

Agenda October 18, 2023

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

<i>Timing</i>	<i>Focus</i>	<i>Task/Action</i>	<i>Who</i>
11:30 30 min	Lunch is served		All
12:00 5 min	Call to order & Welcome		Catherine
12:05 1 min	September Minutes	Pending	Catherine
12:06 54 min	Update on CPBA	Share information, Q & A	Dean Slocum, Acorn International
1:00 30 min	Project Updates <ul style="list-style-type: none"> • IROC • Ongoing Permitting and Site Activity • Workforce/Procurement • Traffic/Trac Out • Water/Dewatering Options • Fast-41 Dashboard 	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
1:30 20 min	Community/Panel <ul style="list-style-type: none"> • FOSCR - Ben • PARA - Carolyn • Town of Patagonia Flood and Flow Committee – Carolyn • Other Reports 	Share information, Q & A	Panel Members
1:50 5 min	Standing Topics: <ul style="list-style-type: none"> • CPBA (see above at 12:06) • Q&A Document 	Share information, Q & A	Panel Members, South32
1:55 4 min	November Meeting: <ul style="list-style-type: none"> • Location – Patagonia • Topic: Possibly Dr. Racette, Manganese 	Discussion	Catherine
1:59 1 min	Wrap Up	Final Comments	Catherine
2:00	End		All



Meeting Minutes for October 18, 2023
Santa Cruz County Advisory Panel on the South 32 Hermosa Project
 Wild Horse Restaurant, 309 McKown Avenue, Patagonia, AZ

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

1. Meeting Minutes – Catherine:

The September minutes are under technical review and will be sent out to the Panel members via email for approval.

2. Community Protection and Benefits Agreement Update (Attachment 1) – Dean Slocum



Attendance:

Meeting Facilitators (Interfuse Associates):

Catherine Tornbom, Joanne Lamb

South32 Hermosa:

Melanie Lawson, Craig Barry, Denise Bowdin

Panel Members Present:

Elizabeth Collier, Maureen DeLaOssa, John Fanning, Gerry Issac, Ruth Ann LeFebvre, Ben Lomeli, Damian Rawoot, Carolyn Shafer, Linda Shore, Guillermo Valencia, Marcelino Varona, Chris Young, Michael Young

Panel Members Absent:

Olivia Ainza-Kramer, Fritz Sawyer

Consultants/Guests/Visitors:

Stephanie Smith, Chris Werkhoven, Ernie Edwards

Presenter:

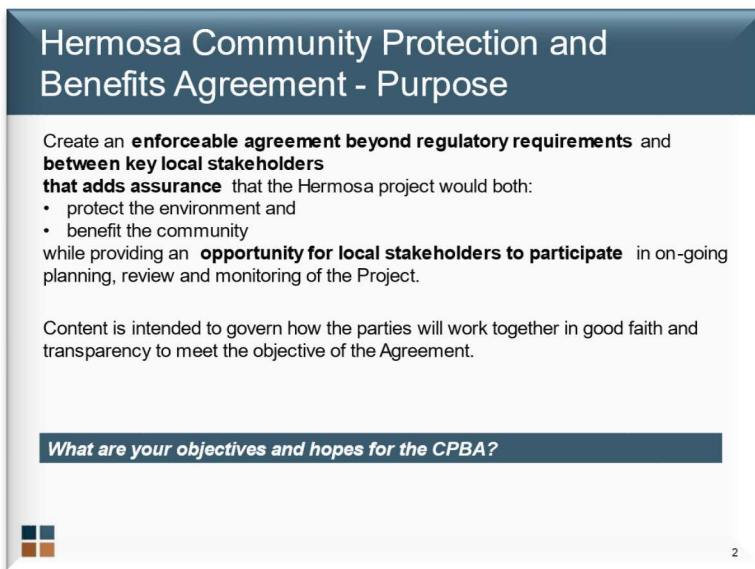
Dean Slocum

My company, Acorn International, has been contracted by South32 for the sole purpose of creating a process and to facilitate a process that makes sure there is fair dialogue with questions that are brought up and answered and funneled to the community and back to the people who are going to make decisions. It's our job to help the Panel create an enforceable process, that can be governed at a local level beyond regulations, not in lieu of regulations, that is enforceable at the local level between local parties to say, *"These are the rules that we want to follow. These are what our expectations are of each other. This is how we're going to go about achieving those expectations. Here's how we're going to monitor that. Here's how we're going to report, and here's how we're going to settle."*

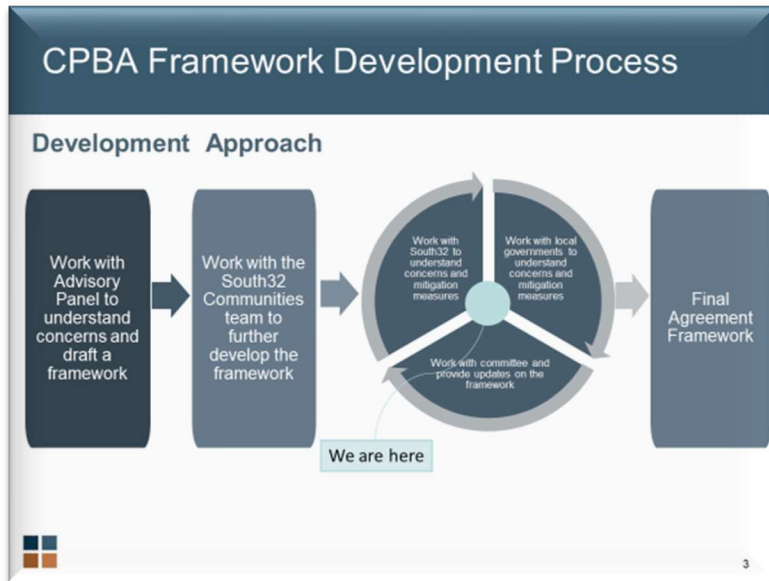
In June of 2022, David Morales came from the university and talked about good neighbor agreements (GNA). In May you created the GNA Working Group and now this is where we are. First, I'll review the purpose of a good neighbor agreement, or in this case, a Community Protection & Benefit Agreement; next, where we are in the process; and then what are the next steps.

Marcelino: What is *enforceable here in Arizona under ARS? Give me an example. I am still having a hard time seeing how these agreements in the State of Arizona are enforceable.*

Dean: This is a contract essentially between parties just like if you had a dispute with a neighbor and you wanted to have an agreement to resolve that dispute, or if you had a company and you wanted to buy another piece of land. This agreement is enforceable under the laws that are referenced in that agreement.



You can see by the notation on slide 3 we're here at the circle. We've been working with Melanie and her team, including Victor and Judy, in thinking this through to make sure that South32 is fully on board and to understand what their concerns are and what mitigation measures are already in place. Including through the NEPA process that's going to be starting up here in earnest soon. Working with local governments understand their concerns and mitigation measures, and then working with you to make sure we're providing updates to the framework. It's going to circle until such time that those who are going to decide, say, "we're ready to go." They have the benefit of what you as representatives of the community want to be in it. Now ultimately, they're going to sit down, negotiate, have their lawyers and things will change, right?



Ruth Ann: *Have the lawyers been involved yet or not?*

Dean: *To my knowledge, no. We're starting the process to bring in those who we presume to be signatories into this process, to make them aware, so it's not dead on arrival. The*

representative for the County is here. Could I ask you to introduce yourself and your role?

