



Project	Hydro Kurri Kurri Site Redevelopment Project	From	Emily Strauss	
Subject	Community Reference Group Meeting	Tel	1800 066 243	
Venue/Date/Time	Thursday 16 February 2023	Job No	2218982	
	MS Teams video conference 6.04pm – 7.27pm			
Copies to	All committee members			
Attendees	Mr Michael Ulph – CRG Chair, GHD (MU)			
	Ms Emily Strauss – Minutes, GHD			
	Cr Robert Aitchison – Maitland City Council (RA)			
	Mr Andrew Walker – Hydro Kurri Kurri Project Manager (AW)			
	Mr Toby Thomas – Community representative, Towns with Heart (TT)			
	Mrs Kerry Hallett – Hunter BEC (KH)			
	Mr Richard Brown – Managing Director, Hydro Kurri Kurri (RB)			
	Clr Rosa Grine – Cessnock City Council (RG)			
	Mrs Jenny Mewing – Cessnock City Council (JM)			
	Clr Mitchell Hill – Cessnock City Council (MH)			
Guests/observers	Mr Shane Boslem – McCloy-Stevens Group (SB)			
Apologies	Ms Tara Dever – Mindaribba LALC			
	Mr Rod Doherty – Community representative			
	Mr Alan Gray – Community representative - Retired M	lineworkers		
	Mr Darrin Gray – Community representative			
Not present	Mr Bill Metcalfe – Community representative			
	Mr Brad Wood – Community Representative			





Table of Contents

1	Welcome and Acknowledgement of Country
2	Meeting agenda
3	Welcome and meeting opening
4	Last meeting minutes
5	McCloy Stevens Group - Shane Boslem Update
6	Project Update
7	Meeting close





Notes

1 Welcome and Acknowledgement of Country

Meeting commenced at 6.04pm

Michael Ulph (Chair) (MU)

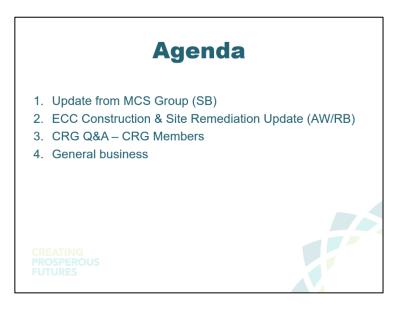
Acknowledgement of Country.

Emily Strauss from GHD taking minutes.





2 Meeting agenda







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

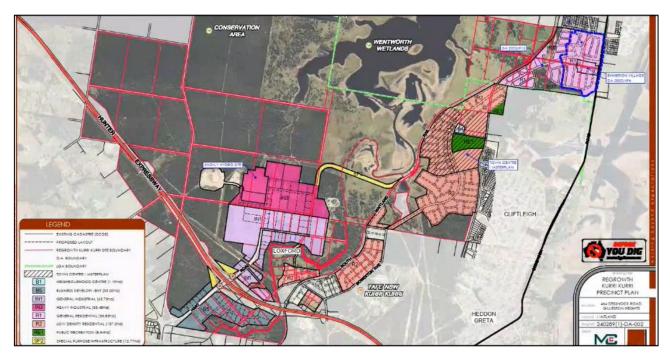
RA moved the minutes.

AW and KH seconded the minutes.





5 McCloy Stevens Group - Shane Boslem Update



SB: I'll give an update about applications that we've got before Council, or Councils I should say, because we've got a couple there with Maitland Council and a couple with Cessnock Council.

SB: The plan shows our overall site and it's broken up into it a couple of different land uses based on zoning. So we've got on this side, as most of you probably know, on this side of South Maitland Rail, we've got all of the residential zones, being some within Maitland at the top end of the site at Gillieston and some here within Cessnock and then the employment zones sit on the other side of South Maitland Rail.

Just starting off on the applications that we've got at Maitland - so this dotted blue line that you can see [top right] highlights our first application that we lodged with Maitland Council about 12 months ago and that's for 350 lots, residential lots, and that's under assessment and Council have finished their assessment. It's really just waiting on now the Department of Planning and what's called your Satisfactory Arrangement Certificate that they usually just say that you've met your state contribution or requirements. So it's been held up with them for a little while now but we are hopeful that we'll get that Satisfactory Arrangement Certificate out of the Department of Planning next month and then that'll allow Council to determine that application in April. So if all goes well, we'll get





to our first approval for development on site in April and it will consist of that first 350 lots.

Sitting inside of that is this other application here, which is for an exhibition village and it's for about 50 residential home sites sitting there. So that'll be an exhibition village, it won't be a Homeworld, but similar to a Homeworld, if you're familiar with that style of village. And we've been in discussions with a number of builders, Macdonald Jones, Eden Brae, Montgomery and the like. They're all very keen to establish in there so that application is before Council, Maitland Council too. It's really tied to that first one because it sits within it. So I suspect that if we get our first approval out in April, the exhibition village DA will be hot on the heels of that one.

MU: Shane, just a question there from Jenny.

JM: Sorry. Thanks, Michael. Yeah, Shane, I was just wondering with that first DA that's in the Maitland LGA obviously it's quite close to a site that we've got in our revised urban growth management plan which is 504 to 328 Main Road, Cliftleigh, whether there has been opportunity to give further consideration to providing a connection between this site in Maitland and that site further south in our LGA. I think the issue is that we have for that site is that we've not been able to get access to Main Road from that site and whether there's opportunity to consider that through that DA.

SB: Not through that particular DA. Some of the urban zone doesn't quite match up with their site. There's a little bit of urban zone here that sits within a drainage corridor and there's a detention basin going in there. This is remaining rural land and it's not part of the development application and we're looking to retain that land and we're just working out whether it's worthwhile adding that to our biodiversity offset site. Each Council sort of has their own priorities, Jenny, as you'd probably be aware and one of Maitland's priorities, is to maintain as much native vegetation as they can because they feel like they don't have enough. So that was quite important to them and the zone used to come all the way down here to the boundary. It's been pulled back and that was sort of part of the adjustments that we made in finalizing the rezoning up within Maitland.

There is an opportunity down towards, we'll call it the western end of the Maitland area and it's in a separate DA that I'll talk about in a minute, but there is a road boundary that connects down to our boundary. Our existing cadastral boundary and borders with their site, so that would be the opportune time or place I should say rather them to look to make their connection.

