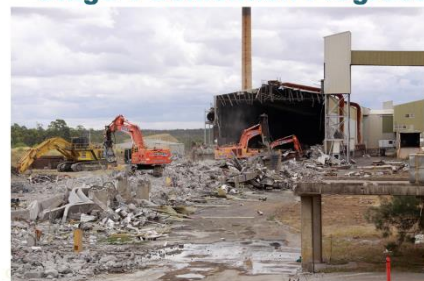
Last few bays at Line 3 south being demolished (photo taken 1/2/18)

Stage 1 Demolition Progress



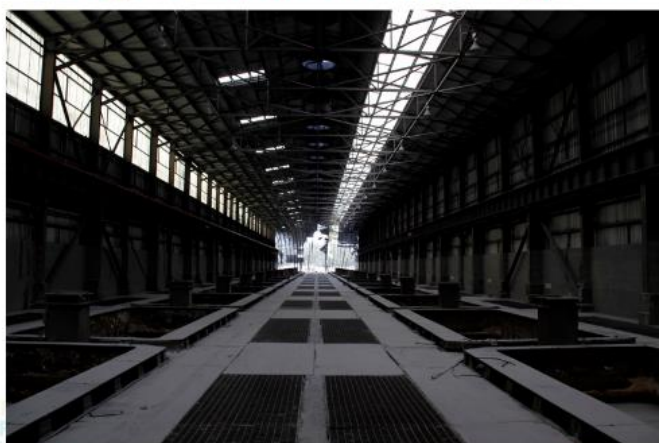
Demolition of Line 2 / Line 3 south bridge (photo taken 24/1/18)

Stage 1 Demolition Progress



Sorting scrap steel and aluminium busbar & pulverising concrete at Line 3 south (photo taken 2/2/18)

Stage 1 Demolition Progress



View of the inside of Line 3 (photo taken 1/2/2018)

Stage 1 Demolition Progress



Line 3 south (photo taken 2/2/18)

Stage 1 Demolition Progress



Sorting scrap steel and aluminium (photo taken 2/2/18)

This is the south bath station to be pulled down in about two weeks – once far enough past that point they will attach cables and pull to the west to make sure it falls away from line 2.

TT: You can see it from the expressway.

AW: You can just make it out. You can see that some of the taller structures are now gone like the scrubbers and bucket elevators. You might just be able to see the roof.

Bucket elevators between lines 1 and 2. They found asbestos in gaskets. The demolition contractor found asbestos and plan to cut those flanges out before the steel is scrapped. They have been checking for asbestos and marking with florescent paint.

This is one of the voids - line 3 south dump station. They removed all the steel structure, the bucket elevator and dump hopper. The bucket elevator to convey the alumina into the silo. Here is an image of the slab that the silo was sitting on and in that void there was an air slide. Steel equipment has been removed and ready to be back filled with clean concrete.

MU: How deep are we talking there, Andrew?

AW: 8m deep. Some of the pits in casting are actually 13m deep.

RB: Do you want to describe the process we need to go through before fill in as a result of filling.

We have to validate there is no risk of contamination from the structure – so we have an environmental consultancy put us

Stage 1 Demolition Progress



Progressing north towards the centre of Line 3 (photo taken 5/2/18)

Stage 1 Demolition Progress



L3 demolition area showing south bath station, which is to be demolished in late February once L3S area is cleared (photo taken 5/2/18)

Stage 1 Demolition Progress



Bucket elevators from L1/2N on hold for asbestos gasket removal (photo taken 25/1/18)

Stage 1 Demolition Progress



Line 3 south alumina dump station prior to backfilling

together this protocol of inspections, take records, photos so that the auditor can validate the site. It can be proven to be containment free.

So we are keeping records for the validation process. For every void, the material was used to fill it.

TT: How do you back pack the horizontal void?

AW: In stage 2 the top 1.5m will be removed again. So that slab's going to get broken up. They are going to dig 1.5m back out and knock in all these walls, pick the big pieces out and back fill with minus 40mm crushed concrete. It needs to be temporarily filled – for safety.

The bridge between line 1 and 2 is now gone. They had to remove it to get some cranes through.

They have also been cutting pot shells in line 2. Cutting those the same as line 3. Five separate pieces so they are easier to handle.

