

Project	Hydro Kurri Kurri Site Redevelopment Project	From	Emily Strauss
Subject	Community Reference Group Meeting	Tel	1800 066 243
Venue/Date/Time	Thursday 15 December 2022 MS Teams video conference 6.01pm – 7.45 pm	Job No	2218982
Copies to	All committee members		
Attendees	<p>Mr Michael Ulph – CRG Chair, GHD (MU)</p> <p>Ms Emily Strauss – Minutes, GHD</p> <p>Mr Alan Gray – Community representative - Retired Mineworkers (AG)</p> <p>Cr Robert Aitchison – Maitland City Council (RA)</p> <p>Mr Andrew Walker – Hydro Kurri Kurri Project Manager (AW)</p> <p>Mr Toby Thomas – Community representative, Towns with Heart (TT)</p> <p>Mrs Kerry Hallett – Hunter BEC (KH)</p> <p>Mr Rod Doherty – Kurri Kurri Business Chamber (RD)</p>		
Guests/observers			
Apologies	<p>Mr Richard Brown – Managing Director, Hydro Kurri Kurri (RB)</p> <p>Clr Rosa Grine – Cessnock City Council (RG)</p> <p>Jenny Mewing (New representative for Cessnock City Council), replacing Mr Iain Rush – Cessnock City Council (IR)</p>		
Not present	<p>Cr Darrin Gray – Cessnock City Council (DG)</p> <p>Mr Bill Metcalfe – Community representative (BM)</p> <p>Mr Andrew Neil – Manager Strategic Planning, Maitland City Council (AN)</p>		



Table of Contents

1	Welcome and Acknowledgement of Country	3
2	Meeting agenda	3
3	Welcome and meeting opening	3
4	Last meeting minutes	3
5	Project Update.....	4
6	Meeting close	35

Notes

1 Welcome and Acknowledgement of Country

Meeting commenced at 6.01 pm

Michael Ulph (Chair) (MU)

Acknowledgement of country.

2 Meeting agenda

Agenda

1. ECC Construction & Site Remediation Update (AW)
2. SPL Recycling
3. CRG Q&A – CRG Members
4. General business

3 Welcome and meeting opening

MU welcomed attendees, provided an Acknowledgement of Country and noted apologies.

MU asked those present to declare any pecuniary interests.

4 Last meeting minutes

AG moved the minutes.

KH seconded the minutes.

5 Project Update

AW: So the agenda will just be the project update being the update on the cell construction and site remediation project and I'll update everyone on the SPL recycling. And then there'll be questions and answers from the CRG, and then any general business.

AW: OK, so that's a view, aerial view of the cell on the 18th of October.

Project Update – Cell Construction



Aerial view of the cell – 14/12/22. Cell complete and ready to receive waste apart from completion of 1mm sacrificial geomembrane on eastern batter and completion of drainage aggregate in southern sump and base of the access ramps.

AW: You can see the progress that's been made since the last meeting. The cell is pretty well finished now.

MU: I'll just go back so we can see that again and the difference.

AW: So the black area around the perimeter of the cell, Daracon, have gone around and put 300 millimetres of clay all around the perimeter of the cell, and that's to protect the primary liner, when you're filling the cell with waste. And you'll just notice in one corner, when that photo was taken, it was still to be covered, but that's actually been completed as of today. And, so the cell's pretty well ready for waste transfer to start, which is scheduled for the 30th of January.

AW: Next slide. OK, so I've broken the presentation up into these main areas, things that we've been working on. We did a waste handling simulation trial and there will be a video on that at the end of the presentation. Daracon have been working on the southern sump, which if you recall a few meetings ago, we talked about the damage that occurred to the sump because of a rain

Agenda

1. ECC Construction & Site Remediation Update (AW)
2. SPL Recycling
3. CRG Q&A – CRG Members
4. General business

Project Update – Cell Construction



Aerial view of the cell – 18/10/22. A64 geotextile and drainage aggregate installed in three quadrants via the ramps, SE ramp started and work started on south sump.

Project Update – Cell Construction

The main focus areas for the last two months have been: -

- Waste handling simulation trial
- Completion of works in the southern sump, eastern batter & SE quadrant
- Drainage aggregate deployment
- Leachate collection pipework installation
- Soil confining layer & sacrificial geomembrane
- Dipole survey to check for any leaks in the lining system

Project Update – Waste Handling

Compliance

- A lot of work has been happening in the background on the methodology for CWS waste removal & handling, gypsum addition and cell filling.
- A workshop was held on 11/8/22 between Daracon, EnviroPacific Services (EPS), Ramboll and Hydro to review the work method statement that has been developed by Daracon and EPS for the movement of waste across site to the ECC. Comments being addressed in a final revision.
- Simulation trial (dry run) was conducted to simulate the weighing of waste, addition of gypsum, movement of dump trucks across site to check handling practices, accuracy of weighing and the reliability of the data collection system – trial conducted on Monday 24/10/22.
- Health monitoring protocols being put in place.
- Site auditor has reviewed the methodology and made comments.
- A meeting was held with SafeWork NSW on Wednesday 23/11/22.

CREATING
PROSPEROUS
FUTURES

event back in February, actually. Anyway, that's been finished now. All the drainage aggregate has been deployed on the floor of the cell. The leachate collection pipe work is all complete now and as is that soil confining layer around the perimeter and that's been covered with another geomembrane, which is a called the sacrificial geomembrane. And finally, we've done a dipole survey. Well actually, TRI, which is a consultant working for the lining contractor Ecoline, have done a dipole survey and I'll talk a little bit about what's involved in that survey.

AW: OK, so I talked to this slide last time. So since the last meeting, we've obviously done that simulation trial.

AW: And these are a few slides showing the main areas that were involved, so Daracon have installed a wheel wash at the capped waste stockpile. You can see the capped waste stockpile in the background, and the trucks will drive through that wheel wash filled with water which will remove any waste or mud that's stuck to the tyres.

AW: This is a photo of a 6-wheeler, a tip truck, being loaded with an inert waste material, which is the anode butt fines. We chose this waste stockpile for the simulation because it doesn't contain any asbestos or any other nasties. There might be a trace of fluoride, but very low levels so it was a good material to use for the trial and we actually simulated all the operations, so filling the trucks which you can see there then driving through the capped waste stockpile, then out through the wheel wash, adding the gypsum and then the truck did a drive across site to the containment cell, looped around the cell, and then drove back again and tipped off. And then we repeated it and we did about eight or nine runs over a period of about 6 hours. In this case, this is a 6-wheeler because those trucks can fit on our weighbridge. So we were cross-checking the weights that were being recorded by the excavator. So the excavator has load cells, and the operator can weigh out how much waste is going into the truck using the load cells on the bucket, so if it's 20 tonnes of waste, we have to add 10% by weight of gypsum, so that means we add 2 tonnes of gypsum with a loader.

MU: And so you do that on the weighbridge?

AW: No, the weighing is all done by machines, so it will be done by the excavator.

MU: OK, gotcha. It weighs as it goes.

AW: Yeah. We weigh as we go but we'll get a regular calibration done of the excavators and the loader that's handling the gypsum

Project Update – Waste Handling Simulation Trial



Wheel wash set up – 24/10/22.

Project Update – Waste Handling Simulation Trial



Anode butt fines being loaded into a 6-wheeler by 36T excavator fitted with load cells to cross-check weights with Hydro's weighbridge.

and we'll have test weights so we can do regular checks on the weighing accuracy.

In this slide, the wheel wash is being filled with water from a water cart and we added a blue dye to the water because we wanted to see, as the trucks leave the wheel wash just how far the water is tracked onto the roads because some of the roads have storm water drains. There's one actually just around the corner not far from there and that's why we did the trial, we just wanted to see what issues we had. We're looking at putting just a clay bund across the road and blocking it off, so no water, contaminated water, potentially from this wheel wash could make its way into the storm water. So the blue dye was to simulate fluoride, which is going to be the main contaminant coming from the capped waste stockpile once we're actually, doing this at the end of January.

AW: This is the truck driving along the west side of the capped waste stockpile about to turn right into the approach to the wheel wash.