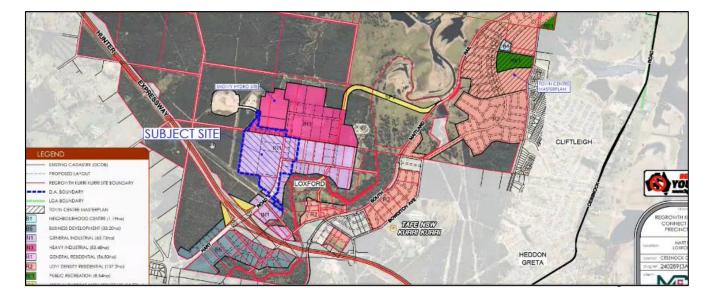
JM: Thanks Shane.





SB: Moving onto the next application, which is what I just sort of touched on then. The site of this application is again the blue dashed line that runs around the external and the boundaries of that site. It's about 225 lots in total. That application was lodged with Maitland in about middle of last year, it was June, July last year. It's progressing reasonably well. So there's no outstanding agency referrals, there's a request for further information that Council have asked us to address regarding some engineering matters which we're in the process of doing now, but I suspect that and in terms of the delay with the first DA, this one won't have that same delay because the agreement that we're looking to strike with the Department of Planning will cover all of the Maitland LGA. So once we get that Satisfactory Arrangement Certificate out for the first DA that'll go guite guickly to the second one so with that being out of the road, and once we address the RFI that we have from Council, I suspect that that one won't be too much further down the track than the first one. So hopefully we're looking at like a May approval and that rounds out our Urban Development area within the Maitland LGA and takes us up to a total of about 575 residential lots that we'll have there and we'll be looking to make a start on that reasonably quickly.

We've got construction drawings currently being prepared for the first four stages. Separate to that we've got drawings underway to prepare the intersection of the site here, and that requires a Transport approval, Transport for NSW, so that's underway. And we're working with Hunter Water Corporation to service the site, the whole site, not just these two applications and the services strategy for sewer and water was lodged with Hunter Water at the end of last year, so we're working through that process with them so I'd say towards the back end of this year, you'll start to see some activity out there on site.



We hope to anyway, that's our plan. So that's where we'll start. So that takes out Maitland.





SB: In terms of Cessnock, there's two applications before Cessnock Council. There's one that sits over here in the industrial part of the site over where the smelter site used to be and again it's etched in blue. It sits basically just below, if everyone's aware of where the Snowy Power station site is under construction at the moment. So that's the Snowy Power station site. They've also got this other piece of land that sits below the site that they need for ancillary purposes such as compressor station for the gas that feeds the site. It's the land that sits south of that through to this power line easement here, it's land again that's probably cleared of vegetation. It's currently being used as a hard stand area by Snowy, and it also has the offices of Hydro still sitting here just to the north there. So that's not long been lodged with Council. I think it's only been with Council a week or two.

So that's got a bit of an assessment process to go through, but that's our first development DA in terms of the final land use that we have before Cessnock Council. So that's going through at the moment.

The other DA which I don't have a plan for at the moment that I can show you, but it is for the Collector Road and if you can follow my mouse or hand print there, it's the Collector Road that will link up to our DA's within Maitland, run through the site, centrally through the site and then come back into William Tester Drive. So that DA was lodged with Council, Cessnock Council. I think that was end of last year, just before Christmas. So that's for our Collector Road application, that'll complete that flood free access to Gillieston Heights. So they're the applications rather, that are before Council.

I'll probably leave it there. There's a couple of other things, but Richard might want to touch on a few of the other approvals that are still running through the system, but I'll leave it there for now.

Unless anyone has any questions?

MU: Thanks Shane. Anyone want to jump in? Or just raise your hand, either way. I know that Shane is a bit time poor. Anything that you'd like to ask Shane about?

MH: Just quickly. I'm not sure if maybe Shane or Jenny can give me some information on it. Do you know whereabouts the DA for the Collector Road is at the moment, and how close it is through the process?

SB: Yeah, it was lodged, Mitchell. I'm pretty sure it was lodged at the end of last year. I should be able to find the date for you, just to give an exact answer to that. Yeah, 13th of December, we lodged that application. I don't believe there's any outstanding agency referrals for that application. Jenny might be able to





correct me on that if I'm wrong. There is some additional information that Council has requested. There's some archaeological work that we need to do. There's been some archaeological studies that have been undertaken as part of the rezoning, but there's some additional work that we need to do that we're just in the process of organizing at the moment.

JM: Yes. Sorry, no, I don't have anything to add to that regarding the time frame, I'm not part of that process, sorry.

MU: Thanks, Jenny. How did we go, Mitchell?

MH: Yep, that's fantastic. Thank you.

MU: Alright, great. Toby?

TT: Can I just ask with the residential development down the bottom end, are you going to start that separate to what you're going to do at the top end or are you just going to keep coming through from the top end?

SB: No, we'll probably have a couple of development fronts there, Toby, when you say the bottom end, we might not go right down the bottom to start off with, down along Bowditch. Couple of reasons for that, you're trying to balance some of these pieces of enabling infrastructure that you need to put in to service the development. And you're trying to do that in a way that's sympathetic to the cash flow, so we will most likely, have two fronts. We will have a front starting up there at Gillieston Heights and then probably start a second front once we get some approval sorted out within Cessnock. There's still a rezoning to be finalized. We'll have another front within Cessnock that will commence, I don't know, sometime after Maitland, but we won't be doing it - we won't be just working from the north and heading south. There'll be a couple of fronts because they do offer slightly different products as well. The landform is a little different. We would like to get into the town centre. It doesn't have to be straight away, but sooner rather than later, we would like to get into the town centre as well.

So yeah, I can't give you an exact timing on what that would look like, Toby, but we are looking at a couple of different development fronts.

TT: OK.

MU: Thank you, Toby. Thank you, Shane. Any other questions of Shane?

TT: Any further interest in industrial developments?

SB: Yeah, there is. We've had some pretty good interest in industrial developments for a couple of different users as well. Obviously Snowy is out there building their power station. There





are a few other, call it renewable energy users that have enquired on the site. That really gets back to the advantage the site has with some of that enabling infrastructure that was put in place to service the smelter site. So they're still, I think you would say that they're gaining in interest those sorts of inquiries, but then we've had others as well - people looking for even hard stand area for the various construction activities that are happening around the site, not just on the site that there's a couple large pieces of bypass roads and expressways that are going in. You've got the Hexham Bypass and there's soon to be the Singleton Bypass so we've had some of the contractors that are tied up with that work inquire as well looking for land to store materials and to fabricate some of the pre-stressed concrete beams and those sorts of things. So yeah, we've had a good range of enquiry I think.

There's also a data set that I know of, I think I've spoken to this group about previously, that sits sort of where the old 77a building is, what Snowy are currently using as their engineering headquarters. They are very keen to get established within that building, so we're just working with them at the moment on what they need in terms of approvals to get going. So yeah, there's been some fairly strong interest still, Toby, in the employment land.

