PZ-PA-005-24

PINAL COUNTY
WIDE OPEN OPPORTUNITY

Leo Lew
County Manager

MEETING DATE: OCTOBER 30, 2024

TO: PINAL COUNTY BOARD OF SUPERVISORS

CASE NO: **PZ-PA-005-24, ORE TOWN SOLAR**

CASE COORDINATOR: MONIKA SMRITI, PLANNER

Executive Summary:

Request Overview:

This document outlines a proposal for a 2019 Pinal County Major Comprehensive Plan Amendment by 310SM 8me LLC to re-designate approximately **1,227.5 acres** in **San Manuel**, Arizona, from Moderate Low Density Residential (MLDR) to Green Energy Production. If approved, this amendment will initiate the development of a 145 MWac **photovoltaic solar energy facility battery storage**, contributing to sustainable energy solutions and economic development in the region. The Project would include solar photovoltaic (PV) panels, a battery energy storage system (BESS), a Project substation, and a generation-tie (gen-tie) transmission line proposed on a vacant land, a portion of the land previously used by the San Manuel Copper Mine for ore processing.

If This Request is approved by the Board:

If approved, this amendment to the Pinal County Comprehensive Plan will enable the applicant to begin the process of rezoning the subject property for a photovoltaic solar energy facility.

Recommendations:

The **Citizen Advisory Committee** and the **Planning and Zoning Commission** have both recommended **approval** of the amendment, with votes of **8-7** and **5-2**, respectively. Their support highlights the potential benefits of the solar facility, while acknowledging concerns regarding environmental impact, safety and community benefits.

Public Participation:

The proposal has undergone a 60-day agency review period and public participation per the Arizona Revised Statutes, during which mixed responses from the community has been collected, with **17 letters of support**, **1 conditional support**, and **9 oppositions** citing concerns about local benefits and environmental safety.

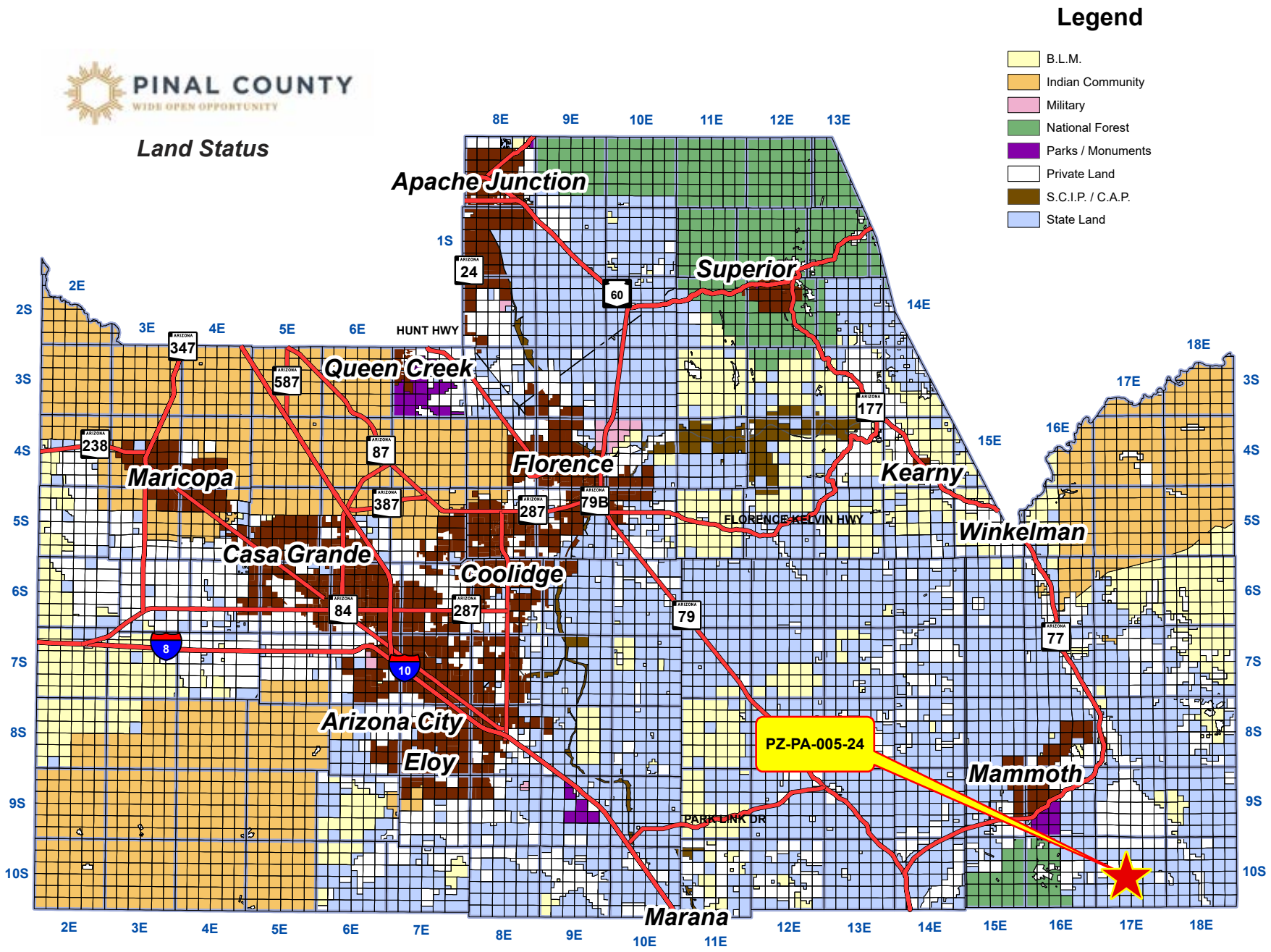
Items for Considerations for the Board:

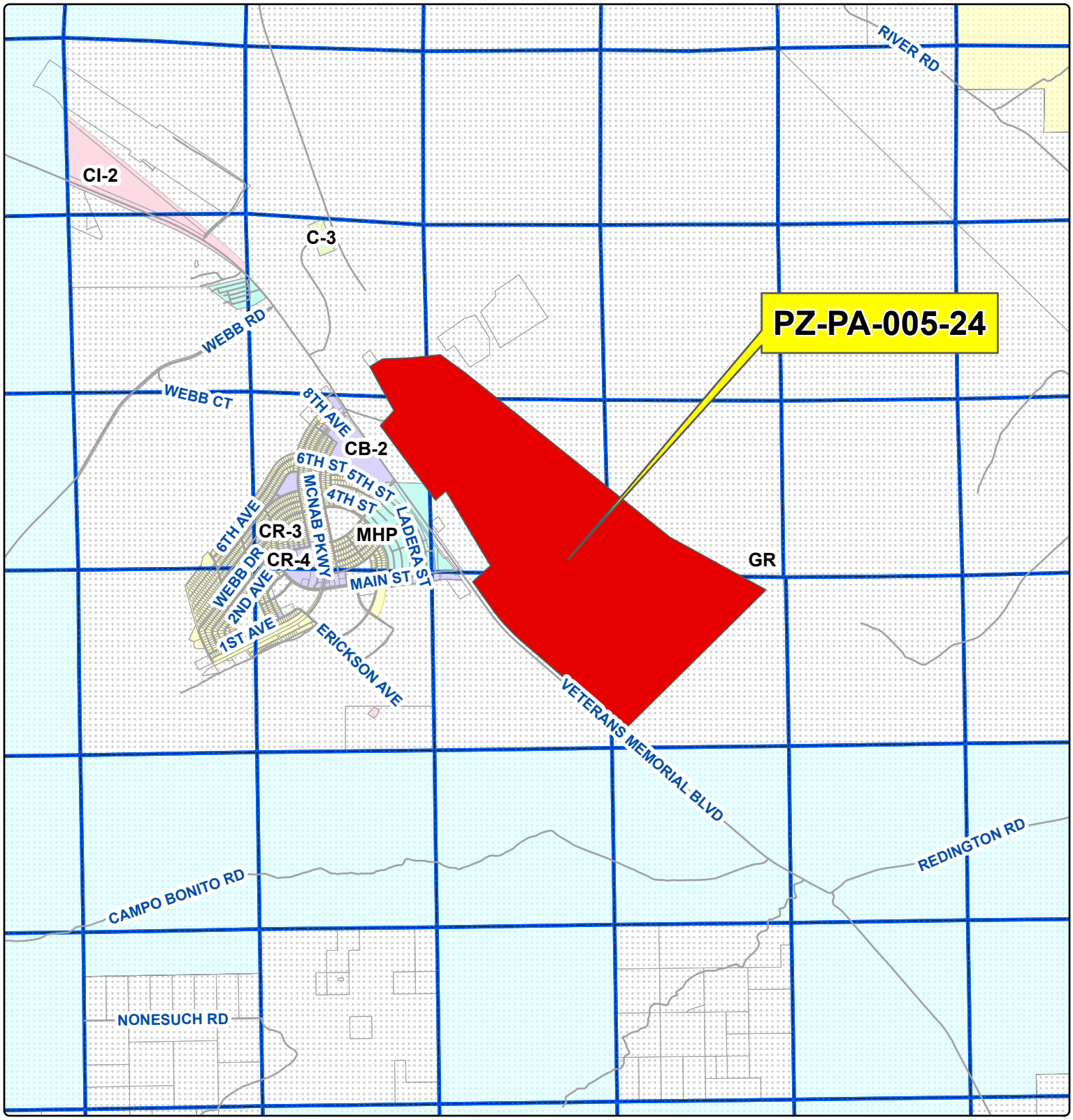
1. Transforming a portion of a historically industrial site into a sustainable green energy project represents a significant upgrade from its existing land use to the future land use.

