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

Project	Hydro Kurri Kurri Site Redevelopment Project	From	Melanie Richardson
Subject	Community Reference Group Meeting	Tel	1800 066 243
Venue/Date/Time	Thursday 20 June 2019 Hydro Aluminium 6pm – 7.20pm	Job No	2218982
Copies to	All committee members		
Attendees	Mr Andrew Walker – Hydro Kurri Kurri Project Manager (AW) Mr Kerry McNaughton – Environmental Officer, Hydro Kurri Kurri (KM) Mr Allan Gray – Community representative - Retired Mineworkers (AG) Mr Iain Rush – Cessnock City Council (attending for Martin Johnson) (IR) Cr Darrin Gray – Cessnock City Council (DG) Mr Brad Wood – Community representative (BW) Mr Andrew Neil – Manager Strategic Planning, Maitland City Council (AN) Mr Bill Metcalfe – Community representative (BM) Mr Toby Thomas – Community representative, Towns with Heart (TT) Mr Michael Ulph – CRG Chair, GHD (MU) Ms Melanie Richardson – Minutes, GHD		
Guests/observers	Michael Lawrence – CMA Contracting (ML)		
Apologies	Cr Robert Aitchison – Maitland City Council (RA) Mr Richard Brown – Managing Director, Hydro Kurri Kurri (RB) Mrs Kerry Hallett – Hunter BEC (KH)		
Not present	Ms Tara Dever – CEO Mindaribba Local Aboriginal Land Council (TD) Mr Rod Doherty – Kurri Kurri Business Chamber (RD) Ms Debra Ford - Community representative (DF)		

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Notes	Action

1 Welcome and Acknowledgement of Country

Meeting commenced at 6.01pm

Michael Ulph (Chair) (MU)

Acknowledgement of country.

Introduction of people at the table.

Melanie Richardson from GHD taking minutes.

2 Meeting agenda

- Welcome and meeting opening
- Apologies
- Declaration of pecuniary interests
- Acceptance of minutes from the last meeting
- Project update
- Stack demolition – planning and execution
- Approvals and other project items
- CRG questions and answers
- General business
- Next meeting and meeting close

3 Welcome and meeting opening

MU welcomed attendees and noted apologies.

MU asked those present to declare any pecuniary interests.

None besides paid staff from GHD and Hydro.

Notes	Action

4 Last meeting minutes

MU: So the next item is to consider the last minutes. Were there any actions or items that need to be clarified or changed in the last minutes?

AG: Moved that the minutes were true and correct.

MU: Thank you Alan, can I have a seconder?

AN: Yeah, I'll do that.

MU: Thank you Andrew.

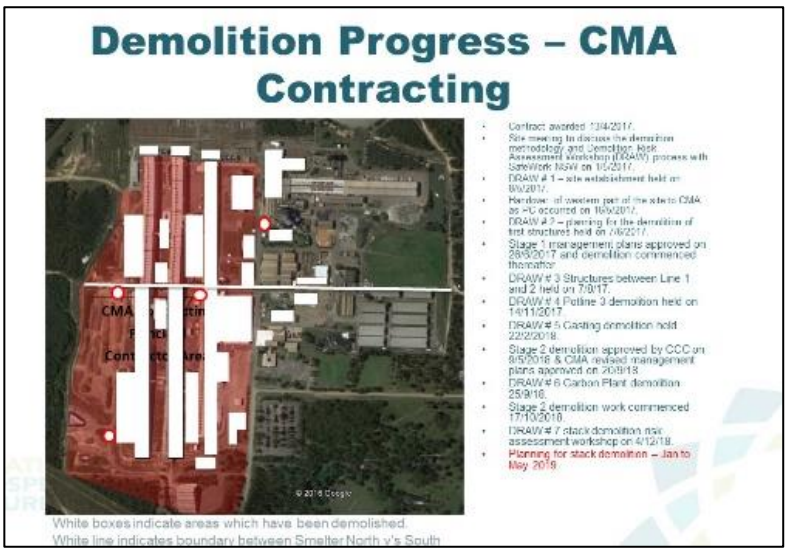
AG moved the minutes.

AN seconded the minutes.

5 Project update

MU: OK, we'll pass over to Andrew who's going to give us a project update.

AW: I've just updated this slide, because as everyone is aware the three stacks came down and the water tower during early May.

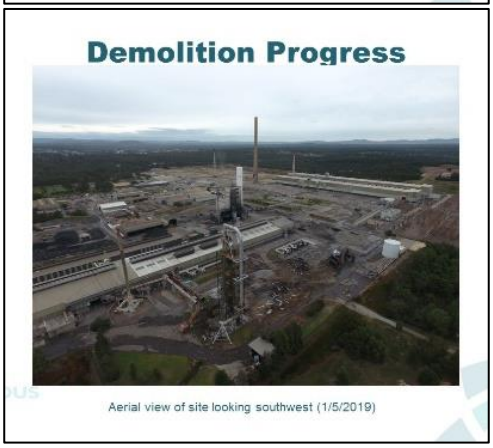


We've also demolished, or are in the process of demolishing the mobile workshop and some contractor sheds here, where plumbers, carpenters, air conditioning people, and painters were. I keep a list here of all the DRAWS, the Demolition Risk Assessment Workshops, we did one on the stack demolition back in December and have been doing a lot of planning between January and May, and Michael will talk more about that.

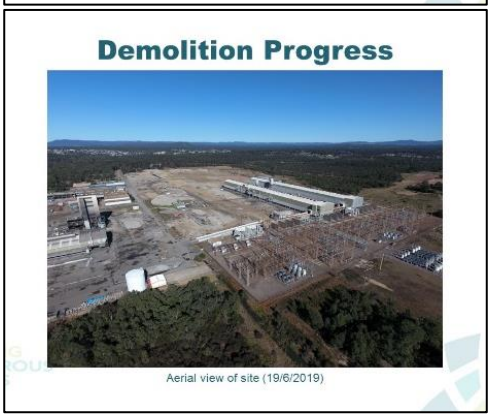
These are some aerial shots of the site. One taken early May looking east at the Carbon Plant. You can see the rodding area is gone, the bake furnace scrubber is in the process of being demolished, and a lot of the smaller buildings around green mix have gone.

This shows the demolition of the bake furnace scrubber in process, the stack is gone and the bag houses, only the cooling tower remains. This shows the pot room area looking south, you might notice all the stacks are gone, as this was taken 17 May 2019. All the Fuji rectiformers are gone, so all those bays are empty. They were sent down to Sydney and a company down there is able to recycle the metals out of them.