AW: This is after the gypsum has been added to the waste. So on the first run Daracon, probably filled the truck up a little bit too much and there was one place where the truck turns 90 degrees to the right and a little bit of material spilled out of the truck. Obviously, we don't want that to happen once we're handling asbestos waste and other contaminated waste. So Daracon then reduced the weight by two tonnes in the truck and there were no further spillages for the remainder of the day which was good.

MU: So what does that end up with there, Andrew? What does the final weight end up at?

AW: Typically, it was about 20 tonnes, in a 30 tonne Moxie, so it wasn't quite full. But Daracon are planning to use 40 tonne Moxies. They just couldn't get one for the trial. So they did the trial with a 30 tonne machine. That is something that will vary depending on the density of the material so the different waste stockpiles around the site have different densities, so they're going to have to be careful not to overfill the trucks and have spillage. So it means being conservative and cautious in that process.

AW: Moving on to the next topic which is the last bit of the cell that had to be lined, which we call the south eastern quadrant. In particular, the southern sump, the one that was damaged in that rain event. This slide is from the last meeting. We ended up removing all of the liners from the sump and repairing the subgrade because there was a small amount of damage caused

Project Update – Waste Handling Simulation Trial



Filling of wheel wash by water cart. Note the use of blue dye to check for any carryover of contaminated water to nearby stormwater drains.

Project Update – Waste Handling Simulation Trial



Dump truck leaving CWS area on approach to wheel wash.

Project Update – Waste Handling Simulation Trial



Dump truck with waste + 10% gypsum addition heading to the ECC.

Project Update – Southeast Quadrant



GCD deployment in the south sump – 18/10/22.

by the water. We had to rip and recompact one area that had been affected by water. So we basically started again and so in this slide we've got GCD, the geo-composite drainage layer, which is the very first layer on the subgrade.

AW: This is the GCL starting to be deployed.



AW: The next slide is the 2 mm HDPE. So that's the secondary liner, which, if you recall, we talked about this before the secondary liner is actually at the bottom of the cell in contact with the subgrade, and then the next stage was actually to do a patch over that with another layer of GCL, HDPE. Then the sand drainage layer, followed by the primary liner followed by the drainage aggregate.



MU: And then if anything gets into that bottom layer of sand you'll test, that's basically a test for leaks?

AW: That's right, that's the leak detection layer.

AW: And it connects to the sand on the whole floor of the cell, so it will detect any leaks in the primary liner where leachate gets through the primary liner to the secondary. We're hoping that we never see any leachate in that leak detection sump. What we've basically done is we've duplicated in the south sump exactly what we did in the north sump. So both sumps actually have 3 layers of liner. So we've made a triple layer sump. As SMEC call it, a super sump.

AW: So this is now moving onto works that have actually happened in the last two months. They had to clean the secondary liner. Some of the clay fines washed in from a rain



event from the subgrade that was adjacent to it, that's what they're doing here, they're just washing and cleaning the silt out of that liner to be ready to put the patch on it, the secondary liner patch.

AW: This is the installation of the secondary liner patch which is a layer of GCL, 2 mm HDPE. As I've mentioned, that makes it now the same as the north sump.

Project Update – Southeast Quadrant



CRE PRO FUTU Welding and QA of secondary HDPE liner patch – 26/10/22.

AW: And this is just the welding and QA of those liners, so a lot of testing has to happen. Arc testing, vacuum box testing, pressure testing of the cells etc. The next stage was to get the crane in and start filling sumps.

AW: So then in this slide, they're preparing the subgrade, on the floor adjacent to the sump and the eastern extremity of the bund. This had to be done to completely enclose the cell and make it completely weatherproof. By doing that, we lost our construction access. We had a ramp on the eastern batter and once we closed that off, the only access was via the four ramps that will be used for the waste transfer. I think in the last meeting we talked a lot about ramps and all the pavement layers that went in around September, October, that's all completed.

AW: This is the floor adjacent to the southern sump in that south-east quadrant. We did find some shale. We have encountered shale in the deeper parts, of the cell in the sumps and where we find shale, we have to over excavate and then remove it and replace it with a more suitable material – a better quality clay that we attained from the excavation. So, in this case, we had to remove 200 mm of shale.

Project Update – Southeast Quadrant



CRE PRO Installation of secondary liner patch (GCL & 2mm HDPE) – 26/10/22. Note that this is an additional liner – to make it the same as the north sump (3-layer sump).

Project Update – Southeast Quadrant



CRE PRO Preparation of subgrade on SE quadrant floor and eastern extremity of bund – 3/11/22.

Project Update – Southeast Quadrant



CRE PRO Subgrade preparation of floor in SE quadrant – 4/11/22. Unsuitable subgrade found due to presence of shale. Over-excavated by 200mm and replaced with suitable clay material.

Project Update – Southeast Quadrant



CR
PR
FUT
Unsuitable subgrade (shale) found in SE quadrant – 4/11/22.

AW: That's as close up of the shale that we found, which is very crumbly rock and the specification from GHD calls for the subgrade to be firm and unyielding, and the shale is a very soft, crumbly rock, so it's not suitable, so it had to be removed, ripped out and replaced and then recompact.

AW: So, then the next slide, that's that better quality clay getting brought in and that was all rolled and compacted, standard compaction.

MU: Were you able to bring that in from somewhere else on site, or did you have to order it in?

AW: Yeah. Now we've got a stockpile of clay from the excavation there.

MU: Oh, that's good.

AW: And then that gets tested by the geotech consultant. That's got to be 98% compaction, standard dry density test. That was on the 4th of November.

AW: So at this point, we brought in a 300 tonne mobile crane and kibble and that was used to then start filling the sump with sand and drainage aggregate and the crane was a good option because we've lost our construction access. It was a lot quicker to use the crane to get those materials into the sump for that leak detection layer.

Project Update – Southeast Quadrant



CR
PR
FUT
Removal of unsuitable and replacement with suitable clay material to provide a firm and unyielding subgrade – 4/11/22.

Project Update – Southeast Quadrant



CR
PR
FUT
300T mobile slewing crane and kibble set up to assist with deployment of sand and drainage aggregate in the south sump – 9/11/22.

AW: Here you can see in the leak detection layer of the sump, there's two components, so there's the drainage aggregate, which is that rounded river stone, just from 14 to 20 mm in diameter and then sand. The sand is connected to the sand on the entire floor of the cell. The drainage aggregate is where the riser pipes are inserted into the drainage aggregate and there's a layer of geotextile in between them.

So leachate would make its way, if it does leak, it will go into the sand first and then migrate through the geotextile and into the drainage aggregate where it could be extracted by the pipes and just as an aside, we're actually monitoring that now on the north sump. It's gradually getting less and less. We're keeping a track of the volume of water that we're pumping out each day because by the time we wouldn't start putting waste in the cell, we want to make sure that that's completely dry and there's no leaks.

We did get a lot of rain this year, as you know, so the sand did get quite wet at times. We are still extracting a small amount of water each day. I'm hoping by the end of January it's completely dried out and the same will go for the southern sump now, we've started monitoring that as well now that it's lined.

AW: This is the crane being used in the kibble. And you'll see there the subgrade on that eastern batter is ready for lining and they've started deploying the GCD, geocomposite drainage layer. That's why we needed to use the crane because we lost our access and the floor has also been lined you might have noticed in the previous slide. The floor adjacent to the sump.

AW: OK, this is the excavator being hoisted by the crane and lifted into the sump so it's a small six tonne excavator and that was used to spread out the sand and the drainage aggregate. It was the only way to get a machine in there was using the crane.

MU: Gives a bit of context here, doesn't it? Where the site is compared to other things that we can recognise.

AW: Yes, so in the background, you can see the capped waste stockpile, which is the brown hill. SPL sheds and some old buildings, which have waste in them and then to the left is the Hunter Power Project. And there's some piling rigs there. There's been a lot of piling going on and there'll be a big concrete pour happening on the 12th of January. I think it's 1,250 cubic metres in one pour. They're starting at 1:00 AM in the morning, going all day, it's the foundations for the first gas turbine - GT1, going in and they're very heavy foundations. I think the piles are like 15 metres deep. The CFA piles, continuous flight auger, piles.

Project Update – Southeast Quadrant



Placement of sand and drainage aggregate for the leak detection sump within the south sump – 9/11/22. Note adjacent floor has been lined with GCL and primary 2mm HDPE.

