Project	Hydro Kurri Kurri site redevelopment project	From	Kylie Cooper
Subject	Community Reference Group	Tel	1800 066 243
Venue/Date/Time	Thursday 18 August 2016 Hydro offices, Kurri Kurri 6.00pm – 7:30pm	Job No	21/23175
Copies to	All committee members		
Attendees	Mr Andrew Walker – Hydro Kurri Kurri Mr Richard Brown – Managing Director, Hydro Kurri Kurri Mr Kerry McNaughton – Environmental Officer, Hydro Kurri Kurri Mr Brad Wood – Community representative Mrs Kerry Hallett – Hunter BEC Mr Toby Thomas – Community representative Mr Darrin Gray – Community representative (for Alan Gray) Mr Rod Doherty – President Kurri Kurri Business Chamber (arrived later) Mr Michael Ulph – CRG Chair, GHD Ms Kylie Cooper – CRG minutes, GHD		
Guests/observers	Mr Shaun Taylor – Environmental Consultant, Ramboll Environ		
Apologies	Clr Morgan Campbell – Cessnock City Council Mr Ian Turnbull – Manager Natural Environment Planning, Cessnock City Council Mr Alan Gray – Community representative Mr Bill Metcalfe – Community representative Mr Ian Shillington – Manager Urban Growth, Maitland City Council Clr Arch Humphery – Maitland City Council		
Not present	Ms Debra Ford - Community representative		

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1 Welcome, apologies, introductions

Meeting commenced at 6:05 pm.

Michael Ulph (Chair)

Acknowledgement of country.

Michael Ulph welcomes the committee and introduced Darrin Gray as Alan Gray's stand-in and Shaun Taylor as an environmental consultant from Ramboll Environ.

Calls for apologies and notes Ian Shillington and Mark Roser are apologies.

2 Meeting agenda

- Welcome, apologies, introductions
- Acceptance of last minutes and matters from the previous meeting
- Project update
- Overview of environmental impact statement
- CRG questions and answers
- All other business
- Next meeting and meeting close

3 Acceptance of last meeting minutes and matters from the previous meeting

Moved: Kerry McNaughton

Seconded: Kerry Hallett

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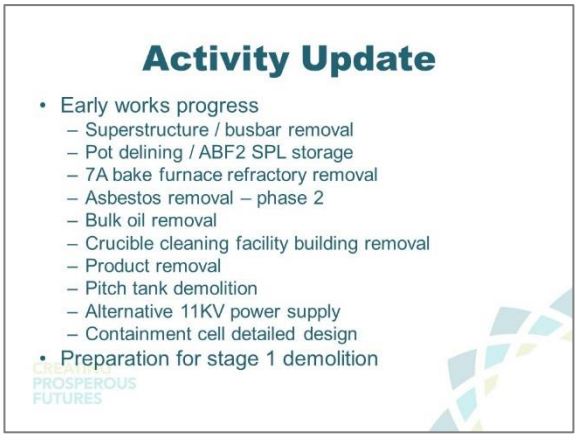
4 Project update

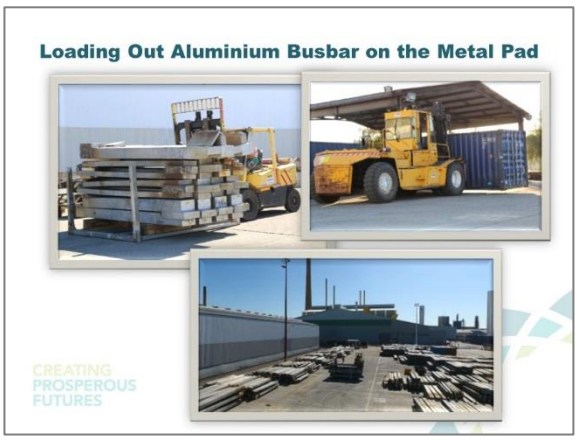
Andrew Walker: We're continuing to do early works, getting ready for demolition. These are the things we've been working on. Superstructure and busbar removal are now finished. Pot demolition is continuing. 7A bake furnace refractory removal to prepare it for storage area, that's now complete. Phase 2 of asbestos removal is ongoing. We're still removing oil. We sold a building, the crucible cleaning facility, so we removed that building last night. We've been doing product removal around the site. The pitch tank, the two tanks, we demolished those in the last few weeks. And we've been working on the power supply to the three buildings here. We're continuing with the containment cell design.

CMA Contracting finished this work on the superstructure removal in July and we've generated 3,600 tonnes of steel scrap and around 4,000 tonnes of busbars ready for the above-floor level – the working floor. And we'll do the cathode busbar below the floor level during Stage 1 demolition.

We've been loading out busbar. We've had Toll Resources here packing the busbar into containers. And that's going to other Hydro plants in Europe, a couple of smelters and some remelts.

The pot de-lining. Line 3 is complete, apart from some minor tidy-up work. Line 2 north is now complete. And in the south-end we've finished all the collector bar cutting, metal pad removal, bath removal. We've broken up and pulverised all the first cut carbon material. And we've removed the second cut from 80 pots, with 40





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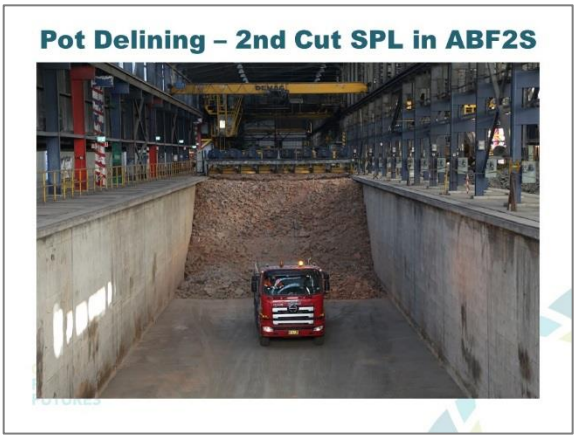
pots to go. We should be finished over about another week. And then they'll move into Line 1.

We have been removing some metal pads in Line 1. Some of them were quite large and difficult to remove – too heavy for an excavator so we had to use a crane. Luckily we had a 22-tonne crane in Line 1 we could use. These are just a few photos of the works that have been happening over the last two months.

Pulverising the first cut SPL in Line 2.

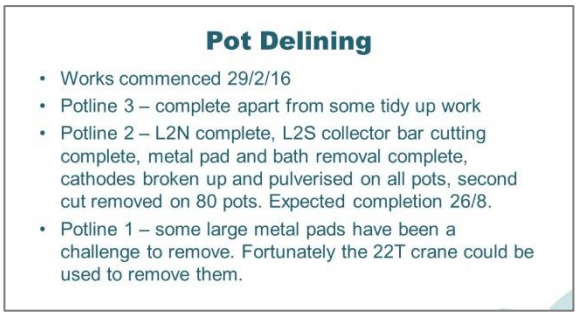
This is removing the second cut on Line 2.

This is storing the second cut, in the south tub in the anode baking furnace. And we had some fans here that we're using just to keep the air moving. Because it does give off a little bit of ammonia, so we have been monitoring for that.



These are all of the metal pads that we've removed from Lines 1 and 2. We've been tolling some of that material through Weston Aluminium just locally. We've been recycling the collector bars that come out of the pots.

These are the steel bars that are in the cathodes that conduct electricity. Sims Metal is looking after that for us. They're dropping a steel wrecking ball on the bars to break off any bath or SPL so only the clean bars are leaving



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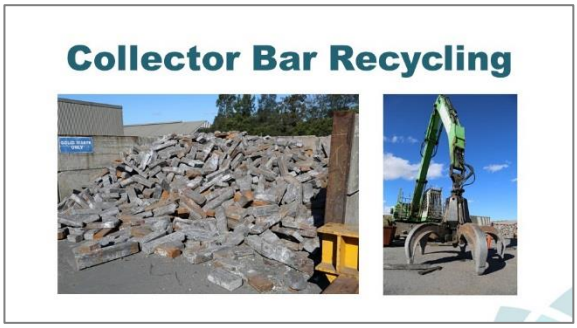
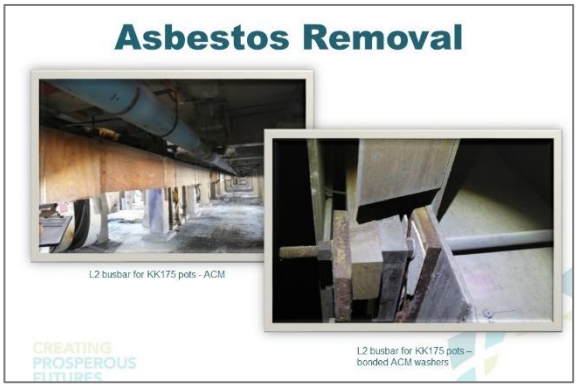
site for recycling. These are a few cleaned collector bars.

This is the 7A furnace – the other baking furnace at the opposite end of the bake furnace building and we've removed all of the refractory and that's now prepared as a storage area that we're going to use during Stage 1 demolition. We've used the refractory from the other baking furnace to build some ramps here so we can drive in and out. We'll be putting things like scrubber bags from the pot room scrubbers in there, anything that we don't want outside, anything that may have fluoride, and keep it under cover.



Asbestos removal has been continuing. This is some photos in Line 2 of work that's coming up. We've got over 800 insulators here this is to insulate one pot to the other. We've done Line 3. We've still got Line 2 to do. That'll be happening next month. And we've been doing lots of floor tile removal in offices around the place. In the old buildings we have asbestos floor tiles. Out in the buffer zone, correct me if I'm wrong, Kerry, these first two houses are being demolished. The chicken shed at 18 Bowditch Avenue, we've done the ACM removal. We're just waiting on the contractor to demolish that. Twelve Horton Road, we've demolished the house and two sheds. And



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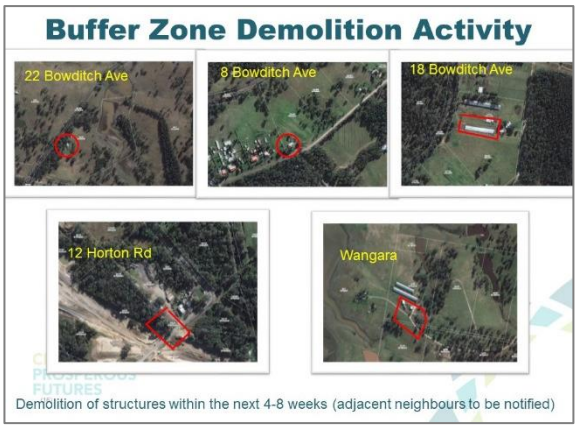
Wangara's coming up, we've got to do the ACM removal and then that will be demolished.

Kerry Hallet: That Wangara, is that the sheds?

Andrew Walker: Yes, the chicken sheds.

Andrew Walker: This is 18 Bowditch. We had to remove some bonded ACM before we demolish that chicken shed. At 12 Horton Road, after we demolished the house and sheds, under one of the sheds we noticed this little pipe sticking out through the concrete, so we removed the concrete slab and started investigating and we found this big abandoned 50,000 litre distillate tank, which had still got a small amount of diesel in the bottom of it.



So we got Ramboll Environ involved, we're going to have to do sampling and see what remediation might be required once we make it safe to lift out. We'll have to see if any diesel has leaked out underneath. I think there used to be a trucking depot there and the guy that used to run it had diesel in there but it wasn't on any register anywhere so nobody knew it was there.

We've been progressing with oil removal, mainly hydraulic oil. We're up to about 25,000 litres now, we've got about five IBCs on site.

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We've got to bring a truck in to suck it out and take it off site.

We've been working on the PTA cranes removing the hydraulic oil from them. After we move the cranes to their final resting position, which is at the south end of each pot line, from there, during demolition, the crane will get pulled out, off the crane rails, to the ground and will be processed for scrap.

Rod Doherty joined the meeting.

This is the crucible cleaning facility next to the pot line 3. We found a buyer for that shed, so they paid for a contractor to come in and dismantle the building and the crane was also removed and sold to somebody else. That work all went okay.

