

Agenda

Santa Cruz County Advisory Panel Meeting May 17, 2023

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	Welcome		Catherine
12:05 5 min	April Minutes	Approve	Catherine
12:10 45 min	Project Updates <ul style="list-style-type: none"> • Ongoing Permitting and Site Activity • Fast-41 Update • Water/Dewatering Options • Additional timely updates 	Share information, Q & A	South32
12:55 15 min	Community Group Updates <ul style="list-style-type: none"> • PARA • Town of Patagonia Flood and Flow Committee 	Share information, Q & A	Panel Members
1:10 30 min	Standing Topics: <ul style="list-style-type: none"> • GNA • Q&A Document 	Share information, Q & A	Catherine Panel Members South32
1:40 10 min	June Meeting Agenda: <ul style="list-style-type: none"> • Panel Requests for June Topics • Verify location (Nogales) 	Discussion/Decision	Catherine
1:50 10 min	Wrap Up	Identify/Confirm next steps	Catherine
2:00	End		All



Meeting Minutes
Santa Cruz County Advisory Council
May 17, 2023
Wild Horse Restaurant, 309 McKown Avenue, Patagonia Arizona

1. Meeting called to order at 12:00 pm - Catherine.

2. Meeting Minutes - Catherine
April Minutes: Moved/Second/Passed.

3. Project Updates – South32
Melanie: As part of our project update, we have a few of the technical experts here to present for you.

3.1. Site Activity and Ongoing Permits

3.3.1 Clark Site Activity – Andy: The picture you see here is battery grade manganese product from the Clark deposit up the road. It is a cost-effective way to provide electric vehicle batteries. We're advancing discussions with multiple companies around battery development options for electric vehicles that span from Ontario, Canada through the US. This includes the old manufacturing centers of Detroit and Cleveland, down through the Mississippi River into Louisiana, west into the greater Phoenix area – Casa Grande – and northwest into western Nevada.

We've signed a Memorandum of Understanding for the future potential supply of battery grade manganese. This allows us to work together cooperatively on what the specifications need to look like such as the volumes they'd be interested in. The lab we're using is based in Vancouver. We've sent ore samples from Clark to Vancouver for them to test and make sure that we can make a product that meets the specification that these manufacturers need. If that's successful, there's an opportunity that we will be exploring for a demonstration plant which would be of a larger scale but not commercial scale.

The process we use to recover the battery grade manganese is hydrometallurgy, which is a complex process. You need to take steps to do metallurgical test work; do a pilot plant test; then scale it up to a demonstration plant before you would ever consider going fully commercial. And as part of this, we have the potential to develop decline access to do further exploration from underground and access the ore body itself to gather more bulk material to continue the test work. So that's the update on Clark.

Fritz: *This decline, you're talking about from underground?*

Andy: It's a decline. It is in one of the valleys that provides access towards the Clark deposit. The decline can access about 3,000 feet in to allow for exploration drilling to further define the deposit.

Attendance:

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

South32 Hermosa:
Melanie Lawson, Matt Novak, Stephanie Moreno, Tomas Goode, Victor Cock, Brent Musselwhite, Andy Thompson

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

Panel Members Absent:
Carolyn Shafer, Chris Young

Consultants/Guests/Visitors:
Ernie Edwards, Lynn Isaac, David Krest, Laurie, Monti, Lauree Neonite, Barb Saulsby, Stephanie Smith, Joni Stellas, Mary Tolena

MANGANESE DEVELOPMENT UPDATE

- Confirmed the opportunity to supply battery-grade manganese into rapidly growing North American markets
- Discussions advancing with multiple companies with planned electric vehicle battery manufacturing facilities in the US for the potential supply of Manganese
- Signed first memorandum of understanding (MOU) for the future, potential supply of battery-grade Manganese to a customer
- Pilot plant production of battery-grade Manganese progressing
- Demonstration plant at larger scale following pilot plant testing
- Potential to develop decline to access the deposit underground later in 2023



Battery grade Manganese product from Hermosa

3.1.2 Taylor Site Activity – Andy:

On Taylor, you may have seen it in the social media releases. We have started the work to begin the excavations for the exploration shafts for the ventilation in the main shaft. We are nearing construction on the completion on Water Treatment Plant 2 and the dewatering wells to feed that.

3.1.3 Ongoing Permits – Brent:

I look after the environment and permitting for South32. This is an update on where we are on some of the permitting initiatives:

3.1.3.1 Flux Drilling Plan: Many of you may know that we have an exploration drilling plan proposal in Flux Canyon. That is for a small exploration drilling program (about 1.8 acres of unpatented claims near the historic Flux mine). That's still being reviewed by the Forest Service.

3.1.3.2 The Small Tracks Act: This is the conveyance of ownership of smaller parcels of land to connect our patent claims together on the north side of Harshaw. That proposal has been in the Forest Service for a while and it's still under review, so no decision yet on that.

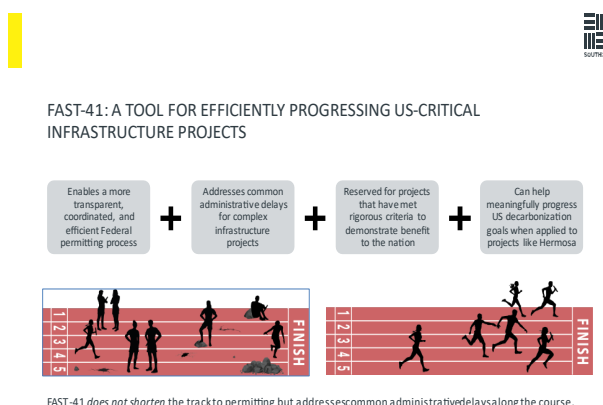
3.1.3.3 The AZPDES (Arizona Pollutant Discharge Elimination System): This is a surface water discharge permit. We sent a renewal permit to ADEQ last July. The permit was renewed by ADEQ, and the decision was appealed by PARA. The Water Quality Appeals Board (WQAB) granted South32 a motion to intervene and referred the rest of the case to the Office of Administrative Hearings to hear the case on June 12.

3.1.3.4 The APP (Aquifer Protection Permit): This is a ground water permit that has been appealed by PARA. There were two separate filings with the court, one was a motion to stay the decision and then the second was the appeal itself. On the motion to stay, that was denied by the court and the underlying motion or the underlying appeal is still yet to be heard. We don't know if it will be sometime this summer when they'll hear that.

