

# Agenda

## July 19, 2023

### Santa Cruz County Advisory Panel on the South32 Hermosa Project Wild Horse Restaurant, 309 McKown Avenue, Patagonia, AZ

Timing	Focus	Task/Action	Who
11:30 30 min	Lunch is served		All
12:00 5 min	<b>Welcome</b>		Catherine
12:05 5 min	<b>June Minutes</b> <b>March Minutes</b>	Approve Approve	Catherine
12:10 15 min	<b>Project Updates</b> <ul style="list-style-type: none"> <li>• Ongoing Permitting and Site Activity</li> <li>• Workforce/Procurement</li> <li>• Traffic/Trac Out</li> <li>• Water/Dewatering Options</li> <li>• Fast-41 Dashboard</li> </ul>	Share information, Q & A  Note: Generally, up to three of the topics listed will have an update. If there is no new information, there will be no update.	South32
12:25 30 min	<b>South32 Update on Potential Facilities in Rio Rico</b>	Share information, Q & A	South32
12:55 15 min	<b>Community/Panel</b> <ul style="list-style-type: none"> <li>• FOSCR - Ben</li> <li>• PARA - Carolyn</li> <li>• Town of Patagonia Flood and Flow Committee - Carolyn</li> </ul>	Share information, Q & A	Panel Members
1:10 45 min	<b>Standing Topics:</b> <ul style="list-style-type: none"> <li>• GNA</li> <li>• Q&amp;A Document</li> </ul>	Share information, Q & A	Panel Members, South32
1:55 4 min	<b>August Meeting Agenda:</b> <ul style="list-style-type: none"> <li>• Confirm 11:00 am – 12:00 pm Panel business, 12:00 – 2:00 pm Dr. Ferre.</li> <li>• August Location - Nogales</li> </ul>	Discussion	Catherine
1:59 1 min	<b>Wrap Up</b>	Final Comments	Catherine
2:00	<b>End</b>		All



**Meeting Minutes**  
**Santa Cruz County Advisory Council**  
**July 10, 2023**  
**Wild Horse Restaurant, 309 McKown Avenue, Patagonia Arizona**

**1. The meeting was called to order at 12:00 pm by Catherine.**

**2. Meeting Minutes – Catherine**

There was not a quorum at the beginning of the meeting, so the approval of the meeting minutes was made later in the meeting once a quorum was reached.

**2.1. March:** Catherine called for a motion to approve the March minutes. Linda made the motion which was seconded by Damian. All attendees approved the minutes with one abstention. Moved/Second/Passed.

**2.2. June:** Catherine called for a motion to approve the June minutes as written. The motion was made by Carolyn and seconded by

**3. Project Updates – South32**

Melanie brought in the South32 technical experts who then introduced themselves and then later they each presented in their areas of expertise.

**3.1. Ongoing Permitting & Site Activity - Melanie:**

One update on the Cross Creek connector construction is that the grading for phase one has begun. There are no other updates since last month.

**3.2 Permitting – Melanie:** The current AZPES and APP Permit remain in effect. ADEQ withdrew the permit to consider that recent court decision and effective during permit reissuance process.



**Carolyn:** Well PARA says something different. There are legal documents flying back and forth. There is not a hearing yet. is decline, you're talking about from underground?

**Pat:** But there is a permit in effect today. It is a continuous route of renewal and regulations. While they're doing the permitting.

**Fritz:** So, you've got discharge permit still in effect maybe? You can't start discharging until your APP is approved?

**Tomas:** No, AZPDES. So, there's two different purposes you have APP aquifer, protection permit the AZPES permit governs the discharge. That's the difference.

**Pat:** The DHCP permit is in effect.

**Fritz:** So technically you can start discharging soon, right?

**Pat:** Right.

**Fritz:** If you wouldn't mind, can we add the power line on that slide?

**Attendance:**

**Meeting Facilitators (Interfuse Associates):**  
 Catherine Tornbom, Joanne Lamb

**South32 Hermosa:**  
 Melanie Lawson, Tomas Goode, Victor Cook, Pat Risner, Sarah Henderson, Skylië Estep

**Panel Members Present:**  
 Olivia Ainza-Kramer, Elizabeth Collier, Maureen De La Ossa, Gerry Isaac, Ruth Ann LeFebvre, Ben Lomeli, Damian Rawoot, Fritz Sawyer, Carolyn Shafer, Linda Shore, Guillermo Valencia, Marcelino Varona, Michael Young

**Panel Members Absent:**  
 John Fanning, Chris Young

**Consultants/Guests/Visitors:**  
 Stephanie Smith, Aaron Mrotek

**Melanie:** We can but the power line is being run by Unisource. So, it's not that these are South32 permitting. I could but I will point to the Unisource website or that for updates. On the permitting because we're not doing that.

**Fritz:** *I just haven't seen anything about the powerline at all.*

**Melanie:** Okay, so what we can do, I can supply a link to the Unisource website to go through that next time. What I'll do is just in the email that goes out to the group with the PDF attachments I'll put the link to the Rio Rico Harshaw line. All right, any other. Were there other questions about I think a couple of people have reached out about the pollinator garden project to correct rumors that I don't know what people thought Jim was going in on the instant personal. I've heard a couple different things, hotel or man camp, all kinds of things. So, I just wanted to reiterate that it's the pollinator garden project. We showed the conceptual drawings from the landscape architect at a couple of meetings back. so just want to reiterate to this group. It's the pollinator garden if you can help disseminate that between your networks.

**Linda:** *I'm just going to comment, I'm assuming once it's published in the minutes then we're free to share so I cut that section the out of what you did, and posted it on Facebook with well, people and fantastic and what was going on? Yeah, I got private thank you for it.*

**Melanie:** So, wonderful. Yes, that's the intent with sharing this is for you to disseminate. So, thank you. Any other questions before I move on? Okay. So, this was a request from



Carolyn, I think from the last meeting, she asked about the Harshaw road detours.

So, this is the slide from the April meeting that shows the work for the improvement are on Harshaw road and that's that detour. So, there's three crossings, the widening of the road. I think everyone by now is familiar with the detour and even the bike part of the detour that goes up in front of site and comes back down on

the other side. So, this was just a reminder about the work and what was shared the evening meeting. Any questions or feedback on this project?

**Carolyn:** *Are they still targeting October to be done?*

**Melanie:** Currently, yes. If there's an update to the schedule, I can share that at the next meeting.

**3.3 FAST-41 – Melanie:** So, I put the link in here and I have it pulled up. So, this has been updated and still lists. The lead agency, the biggest update here if you scroll to the bottom, is the permitting timetable. So, it goes through the expected schedule, and this will be updated as the project moves through the FAST-41 process. So again, FAST-41 being a coordinated enhanced effort, not a fast tracking your cutting corners. Are there any questions?



**Carolyn:** *Yes, well a couple of things that aren't on here that I would like to ask about. What is the status of the shaft blasting.*

**Melanie:** So, the shaft blasting is still occurring. If there is a blast, I send a copy of the blast memo to Ron and so I'm sending those as they happen. The shaft blasting is still happening,

**Carolyn:** *But it's not an everyday adventure now?*

**Melanie:** No.

**Carolyn:** *Okay. And then the two reports with prefeasibility on Taylor and the prefeasibility on Clark.*

**Melanie:** We are still going through the study process. We're wrapping that up. And again, that's just an internal process. Those documents aren't published for the public. But we're wrapping up feasibility for Taylor preference on Clark. Pat is that complete?

**Pat:** Yeah, the prefeasibility study on Clark was done in May. And so, the disclosures and announcements about that are on our website.

**Carolyn:** And I just want to say aloud, I know that you do not have to share those under the Australian Stock Exchange. Which was dramatically different for people in the United States because Canadian stock exchange, feasibility and prefeasibility our shared so this is unique to the Australian Stock Exchange that they don't make those documents public.

**Melanie:** And I think you know the intent is not to I mean things can still change. So, like we've seen with roads, we put out a lot of information on roads, we communicated Flux Canyon, and then it changed. And so, we must pull back information that's out there about using Flux Canyon Road just as an example. So, we're trying to share information as it becomes final and not getting out ahead of ourselves. So, then we must retract information or go around trying to recorrect information. So, using the roads as an example I think we all watched that process and we went through you know, you saw the different studies the public input that was considered and where we landed on Cross Creek connector for short term Flux Canyon for long term. And then that changed we went back for added public feedback about Flux Canyon, and we found an alternative to this gas line route and so having to go round and try to correct that Flux Canyon isn't the preferred route anymore. So, I think it's we're releasing information and getting public input and then as things become final, we put that out as sort of the final version.

#### **Questions/Answers/Comments:**

**Ruth Ann:** *At the last meeting, we talked about the trucks going 82 to 90, instead of 82 to 83. Is that something you're considering? Or is that something that that now you're putting out to the public that no we're not going 83 we're going to 90.*

**Melanie:** What we're saying is that's what the project team is currently evaluating that right now. And so, it's not final. They're looking at, does it make sense to use 90 instead of 83?

**Ruth Ann:** *Because so many people still come to me complaining about 83 and I said Well they are considering 90. You haven't finalized it yet?*

**Melanie:** No. Are there any other questions about FAST-41?

**Ben:** *I thought you were supposed to give a plan of operations like on July 4th or 5th.*

**Melanie:** No, the update now on July 4, or fifth was to permitting dashboard for the timetable.

**Ben:** Okay. I thought for somewhere in you had to give the plan of operations.

**Pat:** The plan of operations is in August. If you look on the scrolls down, you'll see the plan of operations is in August.

**Melanie:** So that environmental plan of operations is listed, you know, for August of 2023. And then you see the EIS you know for April 2024. So, the timelines that are on here show the plan of operations and the review timeline. And the expected EIS timeline.

**Carolyn:** *I have a question about the FAST-41 process. To if you have the see the same understanding that I've come to. Typically, these documents that are given to the Forest Service remain confidential until the Forest Service would open a comment period and we have 30 to 45 days to comment. I have heard people say that under the FAST-41, The plan of operations that gets sent in August will be publicly available to review in August rather than waiting until I think it's towards the end of the year. And then the comment period whenever the comment period started. Is that an understanding of the difference FAST-41 that you have also? Is that these documents are now going to be available publicly sooner than they used to be under the old system?*

**Pat:** I don't think that's not our understanding that they can go away and verify. All FAST-41 are coordinating the existing NEPA process and putting transparent timelines around the process steps are the same. So, my understanding we should just clarify I could be wrong is that will give in August Forest Service will do its normal complete, they'd have to do a complete distribute where they make a document available to the public. That takes it if you look on that timetable that takes until December and then there's a notice of intent that goes out in April, and that's typically when it gets published. So, my understanding right now is that it will still be published. But I don't think that's where anyone changes that, but we can go check verifying that, so I wasn't aware that it changed that. But what I would say though, we have talked about this, but when we do give the mine Plan of operations, I think we should talk about it in this forum anyway, like whether the Forest Service provides it or not. I think just like we committed to do another permitting process where we say we would sort of be transparent about what we're going to do. I think someone can come in and give you a briefing on the MPO when we send it.

**Carolyn:** *And you're saying the briefing as opposed to here's the plan of operations.*

**Pat:** I think that we must check with the Forest Service at that point it's their document. If it is not made available to the public as part of the process, whether they would let us do that or not. I don't know we can. Certainly, at a minimum in a forum like this. We shouldn't do a briefing on what's in it. The scope, everything's proposed. I think we can do that. We can talk to the Forest Service about what it means but we'll get back to you on that. My understanding some still be when the public comment period starts in April then it will be made available. We can check.

**Carolyn:** *Well, I was surprised to hear otherwise. And so that is something we do want to confirm.*

**Pat:** What they say repeatedly on this is still the NEPA process like the underlying processes are different. It adds resources, coordinates between cooperating agencies, and leads agencies up to the challenge and it's transparent when scheduling and things like that.

**Carolyn:** *And hopefully it does supply the resources because a lawyer who had recently testified the house Natural Resources Committee, about the FAST-41 process, said that all the research shows that delay in permitting is caused by underfunded and understaffed agencies. And that's the key issue that must be fixed. I mean, here we are in the Coronado National Forest. They don't even have a hydrologist right now.*

**Pat:** So, one of the advantages of us being in FAST-41 to your point around resources is there was \$300 million in the Inflation Reduction Act. That supplies added technical resources to lead agencies for projects investment. So, we weren't already one of those resources wouldn't be available to the Forest Service. They will be and I can tell you they are pursuing this. I think.

**Carolyn:** *And another question is the plan of operations. Is that going to be for the entire Hermosa project i.e., Taylor and Clark because with the emphasis on that ease now which is I wondered if that?*

**Tomas:** So, Clark is included?

**Pat:** It's included in the mine plan of operation.

**Melanie:** Okay, so we'll go back and confirm the timeline there and come back to you at the August meeting. Any other questions on FAST-41 before we move on? Well, I will turn it

over to Pat for this part of the discussion. This is if any of you attended the Board of Supervisors meeting yesterday or maybe online. This is the same presentation.

**Pat:** For some of you, this might be a repeat of yesterday, but we thought it was important to go through this again. And happy to take questions as we go. I had a cover slide make a few points before this one yesterday. I'll go ahead and start with this one because the reason we started with this is and then I'll do my introductory comments. There were a lot of comments made in several public meetings prior to yesterday. On this issue our offsite facilities potentially being in Rio Rico and this rezoning proposal. There were a lot of comments made about people not wanting mining in Rio Rico, not wanting mining in the Santa Cruz River Valley. And so, the first thing we wanted to do yesterday I don't know where that came from. There's never been any plans to mine in Rio Rico or mine in the Santa Cruz River Valley. We hold no tenements there. We don't intend to hold tenements there. There's no mineralization as far as we know there, it's just that we just want to be very categorical and say that will not happen. A couple of things so the slides simple. No mining in Rio Rico.