We've also been removing product from around the site. Before we turned the power off, we wanted to get all the anodes out of the anode storage building so we used this anode stacking crane. One of the guys that's in our team has a lot of experience in the carbon plant. He drove the crane in manual and removed over 3,000 baked anodes. We're hoping when that clean carbon from the anodes with some of the other carbon from around the site, from the butts and led scheduled anode butts, I believe it can be sold as a fuel so this clean carbon will help reduce the concentration of sodium fluoride.

In the pot room area, we've also been removing product from the fuel stations.

The ‘cruce’ pads. So we've been removing the RA [recycled alumina], which has to get transferred into the hopper of the crane and then emptying the hoppers to the filler arms into this little truck and then from there we can take it to storage shed elsewhere on site. And also the Anode Cover Material, which is stored in the

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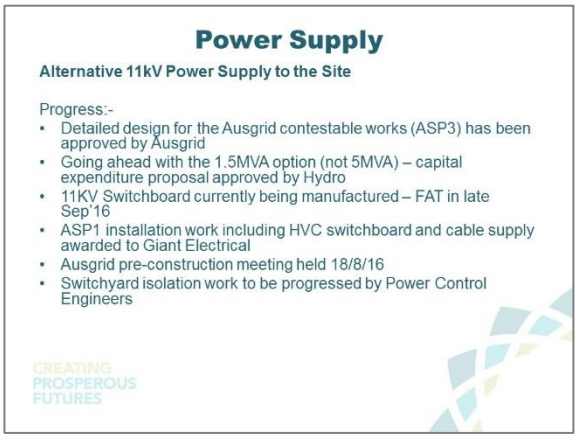
grey bin above the control cabin on the gondola and removing that material as well and then putting it into the bin – that's specialised work that our care and maintenance team is doing, they are people that used to work in the pot room area that know how to drive the cranes. This is all work to prepare for demolition, just removing all of that product, and smaller bins.

The other thing that we found, when they shut down the carbon plant they did a good job of emptying all the fraction tanks in the paste plant but nobody thought about the two liquid pitch tanks, which are now no longer liquid they've solidified. We ended up with about 100 tonnes of coal tar pitch in each tank. The same contractor who did the superstructure and busbar removal helped us demolish these tanks. This is the pitch, it's about 70% carbon sludge, and 30% pitch. The pitch is at the top, you can sort of see a line there and just below that is the sludge. So that was building up over the last 25 years. Unfortunately, Koppers can't recycle it back into their process so they're helping us with another option, which is to send it to BlueScope Steel in Port Kembla and it can get recycled through the coke ovens down there, which is where the coal tar originally comes from. Koppers is facilitating that process. The intention is to recycle all that material; we don't want to leave it here on site.

That's just a photo showing after the demolition, where those two tanks used to be. Some of this scrap steel is wrapped in insulation synthetic mineral fibre, and aluminium cladding and it's full of pitch and HCM oil. So that will be demolition waste, that will end up going into the containment cell. It's just not worth trying to recycle that.



On the power supply. Last time I mentioned that Ausgrid has approved our design. The switchboard is now being manufactured and

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that will be here in late September. We'll have a factory acceptance test at the factory in Sydney.

We've awarded a contract to Giant Electrical to install the switchboard another board and all the cable. We've actually had a pre-construction meeting this morning with Ausgrid and Giant and also our power control engineers who are helping us. We've also given the power control engineers the job of helping us develop an isolation plan for the switch yard so we can safely isolate the power to the site.

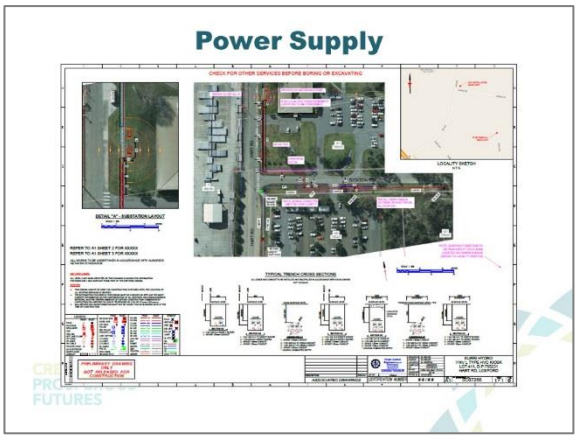
Brad Wood: Is Giant Electrical local?

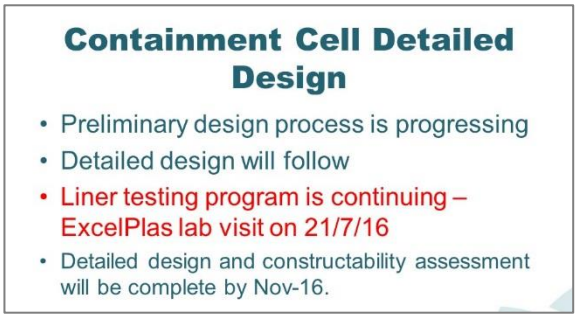
Andrew Walker: Yes, they're local. Newcastle.

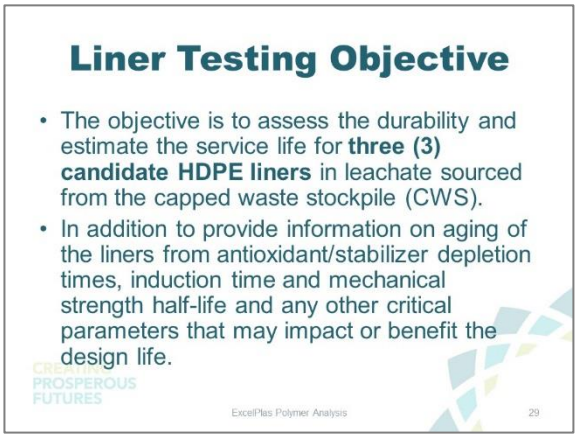
Andrew Walker: So that's just the plan showing how the power's going to come from Dickson Road and across, under the road, under-bore to the kiosk here. And then from that kiosk it will go to the substation on site, probably about 100 metres under-boring. We've already had the surveyors peg out where the kiosk is going, so the front of the site here. We've got two new telegraph poles, which just turned up yesterday. They're going onto Dickson Road there.

On the containment cell design, Richard and I would like to report that we made a visit down to Melbourne to a company called ExcelPlas who specialise in testing of polymers and plastics. Fiona Robinson from Ramboll Environ also joined us. I'll just go through the next few slides, they're quite technical, but we'll do our best.

The liner testing objective as it says there is to assess the durability and estimate the service life for three candidate HDPE liners (that stands for high density polyethylene) and we used leachate sourced from the capped waste stockpile, the old stockpile. In addition to provide information on ageing of the liners.







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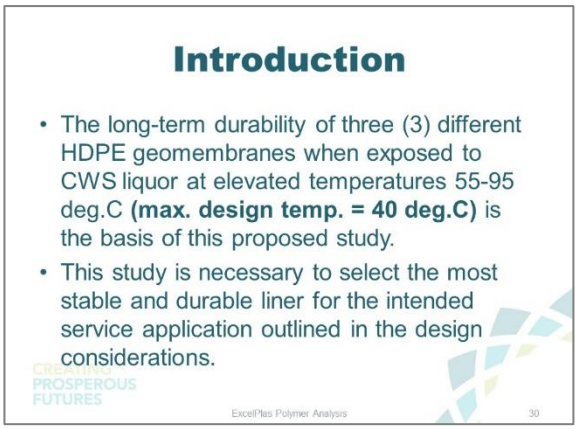
Plastics contain things called antioxidants, which slows down oxidation, and stabilisers, which stabilise the plastic from ultra violet light.

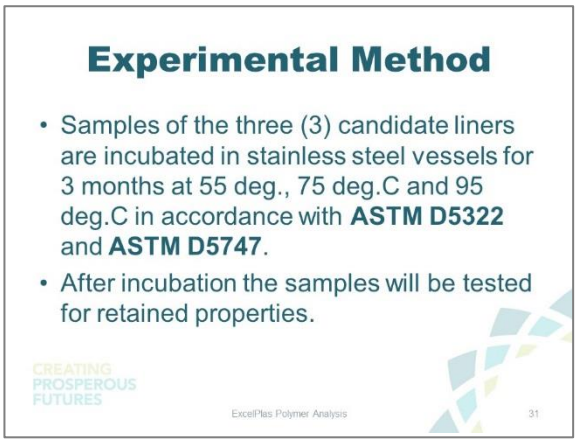
It's a test called OIT – oxidative induction time – and it measures how stable the plastic is at elevated temperatures and pressures. And from those test results, you're able to predict the lifetime of the plastic membrane in contact with our leachate.

There were three different membranes tested at temperatures of 55 degrees, 75 degrees, and 95 degrees. By doing that at high temperature, you accelerate the deterioration and then, I'll show you some graphs in a minute, from that testing at elevated temperatures, you can then predict the lifetime at ambient temperature. So in the cell, the temperature will be between 20 and 30 degrees. From this test work, we can predict how long the membrane is going to last. It also allows us to test three different types of membranes, to see which one has the best performance.

We're following these ASTM methods, that stands for the American Society for Testing of Materials, that's a US standard for testing of polymers. This is the apparatus that they used, for this OIT test, oxidative induction time, and it's done at elevated temperature and pressure, so this is a pressure vessel, it's heated up, and these are the vessels that are used. This is tensile testing machine. So after you do the test, after you have it sitting in the leachate for three months at elevated temperature, you then take the samples out and you do tensile testing.

Plastics, as you know are very stretchy, there's a property called percent elongation, which is a measure of ductility, the plastic is very elastic, very ductile. After time, that deteriorates, so





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that's measured using a tensile testing machine. That's the OIT apparatus there.

Michael Ulph: So basically, you're trying to pull it apart after it's been through that process.

Andrew Walker: Yes.

Kerry Hallet: I'm assuming it's fairly new, that's why there's no Australian Standards?

Andrew Walker: I think it's because the Americans are more specialised in polymers.

Kerry Hallet: Okay.

Andrew Walker: Because the manufacturing industry in the US for polymers is more advanced than Australia.

Shaun Taylor: Also the size of the market.

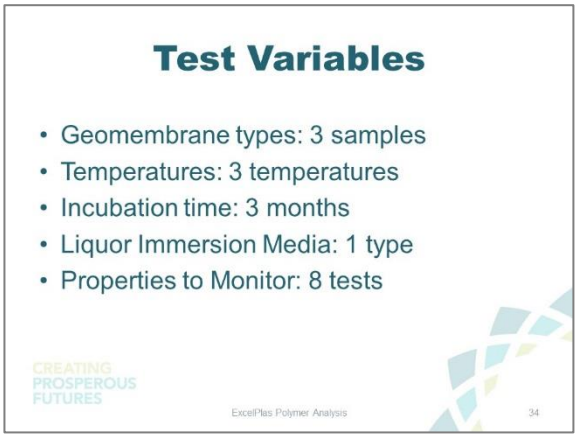
Kerry Hallet: So it should be a better standard, basically, at the moment?

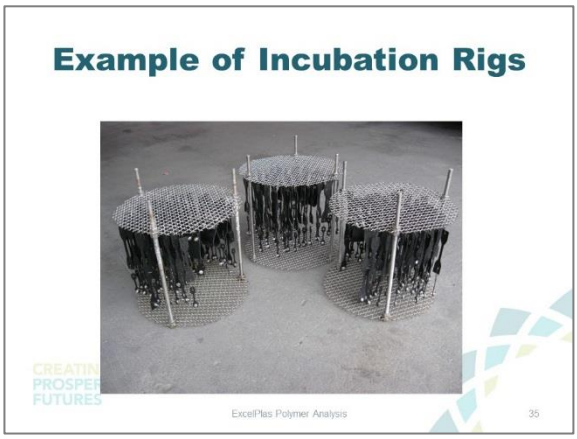
Andrew Walker: Yes.