MU: That's great. Thank you and Mitchell?

MH: Yeah, just while we're on the topic of the industrial land there and you mentioned the DA for that section of industrial land use. Is there any further update on the progress for the northbound ramps there along the Hunter Expressway? Is the state still committed or are they committed to providing any funding on that site?

SB: No, they're not. They're not committed. We've certainly approached, we've made a few approaches around the construction of those northern ramps. Where it sits at the moment, there's some modelling work that's been done by a consultant, GHD. They did the modelling work that transport undertook on the Hart Road interchange, the Kurri interchange and the length of the Expressway between those two and that sort of flowed on from MR195. I think this group might be or some the group might be familiar with the modelling work that happened along Cessnock Road, MR195. So we engaged GHD probably towards the end of last year to look more closely at the timing and the triggers around when those northern ramps would be required. So we've now got that report from them, that will forward within our next DA that we submit to council, the timing of it is after the first two stages. So it's about, sorry, it's stage three, which is the first 30 hectares of land doesn't trigger the construction of the northern ramps, but post





that the trigger is reached. So we need to build it from that point onwards.

MH: Yeah. And just in in those early stages where those northbound ramps won't be there, I just envision any instance where materials or any trucks happen to be coming south along the expressway - the current only way to access the site would be to take either the Kurri interchange exit and then work your way around back into the site again. And in none of the plans I've seen there is there's no access road that I've been able to find linking Main Road 195 up into the industrial development say through the sort of heading north from 195 parallel to the expressway. Was that considered in the process? I know we looked at it when we were doing our corridor study for Main Road 195 and it was something the community often raised with me about wanting to have a better idea about what the different ways that people would be able to access those, the industrial and the residential developments besides just the Main Link Road and collection that comes back out through Cliftleigh.

SB: Yeah, there is a connection road that's required between the residential component of the site and the industrial component of the site, but that hasn't been defined anywhere. Transport has just put it in their correspondence to us that we need to provide that connection. We've got a few options that we've looked at, but we haven't sort of firmed anything up yet. It's a work in progress.

MH: No worries. Thanks, Shane.

MU: Thank you. And Jenny.

JM: I was just wondering, are the outcomes of that GHD report going to be referred back to Transport for NSW for their purposes because they're doing more work in that area?

SB: Yes, they will be. Yeah. So we had to get access to the model from Transport, so we had to sign a the license agreement with Transport to get access to the model and then I'm pretty sure we then resubmit that model back to Transport, as an updated model. But yeah, the formal referral process I assume will happen when the DA gets referred to Transport, so you know the reports and modelling will be attached to that as well.

JM: OK. Thank you.

MU: Any other takers? Shane is a rarity, he's much sought after for his level of knowledge on this subject matter. So speak now if anything comes to mind.

AW: Michael. I think there was a question at the last meeting, I think it was from Rod Doherty about any details on the intersection to the Loxford housing development on Cessnock Road. Where that's up to, Shane?





MU: Thanks Andrew.

AW: Do you have any an update on that?

SB: Yeah. So that we did a concept intersection layout as part of our DA and we submitted that to Council. Before we submitted it to Council with that first DA for 350 lots, we went through a process with Transport of having them assess that concept layout, because we wanted to make sure that we get our DA approval and the full impact of that DA is being assessed. So like the full footprint. We needed to have some level of confidence in the intersection, so we went through a process with Transport. They had a review of our concept design that's been referred to Transport through that process and they've approved it, or they've given their consent to the DA, whilst we don't have consent yet. And then post that, where we can't formally enter under a WAD processor, a Works Authorisation Deed process until we have our approval in place. But we entered into a, I forget exactly what it's called, but it's like a letter of agreement where we're working with Transport now on progressing that concept design and getting more into the details. So we've engaged people to do the lighting design, geotechnical engineers to do the geotechnical design. ADW have done most of our engineering works to date. They're doing further civil design on it as well. So we're trying to not leave this sort of gap, too large a gap, between getting our DA approval and then being in a position where we can start work. So that's why we're trying to progress some of these detailed design issues in tandem with the DA being assessed. So that's going, there hasn't, if anyone is familiar with that the application that was lodged with Council, you wouldn't really see much difference between where we're at the moment with that detailed design and what was lodged with Council. The footprint is still the footprint and we haven't gone beyond that. It's really now just starting to look at some of that detailed information. Our plan is we would like to get an approval out from Transport sort of September, October of this year and then start the process of building that intersection because there is a bit of work in it. That'll be built in a number of stages. We'll be shifting the traffic from one side of the road to the other side of the road and there's some service relocations that need to happen as well. So it's progressing.

MU: Progress, excellent.

SB: Slowly.

MU: Well, we know, we're used to that, OK. Any other further questions before we let Shane go? It's been a good range. So appreciate that and thanks Shane for your time. We really appreciate you coming back on. We might try to make a date for some time in the future and pick your brain again.





SB: Thanks.

MU: But that's great. Alright. Yeah. Well, I would ask everyone to give us a round of applause, but I know you can do that with icons and things if you're clever. But thanks Shane for your time and feel free to hang around if you like that. I'm sure you've got other things to do.

SB: I've got to duck off to training, so I'll see you next time.

MU: Alright let's move on to the general project update from Andrew.

6 Project Update

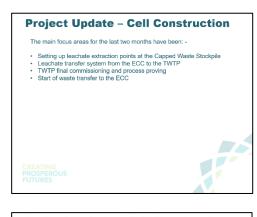
AW: Thanks Michael. Over the last two months, the main focus has been on setting up like leachate extraction points on two sides of the capped waste stockpile, the eastern side and the western side. The leachate transfer system, to be able to transfer leachate from the cell (ECC means engineered containment cell) to the temporary water treatment plant. The water treatment plant that the contractor Enviro Pacific Services has been doing some final commissioning and process proving. And we're now in a position where we'd like to start using it and I believe that's going to happen tomorrow. We've got some leachate there for them to put through the plant and the other thing, a major milestone for our project, we started moving waste this week on Monday of this week.

So as usual, this presentation is quite visual, so I'll just be showing you a number of photographs.

This is an aerial view of the cell back in December.



Aerial view of the cell - 6/2/22. Cell complete and ready to receive waste. This has now started in the SE quadrant as @ 13/2/23.





gregate in southern sump & base of the access ramps and geotextile on the flo





This photo was taken on the 6th of February. The main difference being that they completed, Daracon and Ecoliner, completed all the sacrificial geomembrane around the batters, and they've put the separation geotextile down on the floor ready for placement of waste.

And as I mentioned, so the capped waste stockpile, Daracon have put in a small basin here in the northwest corner which is to collect the leachate and transfer it to the nearby leachate pond, which you can see in the bottom left-hand corner. That's next to the water treatment plant.