3.1.3.5 Air Quality Permit: This was submitted in October 2022. The AZDEQ (Arizona Department of Environmental Quality) is still going through the technical review phase of that application. Once that's complete, the permit will come out in draft and there'll be public notice of the opportunity for the public to review and comment on it.

3.2. FAST-41 – Brent: FAST-41 (Fixing America's Surface Transportation) is from the Title 41 Act enacted during the Obama administration and is a program to help infrastructure projects go through the permitting phase more efficiently to completion.

FAST-41 is a program that develops more transparency and oversight, and it helps remove some of the administrative delays that occur and therefore it allows decisions to be made more quickly. What it doesn't do is undercut the process. It doesn't change the Natural Environmental Permitting Act (NEPA), or any of the federal laws or programs or any of the steps that must be covered.



FAST-41 does not shorten the track to permitting but addresses common administrative delays along the course.

FAST-41 is administered by the Permitting Council. The Permitting Council consists of 13 different federal agencies and members tend to be at the Deputy Secretary level, or higher. They don't authorize a project, but once accepted into the program they make resources available. A dashboard has been developed for the South32-Hermosa critical minerals project which will be available to the public.

The Permitting Dashboard

FAST-41 covered projects are entitled to comprehensive permitting timetables and transparent, collaborative management of those timetables on the Federal Permitting Dashboard.



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Questions/Answers/Comments:

Ruth Ann: Does the dashboard have information yet?

Brent: Not yet. There are 18 different sectors or types of projects that can be covered under

FAST-41. Mining is one of those sectors and Hermosa is the first mining project to be covered under FAST-41.

This is a media release that Christine Harada sent out. She's the executive director of the Permitting Council. This highlights that in her view the South32 Hermosa project is well situated and suited to be a FAST-41 project.

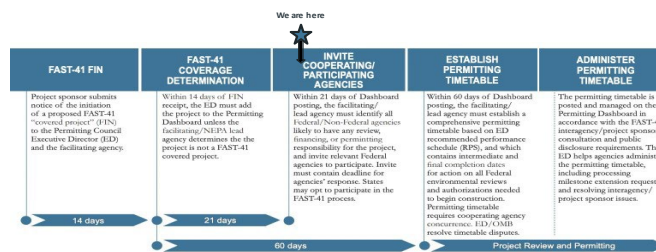


This is the process:

- Milestone 1: FAST-41 Initiation Notice, or FIN, is submitted.
- Milestone 2: This is a 14-Day period where the Permitting Council reviews the FIN, and then determines whether it will be a covered project or not. This is in coordination with the lead federal agency, which is the US Forest Service, that will oversee permitting of the project. The dashboard is set up on the website. We completed these two milestones.

• Milestone 3: Within 21 days of the project being published on the dashboard, the lead federal agency must name and invite what they call the cooperating agencies. These are agencies that might have a role in either doing analysis of the permit or deciding. It can be federal agencies, state agencies, and/or tribal entities that could supply information about the decision-making process.

NEXT STEPS FOR HERMOSA



South32 is committed to working closely with the lead agency, all cooperating agencies, Native American tribes, and Santa Cruz County stakeholders to bring this project into operation in a way that benefits the community, minimizes impact on the environment, and creates new opportunities across the region.

SLIDE 7

- Milestone 4: Once that's complete, the next step is developing a coordinated project plan that establishes the steps and the permitting timelines. That has yet to be determined. Based on Christine Harada's press release, she expects the plan and the timing to be out by July 5. Once that decision is made then it will be posted.

All the traditional steps of NEPA will be followed. Public input during scoping meetings; development of a draft EIS with public input; the final EIS and draft Record of Decision with input from the public; and then a final decision.

Questions/Answers/Comments:

Ruth Ann: *From what I read about the different articles about the fast-track process, it said that it cuts the timeline in half. If it is going to cut it in half does that mean that the transportation along Cross Creek to Sonoita and then up to Tucson is still going to last 10 years? Or does that mean the timeline would now be five years? Will the whole process be fast tracked?*

Brent: I would just caution that we don't know what the timeline is yet. FAST-41 is the enhanced coordination that is meant to facilitate a somewhat faster timeline. But, yes in concept, it would allow the approvals process to be done more efficiently. When the approvals process is complete, that allows us to implement things like the alternative access to the mine.

Ruth Ann: *So that would start even earlier than before? It always has been that the permitting takes 10 years, or whatever, to get the Forest Service to approve a route. Well, now that we have a fast track, does that mean they're going to sign off sooner? So therefore, you don't have to go that way to Sonoita then up to Tucson and you can go the route near Flux Canyon?*

Brent: When the decision is made, then it will allow us to construct an alternative route. I can't comment on how because you must wait for the permit.

Linda: *Would you send copies of your slides to us?*

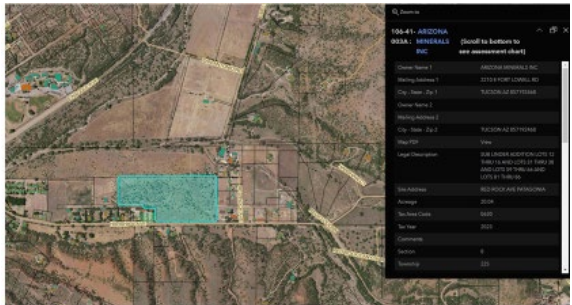
Brent: Yes. Also, the Federal Permitting Council website has lots of information about the program steps and other things that might be helpful as well.

Melanie: All the projects listed under Fast-41 are in alphabetical order. The list is under South32 on the website.

Linda: *What was the date it was posted on the dashboard?*

Brent: It was authorized on the same day it was posted, which was May 5.

3.3. Pollinator Garden Project – Melanie: I want to provide an update about a project that



we're working on closely with members of Brent's team on what's known more commonly as the Ensign lot here in town. We are developing an open space with plans to plant some plant species to specifically attract pollinators. It will also have an outdoor trail and provide a community space for recreation. We are working on this plan now and we will share more as it develops.