Stage 1 Demolition Progress



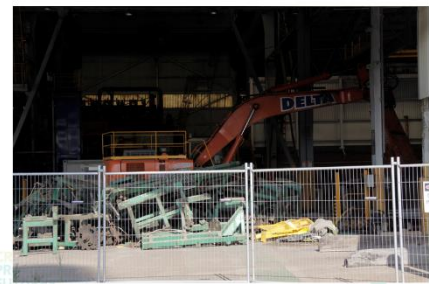
Oxy cutting of pot shells in Line 2 (photo taken 5/2/18)

Stage 1 Demolition Progress



Demolition of bridge between Line 1 and Line 2 (photo taken 10/1/18)

Stage 1 Demolition Progress



Demolition of the Oliver Saw in Casting (photo taken 25/1/18)

Demolition Waste



General solid waste in 77A (photo taken 10/1/18)



Fluoride containing Potroom waste in 7A south tub (photo taken 10/1/18)

The Oliver saw in casting has been removed. The actual building won't be demolished until later this year. The old remelt building – may remain. It has been used to store the demolition waste, alsynite sheeting, office furniture and masonite – all are non-recyclable. CMA is trying to recycle everything they can.

South tub bake furnace. This is mainly reacted alumina. All bags from all four pot room scrubbers have been compacted. There shouldn't be much more material coming from the pot rooms. We are keeping it under cover because of fluoride containing waste .

BW: That's going to end up in the containment cell?

AW: Yes, that is going up in the cell

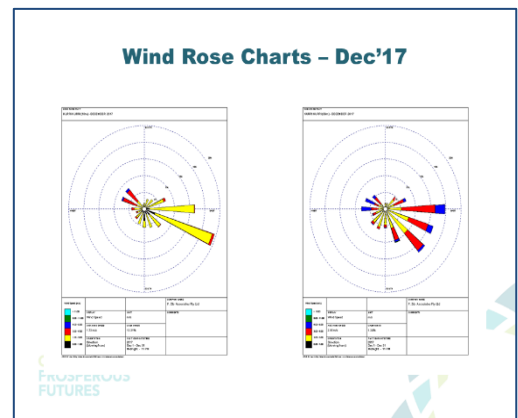
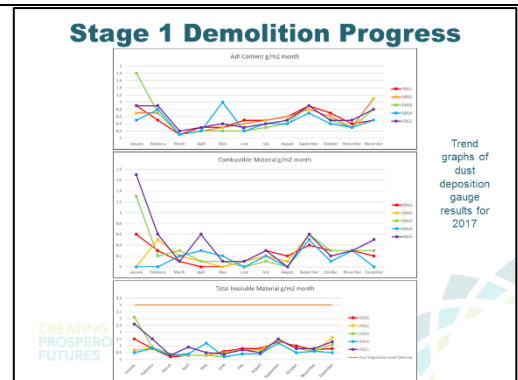
Graph – dust deposition gauges – 2017 data. Ash, combustible material and total insoluble dust. There is an allowable limit of 4g/sqm per month. The highest result for December was at dust deposition gauge number 2. Prevailing winds for December were southeast. Some fluoride was detected in dust (1.5)

KM: What other sources could there be?

RB: We'd be the major source. Weston aluminium in particular.

CMA tested for two types of dust – inhalable dust (100 micron particle size) and respirable dust (below 10 microns). A small increase on the day recorded for demolition to the day with no demolition. (0.15 milligram per cubic metre)

Respirable dust results (same dates) shown no difference. (Less than 1 milligram per cubic metre).



Dust Monitoring During Demolition - Dec'17

Poline WHS Airborne Dust Monitoring Assessment during Poline Demolition - Hydro Aluminium Demolition Site
Lanford, NSW 2527

5.2.2 Respirable Dust

The airborne respirable dust results for background monitoring at active demolition site boundaries are shown in Table 6 and Table 7.

