



**HYDRO**

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



**REGROWTH**  
KURRI KURRI

Project	Hydro Kurri Kurri site redevelopment project	From	Sonya Pascoe
Subject	Community Reference Group Meeting	Tel	1800 066 243
Venue/Date/Time	Thursday 19 April 2018 Hydro Aluminium 6:05 pm – 7:18 pm	Job No	2218982
Copies to	All committee members		
Attendees	<p>Mr Andrew Walker – Hydro Kurri Kurri Project Manager (AW)</p> <p>Mr Richard Brown – Managing Director, Hydro Kurri Kurri (RB)</p> <p>Mrs Kerry Hallett – Hunter BEC (KH)</p> <p>Mr Kerry McNaughton – Environmental Officer, Hydro Kurri Kurri (KM)</p> <p>Clr Darrin Gray – Cessnock City Council (DG)</p> <p>Mr Toby Thomas – Community representative, Towns with Heart (TT)</p> <p>Mr Michael Ulph – CRG Chair, GHD (MU)</p> <p>Keren Brown – Cessnock City Council (KB) (for Martin Johnson/Gareth Curtis)</p> <p>Sonya Pascoe – GHD (Minutes)</p>		
Guests/observers	Shaun Taylor – Ramboll (ST)		
Apologies	<p>Mr Rod Doherty – Kurri Kurri Business Chamber (RD)</p> <p>Clr Robert Aitchison – Maitland City Council (RA)</p> <p>Mr Allan Gray – Community representative - Retired Mineworkers (AG)</p> <p>Mr Gareth Curtis – Cessnock City Council (alternating with Martin Johnston)</p> <p>Martin Johnston - Cessnock City Council</p> <p>Mr Bill Metcalfe – Community representative (BM)</p>		
Not present	<p>Ms Tara Dever – CEO Mindaribba Local Aboriginal Land Council</p> <p>Mr Mark Roser – Strategic Planner, Maitland City Council (MR)</p> <p>Ms Debra Ford - Community representative (DF)</p> <p>Mr Brad Wood – Community representative (BW)</p>		



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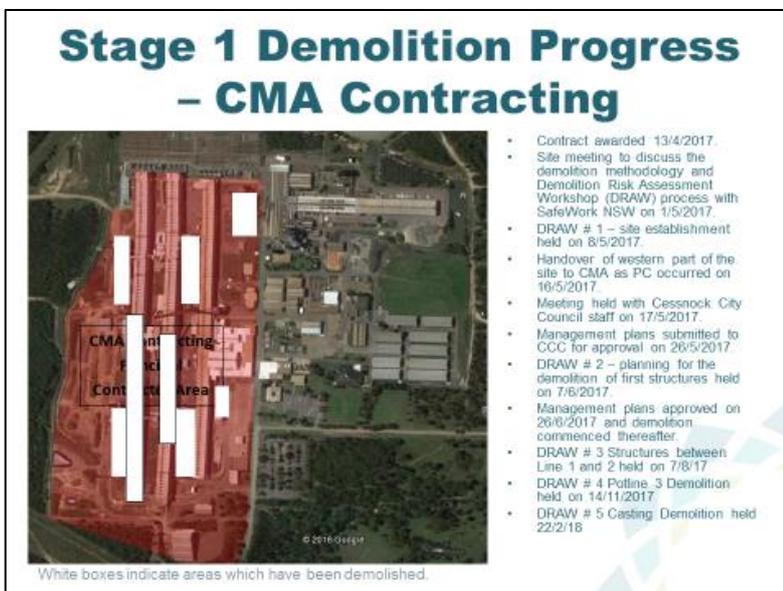
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Notes	Action
<p><b>1 Welcome and Acknowledgement of Country</b></p> <p>Meeting commenced at 6:05 pm</p> <p><b>Michael Ulph (Chair)</b></p> <p>Acknowledgement of country.</p> <p>Intro of people at the table.</p> <p>Keren Brown from Cessnock Council appears for Gareth and Martin.</p> <p>Shaun Taylor from Ramboll Environ – responsible for the EIS.</p> <p>Sonya Pascoe from GHD taking minutes.</p>	 <p>The slide content includes the Regrowth Kurri Kurri logo, the text 'Hydro Aluminium Kurri Kurri – ReGrowth Kurri Kurri Project', 'Community Reference Group Meeting #24 December 2017', and a photograph of a small green seedling with the text 'CREATING PROSPEROUS FUTURES'.</p>

Notes	Action
<p><b>2 Meeting agenda</b></p> <ul style="list-style-type: none"><li>• Welcome and meeting opening</li><li>• Apologies</li><li>• Declaration of pecuniary interests</li><li>• Acceptance of minutes from the last meeting</li><li>• Project update</li><li>• Response to Submissions Report</li><li>• CRG questions and answers</li><li>• All other business</li><li>• Next meeting/Meeting close</li></ul>	
<p><b>3 Welcome and meeting opening</b></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><b>4 Last meeting minutes</b></p> <p><b>MU:</b> Any questions or clarifications from the last minutes?</p> <p><b>TT:</b> TT and RD were transposed – some questions/comments switched.</p> <p><b>MU:</b> I will change that at the end of meeting, please point it out. With that slight change, can I have someone move that this is a true and correct record of last meeting?</p> <p>Moved: Kerry McNaughton</p> <p>Seconded: Toby Thomas</p> <p><b>MU:</b> I'll now pass over to Andrew who will give a project update.</p>	

## 5 Project update

**AW:** CMA continued with Stage 1 demolition which is buildings down to ground level and have now started demolishing Line 2. Line 3, we've stopped at this point. Someone is interested in buying the site and using the switch yard and the northern 250 m of lines 2 and 3. But nothing is agreed yet. So, under contract of CMA, have told them to stop at that point. Once it is confirmed they may finish demolition of the pot lines or leave them.



**AW:** Here's a visual comparison of September 2017 and recent images demonstrating progress of demolition.

All the scrubbers have gone. The pot lines are still there. In six months more than half of line three has been demolished.

This is looking from the north end of the site. Again you can see line three has gone. This was actually taken in February 2017 before CMA started on site so the scrubbers are all still there.

65C has now gone which was part of the rodding shop.

Photos of some of the demolition:

This is an aerial view of line 3 work front at the half way point, showing the centre passage and the crane maintenance area.



A little bit later on they started demolishing Building 44B which is the PTA Crane Maintenance Bay. PTA stands for 'Pot Tending Assembly'.

Another view looking from the South of that building getting demolished.

That's the 10t crane that was left in there that's being pulled out. It was actually the crane used to remove all the superstructures back in 2015. It had more use in that 12 month period than it ever had in its whole 30 year life.

In March we started demolishing line 2.

### Stage 1 Demolition Progress



CREATING PROSPEROUS FUTURES  
Aerial view of Line 3 demolition work front – March 2018

### Stage 1 Demolition Progress



CREATING PROSPEROUS FUTURES  
Demolition of 44B PTA Crane Maintenance Bay

### Stage 1 Demolition Progress



CREATING PROSPEROUS FUTURES  
Demolition of Line 2 – initial break-in near centre passage

This is a 160t demolition excavator breaking into line 2 pulling the roof down.