This is an illustrative drawing to show the community space for outdoor enjoyment with a sitting area. Right behind our property (at the tree line) is the Nature Conservancy property, which is a flat, open space as well. We will do earthwork and for irrigation we're looking at passive water harvesting. We will also look to have some interpretive signage to highlight various native plants and species that are in the area. There is an opportunity to partner with other organizations if they are interested in a community garden. We'll look to do this on 15 of the 20 acres on that lot.



Questions/Answers/Comments:

Olivia: *Is this just for Patagonia? Or can you do it also in Nogales?*

Melanie: This is just for this specific South32 owned lot here in Patagonia. But we could discuss with other groups in Nogales if there is an interest.

Fritz: *So that is on Harshaw Road?*

Melanie: This is Harshaw Road, and the Park and Ride is just off to the left over here.

Fritz: *The Food Bank down here on the right?*

Melanie: Yes, the Food Bank is on the right side. We will email this out to the group. For the members of the public visiting the meeting today, we do have a new website at <https://south32hermosa.com/>. Also, this email, AskHermosa@South32.net, is an excellent way to contact us. Our office is next door. Denise and I are usually there. If we are gone, we usually have a time when we'll be coming back so if there are any questions, you're always welcome to stop in and ask in our office as well.

3.4. Water/Dewatering Options:

Melanie: The presentation on de-watering option that was given in July of 2022 was sent to the Panel in preparation for this discussion. It was part of the crowdsourcing competition we did that was framed around what you can and can't do for those types of projects. We can continue that discussion with the Panel today as a brainstorming roundtable discussion. Tomas is here to provide some input on that as well.

Tomas: While we presented options last year, we want to open that conversation up. Right now, all the water is allowed to be discharged down Harshaw Creek from Water Treatment Plant 2 with a maximum of 4,500 gallons a minute in terms of both the permitted volume as well as the physical volume that can be treated. From there, there are other options that I know have been discussed, whether that's doing recharge basins or enhanced recharge through natural channels. One of the things that's valuable about the FAST-41 program with the accelerated, or potentially accelerated timeframes, is that if this moves forward faster, we can look to alternative options for recharging in a faster way. One of the things that is a constraint for all of the activities that we would propose in terms of recharge or alternative discharge is that we're surrounded by Forest Service land. This means all the potential alternatives would need to be permitted through the Forest Service. I don't know if there were any questions or specific comments. I know Ben had asked a question before and I wanted to bring those back up in terms of discussion.

Ben: *I do have a comment because we all agree that the dewatering topic is important. I am frustrated. Here it is squeezed with four or five other topics in 45 minutes. It keeps getting put off and not dealt with.*

Melanie: Dr. Ty Ferré is doing some work and he will be coming back quarterly. We will make it a standing monthly topic, but we might not have a substantive update every month.

Linda: *Is Ty evaluating the options?*

Tomas: In terms of Dr. Ferré's role in this process, he will be evaluating the investigations that we have carried out. And he's not doing any additional recharge work or investigating specific items.

Linda: *Are you all doing that now?*

Tomas: We're evaluating several options right with regard to discharge into Harshaw Creek. But until we have something submitted to the Forest Service, over the next months and years of that process, there's really nothing more for us to be able to present here in terms of those options.

Ben: *I remember asking you why we couldn't use pipe or hose lays to change the discharge point from Harshaw Creek to upstream at the same elevation. You wouldn't*

need to pump it, it would be gravity flow. And you said, no, it'd be a lot of permitting from the Forest Service. Well, that's assuming you're going to run over the mountains. But look, they're getting cable in here for data along the ADOT right of way. I don't see why you can't use the ADOT right of way to let this water go upstream where it wouldn't hit the town all of a sudden like it is going to when you let it down Harshaw Creek, which is immediately above Patagonia that has the potential of flooding us out. And then it's all gone after 20, 40 50 years and then you're going to have a huge cone of depression as we saw in Ty's presentation of the Newfields information. To me, it seems like the right thing to do, especially now with FAST-41

Tomas: So that's an excellent idea. And I don't disagree with it, and it is something that we have considered and could consider in the future. But as I said before, all that work would be going on Forest Service land and required to go through the permitting process. My answer hasn't changed,

Ben: *Why don't you start by letting the modeler model that discharge point upstream and you'll see how most of that comes back. And it's not hitting us all at once.*

Linda: *Is Ty going to be here in June or July?*

Melanie: It will be in July. He is currently traveling.

Ruth Ann: *My guess is that it is a possibility that in July when Ty comes back, we can ask for things to be modeled for us and have that discussion.*

Tomas: I would assume you can have the discussion. That's outside of my purview. At this point in time, we have not released any modeling beyond what Ty has reviewed thus far with you. And so, in terms of being able to influence updates to the model in the future. All the things that Ben just mentioned, all those things can be simulated in the numerical model to evaluate the potential impacts associated with it.

Ben: *But you have the authority in South32. Let's start modeling it.*

Tomas: Currently, we have not presented that to the group here. It's not that those things haven't been modeled. It's just that all of those pieces haven't been presented.

Ben: *And so, there's the analogy of the "don't worry, little girl". I'm getting really concerned with what's going on in this Panel. I agreed to be on this Panel to make sure we follow scientific integrity. And that little girl video is not scientific integrity because you cannot compare an event of a flood to a continuous accumulating condition of groundwater mounding. And what that would do in the de-watering in the first few years to the town here with flooding and what it will do in the long term with a cone of depression where everything could dry up and that's what the model shows so far. I hope you are taking good minutes because a lot of this stuff gets left out almost on purpose.*

Melanie: I don't think it's left out on purpose, and I appreciate the work Joanne and Catherine have done to set the Panel agendas and do the minutes. I think the video is backed up by a study which is also publicly available.

Thomas: To address the scientific integrity of all the things we're doing, let's step back to the presentation that Ty gave a couple of months ago. One of the things provided to Dr. Ferre was all the information that goes into the conceptual groundwater model. Ty said all of this looks exactly how he would provide this information. It is information that is meeting scientific integrity.

Ben: *I wasn't talking about Dr Ty's presentation or Newfield's modeling. I was talking about your video on Don't Worry a Little Girl where you compare flooding to a pickup load of soda cans. Duration is important in science. And you're not considering that when you just say 10 CFS of discharge that is continual for 20 to 50 years to a flood event that lasts a few hours, how is that science?*

Tomas: While that video does summarize and simplify the process, it was based on the modeling that was done in concert with the Town of Patagonia. All that information is available in detail in the reports for the Town of Patagonia. I would encourage all of you to look at these reports.