The other thing that we've been working on with Daracon and doing some of the work ourselves, there used to be an old interception trench along here on the eastern side of the capped waste stockpile, and that was for collecting leachate and transferring it into the site stormwater system. This leachate has some fluoride in it. We weren't happy with the old trench. It was clogging up with silt. So we've restored it – basically made a new one and we're now pumping it into a tank and sending it over to the water treatment plant, we started doing that last week. And this is just a sketch.

MU: Sorry, Andrew, just if you wouldn't mind going back just for the new people.

MU: That capped waste stockpile was previously covered in grass and also considerably more clay, but they've removed the grass and how much of the clay was it now?

AW: Yeah, we've removed about 50% of the clay, so it's a 1 metre clay cap, we've taken half a metre off approximately. And there was about half a metre of topsoil on top of that.





MU: Yeah, and that was all sorry, that was to protect?

AW: Yeah, that was it was capped back in the mid-90s. It is a legacy landfill that started life in the early 1970s. It's mixed smelter waste. In the mid-90s it was capped. We started building the sheds that you can see on the right - built one shed every two years, ended up with about 10 sheds over the next 20 years and they were all filled with spent pot lining. Richard will talk about the status of the spent pot lining at the end of the presentation.

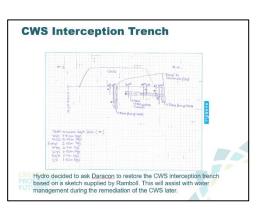
So the interception trench, this is a sketch from Ramboll, it runs along horizontally here it goes from about 4 metres deep at this end to about 5 metres deep at this end. We've got two vertical wells, one at the northern end which is the main one that we're pumping out of and we have another one at this end, which is right next to a well. It's normally very high in fluoride, I think from memory about 700 or 800 PPM. And we're periodically pumping the water out of this well over to a tank along with the leachate out of this well. That's the capped waste stockpile in the background. This will help Daracon once they start moving the waste that's in the capped waste stockpile across to the containment cell. This will help them to towards the latter stages of that process in managing surface water in the excavation by having this interception trench so it will be very beneficial for them as well.

So these are just a few photos of the work happening so obviously digging the trench. It was filling up with water straight away, but we managed to get an AG pipe in there and we had some leftover drainage aggregate from the cell which we used to backfill. The previous interception trench just had AG pipe in soil. It didn't have any drainage aggregate. So that's probably why it blocked up so this will drain better.

That's another view looking south.



This is the auger drilling the well at the northern end. It's about 4 - 4 1/2 meters deep, I think.



CWS Interception Trench











And that's when it was finished, so that's the well at the northern end and we put a clay cap over the drainage aggregate with some geotextile of course. And that's just to seal it from any surface water run off from the road on the left of that photo or the capped waste stockpile, which is on the right hand side of that photo. And, so it's all sealed up now and it's working quite well. So in that well, we've put a solar powered pump.

That's our solar panels and we've got some 24 Volt batteries and a control system. And that's just working automatically now filling up a 10,000 litre tank. And we've got a high-level sensor on the tank so it cuts out that pump once the tank's full. And then we go down and manually pump it across to the leachate pond. We have to check with Daracon and EPS that it's OK to do that before we do it, because they could be in the middle of processing a batch of leachate. So we don't want to interrupt what they're doing.

This is the excavation at the northwest corner of the capped waste stockpile. And this is a photo that I took when Richard and I were doing our rounds. One day we just happened to notice this black liquid oozing out of the ground and it was actually coming out of a sandy lens here and just running down into the corner. So we've since pumped that liquid over into the adjacent leachate pond and that's the leachate that's going to get treated tomorrow. So the black coloration we think it could be due to carbonates, which are quite high in leachate, but it could also be vegetable matter. The area was originally a swamp, and so it's not crude oil or anything like that. It's some sort of organic or carbon-based material that discolours the water.

Moving along, so these next few slides are about the infrastructure that's been put in over the last two months up at the containment cell. This is a pump. We have two of these submersible pumps that are set up on a skid. And there's a sensor at the end that measures the water level in the sump. And the pump is lower down into the riser pipes to the bottom of the sump which we'll show you on the next slide.

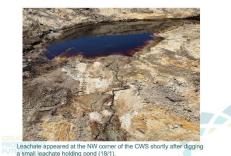
So these are the riser pipes and they're about 36 metres long, so they go from the top of the cell batter all the way down into the sump. In between that end plate and the pump is about 36 metres of that blue and black polypipe that you can see in the photo, and that's just the cable for the level sensor.

And this is the control panel for the control of the pumps. You have level indication for the leachate sump and the leak detection sump. People probably heard me talk about the three compartments in each sump: there's leachate, which is above the primary liner, leak detection, which is in between the primary and secondary liner and groundwater, which is below the secondary liner next to the subgrade. So there's level displays for leachate





CWS Leachate



Leachate Transfer System









sum and the leak detection sump for both north and south. And we can control from this panel, we can run one pump. So either the north or the south, or we can run both simultaneously if we need to.



And that water runs through a series of pipes that actually run underneath the road, the perimeter road, which is around the circumference of the cell and go into this leachate pond, the other leachate pond, which is up at the cell. And on this day we'd started commissioning by pumping basically rain water from the sump, the south sump over to the leachate pond.

Now, we've also installed a flow meter here on the main pipe into the leachate pond and we can use that to track how many kilolitres of leachate gets transferred every time we pump. So we're keeping records on that.

We've also made our own level sensing device. One of my guys, Andrew Solomou, came up with a design and we built it for only a few hundred dollars. And we're going to make six of these sensors so it's a long length of conduit. There's about 9 lengths of four metre conduit running down the 36 metres to the sump. We've got a series of electrodes. At one metre spacings up the conduit 1 metre on that incline is equivalent to 250 millimetres of vertical height of liquid in the sump and this is just a caravan water level sensor that's used on caravans for measuring the tank level in a caravan. You just press the button and it tells you - so in this case it was registering all the lights that lit up, so that's three metres up the incline, which is 750 millimetres of liquid in the vertical height. And then obviously, as we pumped it down, we were checking this level and it dropped down to zero. And we can also check it on the main panel.