2. Pinal County staff can regulate environmental impact, contamination mitigation, structural stability, and offsite drainage mitigation concerns during site development phases of the project and may approve, deny, or modify the proposal. However, the developers are responsible for addressing community concerns while exercising their private property rights. The project must align with the vision of the Comprehensive Plan, which emphasizes a sense of community, economic sustainability, and happy, healthy residents.

Conclusion:

The proposed amendment supports sustainable energy goals, utilizes a previously industrial site effectively, and could increase tax bases which will be utilized for the benefits to the local community. However, it's important to balance these benefits with the potential impacts of the proposed solar facility on the desert land, local ecosystems, water quality, public health, and community preferences.


PINAL COUNTY
WIDE OPEN OPPORTUNITY
Land Status
Legend
B.L.M.
Indian Community
Military
National Forest
Parks / Monuments
Private Land
S.C.I.P. / C.A.P.
State Land
Apache Junction
Superior
Queen Creek
Florence
Kearny
Winkelman
Maricopa
Casa Grande
Coolidge
Arizona City
Eloy
Marana
Mammoth
HUNT HWY
FLORENCE-KELVIN HWY
PARK LINK DR
PZ-PA-005-24
1S
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Community Development

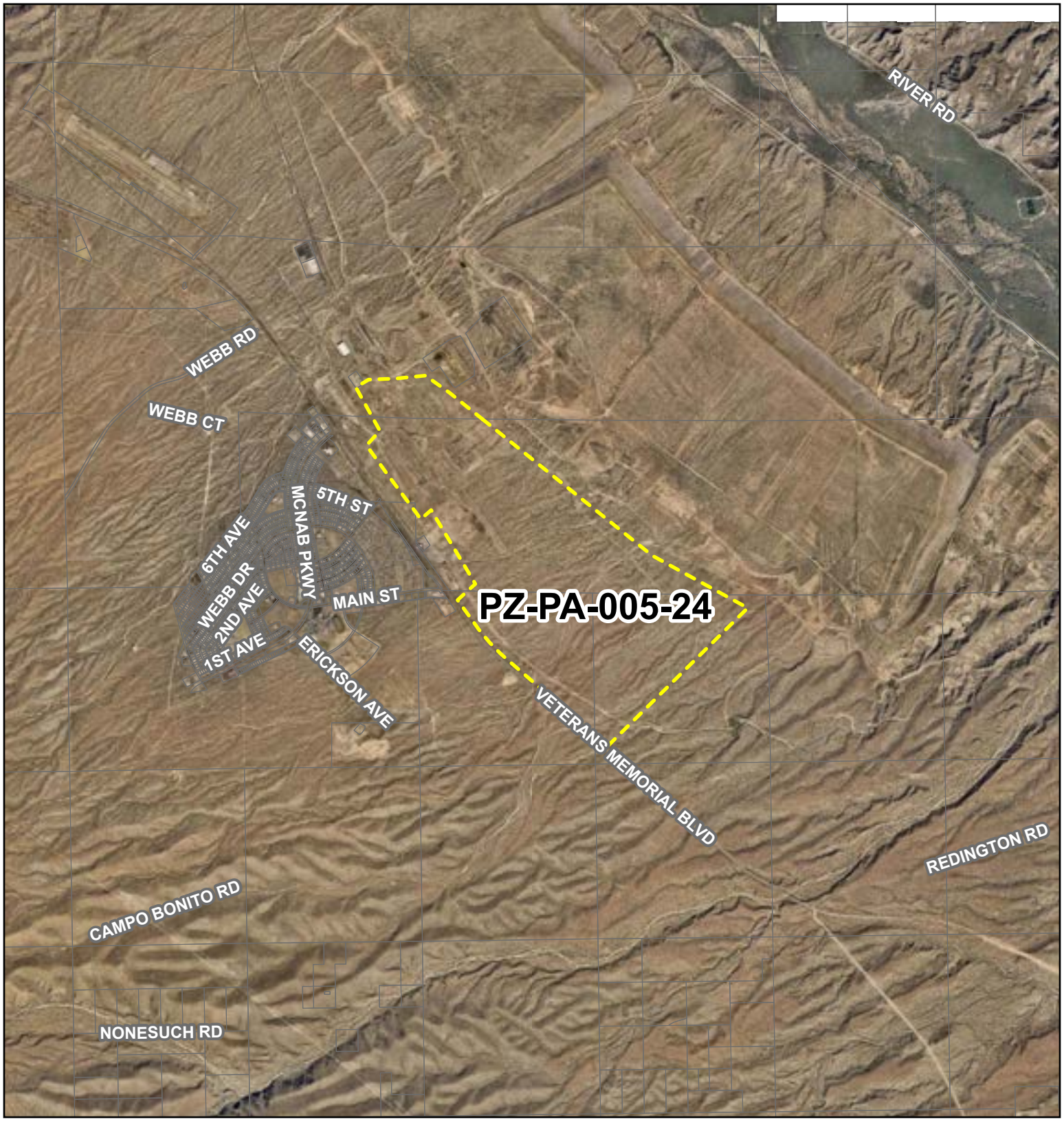
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Legal Description:

Situated on a portion of sections 28, 29, 32, 33, 34, 3, and 4, Township 9 South and 10 South, Range 17 East of the Gila and Salt River Base and Meridian (legal on file). Portions of tax parcels include: 307-08-389E, 307-05-019W, 307-20-002B, 307-20-0010, and 307-05-019R, located east of S. Veterans Memorial Blvd and south of S. Republic Rd in the vicinity of San Manuel, within the unincorporated portion of Pinal County.