Melanie: The Clear Creek study is available to the public on the town's website and on the Hermosa website. [Note: this is the link to the study: [Clear Creek & Associates Evaluation of Planned Discharges to Harshaw Creek - South32 Hermosa](#)]

Fritz: *I think there's a little bit of frustration on how this stuff is coming out. We already know that you are working on the feasibility study in the next couple of months with an idea of what you are going to be doing for de-watering. I know you must be careful. But it just seems like it is a slow process.*

Tomas: It is slow.

Ben: *We are waiting on Ty and our questions on the spreadsheet have not been answered.*

Tomas: The spreadsheet has had responses for some time.

Melanie: The Q&A document has responses to earlier questions. There were additional questions that were asked. I have answers to those questions. They're currently under legal review, and once approved, will be shared with the panel. Everything requires layers of review, especially when there are members of the panel who are in litigation with South32.

Tomas: I understand the frustration of this process. As we have information that we can provide to the community we provide it, whether that's water quality information, or whether that is seeps and springs studies. In terms of some of the modeling looking at future casting, that's not available to the public right now. As we move through the FAST-41 process more and more of that information will be available to the public.

Ruth Ann: *Here's one of the options. I remember Carolyn continually asked about this groundwater study that needs to be done to figure out what shape the groundwater is in. Is that one of the things that you're studying?*

Tomas: In part, your question is answered by some of the information that was provided by Ty a couple of months ago. And you probably saw some of that in a presentation I gave about a year before that. The information that we're collecting from the region is associated with groundwater elevations and water quality information we're collecting both from wells, as well as seeps and springs. All that information is going into our understanding of the groundwater system. And that's the information that Ty reviewed and provided insight to you a couple of months ago. That is a groundwater study.

Linda: *You're doing a full complete groundwater study?*

Tomas: Yes.

Linda: *If you are doing that already why does Carolyn keep asking that?*

Tomas: I can't really speak for Carolyn, but I believe it is because the request is for the Forest Service to conduct their own groundwater study independent of South32.

Ruth Ann: *Are you going to fund this for the Forest Service?*

Melanie: I think some of it, too, is the request for it to be turned over to the public. As Tomas said, as we go through the process, pieces of it will be turned over to the public. Parts of it right now are being reviewed by Ty.

Linda: *It will eventually be public so it can be included in the Good Neighbor agreement?*

4. Community Updates – Panel Members:

4.1 Monitoring Program: Ruth Ann: *I have a question, but I don't know where it fits in. During an interview with Pat Reisner, he mentioned that South32 has a robust biological monitoring program that has been going on at Hermosa for more than a decade. What is this program?*

Melanie: We have data that goes back to 2012, sometimes even earlier. These surveys are done annually so that we can measure if there's any change in certain vulnerable species of animals, birds, and plants.

Ruth Ann: *We never talked about that. Is this data recorded and available?*

Melanie: We provide the information we collect to different agencies. They don't necessarily want it to be public because people will want to go and see, which can influence the habitat. We give it to the agency and the agency can decide what portions, if any, they would like to be public.

5. Standing Topics

5.1 Good Neighbor Agreement Working Group – Damian

Hello everybody. During our May 1 Working Group meeting, we came up with a different approach. We are now approaching this in two phases:

- Phase 1 will focus on completing the groundwork so that a legally binding GNA can be developed for the signatories. We decided that Acorn International would be an excellent choice to support the Working Group because they have a lot of experience in the mining sector working globally plus, they have awareness of this project. They are available and have agreed to work with us. They will propose the scope of work with the schedule at the next regularly scheduled monthly meeting on June 1.
- Phase 2 is the actual drafting of the agreement by the signatories after we provide them with the recommendations we've developed. The Panel is not a signatory but will stay involved.

Questions/Answers/Discussion:

Fritz: *I thought we were going to bring in somebody to do a zoom meeting who has done a GNA.*

Damian: Yes, that is still on the table. As we get started on Phase 1 with Acorn International, they will identify analogues that we can learn from and look at what has worked and what hasn't worked.

Linda: Just to add to that, none of us in this Working Group have the bandwidth or the knowledge to call somebody at Stillwater to say, "Hi, how's the agreement going?" The point is to bring Dean and Renee back to do all of the leg work for us.

Ruth Ann: *Has there been a deadline set for the process?*

Catherine: They will be providing us with a scope of work with the schedule for review and input in on June 1, which is our regularly scheduled Working Group meeting.

Damian: Part of Phase 1 is engaging with future signatories, such as Patagonia Town manager Ron, throughout the process so they are up to speed at Phase 2. We want to vet their concerns so at the negotiating phase everyone's comfortable and the process goes smoothly. We will have updates every month to the Panel.

Linda: It'll be faster than the Forest Service.

Ruth Ann: *Well, thank you. Thank you, committee.*

5.2. Q&A Document – Melanie:

Melanie: The questions on track out which were provided to the group in the Word document at the last meeting have been added to the spreadsheet, and the water questions have been answered. Tomas, thank you for answering many of the questions.

As I mentioned earlier in the meeting, it is currently sitting with legal for review. When that is complete, I will get it out to the group as a PDF and post it to the website.

Fritz: *When? We haven't seen it in several months. So realistically, when we give you a new set of questions are we talking about a month? Six weeks? I believe it's better to know that upfront.*

Melanie: Because it is a public document, questions go through a technical review, then a leadership review and then the legal review. At this point, every time you ask a question it will take four to six weeks.

6. Meeting Agenda – Catherine, Pane Members, South32:

Panel Requests for Topics – Catherine:

Agenda input includes:

- Include Fast-41
- Track Out
- Onsite activities that impact traffic
- Traffic Study updates
- Water – alternate discharge

Panel members will have the opportunity to review the draft agenda when it is sent the Friday before the meeting.

7. Wrap-Up – Catherine:

7.1 **Follow-up:** Melanie will email the following to the Panel:

- Today's PowerPoint
- Links to the Fast-41 dashboard
- Link to the Town of Patagonia water report

7.2 Additional Comments/Questions:

7.2.1 **Ben:** *I have a comment about scientific integrity versus propaganda. All minerals are finite resources. When you say sustainable mining that's an oxymoron. I call it greenwashing.*

7.2.2 **Fritz:** *I read the Nogales International article with Pat. So, the feasibility study is strictly going to be for Taylor. And that's all underground mining, correct?*

Melanie: Correct. So, there's never going to be an open pit. All the mining at Hermosa will be underground.