But the first thing I wanted to do, which I did yesterday was address a couple of things right up front. What we were trying to do yesterday, we didn't obviously intend to get involved in this process. And I'll explain why in a minute. But because in the public meetings, a lot that came out around things or accusations or allegations of things we were proposing to do that we weren't telling anybody about. We felt that it was best to just front up to the board of supervisors meeting. Be open and transparent about what we haven't done with respect to Mr. Jackson's rezoning proposal and how that fits with how we're looking to start off-site facilities. So, I think everybody knows, we're planning to put everything on private land for the initial development out here. On our on our patented mining claims, other than what will be in the mind plan of operations. But outside of that, we have two facilities we need to cite that will not be at the mine site. One is the integrated remote operating center and the second is a battery grade manganese production facility. I think you all know there's been a plan, conference and planning revision and a rezoning proposal that's been progressing through the county process by Andy Jackson, a person that owns a vast amount of private land in the Rio Rico area along the I-90 corridors. What's happened for those that aren't aware of this and probably all very aware is there was speculation that that was being done for us that the rezoning was for our manganese production facility and for IROC, and then there were allegations about we would be mining in that area and trucks coming into the area and all that sort of thing. So, the first thing I did yesterday, which I want to do today is we did not ask for the rezoning proposal. We've not been involved in it. I can say there has been nobody from South32 in any meetings between Mr. Jackson and the county to plan that or decide to do it. We don't need it and we've made no decisions on where we're going to put these offsite facilities. So, the notion that this was being done for us I just wanted to address right up from yesterday and today. We I'll show you in a minute. We're still going through a selection process and location selection process on both facilities to determine where they want to be or where they need to be. And so, we did not ask the county or Mr. Jackson to do any of that. Is Rio Rico an area we're looking at potentially, Sure. It's one of many and I'll go through that. But the other thing we talked about is we are committed to promoting the well-being of Santa Cruz County. We want to make sure Santa Cruz County maximizes the benefits from the project. But primarily, we want to make sure trust and

transparency are at the center of everything we do, and we told the community before we decided to put either of these facilities in Rio Rico in Nogales, anywhere else in the county. Once we got to the point where we had selected the site, we would engage the community transparently get feedback and take that into account like the way Melanie talked about on the road. So that was the first thing I just wanted to say up front because we need to separate the two issues. We also committed to the community yesterday that we would have a public meeting that we would host in Rio Rico to get into more depth on these two offsite facilities. Even though we've not decided to put them in Rio Rico, and we're not associated with the rezoning proposal. There seems to be a lot of gaps and understanding of what we're doing, specifically what these facilities are. We went through this yesterday, but we did commit in the coming weeks to have a public meeting in Rio Rico to dive into some of these issues more deeply and share more information and we're in the process of planning that now. So, I'm not going to go through this quickly because this I think this group has seen most of this, so we use the slides to talk about the remote operating center that were used in this forum in November of 2022. I think you know those slides. This pack was posted on our website as were the minutes that's why I had to talk about Fritz yesterday. He wasn't there but he was he was discussed unbeknownst to him. Somebody had read the minutes of a panel meeting about track out and got up and talked about track down and referred to Fritz as the South32 board member. So, I told Melanie I'm like I think the panels are a great thing, but I didn't know we were putting panel members on the board as well, so I had to correct that. But I just said Fritz's a private citizen that's graciously donates his time to be on our panel and spend time with us. It was a concern he raised and we're continuing to talk about that on the panel. And that's the purpose of the panel and why we do it.

So, on the IROC and I know you've been through the some of the details of this, but I just want to talk about location, and siting. We have engaged across the county and the feedback we've been given from local leaders is we want to maximize the economic benefits in Santa Cruz County from the Hermosa development. To do that we want to try to keep as much of the economic activity and therefore the facilities in the county so as we started to do the siting study for the IROC, Rio Rico was one of several sites we started looking at. And then more recently, we have started looking at sites in Santa Cruz County for the battery grade manganese production facility. It's in its early stages of sitting, and we've certainly not decided about where that facility is going to be. We shared this I think you've probably seen some of this. I think the rendering down below is kind of a new, conceptual artist's rendition of what the IROC would be. You know, the other thing we shared on both facilities is while we're continuing to focus on locations in Santa Cruz County, we'll talk about it in a minute. Community sentiment is absolutely one of the criteria. If either the IROC or the battery grade manganese production facility. If we don't believe it's workable with community sentiment, we can, and we'll look at other alternatives in southern Arizona for locating those facilities. The feedback we have been given I go back to is we want to maximize the benefits to the county from the development. To do that then we need to keep the facilities in the county. This is an office building. It's about five acres. We talked about. Think of it as the NASA command center that you see you see during Space Mission screens all around the wall. Specialist chairs that people sit in look like gaming chairs that the kids used to play their games that they used to remote run equipment underground, others sitting looking at monitors where they're monitoring the underground environment. So that happens in real time. About 40% of our workforce will work here. No heavy truck traffics. This is just an office building employee going to work and parking the reason we said we have been focused on the I-19 corridor, although we haven't picked a specific location yet is we have several goals in the development of Hermosa with respect to workforce development and employment. Primarily, it's local employment. So, we've talked about more than 80% of our workforce being residents of Santa Cruz County today. There was a lot of discussion in the meeting yesterday about the numbers being thrown out of 5,000 people coming into the county to work at the facility, no idea where that came from. That's countered to our strategy. Our strategy is to train people that live in the county today and maximize employment of people that live in the county today. It makes sense for a facility like this that can be anywhere to put it where the people in the county live today. The I-19 corridor and the area around that in Rio Rico Nogales is where the population is. So that was one part of the thinking. Another part of the thinking is these are jobs we can train

people that have zero mining experience to do. We have an aspiration to have local employment, it will have to be an important goal to bring more people into this business that has historically been underrepresented in mining. So that's people that have no mining experience. I've been involved in setting up one of these before you can hire people that have zero mining experience to do these jobs very effectively. These are high tech jobs, there's AI, there's machine learning. They're transferable skills beyond the mining industry. So, this is something that you know, because of that workforce development where the workforce training will occur, which is on the I-19 corridor in Nogales and Rio Rico, it makes sense to have it in that vicinity. So those are some of the things driving it. The second thing I want to talk about in terms of a goal is South32 has broader goals but particularly at Hermosa that we have goals that we want to achieve around inclusion and diversity. So, I talked about having more people in the Hermosa workforce that have historically been underrepresented in the mining industry. One of those is females. So currently, our female representation today at Hermosa is more than three times the industry average. So, we're already well above in terms of the number of females working in our business. As we execute the project and get into operation. We want that number to be much, much higher. We think people that are new to mining and underrepresented parts of the population like females, enhance our culture and give us better business outcomes. If we're going to employ people like that, that haven't historically worked in the industry, having this facility near services near people's homes and where they live and things like that give us a better chance of recruiting more of the local population to the workforce, a better chance of having more local content in our employment and a better chance of having underrepresented groups like females working in our business. I was involved in setting one of these up in a previous company and it was 60% female, the industry averages like seven or 8%. So those are things important to us. It's why putting it near the population center is an important criterion. But as we've said, we will put it where there's community sentiment and acceptance around it.

**Ruth Ann:** *How many people do you expect employing there?*

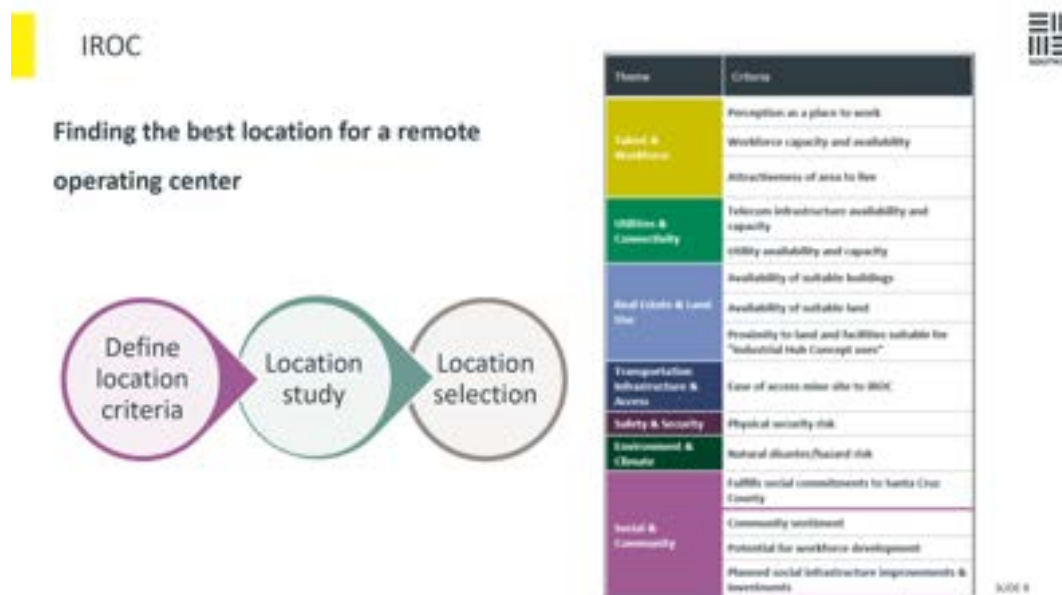


**Pat:** So, if we talk about the workforce, the combined workforce being eight to 900 to about 300 people, that's 24/7 rotation. You'd never have 300 people in it at once. It's I mean, I said yesterday, this is an office building it just looks like an office. It's more inconspicuous than most of the produce warehouses that are

already there. There's no heavy truck traffic going to it. It is a showcase installation in terms of technology, something we think the community can be proud of. The second piece, second facility, sorry, selection criteria. So, you saw this a little bit when we talked to you in the early days about roads. We go through three steps to find location criteria to a location study, assessing all the locations against those criteria, selecting. We pointed it out yesterday. This is the one for the IROC community sentiments an important part of it. Lots of technology. So, there's digital infrastructure requirements. But these are the criteria we've set for the load for the location study for the IROC. We are still in the location study phase. We talked about starting with seven locations. Of course, all these locations are where the people primarily live in the county because again, it needs to be close to where there's population centers. We narrowed the seven to four and then to two so really, we just been looking along the I-19 corridor in the Nogales and Rio Rico. While we haven't selected yet, the preference, our preference and the preference of local leaders for the IROC is Rio Rico, but I could not have been clearer yesterday. If this is not something that the community wants, there. We'll put it somewhere else, and we'll look for alternatives. The second one is the battery grade manganese production facility and this one's a bit further behind in the process. I think everyone's aware. This is the first and it's really the only advanced project



that could produce an EV battery grade manganese in the US. To do that we need to obviously mine the manganese, but we do intend to build a processing facility, a facility that would convert the manganese ore into a final battery grade manganese product. For direct sale to an electric vehicle battery company. We have two MOUs already signed with potential Manganese customers. And a third that's getting close. And we're in discussions with nine other entities that are planning to build electric vehicle battery production facilities in North America. So, we must start to think about where this facility is going to go. So, it's a little bit further behind in the process. We had the same feedback on this facility this will employ not as many as the IROC but a fair number of people. The employment and economic benefit numbers we've shared with the community do not include has not historically included this facility. So, this is added employment. It's additional tax dollars, which as you know the property tax from a facility like this 60% of it goes to schools. The balance of the remainder goes to county services. So, where you put this does matter in terms of maximizing benefits from the project. We've described what this could look like. So, this is first stages. We're in the very early stages of engineering this facility. So, this is just conceptual to give people an idea. This is what one of these facilities could look like. And we've shared in early stage of that, so it's a facility that would require between 120 and 250 acres. And so, I'm going to pause for a minute and go back to the rezoning proposal. Five acres for an IROC, 120 to 250 acres for a battery grade manganese production facility. Let's take the high end of those 255 acres. they're proposing to raise over 35 hundred acres. That is not for us. We did not ask for it's not associated with sitting this facility.



**Fritz:** I need clarification. Yes. So, you're planning hauling ore or are you going to haul the concentrate down to the place.

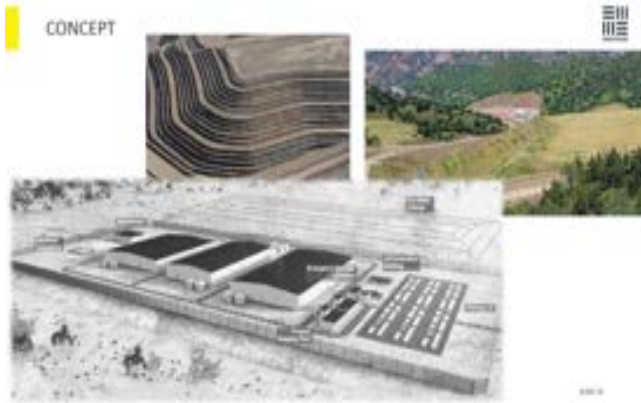
**Pat:** Ore, so we would mine on site, crush and then we would haul ore to this facility where it would be upgraded or converted into a battery grade Manganese Sulfate product that can be sold directly to a battery manufacturer.

**Fritz:** You're going to have all knowing up and down.

**Pat:** Yes, this is a little bit different kind of facility. It doesn't do combination the same way you do. It's not a base metal concentrator type plant but a hydrometallurgical facility.

**Carolyn:** I've had a kind of closer look at that back section there of the battery grade manganese production facility, it says tailings so there would be a tailing site.

**Pat:** Yep, so, another dry stack tailings facility like what we have is like what you've seen inside with the liner with the leak detection system, the underground collection system. You know, like what we that we would have at site so it's a dry another dry stack facility to take these 120 and 250 acres is for building and tailings facility. So that's the total footprint of the site.



**Carolyn:** That will be separate from anything in the plan of operation. So, these would be plans that would be given to the county at some point in time and then we could decide what you plan for size of tailings, and I mean, dry stack tailings are a whole lot better than 100 years ago. No doubt about that. But there are still tailings failures and of course the major concern that I heard from many people on the other side of county about this proposal is the significant

concerns about the toxicity of manganese processing as well as mining.