Stephanie: *Hi, everybody. I am Stephanie Smith, and it looks like I may be working with the county to participate in this process as the county's representative. I won't start until the first week of November. My role is contingent upon a few things that we're still working on.*

I'm not a lawyer, but I'm an urban planner, and so we hope to work collaboratively with the Working Group, and whatever happens, I will take back to the county and start to engage them in a dialogue around this.

I have been sitting in on Panel meetings for quite some time because I've been speaking with the county about this for a while, so we're finally ready to greenlight and get started.

Santa Cruz County has a big role to play, of course, in all of this. I consider myself neutral. I'm a technical person. I have a planning and GIS background and a project management background. I'm not coming with any attitude one way or another. I'm here to help everyone move this forward in ways that make sense for the County, for this Panel and South32.

Dean: *It's great that Stephanie is going to be working with this group representing the County and Mayor Wood has been participating as the representative from the Town of Patagonia. I've been to Nogales a couple times. I met with the city manager, Roy Bermudez, and assistant city manager, John Kissinger, to introduce myself, and to introduce the process. There may be a chance of getting them involved.*

Marcelino: *I know that Mrs. Smith is going to do her shuttle diplomacy between here and the County. Did the City give any indication of whether they would provide someone like Stephanie to the Working Group?*

Dean: *No.*

Linda: *Is it appropriate at this point for Marcelino and Chris and anybody who lives in Nogales to start lobbying?*

Marcelino: *I would wait for Catherine and her team to make the presentation to the mayor and council and maybe show up with a show of support, but I think for the Board of Supervisors I would start there and then build from that.*

Linda: *That's an excellent idea. To that point, it shouldn't be just on Catherine, I think that's a great idea to have a few of us there. Our presentation in November and following up with the mayor because we're the ones that can answer the questions. And we're the ones that are going to live here afterwards.*

Damian: *And it's very important that it's a public venue. It's recorded in minutes.*

Marcelino: *I believe that they should be involved when they see a need to be involved. I don't know if we can convince them. But all we can do is educate them.*

Carolyn: *It's important for the City of Nogales to know that there are currently just shy of 75,000 acres of claims around Patagonia. South32 controls about 34,000 of them. The others are currently controlled by a Canadian exploratory company. You watch what happens with mining companies around the world and as a college statistics*

professor once said to me, "If there's a possibility, there is a probability." The probability here is that South32 could buy up their share and this would have a huge impact on the City of Nogales who would then be very interested in being in an agreement with South32.

Melanie: I think there is a misunderstanding that it's a South32-driven process that is being forced upon the community or the local government entity to then be the signatory. I think the more that it can be reinforced that it is designed to be collaborative and that the input so far has truly been from the members of the Working Group that have been involved. I think that will be helpful.

Linda: I was on the board of supervisors' call yesterday listening. Some guy stood up and said to the board of supervisors, "I understand this Hermosa project is going on and the people who are on the team were hand-picked by South32, so obviously they have a bias. So, I suggest to the Board of Supervisors that we come up with another citizens committee that doesn't have anything to do with South32." I was furious on my end of the phone, but his comment proved the point, there is a lot of misunderstanding.

Ruth Ann: Did the other mines in Arizona with GNA's involve their county people? Or just the mine and the town?

Dean: It was just between Superior and Resolution mine. It did not involve the County.

Ruth Ann: Is there a reason why they didn't? I think it's good that so many stakeholders are involved, but I'm wondering if maybe they know something that we don't about so many people involved.

Dean: We've worked with that same company in other parts of the world and that isn't their model. There are two types of agreement with Resolution in Superior. Is that the way it should be done? My answer is no. Resolution Copper is a joint venture between Rio Tinto and BHP. They decided they wanted to do the tailings one first because that was a big issue for them. They followed up separately with a different agreement. We've seen it work best to use a "global agreement" with all the parties, which is the approach we are taking here.

Marcelino: How long does it take to implement any kind of agreement?

Dean: It's a big question. If anybody feels like this is being slammed down their throat it won't work. But there's the opposite side of this, which our Acorn International colleague, Chris Anderson, mentioned during the last Working Group meeting. You may get to a point where the benefit of having an agreement starts to decline because certain decisions are already being made through the NEPA process or other processes. You want to balance that.

Ruth Ann: On Slide 4, you say community health and safety. That sounds like it's one community and as I said in my emails, and I say constantly, there's a lot of communities involved with this. It isn't just Patagonia. And when you list things like that, you should make it plural, communities health.

Dean: We could say public health and safety just as easily. That's a term we typically use. It includes any community who defines themselves as affected.

Ben: What I see missing here is environmental justice for these communities that are within the affected environment. And if we don't do that, we don't have an agreement that is worth it. I go by NEPA, because that's the law. And it says affected communities within the affected environment. So, you look at Nogales, you look at Patagonia, Rio Rico, Carmen, Tubac, Sonoita, and Huachuca City going down SR90.

Dean: My pushback is not on the concept. What you're saying is right. But environmental justice has a legal definition that's I think different than what you're talking about. And we do this work all the time. I don't want someone to come in and say I know how environmental justice is defined. That element of your agreement is not valid because it doesn't meet this and then suddenly just invalidates or weakens it.

Gerry: If I'm not mistaken, environmental justice in NEPA applies when certain conditions apply that have to do with median incomes and other demographic considerations. And the point of fact is that within this geographical region, some of the communities and some of the defined geographical areas under government geographical definitions would be able to comply with or be subject to environmental justice. Others would not even though they're within our geography. It seems to me that to rely on the definition, or the term environmental justice, restricts us. We can have

CPBA Elements

Main contents

- Governance
- Community Benefits
- Resource Protection
 - Water
 - Community H&S
 - Biodiversity
 - Traffic
 - Local Hiring & Procurement
 - Nuisances
- Monitoring, Reporting, Feedback

4

our own term for what we mean by environmental justice, to be more inclusive, to make sure everybody's in and I think the concern is that to rely on the NEPA definition, certain areas would be excluded from environmental justice.

Dean: NEPA doesn't define environmental justice. CEQ, the Council on Environmental Quality, under the White House does because of the executive order that was issued for it. So that's the way that works, but it's semantics.

Ben: *Environmental justice needs to be a part of this list. I don't want to, you know, crash this conversation, but it needs to be added to your list. Because the other part of it is what we've suffered from things like lupus and cancer clusters. That is part of environmental justice and needs to be considered.*

Damian: *Just one thought listening to this, I wonder if that's something that would not be in the governance but very early, setting the context, as part of the rationale as to why communities have had disadvantages historically from these different reasons. And so, embedding it as a contextual piece as well.*

Dean: These are the basic elements of an agreement. You start off by saying, this is governance, this is how this first thing is set up. What is a good neighbor agreement and who are the parties and how will the parties talk to each other and communicate with each other and make decisions together? Just some basics on that.

The next section is on benefits. The next sections are on resource protection, so water, community health and safety, diversity, traffic, local hiring, and environmental and social solutions list.

Then the last part is about monitoring, reporting, and feedback, and we've had some really good feedback from you guys on this part, which right now doesn't include Dispute Resolution which covers when we have disagreements, how are they going to get resolved and so, but those are the basics.

Discussion:

Carolyn: *That screen is a great outline for the question I'm about to ask. We're fortunate just to have a small county and only actually two municipalities in it, so we don't have to have a cast of thousands, but those three players, any one of them chose not to participate, the agreement could still go ahead with the others?*

Dean: Yes.