SEC 28,29,32-34,3,4 TWN 9-10S, RNG 17E

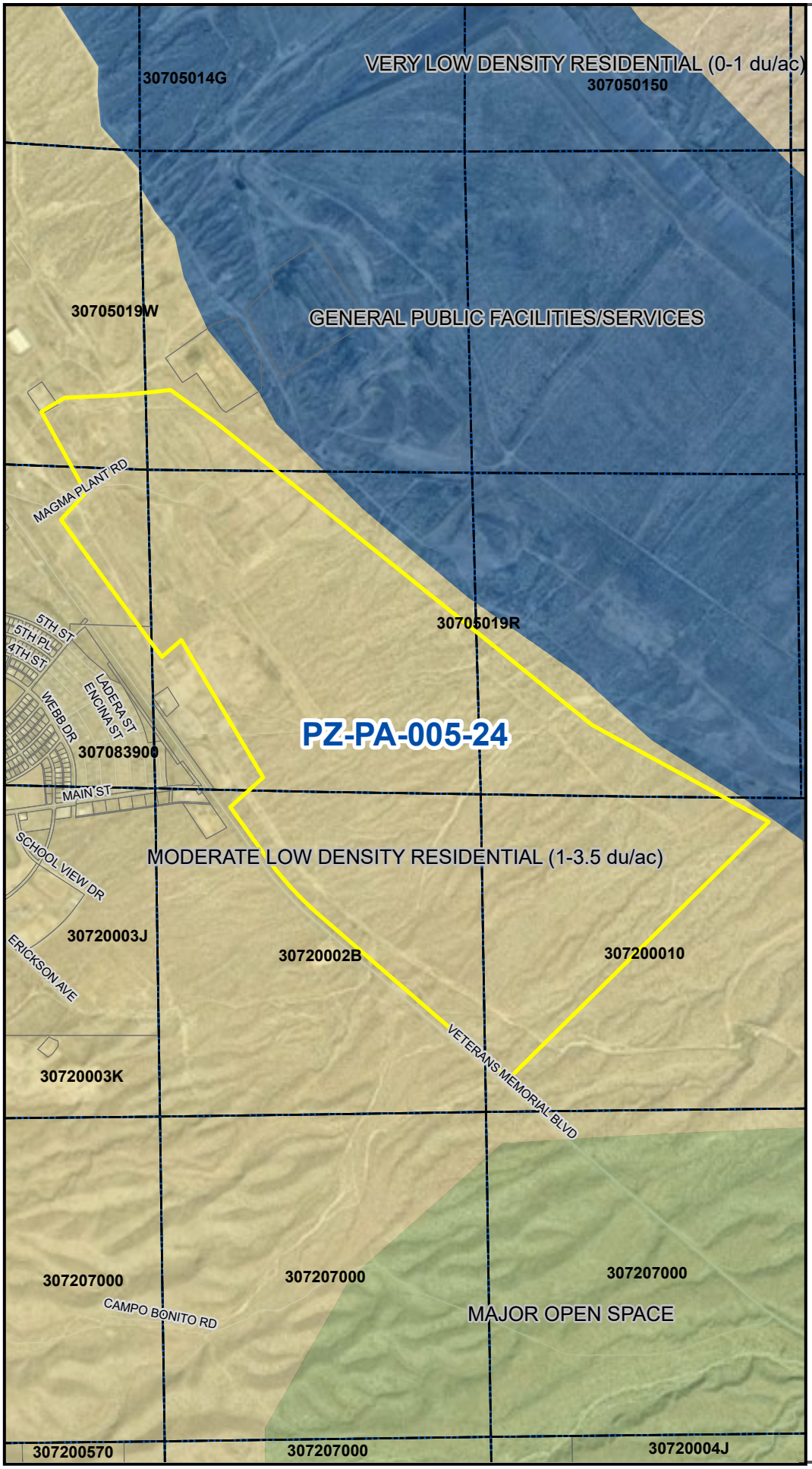
Sheet No. 1 of 1	Owner/Applicant:	310SM 8ME LLC MEAGHAN AUSTIN WITH SWCA ENVIRONMENTAL CONS	
	Drawn By:	GIS / IT / LJT	Date: 07/25/2024
	Section: 28,29,32-34,3,4	Township: 9S, 10S	Range: 17E
	Case Number:	PZ-PA-005-24	



Community Development

PINAL COUNTY
WIDE OPEN OPPORTUNITY

PZ-PA-005-24



PINAL COUNTY
WIDE OPEN OPPORTUNITY

PZ-PA-005-24

FROM:

MODERATE
LOW DENSITY
RESIDENTIAL

TO:

GREEN ENERGY
PRODUCTION

PZ-PA-005-24

PLANNING & ZONING COMMISSION MEETING SYNOPSIS

KLOB: Here.

OLGIN: Lizarraga.

LIZARRAGA: Here.

OLGIN: Schnepf.

SCHNEPF: Here.

OLGIN: Davila. Mooney.

MOONEY: Here.

OLGIN: Pranzo.

PRANZO: Here.

OLGIN: We have a quorum. Did I miss anybody? No, okay.

KLOB: Did you forget Schnepf? I didn't hear, sorry. My error.

MENNENGA: Good to go. Gilbert, we good to go? Okay, all right, let's – next case is PZ-PA-005-24. Is this a single case Brent, or Gilbert, or is there multiple here?

BILLINGSLEY: Each of these is a Major Comprehensive Plan Amendment, which is a once a year process, so they're all individual cases, sir.

MENNENGA: Okay, that's what I thought. I just wanted to clarify that. Okay, sounds good. Sangeeta.

DEOKAR: Goo afternoon, Chair, Vice Chair. Just to give you an overview of the proposed 2024 Major Comp Plan Amendments. We had eight applications this year, and one of them has withdrawn. To just give an overview of the schedule,

we are at the second public hearing. The first one was conducted September 5th, which is the Citizens Advisory Committee, and as you know, that after this is the final public hearing with the Board of Supervisors. As stated, we are at one of the last ones and moving forward. So talking about this year's Major Comp Plan Amendments, we had eight of them. The one of them that has been shown is the Frontier West Solar that was withdrawn by the applicant just on the 5th of September. And because it was noticed, it is part of the agenda. We had now four solar cases, one of them is an RV storage, and there is another one which is a thermal gas-fired power generation facility, and the last one, which is the data center. We will move forward with the first one, which is a solar facility, and I would have Monika take over for this one.

SMRITI: Good afternoon Commission, County staff and member of the audience. I am Monika Smriti, I am presenting the case PZ-PA-005-24, Ore Town Solar and battery storage. This is a Major Comprehensive Plan Amendment request by the applicant, SWCA Environmental Consultants on behalf of the owners, 310SM 8me LLC, to redesignate 1,227.5 acres of land from Moderate Low Density to Green Energy Production for a 145 megawatt photovoltaic solar power plant and battery storage. The project is located in San Manuel, as you can see here on the map marked by the red star. So this image here on this

slide shows the general location of the project site, and with respect to the mine tailings, as well as the San Manuel townsite. If we were to draw a cross section from the South Veteran Boulevard towards San Pedro River, the road will be the highest point and then the site will start stepping down towards San Pedro. So it will not be obstructing any views from the driveway. The map here shows the current Comprehensive Plan land use designation that is Moderate Low Density Residential, and the proposed land use designation is Green Energy Production. And this map shows here how the project is demarcated based on the brownfield versus greenfield designation. It is currently a vacant site which was previously used as a ore processing site, and that is why partially the project is brownfield and the rest of it is a greenfield. So as I mentioned, this was used by San Manuel Mining Copper Mine as a ore processing site between 1955 to 2003. And across the project site there is San Manuel townsite that was master planned in 1954 to house the mine workers who were working with the San Manual Copper Mine. It was built to accommodate 8,000 people back then. This image shows how the San Manuel townsite and the mine worked together in resonance back then in 1971. The mine generated employment opportunities for the community and, yeah, and the next slide here shows one of the ore milling operations in San Manuel during that time. Now, if we come back to 2024, that's how

the San Manuel townsite looks like. The residents, they are proudly calling themself as home of the miners. And the mine as it stopped operating in 2003, it's still the residents celebrating their cultural heritage, the mine heritage, from 1950s. Another picture that shows the current condition of the San Manuel townsite. And if we cross the road and come back to the proposed site, this is the image that's the entrance of a proposed solar facility. It is fenced and prohibited for access by the general public because of the security reasons. So the project solar facility site is nestled in the foothills of Galiuro Mountains, overlooking the beautiful views of Rhodes Peak and Grassy Peak, with the San Pedro River flowing further east. Majority of the proposed site is vegetated, generally sloping from southwest to northeast, with the washes flowing in the same direction. To summarize, the proposal is for 145 megawatt solar photovoltaic generating facility, with 145 megawatt battery energy storage system and 115 kilowatt generation tie transmission line to be connected to the regional electric grid at the existing San Manuel substation. The County staff and the applicant, we expanded our public participation radius from 600 feet to two miles, considering the large scale of the proposed development so that we could include every single resident of San Manuel into this public participation process. We have received so far nine oppositions, one letter for conditional support, and