**Pat:** Yes, so this this wouldn't be a dry stake facility very similar, if not exactly like what you see at the site. It's going to be on private land, so we'd be permitted. These add all the state air permits and all the state permitting regimes you'd expect. facility like that. Would be in place because it'll be on private land, so won't be in the mine plan of operations. But you'll have to have an air permit, aquifer protection permits, all the same things you would typically have for a facility like that and the tailings facility.

**Carolyn:** Thank you. And with the stated schedule of first production in 2027, and full production in 2030? That means you're essentially three years away from it being ready.

**Pat:** The first production in 2027 is Taylor. That's producing zinc and lead concentrate from Cypher Taylor that is not the Clark timing. So, if you want me to talk about Clark timing, we are phasing, we have not yet set up a time limit to build this facility. The difference with Clark is we are starting to sell a battery grade manganese into a market that's developing doesn't exist today, but it's developing. So, we're going to face the development of what we've announced running a decline on the private lands to access the manganese resource later this year. We're just about ready to start that that's basically that an angled tunnel will get access to the resource underground. To do underground exploration and take a bulk sample. First half of next year we'll build a small not this facility. But a small demonstration scale version of this facility to start testing for customer qualification. The bulk sample from the decline will be run through that plant. It won't be necessarily located on the same block of land these facilities on it would be quite small, but that will allow us to start producing some battery grade manganese and higher volumes for customers to use for qualification specification. We plan on the decline in the demo plan to be done at the end of 2025. And we would be feeding the demo plant from the decline.

**Carolyn:** *That's for Clark?*

**Pat:** Right but that's a small-scale demonstration. scale that's not for production. That's not this facility.

**Linda:** *On the timeline again, then what I'm just guessing but what is the guesstimate for having this in place? And the reason I'm asking is because I'm assuming you're not going to you wouldn't be going through Cross Creek connector. And up to I-10 and coming back down on I-19 to get there.*

**Pat:** You're trying to line up Rose tunnels? Honestly, there is no guesstimate at this point. And I'll explain why. The reason we're in discussion with these 12 entities is to find out exactly if this is a market that doesn't exist today. It's zero because they're going to build all these facilities in the next five years, 10 years from now to be quite a large market. These capital investments have already been announced. They're committed, some of them are already in construction. What we don't know is how quickly that ramp up happens to the point where we must go to the full-scale facility. We just don't know that yet. That's the subject of ongoing discussions with customers. So that's why all we've announced right now is we're going to do this small-scale demonstration plant to start producing volumes that customers can test, and we'll be ready to do that by the end of 25. We can incrementally grow that facility to provide that at some point as we learn more from the

customers what their timing is, we'll have to decide and that's when we'll know when this facility is built. So, we'll just have to come back to that as we learn more.

**Fritz:** *Pat, on your vehicle study you did recently; you haven't factored in haul trucks coming out of this place, then have you?*

**Pat:** I don't believe so.

**Melanie:** No. The traffic study that was given to ADOT, which we shared with the panel does not include this.

**Pat:** What we have announced though is the production rate from Clark is a fraction of Taylor. So, if you think about running mine ore, Taylor's 4.3 million tons, Clark's 500,000 tons. So, it's on a totally different scale.

**Melanie:** And I think the key point there is the numbers that are in that ADOT study, you'll see them go up once we add but again scale of it. Like don't double the numbers. That wouldn't be.

**Fritz:** *Well, you all have some work to do. But you still got to figure out the hydro-meteorology deposit.*

**Pat:** We're designing the demonstration so on the prefeasibility study we did that. We have a pilot plant running in a lab in Vancouver right now and we're producing small volumes of battery grade manganese there. From this flow sheet design. That's the first battery grade manganese produced outside of China. It's all produced in China today. So, we are producing small volumes now. This demonstration plant will just scale it up to a small scale still but in the field facility. So same thing, same process in terms of where we sited, and we just wanted to emphasize, we're right here on the front end of the location study. Rio Rico was one of several locations we continue to evaluate for this facility. The one thing we wanted to point out on this facility is part of the location study here is Collecting Baseline air monitoring information, groundwater testing, as well as assessing proximity to surface waterways. And we have made it clear that this is not a facility where we'll put near residential areas or schools so that's also part of the location. So, this is not just an office. This is an industrial production facility.

**Melanie:** There were questions yesterday too about like don't, are you going to put this on the Santa Cruz River?

**Pat:** So, I mean, that all those things are part of the location study. And this is why we wanted to be clear, this zoning proposal can't be for us because we have decided to put this anywhere within the footprint of that zoning proposal. So just in summary, obviously no mining in Rio Rico, we're talking about five acres for an IROC, 150 to 250 for the battery grade production facility, both still in a location study phase.

We committed to engage transparently with the Rio Rico community nonetheless, because there's an interest in filling in the gaps and understanding this better. So, we'll do that. But when we do get to the point on either of these of you know selecting, then we absolutely will engage with the community. Melanie already gave the example of the iteration on roads, this very well might go that same way in terms of getting feedback, going back making a change, getting feedback, going back making a change. You know, wherever this goes, we're committed to that process, but also committed to trying to honor you know, the feedback we've had from the community of maximizing the social and economic benefits of the project and the county. Yes, that's it. Yes, sir.

**Catherine:** You have a hand up, Ben.

**Ben:** What do you mean by not near a school or residential area? How many miles because that doesn't go a long way.



**Pat:** Yeah, I mean, we haven't set a specific distance yet. But that's part of what the engagement will be. If that's a factor. Obviously, how far away is far enough? That's part of the community engagement stakeholder. As far as I'm concerned, we haven't we haven't come up with a number that says, you know, within five miles or two miles of a school is okay. It's part of the criteria, that that the evaluation of that is something that would be subject to stakeholder.

**Ben:** *What about proximity to the river and the riparian area?*

**Pat:** We've said not within the immediate Santa Cruz River Valley area. Again, I think that those that's why we transparently talk about the criteria because part of the community engagement stakeholder engagement you know, we're not the only ones that sit out there see the be all end all and say what is okay we got that we would develop technical criteria around them, we will communicate what those criteria are. But that's part of the community and stakeholder engagement with communities as well, you know, within four miles or five miles of Santa Cruz rivers too close or within two miles of schools too close. That's part of the feedback we'll need and that'll be an iterative process.

**Ben:** *Is it based on science rather than just public feedback?*

**Pat:** Well, certainly the watershed earpiece will be I mean, that's why we actually have monitors collecting air quality and monitoring data. We will map ordinary high watermarks for waterways. We will do all those things. So absolutely.

**Linda:** *Last meeting Joe Haas was here, and he talked about four Park and Ride areas like the one that's here in Patagonia. Once he mentioned, Rio Rico as one of them is that in added to all of this?*

**Pat:** We haven't decided that yet either. We need to have parks and rides in the Nogales and Rio Rico area as well as other areas and that's what Joe was referring to.

**Carolyn:** *The common crime wasn't about that. I don't think.*

**Pat:** I think that was part of the message is we're getting a bit ahead of ourselves on this because we're still in the very early stages of deciding I mean, we're talking about. Those circles are legit but we're looking at that general area. We haven't been looking at parcels yet but general areas and evaluating all these things. We've got to collect some it can't be Science based if we don't collect some information first. So, we're out collecting information and we'll work through that over time.

**Melanie:** I think the other thing was the park and rides to the IROC to alleviate a lot of traffic and congestion that's coming into Patagonia every day. And so no, I know no one wants that in their backyard, but you're keeping that many vehicles on the road and offer to come to Patagonia every day.

**Olivia:** *And we've been approached already by some companies that are looking into Rio Rico in Nogales for the needs of the park and ride, already. There's a special guideline that they have to follow. So that's why I'm looking for locations where they could go ahead and have this service for the employees. Right now, they're talking about 50 cars. That's what they said.*

**Pat:** Yes, on those it would be great if we could use some existing facilities or infrastructure for stuff like that. So, we still got to do some looking.

**Fritz:** *So, the IROC you're going to have maybe a park and ride, warehousing, assay lab, other administration buildings down there for geologists?*

**Pat:** That will all fit in that building.

**Fritz:** *So, you're going to have a warehouse in there too?*

**Pat:** No, I didn't say the warehouse. We are looking at where an off-site warehouse could potentially go. We have talked about collocating it here. It could be near the other facility but, lab would be part of this facility.

**Fritz:** *Are you going to do Sample Prep there too? from the core samples or not?*

**Pat:** No. We're doing all that on site.

**Ben:** *You mentioned an ordinary high watermark. Ordinary High-Water Mark according to the Core of Engineers is a 2- and 10-year flood. We get 100-year flood and the two in the 10-year flood is contained between the riverbanks because that river is so entrenched. I remember a solid trend. We talked about a little tiny strip, talking about a 2- and 10-year flood, we need to evaluate. Plus, groundwater that's the whole basis.*

**Pat:** I believe the question asked me is going to be science based all we're saying is we're going out Collecting Baseline data: surface water, air, everything you would. So, we understand the baseline before we set the criteria. I'm not a hydrologist, that's Tomas's area. They might take my terms with a grain of salt.

**Ben:** *An extremely high watermark just doesn't cut it.*

**Pat:** I do think we're getting a bit ahead of ourselves because we're not to that point yet. I mean, where we've collected the data. I think we'll be transparent on what the criteria are. We did that with roads. I was in several meetings where we put the criteria and the roads, we shared how we evaluated them. We will do the same on this and we are just not there.

**Ben:** *When you're collecting data, you need to make sure you have a goal in mind.*

**Pat:** Sure. So, part of this was the meeting yesterday and this briefing was just to one dispel some rumors, but hopefully fill in the blanks and create some clarity around where we're at with offsite facilities. And importantly, I just want to make sure I cannot say it enough. There needs to be more discussion around the rezoning proposal. I'm sure that's going to happen, but it needs to happen without this becoming involved in it because this is not part of that plan. And we will continue to engage this group, as well as the Rio Rico and other communities around where we're at with this progressive and we will get that level of detail at some point and this group and others will say, All right, thanks.

**Melanie:** The last thing quickly as part of homework, I guess for the panel. So as Pat mentioned, we're looking to plan a community meeting in Rio Rico to share some of this information Pat just presented more broadly. So, lots of rain. So, if there are sorry, squirrel, if there are other specific topics we've heard about manganese and human health, we've heard about, you know, what is in the IROC, what's not in the IROC? If there are other specific things that you've heard from the community if you want to email me or catch me after the meeting, just so we can include that information in the materials that we present during that public meetings so that we can try to answer questions from the public. So again, you don't do that. Now just catch me after or email me. Melanie: We're looking around mid-August, and I don't have a specific date, but we'll get all share with the panel as soon as we nail it down full nail it down today or tomorrow.

#### **4. Community Updates – Panel Members:**

##### **4.1 Friends of Santa Cruz - Ben:**

The Friends of Santa Cruz is concerned about Vaca flow three rezoning. And it was obvious where the connection came to South32. Because right in that specific plan one of the things mentioned was mining and metallurgy. And so, everybody naturally said, "Well, what mining?" We don't want any mining in the river. We don't want any mining anywhere in that part of Rio Rico. We already have a gravel pit there that is expanding and causing all kinds of problems. And we know where that's going. We're very concerned about that, and we will work with whoever, to make it something everybody can live with. I think there's a couple of issues going on there. I agree with Pat. One of them is that there's two things there's a comprehensive plan amendment and then there's a Vaca float number three specific plan. They're both coming around at the same time, it's generating confusion in the public and that needs to be cleared up. The other thing is obvious. I got to see Pat's presentation yesterday and heard that the IROC does not necessarily have to be found with the manganese processing. Obviously, the community is not opposed to the IROC because that seems innocuous, clean, and safe. But the manganese, about every we meet here is opposed to that processing be anywhere in that valley. We're working on helping the public clear up those two things and now that we have some better information on acreage for potential locations. I think the public should come around and understand better. Also, some of the letters that have been going out from the Jackson camps are not helpful.

Insulting the public. And they're digging themselves a bigger hole. They tell us that they're not associated with South32, but they won't say that. They say, well a major employer. And we can't tell you who it is. And then they turn away so there's a lot of suspicion going on. They are continuing with this and many people in the community feel that it was a done deal that they were going to sneak through a novella night. That's what we hear from our people that come to foster they call us get on our website. Those are the fears, misunderstandings, and issues that need clarification. I hope that helps both sides.

#### **Discussion:**

**Olivia:** *I'd like to mention that there is a need of having these meetings in Spanish. Like Ben said, I mean the feeling and everything but there's a lot of people confused about the two projects, but at the same time I think it's going to be really important that people be involved. We have a lot of people that are Hispanic, and they need to be having this information in Spanish. Those are the comments that we have been getting and I've been saying this since I got involved with the mine.*

**Ben:** *And along the same lines we fear that there is a cultural division divisively introduced into this by Jackson's attitude.*

**Melanie:** Yes, we will be setting up our meetings like how we set up the public meeting in Nogales behind the courthouse last year. We have our staff many of which are Spanish speaking, which can do both. And then the signs and material were present.