Leachate Transfer System







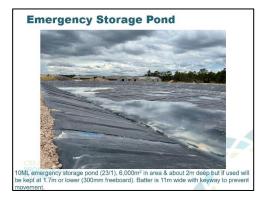
For those of you interested in the Hunter Power Project, this is just a shot we took with our drone, and this is actually the day they were doing the concrete pour for the foundation for GT1 gas turbine number one, you can see three concrete pumps set up. I believe they had 3 batching plants running in about 40 agi's [concrete agitators] running between the batching plants and the and site. I think it's about 1500 cubic metres of concrete. The reason I'm showing you this photo is just to explain that there's a leachate pipe that runs alongside our Haul Road, which goes across the site here and over to the other leachate pond and the water treatment plant, which are out of view on the left. But I just wanted to show you, last meeting I spoke about a 10 megalitre, 10 million litre, storage pond. We're calling it an emergency storage pond. Now it can be used to store leachate, or rainwater, whatever we want. But it's a lined pond and it's sitting there over on the east side of the site.

And that is there just in case we have, well, if we had a major rain event like say July last year where we had 500 mil of rain in one month. We can use this as a detention basin for leachate if we had to, and then from here it could be transferred to the other leachate pond and put through the water treatment plant so EPS could use this to catch up if necessary. It's about 6000 square metres in area. The batter is 2 meters high, so 2 meters deep. But they won't fill it any higher than 1.7 metres or 300 mm of freeboard. The batter is actually 11 metres wide and it's got a key way. It's keyed into the ground so it can't move which is a standard design used for dams in the mining industry and other industries.

OK, moving on to the water treatment plant. So as I mentioned, Enviro Pacific services have been doing the final commissioning in December. And making a few other alterations. One thing, as I've said, there is two additional treated water tanks going in. They were actually installed today. The contractor was onsite, putting them in and the reason we've done that is just to increase the throughput of the plant. So we now have 6 treated water tanks and the original concept was to fill one tank at a time. So take samples and then while the samples are being analysed by the laboratory they start filling the next tank and the next tank and the next tank. By the time the results are available for the first tank, they can discharge, then they can keep going basically. With six tanks, they can actually run it 2 tanks per day, so can basically double the throughput of the plant if we need to and that's a three day cycle as opposed to a four day cycle on a 1 tank operation. But the laboratory can keep up with the three day cycle so we saw that as an advantage again, if we have a major rain event like July last year.

Leachate Transfer System













This is the other thing they've working on, so they put in these geo bags. So as part of the process there's a clarifier, like a separator, for removing solids or sludge from the process. That sludge gets pumped into these geo bags - you can see a hose there that goes in and the geo bags are porous. So what they'll do is they'll allow the water to escape and the water goes to a sump in that corner of the bunded area and gets pumped back into the leachate pond, which is over here on the right through a sump pump, but any solids or asbestos fibres will be trapped inside these geo bags. And then the bags will be discarded in the cell once they're full and then the bag will be replaced with a new bag. So we do know that there is asbestos in the capped waste stockpile. So we asked for this as part of their treatment process that it could remove asbestos fibres from the leachate.

MU: Was that something that you knew about, Andrew, or is that fairly new design?

AW: We did a lot of testing back in 2015. We took cores from the capped waste stockpile and we took hundreds of samples from those cores, and I think about 30% of the samples were positive for asbestos. Plus, there's other waste that we know contains asbestos like Hart Road Municipal Landfill was a landfill that was kept on fire during the 30s and the 50s. It's not our waste but there's bonded asbestos in there, and because it's been heated up, it's got to be treated as friable. So that could get into the leachate as well so these geo bags will capture all of that asbestos.

MU: Is that a new design of the geo bag or is that something that's an industry standard sort of a thing?

AW: I think it's a well-known thing I've seen videos online. It's probably a technology that's come out of the United States, but it's used a lot in water treatment and remediation all around the world. Underneath the Geo bag, is this drainage membrane, so that's just to allow the water to drain underneath the bag and make its way to the sump where it can get pumped across into the leachate pond.

The other thing we've been working on, I've presented this slide a couple of times now, but this has been a long process. It's been going on for over 12 months, but Daracon submitted the final version of their work method statement for the movement of waste across site. They had to do an update following a meeting with SafeWork NSW in November, so we received that just before Christmas and we've reviewed that now and we're happy with it. We've also been doing health monitoring so all of the Daracon team, the Hydro team and the Ramboll team, or any site personnel who have to go into the contaminated zone, we've had to do spirometry testing, which is like lung function testing and do



- 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 heck 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 for Daracon, Hydro and Ramboll site personnel. Site auditor has reviewed the methodology and made comments. A meeting was held with SafeWork NSW on Wednesday 23/11/22.





other tests to check for baseline levels of fluoride and PAH's in our urine. And we will do that as our baseline and then 12 months from now, whenever the waste transfer finishes, we do another set of testing on all of our people just to make sure that no one's been affected by the movement of waste. Obviously, we'll wear all of our PPE when we go into the hot zone, we have to wear the paper overalls, nitrile gloves, booties, wear a half face P3 respirator and then go through a wet Decon unit to go into the contaminated zone and then back out again and dispose of all our PPE except for the face mask which has to be cleaned before you reuse it.

MU: Probably good to do that later in the year and not in the middle of February, I would suggest?

AW: Yeah, we're not looking forward to wearing those suits when we get 40 degree days.

MU: One of the risks in there is that heat exhaustion issue, but I suppose you would be staggering your hours in and out of those suits?

AW: Yes, we will be. Actually, that was one of the things that SafeWork raised which we had thought about if somebody collapsed in the Decon unit, how do you rescue them? Especially if they're in the dirty side, you've got to get them out, if someone had a heart attack you've got to get them out and get them to medical attention as soon as possible. They also said what happens if someone is in an excavator or dozer or a truck and they also collapsed. How would you rescue them if they were sitting on top of the waste and it was asbestos waste, for example? So Daracon have actually been doing a good job they've had all the emergency services people onsite and shown them the cell and explained what will be happening during the filling of the cell. So we've had the ambulance people, the fire brigade, police and rescue personnel. And so yeah, that's been happening as well.

MU: Things Andrew, Rosa has got a question there.

RG: Hi Andrew. Thank you. What is the lifespan of the geo bags?

AW: I guess it depends on how much how much solids is in the process that's coming out of the clarifier. One thing that could be a problem is sediment. If we get a lot of silt running, which can happen because this is an earthworks project, it come off the cap of the capped waste stockpile. That's a risk, that could clog up with silt early and have to be replaced more often. But I can't really tell you. I don't know. I would think that we'd get at least a month or two out of it out of each bag. And the filling process is going to take seven or eight months, so we could be replacing them three or four times through the course of filling the cell.



MU: So it's not about the degradation of the actual material that we're looking at there because that whole bag will be placed completely into the cell, is that right and will be replaced?

AW: Correct

MU: So we're not going to tip that out an keep reusing it. Once it's full of sludge, that whole thing will be picked up and placed into the cell.

AW: It's a little bit like if you imagine a filter bag and a dust collector. You don't reuse them, you just dispose of them and get new bags.

RG: Thank you.