three letters of full support. The opposition parties are concerned about the benefits for the local community. They are also concerned about the potential fire hazards, environmental impacts and contamination mitigation from previous ore processing site. And they mention if there is a possibility for (inaudible) uses of current land use designation, that's Moderate Low Density Residential. The support group mentions that the site is well prepared for a solar facility. They inquired about some of the investments and job opportunities, and they mention if developers could initiate, and County could initiate, the process for a separate fire district for the region, because right now it's being catered by a separate jurisdiction. We had a public hearing with Citizen Advisory Committee, and they recommended approval with a vote of 8 to 7. So considering the application material, work sessions with the Board of Supervisors and Planning and Zoning Commission, and discussion during the CAC public hearing, staff have concluded that transformation of a portion of historically industrial site into a sustainable green energy project represents a significant upgrade from its existing land use to the future land use. Pinal County staff have the ability to consider all the facts and address some of the environmental concerns during the rezoning and the further permitting process; however, we think that it's developer's responsibility to

consider the feelings of the San Manuel community members, after all they were the ones who built a thriving community back then in 1950s, and it lasted for 50 years. And then they closed down the mining operations, leaving the community by their own, picking up the pieces behind them. So it - the project must align with the visions of Pinal County Comprehensive Plan that focuses on sense of community, and happy, healthy residents. Thank you.

MENNENGA: Commissioners, questions, comments? Commissioner Klob.

KLOB: Thank you for your presentation, and this is her first one, so everybody don't give her too bad of a time.

SMRITI: I am a little bit nervous, but it's mostly the cold.

KLOB: You're doing great. As it relates to the environmental impact, two questions. One, is this part of a green overlay from our Comprehensive Plan?

SMRITI: No.

KLOB: Okay. And two, has there been any kind of environmental assessments to the soils based on contaminants and whether it would be Phase 1 Environmental Assessment.

SMRITI: Should be – they did have ADEQ report that went through the closure process when the mine was closed back in 2003, so they did get approval from ADEQ. However, for this proposed project, they will have to go through

environmental impact assessment and geotechnical assessment, that will be taken care of during the site development process – site plan approval process. That's right now that is something we cannot address for the Comprehensive Plan Amendment.

KLOB: Thank you.

MENNENGA: Anyone else? Is the applicant here? Have you signed in?

JOHNSON: I signed in out there, do I need to sign in in here as well?

OLGIN: Yes.

JOHNSON: Give me one moment.

MENNENGA: And then gives us your name and address. Gilbert.

OLGIN: Chair, Vice Chair, Commission, I've been advised that we limit, not the applicants, but the public at the public hearing, three minutes apiece due to the amount - we have too many cases and so everybody from the public will get three minutes. But due to the amount of cases we have, we're going to be crunched for time to finish. So when the public hearing opens up, sir, we can address any questions you may have.

JOHNSON: Thank you. Good afternoon Chair, Vice Chair, Commission. My name is Kevin Johnson, I'm a director of development with Avantus on behalf of the applicant. Ore

Town is different from the other Comprehensive Plan Amendments that you'll hear today for the solar projects. It's not located on virgin desert, it's not located on farmland. As you heard from Monika, it's located on a former mine site, a mining facility, and, you know, kind of a first of its kind solar project in Pinal County. If you could advance to the So I've already introduced myself. Here with me today I have Elliot Casper, as well, from our permitting team, Megan Austin from SWCA, our environmental consultant, and we also have members of BHP, the landowner here as well, and available to take questions and make comments. And I'll try to keep my comments brief as well, recognizing it's been a long day already and we have a lot more applications, so bear with me if I skip through some of the material pretty quickly, just in the interest of time. So a little bit about our company. We have a very strong track record. We've developed over 2,000 megawatts of solar across the west that are in operation. We're very proud of multiple record-breaking achievements. And along with that strong track record, we also have one of the largest development portfolios of solar in the western U.S., over 80 projects. And of note, we've been active in Arizona for several years. We have several projects across Pinal County and across the State, so have been here in Arizona for quite some time. So as you heard from planning staff, I won't get into too many of the details here about the

project site. It's about 1,200 acres, previously disturbed, you know, a portion was used for ore processing. I do want to be clear, it was not used for the actual mine itself, and the project site is not located on the tailings storage facility, it's in between the storage – the tailing storage and the river essen - or I should say, it's in between the road and the tailings storage facility, it's not on top of the tailings storage facility. The project site is also behind an existing security fence, so it's kind of a fenced in compound which restricts some of the wildlife corridor and wildlife movement anyway, and we'll touch more on environmental considerations as part of the question that was raised earlier. In the bottom there on the slide, you can see the picture, that's the existing San Manuel substation owned by APS, and that's where our interconnection gen-tie will connect into. In terms of overall timeline, I'll be very brief on this one. Construction is slated to start in a couple of years, so we're still a ways out from the actual construction activities taking place, and you know, as was mentioned, we'll need to go through a Planned Area Development and a zone change as well. So today is really just the first step in the permitting process and many more to come. You know, I think the interesting thing about the current land use designation, it's Moderate Low Density Residential. I think it's very unlikely that that's a legitimate use of this land given its historical

use, and so today, you know, we're requesting to change that from something which is probably not compatible, Low, you know, Moderate Density Residential to Green Energy Production. You know, just given the historical use, residential is not really a use that makes sense for this area. And stepping back, talking about the site overall, the project site is very well suited for solar development when we look at it, you know, from a site selection standpoint: it's private land, previously disturbed, as I mentioned, it's near the existing substation and transmission lines. The landowner, you know, desires to repurpose the land for solar use. It's a passive use that's compatible with the historical use of the site, and there's fairly low topographic variability which reduces the need for, you know, kind of masquerading across the site. So from a site selection standpoint for solar development, this is really kind of an ideal site. And we've done a number of due diligence studies already, many of which are in the packet, in materials that we submitted for the MCPA application. And just to run through some of the results, we found no threatened and endangered species, no wildlife movement corridors – as I mentioned, the fencing that already exists - no sensitive or unique habitat. There are no perennial surface waters, wetlands, floodplain hazards. The primary drainages that are onsite will be avoided by the design, so the solar arrays will actually be outside of those

washes to maintain some of the natural drainage patterns. As I mentioned, not sited on the mine tailings themselves. The tailings provide a buffer between the San Pedro River area and the riparian community and the project area, that's about three miles away. We haven't found any bat roost sites in our due diligence, nor western burrowing owl burrows or suitable nesting or perching habitat for golden eagles. We've also conducted a Phase 1 Environmental Assessment, as you mentioned, and we found no recognized environmental conditions within the project area. So, you know, from that perspective a good site as well. So all of our due diligence to date indicates, you know, this is really a very well suited site for solar development. That said, we recognize - and if you could move to the next slide, please – we recognize that the project is right near the Town of San Manuel. And so what we've - one of the questions we've received a lot is how visible will the project be from the town? So we've prepared a few photo simulations, and I'd like to walk through those just to give a sense of, you know, how visible will the project be. It's going to be hard to see given the small screen that we talked about in the earlier hearings. On the left side, you'll see the before picture, on the right side of the after picture. This is from the San Manuel Community Center, we wanted to pick a place where most people are familiar with in town. You really can't see the project from

here because of the existing houses. I realize that's not going to be the case in every location across town. If you don't mind going to the next slide. We've lost the picture there, apparently. That's too bad. So the prior slide was basically an image showing the modeled version of the project, and it's basically low, below the horizon, essentially. In this picture here, again really hard to see. In the after picture, there are modeled arrays there. It's about 200 feet from the road, both the fence and then the arrays, and so you can see it's very difficult to actually see the solar arrays from that vantage point. This is from a perspective that's south of town on Veterans Memorial Boulevard looking to the northeast across the proposed project area. So from our standpoint, we're seeing, you know, not a huge impact to the viewshed, which I think we were very happy to see. So touching on some of the benefits. Once operational, we see up to $70 million of State and local tax revenues over the 35 year life of the project. This would be a really long-term, stable source of tax revenues for the County and for the community. Many of those tax revenues go to local districts, including the Mammoth-San Manuel Unified School District, you know, the one school in town, and also the local fire district. So providing a really long-term stable source of funding for the community. The project also enhances resiliency of the electric grid in the area and provides clean