Raney has put together a flowchart that showed a progression of when these different steps that we showed in that circle on the previous slide, when they would get done. We had some dates in there to say, okay, we would like to present to the panel in I think we said November so that it can then get presented to the signatories before the end of the year. We heard from you guys that we feel like we are rushing it. You guys said, "Hold on this is going too fast. We don't want to have any deadlines submitted to us that we feel are too short. We want to have enough time to do this." We took the dates out and we said the next steps we're already taking in updating this framework. That's the circle on top, meeting with the beneficiaries which we've started to do. We do it with the panel

which we tried to. The panel hasn't seen this draft framework that's going on. I think the working group's uncomfortable providing that to the full panel until they feel comfortable.

Then eventually getting it out for signature. We got your feedback that as facilitators to the process, we shouldn't be trying to push this through at a rate that you all feel henpecked. That makes perfect sense. If we're facilitating this process that's what we should do. I will just put it back to you and say, think about those two pressure points. One is, we don't want to do this fast. We don't want to be pushed into something but at the same point, there will come a time where an agreement will be a dollar short and a day late if NEPA decisions have already come out. The effect of the agreement is much less because it's not driving the process. It's being driven by those other processes.



Marcelino: *I agree with your latter comments on that. I think you highlight quite a few critical points there. I think we need to fix that approach. We don't want to let it go too long. Where people feel that we just want your signature on here to back up what we're doing. I want to see the draft agreement though too. I think that's important that we agree on something, though, first. Damian has done a wonderful job in chairing the committee and everything, but I still want to see something with that. Because we're not going to meet in December, so we probably will not be able to talk about this till January, February.*

Dean: January.

Gerry: *I have a question about what this group is trying to do. Is it trying to turn over a framework of an agreement to the signatories who will have their lawyers? The key signatories are going to hire lawyers. Are we trying to turn over a framework or concept? Are we trying to turn over a draft of an agreement? If we turn over a draft of an agreement to a set of lawyers, it's just going to get chewed up and torn apart. They need to be the ones who create the document that becomes the legal document.*

I think what we need to do is to give them guidance as to at least the subject matter we would like to be dealt with. You guys come up with the language with how to deal with this. But here's the subject matter and here are the details of specifics that you would not know as lawyers.

For example, here is our monitoring points, here is how many they are and here is the frequency, here is the reporting. Here are our traffic objectives, here is our this, here is our that. They've got to come up with a way to create enforceable language. But for us to try to create language for that would be I think a mistake.

Carolyn: *I agree with you Gerry and it highlights the point that there's a difference between what the lawyers are going to do when they go in there to make it legal and forceful et cetera et cetera. It's amongst this group who has the contacts for the expert opinions and language that we need in there. The specifics about all that resource protection that's not going to be the lawyers produce these. That's the core of what must go forward and then it's the legal language that these signatories can deal with the lawyers.*

Ben: *I agree with both Carolyn and what Gerry is saying. I think we don't want to try and make any legal language into this thing. That's for the lawyers and that's what Gerry is saying. We want the specifics of the technical things that they would not know. That's what I'm looking for in this agreement, like Gerry says specific monitoring points triggering thresholds.*

Carolyn: *To Ben's point, that's why we don't want to rush this because we do want all the panel to ultimately see something. It is too early because the first document that we saw very shortly ago, all of us have different reactions and concerns about it. It is nowhere near bringing to the full Advisory Panel at even that technical level, if you will, pre-laws. I don't think we're going to see that. Certainly, not before Spring, personally.*

Marcelino: *Just the City of Nogales dealing on an environmental issue with the International Water and Boundary Commission (IWBC). They've been going at it for 20 years. Never come up with any resolution on anything. The IWBC asked for the city, demanding the city, going to court. Even the judge saying that the city is right, and the IWBC saying we're not going to do what the judge says. This thing is, it could take approximately five to 10 years by the time all these three, four attorneys resolve anything. This isn't something that's going to be resolved in not even a year.*

Gerry: *Attorneys love fights, because they then go out and subcontract outside law firms and they just drag it on.*

Melanie: *I think Dean's point earlier, and Chris said this during our Working Group meeting is, the project timeline is the project timeline. That train, for lack of a better term, has left the station.*

Linda: *What are those dates that you can share with us that we need to be managing?*

Melanie: *Our target for first production is the fiscal year 2027.*

Linda: *That's a long way off. There's stuff between today and then.*

Melanie: *The final investment decision we're expecting at the end of this calendar year. That initiates \$1.7 billion in capital investment for construction. The construction of the project doesn't wait for the agreement to be set. I think we have be mindful of those development timelines so that there's not a missed opportunity to get all of this in place.*

Carolyn: *What activity does it start?*

Melanie: *There's everything. The shaft sinking has already started, it'll initiate the zinc processing facility. All the other site infrastructure that hasn't already been started.*

Dean: *It is in my mind it's a tough balance. But you're at a good place that you're doing this now. A lot of operations we've seen have gone back afterward and it's hard to do afterwards.*

Marcelino: *On this point that Melanie brings up, Dean, what's your experience or your review again of the literature? When does this good neighbor agreement come into place? Does it come in towards the end? I can see we can't stop*

South32 from saying, hey, we're going. Where does this agreement fall? I'm kind of lost.

Dean: It varies but, typically it lines up with the permitting process. In this case, you can go on the FAST-41 website and see what they're saying about the deeper process and what the timeline for that is. Typically, the community benefit agreements we've seen that have been successful have happened around that time because decisions can still be made. Agreements about monitoring and putting baseline monitoring points in place can be made before production starts happening.

Ben: *It better be or you don't get a baseline.*

Dean: You can do a baseline outside of the benefit agreement of course but the idea is to try to create something where all parties say, yes, I had a say in that. I'm satisfied with that. Let's go forward.

One thing, if it's helpful, could we put together some milestones?

Melanie: *I think the initial timeline everyone agreed on before the end of this year is maybe too quick. Thinking spring 2024 is maybe more realistic. My initial assessment right now I would say anything beyond that, you would start to not be in alignment with project development timelines. We can maybe go back and put a joint slide together that maybe looks at what's a realistic timeline and then use that, because I think just in general too, I work well with a deadline. If I know there's a hard deadline, then that might move things along. Not at such a fast pace that people feel uncomfortable, but at a productive pace.*

Dean: We're willing to put in as much time as you guys want to help if there's background work to be done, additional research, examples, redrafting, whatever is needed. Happy to do that because this is important to Renay, and to Chris and me, and I think it is to everybody here. Everybody really cares here and that's good. I think it's going to be important for you guys to talk to not only the City of Nogales, but also make sure that the county and the town are fully integrated.

Marcelino: *I just want to make sure that South32 doesn't get so far ahead that all the work that the Working Group is doing becomes irrelevant. So that's why we need to be a little bit more cognizant of how we're going to work together on this.*

Linda: *Well, Catherine said, we had all heard and talked about the December final agreement at the beginning, and boy, I spaced that totally. When we heard that on the last call, what are you talking about December. Then Carolyn said maybe December of 2025. That was the first time we'd consciously heard it. I think now what we're talking about moving back to maybe the spring makes sense. It can't drag on forever.*

Dean: It shouldn't.

Melanie: *We talked about this previously – there's the opportunity for things to be amended, so it's not that it's going on for 40 or 50 years without revision.*

3. Project Updates (Attachment 2) - Melanie:

These are the standing ongoing permitting and site activities slides.

3.1. Flux Exploration Drilling Plan:

There's no update. I provided the update at our last meeting that work was starting and just a note that another company is also conducting exploration activity nearby, so we are not the only entity out there. Our seven pads and about 1.8 acres of total disturbance has kicked off.

3.2. Small Tracts Act: There is no update.

3.3. AZPDES Permit: There is no update. We're still unable to provide an update due to the pending litigation.

3.4. APP Permit: The update I have is that the Arizona State Superior Court ruled in favor of ADEQs decision to issue the permit and therefore the APP permit is valid.