AW: And so a big milestone for our project was on Monday of this week, we started putting waste in the cell. So we started with the cement stabilised pond sediments from the western surge pond. Which was, we think, was a good material. It was stored in two of our SPL sheds that had previously been emptied. And this was material if you remember about 12 months ago, we remediated the west surge pond and we had to add cement to the sediment cause it was very wet and sloppy and because it had PFAS in it which came from a fire training ground that operated on site in the late 70s, early 80s and on that fire training ground they used AFFFs – aqueous film forming foams, and that contamination got into that western surge pond into the sediments, so we wanted to store it under cover in a shed, not out in the open, obviously because of the PFAS, and so we're now moving that material into the first quadrant, which is the south eastern quadrant.

So the process to start with, they use an excavator - the trucks would back down the ramp and tip at the end of the ramp, and the excavator would spread it out and build a pad approximately 1.7 metres thick. And just to make it enough for the trucks to then start backing out along with a bulldozer, which you can see in these next photos.

That's one of the trucks tipping or reversing down the ramp to tip off on to that pad. And there's a D6 dozer that's spreading the material out. That dozer has GPS and he has the 12D CAD model programmed into his machine so he knows where the liner is and he's trimming, pushing out so it's 1.7 metres thick and that's allowing for 200 millimetres of compaction, cause that fluffy layer needs to be a minimum of 1.5 metres thick across the whole floor of that quadrant, so with compaction and then a final trim, we'll get it to 1.5. and then we can start lacing other waste materials on top of that fluffy layer.

The fluffy layer, that's just a term that the cell designers used, so GHD designed our cell and in the spec you have to have 1.5 metre thick layer of soil with no sharp material in it, like pieces of









steel or reo, things like that, refractory bricks, things that could potentially damage the liner. The liner is pretty well protected. There's 300 mil of drainage aggregate on the floor above the primary liner and 300 mil of clay on the sidewalls. The bunds in the middle of the cell, they only have a layer of geotextile on them to protect the primary liner, so that's probably the most vulnerable part of the cell. And we asked that Daracon be very careful, and they did do a lot of explanation to the guys doing the work on Monday. They had a late start. They spent about 2 hours doing an induction and training package for all the operators and the engineers spent another hour with the dozer driver explaining to him what he needed to do, just to make sure that no damage happens to that primary liner on those bunds.

Later on when the quadrant is full and they want to move to the next quadrant. They'll actually put fluffy loam material over the bund, also 1.5 metres thick right over the bund to make a bit of a ramp and a road over the bund so that they can move their equipment into the next quadrant as well as coming down one of the other ramps so there's four ramps leading into the cell - one ramp per quadrant.

Moving on, this is our latest dust deposition gauge results which are continuing to show good results well below the four grams per square metre. We've got two water carts running around the site on the Haul Road this week and Daracon are getting a larger offroad water cart, which is a basically a moxie or dump truck with a big water tank on the back of it. And that will help as well.

So this is the wind rosette chart so we use if we did get a high reading, we'd be able to work out if there was an issue where that dust would go. Yeah, we're keeping on top of that.

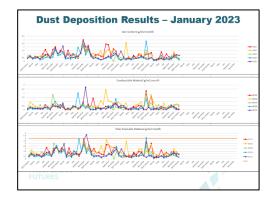
And that's it. I'll hand over to Richard now, unless there's any questions for me.

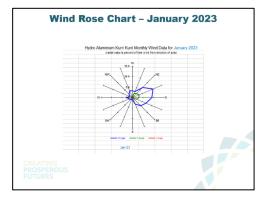
MU: Yeah, that's a fairly big presentation, Andrew. We might just pause for a second and see if anyone has got anything further.

I would say if you're new to the meeting, you did miss the first 5-6 years' worth of presentations on how good this cell's going to be and the presentations where we got to feel the thickness of the plastic liners and all that sort of thing.

Actually, I think Andrew's only just stopped talking really about the various GCL and GCD and ABCD types of liners and things there for the cell. So if you've got some spare time, Andrew loves nothing more than talking about the various liners and safety precautions that are built into the design of this cell. It's been an amazing thing to watch over the past few years from the design through to the prep, through to all the safety things and anyone else who's been on these calls can likewise tell you all about it.











We might have a quiz at the end of the year or something, but there's a lot there. Richard. Sorry, Robert.

RA: And yeah look, actually, I was having a conversation with somebody only probably two weeks ago about this, an old school, the knockers and they said "oh, no, that'll never work. It's only going to be good for 10 years". And honestly, it was very hard to get, I think maybe we might maybe need to come up with a marketing, some sort of communication that we can actually put out to the community explaining in simple terms what this is because I try to tell them, this is 50 years. "Oh it won't last that long - 10 years. And what's going to happen after that?" And you think mate, I've sat through so many of these. This will last a very long time. But we might need some communication to share with the community there I feel.

MU: Thank you. Rosa, did you have a comment or a question?

RG: Yeah, a comment I think that's a great idea even just a little short film on the fact it's for the community because as you said there there's a lot of knockers out there. I think that's a fantastic idea, especially for the community. Thank you.

AW: Thank you. Yeah, we could take that on board.

RB: Michael, I think you have one that's probably just perfect for that.

MU: We do actually have one that's on YouTube now on our YouTube channel. We were for probably several years placing the slides from these presentations into YouTube videos and placing them onto YouTube. That was mostly around the demolition side of things. But there is quite a detailed animation of all the different layers and so forth. I'll get the link to that, and I'll place that into the show notes either in here or into the minutes. And then you'll be able to have a look at that and see what you think.

https://www.youtube.com/watch?v=2ypttmdYSN8 – link to the cell design video

https://www.youtube.com/@regrowthkurrikurri3203 – link to the YouTube channel

If it doesn't make sense, please let us know. If you think it's different to what we're building, I say we because I'm building it all, what's being built and so forth. Please let me know and we'll have a look at it. But I think you'll find that it is very thorough and it's pretty much true to what the end result is, I think it's fair to say. Andrew, would you agree with that or do you think there's much that's changed?

AW: I think that original video was based on the design that Ramboll put forward for the EIS. So we hadn't gone through the detailed design phase. So that the cell was designed by GHD, but





it's very similar to what's in that video. I'll have to watch the video again to check there might be some slight differences, but very minor.

MU: If anything, I think you've done more work to add in additional redundancy and things like that, focus on the core, please pull me up if you don't think that's correct, but things like there's an additional retention basin over here and testing the liner by running over it 10 times and all these extra things that aren't in the sort of basic design that you can't really see in that video. OK, yeah, I'll put the link in and we'll go from there.