electricity to meet Arizona's growing demand. Of course, you know, Arizona continues to grow rapidly and the State needs a lot of power to meet that demand. Once these solar projects are constructed, there's very little traffic. You know, certainly recognize there is some traffic during construction and we do our best to manage that to the extent we can, but once operational, maybe 1 or 2 people going out to the project site, you know, once a month type thing. We'll also create long-term and short-term job opportunities, most of which during the construction phase, and then of course spending in local businesses, restaurants, etc., in the town as well. And from a water standpoint, solar projects require much less water to operate than if you compare it to a commercial development or residential development of similar scale. And the last piece I wanted to mention, you know, we're very interested and open in working with the community and making sure we're a good neighbor addressing any concerns, providing additional information, and hearing ideas of how we can be a good neighbor and how we can support the community in whatever way we can. So looking forward to hearing some potential ideas. We're planning to meet with the San Manuel Revitalization Coalition this coming Saturday, and planning another open house as well to hear more feedback from the community. We certainly want to be that good neighbor and feel that solar is a good, passive use that doesn't - isn't

too obtrusive, but want to make sure we're being a good, good neighbor. With that, I did want to see if we could have Jon Liefer from BHP provide a few comments as well on behalf of the landowner.

MENNENGA: You signed in?

LIEFER: I am signed in, yes, thank you. Good afternoon, Chairman - Mr. Chairman and Members of the Commission. My name is Jon Liefer, I am here representing BHP, the current landholder of the property under question. BHP really takes our responsibility quite seriously during mining and post mine operations. We're onsite full time, we interact in the community. and part of that whole post mine process is identifying productive use of the property post the mining operations. It can be quite a challenge, I mean the property is impacted because of the activities that took place, and it's in proximity to the tailings facility as well, kind of limits the types of reuses that we can recommend. Solar does stand out as an excellent reuse property, as an excellent reuse for several reasons. I mean, it's low impact, it doesn't require a lot of ongoing care and maintenance activities. It's a low water use, produces clean energy, which is something that we're all after in the State of Arizona and globally for that matter. It's an excellent reuse of the existing electrical substation that's onsite, which brought power in during production days, we can now use to

send electricity back out to the rest of the – to the state. It's compatible with other uses. We've yet to identify another interested party to bring on, sort of potential commercial or industrial opportunity, but this does not prevent that from happening. So we could still bring in other businesses if the opportunity arises. As pointed out by Kevin, it does generate additional tax revenue, and in particular, I know we're working right now trying to get all of the BHP property that's held in the area put under the purview of the San Manuel Fire District, which would then bring some of that additional tax revenue through to that fire department directly. We did go through a very detailed selection process before selecting a solar developer, Avantus rose to the top. I think they're an excellent company and I think they're well suited to do the development in the San Manuel area there. Myself, as well as a few of the other BHP people are here today, so if you have any other questions for us, we're happy to answer them. Thank you.

MENNENGA: Thank you. Any questions for this gentleman?

??: Are we allowed to have questions?

MENNENGA: In public comment.

PRANZO: I have one question.

MENNENGA: In the public comment.

PRANZO: Benefit the local community.

MENNENGA: Hold on. I'm sorry, go ahead. I'm sorry, go ahead.

PRANZO: Did you open it?

MENNENGA; Yeah, go for it. You bet.

PRANZO Then I do have a question. Oh, sorry. Most people can hear me. Benefit to the local community. We have two solar farms here in Florence that produce zero W-2s, how are you different?

LIEFER: Yeah. I'm gonna actually ask Avantus if they could come back up and speak directly to the project itself. But I'm happy if you have anything for the landowner, in addition to that, I'm happy to answer it, so I'm happy to come back up.

JOHNSON: Sure. So solar farms, by their nature, you know, as I mentioned, very passive use. One of the - depending on your perspective - drawbacks of solar is there are not a lot of long-term jobs needed, you know, to operate and maintain the facility. So as I mentioned, maybe 1 or 2 folks coming out once or twice a month would be the extent of, you know, the requirements for an operations and maintenance perspective. During construction, certainly, we estimate more around 200 construction jobs which would be, you know, we ideally source locally where we can and where it makes sense. So we would like to do that. And then in terms of, you know, kind of shifting away from W-2 jobs, but more to, you know,

community benefits, on other projects we've done things like partner with community organizations to do toy drives, to improve local facilities, you know, to improve the school, anything of that nature, and those are the types of ideas that we're open to and interested in learning what we can do to be that, you know, good neighbor as part of the community.

PRANZO: I understand the copper mine here has been a benefit to this community with those kinds of grants and gifts, but here in Pinal County - and I agree that the land is best suited for your application – but here in Pinal County, we need entities that export a service, but import dollars. Your project does not do that, so I'll just leave that at that.

JOHNSON: Yeah, I appreciate the comment. You know, the other piece I want to touch on that would bring in dollars both to the County and local districts, is the tax revenue piece. Certainly, you know, $70 million over the life of the project.

PRANZO: Local communities, as far as I know, do not benefit from the tax, that's more of a State and County level. We might benefit through funds that have become grant available, but other than that, they don't do anything for us.

JOHNSON: I won't claim to be a property tax expert. We have looked at some of the property tax bills and the local districts are listed on there. My understanding is that those

revenues would go to those local districts, including the school, the fire district, some of the other education entities as well. And though, again, I'm not a property tax expert.

PRANZO: Well, I look at you as an industrial application, and therefore I look for a revenue stream.

JOHNSON: Appreciate your comments. Thank you.

PRANZO: Thank you.

JOHNSON: Any other questions?

MENNENGA: Any other questions?

MOONEY: Chair, if I may?

MENNENGA: Commissioner Mooney.

MOONEY: How much of the - do you know where the energy - it won't be staying in San Manuel.

JOHNSON: Sure.

MOONEY: Do you know where it will be going?

JOHNSON: Sure. So, you know, we will interconnect to the San Miguel substation, which is APS-owned, and APS operates the local regional grid in the area. Where the power goes from there, you know, we can't control. I will say from a physical standpoint, it's hard to - you can't really track this, but the electrons will flow to the closest source of load, path of least resistance, and so to the extent that electrons are being consumed in San Manuel, the electrons physically should flow from the project to the residents,

though, you know, the load of the area is not the same scale as the size of the project. But we do not today have an offtake agreement in place for purchase of the power, but we will be interconnecting to the APS grid.

MOONEY: And you can't – and in past experiences you have, has any of that ever stayed in the community to benefit? I mean I know a lot of - I'm new to the Commission this January, but some of the cases we've seen, they can't guarantee it. It's sold to New Mexico, California or whatever, it just goes. And so have, with your business, has any of it ever stayed local to where it's being built?

JOHNSON: We typically partner with the utility in the area, and then again, they're responsible for distributing the power. And given the scale of, you know, the projects we're talking about here, that's what we would intend to do, as well, is partner with a local utility and then they would serve the customers.

MOONEY: Okay. And I just have one other question, if I may, Chair? On the other end of the project, 35 years from now if it doesn't - do you have a decommissioning plan in place, and do you have more details on that?

JOHNSON: Sure. So the detailed plans, my understanding will be developed through the, either the zoning change process or the site plan process in the future with the County. We will also - we already have contractual

commitments with BHP as the landowner in our lease agreement, that we need to decommission the project. And not only do we have the contractual commitments, but we will also have financial assurance in place to ensure that that happens at the end of the project.

MOONEY: And with your business, have you had to do that in the past with any other, or you haven't been in business long enough to have to decommission one? I'm just curious as to end part of it.