3.5. Site Exploration: We are continuing to sink the shafts, the civil engineering and the earthwork to support the manganese exploration decline development that has started. There's also some work on that road that is being

The slide is titled "ONGOING PERMITTING & SITE ACTIVITIES" and features the South32 logo in the top right corner. It contains a numbered list of six items:

1. Flux Exploration Drilling Plan
 - Plaintiff's motion for preliminary injunction denied, moving forward (7 pads, ~1.8 acres)
2. Small Tracts Act (no update)
 - USFS Review
3. AZPDES Permit
 - Unable to provide an update due to pending litigation
4. APP Permit (no update)
 - Arizona State Superior Court denied PARA's motion to stay the WQAB decision during pendency of appeal
5. Site Exploration
 - Continuing shaft sinking activities, shaft depth planned for 2900ft.
6. Off Site Projects
 - CCC Construction
 - > Finalizing phase 1 grading
 - > Target project completion date is June 2024
 - 9001 Bridge
 - > Resume construction October 2 – public detour planned
 - > Target project completion date is March 2024

The slide is labeled "SLIDE 2" in the bottom right corner.

done. There is blasting associated with that. So as with past practice, I send the blasting announcement to Ron so he's aware of when we have a blast should there be any inquiries or public inquiries.

Carolyn: *The decline to the manganese has started? That's literally the Clark Deposit on the other side of the road and we haven't seen any plan of operations for that. Are you intending to do underground stoping with the new shaft at the Clark Deposit which would be different from what was initially talked about with the shaft on the Taylor side?*

Melanie: This is an exploration decline to continue to get manganese material to further prove out that we can make battery-grade manganese directly for a battery manufacturer. It is not a shaft. This is doing that at a larger scale. We cannot get all of that material from a drill hole as we did previously. It is constructing a tunnel so we can get larger quantities of manganese, to continue to prove that we can scale that up and make battery-grade manganese from material at Hermosa.

Carolyn: *Is that all part of the Mine Plan of Operations that is submitted to the Forest Service that theoretically will be complete and publicly available in mid-December?*

Melanie: The first part of that is that it is on patented claims, so it is not part of the Forest Service, but yes, the plan is to still, if deemed complete, to share the Mine Plan of Operations with the public in December, once it's deemed complete by the Forest Service.

Carolyn: *Melanie, this is a good place to insert something I was thinking earlier when folks were talking about the NEPA process, et cetera. We always have to remember that a lot of this activity is on private land, so no NEPA regulations come into play and only state regulations.*

Melanie: Yes, so this is on patented claims, meaning we hold surface rights and subsurface mineral rights. The Mine Plan of Operations includes activities where we have unpatented claims, meaning we hold subsurface mineral rights. The surface patent holder is the US Forest Service.

Ruth Ann: *What are the safety controls for the people involved with the manganese? How does the track out that Fritz talked about apply?*

Melanie: As with our current operations on site, we have an industrial hygienist, we have safety programs. We do blood lead level testing for our employees. We have all of those programs in place for our employees on site.

Carolyn: *As long as we're talking manganese, of course, a huge concern with manganese is airborne contamination. What's the status of South32's air quality permit and does that cover that work as well?*

Melanie: I don't have an update on the air permit. I can get it for November.

Ruth Ann: *That was one of the questions that Fritz wanted answered.*

3.6. Off-Site Projects: An update on off-site projects.

3.6.1. CCC Construction: As for the Cross Creek connector construction, we are finalizing phase one. As discussed last time, phase two is the intersection at Harshaw and the Cross Creek area. Phase three is the connection to State Highway 82. We met with the county, and we were given authorization to include the plan to keep the Train Track Trail open in our phase three submittal. The target completion date is still June 24.

Liz: *Is the Cross Creek connector open to the public or is that going to be an exclusive for mine trucks?*

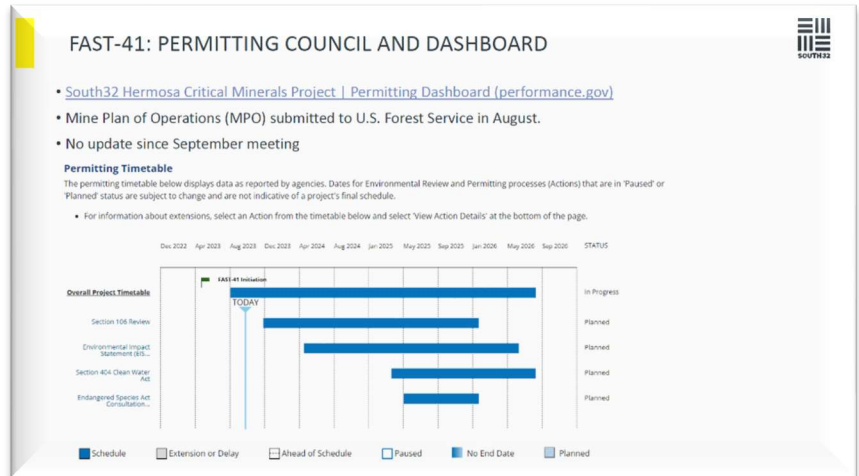
Melanie: The easement that we were granted is a non-exclusive consent. This means it is non-exclusive to South32 and therefore open to others.

Linda: *I'm the president of the Red Rock Homeowners Association. The intersection is going right in front of our development. It will be five different roads converging that the ore trucks will be going over. We definitely don't want ATVs and cyclists, and whatever, cutting by town. I sent a message to Melanie saying, we need to go back to it being exclusive to South32 and the people who live and work there. I believe that we can convince the Board of Supervisors county into granting it. It will be extremely dangerous for everybody involved. There is still a lot to be talked about with Cross Creek.*

Melanie: There are a lot of parties involved, so we can continue to have that discussion.

3.6.2. The 9001 Bridge: The public detour is in place and that work has kicked off. I'm sure several people have driven through the public detour if you go out on Harshaw. I did sit down with the Spirit 100 Race organizers and we are putting a plan in place so that we can still manage traffic in the area for the event coming up the first weekend of November. The target project completion date for this project is still March 2024.

3.7. FAST-41 Dashboard: There is no update but the next major milestone to hit is in December when we are expecting the Forest Service to deem the Mine Plan of Operations complete and then at that point, we can make it public.



3.8. Integrated Remote Operation Center (IROC) Update – Craig Barry

My name is Craig Barry, the accent is South African. I've been here in the US for six years now and on this project for the last two years. I attended this meeting about a year ago during the presentation of the conceptual design of the IROC and I'm going to give you an update of where we stand today.

We've done a lot of engineering and architectural work on this over the last year. And right now, we have a design ready to go into detailed engineering. It's exciting, and once we get the FID, the final investment decision, we'll be getting involved with local contractors and engineers and architects and taking it to the next level.



This is the conceptual design that we showed last time. It's changed quite a bit since we showed that to you. What I wanted to talk about is what it is and what it isn't. The operating center is really three different things to us. A portion of it is what people have in your mind's eye kind of like a NASA control center. Probably about a third of the building is going to be dedicated to that. We'll be running some of the machinery from that location so that we can operate remotely. It's safe for us to do that. It's proven in the industry. Underground mines have been doing this for probably more than 10 years now.

We'll also be doing what we call short interval control. Our mine has a small footprint. What's going to be important to us as an operation is controlling traffic arriving and leaving the mine. We'll be controlling all of that from the operation center. So really anything to do with concentrate logistics, anything to do with any of our logistics is going to be controlled from there, planned from there, and will be timed from there.