Project Update – Southeast Quadrant



Subgrade prepared and secondary GCD deployment on eastern batter – 9/11/22. Note this was the last point of access into the cell for construction equipment. From here on the four access ramps must be used.

Project Update – Southeast Quadrant



6T excavator being lifted into the south sump with the 300T crane for deployment of sand and drainage aggregate – 9/11/22.

Project Update – Southeast Quadrant



Sand and drainage aggregate deployment in the southern sump and GCL installation on the eastern batter – 9/11/22.

I think the turbines weigh something like 1500 tonnes each, so they're quite heavy foundations.

So going back to the cell you can see the machine working in the southern sump. Just spreading the sand and the drainage aggregate. Just the 300 mm thick for the sand and the drainage aggregate is about two metres thick. It's all being shaped and lining is happening on the eastern batter. That's the GCL.

AW: So this is an overview showing the works. That was about a month ago, 9th of November. And you can see, so the long reach, which I'll talk about in a minute, it's a long reach excavator working on the southern batter deploying what they call the soil confining layer which is the 300 mm, thick clay layer on the primary liner, which is to protect the liner from any damage caused by filling the cell with waste. And the western batter which is closest to us. That's been already been done, the soil confining layer.

AW: So this is just showing the south east quadrant, a couple of days later, the floor and the batter. The liner is pretty well done. That's the secondary liner on the batter.

MU: Does this does this stuff get sort of stretched out? Or is that sort of still being toyed with there? I'm just noticed that there's a bit of a mound there in the foreground.

AW: Yeah. So it expands with heat, and this photo probably was taken during the middle of the day when it's had the sun on it because it's black, it absorbs a lot of heat and it starts to wrinkle. As you place materials on the liner like sand or drainage aggregate or clay, you have to cool the liner down. The contractor has been starting early like 6:00 AM, first light and you can also spray water on the liner to cool it down. So it becomes more taut. Management of wrinkles is very important, and that's something that Daracon has been focusing on and doing a pretty good job on that so we've had no issues with wrinkles. We've been able to get the liner taut.

AW: So this is the A34 separation geotextile being placed over the secondary liner on the floor, ready to place the 300 mm sand drainage layer which connects into that leak detection layer in the southern sump.

AW: We used the crane here once again because we didn't have access, for bringing the sand in. It was good to use the crane with the kibble. And that worked really well and you can see that happening here. And there's a positrack with excavators assisting. There was also a bund made of sand running north-south where

Project Update – Southeast Quadrant



Overview of cell showing works in SE quadrant with 300T mobile crane in the background and soil confining layer deployment using a longreach excavator on the southern batter – 9/11/22.

Project Update – Southeast Quadrant



SE quadrant as @ 11/11/22.

Project Update – Southeast Quadrant



A34 separation geotextile deployed on floor ready for deployment of 300mm sand drainage layer – 11/11/22.

Project Update – Southeast Quadrant



Deployment of sand on the floor of the SE quadrant using the kibble of the 300T crane – 12/11/22.

those two excavators are and that bund was - the sand was taken from that bund and spread across the floor. We did that deliberately because we knew that we would need sand as part of the job so that worked out well.

It was there initially to stop water getting into the sump if we had rain so that was there for weather protection. It wasn't needed at this stage.

AW: This is a couple of days later showing the sand continuing on the floor.

AW: This is now the primary liner going in on the eastern batter. So if you remember, the batters have a secondary liner and a primary liner so this has had the GCD, down over the secondary liner and then this is the GCL which is the white geomembrane which is the bentonite impregnated geotextile, followed by the HDPE.

AW: This is just now the installation of the GCD above the groundwater sump and the leak detection sump in the southern sump on the 22nd of November and getting ready to line the sump with primary liner.

MU: I just counted round about 24 people on site there at the moment, maybe 25 with the photographer, do they all go and get lunch in Kurri.

AW: Yeah, I think they like going to the Red Rooster at the main roundabout at Kurri on the main road there. Either that or the Subway.

MU: Right. What's the sort of average number of people on site would you just say, Andrew? Is that sort of similar, sort of common sort of numbers?

AW: Yeah, most days we'd have 20 to 30 people. Combined, that's Daracon and Ecoline. Once the waste starts moving next year, I believe it's going to be between 40 and 50 people.

MU: very good.

AW: OK, here the primary liner is completed on the southern sump. So that was a great relief to get to this point because we knew that the weather couldn't affect us, so the cell was pretty much sealed up by this stage and they'd just doing their final welding and QA checks and then they're ready to start placing the geotextile and the drainage aggregate.

Project Update – Southeast Quadrant



Deployment of 300mm sand drainage layer – 15/11/22.

Project Update – Southeast Quadrant



Deployment of primary GCL layer on eastern batter – 17/11/22.

Project Update – Southeast Quadrant



Installation of GCD above groundwater and leak detection sump – 22/11/22.

Project Update – Southeast Quadrant



Primary liner completed on south sump - 24/11/22.

AW: OK, so now moving on to the next topic, the drainage aggregate. This is going back now to the 25th of October. The south west quadrant. Some of the drainage aggregate has already gone in there, they're ready to do the next section. They're just cleaning any silt or fines that have washed out of the aggregate off the plastic, and then they'll put the geotextile down and then start deploying more drainage aggregate. And at the same time, once they get about 50 mm of aggregate down, they start putting the leachate drainage pipes in, which we'll talk about later on.

AW: This is in the south west quadrant, so the geotextile has been placed and machines are starting to spread out the drainage aggregate. And this is where it's important to manage any wrinkles so the excavator drives quite skilfully, strategically placing the drainage aggregate to manage any wrinkles and if necessary you could spray water on the liner to cool it down. And then the positracks would come behind them and supply them with the drainage aggregate so that they could place it. And then the positrack, one of them had a grader attachment with a GPS on it. And we could trim, so it was at the correct height of 300 mm, across the entire floor.

AW: And this is now putting the protection geotextile in ready for the floor on the south eastern quadrant. So that was that section that was lined a few slides back.



AW: The same thing, protection geotextile is being put on the batters and starting to be put into the sump. So it's there to protect the liner from the drainage aggregate that's being placed in the sump and also protects the side walls when you're placing the clay for the soil confining layer.

AW: So you can see the drainage aggregate is progressing, this is on the 1st of December, the floor of the sump being filled.



AW: This one is a bit later on, four days later. Southern sump is filling up. They just had to leave a small section where the big 450 diameter riser pipes get installed and you can see a gap there on the batter. There's a gap in the soil confining layer, and that's where those pipes are going to go. We'll see later on.

MU: I don't know if you can see my arrow there. But are we talking about in here?

AW: No, in the foreground you can see. Closest. Yeah. On the batter there.

MU: Oh, where there's no soil?

AW: No soil confining layer. That's where the pipes will go.

MU: I see, yeah.

AW: We'll sit them on sandbags and then put a 50 mm thick layer of sand down to bed the pipes in and then use sand as a haunching material in and around the pipes and then cover it with a soil confining layer.

AW: OK, so this is what I was talking about. So this is on the north sump. We took the advantage, because we had the crane on site, we got the crane to move from the south sump to the north sump and the two leachate riser pipes were already assembled. They're welded together using what they call electrofusion welding. So it's a socket with a copper coil inside it. And you hook up a power supply, it heats up the copper coil, melts the plastic and welds the pipe work together. And we use the crane to lift the whole assembly into the north sump. You'll see in the next slide you'll see the pipe work going into the sump.



AW: So it's actually inverted, there's a bend in the pipe, there's a sweet bend. And then once it was in position, they lowered it and then they turned it 180 degrees, so it's actually upside down there and then it was in the right orientation. So that pipe has poles drilled in the end of it. And there's a horizontal section that sits in the drainage aggregate in the sump about 50 mm off the liner. And that is how we will get the leachate out of the sump later on once there's waste in the cell and it's all capped.

MU: So it's like ag pipe on steroids.

AW: Yeah. It's just a really big ag pipe. That's right, yeah.

MU: Fascinating. It's massive, isn't it?