This was another photo taken just yesterday, so the bake furnace scrubber is completely gone. We're getting quite a lot of concrete

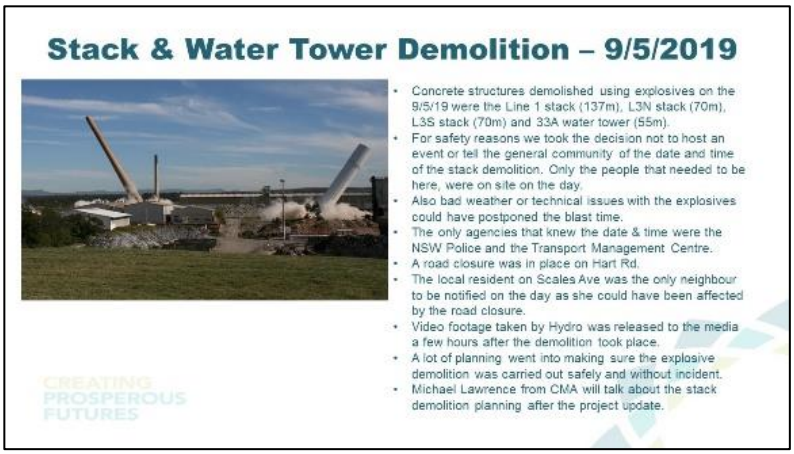


now, we've just started pulling up the main metal pad, upper pad and lower pad which is generating a lot of concrete as well. In Line 1 we have finished all the footings now and the fume duct trenches, so there's quite a lot of concrete getting generated from that. The crushing crew are very busy.



6 Stack demolition – planning and execution

AW: I thought I might now start with the stack demolition. As you know it happened on 9 May 2019. We brought down four structures. Line 1 stack, line 3 north stack and line 3 south stack which are 70 metres high and line 1 stack is 137 metres high and the water tower which is 55 metres high. They're all concrete structures.



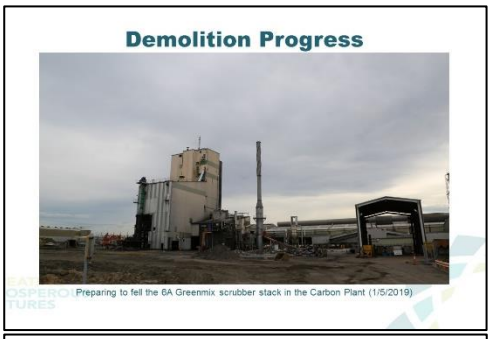
For safety reasons we decided not to host an event, or tell the community the date and time of the stack demolition. We only told people that needed to know, and only let people who needed to be here on site come in for the day. Other people that weren't required were given the day off. We also turned the power off to the site as a safety precaution because one of the transformers was close to line 1 stack. We didn't want it to be potentially damaged and still be live so having the power off meant that there wasn't much point having people here that didn't need to be here.

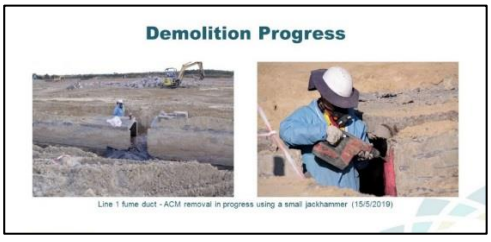
With this sort of demolition, bad weather like high winds or technical issues with the explosives could've postponed the blast time. So it wasn't worth trying to plan for it to happen at a particular time. The only agencies that we did notify of the date and the time were the NSW Police, for the road closure, and the NSW Transport Management Centre were informed, as their advice was needed regarding the Hunter Expressway. We were worried if word did get out that people would pull over on the freeway to get a better look and potentially cause traffic issues. So

yeah, a road closure was in place, which CMA looked after with Cessnock Council.

AW: We notified the one affected resident, the lady on Scales Ave because she could have potentially been affected by the road closure. Although we did have it slightly down from her, but if there was a lot of traffic she might've been stuck. We gave her the opportunity that if she wanted to leave for the day we could've taken her up to town. We also took video footage and released it to the media, within a few hours of the demolition taking place and it was on the news that night. All in all, a lot of planning went into making sure it happened safely and without incident. Michael will talk a bit more about that in a few minutes.

AW: Just a few other activities on site. We've been progressing with concrete processing, hammering up foundations and crushing. Line 1 foundations have progressed very well. There haven't been too many issues with asbestos, there were only a handful of foundations with it apparent that were up against the fume duct trenches. By and large they've been free of asbestos. You'll notice here, we used the soil from the line 1 south ramp to build a berm and we put it on top of the main east-west stormwater drain. It's a big 1.5 metre diameter reinforced concrete stormwater drain. It drains into the western surge point here, so it's draining all this western half of the site. We wanted to protect that from the impact of the Line 1 stack. So we covered that with an earth berm.





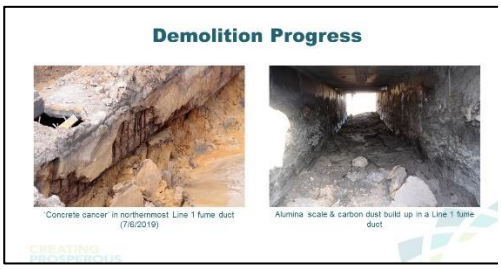
AW: This photo just shows the prep going on for the green mix scrubber stack which was felled in early May. This is another photo showing the work that's been happening with the line 1 fume duct trenches. In this case soil has been removed carefully from either side of the fume duct. This one is in pretty good condition. Some of the others weren't so good. You can see here, this is the asbestos gasket, so it's still in good condition which made it easier to remove. This photo is one of the branch ducts,

which went out to the scrubber duct work. Originally there were electrostatic precipitators before the scrubbers went in. One interesting thing, metal (aluminium) was found inside a Line 1 branch duct, which would've affected airflow through the ducts without anyone's knowledge. We did have some pots where there were always problems with fume extraction – this could probably explain that. Potentially could be why they lost some current efficiency back in the old days Bill.

BM: That probably came from a pot burst.

AW: Yeah probably a pot burst.

AW: Some of them have concrete cancer, which may have happened during operation, due to heat, or more likely in the last 7 years since closing down as there hasn't been any heat, so water has got in and caused corrosion. If the duct was full of alumina that would cause it to cool down, and potentially water could get in and cause corrosion.

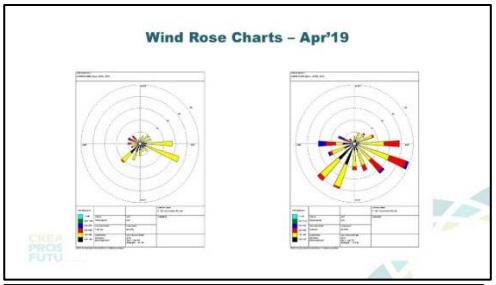


AW: On the ones where we're finding concrete is in poor condition, plastic is being put down before chiselling off the asbestos. That plastic then gets wrapped up and put into an IBC. If there is any possibility that the asbestos could have fallen onto soil, a couple of scoops of soil is removed to ensure all asbestos is removed.