The other portion is going to be your typical control facilities. We will be running the process plant from there. We'll be running the paste plant from there. We'll also be running a lot of the underground facilities from there as well. So as much as we can run from there, we'll be running from there.

The other portion of the building is really a typical office building. If you've been to our Tucson offices, it's going to look almost like a carbon copy of that. We have design standards for what we want it to look like, what we want it to do, so it's going to be a nice office building. We're going to accommodate essentially everyone that's involved with the project. We'll have human resources, finance, mine planners and management. The typical staffing requirements to run a mine.

If you think about it this way, if you're a mine planning engineer, you would spend some of your shift on site.

Obviously as an engineer, you have to go underground to be familiar with the mine, but then you're also going to be spending probably an equal amount of time if not more in the operating center. That's how it differs from a traditional mine. I think it's about a third to almost half of the building is dedicated to that space. The rest of the building we're going to have employees coming and going from that site. I think you've already spoken about park and rides. The idea is to have facilities around the county where people will gather, then they'll be bussed out to the site. So that's probably where the five acres came from. That would be like an Amazon warehouse. I'll fix that before the next time we do this.

We've done a lot of work with some of the local businesses that provide connectivity between the preferred sites that we have, so we'll be able to have backup. We will probably have about three different links with the site so the likelihood of something happening between where we are operating and the mine site losing connectivity is going to be very low if not negligible.

There are also some things we cannot do from the operating center. A shaft is typically not something you want to operate from a remote operating center. The shaft operations will be controlled from the shaft itself. That's purely a safety issue for us. Anything that we feel from a safety perspective is not the ideal place to do it from an operating center, we will do that onsite.

The next slide is our selection process for the operating center. We spoke to that last year. An exhaustive study of you knows, what the different areas are, what facilities they have, et cetera.

OPERATIONS CENTER

Finding the best location for a remote operating center

Theme	Criteria
Labor & 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
Transportation Infrastructure & Access	Proximity to land and facilities suitable for "Industrial Hub Concept uses"
	Ease of access mine site to BDOC
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

SLIDE 5

The next step is to finalize where we're going to put this down. We have some preferred areas. Once we get the investment decision, we will have the funds to select the actual piece of land, and that will kick off the detailed design. In terms of numbers. I think people are also quite interested in how many people we are going to have. Again, it's very much designed around the way we do things in the Tucson office. We have a few remote workers. We have people they're going to come and go between the mine sites. So, if I tell you, we're going to have about 120 workstations that doesn't mean it caters to 120 people because you come and go and you have different people so it's probably upwards of 150 to 200 people that would be coming and going over say, a seven-day week, in that facility. It's going to be our flagship for South32 as the mine of the future. We're excited about the opportunities that it's going to give mostly to the local workforce that we're going to develop. You can imagine a nice clean office environment versus operating a piece of equipment from underground. Fundamentally different.

The last thing I want to talk about was a little bit around automation. We also intend to automate some of our operation. The one piece of the operation we are likely going to automate is a small section of the haulage. It's a loop that lends itself to automation. It's only a small group of tracks. And that will be controlled by the operating center as well. It's innovative although it's not something entirely new to the mining industry.

Questions:

Carolyn: I have two questions. Where's the lane that's going to be used for automated vehicles?

Craig: Underground.

Carolyn: And second, for a while, the operation center was linked in the same place as the processing plant. What is the update on the processing plant?

Craig: I don't have an update on the

DISCUSSION & FEEDBACK

- Questions about what the facility is or is not?
- Additional feedback?

SLIDE 6

processing plant, but the intention has never been that the IROC is co-located with it. They are two completely different facilities.

Marcelino: *I was always under the impression that South32 hired a study group that was going to give you a cost benefit analysis on different sites to put the IROC in and you were waiting for that recommendation to come over because I wanted to see the plus and minuses because no site has been selected yet. And then now the gentleman says that as soon as the initial investment is approved, then we will select the site. So, is there a study group that's going to put this out or is he going to make the selection of the site because I want to make sure that you're not selecting a site that's in Pima County.*

Craig: I can answer that one. They supported me in doing that study which was for seven different locations. There was a facility in Pima County on that study, and there was a very good reason for that. The reason was when we started doing this study, we didn't know if there were any fatal flaws. So, in other words, if we try to connect say one of these areas, be Rio Rico, Nogales, or anywhere else, to the mine site, and we physically can't get the necessary connection, you'd likely have to fall back to say Pima County. That fell away quite early on as we figured out that we are able to do that connection. Part of the study was to say what is possible? What exists now? There's fiber that's coming to Patagonia. Right now, it's between areas in Rio Rico and Nogales as our preferred selection. Within those areas are multiple sites.

Marcelino: *Okay, I just want to make sure because I did want to see the study and the pros and cons of the multiple sites within the county. Would that be available?*

Melanie: *That was our internal study. We took the criteria from the study so people could see this is what that team looked at, but we can provide a summary for the next meeting.*

Ben: *I understand the manganese production plant won't be co-located with the IROC but what about any other manganese analysis lab? Will there be any manganese at the IROC?*

Craig: There will be no manganese at the remote operating center. The building is three different things: It's the operating center; it's the offices; it's the park and ride.

Memo: *The last presentation Pat gave he mentioned that Rio Rico came out as the preferred location. Is that still the case?*

Craig: It is. Now obviously, if we can't get a piece of land we need, we would have to fall back to Nogales or something else.

Carolyn: *Related to that, but infrastructure. It's clear that the public comment has been consistently the request that that transmission line be underground. Is the company giving any consideration to that? There are view state concerns and concerns about the biodiversity in this area. Another valid concern these days is we have knowledge of multiple huge fires being started by transmission lines. We're in a very dry environment. So that's what people are speaking and asking for this transmission line to go underground. One of the chapters in my life was as the co-owner of a powerline construction company, so I know what I am asking of you in terms of cost, but there's good reasons to do that.*

Melanie: *The transmission line belongs to Unisource, and they are running that permitting process. We are paying for it but they're the entity to ask.*

Carolyn: *Very smoothly said Melanie. We'll keep knocking at that door. Ultimately, here's a fine thing to look at as we're talking about community protection and benefits agreement. Let's begin with burying the transmission line.*

Melanie: *I would imagine Unisource would have to then be a signatory. I'm just being practical.*

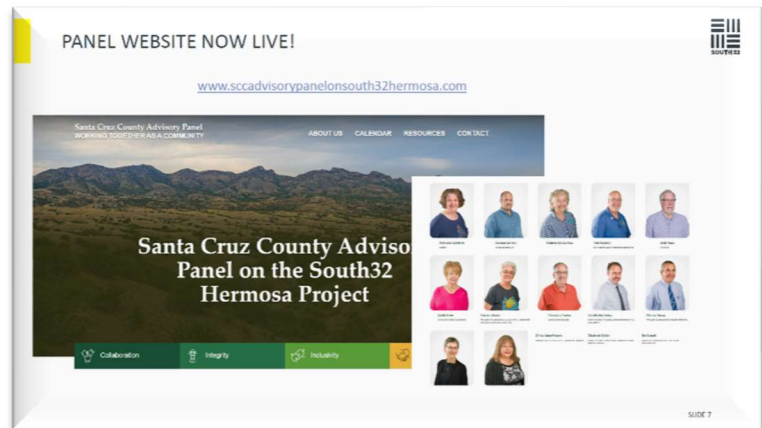
Marcelino: *Unisource will say we'll put the line wherever you want us to put it, but you'll have to pay for it. If South32 is going to pay for it then it should be your decision to say we want it underground.*

Melanie: *We're not the only user of the line. There are 100 plus people downstream in Washington Camp that will also get power from the line. From what I understand it's not fully our decision. We can maybe provide an update in November, but we are not permitting that line.*

Marcelino: *It would be nice because even the people in Washington Camp would want to have it underground. I don't think you'd find anybody in the community that would object to it being underground, especially with what you hear happening in California. We don't want to turn into that kind of disaster. Could you report on it for our next meeting?*

Melanie: *We can, yes.*

3.9. Panel Website: We have the Panel website up and active. There are still refinements needed, for instance, putting up the descriptions of the Panel members including their community. The intent is to update monthly with the minutes. Moving forward the web master is being subcontracted with Catherine so it is not controlled by South32.