AW: And a lot of work. So to do the same job in the southern sump. By this stage, the crane had left site and we didn't bring the crane back for that job. So Daracon and Ecoline decided to do it a different way. So they brought those two horizontal pipes in down the south east access ramp. And then this smaller six tonne excavator just brought them over and sat them in the bottom of the sump, like 50 mm off the liner. And then drainage aggregate was spread around it. And they just left about two to three metres exposed at one end, so that's sort of anchored it.

AW: And then you go to the next slide, you'll see them. They used 2 excavators. And they lifted each length, each 12 metre length, so the batter is 36 metres from bottom to top, so there were 3, 12 metre lengths that had to be installed for each of the two pipes, so 6, 12 metre lengths were installed using excavators. So they would lift the pipe and then their tracks were pointing down the hill and they would just carefully take the pipe down. And then the joints were pre-prepared so that the pipes would fit in and then they just had to hammer them in slightly with the sledgehammer and then then they did that process with the electrofusion welding using a power source heating up the copper coil and welding each socket.

MU: So these ones were welded in situ, whereas the other ones were pre-prepared and then lifted over in one piece kind of thing?

AW: Correct. Yeah. So this this method also worked well. It's a method they normally use. Normally they don't have the luxury of a crane, so they were used to doing it this way and they were tracking on the 300 mm thick, soil confining layer. It worked well.

AW: Next slide. And this just shows, you probably see the grey sand. The sand was spread around and in between the two pipes as a haunching material and the pipes are also sitting on

Project Update – Leachate Pipes



450mm diameter leachate riser pipes being installed in the north sump – 14/11/22.

CREAT
PROSP
FUTUR

Project Update – Leachate Pipes



450mm diameter leachate riser pipes being installed in the south sump using an excavator – 8/12/22.

CREAT
PROSP
FUTUR

Project Update – Leachate Pipes



450mm diameter leachate riser pipes being installed in the south sump with two excavators – 9/12/22.

CREAT
PROSP
FUTUR

Project Update – Leachate Pipes



450mm diameter leachate riser pipes in the south sump with sand bedding layer installed and 300mm of soil confining layer being installed above the pipes – 13/12/22.

CREAT
PROSP
FUTUR

sandbags which once they got the actual sand in there, they then removed the sandbags. I think they just cut them and then remove the cloth and the sandbags have been filled with the same sort of sand.

MU: Sorry Andrew, I was just going to ask you about your jargon there. "Haunching", just for the uninitiated, is that just like a sort of a holding? Does that mean sort of holding it in place?

AW: Yeah. It's like a backfill. It's a way of backfilling a pipe. You normally feel like up to the half-height, or the midpoint of the pipe and they call that haunching. It's just a civil engineering term. They normally use like a packing sand, a fine sand and that holds the pipe in place. And then from the midpoint up, they use the clay so the soil, which then became part of the soil confining layer, which was 300 mm above the pipes.

MU: We're all now a little bit closer to being civil engineers than we were 5 minutes ago. Well, I am anyway.

AW: On the same topic of the leachate pipes and the leachate transfer system. Across the floor, there's a network of smaller pipes, the big pipes that we've been looking at are 450 mm. These smaller pipes are 160 mm diameter and they also have holes drilled in them - many small holes and they're laid on the floor 50 mm above the liner in a trench that was actually formed in the subgrade. 300 mm deep trench and that trench was also formed in the subgrade and the sand and in the primary liner. And then on top of that is drainage aggregate. So we have 300 mm of drainage aggregate on most of the floor, but where these trenches are, we've actually got 600 mm of drainage aggregate, if you follow me, because the leachate needs to be drained to the lowest point and then it seeps into these pipes and then they convey the leachate into those sumps. Including, they actually go through the bunds as well through what we call a saddleback in each of the bunds, there's one on the north side of the cell and one on the south side. So all the leachate makes its way to the sumps via these pipes.

AW: Next slide. Just last week we got delivery of the pumps and the other infrastructure for the leachate transfer system. These are pumps that will actually go down inside those 450 diameter pipes, they are submersible pumps. And they're on a frame, but actually they look like snow skis, they've got tips bent up at each end just so that they'll slide down. Some of the pipes have a different sort of weld. Originally, we were using butt fusion welding, which leaves a weld bead. So on the groundwater pipes and the leak detection pipes, we have these weld beads. Next



week, we're going to do a test to see that these pumps will actually pass over the weld beads. On the leachate riser pipes, which are the main ones we're going to use for leachate transfer, we don't have any weld beads because we've used a different technique. We've used that electrofusion welding which is probably in hindsight a better thing to use. But it was something that was specified in the beginning to use buck fusion welding. Yeah. So that's a job for next week to test these pumps out.

AW: The next topic I'll talk about is the soil confining layer which as I've mentioned before, all around the side walls of the cell, we have a 300 mm soil confining layer which is made from clay, which came from the excavation of itself. Here there's an inspection happening on the anchor trench for the protection geotextile so that the first step is to put a geotextile on the batters, protect the HDPE liner from any damage as you're deploying the soil confining layer.

AW: Here the geotextile is being placed in the first section. And the trench has been backfilled.

AW: Here you can see a number of machines working. The big, orange machine on the left is called a long reach excavator, which can reach almost all the way to the bottom. The batters are 36 metres and it can reach about 25 metres, a lot further than a normal excavator. The smaller six tonne excavator is just used to transfer material down to that that last 10 metres or so and then the positrack pushes uphill. We were getting the positrack to push uphill rather than downhill. And that's to avoid putting stress on that anchor trench, and also prevents the formation of wrinkles at the bottom of the cell, which would be a bad thing. So everything had to be pushed uphill, including with the long reach and there's a 30 tonne excavator working there. It could reach by using the access ramps, so it was assisting as well and that machine actually had GPS so it was good for trimming, getting it to 300 mm thick as well as the positrack that was used for final trimming as well.



Project Update – Soil Confining Layer



Soil confining layer progress – 3/11/22.

AW: This slide shows the progress of the soil confining layer. They're working their way anticlockwise around the cell from the place where they started, which was in the northwest corner, and heading along the western batter.

MU: So is the intent to keep those raised pieces there and have sort of separate cells within a cell. Or is that all going to be covered up?

AW: Those bunds? The black things?

MU: Yes, they look shiny silver to me.

AW: Yep. They divide the cell into the four quadrants. That was because in our design, our basis of design to GHD, we said that we wanted a cell design that would minimise leachate generation.

By having those bunds we can fill one quadrant at a time, and we'll start with the two eastern quadrants where the sumps are. If we have a rain event, any water that falls on the waste has to be classified as leachate. But in the two western quadrants, if there's no waste in them, that can just be treated as storm water and pumped out to the perimeter drain and go out to the stormwater system. So that's a way of minimizing leachate.

MU: I'm guessing then that once you've got one of them full or close to full, you'll move to the next, but you'll cap or do some sort of temporary capping of that first one so that you can move on and then you've got the first one secure.

AW: Yeah, we can cover with what they call daily cover. It won't actually reduce the leachate generation, but it will assist with

reducing the risk of asbestos fibres blowing around the site. So it's a soil material that's free of asbestos that we can cover the asbestos waste with which will be very useful.

MU: And does that get removed at the beginning of the next day kind of thing, if it's a centimetres thick cover?

AW: Yeah, in a normal landfill, like in a Council landfill, it does, but we probably won't worry about it. We'll just leave it and just keep going because we've got plenty of this material. It's excess. It's unsuitable material that came from the Hunter Power project from the old switch yard site. And we're using it to fill up the cell, so we have enough volume for the capping. We won't be relocating it, we'll just leave it in situ.

MU: Thanks. You want to go to the next one?

AW: Yeah, next slide. This is just the soil confining, so it's progressed further and then it would have been dipole tested, which I'll talk about in a couple of slides time. Once it's dipole tested and everything's fine, there's no holes detected from that dipole test, then it was covered with this 1 mm thick sacrificial geomembrane, which is what you can see happening here, and that's to stop erosion of the clay, if we get a rain event. Obviously we don't want the clay washing down and then getting clay fines mixing in with the drainage aggregate and clogging up the pores in the drainage aggregate so it all has to be covered with plastic. If we didn't manage to get the dipole testing down in time, we would just cover it with a temporary plastic, just in case there was a rain event, just to prevent any erosion of that clay.