**4.2 Patagonia Area Resource Alliance (PARA) - Carolyn:** So, PARA updates are on the sheet that I gave you. And to clarify, these are not legal actions against South32. These are against the agencies who are not following state statutes or regulations. The aquifer protection permit. All answers are filed on February 13. And we are waiting for the court to assign a date for all of us. And that key state agency failure is tied to statutes that say you shall install a point of compliance on a vertical plane doesn't say anything about go ahead and do it conceptual one. So that's the issue with the APP permit. The Arizona political Discharge Elimination System. This again is still illegal action by Colorado against the state agency for not following the clean water act. The state of Arizona assumes from the federal government the Clean Water Act, regulation, responsibility and we have filed the appeal because basically what happened here was the original permit. When water treatment plant one was built, was issued in about 2018 Five-year permits so they expired on January 23. A major issue here is that the agency, which is Arizona Department of Environmental Quality, is saying that this is an existing mindset and our legal documents that we filed have multiple pictures showing nothing on the site and now current with a lot of structures. So the reason that it would be very convenient to be an existing mine site is that it would not have clean water regulations that would have to follow and because the agency is behaving the way I did that one paragraph I say here, PARA has now filed a letter to the Environmental Protection Agency asking them to please step in and look at what ADEQ was the state agency is doing. The other legal action right now is PARA and seven other local organizations have filed a lawsuit against the Forest Service for granting exploratory permits. Have gone to the Barstow resources Sunnyside site and to South32's Flux site, which is the first time they're on public lands, so they need to get permits. And the basic issue here is the Forest Service's to look at what is considered cumulative impacts. You can't look at Oh, they're only going to do seven holes but then do it. They're doing seven holes here. Here. They're doing three holes over seven years ago. And right next door you talk Hermosa Taylor thing, all of that is supposed to be considered when they issue a permit and that was not done. So that is the essence of the three actions that PARA is involved in right now. Town of Patagonia flipping questions before I put on my other hat come over here. the first one you said February waiting for. What are the timelines? The last one I know it's brand new. Yes, the aquifer protection permit. The briefs were originally filed in January and then answering briefs mid-February 13. And we've heard nothing from the court. The next step would be setting your argument. We heard nothing. What about the second one? The studies Oh, we got legal documents like back and forth and other ones that you're laughing I saw that! There are legal documents flying back and forth. Right.

Right now. Yes. We'll see. We'll keep you posted. Any other questions? That's what I'm still in my five minutes. Good. Okay.

**4.3 Patagonia Flood & Flow Committee - Carolyn:** We had an excellent presentation. At our last meeting last week from a Water Program Manager with Environmental Defense Fund. He did a one-hour presentation on groundwater. Reality in rural Arizona and Tomas was seen to be an excellent presentation and Catherine said she thinks September October is when that individual will be here. And so, we'll all get here and then. It was incredibly good. The Flood and Flow committee, the town of Patagonia as well as Santa Cruz County, have been named by the Forest Service as participating agencies. Not too sure what that means either. So, we're finding out on the FAST-41 program what that means. But the town has asked the flood flow committee with its various organizations. We're looking to have people who know a lot about water to identify what it is we want to bring to the forest service as part of the FAST-41 program, and the Patagonia regional flood control project feasibility study. Phase one was supposed to be finished by the end of June, but you'll notice it's mid-July. And now I think the timeline is August so when that initial phase one was going to be done. studies they were going to do to show water conditions. And then Phase two will be coming up with the process for that. And the fluid flow committee has put forward suggestions they want this to be treated as a watershed restoration action to slow the water down out there to allow it to sink in rather than a giant pile on. The school Canyon failure I don't know how many of you have heard of this, but it's amazing. The CCC citizens conservation went for that in the 30s when they were here. This turns out to be incredible work in terms of watershed restoration. And unfortunately, one of the berms up in that project has blown out and needs repair and the concern is we went to the forest service and still talking with them. The concern that it doesn't get fixed. And we got monsoons and it's directly upstream. So, look out for the fire department because you're going to get flooded. So that is one of the major concerns and that's what the school Canyon failure is about. It also involves some of the South32 land which was bought from tree of life, and I know that Bob Proctor who is president of friends of S has gone up there with South 32 to look at. So fascinating project and on many levels and in process. And so next month we are going to have the University of Arizona WRC we're researching something center that's working on the town's draft response planning. We will also have a presentation by another Environmental Defense person, Lucy Kane, about a quarter Leadership Institute and how they want to come and work with the community to create a format for modern day for leadership and questions.

## **5. Standing Topics**

### **5.1 Good Neighbor Agreement Working Group – Damian:**

give the update on working group. I would like my fellow Working Group members to chime in throughout because I had technical difficulties that day. My computer turned out was undocumented credentials were checked that day, throwing me off the network. But we had another meeting with the purpose of that meeting really was introducing more of Acorns team. Dr. Chris Anderson will be joining us so well first, let me say Joanne and Catherine, thank you for putting this together. I would recommend all the panelists. Read this. And the other thing that I had asked was that the meetings for the subcommittee are recorded. And so, we'd like to make sure that those are shared with all the panelists. So, you all can see at your leisure in between meetings. So first, we heard directly from Dr. Chris Anderson. He's had a lot of experience working on these sorts of agreements. There are multiple examples all over the world. He talked about what the point of a community agreement is, I'll actually read that slide. "A mechanism for going beyond impact mitigation to build community assets and resilience so that host communities can leverage the one-time opportunity of a mine into broadly shared and diversified economic development." Another point was financial potential initiatives could encompass infrastructure enhancements, provisions for local procurement, the establishment of smallest thresholds for local hiring and workforce training, as well as the implementation of programs designed to foster long term community ability building and resilience. I think, you know, we had a discussion right after that. And a big point that was raised and not mentioned in that first side was how to mitigate the negative impacts of this mining operation. And so, we really talked about the environmental issues there, that was highlighted, as seeming lacking I don't know if any of my subcommittee's members want to comment on that. But there was talk that a lot of these

agreements are meant to focus on the long-term benefits to the community. There were some points made here. That, you know, the panelists haven't had much discussion on potential demographic and social impacts. So, this is an area to think about that. And there was also a point made that the panel shouldn't become a technical review board. We really function to make sure that concerns are brought up and addressed within this and then we have the data needed to address those concerns. Then the presentation went over to look at existing agreements again, the Stillwater's is a fitting example. Acorn pointed out that they've worked on other mines and other agreements, even here in Arizona, but they did not necessarily have access to share those, but they can share some of the elements in them. There was also mentioned that eagle mine and a mine up in the ego mind in Michigan and stibnite, which I know it's come up before in Idaho did have concerns about water quality. And both agreements included components for scientific monitoring, participation in independent water monitoring. So, then we also had a discussion. You can see these key points for: Who should sign the agreement. Again, this goes back to Dr. Marcelino's comment, you know, from the last meeting. Talking about, you know, we want this to be a meaningful agreement that has legal standing. And to that point, we continue to think that Santa Cruz County, the town of Patagonia makes sense. The city of Nogales has come up again, I know Marcelino made a point that they are not as proper, might not supply as much and pertinent feedback but I think that's to be determined still. Again, I think environmental concerns are really at the forefront or at least one of the major components that the entire community is concerned about, in addition to all these other social issues and economic issues. There was a talk about building a lot of this is all about building trust and transparency in the community. I think, given this this recent stuff in Rio Rico, I think that just helps to exemplify how quickly things can go. I appreciate that. You come in today, even personally as a panelist, the community in South32 Should be aware that there's going to be a lot of things I guess I would say we should promote patience because there will be questions and concerns throughout. Let me see anything else here? There's a there's a bullet here. That I think is an interesting point, says if we make this agreement, totally about what we're worried if we totally about what we're worried about happening on the negative side, it will become an adversarial agreement. The agreement will be successful, collaborative, and focused on the needs of all parties to the agreement, including South32. I think that is a unique important point that you know, we should keep this in mind. I appreciate again South32's willingness to explore this idea with us. There was also talk about bringing on the consultants SOOP. SOOP strategies to be the collection point to gather inputs and concerns for the agreement from the public. This would supply a third party that's not South32, the panel, or the Forest Service.

**Linda:** I would like to say as a member of the working group to belabor that point. Just like what happened in Rio Rico. I personally I know Carolyn had heard it. We're being inundated by rumors, innuendo, comments, whatever. And we don't have the wherewithal to respond to them. To aggregate them to work them potentially into this agreement. And I think it was Carolyn's idea to bring on somebody beyond this little Working Group beyond all of us. Because none of you all have, the bandwidth, I'm sure to fend off comments about what's going on in Rio Rico or whatever. So, it was Carolyn suggestion to set that South32 Contract to get with SOOP. You all remember the two women that did? It may have been more than two women did interviews. Yes, they did. Yes, it was a year ago now and they came back with all those surveys and presentations. They were highly effective. I think if indeed South32 would contract with them again, the idea of going back to the same people going back out to the public to say okay, it's a year later. Now, what are the issues? I think the timing will be perfect.

**Melanie:** Yes. And I think the more I thought about that, too, after the meeting, they're contracted to continue the next step after that is some discussion about Okay, now that we know here are some potential social impacts what can we do about it? So, it can fit into some of that work, which is slated to kick off this fall anyway. And then it's an alternative. I think, too, we can lean on Acorn to help do some of that also. So, I think between the two, we can get it covered and compiled appropriately rather than burden. Our panel with some of that work.



**Carolyn:** Morrison version seven is setting me up me up for the impossible because I think what just happened with Rio Rico, is the classic demonstration of let's get a head of b, you know, response, some of which is misinformed and can get out to the entire county now that this is what the advisory panel is it isn't like the board of directors of South Florida. This is doing here's how you can be heard because that's the biggest thing people want to be heard. Yes, and we don't know what each person is going to bring. I mean, as the Rio Rico thing came my awareness of Holy Toledo manganese. And how are we going to do something about that? I think it's a good step for this advisory panel, for South32 to engage Acorn in whatever way they work it out to be the ones who bring that message to everybody in the county publicly. Here's what we're doing if the group agrees with that message, and then be the place where people can make their comments and gather them and bring them back to the working group. Catherine: Okay, we need to wrap this up? Damian: So, the next meeting is on August 3, we also have Gerry down to be determined to prepare to share a first list of topics, goals and objectives for an agreement. So sorry to put you on the spot Gerry. I'm sure you're on it and you'll have it. So again, I look forward to sharing the recordings of this. I think a continuing question is the ongoing dialogue with some of these players like the town and the county and how to rope them into this so hopefully we'll get more clarity on that.

**Ben:** A couple more points to add. I think are significant. One of them. Is we discussed the title, the name of for the Agreement other than Good Neighbor. I think we discussed maybe community benefits agreement or something like that responsibility. Right. And then the second point was one that Jerry brought up and I think was significant. Valuable, that it shouldn't be just the negative impacts that we worry about. We should also be balanced, talk and include the benefits, the prosperity, the money that comes in a sense, the economic benefits as well as environmental impact.

**Damian:** I think that was noted in Ben's email that came out just before the meeting today too. Exactly what you are talking about.

**Carolyn:** You should all should have seen those. Dean sent a message with the potential names for such an agreement, and I agree, I think the vision is a balanced agreement that is thinking holistically about all of the effects positive and negative and how the company community can collaborate on that. Catherine: I need to wrap it up.

#### **Questions/Answers/Discussion:**

**Ruth Ann:** *So is the going to committee decided on the title for the I don't I don't remember.*

**Linda:** How do you want to do that? To the committee, we can send out a poll or something. Yes, cause some of them were silly.

**Ruth Ann:** *And what about the SOOP? Are we saying yes, we want to do that or what is the action on that?*

**Melanie:** I think what we can do is go back, I can look at ACORN for like how much they can do. I can see how much SOOP already has built into a proposal for the next step following the impact assessment and see where it overlaps. So, what I'll do is take that to the GNA Working Group. First, the GNA working group, I don't believe have the technical assistance budget that's just through this so we can decide on where it gets voted on.

**Ruth Ann:** *So, we'll be at the next meeting. About those two things?*

**Melanie:** Yes. We have a GNA working group meeting on August 3rd. And then our meeting would be after that. So yes.

#### **5.2. Q&A Document – Melanie:**

The Q & A document was emailed out to the panel. We did supply updated answers. I didn't print it so that I can bring it up on the screen here. If there are specific questions that people

would like to review. The trac out questions, I think I emailed the group about that as well. I did include them under this tab transportation, but those were presented as a handout to the panel at the April meeting. So, do we want to be their specific things people want to cover? Tomas is here. There are some questions about I know most questions are related to water so hopefully everyone had some time to review this prior to the meeting. I can try to make it a little bit bigger.

**Fritz:** *So, Melanie, will you go back to Transportation page. Top question Is there a way we can expand the rows to the width of that so we can see all the answers.*

**Melanie:** I think because it's locked, I'm not able to do so.

**Linda:** *So, Melanie, let me know the truth is the process going forward? I for one, I looked at it was hard to read even on my big monitor, so I didn't go into any desktop. freely admit, what's the process going forward. If indeed we have questions, things aren't answered. We have more questions. Blah, blah, blah. What's the process?*

**Catherine:** So, I think the best method is to send that question to me. And then I get it to Melanie and that way I can track and double check that the question hasn't already been answered. On another. Some of the questions we receive duplicated the information asked. passed, because it overlaps. So that way I have a chance to verify that it's a new question and one that hasn't, so send it to me. I'll verify I'll send it to say it was answered on page 32 If it does have an answer, and then.

**Linda:** *And then it goes back into there'll be a point where it goes back into the legal review process again, which really took forever.*

**Melanie:** Yeah, and I mean, you saw the exchanges earlier. There's legal stuff going back and forth. So that's just the nature of that process.

**Carolyn:** *So, you thought initially was going to be four to six weeks is what you told us it was 10 weeks. With this first round? Yes, assuming maybe it was because it was the first time through.*

**Melanie:** Or as current information that is being litigated comes up and then there's just more back and forth internally.

**Ruth Ann:** *I have a question about that process. So, then the first questions that we had were given. As we asked more questions, were those added questions relayed to legal as well, so that legal is always continuing getting new questions and requests or is it just a first question and answer document that we had is being looked at by legal? right now, all these other questions are waiting to be given to legal or what's the process?*

**Melanie:** So, for that process, the panel has given questions and the panel facilitator keeps track of those questions and puts them into the document. South32's review process anytime we put information into the public domain because we are a publicly traded global company, it undergoes legal review. That's what happens. So, this is a public document. It will always undergo legal review. As there's also information in here that is part of active litigation, it will be under even more close legal review. That process will take time. And that's just there's nothing we can do about that.

**Ruth Ann:** *So again, my question about the form of the question, so the issue versus the ones that were asking like the trac out and all that, they are continually given to legal.*

**Catherine:** We had the biggest batch and were all given in what was my date. April 27. I forget what I worry about sending. There have been no new questions since that point sent. So, we got that back that included trac out and included all the work trac out.