Table 6: Baseline Respirable Dust Sampling Results – 8th December 2017

Location	Sample ID	Sample Type	Sample Location	Result (mg/m ³)
Demolition area boundaries - prior to demolition	NZ31201/02	Static	East Boundary	0.24
	NZ31201/04	Static	South Boundary	0.05
	NZ31201/06	Static	West Boundary	0.05
	NZ31201/08	Static	North Boundary	0.11

Table 7: Background Respirable Dust Sampling Results – 13th December 2017

Location	Sample ID	Sample Type	Sample Location	Result (mg/m ³)
Active Demolition area	NZ31201/16	Static	East Boundary	0.15
	NZ31201/18	Static	South Boundary	<0.04
	NZ31201/20	Static	West Boundary	0.04
	NZ31201/22	Static	North Boundary	<0.04

Dust Monitoring During Demolition - Dec'17

5.2 Static Baseline/Background Monitoring

5.2.1 Inhalable Dust

The airborne inhalable dust results for baseline and background monitoring at active demolition site boundaries are shown in **Table 4** and **Table 5**.

Table 4: Baseline Inhalable Dust Sampling Results – 8th December 2017

Location	Sample ID	Sample Type	Sample Location	Result (mg/m ³)
Demolition area boundaries - prior to demolition	N231201/01	Static	East Boundary	<0.04
	N231201/03	Static	South Boundary	<0.04
	N231201/05	Static	West Boundary	<0.04
	N231201/07	Static	North Boundary	<0.04

Table 5: Background Inhalable Dust Sampling Results – 13th December 2017

Location	Sample ID	Sample Type	Sample Location	Result (mg/m ³)
Active Demolition area boundaries	N231201/15	Static	East Boundary	<0.04
	N231201/17	Static	South Boundary	0.10
	N231201/19	Static	West Boundary	0.08
	N231201/21	Static	North Boundary	0.06

Dust Monitoring During Demolition - Dec'17

Potline WHS Airborne Dust Monitoring Assessment during Potline Demolition - Hydro Aluminium Demolition Site
Laxford, NSW 2327

2 CONTAMINANTS OF CONCERN

Inhalable and respirable airborne dust are released into the workplace environment during demolition activities such as steel structure and ductwork dismantling, demolition and stockpile management. Illustrative photographs are included in **Appendix 1**. An aerial photograph of the demolition site is also included in **Appendix 1** showing the active demolition area boundary monitoring locations.

2.1 Inhalable Dust

Inhalable dust, which is nominal 100 microns in particle size when expressed as aerodynamic diameter, enters the body during breathing, but gets trapped by the natural filtering mechanisms in the nose, throat and upper respiratory tract.

2.2 Respirable Dust

The smaller aerodynamic diameter of the respirable dust particulate results in released respirable dust remaining airborne within the workplace air for longer periods and moving around the active demolition area with prevailing air currents and wind events. Under certain wind conditions this fine dust can remain airborne and has the potential to be carried by the wind and traverse the site boundaries.

Respirable dust is <10 microns in aerodynamic diameter with a mean aerodynamic diameter of 7 microns and is able to penetrate deep into the respiratory system, past the body's cilia, mucous membranes and natural defense mechanisms.

Approval of Stage 2 Demolition

[illegible]

Stage 2 Demolition DA and EIS has been submitted to Cessnock Council (snapshot taken 15/2/18).

Approval of Stage 2 Demolition

Project Name	Start Date	End Date	Status
Project A	2023-01-15	2023-03-10	Completed
Project B	2023-02-01	2023-04-15	In Progress
Project C	2023-03-05	2023-05-20	On Hold
Project D	2023-04-01	2023-06-10	Planned
Project E	2023-05-01	2023-07-15	Completed
Project F	2023-06-01	2023-08-10	In Progress
Project G	2023-07-01	2023-09-15	On Hold
Project H	2023-08-01	2023-10-10	Planned
Project I	2023-09-01	2023-11-15	Completed
Project J	2023-10-01	2023-12-10	In Progress

Stage 2 Demolition DA and EIS has been submitted to Cessnock Council (snapshot taken 15/2/18).