This is a little bit later on looking south and they cleared all this area and pulled out two of the PTA cranes.

### Stage 1 Demolition Progress



CREATING PROSPEROUS FUTURES  
Demolition of 44B – PTA Crane Maintenance Bay

**TT:** Just going back to that slide before; all that dust. I thought they were hosing the buildings out before they pulled them down?

**AW:** They are, it's just a very difficult process. They're spraying with hoses from a trolley set up and they're also using a truck and fire hoses, but it's dust that gets caught in wall girders and on top of the crane rails that are difficult to get to. We have been getting them to wash the cranes down more thoroughly.

**DG:** So what's the dispersion of the dust from that?

### Stage 1 Demolition Progress



CREATING PROSPEROUS FUTURES  
Demolition of Line 2 – roof being pulled by 160T demolition excavator

**AW:** Not too far, they have sprays set up for misting, and that just generally falls to ground, within 24 hours gets cleaned up and taken down to the carbon plant bake furnace area.

**RB:** This is not a technical opinion, but perhaps the material is heavy, and settles out reasonably quickly. There's data on that, we will get to in a minute, the dust deposition gauges.

**AW:** So that's line 2 south.

Then a few weeks later; this is taken in the last few days and there's hardly anything left of line 2.

**AW:** At the last meeting we spoke about the validation process. Some of the voids on the west side of pot line 3 need to be filled in with clean material for safety reasons because they're tracking machines over these voids.

The process involves confirmation that the void's been emptied of structural steel and the dust. Ramboll have been helping us by analysing samples of different fill materials we're using to confirm the suitability for use on an industrial site and then witness the back-filling of the voids by CMA to confirm the correct materials have been used. All that data will be included in a Site Validation Report by Ramboll which will go to the independent site auditor Ross McFarland, who's EPA accredited who will sign off on the site audit statement.

## Validation Process

### Validation Process for Filling of Voids: -

- Confirmation that voids have been emptied
- Sampling and analysis of fill materials to confirm suitability for industrial site use
- Witnessing of backfilling of voids to confirm correct materials have been used
- Data will be included in a site validation report by Ramboll
- Site auditor will review the validation report for signoff on a site audit statement

**AW:** Ramboll taking samples of pulverised concrete.

**AW:** This is back-filling of the line 3 south alumina dump station with crushed concrete.

**MU:** To take these samples, what are they looking for?

### Stage 1 Demolition Progress



Demolition of Line 2 south – March 2018

### Stage 1 Demolition Progress



Demolition of Line 2 south – April 2018

### Stage 1 Demolition Progress



Demolition of 44B – 10T SWF Crane being felled

### Stage 1 Demolition Progress



Sampling of pulverised concrete by Ramboll in March 2018

**AW:** She used a sieve. When you sample any stockpile you have to take a representative sample, so she goes around the stockpile taking small amounts, then later in the lab that all gets mixed and riffled down to get a representative sample. She comes out every 2 weeks taking samples, under the guidelines from the EPA you have to take five samples per 4,000 tonnes of concrete. In line 3 alone there's 15,300 tonnes so there's something like 17 samples of concrete to be taken just of line 3. Line 2 and line 1 will be similar quantity.

**MU:** Are they looking for hazardous material?

**AW:** We have the data here. The main contaminants are hydrocarbons.

**RB:** These are all previously identified as potential contaminants of concern: fluorides and PAHs.

**AW:** They did a test and here are the results. This doesn't show the criteria for use on an industrial site, but the TRH (total recoverable hydrocarbons) level meets criteria for use on an industrial site. We are keeping track of that in a spreadsheet.

**AW:** Back-filling of pulverised concrete. We are also using some clay and soil from the remediation of the clay borrow pit in 2015. That's all been sampled by Ramboll and analysed that it's okay for reuse. You mix that with concrete for good compaction.

That's a photo of the void part-way through filling.

Down at the carbon plant, the old anode storage building is being converted for a demolition waste storage area. Photo of the east end wall being removed.

Crane being pulled out.

Inside the building to be used to store demolition waste from buildings close to that area – carbon plant, central laboratory, I.T., those sorts of areas.

We are also storing demolition waste down in the 7A bake furnace.

This is the South tub which is all the potroom waste so there's lots of scrubber bags there. Reacted alumina, we keep it under cover as they do contain fluoride and we don't want it out in wet weather leaching. It will all eventually end up in the containment cell.

We have also been working in the switchyard disconnecting the high voltage aerials to the Fuji rectifier units. Not needed in future. They are specialised equipment in smelting and those units

### Stage 1 Demolition Progress



Backfilling of 17CS dump station void with pulverised concrete

### Stage 1 Demolition Progress



Backfilling of 17CS dump station void with clean soil stockpiled from the clay borrow pit remediation in 2015

### Stage 1 Demolition Progress



17CS dump station void partially filled

### Stage 1 Demolition Progress



Removal of end wall of building 68C – anode storage area (to be used for storage of demolition waste)

are not required, so they're being disconnected from the 132 kV supply on the right-hand side of the photograph.

**TT:** Have you got a market for them, those rectifiers?

**AW:** No, those ones are 40-50 years old. They will just be scrapped. We are just about to go to tender on that.

**RB:** We have previously been out into the market to see if there's interest in the new ones we've got and there was a little bit of interest but when you consider the cost of disassembling and transporting and re-assembling and it doesn't come with a new equipment warranty, people are not prepared to take the risk.

**AW:** Now that the rectiformers are disconnected, we've had Wormalds in removing the sprinklers and other fire protection systems in preparation for demolition.

The other thing that we are going to be doing is in the cast house we have very deep pits in the cast house, they are about 13 metres deep, we left the hydraulic cylinders connected in case the demolition contractors needed to use the hydraulics to move the platens. We've now gone through that process with CMA and decided to drain all the hydraulic oil out of the cylinders and plug the lines, and unbolt them from the mount at the bottom of the pit and they will be lifted out with the platen during demolition. We are trying to be careful to not get any leaks of hydraulic oil, as it is such a deep pit. Don't want hydraulic fluid getting into the ground.



**DG:** Is there a sump there anyway?

**AW:** The pit is 10 metres, and cylinder goes another 6 metres below that, and it's in a steel casing driven into the ground.



**DG:** Surprised something so old to not be contaminated.

**AW:** Ramboll have suggested we could fill the void with water, and sample it just to check the oil content.

**AW:** We are also moving the ledge bath. Up to 1600 tonnes out of 3,000 tonnes, which will be gone by the end of the year. Another 3,000 tonne of anode cover material, 50% alumina and 50% cryolite. We still need to find somewhere to take that. We have done a 30 tonne trial to a smelter in China. Hopefully they will take it. That's material that could be recycled and not put into the cell.

### Stage 1 Demolition Progress



Wormalds are currently disconnecting the sprinklers to the Fuji rectifier units in preparation for demolition

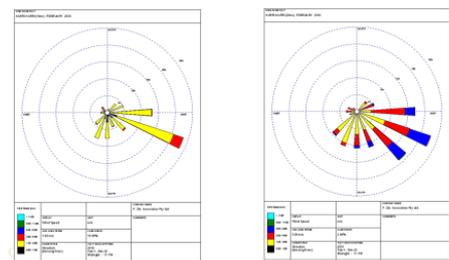
### Ledge Bath Shipments



6,080T of ledge bath & anode cover material was on site – 1,661T 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).