Toby Thomas: What design life are you looking for in the membrane?

Andrew Walker: We're looking for a hundred years plus. We've got some data coming up, it's for a typical polymer membrane we're looking at, showing the effect of temperature but as yet, we don't have any results to report. Hopefully in a few months when the testing is finished we'll have more data that we can bring to this meeting. But yeah, we're looking for a hundred years plus.

Toby Thomas: So who specifies that? Is that the EPA? Or will you put that to them?





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Richard Brown: No, it's just us putting that to them, to my knowledge there's no sort-of design criteria. We put it to them and they say 'yep that's okay', or if they're not happy with it they would say 'no'.

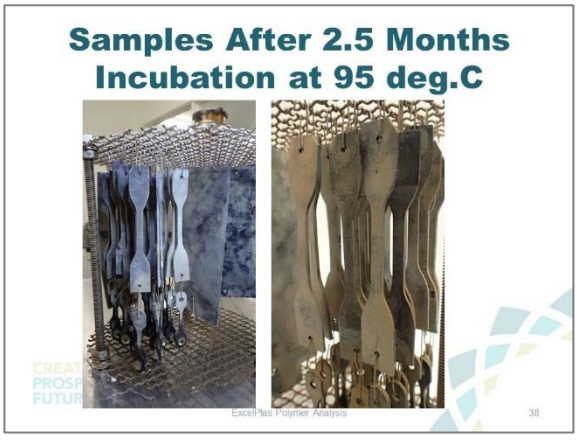
Shaun Taylor: The EPA, and I'll talk about this later, has a minimum standard for the design of landfills and containment cells, it's just a minimum of the types of layers. We're then putting it to them to say, the specifications for that particular layer that they've identified.

Rod Doherty: Just another question on it, Pasminco's got a containment cell and so have Clyde is it, down in Sydney. Did you talk to them about the standard of their containment cell?

Richard Brown: I would say that the containment cell at Pasminco, it's not got a base so this is actually testing liner material for the base, which is potentially exposed to leachate, now they don't have a base on that cell, it's actually built on a residual slag dump so they've capped a slag dump, plus other stuff there.

Andrew Walker: But they did tell us on the top of their cell they have a different polymer called LLDPE – linear low density poly ethylene. And it's better in the top of the cell because if you get any settlement it's more able to stretch and it won't tear. Where HDPE could potentially tear on the top of the cell. So we learned that from visiting them and that is actually something that GHD was designing the cell for so also recommended.

Richard Brown: To a large degree we're relying on the expertise of the professor that's got this company, he's the one that selected the three to test having a known set of properties for the type of leachate that it's going to be, or



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could potentially could be, starting with that three, and then they do the test from that point.

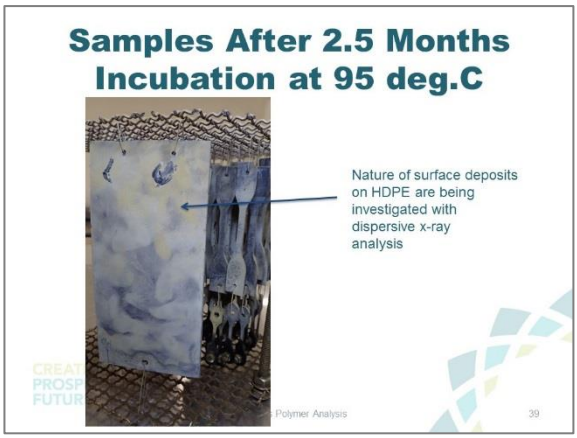
Andrew Walker: So the testing that we're doing involves three different samples, three different types of material, three temperatures, 55, 75 and 95 degrees, and three months. But we're going to continue it and get more data for six months, nine months, 12 months.

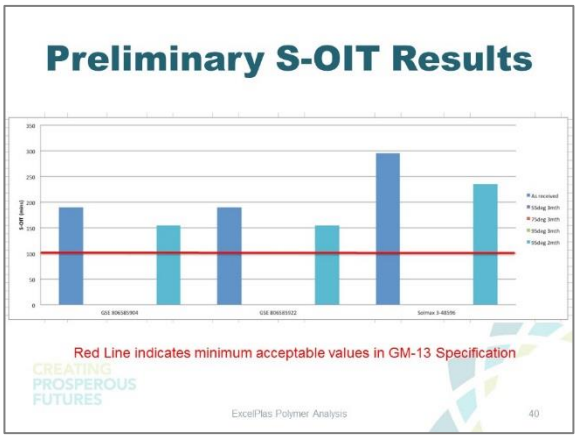
So this is a photograph showing the specimens, as received prior to immersion in the leachate, so they are all tensile test specimens. They're for tensile testing, and then this spare piece is for the OIT test, so that induction time.

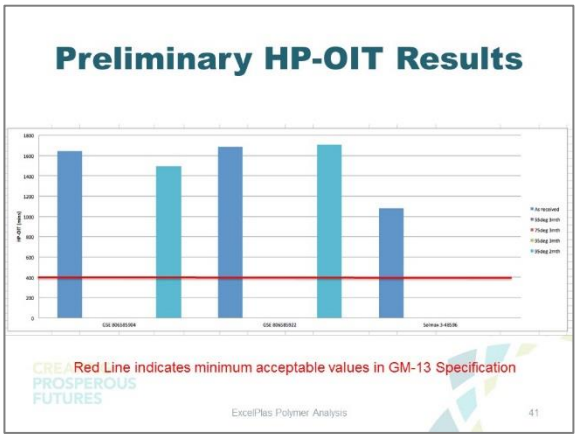
This is after incubation for two and half months at 55 degrees C. This is at 75 degrees, as you can see, it's starting to get a bit of a film forming on it, a residue. We're unsure what that is, they're going to test it for us. And this is at 95 degrees. So you can see quite a bit more discolouration. So the nature of surface deposits on the HDPE are being investigated with dispersive x-ray analysis. It could be something out of the leachate.

And these are the results so far, after two and a half months. This red line is the minimum standard, this is S-OIT, which means *standard oxidating induction time*. So this is at 200 degrees C, at atmospheric pressure, and this is basically the before and after. On all three of these they're all above the red line. The other important thing is not so much the starting point but how much deterioration have we seen over the two and a half months? And you can see there has been some. This one is probably more pronounced. It will be interesting to see after another three months.

This is the high pressure OIT test, so this is at 150 degrees C but at elevated pressure. Again, you can see there's been some deterioration in







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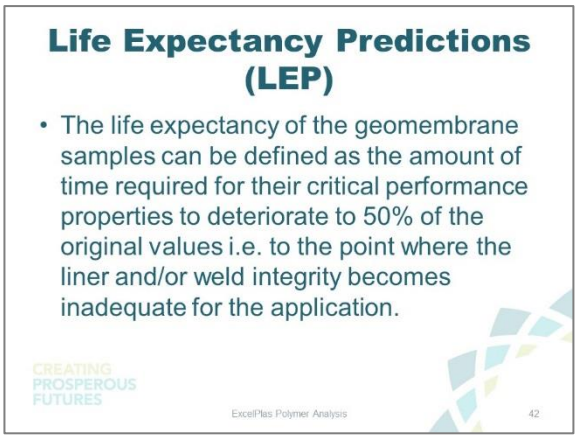
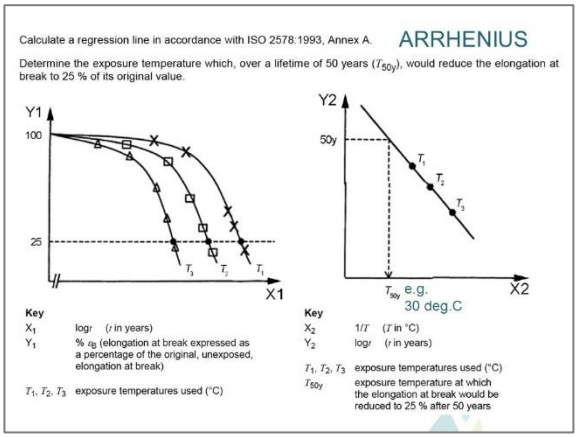
that sample. This one is pretty much the same. This one, they didn't have the data when they did the graph but they've subsequently sent through this about the same as the *as received*. Anyway, we'll have more data in three months.

The life expectancy of the geo membrane can be defined as the amount of time required for the critical performance properties to deteriorate to 50 percent of the original values. So the point where the liner and/or the weld integrity becomes inadequate for the application.

The next slide looks complicated but what this is, is the X axis is time or log of time in years. This Y axis is *percent elongation*, so a measure of the ductility of the plastic. So it starts out at 100 percent of the starting value and then this is the 25 percent threshold so where it's reduced to 25 percent of its original value. This is just an example; this is not our data. And then they've plotted the data for three different temperatures, so T1 is the lowest and T3 is the highest temperature. So if you think of that being time, the higher the temperature, the shorter the time for it to reach its minimum value. And then as temperature reduces, the time increases. You can then plot that as an Arrhenius plot so the X axis is temperature in degrees C, and this a log of time in years. So for the highest temperature, so in our case 95 degrees will get a shorter time and the lowest temperature, 55 degrees you get a longer time, to failure. And here they've used the example of okay, what if it's sitting at 30 degrees C. They've got a life of 50 years in this particular case. We need to see what ours is going to be.

And this is some more example data, taken from a publication. This is standard, HDPE geo membrane, and this shows the effect of different temperatures, so from 20 up to 40 degrees C. And they've used the standard OIT and the higher pressure OIT test and taken an





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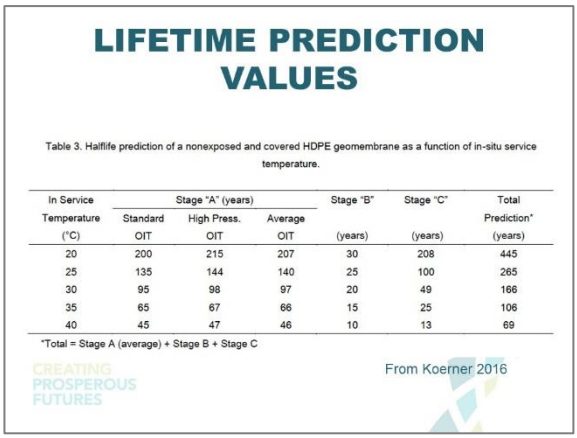
average and as the plastic fails it goes through different stages, so stage A, B, and C. By the end of stage C, it's at the end of its life. So what they've done is they've added the average probably two tests plus the stage B life and stage C life to get the total predicted life. This is for a geomembrane not exposed to any leachate and operating at different surface temperatures so the lower the temperature, the longer the life. It makes quite a big difference so 20 degrees – 445 years, 40 degrees – 69 years.



We'll be able to present in the next few months, the data for each one of those three geo membranes will have a set of data like this predicting a life for 55, 75 and 95 degrees. And you'll see what the predicted lifetime is in our leachate.

Michael Ulph: Any questions on that before we move onto demolition. There's a bunch of info there.

Darrin Gray: So inside the cell, so you just - pick one item. So you got a piece of pipe full of pitch sitting on the bottom of the containment cell, it's there for 445 odd years, best case scenario. What's the life expectancy of a piece of pipe full of pitch inside the containment cell?

Kerry Hallet: What happens at the end of that 445 years?

Andrew Walker: The bottom of the cell is going to be sloping to a sump, so the membrane is not in contact with leachate all of the time and we'll be able to periodically collect the leachate. And there'll be another liner below that liner.

Shaun Taylor: In the upcoming slides we'll have a bit more of a talk about the containment cell and it just points out that what Andrew's talking about is just one layer in that base. I think that's probably the key thing to think

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about, is that we're not saying that 445 years or 69 years the whole thing becomes a problem.

Darrin Gray: No, I get that.

Shaun Taylor: When we get there you'll see the cross-section of what the base actually is.

Darrin Gray: So it's breaking down, like you've got all this stuff that's inside the cell, and what's happened in there to the dynamics for it to go inert. What's the life expectancy for what's inside the containment cell for it to be inert? So that our great-great-great-grandchildren aren't wearing our problems.