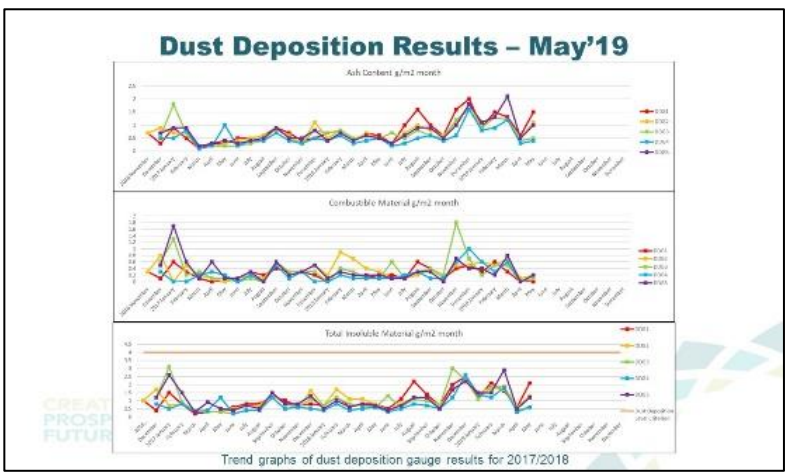
AW: This is a photo of the very northernmost fume duct, which was in really bad condition. Some of them have got quite a lot of alumina scale build up and carbon dust from the anodes, and that also would've affected the airflow through them. That may have caused a cooling off of the base which is why a lot of them are potentially corroded at the bottom. And also a lot of groundwater coming up. We do have a lot of groundwater issues here, as soon as we dug up soil the water started appearing, so it's a very shallow water table on that part of site.

AW: This is a photo of the line 1 stack after the demolition, a couple of days later. That's the ladder, and that's the cast iron ring at the top of the stack. It's basically flattened out into a pancake.

AW: This is a photo of demolition in the carbon plant of the bake furnace fume treatment centre. This is the dump station and the fresh alumina and the air lift pit. So we had all this cleaned out before we backfilled it. This is a photo of the cooling tower after it was felled on 20 May 2019. That's just about all the tall structures gone now except for the green mix and the 7B bypass stack on the bake furnace. CMA are just working through a methodology now for the green mix, it will be one of the more complex structures to demolish on site.



AW: Moving to the graphs of the dust deposition results. We're still below our limit of 4 grams per square metre per month at our dust deposition gauges. This one here is sampling location number one, it's a little bit high for ash. We don't have the wind charts for May but these are for April. Last meeting I showed the charts for March, and the wind was coming from the south-east, it is now swinging around to the west which would explain maybe why we're seeing a higher reading in these areas – one and two.



We just need to remain vigilant and control the dust emissions – we're still below the limit.

We're also continuing with our early works remediation. These photos show there's some asbestos contaminated soils in the south-west corner of the site that were from the remediation of res parcel one in late 2014. Because we want to get the southern half of the site cleared and validated by the end of this year, we have decided to move that material into the Dickson Rd stockpiling area, that was included in the scope of the early works. So we're consolidating all of our asbestos containing soils in one location.

AW: This is a photo of Lot 422, on Dickson Road, on the opposite side of that stockpiling area, the southern side. There was some asbestos contaminated soils from a house and some small chicken sheds. So that's been cleaned up. There were some glass bottles and super six sheeting. This is some photos taken at the end of remediation in mid-May. We've also finished Hart Rd Municipal Landfill. This photo has been taken when we were backfilling the excavation. We had a stockpile of 15,000 cubic metres of soil from the M15 Hunter Expressway project that was left on site. It was actually material taken out of our buffer zone for the freeway corridor. So it's very similar in nature to the natural soils at the Municipal Landfill. So we decided to use that material rather than importing fill from somewhere else. It's free-draining, we've profiled the area so that water will drain in a natural gradient. Some of the trees we've knocked down we've used to lay across the site to help with some regrowth. Kerry's guys have seeded the edges with some grass. So grass should be growing there very soon.

TT: Is that put back as compacted fill?

AW: It really depends what the developer wants to do with it. We did compact it with the loader and the excavator and the trucks. It's not been done with a roller.

TT: How old was that tip?

AW: It was in operation from the 30s to 50s

KM: Thereabouts. We're just judging by some of the bottles we've found. But somewhere from late 30s to late 50s.

AW: So this is the stockpiling area on Dickson Road that I was talking about. We've filled up most of the area now. We've still got some room here for 2 and 4 Dawes, which I can talk about in a minute. At the moment we've got about 47,000 tonnes or about 30,000 cubic metres of waste. We did have to go a bit higher in the middle, and it's all covered with geo textile. We'll keep that in place until it gets relocated to the containment cell in the future.

AW: So the next steps for early works and remediation. We still have to address 2/4 Dawes Ave which are heavily contaminated sites with asbestos and it's very sandy soil and it's at depth. We started with bulking out, as I mentioned at the last meeting but it's not an efficient way to do it so we're now going to get one of these vibrating screens. It's a two-deck screen, the material goes up this conveyor belt onto the screen. We'll have two screens, one at 6mm and one at about 40mm. So the minus 6 will go to this pile, 6-40 will go to this pile here and +40 will go here. The 6-40 and the +40 will come back to site, because it will be asbestos contaminated, and the fines, we'll be testing it from the trial that we did previously. We believe it'll be OK to re-use on site as it will be free of asbestos. The site auditor recommended this machine as it doesn't cause abrasion of the asbestos. And the asbestos that we've checked is in reasonable condition, it's not going to break up. So we think this is the best solution to clean that site up.

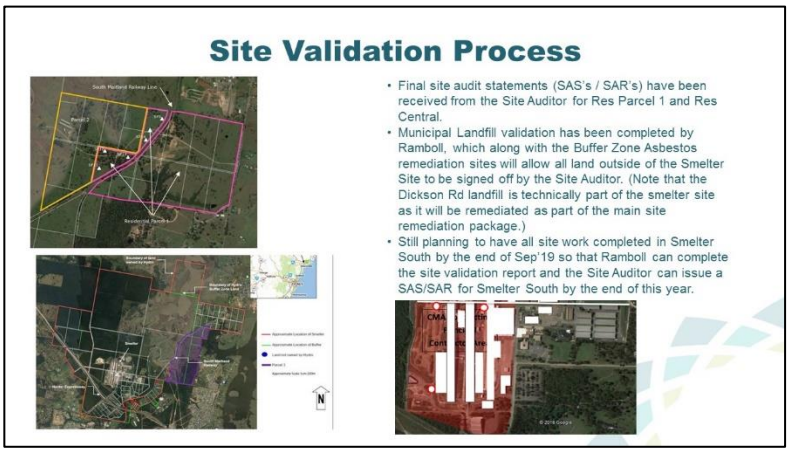
AW: We also need to demolish the house at 1 Dawes Avenue. That's starting on Monday 24/6, Brad.