**Ruth Ann:** *And that's still being addressed?*

**Catherine:** Oh no, this document has all the questions that have been asked. And from this point on will be a whole new set of questions or a question. And so, I'll be tracking that date. Nothing since that April submission.

**Melanie:** Okay. If there are clarifying questions, so like this question, who has jurisdiction Have you know of what it is up the road so if there's clarifying questions, we can document that I can get more specific answers, and then we can update this document.

**Ruth Ann:** *And that document is on the website?*

**Melanie:** We're trying to find a way to make it available on the website. It's because it's Excel again, which is why you can do so yeah.

**Linda:** *We can't edit it anyway.*

**Melanie:** I can print out a copy and I'll give it to the meeting.

**Fritz:** *So, if we go back to my question, then your response so can we make that a wider row? So, do we get all the answers on there? there are a bunch of answers that are below those? e way to expand the row down below. Because it's locked. I don't think I'm not here but okay. Oh, that's the formatting issue.*

**Catherine:** Yes, absolutely.

**Fritz:** *I think we have numbers for the questions.*

**Melanie:** Is it just row numbers?

**Fritz:** *Well, so like question, one question, two questions. I didn't see those anywhere. And if somebody's referring to something, they go, hey, refer to question number two. I don't understand your answer or any clarification, whatever.*

**Melanie:** Okay. I mean take advantage of Tomas being in the room, right?

**Ruth Ann:** *Isn't that what Dr. Ty's going to do next month?*

**Melanie:** *So, Tomas, can you provide an update on where we're at?*

**Tomas:** Sure. We'll discuss updates. Obviously, Ty's going to be coming in August and application now. We have provided to Dr. Ferre the information about the American role model. So, he's going to go through that process, much like what he had done with the conceptual model before he's going to review that and then we'll have a presentation of his findings from his review of the documentation of that model. So that will be what he's at in part where he will be available to present in August. And its findings associated with this review of the numerical groundwater now.

**Carolyn:** *Would it be possible to have his presentation ahead of time so we can be prepared with questions?*

**Tomas:** I think that's I think that's a possibility. With privacy, what language is what he's envisioning for that I think we communicate that.

**Linda:** *It should be before school returns.*

**Tomas:** They are in session now other schools that are in session now.

**Linda:** *So, but he's on vacation, so I'm not sure when you have a choice as long as you asked. him, if he could make it available. We've been absorbing it on the spot.*

**Tomas:** It's always difficult because so much of its visual too. And so, I'm going to be one thing if there was a narrative associated with it, that a lot of narrative comes as a question and answered type thing. So, we will see how we are going to go up against one another in terms of the presentation.

**Melanie:** No water questions for Tomas?

**Tomas:** I feel so good.

**Fritz:** *When are you going to start dewatering?*

**Tomas:** When are we going to start dewatering?

**Fritz:** *You are going to be commissioned the plant when you to start dewatering.*

**Tomas:** So, we're constructing wells currently. And so, we have two wells that have finished construction. One of those has been, there are three new wells that are currently being drilled and so those have not been constructed. Just as an FYI. I think I mentioned before, the drilling conditions are very slow. Because of the specific geologic conditions that are there. My experience in the past is typically in Hard Rock environments, anything less than about five feet per hour is slow. Drillers typically have a clause and say anything less than 5 feet an hour, we get paid more. Because it's so slow. We have over a bunch of drilling, drilling about half a foot to one and a half. And so, what that translates into is an exceedingly long drilling process and then there's construction on top of that and then testing. And so, it's going a little slower than originally anticipated in terms of the actual drilling and construction. But that's where we're at in terms of the drilling process.

**Carolyn:** *Two are done, three years are starting the process and process was nine was there and are, is it possible as part of that title, presentation or whatever to show the location of these nine holes?*

**Tomas:** All these wells have been applied for with ADWR. So, all you must do is go their registry based on at a point right there.

**Linda:** *Tomas that's easy for you because you live in that world.*

**Fritz:** *Have you started digging for the water treatment plant yet?*

**Tomas:** No, the commissioning has not started. I don't know, Pat, can you talk about that?

**Pat:** We've done dry commissioning and we're doing wet commissioning with those discharge of individual circuits opens about water in read through tested discharge. So, we're doing individual wet discharging elements now.

**Fritz:** *And then when do you predict ample discharge?*

**Pat:** It depends on how in south drilling goes.

**Carolyn:** *Ok, but you've got two wells ready to go, right?*

**Pat:** Yeah, but the three that we're drilling now are really crucial ones and I think we're getting close on that as I think when those get to TD, then we'll have a better idea of what when first discharge looks like or what approximate time, but we can do wet commissioning on all the circuits without discharge. That's what we're doing now.

**Tomas:** Up to 4500 feet.

**Linda:** *It's going to be a while.*

**Tomas:** You can put it down in your calculator, that's about that's about six months drilling.

**Pat:** We have two more that are close. And they're the probably the two most critical ones.

**Fritz:** *More DWT standard correct*

**Ben:** *About alternative dewatering sites.*

**Tomas:** Alternative watering sites or recharge sites?

**Ben:** *Dewatering discharge or the watering last time you were here, I mentioned upstream dewatering and you said Well that's an excellent idea.*

**Tomas:** I want to make sure I clarify so places to alternative discharge locations for the dewatering waters. Correct.

**Ben:** *You agree that was an excellent idea, but the only holdback would be for a Forest Service permit. You have FAST-41 now, so are you started on that because you know as Harshaw Creek starts to perennialize you're going to realize what the impacts of Patagonia are going to be. But if you get started now with FAST-41 You have a very workable alternative that not only reduces the risk of flooding, but also lets some of that water come back in to mitigate to some degree the drying out of this area.*

**Tomas:** So those alternatives are being considered. So, while I can't talk about specifics, along those lines, because we have provided that the mine plan operations to the Forest Service, I'm limited in what I can say that all those alternatives have been considered.

**Ben:** *Have you started modeling those and asking the Forest Service for permits? Even with 41. It's going to take some time, I should just say, you may have some time, because of that slow drilling.*

**Tomas:** Again, they've been considered and so I would, I would include modeling as part of the consideration. But again, specifics, I can't really talk.

**Ruth Ann:** *Is there an end date or end time that could be considered and then a result of the consideration?*

**Tomas:** All those considerations will be part of my plan of operations. That will be given to the Forest Service.

**Carolyn:** *In August?*

**Linda:** *And we may hear about it in April, if not before.*

**Melanie:** But I think what we can commit to is having someone that the September or October meeting I know August is spoken for with Dr Ty's presentation, but provide that overview as Pat showed, of what a mine plan of operations is and what's included. Correct.

**Tomas:** And to add on to that a little bit in terms of the plan, in terms of release of information, obviously, a lot of this is contained with the mine five operations. And so, it's subject to that process. In terms of some of the things that we're going through with Dr. Ferre. We're providing him with the modeling so he can see all the Numeric so he can provide findings associated with the process. And then ultimately, we would supply information on potential impacts to this panel. And then we would also be using that time afterwards to look at various mitigation strategies that have been considered. And so, when I talked about consideration, Ben, that's what I'm saying is there's a whole lot of stuff we've been considering, including alternatives including potential mitigations and so while I can't discuss that in detail, those pieces are going to be part of a mine plan of operation. So those will be incrementally provided to this panel. So, we can go through those with you.

**Ben:** *So, consideration does not necessarily mean acting, as an example of going ahead and applying for those permits for the alternative dewatering.*

**Melanie:** It would be included in the mine plan of operations.

**Tomas:** So, I am using the general term, Ben. I'm trying to tell you that I can't tell you. I told you that I considered a whole lot of stuff. And it's all been put into groundwater models. And all of that in terms of a proposed action would be given to the Forest Service as part of my plan of operations. So, while I can't tell you anything about it, I can tell you that it's all being considered as part of that. Ben, I'm sort of telling you that I, can't you?

**Linda:** *We are assuming that the best part of the suggestions is what went into the mining plan of operations. And right.*

**Tomas:** So, the process is we would send a proposed action, this is what we're planning on doing. And then there is an evaluation of alternatives. What if this happens? So, this is something like climate change. What happens if we have a bright line or wet line based on the best science of the time? All those things would be considered as part of this. So, you would look at the proposed action, and then you would look at well what if this happens when we evaluate this happened to evaluate some of the things are there potential for mitigation such as recharging? What are those alternatives to these potential impacts? And so, all of those would be a part of a set of this package that we go as the mine of operations. So, it would be this what we're proposing to do and then these are alternatives for consideration.

**Fritz:** *So, you need to consider economics as well, right?*

**Tomas:** So that would be there would be a baseline understanding of the economics right. And that's all based on the mine design and the mine schedule and the mine plan.

**Fritz:** *You're not going to do groundwater objection. And Sam, I don't feel that way because it's too expensive, right?*

**Tomas:** Again, I can't really talk about specifics, but it would be considered in terms of looking at alternatives and mitigations for the potential impacts.

**Fritz:** *So again, what Ben is after, do we get to see a list of what has been considered down the road?*

**Tomas:** Yes, because all that's going to be part of the mine final plan operation, so yes.

**Ruth Ann:** *It's a book.*

**Tomas:** And then some. Just to give you an idea. We supply the seats of springs Gatling, and we provide that to the community. there's 100 or so pages of that document. The baseline reports that go into that are about 3500 pages.

**Ruth Ann:** *That's what we discussed in August and September then. That's the whole plan of operation and points of it.*

**Tomas:** So that would be given to the Forest Service in August. That's not something I would be able to discuss. We don't know yet. In terms of what Dr. Ferre would be reviewing on our part is, is he's reviewing the tools that we're using to make evaluations so that he can report back to this panel. This tool is adequate for these specific questions, inadequate to these other specific questions, so. he's assessing its viability to address community concerns and what those community concerns are.

**Linda:** *See you again in August.*

**Melanie:** With a couple of extra minutes that we have, since Skylië is here, can we take five minutes to talk about workforce?

### **5.3 Workforce Development Update – Skylië:**

I did think it was an innovative idea to give kind of a brief update on where we're at in workforce development. So, over the last couple of months, there's been a kind of Santa Cruz County Workforce Development Initiative committee that's been established that are working on initiatives and benefits in Cruz County, as a whole. So, I've taken some time to talk with members of that cohort. I think it was, was it last week, I think it was last week. So, Chris was there, Olivia was there. With that, I think we are all in alignment as far as what South32's role is in that committee and how we can leverage some of the initiatives in that committee while still having our own internal South32. It's not necessarily internal, but it's the South32-led workforce development task force that we've mentioned in the past when Natasha was here giving an update on workforce development. She mentioned it as well. So, we are to a point where we can continue that initiative. So, we are searching for the community to name individuals who would be representatives from various groups within the county. So, individuals from this group, individuals from campus superintendents' office, those sorts of things, so just wanted to raise again, the call to action for volunteers. I think, Michael, you may have raised your hand for it previously. I don't think it has to be everybody in this room. But if you want to take part, get in touch with Catherine or Melanie. And as we progress on that in the coming weeks, we'll get kind of our kickoff meeting. Established our charter then.

**Marcelino:** *You asked for recommendations. If we knew somebody in the community. Yes, I did recommend somebody to do it. I can follow up with Melanie on Jaime Chamberlain*

**Skylië:** Oh, yes. I remember us talking about that yesterday. The members of this committee are going to be business representatives as well because we will have a competing need for the workforce, so we want to make sure that they're their thoughts and concerns are heard in that space as well. So yes, Jaime is a good person to be in contact. With whether he's the person that can invest the time in that. I know he's very busy. We can work through those details, but I know that there's strong dialogue with Jaime so he's consideration.

**Ruth Ann:** *As you progress with the edge of progressive this research to have increased meetings, is it possible to do the same thing that.*

**Skylië:** That's the intent so it's not taking up the entire time of this group because there's lots of important things to talk about in a short window of time. So, there will be a report out by whoever is trying to take the lead from this group. And that isn't give the update on a regular basis. I won't be at every meeting.

**Damian:** *Skylee, just doubling back on your question, is that for workforce development, it's important to learn Rio Rico corridor I-19 corridor workforce group?*

**Skylie:** No, this is this will be a specific study to workforce development task force. We should use things that come out of that group, but I did a separate group.

**Catherine:** Skylie, do we have some members who have already voted from our group here?

**Skylie:** I believe Michael.

**Catherine:** Okay. Michael, Gerry, Olivia is on it, or not?

**Skylie:** Olivia is a part of the bi-national, I think they are changing it to get to the Santa Cruz Workforce. They are no longer Bi-national.

**Olivia:** *I think the presentation or the conversation as we view it, I thought that it was beneficial because now we are not seeing just the direct jobs that are going to be created. But right now, I think we need to be concentrated on the indirect jobs because they don't have yet exactly what is going to be needed. But we can start working in training and recruiting you know information for the indirect jobs and could be created in Santa Cruz County. So, I found that it was wonderful feedback that he gave us, so it was nice, good thank you.*

## **6. Next Meeting Agenda – Catherine, Panel Members, South32:**

### **6.1. Panel Requests for Topics – Catherine:**

We are now looking at the August meeting agenda. What I did was I moved forward that request of the panel, so I just want to confirm then that at the August meeting at the Provisional Community College in Nogales. 11 to 12 pm will panel business. 12 to 2 pm will be focused on Dr Ferre and Tomas you're going to be there as well. So, we're confirming that.