Toby Thomas: So is leachate only expected to form if it gets water into the containment cell?

Andrew Walker: Yeah that's right. So it's very important that the cap is designed to be impermeable and we have a vegetation layer that will reduce any water getting through.

Richard Brown: In reality, the base is only probably effective when it's actually been filled, when it's actually been exposed to the atmosphere. Apart from that, it's really only the cap that becomes the barrier layer, and that's what you'll find most containment systems are focused on, a cap essentially, preventing water from getting into it – like the capped waste stockpile is here. And that's something which could be periodically replaced if there's any failures. So it's the cap that's able to be moved. The base, once it's there it's there, essentially.

Shaun Taylor: One of the things that's beneficial for the containment cell compared to say, a Council landfill, is Council gets putrescible material that breaks down and produces leachate. The leachate that is produced by this material is if there is any residual water, basically in the material that's

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put in the containment cell. So again, we'll talk about it more, but there are procedures that need to go in place to keep the material as dry as possible before it goes in the containment cell.

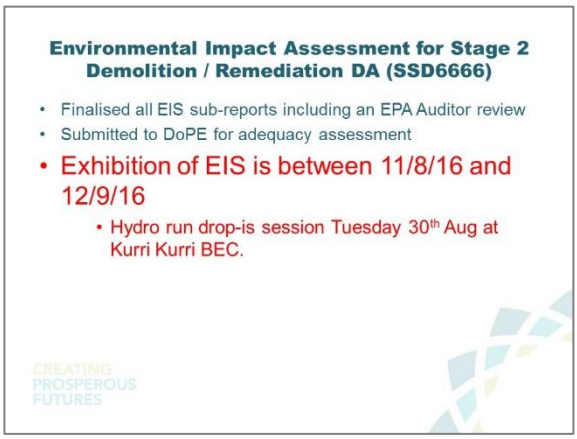
Darrin Gray: I've just sort of got this vision, I've worked in a pitch plant, so you've got this pipe full of pitch, you throw it in the bottom of the cell, it's going to sit there for however many years and then at some point down the track it's going to breakdown and become inert. Or is it going to sit there in its perpetuity in that state of solid pitch in a pipe?

Richard Brown: More than likely. In and of itself it's inert so it will sit there forever essentially. Forever's a long time, I know that.

Darrin Gray: Yeah, totally.

Andrew Walker: With the Stage 1 demolition, so just an update there, we're working through the tendering process and we've got all the board papers ready – there's been a lot of questions backwards and forwards about the accounting treatment side of things but the short story is we're planning to get in front of the board of Hydro in September, hopefully get that approved and then we can award the contract for demolition.

And I'll handover to you now, Shaun.



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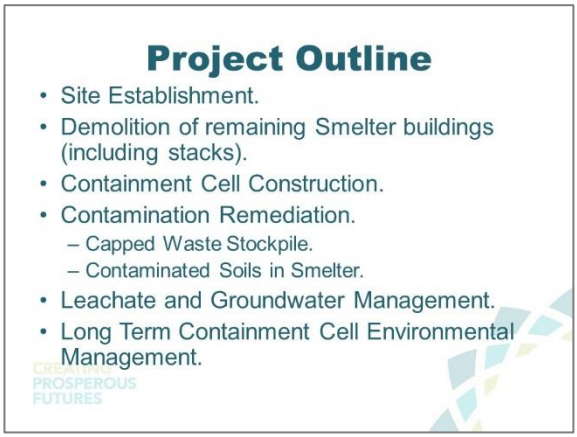
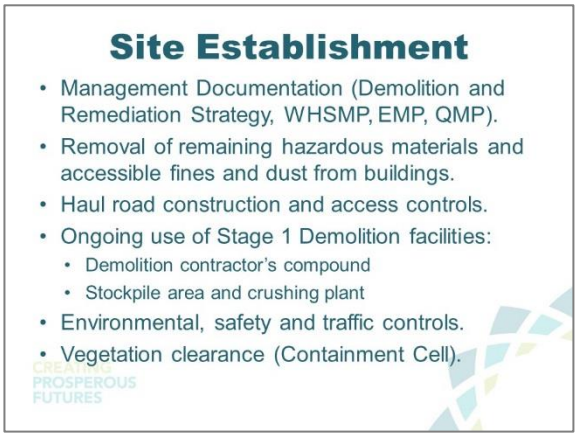
5 Overview of environmental impact statement

Shaun Taylor: Thank you. So the environmental impact statement for the Stage 2 demolition and remediation of the smelter has been on exhibition since last Thursday and that exhibition will continue until the 12th of September.

Project outline – so we've got the site establishment, demolition of the remaining smelter buildings, including the stacks, are what we're calling the Stage 2 demolition. The containment cell, which we just talked about, and remediation of any contaminated soils within the smelter, including the capped waste stockpile. As part of that leachate groundwater management and the other element we're just talking about is the long-term environmental management of the containment cell.

So site establishment – a lot of it would have already happened because the Stage 1 demolition was approved separately by Council and contractors were brought on board. A lot of existing facilities, environmental controls, everything else were already in place. So we'll just continue to roll on. So you'll have your compounds and stockpile area and the crushing plant. So where the pot rooms are, will become a larger stockpile area. So the removal of the remaining hazardous materials and pollens and dust from those buildings prior to demolition. We know there's some asbestos in places that you can only start demolition to get to them but at least we know where they are. And we also have an *unexpected finds* protocol in place. There's the haul road construction and the access controls around the site, and vegetation clearance will be required as well.





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So just a couple of slides. Just to give you an understanding of the site establishment.

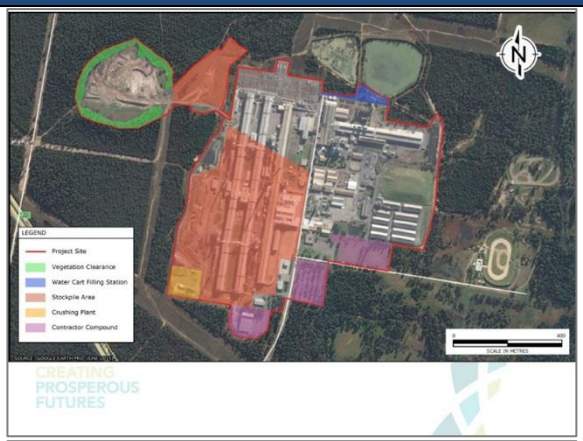
Stage 1 demolition, a lot of the buildings would have already been gone. This large area here will be set-up as the stockpile area, so for the uncrushed and crushed concrete and bricks, the minerals and the other waste materials, the little purple area identifies potential compounds for the contractors. We've identified this location as the crushing plant, but it's more than likely that'll be a mobile plant, it's a mobile site so that'll be a mobile plant but for the purpose of the EIS it was probably the worst case scenario in terms of modelling noise impacts, which I'll go into a little bit later.

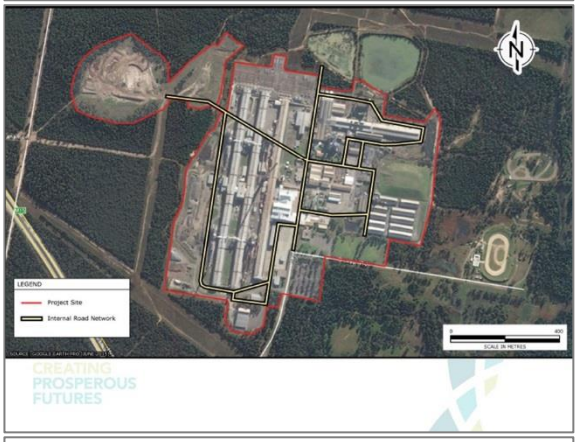
We've got the top [left] obviously where the containment cell's going to be going, there will be some vegetation clearance required. We have a stockpile there, next to the containment cell. And also a water cart filling station up in the north near the north dams that we'll be using water from the north dams for water carts for dust suppression on the right.

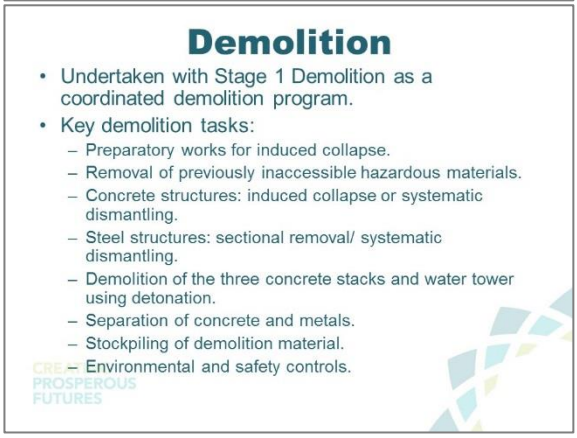
And the next slide is what's been identified as internal road network. And the main access points for transporting most of the material is going to be this one. We'll be going across the site, connecting the capped waste stockpile to the containment cell, so for Haul Road, obviously again, goes through where the pot rooms currently are.

So the demolition, again, Andrew presented about that earlier and we talked about the Stage 1 demolition and what that involves, so it will just be a continuation of the Stage 1 demolition.

Preparatory works for the induced collapse of buildings, removing those hazardous materials, the concrete structures will be either an induced collapse or systematic dismantling, steel







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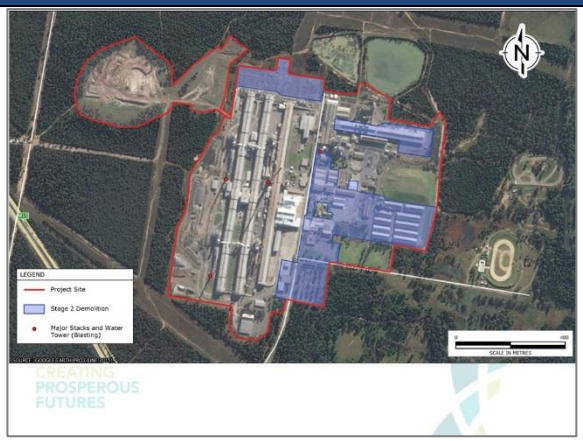
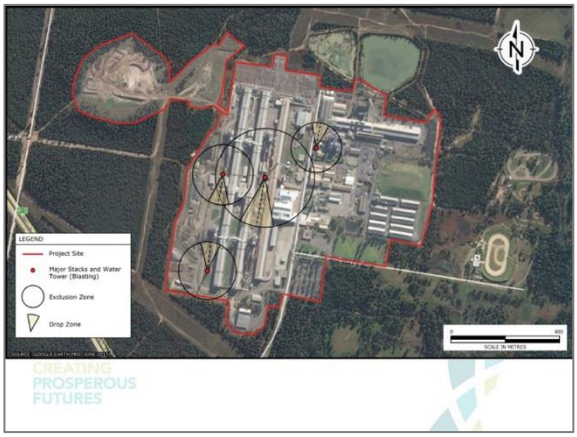
structures will be done sectionally, there'll be a detonation of the three stacks and there's the water tower as well. And all that material will be separated, the concrete and metals for recycling. Stockpiling of demolition materials and environmental and safety controls obviously.



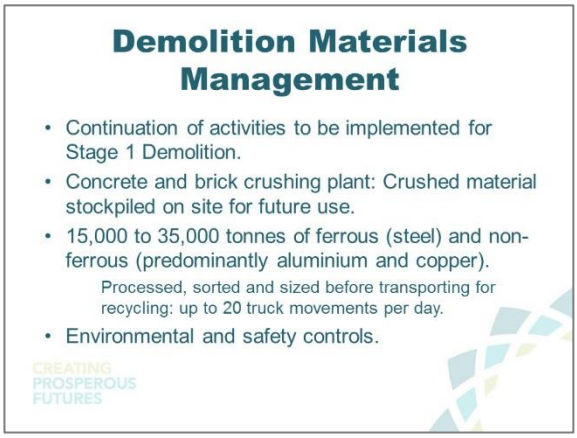
The blue is Stage 2 demolition, everything else outside of that is Stage 1. Part of this demolition will also be some of the sub-surface structures from Stage 1. So where there's basements and other below-ground structures, they'll also get ripped up if it's required, and obviously the three stacks.