RA: Yeah. It's probably I was surprised that having a conversation admittedly that most people we have this conversation with are our fellows around this around this zoom meeting tonight and we're all 'believers' and when somebody's pulled me up and said that's not going to work, I think hang on, what do it mean it's not going to work? We wasted all this time doing something that's not going to work? Seriously. So I will go back and have a look at the video. I forgot about that. Thank you.

MU: Yeah, it's a double edged sword. I think the people on this call that have been on this journey with us over those years are the most well informed people about bleeding edge containment cells on the planet besides people who've just done PhDs in it or something. But anyway, if you're not in the club, you're not in the club. I can see why someone might have the sort of same old opinion based on what's hit the front page of the paper over the past few years with different things.

RA: Thank you.

MU: Any other questions or comments for Andrew?

RB: I might just chime in and I'll lead off with my slides, Michael. But just further to that point, I mean I think it's quite understandable and not unexpected that with the project that's gone over, well for us 10 years. We're now 11 years and counting in this project that all the work that's been done seven years ago in the cell design and the communications around that, that doesn't get stuck, and I'm sure this happens with all projects, and on the one side of things, I suppose we take credit in the fact that we haven't created a situation where we've had to have some sort of community outcry with the work that's going on. We've just gone about our business. We've kept people informed through this process and for a lot of people, it's like has that happened? Is that new? And it's actually quite a long time ago when we went through that communication process. The challenge obviously is now that it's done and we're building it whereas the communication that was engaged up front was more at the leading edge of the design process and the approvals process where people had an opportunity to comment and influence and





affect the actual outcome. So at the moment, now it's a process where we do rely heavily on the CRG to represent the information that they've given there. So in that sense we appreciate what you guys do for the project. It's not the first time, I had, unfortunately Alan's not here tonight, but Alan also has experienced similar questions from the community group that he represents in the Kurri area and has asked if I can come along and basically go through, I guess, some of the information that we probably presented to the same group 5, 6, 7 years ago and my intention is to do that in the coming months as time permits.

So I'll carry on - a couple of things just to tidy the meeting up. I think Andrew might have mentioned this at the last meeting, which I wasn't at, that we were getting very close to completing the spent pot lining removal from site and I'm happy to report that that was actually completed as of the end of 2022. Again, another sort of major milestone in the project that all of that spent pot lining, which was stored in the sheds, was taken off site for further reprocessing and reuse through another avenue.

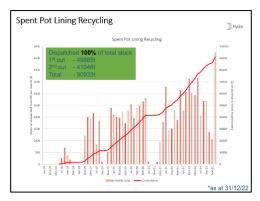
In the end you can see there on the slide we had a total of just over 90,000 tons of spent pot lining, which was give or take half and half first cut and second cut which is pretty much what we expected in terms of the split. It was slightly more than we had allowed for. We had estimates of how much spent pot lining was stored in the sheds. But I guess we weren't really going to know exactly how much was stored in there until we actually got it out.

A box ticked for the project.

MU: And that's a been another journey as well I dare say, the valley of death there in the middle where we were wondering what was going to happen next and were you going to actually meet the deadline. Because I think the deadline was the end of last year, wasn't it? And it was like, we need to have some fruitful discussions with the people doing the recycling right at the end there to get across the line by the end of the year. Is that fair to say?

RB: Well, to be fair, the deadline was a couple of Christmases ago and we did have to get it extended a couple of times. But yes, at this time it was the deadline which was actually reflected in our Environmental Protection License regulated by the EPA, did have a deadline at the end of the year. And we did have to have some, as you suggest, fruitful discussions with the recycler and alongside the EPA, who helped to, motivate, I guess, the recycler in terms of collecting all of that material, so it's done now, and as I said, box ticked we move on.

Speaking of boxes ticked.





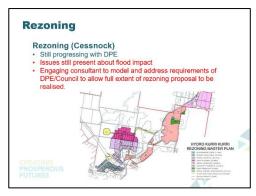


Andrew, you might want to go to the next slide and there are still a couple of approvals that Hydro are working through.

Shane talked about the DA. So, the kind of change of responsibilities between Hydro and McCloy-Stevens as they take ownership of land and also during that sort of transition process is that Hydro is responsible for rezoning the land and the associated bio-certification process that we're going through and then as professional developers, McCloy-Stevens take the forefront through the development application process and then obviously the subsequent developments themselves.

With regards to rezoning, of course, the Maitland's been done a long time. And with the Cessnock rezoning, and I'll get to Jenny in a sec. But because I know she's familiar with this process. The rezoning itself is still progressing somewhat. It's an interesting situation that's evolved with the Cessnock rezoning. Our planning proposal which you see on the screen there which was all but signed off by the Department of Planning, so it was endorsed by Cessnock Council during 2022 and sent down to the Department of Planning to be to be made into the LEP.

We happened to coincide with some major flood events. Everyone will be familiar with during 2022 throughout the state and throughout the nation. And as a result of the impacts of that flooding, the State government conducted a flood inquiry and there was a whole range of recommendations that have been issued out of that flood inquiry and some of those recommendations relate to the appropriate use or the appropriate development of land. So in this case, for us that has called into question the extent to which the rezoning proposal interacts with the modelled flood levels, be it the probable maximum flood levels or the 1% annual exceedance probability for flooding and similarly to the SPL, I guess in some respects the Department of Planning had an expiring gateway where the rezoning proposal, I guess could be called into question by the end of the year, so the Department of Planning in an attempt to be helpful, I suppose took it upon themselves to say 'we will rezone the land that is above the PMF' because that represents basically no risk and they're happy to proceed on that basis and then the remaining footprint of land that remains within the planning proposal, but that is effectively below the modelled probable maximum flood levels needs to be justified by further investigation. So that's pretty much where we're at the moment. We are working on a process whereby we're engaging with consultants to undertake further analysis of the flood requirements of the flood inquiry and Department of Planning and Councils requirements that flow from that. But to give you a bit of an example of how this works or how this flowed out, if you go to the next slide, Andrew.





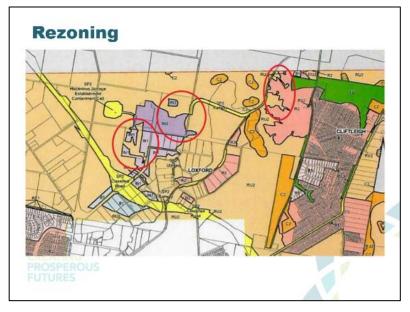


So keep that flood plan in mind. This is now the actual flood gazetted rezoning for the site. Sorry I might just flick to Jenny, she has still got her hand up. Sorry Jenny.

JM: Sorry, I'm happy for you to talk about flooding. I just want to ask a question about the biodiversity side of things when you've got a chance?

RB: Yeah, I'll get to that.