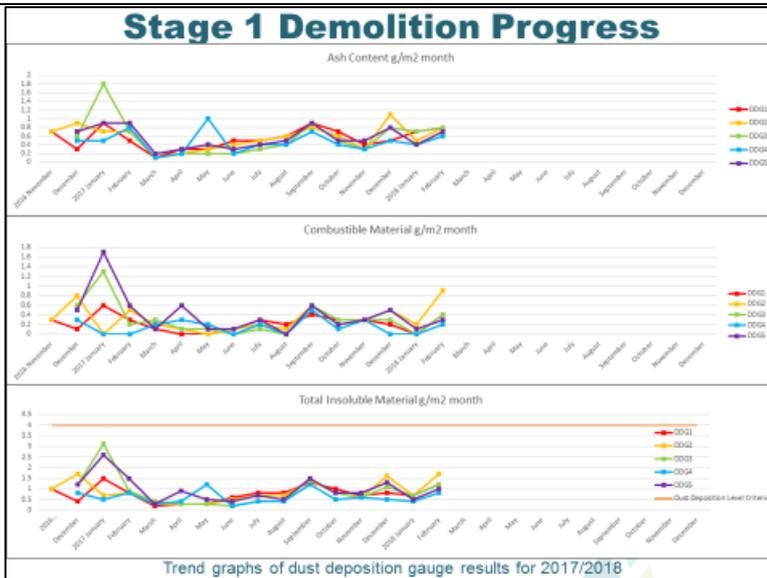
**AW:** We have the latest results from the dust deposition gauges. The wind rose charts for February are first. The prevailing winds are from the south-east, so if there were any issues you'd expect to see higher results at DDG's 4 and 5, sampling point 4 and 5, which is the blue and the purple, and they seem to be ok. The limit is 4, that we are working to and we are down around 1.5, so it's looking good.

### Wind Rose Charts – Feb'18



### Site Locations





**AW:** On the remediation contract we have started the procurement process. We issued an EOI on 22 January, which closed at the end of February. We are currently in a phase of evaluating EOI submissions and meeting with shortlisted candidates.

Then we'll go into doing supplier qualification audits for those shortlisted companies. We are targeting to go out to tender in quarter 3 depending on the approval date for the EIS. We don't want to go to tender without the EIS approved. The tender docs include all the detailed design drawings from GHD, tech spec, CQA plan, which is construction quality assurance, the draft AS2124 contract, amended with a lot of different attachments.

Lining materials, part of the scope for the contractor will be the supply of the liner materials and a lot of the people we're talking to will have a specialist lining installer, a sub-contractor, working under them as Principal Contractor. We also have to award the CQA contract; a CQA Engineer, overseeing all of the quality; taking samples, checking materials, getting it tested, checking the welds, all the QA processes that Dave Barrett talked about when he presented here a few months ago. Hopefully we can have a contract awarded by the end of the year.

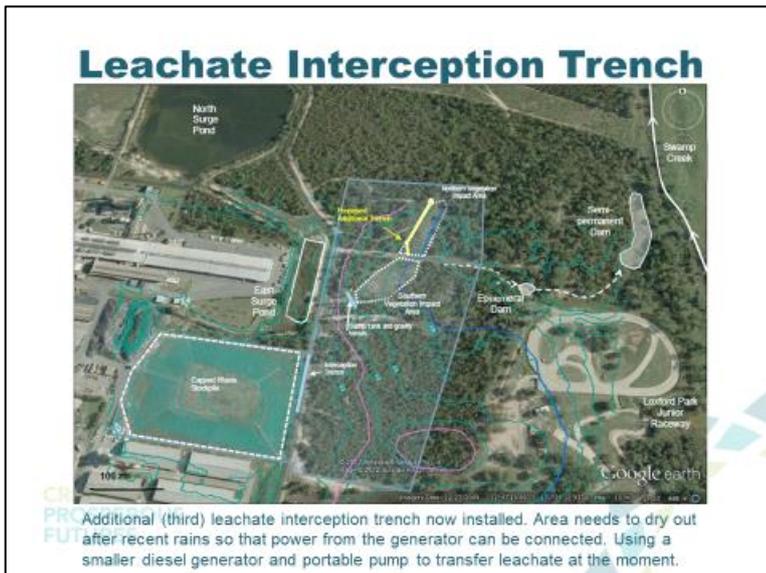
We are planning to start some small offsite remediation in the buffer zone later this year. We are looking to stockpile that at a suitable location so it's here onsite so it's only a short distance away from the cell. The advantage of that is also that we'll get a better handle on the volumes cause there's some risk that whenever you dig something out of the ground, there's the risk

that the volume could be higher. That way we can get a better confidence in the volumes we've estimated for the cell.

We also have a company helping us with the leachate treatment process and design of a water treatment plant. They took samples from the east surge pond a few months ago and have been doing testing with that, trying different chemicals to remove fluoride, mainly. They have now started taking samples out of the capped waste stockpile, which is higher in fluoride, and they are going to be testing the process to make sure they can adjust it up or down depending on the fluoride level.

We have now installed the third leachate interception trench in this location to the north-east of the capped waste stockpile. It is working well and is picking up a little bit of surface water because it's only a metre deep and there's gravel on the surface but later on, as the vegetation grows over and the surface water will reduce. It is also picking up some ground water movement. I think the fluoride is about 60 milligrams?

**KM:** Just under 60 yes.

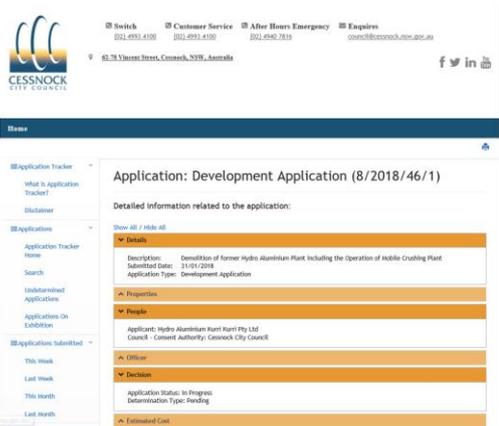


**AW:** That's good, so we're collecting that and going to be pumping that into the east surge pond. At the moment we're just collecting that in the 25,000 L tank, as we don't have power hooked up. After the recent rain, we're waiting for it to dry out to get power finished off. We've got a little portable generator we can use to run a pump. Last year we did a lot of work to improve our storm water management on site. This photo was taken on 23rd March when we had a storm with over 100 mm of rainfall.

**KM:** 131 mm storm in 2-3 hours.

**AW:** In the east surge pond we raised the berm and we managed to contain all that storm water and we've been pumping it into the north dam. With the fine weather we've had over the past few weeks, there's been some evaporation and some irrigation to Wangara. This is an important thing for us. We see this as a very important thing to manage during the remediation, to contain all of the storm water on site. It was designed for a 1 in 5 year storm and so far it's working okay.