And on the next slide, so this is for the planning for the detonation for safety purposes. The round circles are the exclusion zones, so that's one and a half times the height of the structure, and then the drop zone is basically 40 degrees either side of where you want it to go down, to make sure.



So we're quite fortunate, all that small section is within the project site, it's all on Hydro land, so it's easy to manage from a safety perspective.

As I said earlier, we've got the demolition materials management, a large bulk of that is recyclable, and as Andrew touched on, a lot of the material on site we're trying to find a home for. So there'll be a concrete and brick crushing plant on site to reuse that on site for filling voids, resurfacing and the like. And the scrap metal going offsite as well, obviously that's a good resource.



The containment cell construction – this just touches on what we were just talking about. The EPA has just issued the new Environmental Guidelines: Solid Waste Landfills

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after almost 20 years of working with draft guidelines, so they've finalised it now.

We'll go on a bit further about what the design is, but in terms of locating the cell in the first place, a study was done to look at the key characteristics of the location for this. The geology is stable, it's got deep clay, bedrock, groundwater is at deep level above the 100-year flood level, it's away from water courses, away from residences and so on and so forth. And looking at all of those characteristics, the clay borrow pit was the best location for that, it ticked all those boxes plus we didn't have to clear any vegetation for it as well. So it's on natural clay, overlain by multiple engineered layers with a leachate collection system.

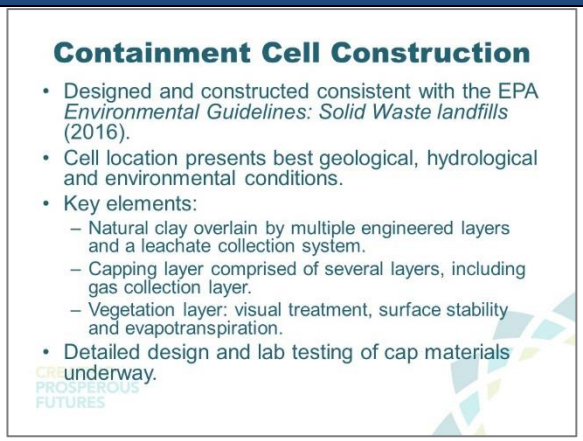
A capping layer of several layers again which I'll go through, and a vegetation layer, which provides a visual treatment but also stabilises the surface and minimises the chance of slippage but also provides that evapotranspiration so there's less water that even has a chance to get through those layers. And Andrew just talked about the testing that is going on at the moment.

Kerry Hallet: Can I just ask a question, Shaun?

Shaun Taylor: Yes.

Kerry Hallet: And I've only just thought about it or else I might've mentioned it to Andrew, just thinking that for some reason, Muswellbrook's been really lucky this year and had several earth tremors, and there's been a larger one off the Queensland coast today. If we get earth tremors around here, how's that containment cell likely to handle it?

Shaun Taylor: Well, firstly we do have a record of tremors in this region. Going back to 1970,



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the largest was a 3.2 I think it was, and the average is a magnitude of about 2.

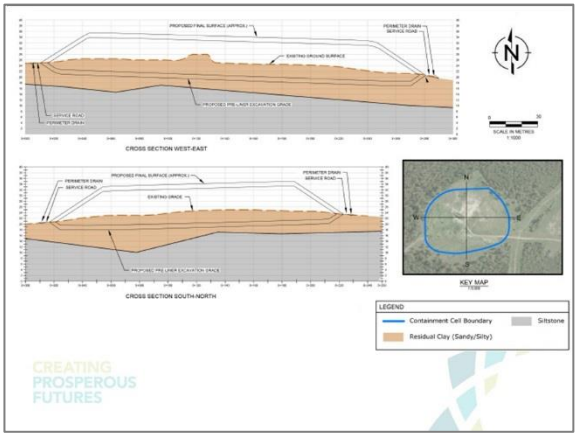
Kerry Hallet: I think Muswellbrook was just under 4, the last one.

Shaun Taylor: And there's various studies and there's a reasonable correlation between earth tremor events and where the coal seam is.

The majority of them are about 10k south of here, where there has been tremors, a lot of them are where the coal seams are fairly close to the surface. But then we want to get into the long-term management, we have got an action that has to be taken in the event that there's a large earthquake event. The thing to point out is in all those earthquakes, or earth tremors that have occurred, in this local area, including the 5.6 in Newcastle, there's been no damage here at the smelter, so if there was going to be something that was going to be harmful in the containment cell, you would have thought there would be something happen here.

Kerry Hallet: I was just thinking of stretching and contracting or what happened with the plastic.

Shaun Taylor: It's a good point and it's something that has to be considered anyway, with the nature of the material that goes in the containment cell, where there's going to be some settlement and the like, and that has to be considered as well and that kind of movement that a tremor would have, would reflect that.



So this is just a layout. This is the concept for the containment cell, the detailed design is working it out in a bit more detail but the actual circle for it may change, but it's all going to fit in that space. We've got Haul Road that goes across, and there's a cross section. So the key thing is it's within the natural clay, and overlain

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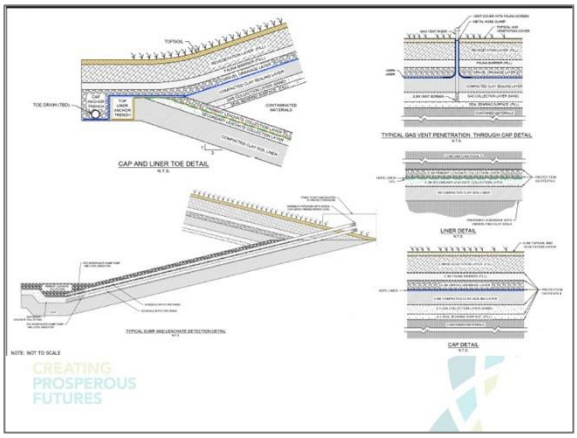
bedrock, and some of that natural clay will remain, some of it will be removed to be used and engineered to be an even better layer.



This is a design that's in accordance with the EPA's guidelines. It does specify a number of layers that are required. So with the base, you've got the natural clay, then you've got a sub-base just for construction so that vehicles can move around, then you've got, basically a metre of that process clay I was talking about, geotextile layer, gravel drainage, the geo-synthetic clay liner, and then we've got the HDPE, which Andrew was just talking about, the geotextile, and then the drainage detection layer on top of that as well to see if the leachate is actually generated, the geotextile, and then you've got the fill.

So as you can see there's a fair bit of material between the actual base and the natural surface. There's several layers. And there's contingencies built into that and that's one of the key things the EPA's guidelines are built on – that you're not just depending on one, you're not just depending on two. That's at least three critical layers to ensure that things are actually kept in there.

Richard Brown: Just to add to that, Shaun, Andrew mentioned it too, it's not as if this thing is a horizontal surface, that if any leachate builds up it just sits on that, it's actually built at a grade, so it's designed to drain and collect anything that's there so the leachate doesn't actually sit on any of these engineered layers.

Shaun Taylor: Yes. And then the capping, we've got the geotextile over the top of the material to protect that, a sand gas-collection layer, which will have gas vents going from it to the surface, more geotextile to protect that, the compacted clay, so that will have a 10 to the minus nine permeability, which is extremely

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high permeability. The HDPE, or the LLPE, that Andrew mentioned, so again, that's one of those things we're looking at, is which one of these options works best in this situation.

Another drainage layer, to capture the water before it gets through any of those other layers. The geotextile, and then we've got a fauna barrier layer. As the locals probably know, there's a few things that like to dig into things so we thought we'd get that layer in there to protect it as well. And then there's basically a metre of topsoil, which will be to support shallow-rooted, predominantly grasses, again to give it a visual treatment but also that evapotranspiration and to stabilise the surface.

So that's the artist's impression of what the cell's going to look like pre the industrial development around it. So it's going to visually fit into the existing environment. If you're driving along the Hunter Expressway, there is a mound of material that's probably a similar height to what the containment cell's going to be at the moment. You basically can't see it.

Darrin Gray: So industrially, in the future, you can't build on it or anything like that.

Shaun Taylor: That's something we'll talk about further, again. But yes, it's very restrictive on what you can do on it, so basically nothing.

Darrin Gray: Yes, so used for parks and gardens.

Kerry Hallet: Does it have to be fenced off?

Richard Brown: It would be our preference not to, because we didn't think it would be needed.

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Shaun Taylor: There's plenty of examples of things with far worse stuff in them that people use for recreation.

Kerry Hallet: So basically you don't have to fence it off, because it would be better without fencing?

Shaun Taylor: No.

Richard Brown: The only reason we'd fence it of for is to stop vehicles or motorcycles or something from driving over it but it wouldn't stop people who want to walk up there.

Shaun Taylor: You've got Sydney Olympic Park, which has dioxins in it, Carrington by Throsby Creek which is contaminated material. There's a whole range of examples of containment cells where people walk all over them and probably wouldn't even know it's a contaminated site.

Contamination and remediation. So there's contaminated soils within the smelter. Primarily the PAHs, the hydrocarbons just from the activity of the site. From within the Hydro land, so it's predominantly asbestos from the rural demolition, and then the capped waste stockpile which is mixed smelter waste so basically a bit of everything from '69 to about '93. So all that remediation has to be undertaken in accordance with a remediation action plan.

All of this remediation is being overseen by an independent EPA-accredited auditor so we have to answer to them first and they're highly critical of anything you put forward and think through it very carefully.

Richard Brown: And that will include a review of the cell design as well.

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Shaun Taylor: That's right.

So the contaminated soils within the smelter will be excavated and taken directly to the containment cell and then we'll replace any voids with that crushed concrete and other suitable material. And then the capped waste stockpile will gradually be removed. But the cap will be removed and we'll gradually work our way across because of the nature of the material you don't want to just take the cap off in one go and have it all exposed to water. We need to keep it as dry as possible for as long as possible and not have it exposed to the air and have dust generated and so on. It will basically be a working front.

Rod Doherty: Shaun is there an estimated timeline for once the dredging out of the capped stockpile, how long it would take to get into that stock? You're saying gradually, what's gradually? A month?

Andrew Walker: No, it's going to take about six months.

Rod Doherty: Six months?

Andrew Walker: That's what we've put in our timeline, to mine the capped waste stockpile and transport it across the site.

Rod Doherty: That's the question I wanted to ask then. What' happens if you get a January or an April super storm?

Richard Brown: You capture all of the leachate that gets generated. And you treat it.

Andrew Walker: So we're going to have detention basins built into the footprint of the capped waste stockpile, like we used to have in years gone by. And then in the new cell, we're

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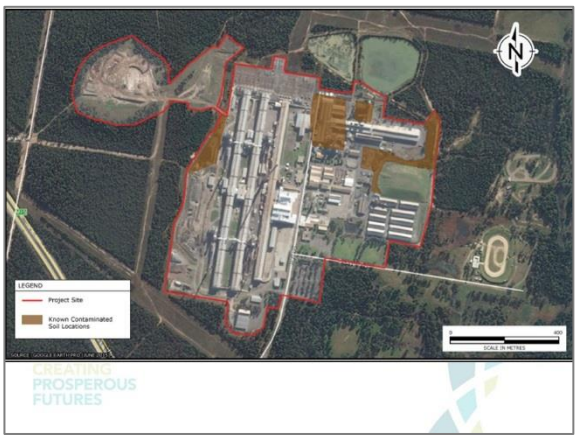
going to be filling that in such a way that we can have some sort of temporary cover to minimise any leachate generation but anything that is produced, we'll have to collect it in a detention basin and then treat it.

Michael Ulph: This is done in standard domestic landfills as well. They have *daily cover* and they put material over the top.



Rod Doherty: In the last few years we get a rain event and they're significant.

Michael Ulph: Absolutely.

Richard Brown: That's part of what we're looking at also in this design, is the water management process.