**Ruth Ann:** *We're eating as well as doing our business from 11 to 12 as well.*

**Catherine:** Yes, lunch will be early.

**Ben:** *It will be breakfast Yes, okay, put it in your calendar 11 to 12 panel business. And I really can't entertain any other discussion about any other topics because we pretty much focused our hour will be on updates and reports, primarily.*

**6.2. New Website - Melanie:** So, the one item I chatted with Catherine about to put on this August agenda item came out as some of the confusion over the Rio Rico real rezoning issue is that some of the feedback, I've heard in the panel minutes is hard to find. Once you get to the panel area of the website, there's confusion about who panel members are. If they are board of directors or whatever else, so I would like I think we looked at previously I think it was to just have a separate panel website. It wasn't affiliated with the company at all, and it hosted the agendas, the meeting minutes and then just an introduction of the panel. The charter and there are also other features you could turn on and off like giving an inquiry form if you had an interest in the topic for the GNA. So, I think it could be quite simple. The person who runs our website asked her to create a dummy website of what this could look like. If we can discuss that at the August meeting, I think to elevate the profile of the panel. I think it's necessary and would be a lot easier for the public to have a separate website.

**Linda:** *Speaking as someone who manages multiple websites for people, that's an excellent idea.*

**Melanie:** So, we'll do that in August.

**Catherine:** A website demo agenda we'll have our report on any project updates we have a couple that you've requested. We'll then do our community panel updates. And I want to encourage you for the segments of the community that you take part in. So, for instance, Ben was our first-time hearing from the Friends of Santa Cruz River. I'd love to hear about tourism, so let me know. You don't have to prepare a full report. You can get verbally as Ben did. Or Carolyn always excels in getting us reports ahead of time. So, we need to make sure everyone is aware of all the various sides of what's happening in our

community. So, step up, let me know what your report is happy to put on the agenda for that you have that? Okay, so any other business we need to take care of?

**6.3. Suggestions for meeting with Dr. Ferre - Tomas:** I would like to add something in preparation for Dr. Ferre's presentation? As I mentioned before he is reviewing the tool that will be used to evaluate ground water conditions. If you prepare questions, ideally, we'd have the presentation ahead of time. But as you think about this, if you prepare questions about: does the model help us answer this? I have this concern. Does the model help answer this? That's the type of inquiry that he can then address because he's reviewed the model that says yes, your question could be answered No your question can be answered. Your question can be partially answered. And so, then you can name specific concerns associated with groundwater. And then he'd be able to say, yes, this tool should be able to answer that.

**Linda:** *Did you want those ahead of time? that. Is that what you mean?*

**Tomas:** No, I guess in preparation for his presentation, because what ends up happening all too often is what do you have any questions? And then it gives me the focus area, but obviously you have lots of questions about this kind of activity this and it would be helpful to be able to provide, you have those ahead of time too. So, this is the questions I have will the model answer that question?

**Fritz:** *So, some of the questions are already listed in the Q&A for you.*

**Tomas:** Some are what's right are going to be the water so let me clarify right so that those questions are on there. This is a slightly unusual way to ask these questions. And I don't want to make it confusing and so I apologize if this is confusing, but we won't be able to provide a list of this spring will be impacted or that spring will be embedded and *asked that. What springs are going to be deep water.*

**Fritz:** *So, you can say yes, globally, we're going to see this within the call. These are going to be dewatered. Right.*

**Tomas:** So that's the kind of question can the model of answer that question, right? You're not going to give the answer to that question. I'm going to tell you that right now. That's not going to be answered. Next month, that's just not going to happen. But the question exactly is in the model, answer the question about the springs, okay. And so, then you can or can't, or what are its limitations associated with answering that question, but it's not, you're not going to get an answer to which springs are impacted. That's not going to come but you can ask the question. I'm concerned about flows. And another significant candidate answered questions about the flows in the creek. What are its limitations? About answering questions about the flows in the creek. Is it capable of monitoring or naming spring discharge changes? Is it possible to evaluate water level changes in wells in a particular area? Does it have that capability? The answer to that? Well, isn't giving but doesn't have the ability to do that and what are its limitations? And answering that question

**Fritz:** *So, all the questions he just asked, we need to have answers with Dr Ferre.*

**Tomas:** So that's, that's how we would have to frame the most. And that's one of the challenges in going through the Q&A. So, I can't answer the questions as they're posed. Because some of the details aren't available, so that there needs to be a more nuanced question and because as an example, does pumping from their most impact wells? Yes. Does it affect wells in one location? I know that'll be provided at some point in time, but I can't answer that question. That's really the level of detail. Yes, there are going to be wells that are in fact, yes, there are going to be springs that are that we want to start pointing to the screen so that I can answer.

**Ben:** *So, let me see what I understand. We had some specific questions in that Q&A. And now if I'm hearing you correctly, you're saying we can only ask yes or no questions?*

**Tomas:** No. Questions about the tools? Can this model answer this? Can this model answer that?

**Fritz:** *Well, that's a yes or no question.*



**Tomas:** They can also be more nuanced than saying, what are the limitations of the model to answer this question?

**Ruth Ann:** *I have a question about the model.*

**Carolyn:** *So, we're just using the one model, not the second button flow committee or whoever paid for the second. We're just using the Newfield model.*

**Tomas:** Correct.

**RuthAnn:** *So, did we ever talk about the difference between the two models? And the results?*

**Melanie:** We did.

**Tomas:** This was the model that supports our permitting efforts. So that's the model we discussed. Fritz: So, we send the questions to Melanie or to you? Tomas: You could send any questions.

**Catherine:** Why don't you send me the questions, because then I can put them in the Q&A document. Okay, I am now adjourning our meeting.

Meeting adjourned at 2:02 pm.

4 Attachments:

- 1 – South32 Briefing Slides
- 2 – PARA Update
- 3 – Town of Patagonia Flood & Flow Committee Update
- 4 – GNA Working Group Summary

# SOUTH32 HERMOSA

Project Update  
**July 2023**

# ONGOING PERMITTING & SITE ACTIVITIES

## 1. Flux Exploration Drilling Plan

- Received decision memo and working on final plan

## 2. Small Tracts Act

- USFS Review

## 3. AZPDES Permit

- Current permit remains effective during permit reissuance process

## 4. APP Permit

- Arizona State Superior Court denied PARA's motion to stay the WQAB decision during pendency of appeal

## 5. Site Exploration

- WTP2 substantial construction complete, commissioning commenced.

## 6. Off Site Projects

- Pollinator garden project (field work complete)
- CCC Construction (grading phase 1, target completion June 2024)

## 6. Air Permit

- Application filed with ADEQ in October 2022

# HARSHAW ROAD DETOUR (AS SHARED IN APRIL MEETING)

- Improvements include:
  - Three creek crossings (multi-plate, avoid disturbance within OHWM)
  - Widening road (gabions, rip-rap)
- Road detour signs have been placed where the road intersects with the north and south edges of the Hermosa Project site.
- A detour around the construction zone is available for public use during this time
  - Have a designated bike route
- Emergency services have been notified.



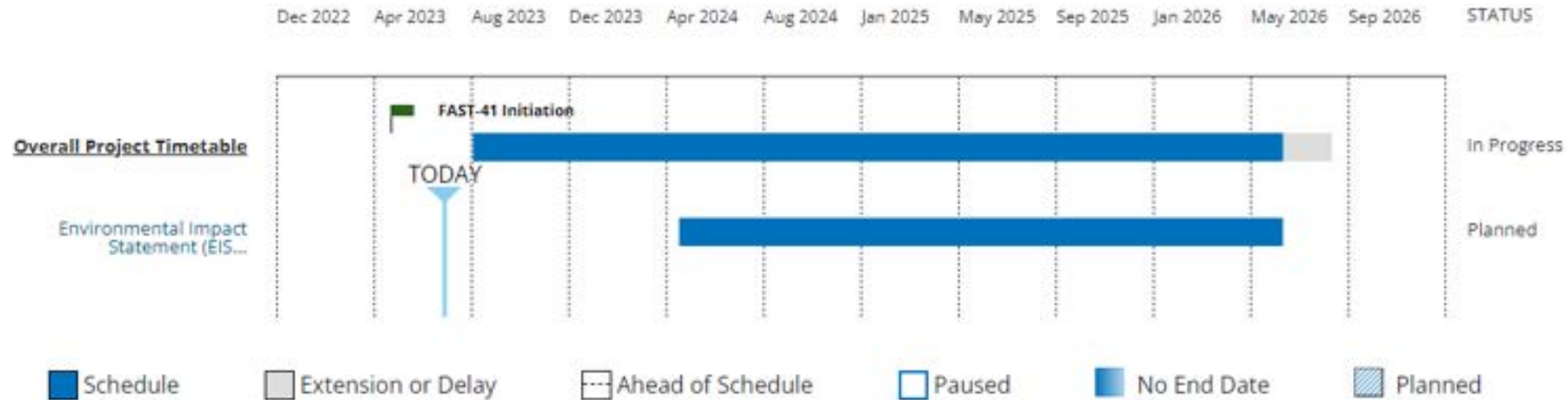
# FAST-41: PERMITTING COUNCIL AND DASHBOARD

- [South32 Hermosa Critical Minerals Project | Permitting Dashboard \(performance.gov\)](#)
- Updated July 5, 2023 with permitting timetable

## Permitting Timetable

The permitting timetable below displays data as reported by agencies. Dates for Environmental Review and Permitting processes (Actions) that are in 'Paused' or 'Planned' status are subject to change and are not indicative of a project's final schedule.

- For information about extensions, select an Action from the timetable below and select 'View Action Details' at the bottom of the page.

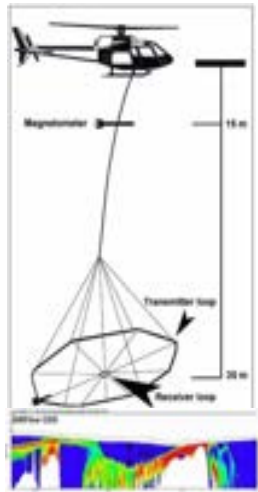


## Action Information

For additional information, please select an Action from the Permitting Timetable above.

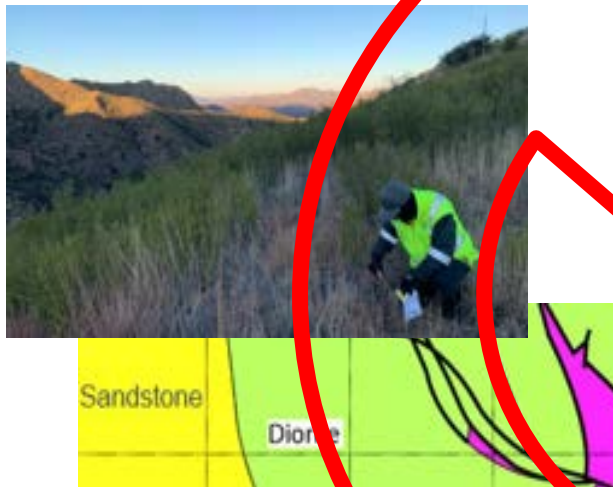
# SOUTH32 WILL NOT BE MINING IN RIO RICO...

- We do not own mineral claims in the area
- We do not have plans to do mineral exploration in the area

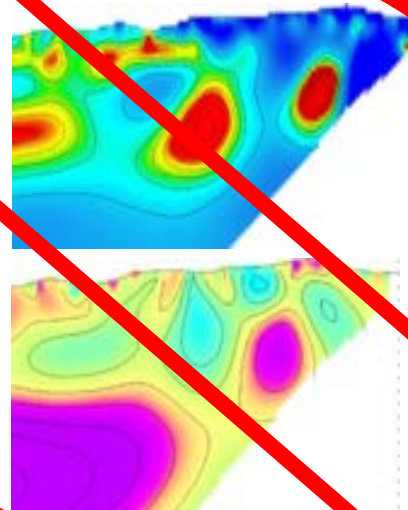


Airborne Geophysics

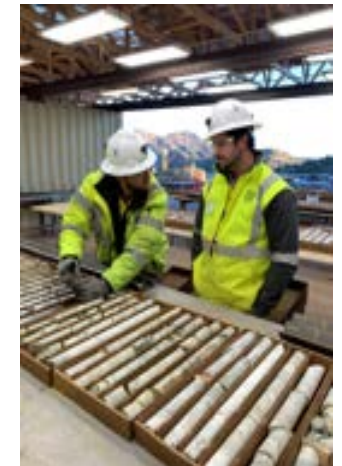
Mapping and sampling



Ground Geophysics



Drilling



Results review

# INTEGRATED REMOTE OPERATING CENTER (IROC)

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Recap of Nov. 2022 meeting – Location Study Overview

# REMOTE OPERATIONS CENTER

~5 acre office building

Think of it as NASA Command Center – with lots of large screens, monitors, and special workstations to allow employees to remotely monitor and operate the underground equipment at Hermosa.