### Approval of Stage 2 Demolition



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

(34)

### Leachate Treatment

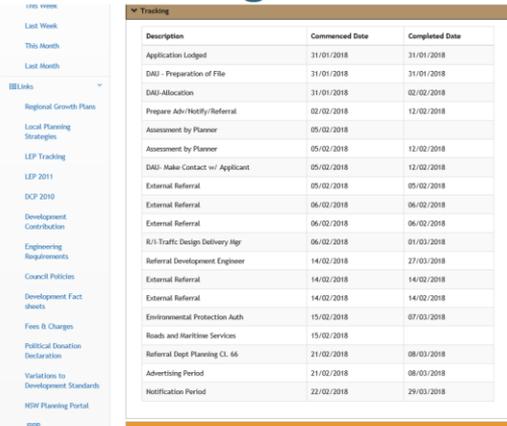


Have engaged a WTP design firm to do some further analysis on leachate treatment options and to provide a design for a potential water treatment plant that can be tuned for different concentrations of fluoride. Samples of leachate taken from the capped waste stockpile currently being evaluated.

CREATING PROSPEROUS FUTURES

On the approval of the Stage 2 demolition which is with Cessnock Council, we're almost there.

### Approval of Stage 2 Demolition



Description	Commenced Date	Completed Date
Application Lodged	31/01/2018	31/01/2018
EIS - Preparation of File	31/01/2018	31/01/2018
DAI - Allocation	31/01/2018	02/02/2018
Prepare Adv/Notify/Referral	02/02/2018	12/02/2018
Assessment by Planner	05/02/2018	
Assessment by Planner	05/02/2018	12/02/2018
EIS- Make Contact w/ Applicant	05/02/2018	12/02/2018
External Referral	05/02/2018	05/02/2018
External Referral	06/02/2018	06/02/2018
External Referral	06/02/2018	06/02/2018
R/I Traffic Design Delivery Mgr	06/02/2018	01/03/2018
Referral Development Engineer	14/02/2018	27/03/2018
External Referral	14/02/2018	14/02/2018
External Referral	14/02/2018	14/02/2018
Environmental Protection Auth	15/02/2018	07/03/2018
Roads and Maritime Services	15/02/2018	
Referral Dept Planning CL 66	21/02/2018	08/03/2018
Advertising Period	21/02/2018	08/03/2018
Notification Period	22/02/2018	29/03/2018

Stage 2 Demolition DA and EIS has been submitted to Cessnock Council (snapshot taken 19/4/18).

(35)

### Stage 1 Demolition Progress



East surge pond after heavy rain – 23/3/18. Stormwater improvements made in 2017 have assisted with retention of stormwater.

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RMS require a bit more time to review it. We hope to get approval

in the next four weeks. That way CMA can start some of the Stage 2 works, which is removing foundations, over the footprint of potline 2 and 3 and that just gives them another work front, while were sorting out some of the materials in the carbon plant like the bath that I mentioned earlier.

If there are no questions, I'll hand over to Shaun to talk about the Submissions Report.

**MU:** Any questions to Andrew at this point?

**Room:** None.

## 6 Response to Submissions Report

**ST:** I'll start with a reminder of the EIS process to date. We have talked about it a few times, but we'll go through it again. I was here about a year ago and presented a summary of submissions, but I'll go through that again.

Then talk about the structure of the report itself, and look at the key issues. I won't go through all the responses, but give you an understanding of the responses and the work that we have put in to them, and then talk about the process from here.

So just a reminder, we started with the request for the environmental assessment requirements back in August 2014. We got those in November 2014. We initially submitted the EIS for adequacy review in October 2015 and then almost a year later we got it on exhibition. We received all of the exhibition submissions at the start of last year and since then we've been having ongoing negotiations with EPA and Department of Planning and Environment (DoPE) over a few key issues. We recently submitted a draft response to submissions report to DoPE for them to start looking at that document.

A reminder that there were 24 submissions received; seven individuals (five being local residents), seven organisations and ten government agencies. One formal nomination of support and five formal objections.

As part of the process, Hydro is required to prepare a response to issues raised in submissions, describe any project changes that may be required as a result of those submissions and then assess the potential environmental or social impacts of those changes.

Just to go through the structure. Introduction, then Consultation This outlines the consultation we've undertaken in preparing the EIS during that exhibition period, and the ongoing stakeholder consultation of which the CRG meeting is a large part.

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

- Response to Submissions (RtS) Report

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[http://majorprojects.planning.nsw.gov.au/index.pl?action=view\\_job&job\\_id=6666](http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=6666)

**Topics**

1. EIS Process to Date
2. Summary of Submissions
3. Response to Submissions Report
4. Key Issues and Responses
5. Process from Here

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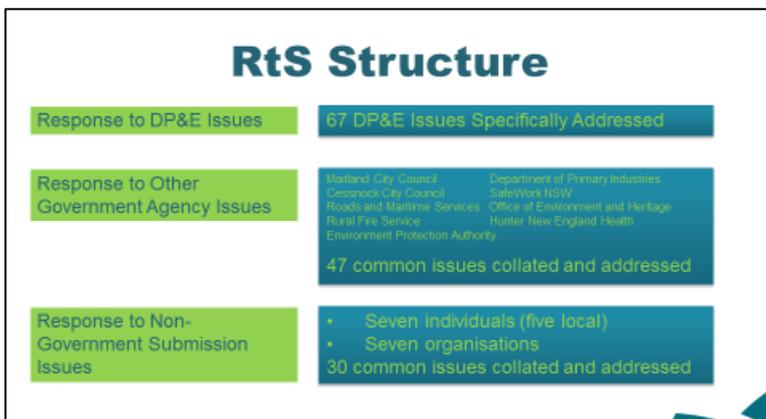
**EIS Process to Date**

Request for Secretary's Environmental Assessment Requirements (SEARs)	28 August 2014
Receive SEARs from the Department of Planning and Environment (DP&E)	November 2014
Submit EIS for Adequacy Review	28 October 2015
EIS Exhibition	11 August – 12 September 2016
Receive all EIS Exhibition Submissions	20 January 2017
Negotiations with EPA and DP&E	Ongoing
Submission of Draft Response to Submissions Report	13 April 2018

CREATING PROSPEROUS FUTURES (39)

Consideration of Submissions is basically a summary of submissions received; it goes through the responses to those submissions. Under the legislation the DoPE issues are the ones that we are statutorily required to address individually.

Responses from the other Government Agencies, a lot of those were common issues. We've collated those and responded to each of those. There were 47 common issues that have been collated and addressed. Those 47 common issues cover around 18 environmental aspects so there may be a couple related to noise, to containment site management. Similarly, we've done the same from the non-government submission issues: there are 30 common issues over 14 environmental aspects.

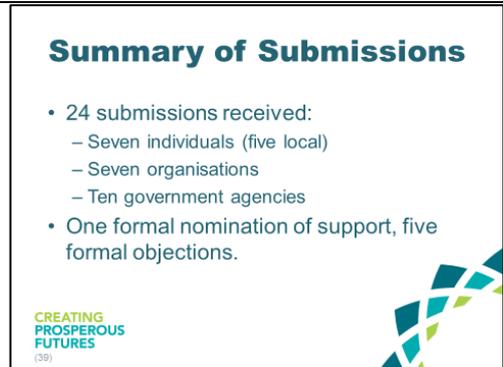


**RB:** The Department's issues are fundamentally a compilation of the issues raised by everybody through the exhibition process.