Shaun Taylor: We know that 1/100 is happening more often. So we have to have to account for it.

Brad Wood: Is it supposed to be up that hill?

Kerry McNaughton: Yes.

Shaun Taylor: So all those contingencies, we have to build into the methodology of "*what if?*" Hope we never have to use it. We have to plan for it.

This shows the known contaminated soils within the smelter, again as I said, mostly it's related to hydro carbons around the carbon plant up in the north of the site. Again, a lot of it is also what's been captured in some of the ponds. There's a bit more work that we'll have to do once it's safe to get into areas like the transformer yard and a few other bits when they're decommissioned and it's safe to get in there, so there's some areas underneath buildings that we'll have to until they're demolished to get in there and

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confirm but we've accounted for that for the planning for the containment cell. There's also some other soils that we've stockpiled on site from in the buffer zone, there's asbestos soils that we've covered in the HDPE. Again, we're waiting.

And then we've got the capped waste stockpile, you know where it is, and obviously, as I said, it'll be eventually gradually worked across, to be loaded into the trucks, and basically we'll have the trucks going back and forth to take two across. The blue is showing notionally where the water treatment plant will be. Again, it will probably be a mobile plant to account for the dynamic nature of the works. And we have allowed an area for storing any material that can be safely removed potentially for recycling so if we come across a big chunk of scrap metal we'll be able to pull it out and deal with it.

Darrin Gray: So with the SPL, as you're going through it, historically it's all mixed together with asbestos, and it's really hard to separate, but is there going to be an assessment process?

Shaun Taylor: From a safety perspective, it's going to be very difficult to recycle most material in that pile, particularly the spent pot lining, it will have been cross contaminated with things like asbestos. And how do you clean off the asbestos? You get it wet. You can't get the spent pot lining wet. It is just mixed up, it's not like it's segregated carefully, it’s just all mixed up.

Richard Brown: So that said, you're right, Darrin, if we happen to come across something which we know can be safely managed from that perspective, we'll do it. If there was a wrapped up section of spent pot lining or something there which we thought was low risk

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of contamination or cross contamination, we'd pull it out and put it aside for recycling.

Rod Doherty: It's more than likely concrete isn't it?

Richard Brown: There's lots of stuff in there.

Rod Doherty: Just on the contaminated lands graph, it showed a significant area between the crushing plant and the carbon plant itself and that's all hardstand so why are you classifying that as contaminated?

Shaun Taylor: From some of the investigations that have been done, subsurface stuff, there is some contamination in there.

Rod Doherty: Under the asphalt?

Andrew Walker: We know that there's some fuel oil that leaked. We used fuel oil up until 1985 before we converted to natural gas.

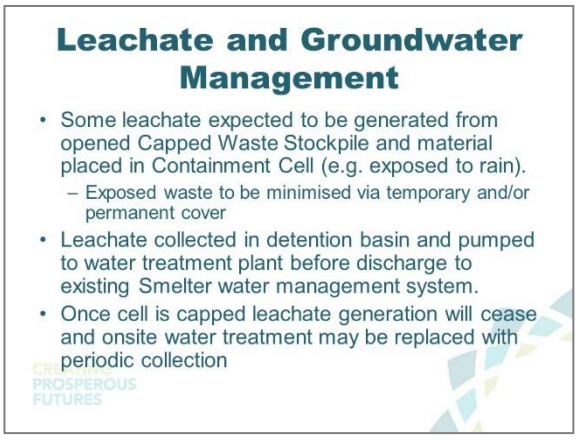
Rod Doherty: Okay.

Richard Brown: We know it's not in the groundwater because we tested all around the area for groundwater, so it's isolated to soil impacts.

Rod Doherty: Fair enough.

Shaun Taylor: We're fortunate here that it's a relatively new industrial site. Not a 100-year old lead smelter or steel works.

Again, something else we were just talking about, so the leachate that is expected to be generated. There is some moisture in some of the material in the capped waste stockpile, it's probably drier that we expected from some of the testing we have been doing, but it's going to



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be unavoidable, that it'll be exposed to rain. We'll try and keep it as dry as we can but it will be exposed and therefore there will be leachate generated. That leachate will be collected, as Andrew was just talking about, into detention basins and pumped out through a water treatment plant until it's at a quality where it can be pumped into the existing water treatment system at the smelter and eventually into the north dam and then when it's suitable, onto the existing irrigation area or re-used for dust suppression on site as well.

The long-term containment cell environmental management. So there's two aspects to this bit: there's the actual management actions that we have to do so that'll be development of the containment cell environmental management plan with the EPA and the Department of Planning and Environment and the EPA auditor that I mentioned earlier.

So that will be detailed in inspection and monitoring requirements so visual inspections. Someone will come out quarterly or whatever just to make sure that the vegetation is stable, that we haven't got any tall trees emerging, if any maintenance work needs to be done. Leachate – has any leachate been generated, do we need to do anything about it? And gas, so again, if we've nominated a short-term gas monitoring program, hopefully that will show there's no gas issues.

Ongoing management and maintenance activities, again, if we need to do some weeding or the water treatment plant needs to be maintained in accordance with the manufacturer's requirements so if we need it, it's ready to go. And then that point there, Kerry, so related to what you were talking about earthquake – potential incident response procedures so if we get an earthquake magnitude of five or greater, if we have a 1-in-

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50-year event, I can't remember what regime we had, but if it's a large storm event, we have to come out and check if there's been any slippage, so that's the kind of thing we we've got to have in place as well.

Kerry Hallet: But seeing as it's below ground bush fires won't worry it will they?

Shaun Taylor: There will be a buffer, fortunately as well. So there will be an access road around it. There will be a cleared area around it anyway just for construction access, so it will be maintained even until development approval.

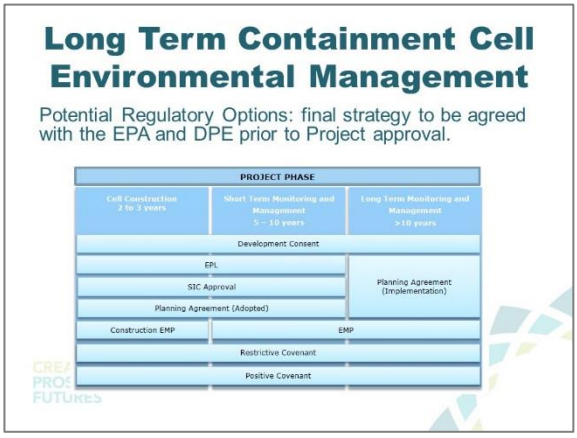
Kerry Hallet: Because we have had a couple of shockers.

Shaun Taylor: That is an issue that we've had to consider and I guess why that buffer is around it to protect it.

And then that last point, the leachate treatment and collection if it's required. As we touched on earlier, this system is designed to not generate leachate. It's not like a Council landfill where you know it's going to happen. If it's going to happen, it's only if there's any residual water that literally makes its way through the system. The material is not going to break down and generate more leachate.

The other aspect of this is that it's regulated so what happens in 10 years, 50 years, 100 years, what regulations are in place to ensure that somebody's held accountable for the containment cell.

So we had a go at looking at the regulatory options and we've been in ongoing discussions with the EPA and the Department of Planning and Environment about what structures that there are that can be put in place to manage



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this. We broke it into three sections, we've got the actual construction, the short-term monitoring and the long-term.

The cell construction is pretty straight forward about how that's going to be regulated, obviously we need development consent, we'll get an Environmental Protection Licence from the EPA. The other thing we need from the EPA for the containment cell is what's called a specific immobilised contaminants approval just to put it into the cell. One option, after talking to the Department of Planning, is what they call a planning agreement, that is basically a contract between us and a government department, that spells out our responsibilities going into the future.

We've got the construction EMP, other options include things like restrictive covenants and positive covenants that control what you can or can't do on the containment cell going into the future so it would spell out that you can't build an industrial site on the containment cell. Positive covenants can also say what maintenance activities you are required to do in the future.

So most of those we'll continue from the cell construction, in the short-term as well. So five to ten years to make sure the cell is operating the way it's supposed to, how it was designed. The only difference probably in that period is the construction EMP becomes that long-term EMP. The one bit that we're still finalising with the agencies is the regulatory approach going forward. There are a number of approaches that can be taken, the development consent continues going on in perpetuity. The planning agreement would then be implemented, it'd be a contract but the EMP, restrictive covenant and positive covenant – the EIS talks about this, say for example the environment protection licence gives the EPA powers to require Hydro to

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provide financial assurance, so X-thousands of dollars or whatever put aside, so that if something happens, it can be called upon.

You can have insurance. So these days there's environmental insurance if there's an environmental event. There's pollution insurance. You can be required to take out a policy and maintain that for a certain period of time. It also allows them to force a positive covenant. Some of these things we're looking at taking on-board going into the future, not just as part of the environment protection licence. That's all of the tools that are available, and we're working through that with the agencies, it's one thing that is as much about protecting the community, the government agencies they don't want to be held carrying the can for this. Be it, Planning, be it the EPA, be it Council, whoever, someone else has to be held accountable for it.

Darrin Gray: How public is the information coming out of the monitors? What's the regime?

Shaun Taylor: So for example, with the Environment Protection Licence, and with the current process, the licence holders are required to publish their monitoring data.

Darrin Gray: In periodicals?

Shaun Taylor: Sorry, on the EPA website you can access all environment protection licences, their annual returns, which has monitoring results in it, and a lot of them do put up quarterly, or whenever the monitoring recording is done, the company will typically update it.

Kerry Hallet: Sorry, I'm going to ask another question, too. We're talking long-term. Bearing in mind that some companies don't last forever,

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who monitors – if that company goes – who's going to go back into that?

Shaun Taylor: That's a good point. That's part of the reason why we were looking at this, that there is a system in place that isn't just...

Richard Brown: This is not company-based; this is land-based.

Kerry Hallet: That's right. That's why I'm worried who's going to oversee... okay, company X has been doing it for 20 years, for whatever reason they go broke, close down, succession plan, whatever, can no longer do it. Who organises company Y to come in and take over for the next stage and then company Z for the next stage?

Shaun Taylor: In these tools there's a few things that cover that element. And that's the one thing that we've tried to ensure, that this is tied to the land. So that whoever owns it is held accountable so there's a few things, well firstly, say in whatever time, there's a new owner of the containment cell. So there could be tools in the restricted covenant that says to be the owner of the containment cell, you need to provide evidence that you've got this much money, this material, that you're not a two-dollar company, that you have the resources to look after this forever.

Kerry Hallet: So why would a company buy a containment cell?

Rod Doherty: As an investment. Wouldn't there be a monetary bond in place?

Richard Brown: Yes.

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Kerry Hallet: And there's insurances but still, somebody's got to oversee it to have all of that happen if something happens.

Richard Brown: Yes. But someone would buy the containment cell because of what they can gain out of conducting those activities. There's, I guess, money to be had. Someone's going to have to pay somebody to do those monitoring and management activities. If they've got no obligations in terms of the pollution, if they do the cell monitoring and management, it's like any long-term environmental management activity, there's lots of bio banks around the site, where people actually monitor and manage a biobank site. They get paid to do that.

Shaun Taylor: That's the good example, is private companies are buying native vegetation as a bio banking site so they get paid money to do that [manage it]. That's probably the similar scenario of someone who could be interested in doing that.

Darrin Gray: You might have to educate me on that.

Michael Ulph: So basically, there's money put in trust and that trust fund pays the people to manage the site, whether it be maintain ecosystems, threatened ecosystems in perpetuity, or it could be easily transferred to this.

Shaun Taylor: That's something we wanted to have in place, because Hydro knows, as Richard said before, forever's long time. So we wanted to have a structure in place that holds somebody accountable for it.