BW: Uh huh.

AW: We've got a company called RTC Group coming to demolish that house. And there's some soil there and some rubbish that needs to be cleaned up. We're also going to clean up the stockpiles on the west side of line 3. These ones aren't asbestos contaminated. These are stockpiles from the Clay Borrow Pit Remediation. Back in 2015 we remediated that area knowing that we would eventually build a containment cell there. That's mainly refractory and clay fines, so the refractory we're going to use that material to backfill the bake furnace tubs eventually. So we're going to relocate it near the bake furnaces. And the soils can be used on site, it's actually good quality soil, it's going down very nicely, compacting well. We can grow grass and that will reduce our dust emissions coming from the site, because we have a large open area that we want to seed to reduce dust. This photos is of

the fines that came out of the screens in 2015, this is the refractory, so it's a mixture of bricks and castable slabs. Some of the castable we'll have to process that, with pulverisers or a crusher. We have approval from the EPA to reuse refractories on site, we have a resource recovery exemption.

AW: On the site validation, so since the last meeting we've just received two site audit statements from our site auditor Ross McFarland.

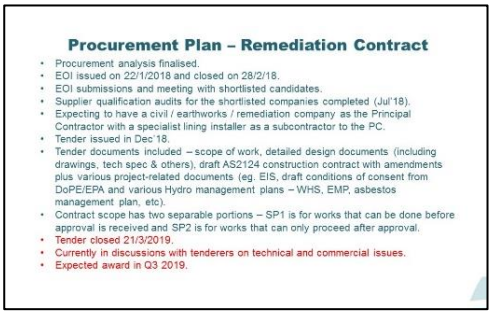


The first is for Res Parcel 1, which is Wangara, our cattle property here, which is on both sides of south Maitland railway line. And the second is for what we call Res Central which is this purple coloured area of land here. And then the next step, now that the Municipal Landfill is finished and Ramboll are writing up the validation report, they have all the results back from all the sampling that was done and it's all clear. That, along with the buffer zone asbestos remediation sites, once we do Dawes Avenue, will mean we can get another site audit statement from Ross, for the rest of the buffer zone. Then that will only leave the smelter site, which will be signed off in two parts – Smelter Site South and Smelter Site North. The North will be done once we get the approval for the containment cell. There is a landfill on the southern side of Dickson Road, right down near the bike track. That will be remediated as part of the main site remediation package.

AW: The other thing that we're working on, is to get the southern half of the site, what we're calling Smelter South cleared and validated by the end of this year. So we're hoping to have all the work finished by end of September. That'll give Ramboll enough time to write their report, get it to Ross and hopefully we can get a site audit statement / audit report for that area by the end of this year. The SPL sheds which are here, they won't be empty by then, and the stockpiling area, which is here, but they're on a

separate lot which is carved out of Smelter South, it isn't part of it. And the same with the Dickson Rd South Landfill, that's all going to be done as part of the final site audit statement, which will probably be in two or three years' time.

AW: On the Site Remediation Contract. Last meeting I mentioned that the tenders had closed and we were in tender discussions and negotiations. We're still going with those discussions. They are expected to be awarded in quarter three. We've got two separable portions. So we can only award separable portion 1, which is just the preparation work that can be done prior to the approval. We can't award separable portion 2 until we get the approval from the Department of Planning. So, part 1 is things like the preparation of management plans, setting up site sheds etc.

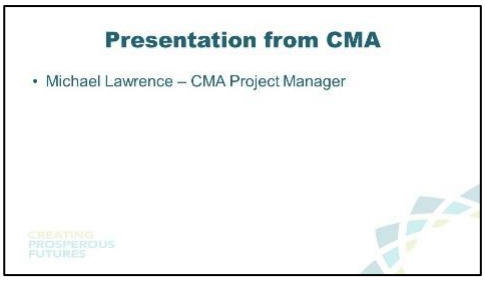


AW: Okay so now I'll hand over to Michael to talk about the stack demolition planning. Unless there's any questions?

MU: Are there any questions of Andrew regarding this section?

AG: Did you use delayed detonations to fire the whole lot or did you undercut one side of the stacks?

MU: If it's about the stack demolition Michael can answer that one.



ML: I will cover it in here, but yeah there was a combination of things.

MU: Anything else of Andrew around the general stuff?

DG: I received with the stack demolition about four or five complaints, I was in Maitland but it must have rattled Kurri. People were quite angry about no warning, in the days of terrorism.

MU: Yes, fair enough.

AW: I guess, you're damned if you do, and damned if you don't. If we had told the community we didn't want to take that risk of, like Michael said at the last meeting, a young kid turning up on a BMX bike having the day off school, trying to get in to get a good vantage point and being in the wrong place at the wrong time - and having another Canberra Hospital incident. So we took the best course of action, and I think it was the right decision, to keep it low key and not take the risk.

BM: I had a few people say things to me about that explosion in Heddon-Greta, that when it went off, they were unaware what it was. Because it was quite loud.

BW: The other issue we had was the animals. They all carried on when the dets went off, but yeah, that was about it.

MU: Are you talking about dogs or cattle, or ..

BW: Dogs

AW: Like I say, I think it was the right thing to do, all in all, when you weigh up all the risks.

BW: Yeah.

BM: Well put it this way you got away with it.

[laughter]

MU: What happened was, the demolition occurred and there were no injuries. It was done safely.