**ST:** Yes, that's a good point to remember. The Department has the responsibility of going through the submissions, collating them and identifying key issues. We still have addressed all issues anyway.

'Key Additional Information'. There were a couple of things in the submissions that warranted some specific information that was related to the capped waste stockpile options evaluation, and then some water treatment plant details, so I'll talk about that a bit further.

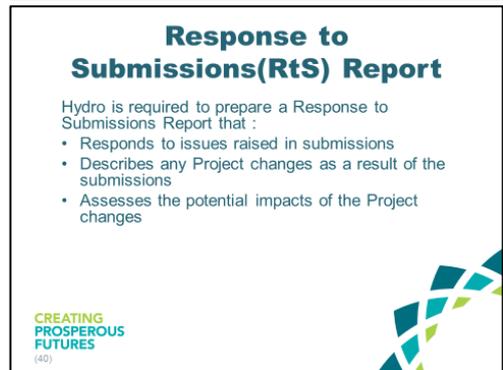
Then the Project Changes. So as you are aware there was the withdrawal of the Stage 2 demolition from this EIS, that Andrew just talked about. The capped waste stockpile material treatment, discussing that process, and related to that is the recycling of material within the capped waste stockpile, and then the potential for offsite leachate treatment, where in the EIS we had nominated an onsite treatment plant. I'll talk more about that as we go through.



### Summary of Submissions

- 24 submissions received:
  - Seven individuals (five local)
  - Seven organisations
  - Ten government agencies
- One formal nomination of support, five formal objections.

CREATING PROSPEROUS FUTURES (39)

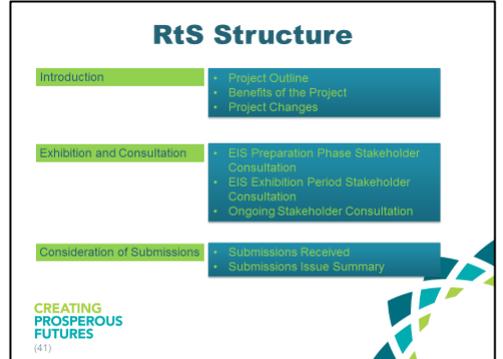


### Response to Submissions(RtS) Report

Hydro is required to prepare a Response to Submissions Report that :

- Responds to issues raised in submissions
- Describes any Project changes as a result of the submissions
- Assesses the potential impacts of the Project changes

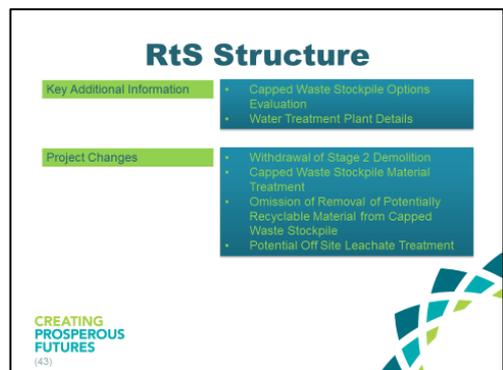
CREATING PROSPEROUS FUTURES (40)



### RtS Structure

- Introduction
  - Project Outline
  - Benefits of the Project
  - Project Changes
- Exhibition and Consultation
  - EIS Preparation Phase Stakeholder Consultation
  - EIS Exhibition Period Stakeholder Consultation
  - Ongoing Stakeholder Consultation
- Consideration of Submissions
  - Submissions Received
  - Submissions Issue Summary

CREATING PROSPEROUS FUTURES (41)



### RtS Structure

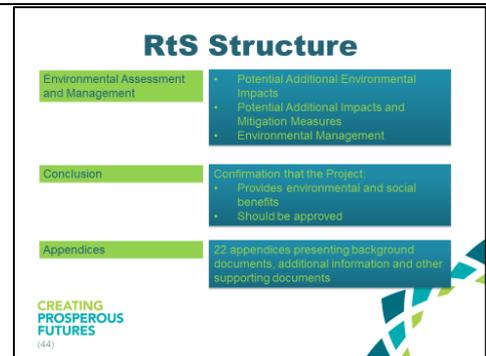
- Key Additional Information
  - Capped Waste Stockpile Options Evaluation
  - Water Treatment Plant Details
- Project Changes
  - Withdrawal of Stage 2 Demolition
  - Capped Waste Stockpile Material Treatment
  - Omission of Removal of Potentially Recyclable Material from Capped Waste Stockpile
  - Potential Off Site Leachate Treatment

CREATING PROSPEROUS FUTURES (43)

The Environmental Assessment and Management. As part of this document as well as describing those changes you then have to assess the general impact of those changes. It's more so 'do those changes in turn change the potential impact of the overall project', it's more looking at the residual impact as a result of those changes. 'Is there any more additional mitigation measures that we need to put in place as well?', and then we go through the Conclusion. The additional supporting background information includes 22 appendices.

So those of you that went through the EIS, this document is going to be even bigger than the EIS. Considerably so.

**ST:** So just going through the Key Issues and Responses. I'll give you a summary of issues raised. These are the issues that have been raised at least once. Interesting that there are some commonalities between government and non-government. But then items like water management is quite important to the government but was only raised in one non-government submission. Whereas details of the containment cell were important to both the government and the community.



### Summary of Issues

Issue	No. of Gov't Submissions	No. of Non-Gov't Submissions
Water Management	5	1
Contamination	5	3
Containment Cell Management and Monitoring	4	5
Air Quality	4	3
Groundwater	4	0
Noise and Vibration	4	1
Flooding and Hydrology	3	0
Human Health	3	1
Traffic and Transport	3	2
Biodiversity	2	0
Containment Cell Design and Construction	2	5
Spent Pot Lining Management	2	5
Bushfire	2	0
Capped Waste Stockpile	2	0
Project Justification and Alternatives	1	6
Social Impacts	1	2
Aboriginal Heritage	1	0
Non-Aboriginal Heritage	1	0
Zoning	1	1
Waste	1	1
Hazards	1	0

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Some general issues, such as details of spent pot lining. In previous CRG meetings I am sure Andrew has given you an update on progress with finding a home for the spent pot lining.

**RB:** We will have a slide on that in a minute.

## General Issues

Details of the spent pot lining recycling strategy, and when it would occur in relation to Works activities	Refer to update on spent pot lining processing: first load to be transported from the Smelter in first half of 2018
Further information on the consideration of alternatives.	<i>Capped Waste Stockpile Materials Options Evaluation Study</i> included in the RTS
Status of negotiations with the EPA regarding other approvals for the Containment Cell	Hydro has in principle agreement from the EPA for gypsum application to Capped Waste Stockpile material prior to placement in the Containment Cell

**ST:** Further information on the consideration of alternatives: the key document for that was the capped waste stockpile materials options evaluation study, which again, I understand has been discussed here previously, looking at all those options for managing the material in the stockpile. Then the status of negotiations with the EPA, so the EPA has given in-principle agreement to the gypsum treatment for that material, and that's part of ongoing negotiations on that front.