Fritz: *It's going to be a different process, a flotation process, is that correct?*

Melanie: Yes.

Fritz: *Because he talked about hydrometallurgy that's what I do. Okay, so to me, you're going to be doing something else. So that means you're going to build an additional plant.*

Melanie: Yes, so for the manganese, part of scaling up a processing plant, which Andy talked about a little bit, is the need for a separate processing facility for Clark. Because of our footprint constraints, that will not be at Hermosa. That will need to be somewhere else.

Fritz: *I just want to make sure the panel understands that because you've got Taylor, which is going to be a flotation process underground. And then you've got Clark and are going for bulk sampling because you have to make sure that metallurgy and your process is up to snuff. It is a different process.*

Melanie: Yes, so that's what Andy was talking about with showing that picture of a bag that was for battery grade manganese. So that was produced at a laboratory

in Vancouver. The next steps after that are to do a demo plant, and then scale that up to a production plant.

7.2.3 Damian: *The last meeting we had an update that the Taylor feasibility study is under peer review before going to your board of directors for approval. Is there an update on the timing?*

Melanie: We originally said mid-2023. And now, that will be the second half of 2023.

Damian: *Would you all be also doing a similar feasibility study on the Clark deposit, or will it be under the umbrella of Taylor?*

Melanie: There will be a separate study for Clark. We are trying to catch the studies up with each other so that everything can be developed as one and as Hermosa. The deposits are different, but there are portions where they intersect and so all of it can be mined underground in a connected way.

7.2.4 Ruth Ann: *I'm looking at the minutes from April and we talked about doing a walkthrough with the county and the Red Rock people. Is that going to happen?*

Melanie: We're waiting for the final design approval from Santa Cruz County which will answer many questions. When we have that we will schedule the walkthrough with the county and the Red Rock neighbors. It might be early June.

7.2.5 Next Meeting: The next meeting will be held in Nogales on June 21. Lunch will be served at 11:30 a.m. to accommodate the meeting starting on time at 12:00 noon.

7.3 March Minutes Approval: The approval of the March minutes is pending Dr. Ferré's review of the notes of his presentation per the approved motion in the April 2023 minutes.

7.4 Meeting location: Meeting will be held in Nogales on June 21. Lunch will be served at 11:30, with the meeting starting promptly at 12noon.

7.5 Meeting adjourned at 1:45 p.m.

3 Attachments:

1 – PARA Update

2 – Town of Patagonia Flood & Flow Committee Update

3 – South32 Briefing Slides

Attachment 1

PARA Update



Facilitation Provided by Interfuse Associates
www.interfuseassociates.com
Catherine@interfuseassociates.com

**INFORMATION for the Santa Cruz County Advisory Panel on Hermosa Project
Presented by Panelist Carolyn Shafer as a PARA Board Member
May 17, 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:

- 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.
- PARA’s Motion to Stay: Virtual Oral Arguments on the Motion to Stay were heard on March 7. On May 8, the Judge denied the Motion to Stay including this statement: “AMI argues that a stay will have negative impacts on the company’s shareholders. It notes that it purchased the Hermosa Project for \$1.3 billion, spent over a million work hours on voluntary remediation of historic mining impacts, and has slowed down its work to fulfill its commitment to the community and stakeholders to get the Project done right. Based on the record, the COURT FINDS THAT a stay will not negatively impact ADEQ but may negatively impact AMI in its continued work with the Project.”

ARIZONA POLLUTANT DISCHARGE ELIMINATION SYSTEM (AZPDES) PERMIT:

- On March 10, ADEQ released its Decision to Renew the permit. PARA filed its Appeal on April 7.
- ADEQ offered a settlement conference which was scheduled for May 12 then cancelled that morning due to unavailability of ADEQ personnel.
- The Water Quality Appeals Board has noticed a hearing on June 12.

FAST-41 PROGRAM:

On May 8, South32 released a statement about the Hermosa Project being added to the FAST-41 program. It is PARA’s belief that the first tenet of responsible mining should be that there are some places that should not be mined. The Patagonia Mountains are part of the Sky Islands region identified by scientists as one of the top five regions in the world most in need of protection for species survival. There are more than 100 federally endangered, threatened, and sensitive species in the Patagonia Mountains. The proposed 21st century industrialized mining activity threatens to disrupt the hydrology of the mountains and cause extreme hardship, including extinction, for all the life forms that inhabit these mountains. The health and economic prosperity of our region are tied deeply to the well-being of the Patagonia Mountains and the Sonoita Creek watershed which are the source of our drinking water, clean air, and the biological wealth that drives our regional nature-based economy. There must be sufficient oversight of proposed mining activity as well as mining company accountability to the community in order to avoid short-sighted destruction of natural resources in pursuit of corporate profits.

Here are links for a number of news articles that cover this news and also provide a reaction from PARA:

[E&E News](#)
[Fox News](#)
[AZ Republic](#)

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.

Attachment 2

Town of Patagonia Flood & Flow Committee Update



Facilitation Provided by Interfuse Associates
www.interfuseassociates.com
Catherine@interfuseassociates.com

**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
May 17, 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 May 2023.