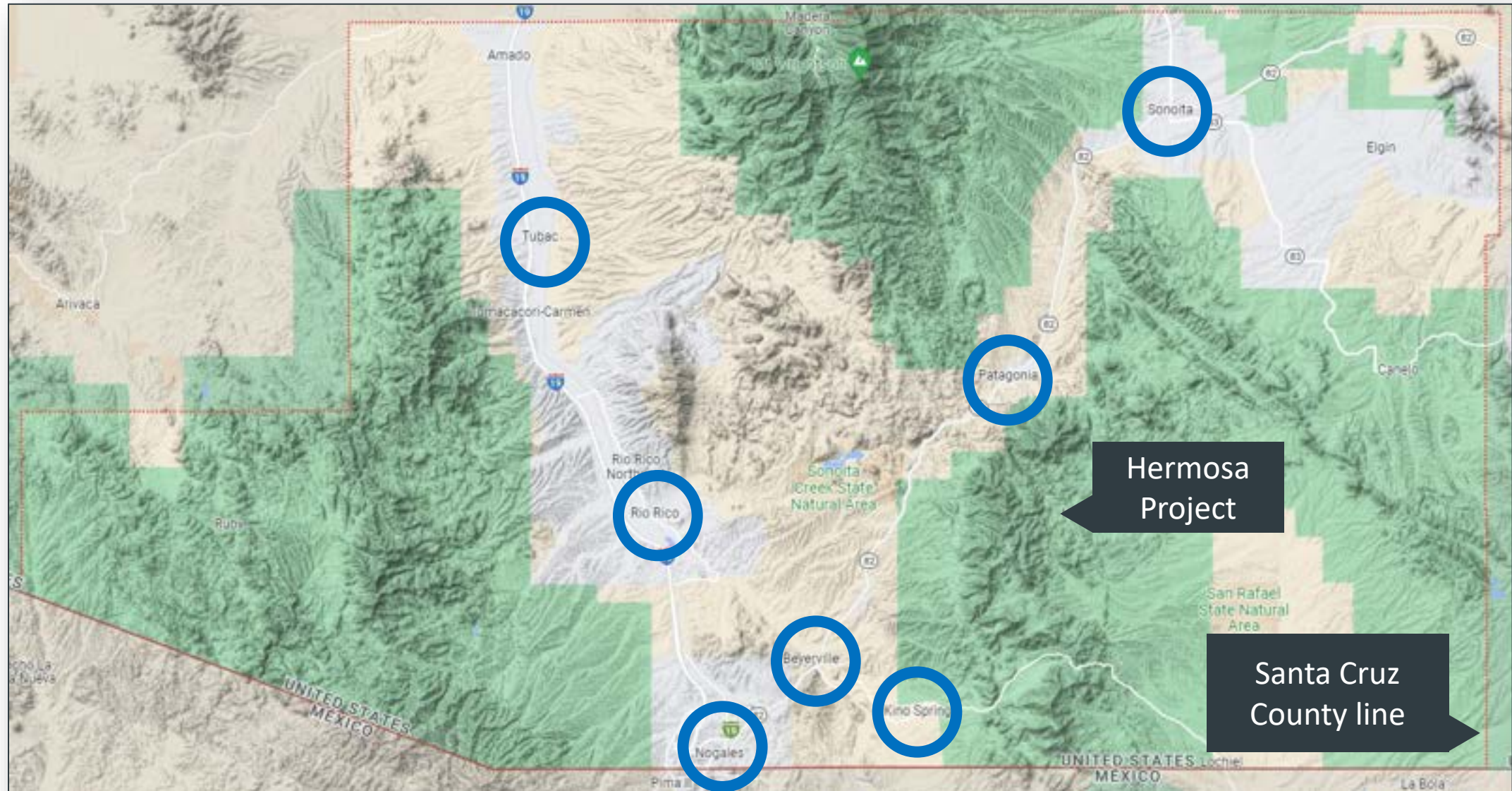
## Finding the best location for a remote operating center



Theme	Criteria
Talent & Workforce	Perception as a place to work
	Workforce capacity and availability
	Attractiveness of area to live
Utilities & Connectivity	Telecom infrastructure availability and capacity
	Utility availability and capacity
Real Estate & Land Use	Availability of suitable buildings
	Availability of suitable land
	Proximity to land and facilities suitable for "industrial Hub Concept uses"
Transportation Infrastructure & Access	Ease of access mine site to iROC
Safety & Security	Physical security risk
Environment & Climate	Natural disaster/hazard risk
Social & Community	Fulfills social commitments to Santa Cruz County
	Community sentiment
	Potential for workforce development
	Planned social infrastructure improvements & investments

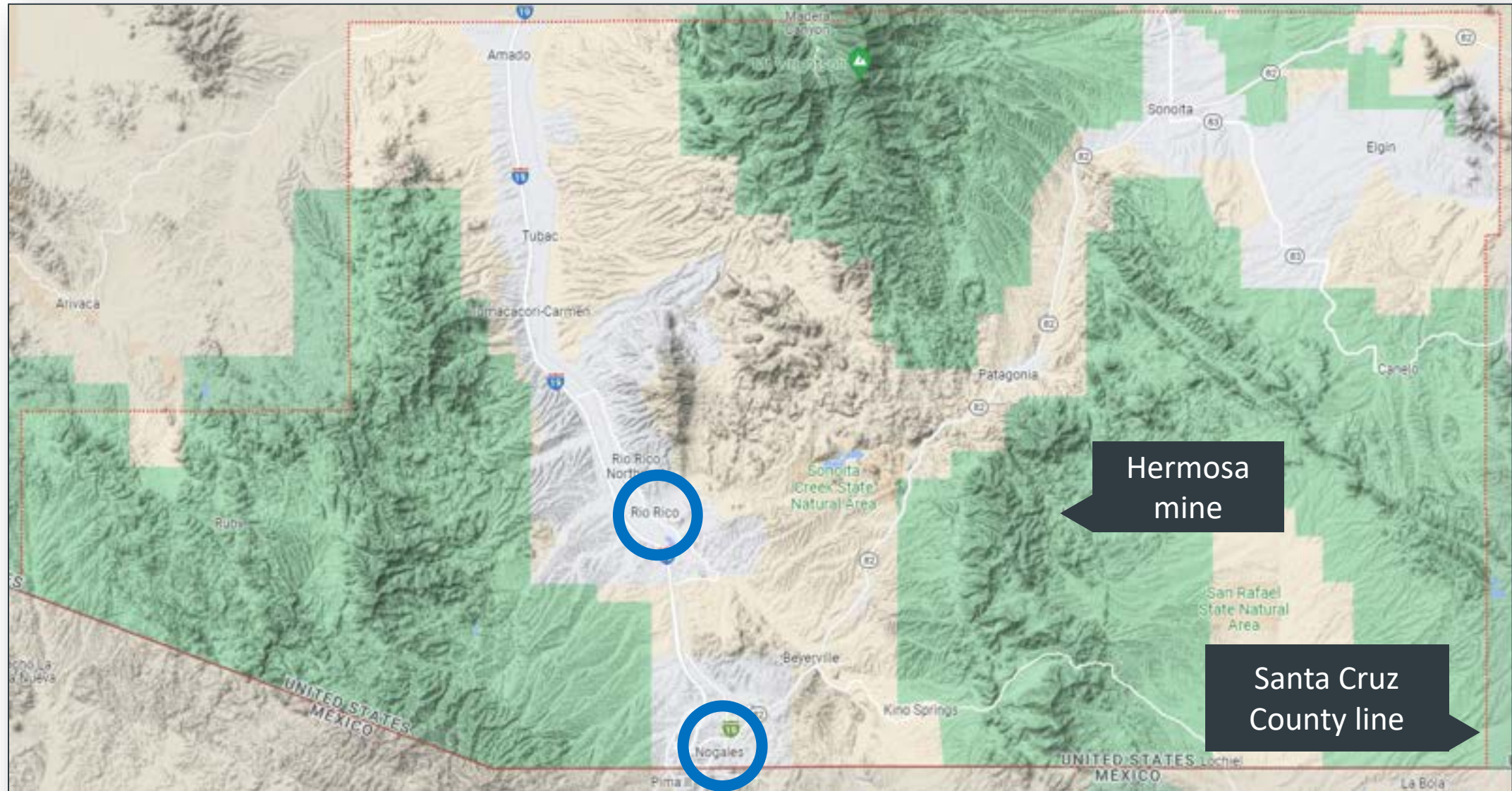
# STUDY AREA

7 locations considered, narrowed to 4 after initial study



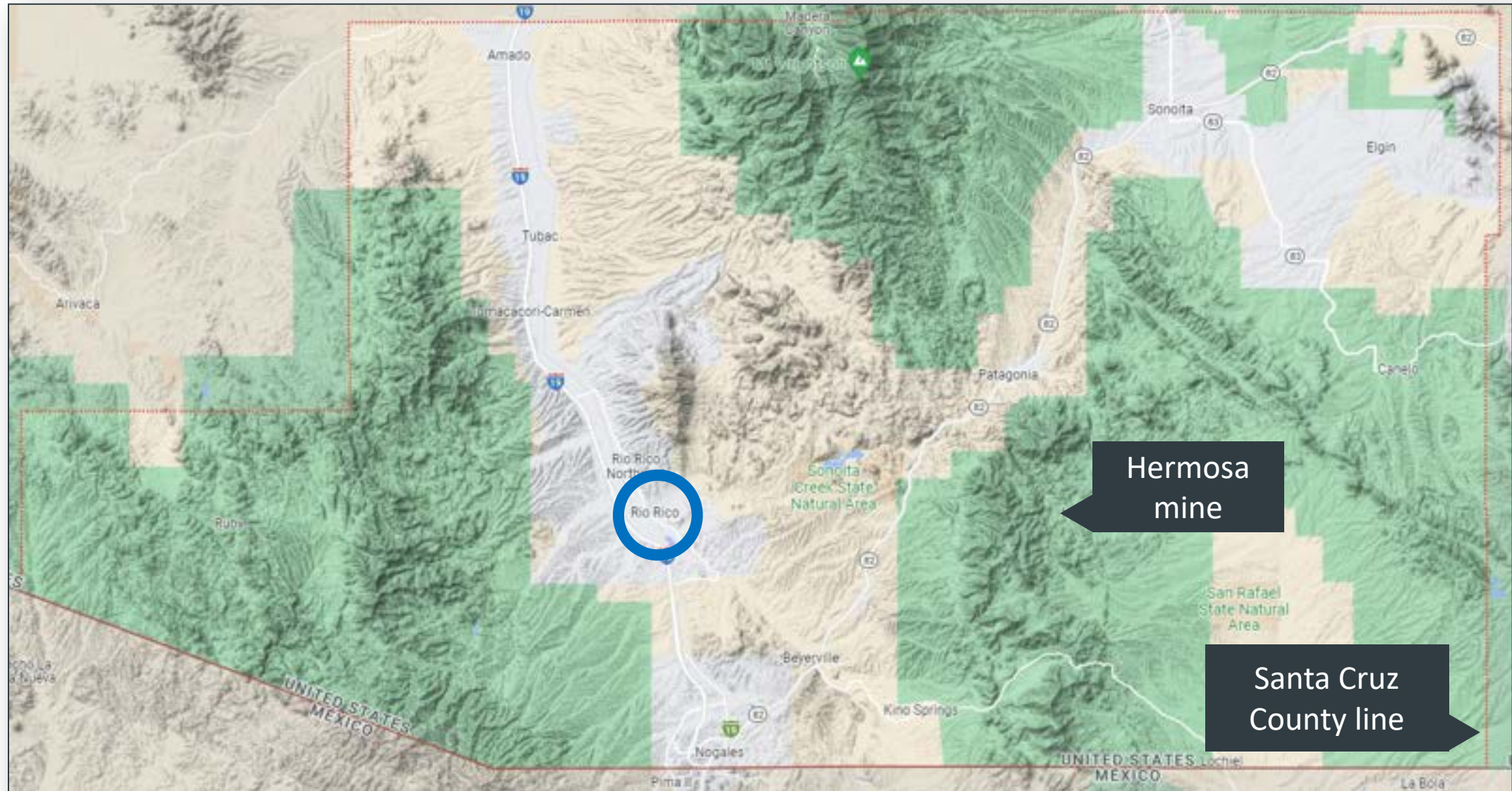
# STUDY AREA

Narrowed to 2 areas. Rio Rico and Nogales.



# STUDY AREA

UPDATE SINCE NOVEMBER 2022 – Narrowed to Rio Rico





# BATTERY-GRADE MANGANESE FACILITY IN SANTA CRUZ COUNTY

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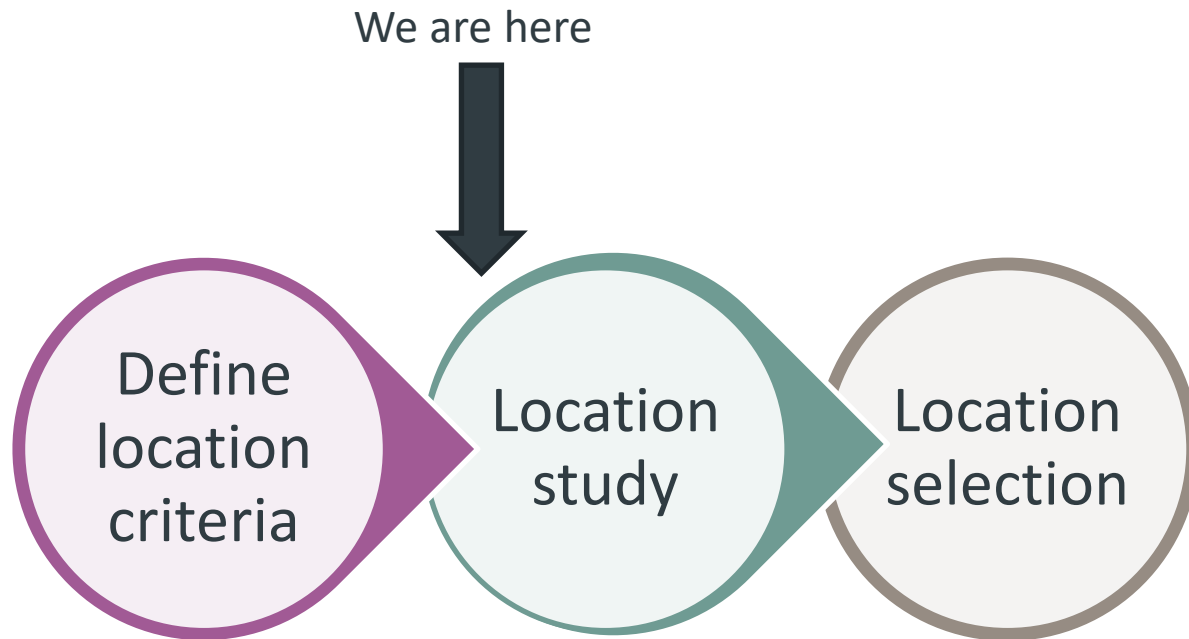


# CONCEPT



# BATTERY-GRADE MANGANESE FACILITY

## Finding the best location



Criteria
Baseline air quality information
Baseline groundwater conditions
Proximity to waterways
Proximity to neighborhoods, schools
Availability of suitable land
Community sentiment
Potential for workforce development
Planned local development
Access/distance to Hermosa

# RECAP

- 1) South32 will not be mining in Rio Rico
- 2) The approximately 5 acre office building for the iROC could be located in Santa Cruz County – site to be determined
- 3) The approximately 150 to 250 acre battery-grade manganese facility could be located in Santa Cruz County – site to be determined
- 4) South32 is committed to Santa Cruz County
  - I. We want to collaboratively grow the local economy and improve lives in Santa Cruz County
  - II. We are committed to working with the community and incorporate feedback into the planning and design of the Hermosa project





# Q&A DOCUMENT

- Updated version shared with the panel
- Updated version includes track out questions and answers
  - Provided in a handout to the panel at the April 2023 meeting



**INFORMATION for the Santa Cruz County Advisory Panel on Hermosa Project  
Presented by Panelist Carolyn Shafer as a PARA Board Member  
July 19, 2023**

These are three sources for information relative to water issues in the Sonoita Creek Watershed that I recommend:

- The [Town of Patagonia “Sonoita Creek Flood & Flow Committee”](#) (“F&F”) which conducts (currently via Zoom) monthly public meetings the second Thursday of each month at 10 a.m.
- [Friends of Sonoita Creek](#) (“FOSC”)
- [Patagonia Area Resource Alliance](#) (“PARA”)

**UPDATES:**

**AQUIFER PROTECTION PERMIT - a legal action by PARA against a state agency for failure to follow state statutes that require a point of compliance:**

- ADEQ filed its Answering Brief on Jan 23 and South32 filed its Answering Brief on Jan 26. PARA filed its Consolidated Response Brief to both Answering Briefs on February 13. Now we wait for the Court to assign a date for oral arguments on the Appeal.