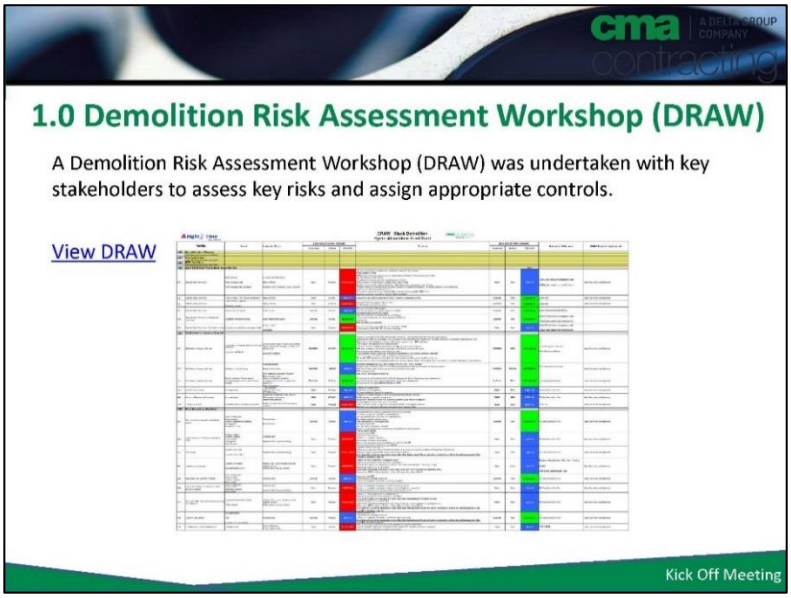
ML: Thanks for having me. It's a pleasure to be here. I will run through a bit about the planning and execution. It was a long process to all happen in seconds and on one day. There's a bit of a back story that we'll go into now.

ML: My role here and since day one here, and previously when we were out here in 2015-16 is in Project Management and looking after our contracting team to manage the demolition.

ML: So the agenda; the Demolition Risk Assessment Planning Process that we went through collectively as a team between CMA, Hydro and the expert consultants; the Stakeholder and Authority Notification process that we went through; I'll then go into the General Methodology which we adopted for the stack demolition, and also an ITP Review, which is basically a quality control document which steps through every step that we have to tick off along the way, before we can move to the next step in the demolition process; then the Stack Demolition – Site Security, a

bit of an overview and then any discussion or queries I'm happy to go through as well.

ML: So like Andrew said, we first started planning the stack demolition in late 2015, early 2016 when we first started inspecting the structures as part of the tender process. We had our expert explosives sub-contractor on site at that time over several days.



We had our first Demolition Risk Assessment Workshop (DRAW) which was a forum where we sit down with some of our key guys, and some of our key work crew as well, Hydro, Michael from GHD, our explosive sub-contractor and ran through the methodology and I guess it's an open forum to go through risks that we as a management group saw as the key risks for the execution of the job – so some of the risks that you guys mentioned with animals, site security, noise were discussed. So decisions were arrived around those risks and controls put in place.

ML: This is fine print that I won't go into in detail, but this is a risk assessment that we went through five times and then reviewed in the lead up to the stacks to identify key risks and what our controls were to arrive at some influential decisions like stakeholder notifications etc. One of the first risks was public interest, public accessing the site, and public causing road congestion both locally and on the Hunter Expressway.

It was identified that it was a significant public land mark, but like Andrew said, public safety outweighed the desire to have an event. It was pursued that way to keep it known to those people who needed to know only. And site security was controlled to

keep it that way as well. The Hunter Expressway, M15, pedestrian incidents, and the Scales Ave property which Andrew mentioned, was one of the potentially affected properties, I know Loxford Fabrications is close by but a little further away from any interaction. We stepped through each part of the demolition process, so this was about the public and stakeholder interface, the next step was the mobilisation for explosive demolition. So what are the risks involved with bringing explosives to site, how are they managed, how are they handled etc. and that's by a combination of mobile magazines and fortunately here that Orica, which is the explosives storage facility is very local which logistically helped in this situation.

Another key risk was because of the four stacks here there is a significant quantity of individual charges which went into the stacks to assist with the demolition. And they couldn't be loaded on one day or in one event. So they were loaded in the days prior to the event, and then specific security was employed to watch each stack, and it was termed "sleeping the stacks" which is the common term. So again, an intruder can't come in and if they got wind of what was going on. They were all risks that we identified and influenced the decision to keep it known to only people who needed to know.

ML: Pre works - there were manual risks with completing demolition works. A little bit more common to general demolition works. Asbestos and hazardous materials again were identified as a risk. Methods to remove asbestos obviously prior to demolition were undertaken and then monitor for such things throughout the demolition. And then the actual execution, so the key risk was site security and implementation of an exclusion zone. Again it's a massive document with a lot of text, and I won't bore you guys but it was a significant and lengthy process that was reviewed numerous times as a project team.

ML: Stakeholder and authority notification. So, as part of legislation there are certain notifications we need to make as a demolition contractor. And then subsequent notifications which were made both for in the event authorities had phone calls, and to control such things as roads and airspace, given the stacks were a landmark for local aerodromes and local flying enthusiasts. The Environmental Protection Agency, I will just go through them, SafeWork NSW was a legislative requirement, the NSW Rural Fire Service were notified in the days leading up to the event. Again, not of a specific time as it was subject to potential change but just in the event if they receive phone calls or queries post event. The Police force were engaged with in the month leading up to the

event and provided assistance on the day of the event. Neighbouring properties – the Scales Ave property – were notified, and Kerry assisted with that. The Council were notified generally and also through a road closure to Hart Road, which was enforced to assist with site security. CASA was the airspace authority and a NOTAM was enforced which provides detail on an event happening in the area for local plane operators.

MU: Basically a No Fly Zone, is that right?

ML: It's not specifically a No Fly Zone. To get a No Fly Zone is essentially a Defence type level requirement.

AW: NOTAM is next level down from a No Fly Zone. It stands for Notification to Airmen, so it's a warning – the warning went out and it said there was a risk of dust or flying debris and not to go too close. Having said that a plane actually flew right over just as the demolition happened.

TT: It was a planned flight was it?

AW: I don't know. There were a few helicopters around as well.

ML: The EPA were notified and similarly to Safe Work they were provided with the work methodology and our planning as documentation to show evidence to say Joe Blo is not about to stick a couple of sticks of TNT in and walk away and press a button. The gas / electrical / telecoms providers were notified out of courtesy rather than necessity. The NSW Ambulance were notified again out of courtesy in case there was an issue and Ambulance services were required. Transport NSW were notified who and relayed the delegation down to the local Police force.

ML: This is our work method statement and planning document that we submitted to Hydro and developed in conjunction with our explosives sub-contractor to document how we were going to go about the demolition. There was the one main stack and the two smaller line 3 west stacks, and the one water tower.