Procurement Plan – Remediation Contract

- Procurement analysis currently being finalised.
- EOI issued on 22/01/2018.
- Supplier qualification audits for the shortlisted companies (expect to be 4-5).
- Expecting to have a civil/earthworks company as the Principal Contractor with a specialist lining installer as a subcontractor to the PC.
- Target date to go out to tender is in Q2'18 (pending EIS approval date and approval by EPA's technical review of the cell design).
- Tender documents will include – detailed design docs (including drawings, tech spec, CQA plan & others), draft AS2124 construction contract with amendments plus various project-related documents (eg. EIS, conditions of consent from DoP/EPA and Environmental management plans – WHS, EMP asbestos management plan, etc).
- Lining materials – HDPE liner is a long lead item and only the pre-qualified suppliers from the liner testing can be used. Decision to be made on Principal-supplied or Contractor-supplied item (leaning towards Contractor-supplied based on advice from the cell designer).
- CQA contract to be awarded.
- Environmental audits will be conducted by Rambol-Environ as our Environmental Consultant with oversight from the Site Auditor for the validation of the site.
- Expected start date is Q3'18 pending authority approvals and Hydro decision gate approval process.
- If approval delays occur it is possible to start some of the smaller off-site remediation packages and stockpile the waste at a suitable location on site.

Submitted application to Cessnock council for stage 2 demolition. Went in on the 31st of December. Going to the EPA and RMS. Currently in progress.

MU: RMS today?

AW: Yes, and the EPA.

Procurement plan for the remediation contract. Construction of the containment cell and remediation of the site. Issued an expression of interest that went out the 22nd of January to 30 companies – civil earthworks and specialist lining installers. Will come back by the end of the month. Won't go to tender until it gets approval. Depending on when EIS gets approved.

RB:

At next meeting be able to present responses submission report. Key things- final order statement and finalised costing for long term management of the cell – independent costing done on cell management – going through assumptions. Met with EPA – presented cell design. Detail design gets presented into responses submission – next month/ 6 weeks – start the process.

Recycling hasn't commenced because of a range of issues- commercial issues and urgency issues. Still progressing. Next month or two there will be some activity. Hasn't effected plans for completions. 3-4 time frame.

Rezoning and master planning. Information on the flood study from Maitland council. Consultant has given indication there will be no changes to flood levels. Calibrated flood models against events in 2007/2013. One more flood event to check the calibration against. Potentially looking at maximum flood levels. Flood study necessary to move forward. Divestment – negotiations ongoing. Meetings and drafting contracts.

Environmental Impact Assessment for Stage 2 Demolition / Remediation DA (SSD6666)

- Currently preparing responses to the submissions received from the EIS exhibition.
- Discussions with EPA and Dept. of Planning ongoing

CREATING PROSPEROUS FUTURES

http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=6666

TT: Remembering the smelter – this is a work in progress. Outlines have been done at both top and bottom. The bottom needs to be coloured. He could be back next week to work on the project but overall it is ongoing. To be completed in due course. I am working on the lighting. Potentially solar lighting – 200W panel and couple of 30W led lights with 90 amp hour/ deep cycle battery.

RB: Has there been an early feedback?

TT: Yes, good feedback.

(Video presentation)

Spent Pot Lining Recycling

- Phase 2 investigations are ongoing. This includes:
 - Site visits for the purpose for HSE / CSR audits
 - Intermediate and final product testing (to validate claims of non-hazardous material, or otherwise)
 - Validation of capacity claims
 - Commercial negotiations
 - Confirmation of approval from NSW and Commonwealth authorities for proposed solution
- Currently drafting a Recycling Contract with an ambition to commence some recycling activities early 2018.

CREATING PROSPEROUS FUTURES

Divestment

- Continuing to have discussions with potential purchaser of the site.



CREATING PROSPEROUS FUTURES

Remembering the Smelter

- Update by Toby Thomas



CREATING PROSPEROUS FUTURES

MU: Are there any other questions around the project update?

DG: It would be good to put something out like that (referring to video)

RB: Part of it is that it is not our site or our process. It's CMA's gig.

MU: There might be some IP in the way

RB: I think at some point we will definitely put something together.



6 **CRG Questions and Answers and all other business**

MU: Any questions from the community?

BM: Maintain a stack – for art/statue (didgeridoo)

MU: Could bring to the purchaser of the site at the next meeting.

Possible mural. Cost and maintenance may be unachievable

MU: Looking at putting out another newsletter. New purchaser, mural and demolition photos to be added. Under preparation but on hold.

RB: Slides are available online

TT: In relation to processing SPL. Weston aluminium are now processing SPL.

7 **Meeting close**

Meeting closed: 6:50 pm

Proposed date of following meetings:

Thursday 19th April

Thursday 21st June

Thursday Aug 16th