3.10. Dewatering - Melanie: We have no update.

Ben: *Last time we met, all of a sudden there was recharge basins, and we don't know where they are, and how big they are, or anything. Was there a shift in secret.*

Melanie: No, it's included as part of the Mine Plan of Operations, which we expect to be available to the public in December. I plan to email it to you when it becomes available.

Ben: *Will it be too late for Panel input?*

Melanie: We received Panel input through the crowd-sourcing competition and their preference was for recharge options so six different recharge locations were proposed.

Ben: *The Panel didn't get that opportunity to look at those six alternative locations before you went to the Forest Service?*

Melanie: No.

Carolyn: *The town's Flood and Flow committee has talked with South32 for well over a year now about wanting a watershed restoration, a type of recharge. This community has experts who are consulted, from around the world, for creating watershed restoration, and that's what we want. Perhaps this can be one of the updates at the Flood and Flow committee meeting in December after the Mine Plan of Operation is made public and we can ask for a presentation with respect to this.*

Ben: *The concern is location. Location is everything because the closer you de-water, and discharge that water to Patagonia, the higher the risks of flooding, and you get nothing back at all if it goes downstream. The farther upstream you put it, the less groundwater mound you're going to get, the less risk of flooding, and the more water that gets returned to the cone of depression.*

Carolyn: *Ben, I can see where the FAST-41 process can be an advantage, right here, right now for the situation, because both the town of Patagonia and Santa Cruz county are officially participating agents in the FAST-41 processes, so it's not like the old system where the public wouldn't have its comment until two years from now. Actually, we wouldn't be seeing it in December. If in December it is in fact public, both the town and the county as participating agents can have that feedback on what they want in that, and that's where we are going to need to be able to speak up.*

Ben: *Right, and I think it would behoove both sides, including the mine and the public, the affected communities, to know where these things are going and have a say in where they are going, so they can take into account the watershed studies, the groundwater modeling studies, and work within those scientifically based frameworks.*

4. Community/Panel Updates:

4.1. FOSCR – Ben: As an update for the Friends of the Santa Cruz River, we have our board meeting tonight. We are still looking for a treasurer. And now our grant writer retired, and we're in need of an IT type person to help us with a website. I'm Chair of the Southeast Arizona Citizens Forum for the International Boundary and Water Commission (IBWC). We're meeting on the 26th in Douglas because we alternate the sites. We have several new people on the board from Nogales, Rio Rico, and Tubac because every two years everybody must reapply, and some people don't, and some new ones do.

4.2. Town Flood & Flow Committee – Carolyn: So you feel at home Craig, this accent I have is New Jersey. And you can take the girl out of Jersey, but you never take Jersey out of the girl. Last month you heard both the August and September updates. We don't meet this month until tomorrow because we changed the date, but I can give you an update with respect to the Cross Creek connector, the county and South 32. We're going to provide the Flood and Flow committee with the floodplain permit applications. It must have been forgotten because that didn't happen but when we brought it to the county's attention, they have now provided us with both phase one and phase two applications. The town didn't even know there was phase one and phase two until that road presentation. But we have those now and that will probably be mentioned at tomorrow's meeting.

4.3. Patagonia Area Resource Alliance (PARA) – Carolyn: With respect to PARA, you have our updates on the two state permits the Aquifer Protection Permit. Yes, the court denied our appeal. We are reviewing our legal options at this time. With respect to the Arizona Pollutant Discharge Elimination System permit we are in the process of waiting for another iteration of a renewal permit to be issued by ADEQ. In July, PARA had sent a letter to EPA asking EPA to exercise its oversight authority over ADEQ under the Clean Water Act. Many other local organizations also wrote a letter to the EPA. The town of Patagonia has now sent its letter to EPA. I'm not sure what the county will send a letter or not. But what the county did do had the water quality director Trevor Bashir at a recent meeting to do a presentation on the work that they were doing. So that one is still in process. And we do know that the EPA is working directly with ADEQ on a regular basis now. And we know that because billable time records are public information and there's a whole bunch of billable time records about talking with EPA. It will be interesting to see what happens with that renewal permit. As far as the Forest Service, exploratory drilling, the lower court did not give the injunction stopping the action until the case is heard. The case might be heard in December or January. But there is another injunction before the Ninth District Court to stop the work that's happening up there. Last time I was up there I only saw some flagging at the South32 Flux site. And there were two drill rigs already moved by Barksdale up onto Sunnyside. And just so you people in Nogales know this Barksdale is taking water from Nogales to operate the site. The city is selling them water.

And finally, I'll do a commercial. Okay, we know this is hard work and we're really doing a good job. PARA is having a party, October 28. It's a masquerade party with live music and bunches of fun auction items. Help us pay for the lawyers. Thank you.

4.4 Sky Island Tourism Association – Linda: We had the Sky Island Artisan Market last weekend (October 14). South32 was one of the sponsors. We estimate there were 12,000 - 15,000 people in town spending money and having a fabulous time. Another reason we need to all work together to protect what it is we have here.

5. Standing Topics:

5.1. Community Protection and Benefits Agreement (CPBA) Working Group – Damian: This topic was covered thoroughly by Dean Slocum during his presentation today.

5.2. Q&A Document – Catherine: It is a work in progress. We are balancing the timing for the technical review and approval by South32 and ease of accessibility for Panel Viewing.

Gerry: I suggest that you convert the questions into a database. Use Microsoft Access or something, but if you've grown to the point where an Excel spreadsheet just doesn't work, you put them into a database. You can categorize the questions by subject matter. You can search it by subject matter. You can say, I want to know about dewatering, and all the questions that were classified as dewatering questions come up and you can look at those. It makes it very easy to find your information.

6. Other Topics:

6.1 Presentation to Board of Supervisors – Catherine: I did a portion of the Panel presentation via Zoom on October 17, but the Board of Supervisors requested that I present in person on November 14. The written document is being converted to a PowerPoint presentation. Members of the Panel are invited to be part of the presentation if they are present at the meeting.

6.2 Mine Tour – Melanie: For the past two years prior to the November board meeting, we've offered a mine tour for the Panel Members prior to the Panel Meeting. This would be November 15. If that is of interest to you, please let me know.

7. Upcoming Meetings

- November: Location TBD, 12:00 to 2:00 pm – The topic is Manganese.
- December: No meeting.