Richard Brown: I think it's in the community's interest to make sure that whoever the entity is that owns it, whether it's Hydro, or whoever, has got the capability of managing that into the

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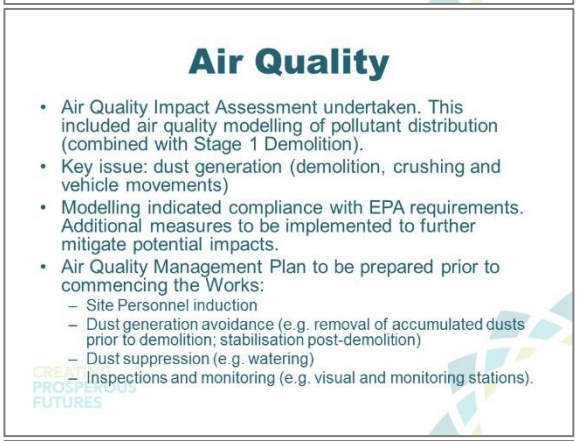
future. I think that's clearly in the best interests of the community.

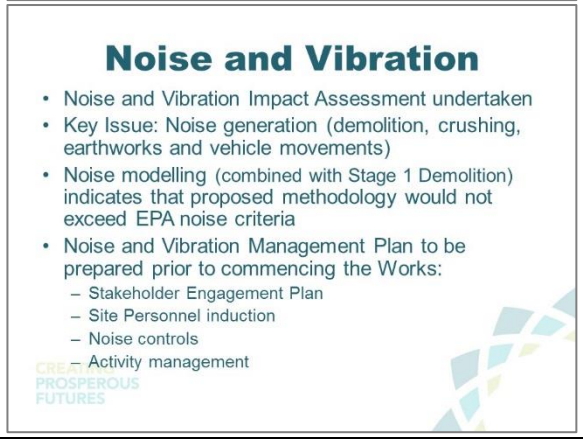
Kerry Hallet: Yes.

Shaun Taylor: For example, with the EPA, to get an environment protection licence, you have to prove you're a fit and proper person. So that test alone, you couldn't get someone who's got a bad history of environmental management getting a licence to deal with this. And that's something that will continue almost in a contractual basis, saying things like this should be covered in in the planning agreement. There will basically be a contract between the landowner and the other party to meet those obligations.

That's just the scope of the project, so I'll quickly go through the environmental impacts and management. I won't go into too much detail, but one of the key ones is air quality, particularly for those of you who live nearby, the air quality impact assessment's been done. That involved modelling, and we looked at the worst case of assuming the majority of activities occurring at one time that could occur at one time and therefore the dust that's generated from that. The modelling indicated that it complies with the EPA's requirement for dust deposition. And on top that, we'll have additional measures on top of that that we've already recommended to ensure that it's even better. Similar to what I've discussed with the Stage 1 demolition, there'll be an air quality management plan prepared for the works to have all those measures in place and ensure that the project team implements them.

Noise and vibration, again similarly the noise model was produced, again modelling that worst case scenario of multiple things occurring at once at the locations closest to residents and what it showed again is that modelling would





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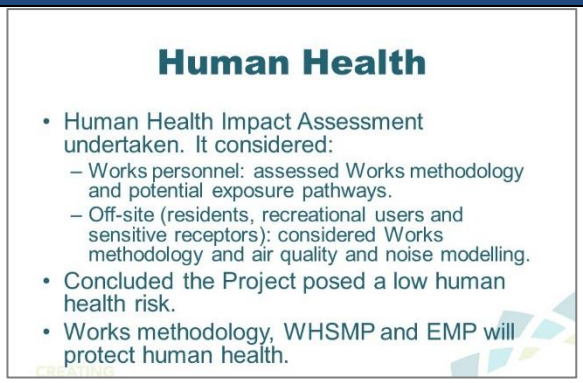
comply with the EPA noise criteria. Some of the modelling actually indicated that with some minor reduction in activities you could work 24/7 and not have a noise impact but that's not the plan.

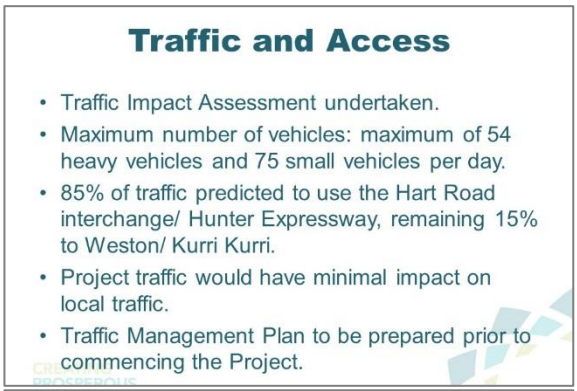
Human health impact assessment. We actually took the results of those two studies and a few other things and probably was even tighter in terms of the criteria. For example, the noise assessment, it looked at sleep disturbance and other things like that, looking at the World Health Organisation requirements, which are even more stringent that the EPA, and again concluded that it was a low risk. And it also looked at the risk to workers on site as well and generated some interesting material. As part of our standard procedures we've already got a number of safety measures included and again so it's a lower risk with all those management measures in place.

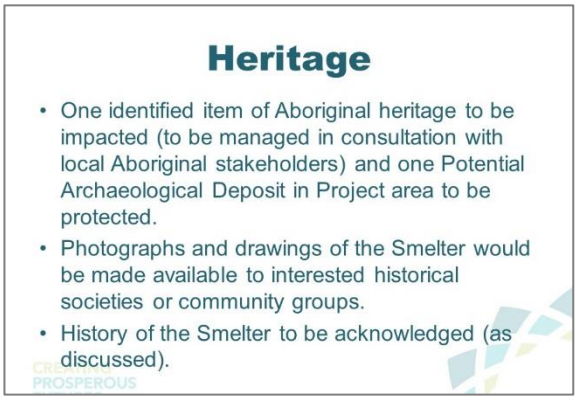
Traffic. We'll probably generate far less traffic than when the smelter was operating. We just basically said that Roads and Maritime Services has a rating of what they call a 'level of service' for an intersection, so the Hart Road interchange has a lot more service than 'A', which is the best, with our traffic, we'll maintain that 'A' rating.

Soil and Water. There's an excavation and earthworks job, so it's a critical factor in terms of minimising soil erosion and water quality so a soil and water management plan will be implemented from start to finish on this project to ensure that the water quality's protected, soil erosion's minimised.

The heritage. There was an Aboriginal heritage assessment done of the actual project site. As, I'm sure, you're probably not surprised the majority of the project site, which is the smelter, didn't have any Aboriginal heritage. There was







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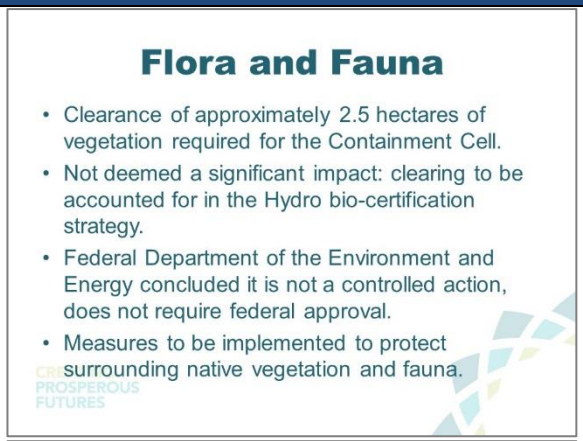
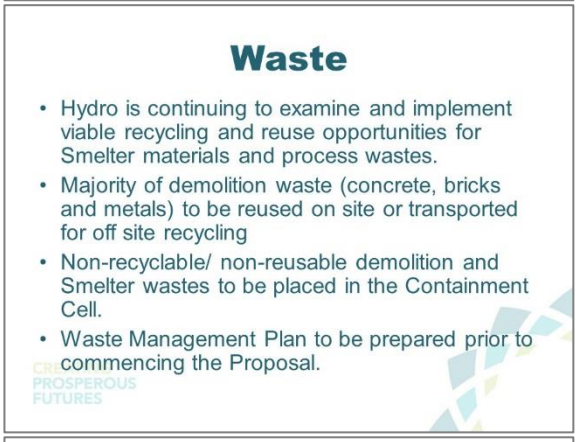
one known site up in the vegetation near the containment cell. We'll be working with the local Aboriginal community to salvage that artefact and another area that we'll just protect. In terms of the heritage of the smelter, Michael may fill you in on how we're going to recognise that heritage.

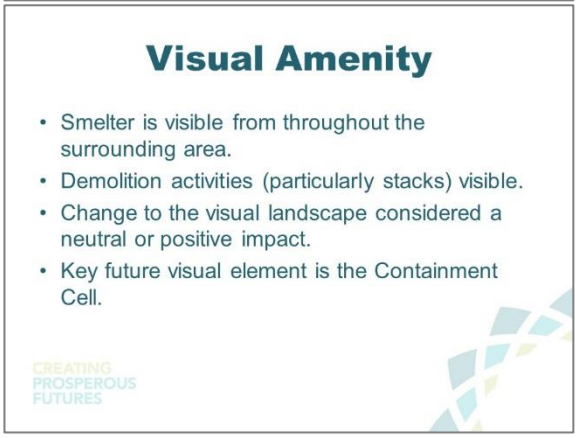
Flora and Fauna. We've got two and a half hectares of vegetation which is endangered ecological community, to be cleared for the construction of that containment cell but the assessment concluded it's not a significant impact and will form part of the bio-certification for the whole hydro-land. One approval we've already received is from the Federal Department of the Environment and Energy, as they're known now, but you don't need their approval because it's a minor impact and again, there'll be measures put in place to protect the vegetation that does need to be cleared for the project.

Waste. I think a key point, and I think what Andrew presented highlights this, is that Hydro continues to look for homes for all the waste material that's on site, be it building material, or scrap process waste, looking for recycling opportunities wherever it's possible. The majority of the demolition waste, concrete bricks and metals, will be either reused on the site or taken to the recycler and non-recyclable will be placed in the containment cell.

Visual amenity. We've shown you the artist's impression of what the containment cell's going to look like. So that will be the permanent visual element of the project. The other one is, the stacks coming down. That element may be a personal judgement on whether it's a good or a bad thing for the stacks are coming down.







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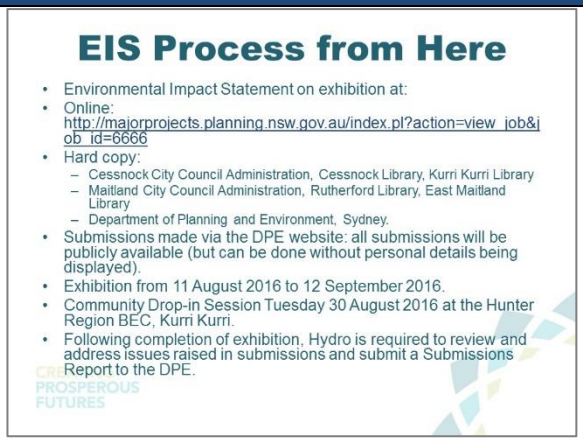
So from here, as I said, the EIS is on exhibition, you've got the Department of Planning's website, it's at Cessnock Council, and Cessnock and Kurri Kurri library, also a few options in the Maitland LGA and if you're in Sydney you can drop into the Department of Planning and Environment as well. Just a note on how to make submissions. You can do it online on the Department's website, there's a process where you can fill out your details, you can request for your details not to be made available. All the detail of submissions will become publicly available but you can request for your personal details to not be provided. It's on exhibition until 12 September, Michael will give you a little bit more details about the drop-in session on the 30th of August.



From there, we're required to look at the submissions that are received, the Department of Planning and Environment will forward those through to us, and we are required to produce what's called a *Submissions Report*, so look at the issues that are raised during the exhibition and provide a response.

Michael Ulph: Okay, any questions of Shaun before we go to Richard?

Rod Doherty: In the economic benefits statement you've got here; this will be generally available to the public won't it?

Richard Brown: Yes.

Rod Doherty: It says here the conservation area alone could potentially generate around a million dollars in regional value. How does it do that?

Richard Brown: Well, part of if it is on that monitoring and management activities, so someone has to be paid to do that and that's

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obviously income into the local economy, so there's a lot of that.