JOHNSON: Sure. Certainly nearly every project we do now, we need to enter into decommissioning agreements, plans and provide that financial assurance. Given the lifespan of these projects, we have not yet reached the time where we're actively decommissioning those projects.

KLOB: Through the Chair.

MENNENGA: Okay, Commissioner Klob.

KLOB: I have a couple of questions. As it relates to your operation of the site, is there going to be battery storage onsite?

JOHNSON: Yes there will.

KLOB: And if so, who's going to be monitoring and maintaining that, or are you waiting for someone that comes in once or twice a week to take care of that?

JOHNSON: Sure. There's a 24/7 remote operating facility. Any one of the O&M providers that we will partner

with for the long-term operation of the project has a 24/7 real time monitoring desk and they would provide that monitoring. The battery storage itself also has a number of - I'm assuming your question is going toward fire safety in particular, it could be one angle – the battery storage systems themselves deploy contained fire suppression and fire detection systems within them, so in the very unlikely event that a fire would occur, you know, it could send a signal directly to the fire district nearby. We'll also provide training for the local fire district, as well as developing collaboratively an emergency response plan for that type of situation. So while we have people, you know, go out there on a regular cadence, not as frequently, there are certainly a 24/7 monitoring in place for the project.

KLOB: My concern with that is, you know, this is a very small community that doesn't have the resources of, you know, some of our larger communities in this County. And, you know, this is, I mean just visually looking at your site, it's about twice the size of the community that it's neighboring. And, you know, should a, you know, major event occur, a fire, you know, hazardous chemicals and so on, is that regional fire, you know, group going to be able to handle it? Do they have the resources? I know you said you're going to do, you know, training, but do they have the manpower to take care of it? Do they have the fire apparatus to take care of it? Do

they have the water capacity or foam capacity or whatever? You know, and who pays for that? Gilbert, sorry.

OLGIN: Chair, Vice Chair, Commission, keep in mind a lot of the questions that are coming from the Commission are focused on zoning. So we're trying to get through with the land use designation portion. All those details in regards to the end of life on the projects, decommission, but your comments, all of these are going to be answered at zoning. So it's premature to ask them now, but just so you're aware.

KLOB: Okay. The other challenge that I have, you know, with these and going, you know, with what Gilbert said, so you can prepare for zoning, is the benefits to the community. And, you know, there's typically, with these industrial solar projects, the power generated goes to the highest bidder. APS, then what's generated here goes to Scottsdale, we'll say. It's not - the people of San Manuel typically are probably not going to see a, you know, their electric bill go down because they have this big generating station next door, and that's one of my biggest challenges with so many of these solar farms that are coming in throughout our County is there's very little benefit, you know, direct benefit to the residents nearby. If you'd like to address that, I'd be happy to hear, but I know that's kind of outside the purview a little bit. But that is a big concern I have with these projects.

JOHNSON: Thank you. The project will benefit electrically the community in one way that I'd like to point out. Because there will be a local source of generation nearby, it should reduce the likelihood of power outages. Again, we're not in the business of controlling the grid, distributing where the power flows, that would be the local utility. But there should be an enhancement to the resiliency of the local grid based on having a generation source of this scale right near town. And with respect to rates, you know, again, that's a separate, you know, separate issue that's handled between ACC and the utilities and not something I'd be able to really speak to of, you know, how much or - we don't expect local rates to be impacted negatively based on the project, you know, it's based on the overall generation and transmission and distribution lines in the overall portfolio. But, you know, not something that we're directly involved with.

KLOB: And I understand that, and that's kind of a common answer that I hear, but it's also another way of kind of kicking the can down the road too. It's the other guy's fault. And at the end of the day, it's the local residents that, you know, are having to deal with the ramifications. So, thank you.

MENNENGA: You good? Anybody else? Okay, thank you.

JOHNSON: Thank you.

MENNENGA: All right, so let's open up the public hearing portion for the 2024 Major Comprehensive Plan Amendments (A), case PZ-PA-005-24. A couple of rules that we are going to implement, three minutes. We got a long ways to go here, so after three minutes, you gotta be done. Get your comments together, make them brief. We'd love to hear it in two minutes, but anyway. So we're just following the Board of Adjustments rules (inaudible). So come on up, anyone wants to speak to that. Are you signed in?

B. COX: Yes, sir.

MENNENGA: Thank you.

B. COX: My name is Brian Cox, I live in San Manuel, Arizona going on 35 years. I have an issue I would like to bring up, that the battery storage - I'm going to refer to as an abbreviation – B-E-S-S, I will refer to it as BESS for the rest of my presentation. These batteries are a problem in Phoenix. There have been firefighters hurt dealing with these fires. They happen because of, the information I have blames it on what is called hot spots, and it tells you that the way these battery stations are bought, they are manufactured with air cooling that depends on ambient temperature. From what I read, the air cooling is insufficient to keep a thermal runaway from happening. These have happened, they've been on the news. They produce - firefighters now will not fight them

because they're - in the Phoenix area where I work for a utility company at one time, we were told in safety meetings that these people, when they opened the door to a steel container where the batteries were to fight the fire, when they opened the door, there was a whoff of air that went in, there was an explosion that happened and it blew - I'm sorry - blew these firefighters off their feet and one got blown under a chain link fence. There's been reports of firefighters been killed. Now then, the fire issue is real, it's not imaginary. When they're charged for a long period of time, hot spots can happen. When they're discharged for a long period of time, hot spots can happen. This is a thing called thermal runaway. It's happened not only in battery storage facilities, but in electric vehicles. That's been on the news, too. So the advantage of being in a area that is non-movable, liquid cooling can be used for batteries. There is access on (inaudible) fire I've made up was with information on liquid cooling of battery storage systems. It is superior. Their literature says they can guarantee - they use strong words in their sales lingo – they can guarantee. These people that have offered their presentations said they want to be a good neighbor, they want to work with us, and I am telling you, this is the safest way to deal with it. An ounce of prevention is worth a pound of cure. If you have questions, please see me. I have more information, three minutes isn't

enough. Thank you.

MENNENGA: Hold on. Any questions? Thank you.

J. COX: I agree, it's kind of unfair. Three minutes isn't enough. So if you have more information, I guess I'll email it to Monika, I understand she's the contact. But I am Jennifer Cox, the wife of my husband who just spoke. I've lived in San Manuel, like he said, almost 35 years. Now, I am not for or against this project, but I do want to put my strong input. I have lived there – okay, where do I start here? I think that, like some, do not know our area or its people and would not understand. That would include, excuse me, County officials, large corporations and Californians or consulting firms. And the list goes on. I care deeply for what affects me and my residents. I believe that would be some air, water, taxes, property values, hazards, safety and more. I'm trying to speed read this. Are we truly educated with all the facts to make the best decisions? It seems a burden of the residents to educate themselves, who has the time or the resources to do so? Expenses of travel, time away from work, etc. How can I know what is true or false when it comes to information? Isn't it what our voting system and taxation is used for, to have elected officials to educate themselves, to represent the people? Can we actually trust that? I guess we have to. But as long as things concern me and those I care for, I will try to express, and if I need

corrected, I stand corrected, but only by facts. As residents working with our County officials, hopefully we find the best solutions for our area. If, or we have no choice but to trust our elected officials, then I call and place the burden on them to find the facts and be diligent in what's best for the residents of our area. In my opinion, from what I know so far, it seems unfair to place the burden on the residents of our tri-community to bear what California should be made to bear, and for opportunistic capitalism to damper our way of life. It also seems to me we have to give up a lot for nothing in return. Those concerns should raise alarm again. Raise alarm to our State, County, city and towns of Arizona. It seems no amount of discussion can divert the fact that consequences follow, such as oil spills, wildfires, windstorms, Texas wind power crisis that killed up to 250 to 700 people. Yarnell Hill Fire in Arizona, firefighters died. Train accidents, etc., etc. Fact, you can check it, heat causes the greatest number of deaths as far as weather. It's not that I'm opposed to development or energy supplementation, but no one ever seems to be prepared in an emergency. And that's a fact. Do the research, and history is full of it. I don't want to be a guinea pig and find out the hard way. I don't want to give my life and my home away to the streetlight mentality. Let's wait until someone gets killed before precautions are done. All because of human ignorance and

weakness. Accidents and disasters and crisises do happen, and they're supposed to be safe. There's no way to stop development our area, then you better make darn sure a rightful emergency preparedness and safety protocols are made. It will make a ghost town out of us and force us to devalue and deteriorate our property and force the residents of our loved area to move and sell at a loss. There's many examples: Look at Hayden, Winkelman and many other cities. So what ifs, let's be considered. What - I don't want to cause fear, but thinking and preparedness case scenarios. The back road from Oracle to San Manuel, electric lines. Highway 77 to Mammoth and Oracle, electric lines. Veterans Highway to San Manuel and Redington, electric lines, and possible solar farm, maybe. If disaster happens with fire and electricity, how and where do we travel away or to safety? I am sure we could find more what ifs, but it's nothing new. History is full of accidents and coups. My point, that companies and the public are never prepared or properly educated. Remember, a disaster would be on the hand of those responsible. Thank you.