**ARIZONA POLLUTANT DISCHARGE ELIMINATION SYSTEM (AZPDES) PERMIT - a legal action by PARA against a state agency for failure to follow Clean Water Act regulations:**

- On March 10, ADEQ released its Decision to Renew the permit. PARA filed its Appeal on April 7.
- Multiple legal documents have been filed. All parties are waiting for a hearing date before the Water Quality Appeals Board on procedural matters.
- PARA has notified the Environmental Protection Agency (EPA) that in PARA's experience the AZ Department of Environmental Quality has failed to protect the region's water supply and the health of our community and the environment. As the letter states "To this end, we write here to request that the EPA exercise its oversight authority of ADEQ to ensure that ADEQ fully complies with its obligations under the Clean Water Act."

**FOREST SERVICE PERMITTING EXPLORATORY DRILLING AT SOUTH32 FLUX SITE ON PUBLIC LANDS - a legal action by PARA against a federal agency for failure to follow regulations:**

- On June 20, PARA and seven other conservation organizations filed a federal lawsuit against the Forest Service for issuing the permits for exploratory drilling at the Barksdale Resources Sunnyside site and at the South32 Flux site. The lawsuit states that the Forest Service provided these permits without consideration of the cumulative impacts.

**PATAGONIA AREA RESOURCE ALLIANCE** collaborates with Strategic Partners to protect the water, land and wildlife of the Patagonia Mountains and the Sonoita Creek Watershed from the negative impacts of modern industrialized mining, works to assure that any mining activities meet the highest science-based standards of protection of our region's natural assets, and supports the expansion of the nature-based restorative economy that depends on the remarkable biodiversity and cultural heritage of our region.

**Town of Patagonia Flood & Flow Committee Update  
for the Santa Cruz County Advisory Panel on Hermosa Project  
Presented by Panelist Carolyn Shafer as a Flood & Flow Committee Member  
July 19, 2023**

The [Town of Patagonia "Sonoita Creek Flood & Flow Committee"](#) ("F&F") which conducts (currently via Zoom) monthly public meetings the second Thursday of each month at 10 a.m.

**CURRENT PROJECTS**

This is a summary report of Flood & Flow (F&F) Committee activity during July 2023.

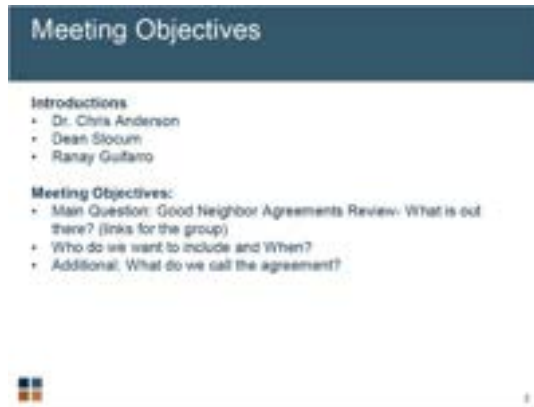
1. There was discussion about the role of the Flood & Flow Committee with respect to the Town of Patagonia being designated as a Participating Agency with the Forest Service relative to the South32 Hermosa Critical Minerals Project.
2. There was a presentation by the Environmental Defense Fund Senior Water Program Manager about groundwater issues in rural AZ and proposed legislative solutions.
3. With respect to the Patagonia Regional Flood Control Project Feasibility Study, Chairperson and Town Engineer Bill O'Brien advises that Phase 1 will be the collection of all data and a progress report will be out by the first week of August.
4. With respect to the update on the School Canyon failure of retention structures, Bob advised that there was a site visit with the Forest Service and also with South32 since part of the area of concern is on what is now South32 property.
5. Next month's meeting agenda will include (i) an update from the University of AZ WRRC on the Drought Response Planning for a Water Resilient Community and (ii) a presentation by Environmental Defense Fund Lucy Caine about the Water Leadership Institute.

The next Committee meeting is scheduled for August 10, 2023.

# GNA Working Group (WG) Report

## Santa Cruz County Advisory Panel on the Hermosa Project July 10, 2023, 11:00 am – 12:00 pm AZ Time via Zoom

**Introducing Dr. Anderson to the Working Group:** Dr. Anderson, based in Denver, Colorado, is a social anthropologist with a PhD in Anthropology. He's worked 20 years with communities in several parts of the world and equivalent time with mining companies. His focus is on the space between communities and mining projects and has an extensive background in developing agreements between mines and communities. He reinforced how important the Working Group and the Panel are to creating an agreement to protect what is most valued and important to this community while maximizing the benefits of the mine.



- Present:**
- Acorn International**
- Ranay Guifarro
  - Dean Slocum
  - Dr. Chris Anderson
- Working Group**
- Gerry Isaac
  - Melanie Lawson
  - Ben Lomeli
  - Damian Rawoot
  - Caroline Shafer
  - Linda Shore
- Interfuse Associates**
- Catherine Tornbom
  - Joanne Lamb
- Not Present:**
- None



**Discussion:**

- An important aspect, not mentioned on the slide, is how to mitigate the negative impacts of the mining operation. This includes:
  - Protecting the water and the biological diversity of the area.
  - Consider alternatives to the current plan to discharge about 6.5 million gallons of treated water per day into Harshaw Creek.
  - Health hazards related to the planned manganese mining and processing.
- This slide represents a focus on the positive potential benefits. This is as important as protecting against bad things happening.

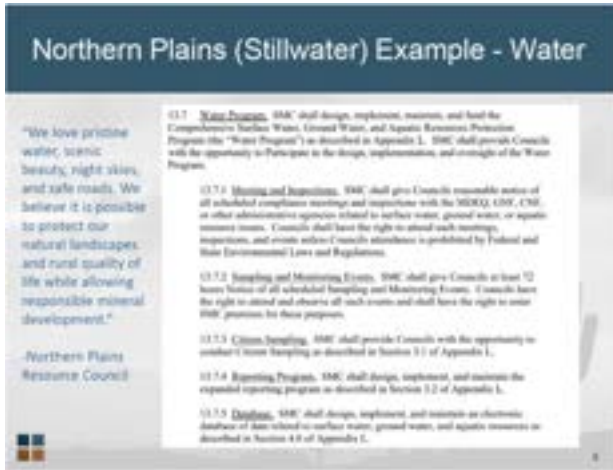
- Keep in mind long-term benefits after the closure of the mine. Make sure the benefits continue.
- The Panel has had very little discussion on the demographic and social impacts that will occur here, such as the potential for jobs, potential for training, the utilization of the local resources for training, the demands that will be placed on the local infrastructure with respect to transportation, water sanitation, the sewer plant, the roadways, and affordable housing.
- A potential thing to avoid is the Panel becoming a technical review board. The Panel can make sure the concerns are brought up and addressed based on studies and factual information.

**Presentation Notes:**

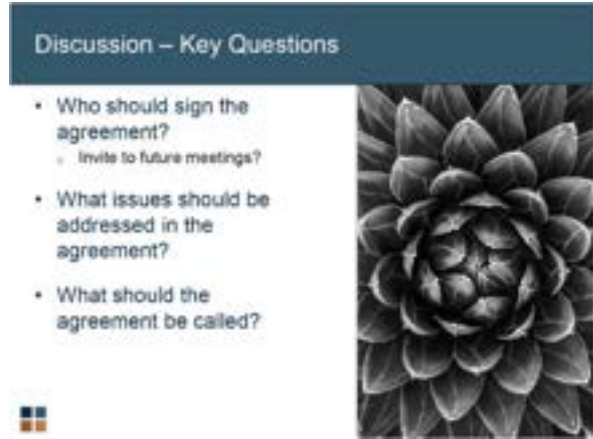
The Stillwater agreement is now in its 20<sup>th</sup> year and is a model that is used worldwide as a multi-stakeholder agreement with clear roles and responsibilities and impacts and benefits.

Acorn International has also done work at the Resolution Copper in Superior, mines in Sahuarita, and Morenci. They do not have access to share those agreements but can help with the elements if they are relevant.





In addition, the Eagle Mine in Northern Michigan and the Stibnite Mine in Idaho were concerned with water quality. Both agreements have community and scientific participation in independent water monitoring.



**Discussion:**

- Anticipated signatories at this point are the Town of Patagonia, County of Santa Cruz, and the City of Nogales, but we need to know the elements that need to be included to see who else might sign.
- How to protect the environment and maximize benefits.
- There are models of not just one, but multiple agreements with different parties on different topics.
- It is about building relationships of trust and transparency as well as the transactional and process details. Make the agreement as wide ranging as possible.
- Put everything on the table all at once to be included, noting there is a strong focus on protecting the biodiversity of the environment, but also not wanting to miss out on potential opportunities such as the economic development work that's beneficial to do early on.



- If we make this agreement totally about what we're worried about, happening negatively, it will become an adversarial agreement. The agreement will be successful if it is collaborative and focuses on the needs of all the parties to the agreement, including the mining company.
- The South32 plan of operations to be released in August and will be shown on the FAST-41 Dashboard
- Technical information is not a requirement for starting a good neighbor agreement, nor is needing to have full company information. Plans change frequently based on market conditions, for instance, or environmental concerns.
- Consider using SOOP Strategies to be the collection point to gather input and concerns for the agreement from the general public. This provides a third party that is not South32, the Panel, or the Forest Service.

**Action Items:**

<i>Date</i>	<i>Description</i>	<i>Who</i>
<b>ASAP</b>	List of potential names for the agreement	Acorn International
<b>July 19</b>	Report to Panel	Damian
<b>TBD</b>	Share initial list of topics, goals, and objectives for an agreement	Gerry
<b>July 18</b>	Prepare and Distribute WG summary (this document)	Catherine Joanne
<b>July 18</b>	Working Group Dropbox Link to Acorn International	Catherine

**Next meeting:**

August 3 at 11:00 am.to noon. Meetings are generally for one hour. All are welcome to attend.

Link: <https://tnc.zoom.us/j/8712196245?pwd=bTBousingieFp0M3h3UnFBaTI2NDd6ZnNnZz09>



9/28/23  
MEETING MINUTES TALLY SHEET

*Minutes Dated: July 19, 2023*

Panel Member	Email	Yes	No	Voted	Abstained	Didn't Vote	Edits/Comments
Olivia Ainza-Kramer	<a href="mailto:president@thenogaleschamber.org">president@thenogaleschamber.org</a>					X	
Liz Collier	<a href="mailto:elizadcollier@gmail.com">elizadcollier@gmail.com</a>	X		X			No edits
Maureen De La Ossa	<a href="mailto:maureendelaossa@gmail.com">maureendelaossa@gmail.com</a>	X		X			No edits
John Fanning	<a href="mailto:jfanning@scv35.org">jfanning@scv35.org</a>	X		X			No edits
Gerry Isaac	<a href="mailto:gerry@haciendapatagonia.com">gerry@haciendapatagonia.com</a>	X		x			No edits
Ruth Ann LeFebvre	<a href="mailto:ralefebvreart@gmail.com">ralefebvreart@gmail.com</a>	X		X			No edits
Ben Lomeli	<a href="mailto:lomeliben@ymail.com">lomeliben@ymail.com</a>	X		X			Edits
Damian Rawoot	<a href="mailto:damian.rawoot@tnc.org">damian.rawoot@tnc.org</a>					X	
Fritz Sawyer	<a href="mailto:fpsawyer123@gmail.com">fpsawyer123@gmail.com</a>	X		X			No edits
Carolyn Shafer	<a href="mailto:joyfullybecomingcarolyn@gmail.com">joyfullybecomingcarolyn@gmail.com</a>	X		X			No edits
Linda Shore	<a href="mailto:lshorephx@gmail.com">lshorephx@gmail.com</a>	X		X			No edits
Memo Valencia	<a href="mailto:gvalencia@evalencia.com">gvalencia@evalencia.com</a>				X		Did not attend meeting.
Marcelino Varona	<a href="mailto:mvarona@q.com">mvarona@q.com</a>	X		X			No edits
Chris Young	<a href="mailto:cyoung@santacruzcountyaz.gov">cyoung@santacruzcountyaz.gov</a>	X		X			No edits
Michael Young	<a href="mailto:myoung@patagonia.k12.az.us">myoung@patagonia.k12.az.us</a>	X		X			No edits
Melane Lawson	<a href="mailto:Melanie.lawson@south32.net">Melanie.lawson@south32.net</a>	X		X			No edits
<b>Total</b>	<b>16</b>	<b>13</b>	<b>0</b>	<b>13</b>	<b>1</b>	<b>2</b>	

Source: Panel email messages dated September 21-27, 2023



Facilitation Provided by Interfuse Associates  
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