1. With respect to the Patagonia Regional Flood Control Project Feasibility Study, Chairperson and Town Engineer Bill O'Brien advises that the County, the Town, and South32 met on April 19 with respect to Phase 1 of this project. Phase 1 will be the collection of all data and the next meeting will be the end of June.
2. With respect to the flood control permit application by South32, Bob Proctor advises that South32 has released the Traffic Study. South32 has stated it will provide the floodplain permit application to the Town so that the Town can review and make comments to the County.
3. With respect to the UofAZ Water Resources Research Center's work with the Town on preparing a Drought Responsible Plan for a Water Resilient Community, Howard advised that a report is expected in June from the UofAZ Water Resources Research Council.
4. With respect to the meeting with the Coronado National Forest, Bob advised that the Coronado staff are working on a report and will advise the Town Flood & Flow Committee during the week of May 15 about next steps.
5. The updates on:
 - Comprehensive groundwater study: Chairperson Bill showed the South32 video about potential flooding and also shared the South32 slide on the cone of depression enhanced by Robert Gay to show identifying local landmarks.
 - Town of Patagonia Municipal Watershed Plan: the Town drafted Phase 1 of a plan in 2017.
 - Watershed Stakeholders Group: Howard advised that the title of this group will change based on feedback from participating organizations working to create the group. S32 hydrologist Tomas advised that S32 are monitoring the watershed.
 - Community Database of Water Studies: The Nature Conservancy, Tucson Audubon, Borderlands Restoration Network, and Friends of Sonoita Creek continue working to create a database of water studies and monitoring.
6. With respect to the School Canyon CCC structure failure, Bob reported that he and Chuck visited the site with Sierra Vista District Ranger Daisy Kinsey and another USFS person. The Forest Service is working on a solution, but there are budget issues. The information will be shared with South32.

The next Committee meeting is scheduled for June 8, 2023.

Attachment 3

South32 Hermosa Briefing Slides



Facilitation Provided by Interfuse Associates
www.interfuseassociates.com
Catherine@interfuseassociates.com

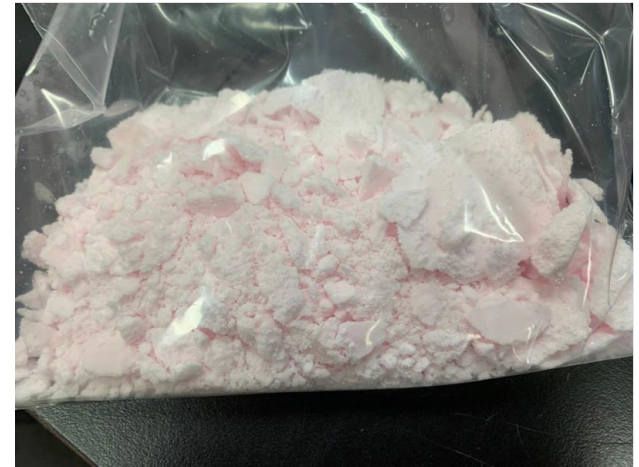


SOUTH32 HERMOSA

Project Update
May 2023

MANGANESE DEVELOPMENT UPDATE

- Confirmed the opportunity to supply battery-grade manganese into rapidly growing North American markets
- Discussions advancing with multiple companies with planned electric vehicle battery manufacturing facilities in the US for the potential supply of Manganese
- Signed first memorandum of understanding (MOU) for the future, potential supply of battery-grade Manganese to a customer
- Pilot plant production of battery-grade Manganese progressing
- Demonstration plant at larger scale following pilot plant testing
- Potential to develop decline to access the deposit underground later in 2023



Battery-grade Manganese product from Hermosa

ONGOING PERMITTING & SITE ACTIVITIES

1. Flux Exploration Drilling Plan

- USFS Review

2. Small Tracts Act

- USFS Review

3. AZPDES Permit

- Permit renewed by ADEQ – decision appealed by PARA – Water Quality Appeals Board (WQAB) granted South32 motion to intervene and referred the rest of the case to Office of Administrative Hearings (June 12)

4. APP Permit

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

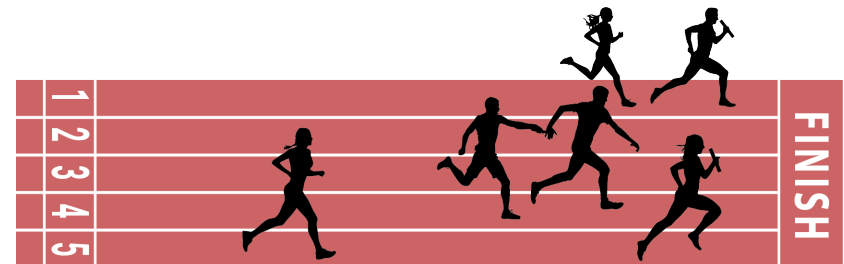
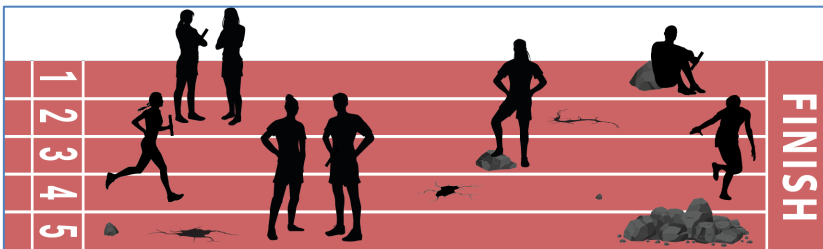
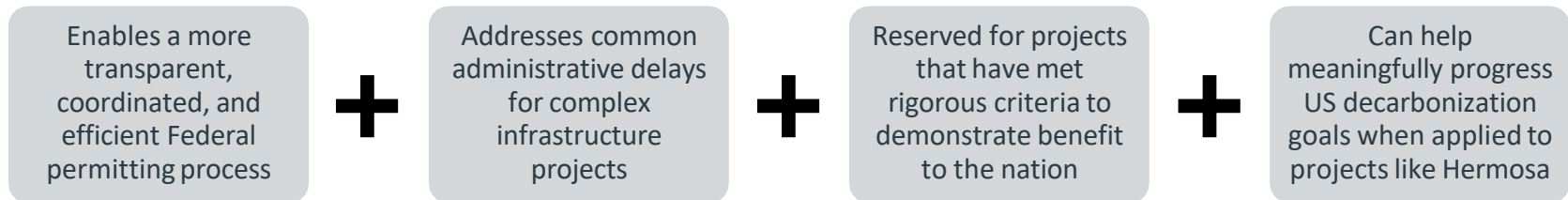
5. Site Exploration

- WTP2 completion and commissioning in June
- Pollinator garden project (off site – next slide)

6. Air Permit

- Application filed with ADEQ in October 2022

FAST-41: A TOOL FOR EFFICIENTLY PROGRESSING US-CRITICAL INFRASTRUCTURE PROJECTS



FAST-41 *does not shorten* the track to permitting but addresses common administrative delays along the course.