8. Wrap-Up – Final Comments - Catherine: None. Meeting adjourned at 2:00 pm.

5 Attachments:

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



Hermosa Community Protection and Benefits Agreement

South32

October 2023

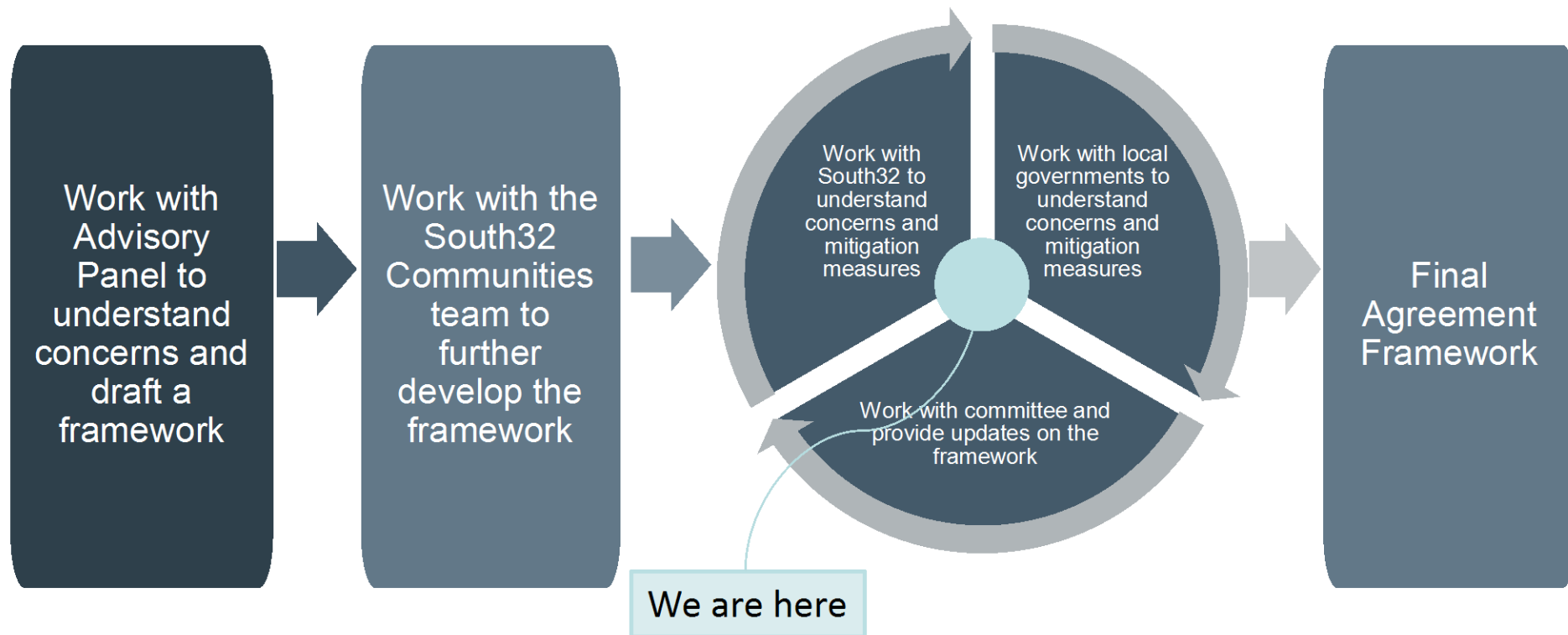
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Acorn
INTERNATIONAL
We help good companies be good neighbors

Hermosa Community Protection and Benefits Agreement Framework

Development Approach



CPBA Draft Timeline





• Questions?

SOUTH32 HERMOSA

Project Update
October 2023

ONGOING PERMITTING & SITE ACTIVITIES

1. Flux Exploration Drilling Plan (no update)

- Commencing exploration drilling (7 pads, ~1.8 acres)
- Note another company is conducting activity nearby

2. Small Tracts Act (no update)

- USFS Review

3. AZPDES Permit (no update)

- Unable to provide an update due to pending litigation

4. APP Permit

- Arizona State Superior Court ruled in favor of ADEQ's decision to issue the APP permit.

5. Site Exploration

- Continuing shaft sinking activities, civil engineering & earthwork to support Mn exploration decline development

6. Off Site Projects

- CCC Construction
 - > Finalizing phase 1, phase 3 will include TTT, target project completion date is June 2024
- 9001 Bridge
 - > Public detour in place (working on a plan for Spirit 100 event)
 - > Target project completion date is March 2024

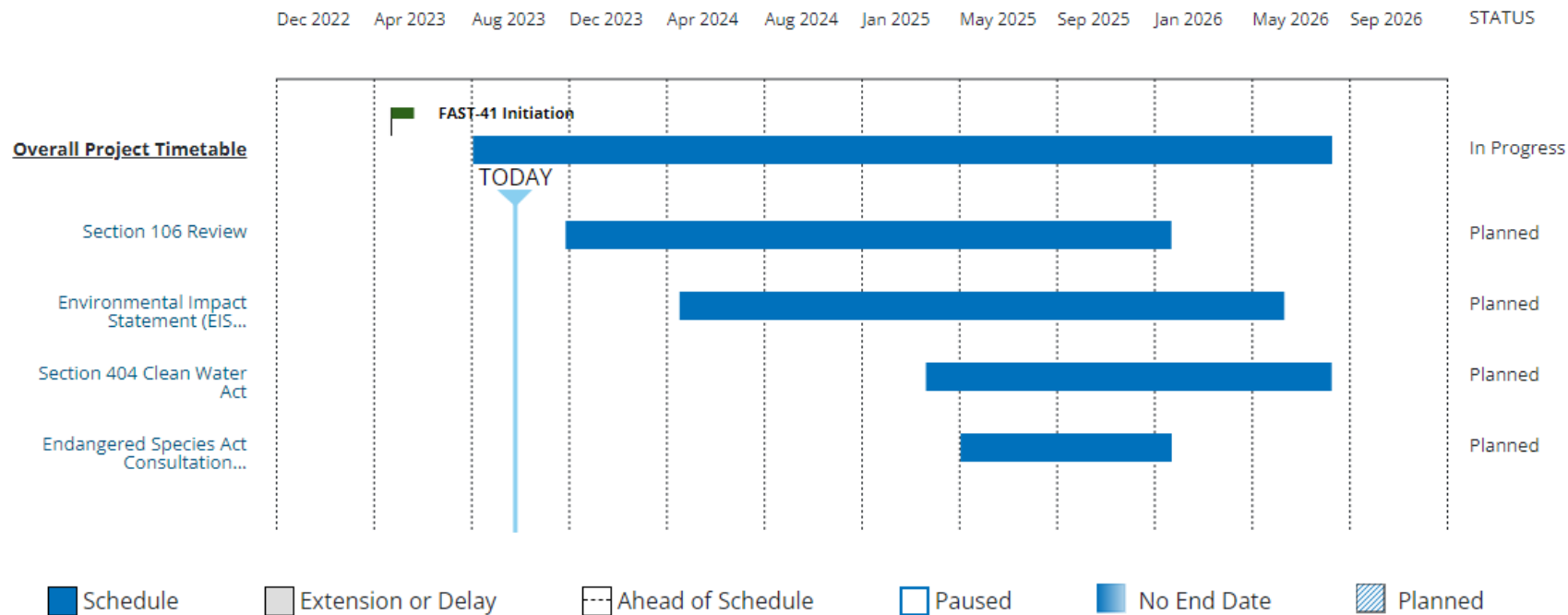
FAST-41: PERMITTING COUNCIL AND DASHBOARD

- [South32 Hermosa Critical Minerals Project | Permitting Dashboard \(performance.gov\)](#)
- Mine Plan of Operations (MPO) submitted to U.S. Forest Service in August.
- No update since September meeting

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.