## Contamination

Site Audit Statement prepared by a site auditor accredited by the EPA is required	Site Audit Statement currently being finalised by the Auditor; due to be completed in May 2018
Additional information on the results of soil and groundwater contamination	RTS includes copies of Soil and Groundwater Contamination Reports prepared since 2012
Additional information on leachate management	RTS includes: performance criteria for an on site water treatment plant; and proposes the option for off site leachate treatment

**Contamination:** The Site Auditor is continuing to work through the documents and that's due to be completed in May when we'll have the final Site Audit Statement.

**RB:** That's just the conditional Site Audit Statement, that's not saying the site remediation completed, it means "if you follow this plan, this is acceptable".

**ST:** Yes. In EIS we included the Remedial Action Plan. The Department has asked for copies of all the contamination investigation reports going back to 2012 that informed that, and that will contribute to the many megabytes of information in the submissions report, and additional info on leachate management. i.e. we have provided more specific information about the

performance criteria for an onsite treatment plant but also discussed the options for transporting that leachate to a licenced facility for offsite treatment.

<b>Water</b>	
Detailed site water balance	A detailed site water balance for the Smelter prepared: information included in the RtS. Sufficient water for dust suppression.
Management of watercourses and dams during and following the Works	Only works affecting water course is new unnamed creek crossing: flows in creek to be maintained. Hydro to maintain Smelter water management system

Water: A detailed site water balance was undertaken at smelter, which informs things such as the dam improvement works that Andrew touched on. It also considers water usage during demolition and remediation, i.e. dust suppression etc. There is sufficient amount of water looking at both extremes in terms of dry and wet. Management of water courses and dams during and following works: the only watercourse that is being impacted is via the access road to the across to the containment cell where we are going to be putting in a culvert crossing on the unnamed watercourse and so that would be managed. Hydro is to maintain the smelter water management system throughout the demolition and remediation.

<b>Containment Cell</b>	
Depth of excavation; justification of containment cell design; operational environmental management	Containment Cell Detailed Design included in RtS. This includes design details plus design justification: design complies with EPA Guidelines. Containment Cell Long Term Management Plan included in RtS
Provide geotechnical assessment; construction methodology details, including quality control and validation procedures	Geotechnical investigations included in RtS as appendix Containment Cell Detailed Design includes construction methodology details
Management of water entering the Containment Cell; details of leachate treatment system	Cell construction would maximise protecting "clean" water and capturing water that contacts waste. RtS includes: performance criteria for an on site water treatment plant; and proposes the option for off site leachate treatment
Method for material placement; waste characterisation; waste tracking system	RtS and Containment Cell Detail Design include material placement method Waste has been characterised and management method/ option identified Smelter waste recording and management system to be implemented so each waste stream managed as required
Independent costing review for ongoing containment cell management	Review of ongoing management costs currently being finalised

ST: This slide is a bit busy, about the containment cell, but there are a number of things raised about additional information that is required. The key thing that addresses a lot of the additional information on the design, it is justification of the design, how it would be constructed, how it would be filled. The containment cell

detailed design that GHD has prepared is also to be included as an appendix and has a lot of this information that goes to the next level in terms of the cell's design, how it will be constructed, how the material will be placed within it, and how the capping would be done. And then on to the ongoing management. Similarly we've also produced a containment cell long term management plan. That includes the known management activities that have to be done to the containment cell, such as inspecting cap, managing vegetation, checking for leachate generation, but also what are the contingencies that need to be implemented should something happen and we need to respond.

<b>Human Health Risk Assessment</b>	
Have future employees of the industrial estate been considered	Human Health Risk Assessment considered the long term human health of the remediated Project Site, including the Containment Cell.
Further detail the WHS and engineering controls to protect employees	Draft Remediation Work Health Safety Management Plan included in the RtS

Human Health Risk Assessment: The risk assessment in the EIS did consider the workers within an industrial development here on the site, and concluded that their health would not be impacted and we also have included that for the work itself a draft workplace health and safety management plan is in the response as well.

<b>Capped Waste Stockpile</b>	
Provide details on how the capping would be removed, and rainfall/ water would be managed	Containment Cell Detailed Design and RtS include methodology.
Details on reuse of the clay capping layer	Investigations concluded 80% of clay capping uncontaminated. Detailed Design proposes it be used as seal bearing layer underneath the geosynthetic clay liner and the LLDPE liner in the Containment Cell.
How characteristics of the Capped Waste Stockpile are known without sampling	Records were maintained of types of materials placed in stockpile: quantities for some could be estimated. Subsequent coring in 2016 confirmed contents. Details of findings included in RtS

Capped Waste Stockpile: On how the capping would be removed, and material removed, and the management of rainfall. The Containment Cell Detailed Design also includes a constructability

section, that goes into a lot of detail about how things will be done. The RtS also contains information about this in terms of the environmental impact of any mitigation measures. There was a question regarding the clay capping that’s already there on the capped waste stockpile; we can show that 80% of that is still clean and can be reused, and at this stage there is a soil bearing layer within the cell itself, so it would still be within the cell regardless. A question that had been asked by a few people was, “How do we know the characteristics of the capped waste stockpile without actually sampling it?” We were able to inform the EIS and various specialist studies because Hydro did have records, while they didn’t have the specifics, they knew the various types of materials that went into it. Through a look at the records they could estimate the quantity of certain types of materials in there based on operations. Subsequently some coring had been done through the cell, and I’m sure that has been discussed here, and that confirmed our conservative assumptions that informed the EIS.

<b>Waste</b>	
Identify waste storage areas	Any (temporary) waste storage areas were identified in the EIS.
How recyclables would be managed so they are not placed in the Containment Cell	<ul style="list-style-type: none"> <li>• Smelter waste recording and management system to be implemented so each waste stream managed as required</li> <li>• Due to environmental and safety risks (asbestos) any potentially recyclable material in the Capped Waste Stockpile would be disposed of in Containment Cell.</li> </ul>

Waste: Identify waste storage areas. Andrew already touched on one in terms of the demolition waste storage. The key approach with the containment cell is that things shouldn’t have to be stored for very long if at all, we should be getting waste to the containment cell without it having to be stockpiled anywhere.

How recyclables would be managed so that they are not placed in the Containment Cell. Say for example, the metals, some of the other smelting products, and so on, there will be a Waste Recording Management System to ensure whatever goes in is recorded and noted. Similarly with the other, non-recyclable materials, there will be a record kept of where they are stored and stockpiled. Particularly if it has to go offsite under the EPA’s requirements there is a waste tracking system for a number of those wastes that needs to be kept. The new step that we are also including now for the capped waste stockpile is, with the addition of the gypsum, as weighbridge as well, so another layer of record

keeping. I'm sure that in a previous CRG meeting you would have discussed cap waste stockpile options study, that due to the significant risk that's posed by the asbestos, in particular, that's in there, that anything that is potentially recyclable in the capped waste stockpile, there are too many environmental and safety risks around it, and then in turn that poses a commercial risk because no-one wants to take it too a recycler. So everything that is in the capped waste stockpile will go straight into the containment cell.