AW: This is more soil confining layer going in. This is on the northern batter in between the ramps. That was the 11th of November. You can see the long reach working.

AW: This is now the NE batter progressing with soil confining layer.

AW: And this is now heading from that north eastern corner heading south along that eastern batter towards the southern sump in the south east quadrant area. And you can see the drainage aggregate was happening as well. So there's a lot of work fronts happening at the same time in November and December.

AW: Now we move on to the dipole testing. The dipole testing is an electrical test to check for holes in the liner and I'll explain later how it works. Anywhere where we're putting materials on top of



the liner, so like drainage aggregate, or sand on the floor, soil confining layer on the batters – there's always a risk of damage from machines working, like excavators, positracks, even though they're light machines, only small machines, there is a risk of putting a hole in the liner so you have to do this dipole test to make sure that all those materials are being deployed and no damage has occurred.

If you remember, we did a lot of field trials last year and earlier this year just to check on those handling practices to make sure that we didn't cause damage. And we're pretty confident that we wouldn't, but we wanted to do this test as well just to make sure.

In this case, that's the consultant checking the floor in the north east quadrant, just near the northern sump. He did actually find a hole here and we think it was caused by one of the positracks. And it was good that we found a hole, I say that because we have done so much dipole testing up to this point, and we didn't find any defects. We were wondering whether the test was actually working and it was good that we didn't have any holes from any of the work that Ecoline did so all the welding, like the wedge welding and extrusion welding was all fine and all the materials were fine. There were no holes in the liners. But we did actually pick up one hole from placing the drainage aggregate and that had to be removed and then they had to get down to the liner and patch it all. It was about 100 mm diameter hole.

AW: This is dipole testing of the sand in the south east quadrant. So this is the sand on top of the secondary liner.

MU: So I'm looking at the, it's like a frame and it looks a little bit like a horse. Is that right? The piece at the top that must be a signal or some sort of antenna?

AW: That's right. It's got a multimeter and it's got an electrode on each of the four legs and then connect back into the multimeter and it's measuring the potential difference between each of the four electrodes. If there's a leak, current can flow through the hole on the liner and this will pick up a voltage spike so it's a little bit like what we used to do when the smelter was operating, we used to look at the voltage profile in a pipe by looking at how much current was being drawn by each anode. This reminds me of that technique.

MU: And is the bloke to the left, in the orange there in this shot has he got the power source there? Is he looking at the multimeter?



AW: No, it's the guy in the yellow shirt.

MU: So he's doing that and it seems like there's a second person in each shot there. Is that the case or is it just one bloke who's doing that?

AW: It's one bloke doing it then there's an Ecoline guy helping him just spraying water and helping to move the apparatus.

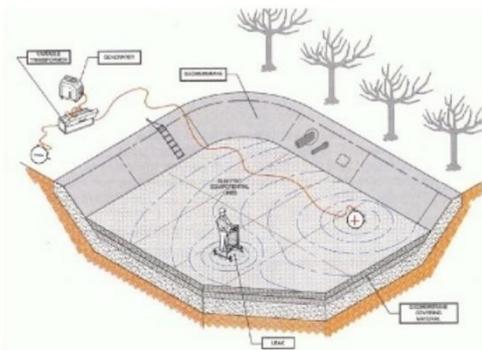
MU: Oh, I see. Yeah, here's a better shot.

AW: So that's what the apparatus looks like. So here he's doing the soil confining layer, checking that for holes. So I've got more slides later on that go into the technical detail of how it works.

AW: So this explains how it works so outside the cell there's a negative electrode which comes off the generator and the variable transformer, and that's actually in the ground. And then there's a positive electrode which you can see which is actually buried in the aggregate, whether it's sand or drainage aggregate or soil confining layer and it's actually a positive electrode and they use a voltage between 100 and 200 volts DC.



Project Update – Dipole Survey



An electrical leak location survey (dipole survey) has been conducted on all liners of the entire surface area of the cell – this includes primary and secondary liners on the floor and the primary liner on the sidewalls of the cell. It's purpose is to pick up handling damage caused by deployment of sand, drainage aggregate and the soil confining layer.

And then he moves around the survey area in a very sequential way. He moves his apparatus around and if there's a leak as you can see there, his apparatus is over the leak, you get a voltage going through the hole in the liner so from positive to negative, electrons will flow through the hole and he will see a potential difference between the four electrodes which indicates a leak and all of this is recorded on a data logger and then he downloads it and sends it to the United States. And there's an expert over there from his company, from TRI, that analyses the data using a computer program. And can tell you whether or not there's a leak -

we get the results overnight and then we can go back and he's also got a GPS on the apparatus so he can pinpoint exactly when he takes each reading in, he knows exactly where he is and it's all recorded by the data logger. So then we can go back, remove the drainage aggregate and look for a hole.

AW: A way of calibrating the equipment is by using this artificial leak. This is just a plate with a hole in it and an electrode and that's buried in 50 mm of the liner. He actually puts his apparatus over that just to check that it's picking up that hole. So it's not actually a hole in the liner, but it's a way of passing current from positive to negative that he can pick up. It's got a 6.4 mm diameter hole in it. So the test can pick up, it's got the enough sensitivity to pick up a 6.4 mm diameter hole through 600 mm of earth and soil cover which could be sand or aggregate or clay. And that's what's used to calibrate the equipment as a check before he does each survey.

AW: This is one of the voltage maps, so this is the one where we actually found a hole. This is looking vertically. This is like an elevation view of the voltage. And it pinpoints - so anomaly one was the actual hole. Anomalies 2 and 3 was what they call a false positive. Bad data. That gets analysed in the States and they came back as being bad data. False positive. And they do actually check it as well. They dig down and have a look and there were no holes at those other two locations.

AW: If we go to the next slide, you can see the hole that it found. So that was from a positrack bucket. And yeah, it was about 100 mm diameter. You can see the X and Y coordinates there in the table, so that's how they were able to locate it the next day, once they got the results back. Then they had to remove all of the drainage aggregate around it. Cut the liner out. And then replace the GCL and HDPE and geotextile and do an extruded welded patch over it. That's the only one we have found so far.

MU: Yeah, that was my next question.

AW: So we were dipoling today. We actually finished today. We got him to redo all the ramps, the base of the ramps because the way that the work was sequenced, drainage aggregate had to be placed there to get it out and then it had to be removed so they could put geotextile in at 300 mm off the floor and then they brought the drainage aggregate back in so before they brought the aggregate back in, we got him to dipole that again, just to make sure there was no damage caused by removing that stockpile of gravel. And we'll get those results tomorrow. Fingers crossed everything's OK.

Project Update – Dipole Survey

8. Description of Artificial Leak used
An artificial leak as specified in ASTM D7007 (fig. 1) was used to calibrate the leak detection distance. The artificial leak was buried within 25 mm of the geomembrane. The artificial leak was placed at least 10 m away from the edge of the survey area. The artificial leak was backfilled with at least 50 mm of earthen material.

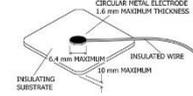


Figure 1. Artificial Leak

PROSPEROUS FUTURES
An artificial leak is used to calibrate the instrumentation and the leak detection distance. It should be capable of detecting a 6.4mm hole at up to 600mm of earthen soil cover.

Project Update – Dipole Survey

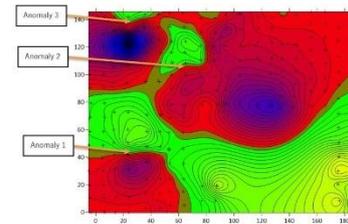


Figure 16. Location of Anomalies NE Cell Floor

Output voltage map for the NE quadrant floor where a 100mm puncture was found. This had been caused by a positrack bucket during deployment of drainage aggregate.