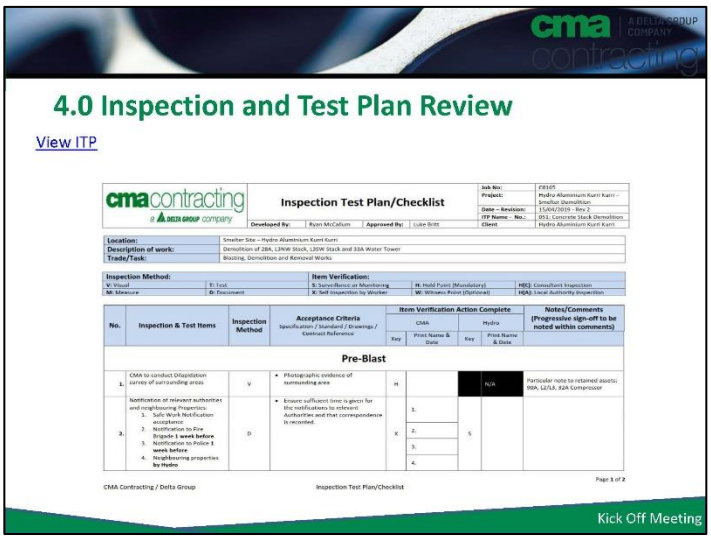
Consultation and distribution was done as a collective, essentially CMA owns the document but we offered input from Hydro as the site and asset owner, third party engineers and also demolition supervisors as well. Stakeholders are noted and we've touched on that.

ML: Exclusion Zones – there are some detailed aerial photograph mark-ups later in this document which is required on the blast day. There was also a JHA or a SWMS which outlines how people can do the job safely, and that enforces the hierarchy of controls.

BM: All this stuff that you're talking about is just justifying that you had the rules in place. Do we have to sit and listen to every little aspect of it? Because as far as I'm concerned, you've dropped the stacks and you've had the approvals in place.

AW: We just thought it might've been of interest to you guys.

BM: Well that's just my opinion.



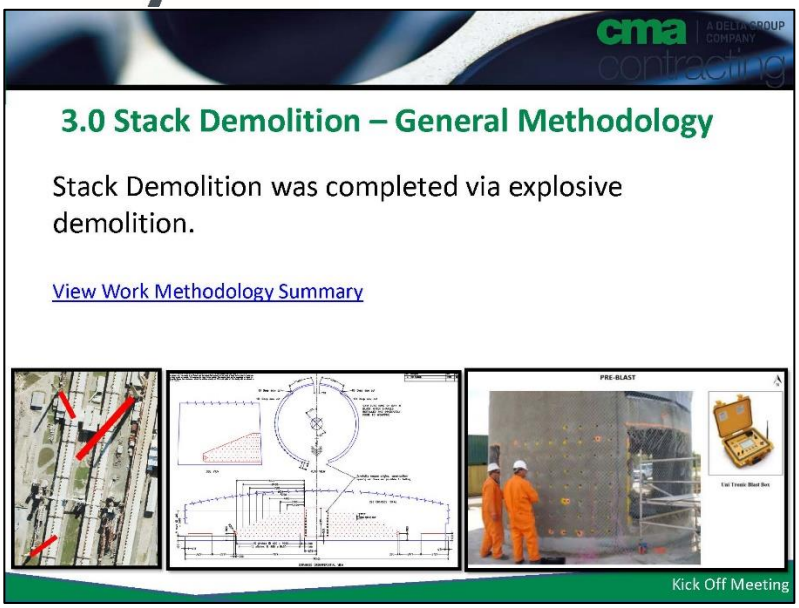
TT: More so the method of dropping the stacks?

BM: Well could you go t through, drop the stacks, two didn't come down …

AN: It is pretty interesting though seeing the substantial amount of work that goes in to the process.

ML: Briefly I guess, stacks in terms of the volume of material to move, there's 2200 tonne in the main stack, 500 tonne in each of the smaller ones and roughly 800 tonne in the water tower.

This is a graph showing proximity to the assets and the exclusion zones which were actually outside the site perimeter fence on the day. The exclusion zones enforced here were over and above the standard requirements. We enforced site specific requirements. There were pre-works to remove the old duct work, which was done in the lead up to the event. It was a combination of manual oxy cutting and machine work.



This is a snapshot of our methodology for the main stack demolition. The main stack had an old infill opening in the lower portion of the stack, so it was engineered to manually remove the construction opening as part of the front wedge of the stack. In a tree felling sense. That was manually removed in an approved sequence prior to the installation of explosives. A test charge was also set off in that small window to validate the explosive charge. This is a plan view which shows the original construction opening removed. The wedge would form around the arc of the stack and then the rear of the stack was saw cut as well, not in full however, both internally and externally to assist in the stack coming over. Two portions of the stack were left untouched to act as a directional control for the stacks.

AW: Like hinge points.

AG: Did you manually cut the wedge?

AW: The explosives blew the wedge out?

ML: Correct. The existing door was opened first, and then all those little dots there are the explosives charge that would thrust open the concrete to create the wedge. And then the rear of the stack was cut.

ML: This is a previous stack. It shows the core holes being drilled, the charges being installed. This stack had a similar construction opening, which could be removed before. And then the stacks are wrapped with chain wire to prevent fly rock generating.

AG: How deep were those holes drilled?

ML: About 200mm. I think the main stack walls were about 350mm at the bottom. They aren't drilled all the way through.

They're designed to sit within the wall, so you don't lose a lot of the energy from the blast.

AW: And they actually packed clay on top of the explosives, and then that dries out, to contain the blast so that energy dissipates through the concrete rather than blowing back out through the hole, to contain the explosive force, so it does the most damage to the structure.

AG: Were all your holes loaded, or did you have empty holes through the cut too?

ML: In the corners there were core holes drilled to essentially provide the corners of the wedge. So it wouldn't crack out any further.

ML: The blast initiation is certainly not just a red button. It is technical computerised equipment. Every charge has a wire. In this event there was in excess of 800 charges and delayed detonations or wires which all ran back to a central control point.

AG: That was across the 3 stacks?

ML: Four stacks.

TT: Where was the detonation area?

AW: 77A. The old remelt at the Southern end of the site.

BM: Did you push it Andrew?

AW: No. I'm not a qualified shot firer.

AG: So you fire them all in series not parallel?

ML: Correct

ML: On the day of the collapse there's a specific go or no-go. In this case it was 30km an hour, so we monitor the forecast in the lead up to the event. If it looks like it is going to be above then the event would have been postponed. Fortunately, it was clear skies and I think the max wind forecast was in the order of 15km/hr. There was air monitoring done on the day both internally and externally to the site. These were again the exclusion zones, which shows them being outside the boundaries.

DG: And air monitoring was for dust and asbestos fibres?

ML: Correct.