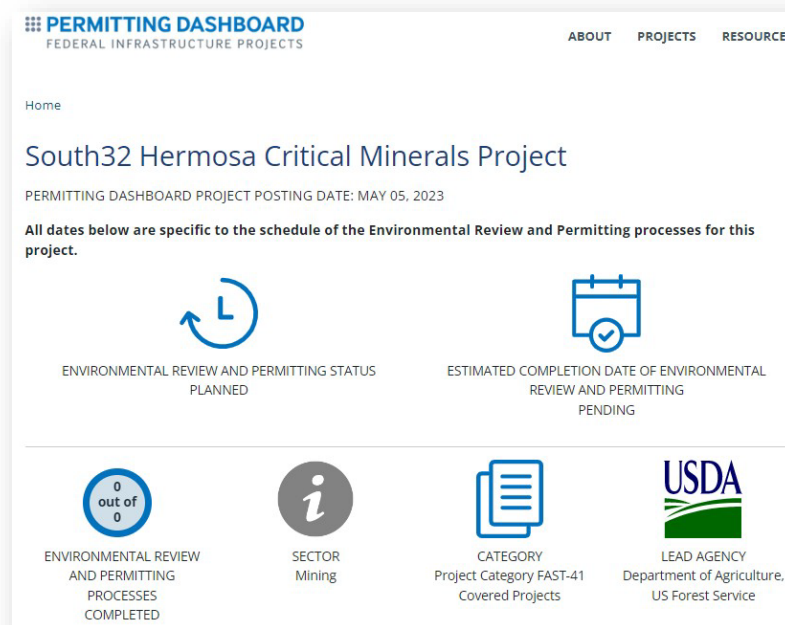
FAST-41: PERMITTING COUNCIL AND DASHBOARD

The Federal Permitting Improvement Steering Council (Permitting Council)

- Federal agency charged with improving the transparency and predictability of the Federal environmental review and authorization process for certain critical infrastructure projects.
- Created within the FAST legislation to coordinate environmental reviews and permitting activities, discuss review challenges, and share best practices.
- Consists of the 13 Federal agencies that are involved in reviewing and authorizing infrastructure projects, along with The White House.
- [South32 Hermosa Critical Minerals Project | Permitting Dashboard \(performance.gov\)](https://www.performance.gov)

The Permitting Dashboard

FAST-41 covered projects are entitled to comprehensive permitting timetables and transparent, collaborative management of those timetables on the Federal Permitting Dashboard.



PERMITTING DASHBOARD
FEDERAL INFRASTRUCTURE PROJECTS







ABOUT PROJECTS RESOURCES

Home

South32 Hermosa Critical Minerals Project

PERMITTING DASHBOARD PROJECT POSTING DATE: MAY 05, 2023

All dates below are specific to the schedule of the Environmental Review and Permitting processes for this project.

 ENVIRONMENTAL REVIEW AND PERMITTING STATUS PLANNED	 ESTIMATED COMPLETION DATE OF ENVIRONMENTAL REVIEW AND PERMITTING PENDING		
 ENVIRONMENTAL REVIEW AND PERMITTING PROCESSES COMPLETED	 SECTOR Mining	 CATEGORY Project Category FAST-41 Covered Projects	 LEAD AGENCY Department of Agriculture, US Forest Service

FAST-41: HERMOSA AND THE MINING SECTOR

- Mining is one of 18 eligible sectors, but Hermosa is the first to be covered by it.
- Complements the rigorous federal environmental review and permitting process for US mines.
- Integral to achieving energy security as supported by US critical minerals, of which Hermosa has two.

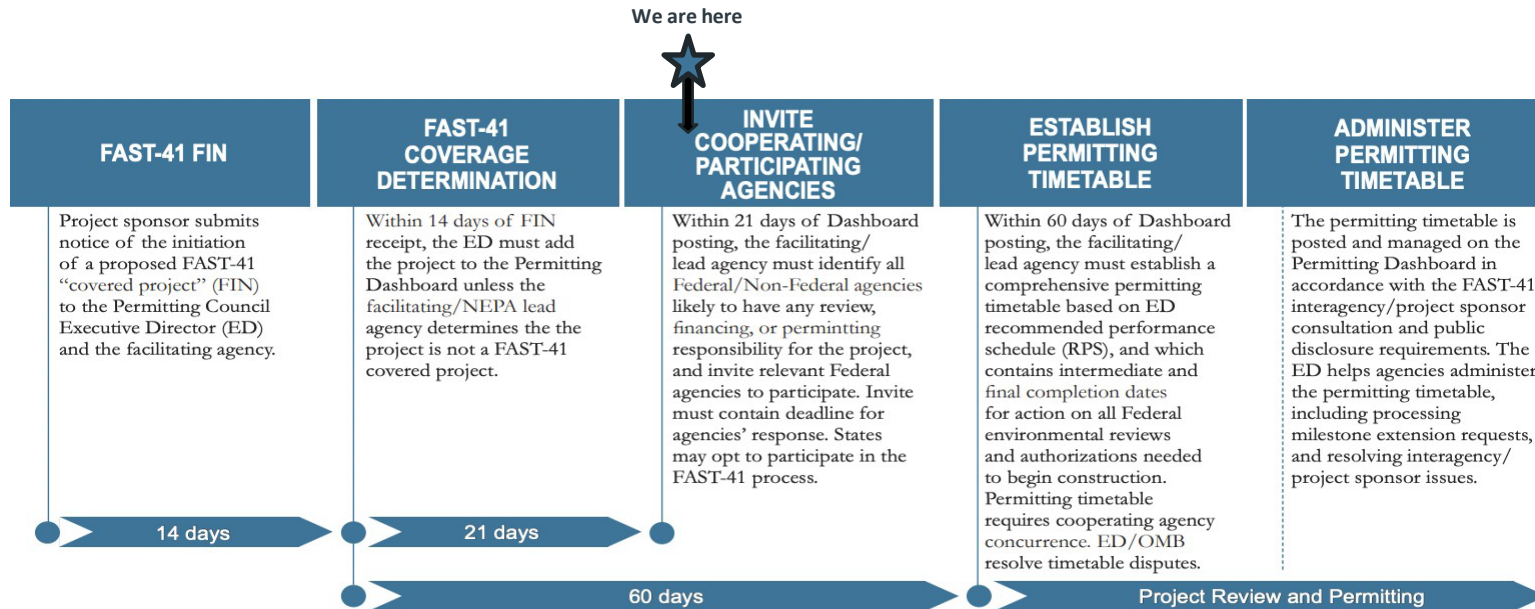
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*The Permitting Council is pleased to see the first-ever critical minerals mining project accepted for coverage under our unique program. President Biden has committed to securing a domestic supply of responsibly sourced critical minerals, and manganese is a key part of the electric vehicle and stationary storage battery supply chain. **The South32 Hermosa project is well-suited to receive the coordination, collaboration and transparency that infrastructure projects receive under the FAST-41 program, while ensuring a thorough environmental review and upholding strong environmental, labor, Tribal consultation, and community engagement standards.***