Project Update – Dipole Survey



Figure 17. 100mm Puncture in NE Cell Floor (S2, A2)

Table 17.- Anomaly Coordinates and Description NE Cell Floor

Feature	Coordinates (x, y)	Description
Anomaly 1	31, 43	~100mm Puncture
Anomaly 2	70, 104	Bad Data
Anomaly 3	24, 140	Bad Data

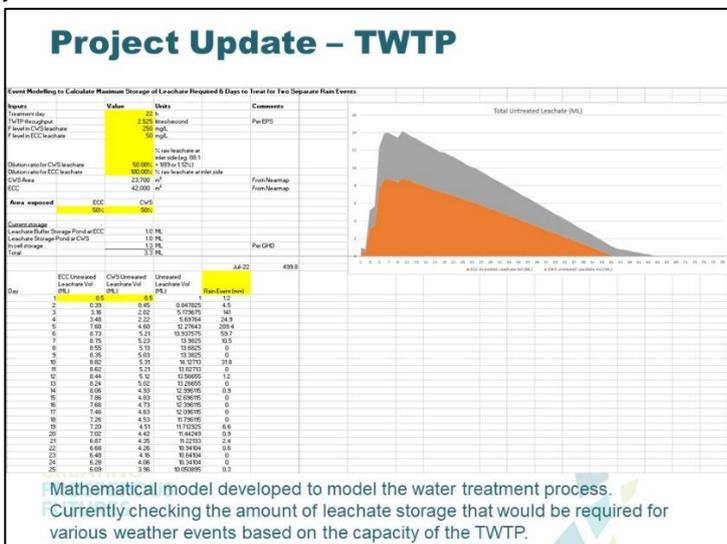
PROSPEROUS
FUTURES

AW: The temporary water treatment plant. The process commissioning has continued and it's now nearing completion. They've run quite a few batches through it at different fluoride levels and it is working, it's between 90 and 95% removal efficiency of fluoride. So that's good. And you can also deal with hydrocarbons and PFAS. And also cyanide, but we don't think cyanide will be an issue because cyanide will just burn off in sunlight on the leachate pond. It breaks down in sunlight.

AW: One of the things that Richard and I have been working on and wanted to have confidence given all the wet weather we've had, we've been really I guess sensitised to the risk of wet weather, and we've developed a mathematical model which takes into account the fluoride levels in the leachate dilution of the leachate. The EPS have told us they need to dilute the leachate from the capped waste stockpile one to one, so 50%. But from the cell, they don't think they will need to because it will get diluted anyway from rainwater falling on the waste.

MU: So that's so that they leachate coming from the capped waste stockpile can go through the water treatment process?

AW: Yeah, yeah. It's so concentrated. It's like 2000 milligrams per litre of fluoride. They need to dilute it one to one. And in this model, so we've looked at worst case scenario we've looked at - so we've got the area of the capped waste stockpile, the surface area of the cell. We've seen 50% of waste in each of the two areas, and we've used the worst or the highest rainfall this year, which was July. There was nearly 500 mm of rain, 499.8. And this is a graph showing how much leachate we would have generated if we had a rain event like that while we're moving waste next year.



So it's like a prediction of leachate generation, and then how long the plant would take to bring it back down. And as a result of doing this work, we've decided to put in a what we are calling an emergency leachate storage pond. This is a 10 megalitre pond. And so you can see that that graph there the orange is leachate from the, help me out here Michael, is it the ECC cell for the orange?

MU: Yes.

AW: And the grey is the capped waste stockpile.

MU: Yes, that's right.

AW: Yeah. So the peak is 14 megalitres of leachate. So at the moment we can store 2 megalitres. We have two one megalitre ponds and we have 1.3 megalitres we can store in the cell in the two sumps. So that's 3.3 megalitres. So obviously if we had another rain event like that and we generated 14 megalitres. We would have to store that in the cell which could potentially mean that you wouldn't be able to drive trucks in and out of the cell to bring waste in. That's why we've decided to build this additional storage. And if you had 13.3 megalitres of storage, you can imagine, we'd only have like a two week period where we might have an issue where we would have to stop moving waste until the water treatment plant got the volume back down below that 13.3 megalitres.

MU: So this X axis is that days?

AW: That's correct. That's in days. So without the extra storage, we could be out of action for like 40 or 50 days depending on how much rain we get. So obviously this is worst case scenario. This is looking at a huge rain event. It's not common to get 500 mm of rain in one month. But we just need to be on the safe side and the conservative side. That's why we're going ahead with this additional storage.

AW: So if you look at the next slide, you can see that we gave Daracon the go ahead two weeks ago, and they've already got most of the earthworks finished and that will get lined the first week back in January, so probably the week of the 9th of January. We'll get Ecoline to line that and our intention is not to use it unless we absolutely have to. We've got the 2 x 1 megalitre ponds already and we've got the ability to store some in the cell. We'll only use this if we have to. It's there for insurance if we need it.

MU: So that bund is about two or three metres high?

AW: Yeah, 2.5 metres high. And once it's lined, we can fill it, so it'll be 2 metres deep if it was full, with half a meter of freeboard. And that will hold 10 megalitres, 10 million litres of leachate.



MU: And I'm just wondering if that's a 50 meter lap pool there. If we can, you know, bring the school kids down.

AW: We did actually have people come on site and swim in the east surge bond, which is just storm water. But we've put signs up everywhere on the leachate ponds saying no swimming.

MU: You're not going to paint black lines on the bottom of the pool?

AW: I don't want any kids from Kurri or Cessnock getting on site thinking they can swim in any of these ponds.

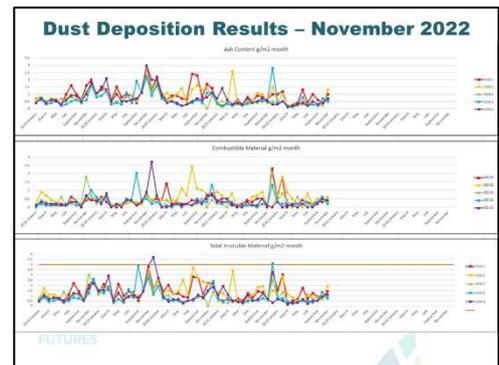
MU: No, fair enough.

AW: OK, next slide. So moving on, this is the dust deposition gauge results for November. So continuing low levels of dust in spite of all the earthworks, because we've had a lot of rain and on the days when we don't have rain things dry out pretty quickly and you can get dust, so we have a water cart. Daracon have got a water cart there full time available every day. The contractor working for Snowy Hydro is UGL and their earthworks contractor is Simil and also Robsons. They also have this, 2 water carts working there as well. One is for Robson and ones for Simile. So we've got 3 water carts running around site, plus we get a sweeper in every two weeks now to sweep the main road, Hart Road and also they come on site and sweep up any of the sealed roads that have dust on them.

MU: And is the cell as it gets - so now you've got the layers, you've got a lot of your plastic layers down and you're putting those aggregates and so on. Is there a risk there with dust generation? I suppose if you got hot, windy days?

AW: Not now, because we've covered all, so there's no clay exposed anywhere now, so all of that soil confining layer as of today is covered with plastic and the drainage aggregate on the floor doesn't really give off dust because it's a river gravel. So yeah, no dust from the cell. We do have unsealed roads, however, so they could give off dust.

MU: That's where the water cart comes in. It's good timing then because coming into this time of year, if you were back a few stages and you were throwing a whole bunch of sand around and that sort of thing and you had some wild wind or something like that. So yeah, pretty good timing to get that all sealed I'll say, yeah.



AW: And the next slide is the wind rose chart, we're starting to see nor'easters mainly. Then that will be the case through summer, mostly nor'easters and maybe a few southerlies. We're keeping an eye on the areas that are downwind from us, obviously, yeah.

Next slide. So yeah, Richard normally talks about this slide, so Regain have been very busy. We've given them the target to have all of the SPL offsite by the end of this year. And they're now at 99% complete. As of yesterday we had 87,000 tonnes have gone off site and it's only about another 1000 tonnes to go.

If they don't finish by Christmas, it will be like first week back in January if for some reason they didn't finish it. So that's a good milestone to have all the SPL all site. So that's really good. We're really happy about that. Yeah, they've got a shed there that they're filling up and then they'll process that and it'll end up in a cement kiln overseas somewhere.

MU: It looked like there was a bit of a valley of death happening there at one point back in March last year, March, April last year, but they certainly picked up the game, didn't they?

AW: Yes. That's right, yeah.

MU: Yeah, that's good news.

AW: Next slide. That's it. Any questions?