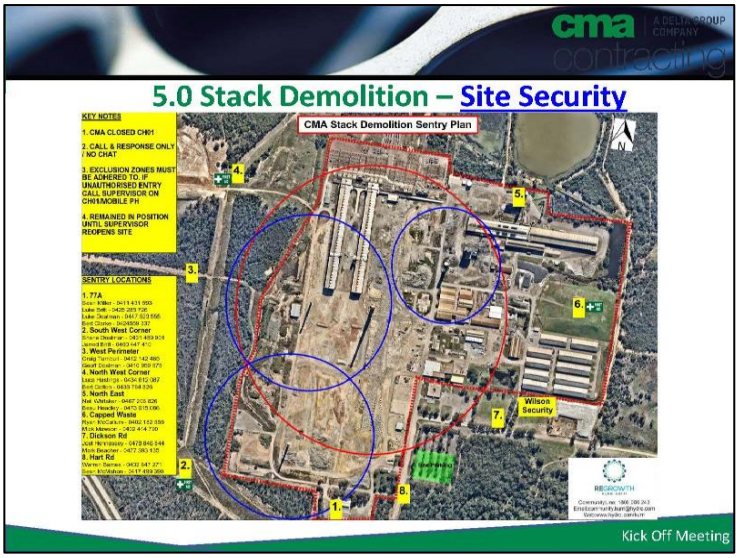
DG: And the results?

ML: There was nothing indicated. And that was a full, as you saw, full arc around the site, so boundary monitoring.

ML: Dust suppression was a big one. There is going to be dust in an event like this but we do everything we can to minimise it. The footprint of the stacks were pre-soaked in the days leading up to the event, and then on the day there was a combination of these industrial style foggers or dust suppression units which spray this large mist. They were tied into a 57,000L water tank, as the site water had been disconnected as part of the demolition process.

We also had four water carts running around that were hooked up to sprinklers in the fell path of the stacks. One of the best things that we can do is to wet down these fell paths of the stacks to try to capture any dust on impact.

The road closure we touched on, but we had police presence monitoring the Hunter Expressway and the road closed to prevent any public access. We also had our own personnel in different locations outside the exclusion zone. They were monitoring every half an hour in the lead up and then every 15 minutes in the final stages, on the day to ensure there were no unexpected intruders or access.



ML: Demolition - the main stack was south-west, line 3 north stack was south-east, north-east was line 3 south-west stack and water tower went directly north onto the old carbon plant footprint. Once they're down that's the easy thing and then it's over to the crushing guys who are out there now.

TT: How close did they get them to where they wanted them to land?

ML: We didn't measure them, but they landed where they were intended to land.

MU: There's a great part of the video footage that you'll see later, they set up a go-pro at the end of where they expected the big one to fall.

TT: I saw that, it got blown away.

ML: Directional control was critical because the pot lines 2 and 3 were to remain, so the control of the main stack and line three north stack were critical to make sure they go in the right direction. The orientation of the holes and the cutting of the back of the stack the length and depth of hinges were critical to making that happen. The water tower structure is different, it's not like a normal stack, it had all these stiffeners in it, so it needed to go straight north. If it went north-east it would hit the green mix which we've still got to demolish and we end up with a compromised structure. So direction and control was critical and they went where they were supposed to go.

ML: The other document, which I won't go through is just a step by step process. This is for us to sign off on and Hydro where it's applicable to say 'yes we've been through all these steps' before we can move onto the next step. There's 22 or 23 before we get to pushing that button.

MU: Thanks Michael. Any questions?

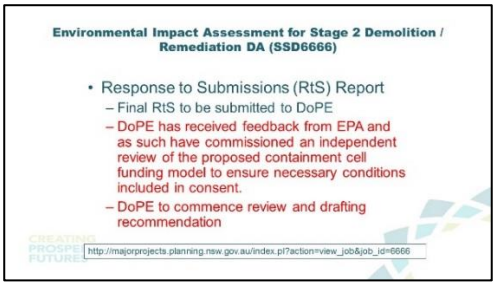
No questions.

7 Approvals and other project items

MU: In Richard's absence, Andrew is going to now talk about approvals and other parts of the project.

AW: Thanks Michael.

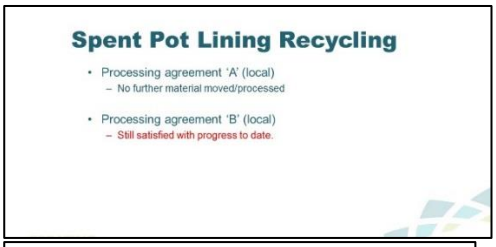
AW: On the approvals front, the Department of Planning has received feedback from the EPA on the financial provision for the long-term management of the cell. As a result the Department of Planning has commissioned an independent review of the containment cell funding model that we prepared. This is to ensure that they can impose the necessary consent conditions.



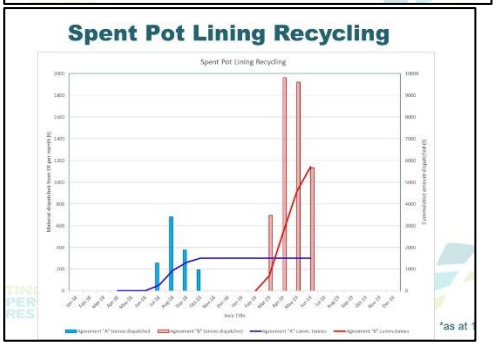
The Department of Planning had a company called Senversa, a consultant, do a review of the containment cell design and they looked at the costs for doing the maintenance that we had put

together. But they specifically excluded from their report any financial analysis, so Planning now need a different consultant to look at that side of it, probably like an accounting firm to look at that side of it. We did a discounted cash flow, and used certain assumptions on internal rate of return, like discount rates. It's all fairly conservative. Department of Planning just want to make sure that the amount of money that is provided for long-term management is enough to cover the cell in perpetuity. So they want the accounting firm to check rates, taxation, if applicable etc, those sorts of assumptions that are in the model. Once that is done, Planning should be able to complete their report. Hopefully they have already started drafting it. They will then make a recommendation to the Planning Assessment Commission [Now the Independent Planning Commission].

We're thinking it won't be approved before September / October this year. Like I said earlier, we can award separable portion 1 of the contract, to get going at least with their management plans, site shed setup and that sort of thing.



On the SPL Recycling, there is no further material moved off site from agreement A, but agreement B is progressing well and we are happy with their performance. This graph here shows both. We're now up to nearly 6000 tonnes from that processor. This one stopped at 1500.



BM: Who's doing that Andrew?

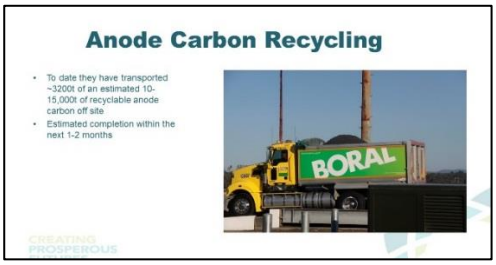
AW: This is Regain [points to the red columns and trend line]

TT: Regain had a place on site at one stage didn't they?