CHRISTINE HARADA, PERMITTING COUNCIL EXECUTIVE DIRECTOR

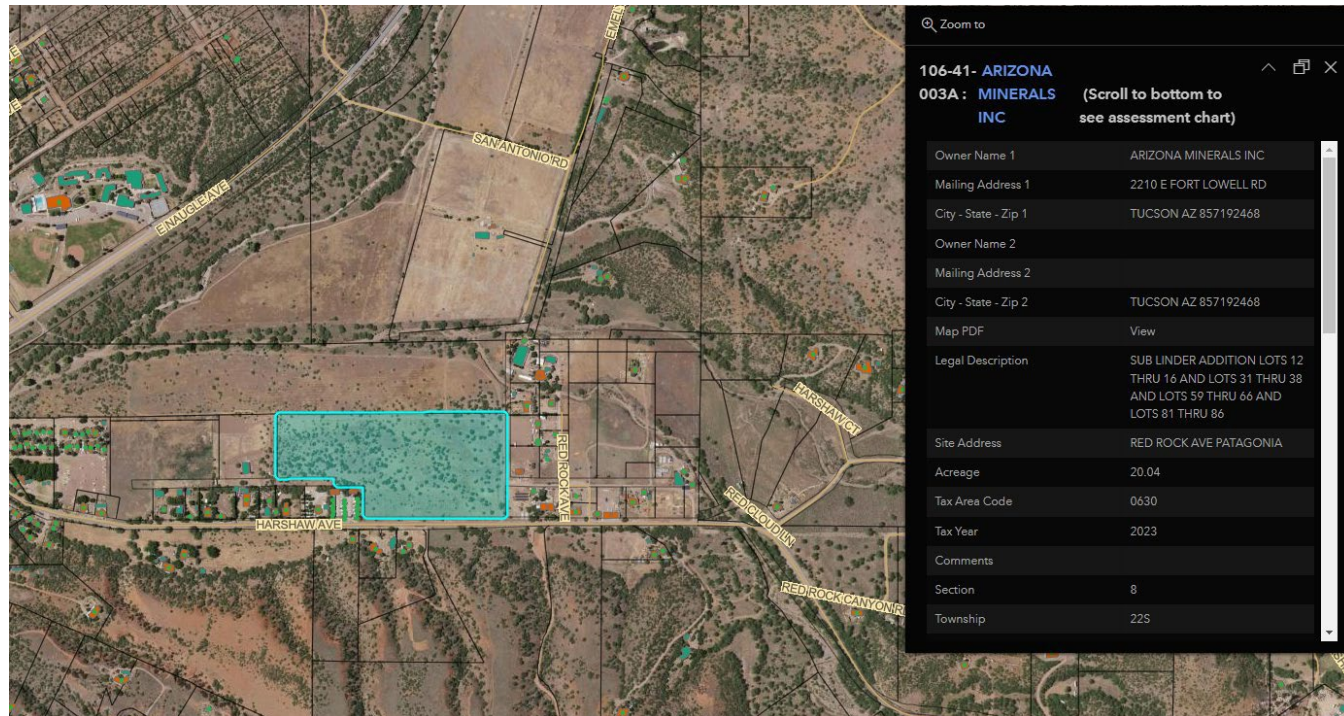


NEXT STEPS FOR HERMOSA



South32 is committed to working closely with the lead agency, all cooperating agencies, Native American tribes, and Santa Cruz County stakeholders to bring this project into operation in a way that benefits the community, minimizes impact on the environment, and creates new opportunities across the region.

POLLINATOR GARDEN – OFF SITE IN PATAGONIA



- Parcel owned by South32 – known as “Ensign parcel”
- Opportunity to develop an open space preserve for attracting pollinators and providing the community with trails for outdoor reflection.
- Create a partnership with local community group for activities, planting, and ongoing maintenance.

POLLINATOR GARDENS - CONCEPT

Interpretive opportunities:

Vistas to nearby mountains, creek, and neighboring preserve

Passive water harvesting with landforms

Trail signage highlighting various plants, animals, and insects.

Council ring – sitting area at the center of the site where trails converge for discussions.

Community garden



STAY CONNECTED WITH SOUTH32



Learn more

www.south32hermosa.com



Join us on social media

facebook.com/South32Hermosa



Sign up for the Hermosa Project News mailing list

text HERMOSA to 42828 or visit www.bit.ly/HermosaNews



Ask us anything

askhermosa@south32.net



Careers

careers.south32.net



**Santa Cruz County Advisory Panel
GNA Working Group Report
Santa Cruz County Advisory Panel Meeting - May 17, 2023**

The working group has shifted their approach to the Good Neighbor Agreement to include two phases:

- Phase 1: Complete the Groundwork
 - The task of the working group is to complete the groundwork needed for a GNA so that the appropriate government and other agencies are prepared to negotiate and complete a legally binding GNA agreement.
 - Acorn International (AI) has agreed to work with the GNA Working Group to bring their expertise and experience to develop a list of community needs, search out resources to address those needs, and determine who should be involved. The final product will be a report from the GNA Working Group with recommendations.
 - The GNA Working Group will provide regular updates to the Panel.
 - Acorn International is preparing the scope of work and the schedule for completion. They will bring it to the working group for discussion and confirmation at the next regularly scheduled monthly meeting on June 1. (First Mondays of each month).

- Phase 2: Negotiate and Complete the GNA
 - This will be the focus of the government and other agencies that will be the signatories to the GNA
 - The GNA Working Group will not be a signatory.

Working Group Members:

Gerry Isaac
Melanie Lawson
Ben Lomeli
Damian Rawoot
Linda Shore
Carolyn Shafer