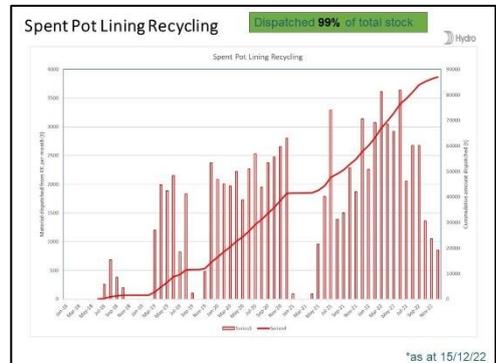
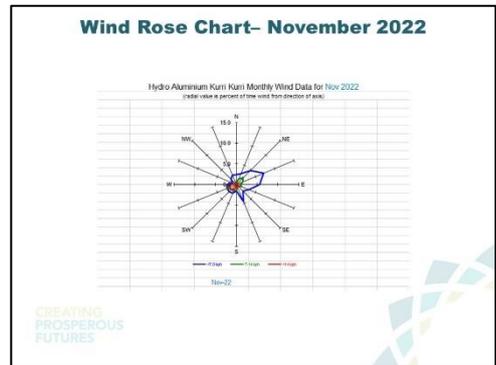
MU: OK, well, folks have been dutifully watching this presentation. There's a lot that happened in the last little while. Any questions of Andrew about the capped waste stockpile or the containment cell? Or anything else?

RA: Yep, I almost feel as though I'm qualified to go and build a big hole and line it myself now.

MU: It's so detailed, isn't it? There's so much there. We've watched it from the ground up. Well, from underground up. It's interesting. You think those reality TV shows where they renovate a house or something. They should do one of these. Yeah, it's quite amazing.

RA: Yeah, I do have a question. When we had to spread 10% of the I think it was lime.

AW: Gypsum





RA: Gypsum, in with it. How did them we how do we mix it all?
Was it just done with the excavator on when it was dumped?

AW: It's done with the loader, so you'll see in the video I'm about to show. It's added to the dump truck with a loader and then it'll be mixed. Not much mixing will happen during transport, but once it's chipped into the floor of the cell, there'll be a bulldozer spreading the waste. And then a compactor, a landfill compactor will be used to compact it. So mixing will occur during that process and the original lab tests that we did, or that Ramboll did, we actually did put the waste in and we put layers of gypsum through the waste to sort of simulate and reflect what will happen in practice and the testing - we actually dripped water through these columns and we tested lime, cement, gypsum and calcium chloride and we found that even if it's in layers and not well mixed, it still was effective at removing the fluoride

RA: Yeah. Thank you.

MU: Toby, did you have a question?

TT: Yes, yes. So when's the anticipated completion date of the containment cell, total?

AW: March 2024 so the waste transfer will take eight months, so that's starting at the end of January through to the end of September and then the capping will be from the end of September next year through to March 2024.

TT: And that'll represent the total end of the rehabilitation of the whole site will it?

AW: Correct. So the process that we're now moving into now that the cell is ready to receive waste. It's not just about the waste transfer, it's the remediation of the remaining areas on site, so the main one being the capped waste stockpile, but there will be other areas like Dixon Road North, Dixon Road South and the carbon plant where we've been storing the waste stockpile to the north of the carbon plant. That will be done under the supervision of the site auditor, Ross McFarlane, from Aecom who used to work for the EPA, and the validation consultant, of course, Ramboll.

So as these areas are cleaned up and the waste is removed, Ramboll will have to go in and test the soil and get the samples analysed to make sure that all the contaminants are gone. That's the remediation process that we're now moving into next year. And that actually has to be signed off by the site auditor.



The process that we've just done, starting halfway through last year through to the end of this year, it's signed off by SMEC as the independent engineer, and they have to send a report to the State Government and State Government has to be satisfied with that report from SMEC for us to get our bank guarantees back.

I think Richard may have spoken to the CRG about that probably 12 months ago. There's a number of bank guarantees. The project's been broken up into 4 stages. We're now at the end of Stage 2, about to go into Stage 3, so as yet, we haven't received any bank guarantees back. There's been a bit of toing and froing with the reports from Ramboll and SMEC to the State Government, but we're about to get the bank guarantee back for Stage 1 shortly and then Stage 2, which is what we've just completed, SMEC will have to write a report which will probably take two to three months and get that into the State Government before we can get the bank guarantee back for that stage of the work.

So Daracon will be finished on site in March 2024, but that's what we call 'end of practical completion'. But then there's a 3-year defects liability period. Where they are responsible for like if there was a leak in the cap, they may have to come back and repair it. Hopefully there will be no leaks. At the end of that 3-year DLP period then we reach final completion. And then there's a 5-year monitoring period where we are responsible for the maintenance of the cell. Sorry, the three years is included in the five years, so it's another two years past final completion that we'll be responsible for monitoring the cell and maintaining the cell.

MU: Just to make sure. Alright, other questions anything Alan?

AG: Nothing on that. I'll wait again until we do general business at the end. Very interesting to see where we're up to then and it's about time we got you along to show some of these slides to our retired mine workers and get them off my back.

MU: There you go. There's other community members out there that are interested for sure. Yeah, it's not quite the same without the slide deck, Alan. You have to get hold of the slide deck and take them to the guys, OK. Anything, Kerry, from you? Any questions? Alright Rod is missing in action. He might have fallen off his chair. Not sure. Anyway, it might be dinner time. Alright. OK. Anything else of Andrew around this piece? We'll move into general and all other business. Alright, Alan. Fire away mate.

AG: The concerns are that we've had two presentations this year at the retired mine workers, one from the McCloy Stevens Group



and Snowy Hydro on their things and couple of questions that are out there. There was talk of a, and I don't know whether Andrew can answer this or whether it's out for other people now, there was talk of a solar farm going in. A solar farm to feed back into that grid. Does anybody know anything on that or where that's up to? Or it just got lost in the change of people buying and selling?

AW: Yeah, I'm not sure. There was talk of a solar farm going into the north of where the smelter was at one stage, but I'm not sure if that's still being considered. But maybe we could get Richard and Shane Boslem have come to well, maybe Richard could invite Shane to the next CRG meeting to talk about that to see if that is still going ahead.

AG: I wasn't sure what, and the other ones, the other two that are concerning me, they've taken up and especially from the presentation, they showed the flood free access for Gillieston Heights back through the Winton Group to surround that and back to the TAFE college and all the way back eventually to Hart Road. The timeline on that seems to be far out. I think our blokes have moved a motion to approach the local polities to see whether they should be pushing or who's to make that as well as those northbound ramps.

Being retired mine workers, we know and probably not only miners, but there's a lot of people taking the risk of turning short to go north, coming down just underneath the railway bridge and they make a U-turn through the bay. I don't know if it's legal or illegal or what, but they're doing it. But when you got cars racing at 110. Our people have got concerns. And people in the community about those two to prevent Gillieston ever becoming an island and those northbound ramps in pushing McCloy's group, when in their presentation they said if government wanted to front up money to do it, then they would pay it back and they could have it in 18 months rather than five or six years that'll take as they sell in advance through. I'm not sure whether that's in this meeting now or going to a bigger meeting, but that's where the community is starting to stir anyway.

AW: Ok. We can certainly take that question on notice and get Shane along to the next meeting to talk about that.

AG: Alright, mate.

TT: Can I just say on those northbound ramps I was talking to Shane Boslem probably three or four weeks ago. And it doesn't appear to be any urgency for those northbound ramps anymore.



AW: I'm not sure. I'm not really involved in that, Toby, it's probably more of a question for Richard.

AG: Well, if we can get somebody killed making that illegal U-turn that's what 360 million in the cost benefit ratio?

MU: Let's not do that. But yeah, we can certainly see if we can get Shane and Richard to discuss it at the next meeting. Alright. Right, we've got a video to play, but before we do that, I do want to discuss the next meeting. Are there any final questions or comments before we go to that? Sorry, Kerry, you're on mute, mate.

KH: I do that because the dogs get noisy. I'm assuming that they're starting to hand over property to McCloy Stevens because there's signs up the front at Wangara for "The Loxford". I don't know why they thought the Loxford was a good name when you have a suburb called Loxford, I think it's going to get very confusing, but I'm assuming that's happening. We haven't heard anything apart from seeing the signs go up.