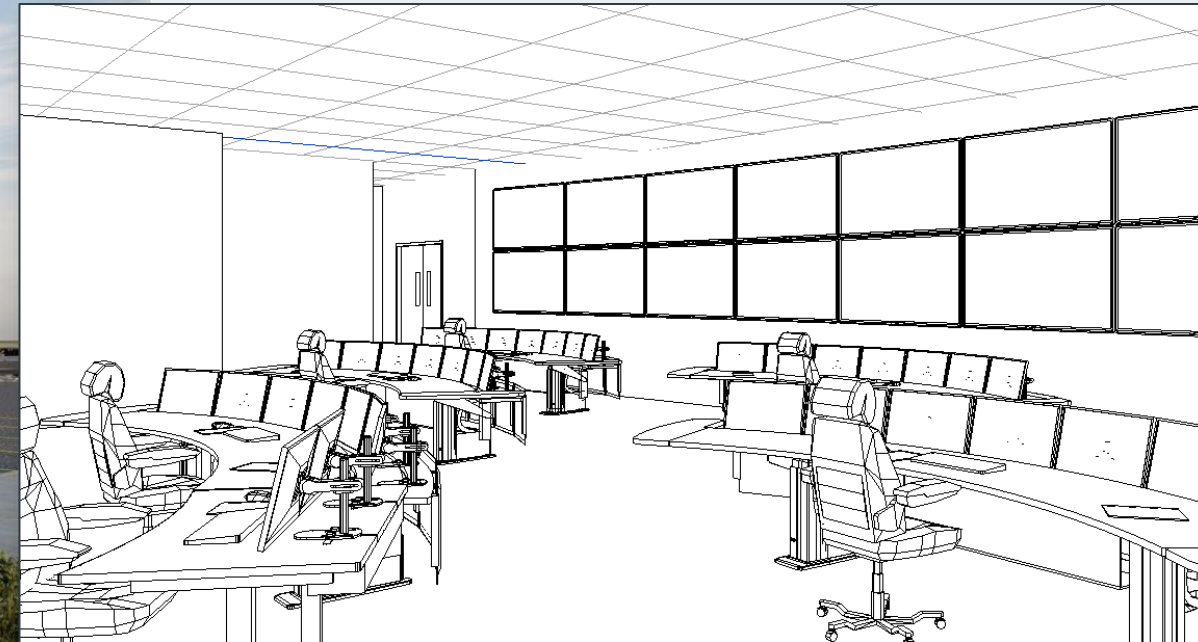


OPERATIONS CENTER

NOT located with the Manganese production facility

~5 acres total (office building and park and ride)

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.



OPERATIONS CENTER

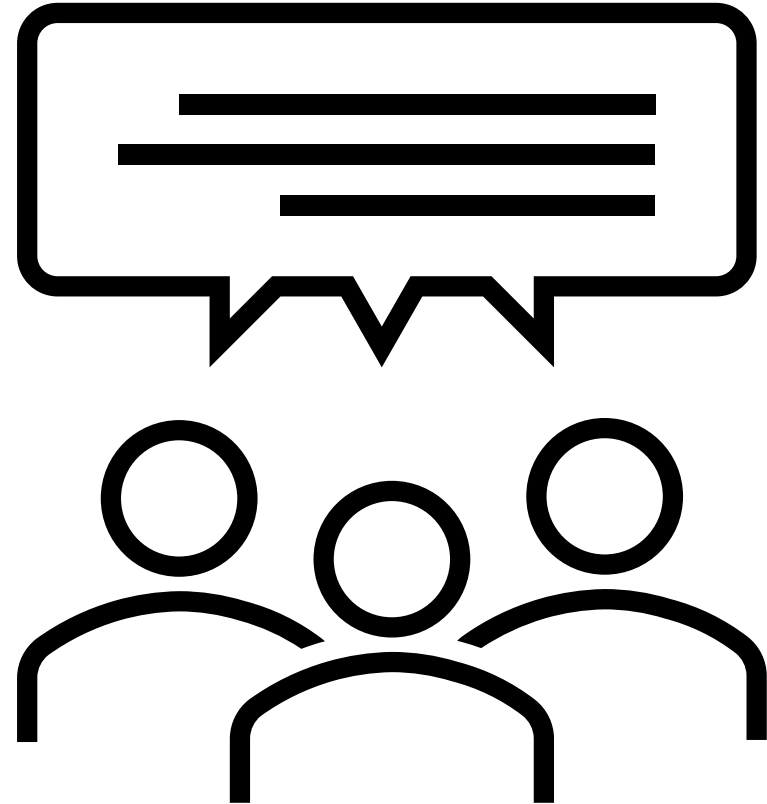
Finding the best location for a remote operating center



Theme	Criteria
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	Workforce capacity and availability
	Attractiveness of area to live
Utilities & Connectivity	Telecom infrastructure availability and capacity
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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

DISCUSSION & FEEDBACK

- Questions about what the facility is or is not?
- Additional feedback?



PANEL WEBSITE NOW LIVE!



www.sccadvisorypanelonsouth32hermosa.com

Santa Cruz County Advisory Panel
WORKING TOGETHER AS A COMMUNITY

ABOUT US CALENDAR RESOURCES CONTACT

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Collaboration Integrity Inclusivity



**INFORMATION for the Santa Cruz County Advisory Panel on Hermosa Project
Presented by Panelist Carolyn Shafer as a PARA Board Member
October 18, 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 third 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. The Court denied PARA’s Appeal. PARA’s is reviewing available options.

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.
- 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." Specifically “. . . ADEQ has inaccurately concluded that the Hermosa Project is a continuation of an “existing mine” under the CWA. However, the Hermosa Project represents an entirely new industrial mine and South32’s current and planned mining activities at the Hermosa Project meet the definition of “new source” or “new sources” [40 C.F.R. § 122.2 and 40 C.F.R. § 122.29(b)] under the Clean Water Act and as such, are subject to all new source performance standards and the requirement that ADEQ complete all Total Maximum Daily Load (TMDL) studies for Alum Gulch and Harshaw Creek, and perform the corresponding wasteload allocations for these impaired waters prior to issuing the AZPDES Permit to South32 (if at all).”
- On Sept 19, the Santa Cruz County Board of Supervisors (BOS) discussed sending a letter to the EPA to exercise its oversight authority of ADEQ to ensure that ADEQ fully complies with its obligations under the Clean Water Act. The BOS directed the County Manager to invite ADEQ Water Quality Director Trevor Baggio to a study session on this issue. That study session happened as the BOS October 3 meeting. Here is a [link for a recording](#) of that meeting; the first 45 minutes are Public Comments mostly about South32’s activities. The ADEQ presentation begins at 1:09:19 and lasts about 35 minutes.
- On Oct 11, the Town of Patagonia Council voted to send a letter (attached) to the EPA to request that the federal agency exercise its oversight authority of ADEQ to ensure that ADEQ fully complies with its obligations under the Clean Water Act.
- PARA is waiting for ADEQ to issue another renewal permit. The agency has a timeframe within which to do so and we know that the statutory review has been extended several times by the agency. Currently, ADEQ has until November 14 to complete a substantive review of the proposed permit.

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. The court denied the Plaintiff’s Motion for Injunction. Plaintiffs have filed a Notice of Appeal and an Emergency Motion for Injunction with the U.S. Ninth District Court.

**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
October 18, 2023**

The [Town of Patagonia “Sonoita Creek Flood & Flow Committee”](#) (“F&F”) which conducts (currently via Zoom) monthly public meetings the **third Thursday of each month at 10 a.m. (change in day of the month)**.

CURRENT PROJECTS

Last month's updates included Flood & Flow Committee activities for August and September. There is no update this month as changing the meeting day means that the Committee will be meeting after the monthly Advisory Panel meeting. Next month's report will reflect October Committee activity.

The next Committee meeting is scheduled for October 19, 2023.