JM: Thanks



RB: So the flooding side of things, so you can see this was what the Department of Planning concluded was the land they were comfortable at that point in time to rezone. But the challenge clearly is that from our perspective, the basis they use for that had a number of assumptions that we didn't think were guite accurate or quite reliable and it ended up in a fairly perverse outcome with regards to the footprint. And you can see a couple of areas there that are flagged. I don't have my mouse control, but you can see like there's a little island of IN3 to the north of the site and there's also a strange looking shape to the southern part of the site, which has not been rezoned. The basis of that is a combination of the endorsed flood models that are existing and used for planning by Councils that are modelling the flood events from the Hunter River but also modelling flood events from the swamp Fishery Creek Catchment that's more closely aligned to the site. But also it looks like that it picked up some LiDAR information that was taken during the demolition process so we can look at that and identify that there's footprints of potlines, for example, that were being demolished at the time. Now we also know that the footprint of that potline is significantly higher than the PMF [probable maximum flood].



So we had some discussions with both the Department of Planning and Council and it was agreed that with support of some survey data that we would go back to the Department and Council with an updated footprint for the areas that are above the PMF but were excluded from the current version of the rezoning, and you can see the hatched areas there are areas that we're talking about and this sort of marks the first phase of two adjustments we hope to get resolved with the planning proposal. So we've had the surveyors go out on site and we're currently preparing an updated summary report for Council and Department's consideration but for example, some of these areas the PMF which is the blue line, as it's determined by these flood models, I think is 11.7 metres AHD. And the areas that are hatched on the site are in some instances several metres higher than that. So there is no risk, like the land adjacent to it. There's no risk of that being affected by the probable maximum flood.

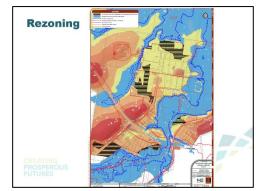
So you see the industrial area is probably most affected and it's said I think a lot of that's got to do with the demolition works that were undertaken. Interestingly enough, the area to the north there where that island materialized, they're actually our detention basins on site. So and depending on when the LIDAR was taken, if we had a really dry spell, that's island appears as sediments from the detention basin out of the water. Anyway, we're working through that with Council and the Department at the moment.

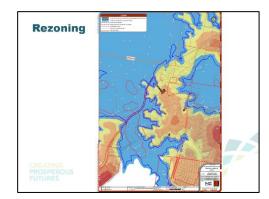
The next slide sort of shows that in the residential area to the eastern side of the site, there's a couple of areas, but it's a lot less of an impact.

The next stage for us, as I said, is to then go that one step further and say we believe that the footprint that was proposed originally to the rezoning process is still appropriate and think that we can demonstrate that by complying with the requirements of the department which will demonstrate that the hazard which is a combination of both flood inundation and flood velocity levels is low and acceptable enough to proceed or to allow development to occur in those areas. But that's work that's ahead of us and work that will be done by a consultant.

Next one, Andrew. So just on the biodiversity. I don't have a lot of information other than this and I'm happy to talk through it, but I guess where we're at and this is a long time coming as well. Prior to Christmas, well, probably in November or thereabouts, we had a catch up with the Department and the Biodiversity Conservation Division, who are the agency that deal with these things and they were starting to prepare the legal instrument so the biodiversity certification agreement, which is the instrument that exists with the land, that then compels the landowner to comply with the











requirements to retire biodiversity credits as they're required for development.

That's still happening. The latest feedback that we had was that the BCD had their lawyers still engaged in that process and that we hope to see a draft Bio-cert agreement anytime now, basically, so that we get to have a look at how that's put together and any sort of, there might be any special conditions in there which we get to see and comment on for how they might affect the site.

Sorry, Jenny, I don't know. It's probably not answered your question but ask away.

JM: No, no, it's just chasing a status update. That was all.

RB: OK, timing wise, I don't have a feeling for how long this thing takes. Maybe it depends on the nature of the agreement that gets sent to us. If we think that there are elements in there which we hadn't considered or it's rather onerous or for some reason that we want to have some more discussions around that, that's likely to push it out. If it's not and we're happy with it, then maybe it's a fairly quick process to get that in place. Just talking for what Shane said is that the DA's that are currently being considered certainly the Maitland one's the Bio Cert doesn't cover the Maitland area, so that's separate altogether. But the DA's in the Cessnock LGA, so the first stage industrial DA, because that's on the existing smelter footprint, there's actually no veg that it impacts on so it's not subject to or not going to be subject to any restrictions as a result of biodiversity effects. But the next stages will and I think that's me, Andrew.

AW: Yep, that's it.

MU: Well, that slide hasn't changed a lot in the last little while. Maybe it has. Well, thanks for that, Richard. Any other questions to Richard in relation to those other these other topics? So the approvals processes, rezoning and so forth.

OK, so if there's nothing else there then if there's any other business. So this is where we ask you as members of the Community Reference Group, to be a conduit to the Community. Is there anything that the community might be talking about? And we've had a little bit of intel around that in the last little while during this meeting. Is there anything else that people are talking about in relation to the project that that they've got questions or have you got any questions that you think you might be able to take back to the community in your role as a conduit back between the project and the wider community?

RA: I'm very happy, it's going well for the information I'm sharing, I'm happy.





MU: Thank you.





Alright, well look if at any time something comes up, especially you new folk. If there's anything that you sort of go and what happened before that? How did that happen? Why does that work? You know that sort of thing. Please get in touch because there's a wealth of information both within Hydro but also within the CRG as well. And a lot of these guys on here have hardly missed a meeting in 50 or 54 meetings. So, yeah, 54 meetings and counting. So there's a lot of knowledge, there is a lot of knowledge there, so please don't hesitate to reach out.

RB: Just for the sake of following up that point before I've just put into the chat the link to the Regrowth Kurri Kurri page, which has got not just the video link I think to YouTube, but also the verbal description and it does actually have the current design, you know as cross sections in there.

MU: There you go. Excellent. OK. Well, thanks for that, Richard. For your viewing pleasure because you can't get enough of the Kurri Kurri smelter demolition and remediation project. Alright, so the next, final item is to discuss the next meeting. I've put down tentatively the 18th of May being three months from now.

Remember last year we discussed moving to three monthly. We were bi-monthly, I think before that for a period we were monthly, weren't we for a little while, maybe a year or two and it's all a bit of a blur, but 18th of May, the third Thursday in the month but going three monthly, so please take that on board. There should be invitation in your inbox. If not, I'll resend because I tend to do that anyway. If you haven't got it, let me know and I look forward to seeing you then. If we don't see you before.

Thanks all.

7 Meeting close

Meeting closed: 7:27 pm

Date of following meeting: 18 May 2023