AW: They did, but they had to leave site because we had to turn off electricity to that part of site. They've been at Tomago as long as they were here, so our material is going to Tomago and getting processed over there. Then it goes to a cement kiln overseas.

AW: We are also now recycling anode carbon (also known as Ahead Of Schedule anodes). These are anodes that fell off into the pots. They didn't go their full life in the pots, they were supposed to go 24 days. For various reasons they can fail, could be a poorly rodded joint in the carbon plant, or it could be a poorly set anode in the pot rooms or a piece of carbon or dust in the pots can cause a short circuit and the anode can fail. These anodes when they drop to the bottom of the pot they become electrically joined to the cathode and start soaking up sodium and fluoride like a sponge. We've limited how much can be recycled back into the process in the carbon plant as we didn't want to contaminate the

new anodes going back into the pot rooms or damage the refractory in the baking furnace.



AW: So we were left with an inventory of about 10-15,000 tonnes of anode carbon. Boral are processing that, they're crushing and screening and using pulverisers and taking the carbon down to Boral Cement Kiln in Berrima in the Southern Highlands. It's a good outcome because we are recycling material that has a calorific value. It can be used as a as fuel for making cement. The sodium and fluoride in the carbon doesn't affect the cement, it's actually beneficial, the fluoride lowers the clinkering temperature in the kiln which means they use less energy and it is resource recovery.

TT: So are Boral charging to do that, or are they paying you?

AW: No we're paying them to take it. We're paying them more than what it would cost us to put it in the cell, but we're doing it because we think it's the right thing to do. To date Boral have taken 3,200 tonnes of the estimated 10-15,000 tonnes of recyclable anode carbon off site. They have a lot of people and resources here, we're expecting they'll be finished in another 1 to 2 months.

TT: He hasn't covered that load yet has he?

AW: Yeah actually that was one of the first trucks when we weren't sure of the density, we thought it was about 0.9 tonnes per cubic metre, but he was actually overloaded so he had to go back, get some material removed and get the weight right before he could leave site. But he was covered before he left.

AW: We don't have a slide on divestment. We spoke at length at the last meeting about the divestment, and in previous meetings about what happened with Flow, but at this stage, we're pushing ahead with the re-zoning, I think that's the most critical thing. There are discussions with Maitland and Cessnock Council. We are working through that process as we see it as one of the most important things to get resolved to give some certainty about the future development of the site.

AW: We're also, as I mentioned earlier, working towards getting the site audit statements, for everything but smelter north, which is the containment cell, relocating the capped waste stockpile and cleaning up a few small areas on site where there is some contamination. So once we get all that underway and get the approval for the cell and we've awarded the contract for remediation, I think that will give a lot more certainty to a developer that there is a solution to clean up the site and consolidate all of the waste into the cell. There is stuff happening

on divestment, but I'm not really involved. Richard will be able to talk more about it next meeting. We aren't actively marketing the site as such but we will be toward the end of the year I believe.

BM: Once everything is done. Are there any plans to have a memorial or a museum? Anything to show what happened at the smelter over its life?

MU: Last meeting we talked about it a fair bit. The jury is still out on what to do, but we will be talking to various parties to try and move forward. It's not an urgent rush, it's more about getting it right, but it is something that is front of mind amongst this group. There's a lot of stuff there. We've had some photos of the site taken.

AG: It's also a question of whether we should combine with the Mining Museum at the high school too.

BM: I've got a memory here of the last 31 years, I'd hate to see it chucked out the door.

AW: There are a number of items were keeping in the PTC building. Photographs of the site, specifically ones of people who have worked here, construction photos etc. Anything with people in it we're keeping as a priority. We have kept a lot of the PPE, like the hot metal gear that people wore, boots, gloves etc. and things from the cast house, like metal samples, ingots, a model of a line 3 pot from back in the early 80s. We've even kept the lightning rods off the stack which are made of copper. Could maybe polish one up and keep it as a memento. We are keeping things like signs (Aboriginal signs, pot line 1 etc.) maybe we could have a display at the Newcastle museum, like BHP Steelworks. We are also capturing a lot of video footage. So people can remember how it was when it was operating.

DG: Coming back to the containment cell, is there going to be a fall back positon, if going forward, whatever model is adopted - if it works out to be wrong, is there the opportunity to refine that?

AW: That's a good question. Previously Flow were contributing some of the funds to the long-term management of the cell because they were buying the site, and some of the funds that were generated out of the sale, rather than going back to Hydro, some of that money was going into the management fund. Now that the deal with Flow is off the table, we've stepped in and said to the authorities that we will cover the long-term management of the cell. There is enough money we believe, because we've used conservative estimates, there will be a lump sum invested into long-term government bonds, that sort of thing. We believe there will be enough money to cover reasonable management costs.

Worst thing to happen to the cell, the worst thing would be if the cap failed and needed to be replaced, there would be an insurance policy in place to cover the cost of replacing the cap. That was in Senversa's report, they reviewed what we had allowed for that and they were happy with that. So there's enough money to cover maintenance, and then an insurance policy to cover, just like you would with your house, an unexpected event. So we believe it will be adequately covered.

MU: Any other questions?

BM: The percentage we own in Tomago, does Hydro have any input into that?

AW: Steve Roberts our Finance Manager looks after that side of it. There is reporting that happens that need to go to Oslo. We own 12.5% of Tomago.

TT: Is there a projected timeframe of the rezoning?

AW: I am not that involved. I know GHD were given some ecology work on some studies that needed to be done to progress the rezoning.

AN: We're continuing to try and work together to progress things. We're a bit delayed with what happened with Flow. The department is aware of that, we keep them updated. We'll just keep on battling on.

TT: Is it likely to be before the end of this year?

AN: No, mostly likely next year.

AW: If you would like to know more, we can maybe invite Shannon to next meeting or the one after. I'll talk to Richard about that.

DG: The rezoning is back to our original plan?

AW: Yes correct.

AN: Which to be honest, simplifies the process and makes it easier from a legislative point of view.

TT: The pot lines that Flow wanted kept? Are they still staying?

AW: At this stage they're still staying. We're weighing up our options there, but no decision has been made yet.

TT: Did you know what Flow had intended?

AW: No I am not sure. Probably a question for Richard, for next time.

Video of the demolition was played.

8 CRG questions and answers

MU: Alright, any questions around the room?

DG: That will be uploaded?

MU: The video won't be uploaded as we don't have a history of uploading videos. But we have got a history of uploading the slides to YouTube.

DG: It would be good to let Council see it.
MU: The video that was on the news is available on some media websites however.

9 General business

MU: I will close the meeting at 7.20pm.

MU closed the meeting at 7.20pm.

10 Meeting close

Meeting closed: 7.20pm

Date of following meeting:
Thursday 15 August 2019