Rod Doherty: Okay. It could be Hunter Land Management for example?

Richard Brown: It could be anybody. Somebody's got to be trusted to do that activity. And that would be things like fencing and maintaining fences, weed control, feral animal controls, that kind of stuff.

Rod Doherty: Okay, fair enough.

Michael Ulph: Don't forget, if a local Scout group, for example, want to come up and go camping, they'll come to Kurri to get their sandwiches first, their bottles of Coke, and fill up the car.

Shaun Taylor: From an ecological perspective, which ties into the tourist perspective, it's quite a significant area of native veg remaining in the lower Hunter. So from that perspective alone it is a potential drawcard.

Richard Brown: It remains to be seen how the long-term owner of the site will look to manage it. But I guess from our perspective, and we've talked a little about this in the past, is that we'd love to see the bio bank be able to be compatible with some sort of passive recreation like bush walking.

Rod Doherty: Yep.

Richard Brown: We've had some dialogue with companies or entities that are interested in undertaking some conservation activities, things like the Devil Arc in the Barringtons, they said, if you get similar types of projects set up within the buffer zone for different species. But they're

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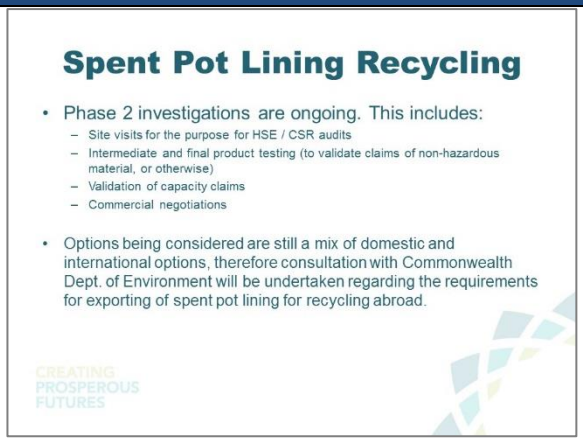
things that we'd love to see but have not a lot of control over.

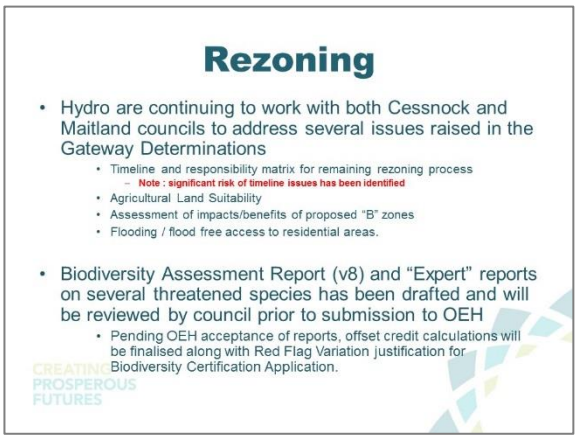
Michael Ulph: Any other questions of Shaun?

Richard Brown: Alright, I've only got a couple of slides just to tie things up at the end, so there's some other activities that we're still working on. The spent pot lining recycling: there's not a lot of changes to the last update that we gave, we're still working with a number of recycling possibilities. We're getting very close to getting some trial work underway. We've done some material testing and we've done some audits of local facilities preparing audits of related international facilities and over the next few months we'll hopefully start some trial work with the recycling.



We still have a fair amount of confidence that we can deliver a three-to-four-year outcome for recycling all the material that we've got on site.

The rezoning. There are some meetings and lots of discussions with Council, Maitland and Cessnock Councils. One of the key actions that we've done is we've prepared a project timeline outlining all of the different components to the rezoning, related to the expectations of the Department of Planning. What that highlights, is that depending on Council's views, their likely to have a serious impact on the time it's going to take. The Department of Planning, in their Gateway determination, allowed 36 months, which is a long time, however that looks even skinnier given some of the current positions taken by Council. So we're hoping the that the project timeline allows them to see where the critical path is and where there are certain activities such as flood studies and the like, we might be able to take more of an active role in that process and fast track that so we can get it



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rezoned and hopefully then kicked into gear for a redevelopment sooner rather than later.

Toby Thomas: So what's happening with the B zone, the business park?

Richard Brown: We're working with Cessnock Council on their employment land study that they did. So they engaged some consultants and we've been working with Council on that, so we've sort of made an amendment to that study plan to look at whether we could include that part, which they've done. So we're just kind of finalising the report, but at the moment it looks like it supports the implementation of those B zones. I think from Council's perspective there was some internal discussion around which type of B zone but that's a bit irrelevant to us. It was more a case of just making sure that there was some form of B zone. So far it looks pretty promising.

With the divestment side of things, this is all leading up to a situation where we are going to sell the site. We've been through that process where we've registered interest in the site, now we are preparing to work with a number of companies to further that interest, and we'll be asking those companies to detail the nature of that interest and ultimately come up with a proposal for us to consider, that will take a number of months to complete that due diligence, and obviously there's going to be a lot of scrutiny and a lot of those issues that we've talked through.

And I think that's it.

6 CRG questions and answers

Rod Doherty: I've got a text message here; Bill Metcalfe is an apology for tonight's meeting.

Michael Ulph: Thanks. Let's start with questions on what Richard just said. Anything pertinent to those last few slides?

Rod Doherty: Yes, I've got a question, I've been approached by the motorcycle club, and they want to know what their future is. I know technically, if you allow someone to build something on your land, that technically the owner of the land can eventually own it. So that's a bit of a worry for them because they've put a lot of money into that speedway. I'd like to see a good news outcome for the Kurri community.

Kerry Hallet: And they've actually attracted national titles now as well, which is good for the community.

Brad Wood: Yep.

Richard Brown: Yeah, we've had lots of discussion with the speedway organisation over the last couple of years. And I guess, as far as Hydro is concerned, as long as we're here, then clearly they're a part of the fabric. But I guess what we can't do is we can't predict the outcome of the owner of the site in the future. But what we can do and what we will do is we'll make those positive representations to the owner about what the speedway actually means to the local community and obviously make that available for them and make the contacts available for the next owner.

Rod Doherty: We've got some history on our side, Heddon Greta speedway eventually shut

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down, as an industrial estate. Tomago was eventually pushed out for industrial development. So I can see, for example, once you sell Bowditch Avenue for residential, and people start building houses in there, people are going to say 'not in my backyard'.

Kerry Hallet: They don't care whether it's there already or not.

Richard Brown: I suppose these are issues that Council has to take on-board when they approve the rezoning or developments as they get proposed.

Rod Doherty: Yeah, I do feel for the speedway though. You guys have allowed them the opportunity to do that, I think there should be some consideration as to the future of it. And look, it'll be pushed out by somebody eventually, but I wouldn't like it to be pushed out by Hydro.

Richard Brown: Yes. Well, that's not our intention.

Michael Ulph: So since I've been involved you've extended the lease by two years once and then again this year by another two years.

Richard Brown: Yes.

Michael Ulph: So four years after the announcement was made to not reopen.

Rod Doherty: The other thing that was raised, the roof fans in the pot room don't operate anymore?

Richard Brown: No.

Rod Doherty: Ok, so someone saw a cloud of dust or something come out of the smelter from

the Expressway and they said 'what would it be?' and I said 'I would not have any idea'.

Richard Brown: Do you know when?

Rod Doherty: Not specifically, but in the last month.

Andrew Walker: It could be the fumes from lancing the aluminium busbar.

Richard Brown: Yep. So some of that work that Andrew's talked about with the busbar – this stuff here. You probably can't tell but each of those ends there was lanced off, and obviously that generates a significant amount of fumes.

Rod Doherty: Yes. That's alright, it's just someone asked the question.

Richard Brown: We've noticed it ourselves. At times you see some of that fume coming of that fume coming out of the roof vents.

Darrin Gray: The jackhammers are being well-heard on our side of town. It's just a personal observation, just to be aware of.

Richard Brown: That's digging out the pots.

Rod Doherty: Digging out that aluminium.

Kerry Hallet: Is it to do with the wind direction?

Darrin Gray: The smelter, at certain times of year, you'd wake up in the morning and you could hear it buzz at the back of town, and the rest of the year you didn't hear it. But I just woke up the other morning and I could hear the jackhammer at about seven in the morning. So just be aware.

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Kerry Hallet: We're two k's from the main road and we periodically hear all of the traffic. And there's a hill between us. **Rod Doherty:** We used to hear the forklifts in the casting plant, reversing and dumping bins. **Michael Ulph:** Any other questions that have come through the community?

7 All other business

Kerry Hallet: Am I right to send that community info session out to people?

Michael Ulph: Certainly are. Yes, I was going to mention that in general business.

Rod Doherty: What time is it?

Michael Ulph: It's from 4pm to 7pm. I'm guessing everyone receive the information in the mail with their USB stick.

Kerry Hallet: We can do both on the night because we don't have to be in there till five. So we'll be there anyway.

Rod Doherty: Sorry, another question, the Abouds...

Kerry McNaughton: They've been contacted.

Kerry McNaughton: Yes, last weekend.

Rod Doherty: Because they want to be included in that land use study that the Council's running and they want to know what's happening because their land abuts your land.

Richard Brown: Yeah, I know, I've talked to Norm.

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Michael Ulph: Okay, so that's on from four to seven on the 30th. What we'll be looking to do is, we'll place a little bit of information on the website and then I'll send you a link to that and if you've got networks or Facebook pages or things like that where you can help to spread the word about it that would be fantastic.

So the other thing's about the mural. The mural was mentioned last month and no-one's mentioned at this point but we've got a meeting set up next week with Council. So Toby and I'm expecting Leslie and myself and Kerry [McNaughton] are going to go and meet with Stephen Long at Cessnock Council and someone else, he's involved in the road side of things and he's going to bring somebody else who's involved in the planning side of things. So we'll have a discussion there around the potential mural site and size and move that forward.

And I think that was about it. So if you come along to the drop-in session, we're going to have some more posters that go into more detail about the EIS, please let people know that there'll be a lot of information there if they've got any questions and so on.

Rod Doherty: Are you going to do a presentation there or is it just a drop-in session.

Kerry Hallet: It's a drop-in session. There's no formal presentation, so they can come and go as they please.

Richard Brown: Yeah, just anyone who's got specific questions.

Michael Ulph: The other thing is we are putting together a second video that will be ready for that, so that will be on play and it goes through and explains a little bit about the containment cell and leachate collection and all the rest of it.

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Which is going to be one of the things that people will want to know about. It should explain it fairly well I think.

Shaun Taylor: One of my colleagues, who's a bit more learned on the containment cell will be there as well. Richard knows it pretty well back to front, but Fiona will be there as well who's been involved in concept design so she'll be able to answer more technical questions about the containment cell itself. There'll be various people there so if they have a specific question about the containment cell they can talk to Fiona, if they want to know about ongoing things they can maybe talk to Richard, so there'll be various people there to answer the various types of questions.

Kerry Hallet: When are we going to get the links? Because I want to get it out as soon as I can. Because the 30th is the week after next.

Michael Ulph: I'm expecting Monday. The person that puts the web content up in Norway works on a Monday.

Kerry Hallet: Okay so I can send it out on Tuesday.

Rod Doherty: Is there any chance for you guys here at the plant, to get from either the Australian Department of Health of the NSW Department of Health a comparison of the Kurri district cancer rates versus the rest of the Hunter?

Kerry Hallet: Yes, because that statement is made regularly by some.

Shaun Taylor: I'm sure there is, I can talk to our human health specialist about that.

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Rod Doherty: Because there's people out there saying that this is a hot-spot for cancer. **Michael Ulph:** So in Kurri versus NSW? **Rod Doherty:** It could be Kurri versus NSW yeah. I think that's important that we know that. **Richard Brown:** I think there's a specific definition of a cancer cluster.

8 Next meeting and meeting close

Michael Ulph: Alright. I close the meeting at a quarter to eight.

Meeting closed 7:45pm

Next meeting 20 October 2016

Kylie Cooper

GHD – Stakeholder Engagement and Social Sustainability