<h2>Noise</h2>	
Proposed hours of operation for the Works	<ul style="list-style-type: none"> <li>Standard hours (7am to 6pm Monday to Friday; 8am to 1pm Saturday) for the majority of works. EIS identified tasks that could be done outside these areas that comply with EPA noise guidelines.</li> </ul>
Identify the need to work outside standard construction hours	<ul style="list-style-type: none"> <li>Help minimise delays to the completion of the Works caused by wet or adverse weather.</li> <li>It would allow vehicles to avoid peak traffic periods.</li> <li>Reduce the overall Project program, and therefore reduce the timeframe that nearby sensitive receivers may be affected.</li> <li>Expedite the availability of the Project Site and surrounding Hydro Land for employment, industrial and residential land.</li> </ul>

**Noise:** The vast majority of the works are proposed for standard construction hours, so 7am to 6pm Monday to Friday, 8am to 1pm on Saturdays. One of the things we wanted to look at is, are there some activities that could be done outside these standard hours that would comply with EPA guidelines and wouldn't have an impact on the local residents; there are a number of scaled back activities that could occur. That presents a number of benefits such as help delays due to adverse weather, allow vehicles to avoid peak traffic periods, so to take recyclable metals offsite, or bring materials onsite, if that could occur around the clock it could avoid peak traffic that we know happens at Hart Road. It can help reduce the overall program and therefore actually reduce the time that residents are impacted, and then expedite the availability of the site for future redevelopment.

**DG** - Where would that be running? What would be running outside of hours?

**ST** - I can't remember exactly what type of machinery the modelling showed could run, by typically it is more likely the loading and unloading of trucks would probably be largely what it would be limited to, I would expect.

**RB:** A good example, I think would be if welding the HDPE (plastic) for example in the cell, and you need good weather

conditions to do that, you might want to run that around the clock. In summer months typically this is done at night.

**DG:** So, not so much truck movements?

**ST:** Modelling specifies quantity and precise types of machinery that could run concurrently to stay below the [noise] criteria. The noise management plan will assess, if a contractor wants to run x, y, z, we would have to assess that to see if it does comply to limits.

**MU:** Essentially say if someone brings in a new, bigger, front end loader, what noise data do we have on that, what sort of noise does it make, and it could be something as simple as a water pump that runs continuously. But if it is likely to have an impact it needs to be assessed.

**AW:** An example is a water treatment plant during a big rain event, to get levels down on the leachate storage ponds we might run the plant 24 hours a day.

**ST:** It's more about the flexibility to run those types of tasks but without compromising the comfort of residents.

**TT:** In reality this was a 24 /7 industrial site.

**ST:** That's true but the local residents are getting used to the quiet now, and that argument doesn't go well with the EPA anyway.

## Bushfire

<p>How Containment Cell design has considered bushfire risk management</p>	<ul style="list-style-type: none"> <li>Existing fire breaks and trails surrounding the Smelter would be maintained and accessible throughout the Works.</li> <li>The vegetation clearance required for construction of the Containment Cell would provide: a sufficient buffer between the Containment Cell construction; and access for fire fighting vehicles if required.</li> </ul>
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**ST:** Bushfire management: Particularly as the containment cell is in an area that is surrounded [by bush]. With the design for that, there is the access road around it plus extra as a buffer to the containment cell site. This would provide sufficient time for employees to exit the site if they are at risk and to put machinery in a condition where it is also safe. Also there are existing fire trails all through the place that Kerry has been looking after, and the access road provides and extra additional access for fire fighting vehicles if required.

## Air Quality

<p>Air quality assessment of the Containment Cell operation (gas vents)</p>	<p>Due to the nature of the material to be placed in the Containment Cell, and the cell design, the potential for the generation of gases in sufficient quantities to cause odour impacts is low.</p> <p>Gas well monitoring at the Capped Waste Stockpile showed gas generation has significantly reduced since the cap was installed, and there are no odour issues</p> <p>LTMP includes a gas monitoring program to be implemented following completion of the Containment Cell, and the actions to be taken in the unlikely event that the results pose a potential risk.</p>
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Air quality: Dust is going to be an ongoing issue, similar to the demolition; monitoring will be ongoing, checking that and responding to anything that picks up. One of the key issues that was raised is gas itself coming from the containment cell during its operation. Kerry can attest to the fact that the gas coming from the capped waste stock pile now is pretty minimal, that's largely due to the fact that material is weathered and reacted and it's generated what it can. We acknowledge that when digging it up we may stir it up and create more reactivity. That's partly why we have this gas collection system in there, primarily for that little extra period of time when there may be some gas, but it is not expected that gas generation is going to be an ongoing issue. There will be a gas monitoring program in place, once it is completed to confirm these suspected levels.

## Traffic

<p>Provide details on employee parking</p>	<p>Existing Smelter parking sufficient for maximum number of people on site during the Works.</p>
<p>Confirm truck numbers used in the traffic assessment and routes to be used</p>	<p>Traffic Impact Assessment identified the predicted truck movements. RTs identifies any change to truck movements from Project changes.</p> <p>Figure showing vehicle routes included in RTs. Greater than 85% to use Hart Road interchange to access the Expressway.</p>

Traffic: There is sufficient employee parking available, even during peak activity. We've confirmed that traffic numbers used for truck movements, the modelling showed that more than 85% of all vehicles used, and that includes light vehicles would be using the Hart Rd expressway [intersection]. Basically 100% of heavy vehicles would be going on the expressway.

## Hazards

Potential hazard associated with the Capped Waste Stockpile materials	RtS has addressed issues relating to gas generation and associated risks. This includes information on the low reactivity of the material and the management measures to be implemented.
Gas monitoring and management measures	The EIS included details on proposed gas and asbestos monitoring. These are included in Draft WHS MP in the RtS
Provide details on how the capping would be removed, and rainfall/ water would be managed	Containment Cell Detailed Design and the RtS include information. This includes collection and treatment of water from the exposed stockpile material.
How stored spent pot lining would be managed and removed when Project activities are occurring	Buildings storing spent pot lining would be isolated from demolition and remediation activities until all material is removed. Site traffic management would provide safe access for vehicles transporting the material through the Smelter.

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Hazards: It's primarily around management of the material in the capped waste stock pile; we've got the mention about the gas, but while it is largely reacted, we obviously need to be concerned about the safety of employees, so there would be ongoing gas monitoring while that material is being moved, and similarly asbestos monitoring as well. As we've talked about before, how the capping will be removed and the management of rainfall, dealing with that risk, procedures will be provided, and again about spent pot lining that's stored in the sheds and how that interacts with the other activities. The sheds will remain separated from the demolition and remediation contract, until such time as all spent pot lining is off site, and has independent certification that every scrap of spent pot lining is out of those buildings.

Process from here: the Draft Response to Submissions report has been submitted to the Department of Planning and Environment for initial review, and work their way through the 400Mb of documents in the final document. In parallel we are hopefully finalising negotiations with the EPA regarding the long term management of the containment cell. It's about getting final approval of the process and the nuts and bolts about the regulation of it going forward. Upon completion of those two tasks, the Response to Submissions will be finalised and submitted to the Department. The Department is still to decide if it goes back on exhibition, and obviously we will advise if that is the case, and then finalise what the final process will be.