AW: Yes, I do know that all of Precinct One, which includes Wangara transfers on Monday to McCloys. So that's going ahead. I heard that from Leanne Pringle today.

KH: Thanks Andrew.

MU: There you go. Monday. Alright. Any other comments or questions? All right, so I do want to discuss the next meeting. Hydro is of the opinion that it might be appropriate to move these meetings from every two months to quarterly so that we have them every three months instead of every two months. We've now chalked up meeting #53. It is going to slow down our progress towards meeting 100. I'm sure we will never get there, but I just wanted to just check around the room about the opinions on meeting frequency. Has anyone got any opinions?

KH: If there's not much happening, there's not much good having a meeting. But if things are happening then it's good.

MU: Toby?

AG: Yeah, if there is something here we can take back to the community then it's good, but yeah.

TT: I mean, basically it's just the containment cell, building that and filling it now, isn't it?



AW: Yeah, that's pretty much it. Unless we get Shane to come and talk. He's got some news.

TT: That's what I'd like to hear from, Shane and what's happening there with what industries are coming in. That's the main aspect of my interests, if you like, as far as what the community will be wanting to know what's happening with all the proposed development industries and businesses and things like that? Rather than the containment cell, from this point on.

AG: Yeah, and Snowy Hydro too, on whether they're still on target to be finished. They will be online before the end of next year, that was what they told us when they come and briefed us all and everything. It was a real good briefing from them and we'll get a few of these slides. We can roll them around on the back of our new screen we can use them for background at our meetings.

MU: Alright, so if we have a think about having other special guests come along and speak, so we've got the Shane for example, but also Snowy Hydro. Yeah, I mean, with the bit of a shutdown over Christmas, I imagine there's a bit of a shutdown, Andrew, a week or so?

AW: Yeah. Well, about 10 days we will be shut down.

MU: So, with that all said, do we feel like with the meeting frequency that we we're going to miss much if we moved to quarterly?

RA: No.

MU: No. OK?

TT: Not only with what might be happening as far as industry development out there with Snowy Hydro. That's the only thing.

MU: Alright, so it sounds like, I guess we've been having presentations from the likes of McCloy Stevens, every so often if we just make sure they're kind of dialled into the meetings and have quarterly meetings from here on but look to have them attend every second time or something like that and then in the course of, let's say we have - in three meetings we might have Shane present at one, Snowy Hydro another and then one with just Hydro for example and just look to ensure that we're keeping up to speed with other things that are happening on the site. Does that seem reasonable?



TT: It does, but certainly if the next meeting is going to be in 3 months' time, I'd like to hear from both Snowy Hydro and McCloy.

AG: Yeah

KH: Yeah

AG: Yeah, where they're at.

MU: OK, alright. You think that's feasible, Andrew?

AG: And Michael, in terms of where Snowy Hydro is up and McCloy and probably the northbound ramps and the Gilligan's Island is the main concerns in in town.

MU: Yeah, I mean you folks have seen this design come from on paper through to looking at samples of the of the plastics in your hand through every step of the way. I imagine that the community is a lot less informed generally than you folks on this call. You're the most informed people on the planet about this new world's best practice containment cell. So there is potential there that the community might be wondering a bit more about that but certainly the gap I guess is what's happening with McCloy Stevens and then what's happening with the Snowy Hydro that you could then go forward and inform anyone who's asking the questions and it saves them having to set up their own community groups and so on as well. As long as Hydro is happy to continue to play host if you like.

So quarterly, I think that kind of works as a thing. It does mean that we'll be doing sort a seasonal meeting. And yeah, it just means there's probably a little bit less demand on your time and a little bit less demand on Hydro's time as well to prepare the meetings and so forth. So yeah, alright. Well, if there's no dissent, then let's see if we can't do something three months from now instead of two months. So that would make it March, and if we stick with the same time in the month, I'll put forward four dates for next year and you come back and let me know if there's anything that jumps out because we were going every second month, we would have been sort of February and in April and now it's going to be March and then June, so we'll just need to double check that you folks aren't disadvantaged, if you've got something on that clashes. So alright, so I'll do that. We'll come up with a schedule for next year. Robert, did you have a comment.

RA: Yeah, I was just having a look then. The 17th of March, that's just prior to the state election. If we did actually move the date, you'd actually have more it to April you'd have more of an idea of



what's going on. We could have a meeting in March and the whole conversation is going to be what happens next week?

MU: OK. Or we could move it a week.

RA: Anyway, I don't know if you've got a big date on your fridge. The date, the 25th of March, on yours. But I have on mine.

MU: Why would that be, Robert? Anyway, Rod, you're on mute. Sorry. Rod, I think I muted you sorry before. So you just need to take yourself off.

RD: My thought is that a lot of things are going to happen in the next couple months. I notice the break over the Christmas, New Year, but by the 17th of February or thereabouts, we might be seeing the approval of the 350 odd lots over there at Gillieston Heights and we might even see the engineering design work being done for a main road over there at Gillieston Heights, and I'd like to know whether there's going to be a four lane signalised intersection at Wangara and I think prior to the state election in which I agree with Robert. I reckon we need three or four weeks knowledge about what's going on prior to the state election.

MU: OK. So sorry Robert, the state election date is?

AG: Fourth Saturday in March.

RA: Saturday the 25th.

MU: 25th of March. So if we said the beginning of March...

RA: Or even right, even as Rod said, end of February, make it the February and then we can we got time to move it to...

RD: And then we go February, May, August, November. So it's still quarterly.

MU: Yeah. OK, alright. Andrew, any issue with that, mate, if we go end of Feb?

AW: Yeah. No, that's fine.

AG: Yeah, I think that's much better idea, Robert, because if there's still anything out there on the roads on the northbound ramps or any of that stuff, it's a good time to kick polliies.

RA: Yeah. Toby, is it your shout, mate? I'm getting thirsty.



MU: So, sponsored by Crown Lager this meeting. Alright, OK. If we're all done, we'll play the video. If there's no other comments. Any other comments before we go?

RA: Thank you very much. Have a good Christmas.

MU: Alright. I'll put this on again for a few minutes.

AW: Yeah. Thanks everyone. I'll just say thanks everyone for all your time that you put in to participate in the CRG over the last 12 months and have a Merry Christmas.

RD: Thanks Andrew.

AW: Thank you.

MU: Yeah. And I did say earlier for those who joined late that I was a bit disappointed that this video does not contain Christmas music, but we can make up our own music. But it does have music, so I'll share it and we'll go from there. All right, here we go.

VIDEO

MU: Very good. And any comments on the video before we head?

AW: One thing I'll just mention. The wheel wash we see is needing some improvements. We've fed back to Daracon, we want to see it buried a bit deeper so we can get, we're going to put some bunds around it and make it deeper so it's filled with more water and where it said simulation of dust suppression, they're actually going to put in some like a gantry with spray bars, so every truckload will get sprayed with water after the gypsum's been added, that will help to prevent the gypsum blowing off if there was high winds.

Also, I'll just add, we did have a meeting with SafeWork NSW and we showed them that video and we showed them around site, showed them the cell, showed them the capped waste stockpile, and they were happy that we were proactive and consulted with them before starting the work. We talked about the asbestos control procedures, how we're going to have decon units, all the PPE, the health surveillance testing we're doing on the workers before we start.

The only comment they had, which is a follow up for Daracon, was we should engage with the local emergency services in case somebody had a heart attack in a truck in the cell or the capped waste stockpile or in the decon unit, how would you rescue them?



And that was a good comment. We thought about the Decon unit, we hadn't thought about the other scenarios, so Daracon's safety guy was going to have a meeting with the local firies I think and the ambulance service in Kurri.

AG: The other option you've got there would be to talk to Singleton, the mines rescue at Singleton for open cut rescue.

AW: Okay. Alright. Thanks Alan. That's a good suggestion.

MU: Very good, and again please pass on our thanks to Andrew Solomon for the videos. Fantastic work. Each one seems to be you know better than the last. Lots of really good drone action there. I do like the Mission Impossible theme I've got to say it's quite good. Quite good. Alright, alright. Any final comments before we head off?

AG: Merry Christmas

MU: Merry Christmas

6 Meeting close

Meeting closed: 7:45 pm

Date of following meeting: Thursday 16 February 2023.