MENNENGA: Thank you. Questions anybody? All right. Thank you. Next, please.

TORRES: Hello, I'm Wendy Torres, I live at 921 West 6th Avenue in San Manuel. I am a 58 year resident of San Manuel, I grew up there since I was four. When I heard about this proposal, I decided I would be open minded. As a 34 year

teacher, I did a lot of research and I tried to make a pro and a con category. The only pro that I found was solar farms are an alternate energy resource, reduces carbon emissions and provides clean electricity. I found a whole slew of cons, some of which have been addressed. So here's one of my concerns. My understanding is that neither the SunZia power lines, nor the solar farm company will benefit San Manuel, or Pinal County, or Arizona. All of this power is going to California. Our land is being scarred, and as the gentleman that presented for 2.5 hours this morning, Brennan Ray said, he called those power lines the Great Wall of China. I have never heard a better reference to what San Manuel now looks like. If any of you have driven into San Manuel in the last six months, you know that we now have the Great Wall of China around and through our community. Our land has been scarred. The County approved this, and they're now looking at approving a solar farm. The equipment that's being brought in is an eyesore. Those of you that have been to San Manuel know that there's one road in and one road out. That road is being abused by the heavy equipment being transported in and out of our community. Has any contract been made with these companies that they have to repair this damage that they are being done? I know Mr. Johnson was a really eloquent speaker and he promised the world to our community, but at what point are we going to ask that this be written in a contract from

these companies? That their feet be held to the fire to provide what they so nicely smooths over right now as being great benefits for our community. He said, okay, we go to the fire thing. Solar farms generate electrical fires, which are both dangerous and hard to contain. I have a son that works for the San Manuel Fire Department, and we know, we've seen the electric car stories, you can't put these fires out. He says that the fire department will get extra revenue. Is that in writing, and is a dollar amount set for those, that training and that equipment? But I also heard him say something about an independent fire district. Does that mean they're going to try to run our community fire department out? Lot of questions. He tried to downplay that solar farms disrupt wildlife habitats by saying that there is a fence around this area and so it won't affect the wildlife. Well, it's a barbed wire fence around this, and the coyotes go under, the deer go over quickly. So the birds and the bats have no idea when they hit these photovoltaic panels. Not only that, the used and broken cells, how are we going to dispose of them? Will they be under contract? There is currently no recycling options for these panels. So my questions to this committee is what studies has our County conducted? I know he said he conducted some studies, but where are these studies and were they true down to the fact studies? How are our property values going to be protected?

It's been proven that property values go down around these solar farms. Where's the monetary gain actually going? He makes it sound like there's a pot of gold at the end of the rainbow, but is California the only entity that's going to profit? Because there's no guarantee, even though they're using an APS substation, there's no guarantee that APS even gets that property, that power, that it's going to California. Our rates aren't going to go down. So what kind of contracts are we going to have with this company? My prime example is going to be Eagar, Arizona, very small town. It's the home of the only high school with a domed football stadium in the United States. This facility was largely funded by property taxes levied on Springerville generation station power plant. The list could go on and on of how San Manuel could benefit. We need a community pool. We need improved parks. The County did an excellent job upgrading our park, but it's not enough. Our community would be benefiting if the government agencies involved in approving these projects was working for us, the taxpaying citizens of the community. Change is inevitable, it is a sign of the future. Maybe it's a good thing for our community, but I ask each one of you, is our community getting an even exchange? Thank you.

MENNENGA: Thank you. Questions? Okay. Next, please.

OLGIN: Chair, Vice Chair, Commission, audience

members. Out of respect to those of us here, and we have seven more cases - sorry, six more cases to get through, plus additional cases after that, so please keep the three minutes and not over, or we're never going to go home.

MANSAGER: I agree, but you should have (inaudible) that this morning. You know, you guys are really unfair, you have too many things on your docket. Hi, my name is Deb Mansager. I live in San Manuel. 1012 Webb, to be exact. I've been there for 40 years. I love it. But in June of 1999, BHP shuttered both the mine and the smelter complex. 2,500 people lost their jobs, decimating San Manuel, and negatively impacting Oracle and Mammoth, our tri-community. Mammoth, San Manuel, Oracle is our tri-community. BHP will continue to generate an income from the solar farm through leasing their land or selling it. Yay for BHP, huh? What about us? What about everybody who lost their job? The residents of San Manuel receive nothing, nothing. That should be in all caps, surrounding this room. Nothing from the solar farm that's going in. And I feel like you - don't take this personally, and some of you have made some - asked excellent questions I would love to be here for the answer to, but as Members of the Planning and Zoning Committee, the Citizens Committee, I feel like you're facilitating the process of pimping everybody. Oh my gosh, pimping. Well, if you look it up it says, to make use of, often dishonorably, for one's own

gain or benefit. That is exactly what is happening right now. Not we benefit, residents benefit, not at all. Not at all. We have to put up with what previous people have said. Horrible construction trucks. We've got horrible roads. It's not good. It's not good. So why is it okay for a group of individuals, this committee, citizens committee, unrelated to San Manuel, why we're living there, what we live with, how we have accommodated. How can you decide yes or no, that our community is good for the solar panel? Please, please, please, listen to us. Please. Thank you.

MENNENGA: Thank you. Questions? Okay. Next, please. No, okay.

??: (Inaudible). Is that all right?

MENNENGA: What are you doing?

??: I left my pad of paper.

MENNENGA: Okay. Very good. All right, anyone else?

SANCHEZ: Hi, my name is Angela Sanchez. I work for Pinal County, but I'm not here representing my department of Pinal County. I'm a resident of San Manuel. I live at 309 East 4th Street in San Manuel, and this project is 700 feet from my house. I've lived there for 25 years. This is not good for our community. We're 21 years later, we're still trying to recover from what the mine left us. Don't add something else to it. Battery storage, this huge battery

storage is going to cause problems for our volunteer fire department. These people have regular jobs and they're trying to protect us in the volunteer fire department. This kind of catastrophe, we couldn't handle that, our fire department couldn't handle that. This just isn't wise to put more. We already have SunZia and all of their power lines, and you're going to add more to us? Like she talked about, we have nothing but a wall of power lines around us. We're a small community. There's so many other places in Pinal County that have nothing. There are no communities around that they could put this place, why did they have to do it in our area? It's because property values are cost – the cost of our property is low, so it's cheap. They figure the mine's trying to unload the responsibility, so they're going to give it to these people and they'll take over. It doesn't help us. It doesn't provide any benefit to the people in our area, so why not leave it the way it is? Why do we need to change this to green energy and then open the door to not only these solar companies, but other companies who are going to come and do the same thing. Like they said, this thing is twice as big as our community. It's not going to make a positive impact on our community. Don't get me wrong, I'm not against solar by any way, shape or form, this just isn't the place for it. Thank you.

MENNENGA: Thank you. Questions? How many more,

approximately, do we have to speak here? Two?

??: Two, I believe.

MENNENGA: Okay.