**RB:** I would say once finalised the report and submitted to the Department, then we will also circulate it to the CRG so you've got it as well.

### Process From Here

- Hydro has submitted the draft Response to Submissions (RtS) Report to DP&E to undertake an initial review.
- In parallel, negotiations with the EPA regarding the long term management of the Containment Cell are continuing.
- Upon completion of these two tasks, the RtS will be finalised and submitted to DP&E.

**MU:** Any further questions?

None.

## Spent Pot Lining Recycling

- **Commenced 1 Recycling Contract**
  - Material processing to commence start of June
- **Phase 2 investigations are ongoing with a number of additional options. 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

**RB:** We have now commenced one recycling contract for spent pot lining, and we expect material to start moving offsite in June. Due to confidentiality reasons, I won't be providing the details of that contract. We are continuing to have discussions with other recyclers as well, and we hope to land at least one more, hopefully two more contracts, which will give us the security of delivering on the timeframe that we have set for the completion of that recycling works.

**TT:** Is that within Australia or offshore?

**RB:** It is partly within Australia and partly offshore.

**RB:** On the divestment side of things, I find myself saying the same thing every time we have that slide.

I'd love to be able to say some more, but discussions are continuing. It is a challenging issue for us. Potential purchaser of this site is still there and still interested, but like everything we have done on this site, it is a complex situation and this is a complex deal. We are meeting again with them again next week with two days set aside for negotiations. All things going well, at the end of that we hand over agreed positions to our lawyers and draft away.

**MU:** I suppose if I was going to buy a quarter acre block, I would consider it for some months. If you multiply that out by 2,000 hectares, it will take a while.

**RB:** I feel better now.

**RB:** I will say, on the divestment side of things, and it is related to divestment, something that's come up in the last few months with

## Divestment

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



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regards to the speedway. You may have seen something in the media, maybe a month or so ago. Just so you know where things are at with the speedway.

From day dot, when the speedway signed up to lease some land and build the facility down there, no one would have anticipated the smelter shutting. So I think both parties entered into that agreement without that in their mind.

If they had have known wouldn't have ended up in that situation. That said, when we made the closure decision, one of the key aspects of the closure decision was about the divestment and making sure that when we sell the site, we'll sell the whole site, not a block here and a block there.

The strategy has always been to divest whole site. We know and acknowledge that the speedway has a lot to contribute to the local community, hence why we've continued to support the speedway in a lease. I think it was four years ago we signed an additional licence to the speedway which allowed them to continue operating for two years, and then a two year extension at their discretion, which was due to expire in March this year.

Given that we haven't resolved the divestment process, because ultimately the speedway guys will need talk to the new owners to determine ultimately what happens to the speedway – we hope that it stays, but we basically said we don't want this process of just extension of leases and the like to continue, so we just open ended it, and said you can just basically stay there on existing terms for as long as you like. We modified the lease documents so they could continue to operate down there.

**DG:** Until you divest?

**RB:** As far as we are concerned, while we're still owners of the site, they're free to operate as they wish. Our involvement then has to end. What we'll do and what we've said to the speedway is that we'll advocate for them, and express they have always been a fantastic tenant, to new buyers and to keep them there. But as it's not our land there are not promises that we can make.

You will recall way back, that when look at the Master Plan for site, there is a pink, industrial zoning over where the speedway sits. That's really just about managing contingencies for future. The last thing we would want to do, is, even if the speedway was to continue for another 20 or 30 years, is end up with a scenario where don't rezone to something else, and then you are going to have to go through that whole rezoning process. So we figure that



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you just rezone it, and if for whatever reason [in the future] the speedway leaves, then you've got industrial zoning in place.

**DG:** How does that fit with your Master Plan with the residential? You've got residential all around it so if we were to look at it on its merits, you wouldn't put a speedway in a residential area.

**RB:** Looking at that now across here [refers to map]. There is probably a good half a kilometre from the speedway to the nearest residential land.

**KH:** They'd still complain about the noise though.

**RB:** Again I don't know. I guess they are planning issues when it comes to the final sub-division.

**TT:** There would be incompatible land uses. If I were the purchaser, and could shut the speedway down I would. It's cold-hearted I know, but you wouldn't buy all that land and be stuck with a speedway.

**RB:** Again, I am not that owner, so I can't say what their plans are long term. As I said, our view is that if that were able to be retained, and if the broader community feels like that's something that's worth keeping, then we would support that view of the broader community. Ultimately the new owners will have to have these discussions with speedway operators and hopefully they can come up with a good solution.

There has been some concerns by the speedway, I think that's fair enough. They have invested a significant amount of money down there. I guess that's both personal and club money so I understand why there would be concern about the future and it's a far from ideal situation as the closure of the smelter was in it's entirety. But hopefully there's a good solution for them. We have got plans to sit and talk with the speedway on 4 May and just let them know where we sit. I think they would ideally love us to give them the land but it's just not possible.

It's certainly not possible for me to do. I am a representative of the shareholder of the company, owners of the company, and there's been a decision taken a number of years ago that prevents me from doing things like that. But that doesn't necessarily speak for the new owners of the site. Hopefully there is a good solution.

**MU:** Thank you.

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### **Mural Update**

**MU:** Toby

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**MU:** I know there has been some gold added to specific parts of the bottom of the picture. Is there intent to add more colour?

**TT:** His idea was, that as an industrial scene the black and white represents the industry. He is highlighting colours, and I had a look today, he's put yellow hats on, and the colours of the molten metal and so on. He chose to not highlight the lettering. We just wanted to highlight the TWH logo.

**MU:** I'm guessing that he's not far off from completion?

**TT:** No, two full days would finish it, depending on the weather.

**MU:** It certainly looks like it is worth waiting for. Will an anti-graffiti coat be applied afterwards?

**TT:** Yes, we are supplying an anti-graffiti coat. He'll put it on. Lights still have to go on and some additional soil around the base.

**MU:** Looking to have an unveiling ceremony in the months to come. I have spoken to Rod Doherty who is one of the CRG members and on the mural committee to work through mural process, and asked Rod to put together a few words together for the plaque. He sent through some information and we'll get something together that is appropriate and run it past you, then get the plaque made up for the unveiling ceremony.

**TT:** Where plaque should go? The logical place for it is the bottom left corner.

**MU:** Questions for Toby?



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**TT:** Going back to the previous divestment slide, there is a rumour that Costco and Ikea was looking to come to Kurri. That site would be ideal as people travel to these shops.

**RB:** Way back when we first contemplated uses for the site, we talked about that outlets sitting remote always get business.

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## **7 CRG Questions and Answers and all other business**

**MU:** Any questions from the community?

**DG:** I was told that the site was sold.

**RB:** It hasn't been sold yet. We are talking on an exclusive basis with someone but hasn't been sold.

**MU:** Any further business?

None.

Video played.

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## **8 Meeting close**

Meeting closed: 7:18 pm

Proposed date of following meetings:

Thursday 21 June

Thursday 16 August.

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