THOMPSON: I'm hurrying. How you doing? My name is Chris Thompson, and I'm a resident of San Manuel. About five years ago I bought a house there, and I love it, and I'd love to live there for the rest of my life. But not next to a solar farm. I do not want to agree to take the risk, even if it's slight, and I don't want to take it for nothing. I don't want to take it for not being available, or the things that they say they're going to do are not in writing. The things that have come up that have already been mentioned here, I'm not going to repeat, but I do want to point out some things. Like the fact that they say they're going to create short and long-term job opportunities. Presently, they're building these desert monsters. I don't know anybody from San Manuel that actually works on them. Their people come from all over to work on them, not from San Manuel. And then they're going to build that. What are they going to do there? Are they going to put anybody to work in San Manuel? And they've already admitted that once it's built, they don't need any people to do this at all. So San Manuel needs to get something out of this. It's not just an advantage for BHP and for the company that is building this, it needs to be an advantage to San Manuel. If you think about it, they've

already admitted that they're going to download the power to the power station right next to San Manuel. So now there's going to be an increased load on that power station. You don't think that APS is not going to have to upgrade the power station and then turn around and go to the corporate commission for a raise in rates because of their expenses? This is just another way that it's going to hurt the people in San Manuel, not help them. And you can't tell me that they can put all that extra power through there and not have to upgrade the system. So I'll cut it off there and go from there, because everything else has really been covered. I will say, I don't know why they call this green energy, to manufacture the equipment they don't use green equipment and it's all not reusable when they're done. It's actually - they say it by 2050 it will have doubled the plastics that are going - that are being disposed of in the area. So it just gets worse. And I still got 30 seconds, that's amazing.

MENNENGA: Thank you.

THOMPSON: Thank you.

MENNENGA: Questions? Okay.

KRAFT: Hello.

MENNENGA: Are you signed in?

KRAFT: I am signed in. My name is Stewart Kraft, I live in San Manuel. Kind of changes things I was going to say to you. I'm a veteran. I worked on a ship. I was a

machinist. I never once asked, what do I get out of it? I serve my country. (Inaudible) awful lies have been said. People taking the extreme. I'm for this project. It's good. It's in the prime area. It's already got infrastructure. The ground's contaminated where you can't dig, but you put things on top. And all I hear is they say it's going to California. I can't understand it. How do they know? Now, I would like to see something come in that would bring in money, but no one's going to come there and do that. So, you know, that solar power's good. It's green. (Inaudible) good. That's about all I really have to say.

MENNENGA: Thank you.

KRAFT: Thank you.

MENNENGA: Questions? Okay, anyone else? Okay. Well with that, we're going to close the public portion of this case, PZ-PA-005-24. Does staff or the applicant (inaudible) response to the comments?

JOHNSON: Would you like to go first? Thank you Chair, Vice Chair. Just a few comments. I appreciate the feedback from everybody during the public hearing. Just wanted to clarify that we're - our project is not in any way affiliated with SunZia, the power lines that we'll be installing our much smaller, they're shorter, it's a lower voltage line and it's less than one mile in length to the existing San Manuel substation. So wanted to make that clear.

We also have additional visual simulations that we prepared and we're happy to provide those to the County so they can be on file, showing some of the other points in town where we've done that visual simulation. And I wanted to clarify with regard to the fire district situation, we've been in communication with the San Manuel Fire District. The intent is that the project site, and I think more broadly, the BHP site itself – and I don't want to speak on behalf of the landowner - but that that site would be brought into the San Manuel Fire District, there wouldn't be a new fire district created. And in our discussion with the San Manuel Fire District, we explained some of the safety features of the battery storage system, the fire suppression, the detection systems that are embedded within the containers themselves. We take battery fire safety very seriously. The gentleman referenced some very tragic occurrences that have taken place and, you know, the industry, I think, is learning from those. So for instance, typically we no longer use occupiable structures for the battery storage. They're in containers that people can't open the door and have the gases explode. You know, that sort of situation. So the industry is learning along those lines. But I wanted to make it clear that we take that very seriously, and we explained some of that to the fire district. We also explained that there's no additional specialized equipment needed for the fire district themselves,

above and beyond what they already have. Essentially, they would use their existing water and trucks and pour water over the top in the unlikely event, God forbid, something were to happen. But again, we'll get more into those details as we progress through the process, the zoning, etc. And on that topic, you know, today is very early in the process, we have multiple approvals we'll need to go through with the County. You know, the commitments that I've heard folks ask for, I think they would be flushed out during those processes in the future. Today is really about redesignating the land from Moderate Low Density Residential, which I think we all know is not a good compatible use for this existing land, and making it, you know, something that's worth further consideration and further time and effort to work on for the potential of a solar project. So I'll stop there, but happy to address any other questions. Thank you.

MENNENGA: Anyone from the Commission?

SCHNEPF: Chairman Mennenga, I do have a question. If this is processed through favorably to the Board of Supervisors, knowing that this zoning would be then going forward in the zoning process, you'd be committed to working with the Department of Defense for that training facility that's nearby so that they wouldn't have any issues moving forward with a project like this?

JOHNSON: I'm personally not familiar with the

Department of Defense facility nearby that you referenced.

SCHNEPF: It's a training facility.

JOHNSON: But yes, we will do, you know, the proper notifications and coordination. If it would be helpful, I can have our permitting folks speak to that in more detail, but we would certainly, you know, engage with that training installation.

SCHNEPF: Okay. Just so that you're aware of that.

SMRITI: We had shared the documentation with DOD and we have not received any comments from them for this proposal. We are expecting something back from them.

SCHNEPF: You're still waiting.

SMRITI: Yeah, yeah, we will be following up with them. And apart from this, staff would like to add one more item for the discussion. Like the community members, the developers, they do have their rights to exercise their private property rights as long as they are not negatively impacting the community. That's all.

MENNENGA: All right, thank you. Commission, comments, questions, motion?

DEL COTTO: Chairman? This seems like one of those difficult situations, and I almost feel like I could see it on a lot of people's face from the public to the staff, to us Commissioners, when we would have an impact like on these people that don't maybe have a whole lot going on anyways, and

so I find that pretty difficult to swallow. And maybe moving forward if we're going to get engaged in stuff like this, that we should try to figure out what can happen or what we can do for the public, as well as for the gentleman that was just up there. Because it seems like there's a lot of upside and not much on the other side for the people that live there. So I don't know, when you factor in the cost of land and the ability to go somewhere and do what you want to do with your green energy thing, it kind of seems like it's weighing in one direction and I don't know how feasible it would be for the County at some point to try to make some type of determination in regards to what possible things that would be allowed for the community, versus what's being allowed for the solar company. Meaning that if the land's so cheap and they already don't have any jobs left in their community and so on and so forth, maybe at some point the County could take a look at stuff like this and figure out a way to where when they get done doing it, that they probably feel like they've done some good for the community, as well as providing the opportunity for the solar company.

MENNENGA: Anybody else? So I'm gonna do something a little unorthodox here. So would the applicant and BHP come back up? I want to ask you guys some questions. We're going to have a little negotiation here, I guess you want to call it. So recently there was interesting scenario in Pinal

County. SRP has a gas-fired power plant just south of Coolidge, and they wanted to expand it. Well gosh, the residents all showed up and threw a fit, kind of like we are here, and the Corporation Commission turned it down. Well, it was interesting because SRP came back. You know, they spent somewhere between $15 and 20 million in that little community of Randolph to get that plant approved. So, what are you guys willing to do for this – like I will tell you right now, you're pretty much impossible getting through this Commission with what we've done and what we've heard, okay? So, I'm going to put you on spot. What do you want (inaudible) good? You know, they did new streets, they did water lines, did a lot of - I mean Randolph is actually a pretty good looking community now. And you know what? You guys make millions and millions and millions of dollars (inaudible), so – (inaudible) he's going to step in here and say, Morris, don't say this. But, you know what? Look, that's something you guys ought to think about because you got to get through this committee and the Board of Supervisors. Okay?

BILLINGSLEY: Mr. Chairman, Members of the Commission, Brent Billingsley here again to be facilitator and to help us. I'm going to say some things now. I don't mean them to be controversial, but I think they're helpful as part of this discussion, and I'm always here to educate. This is not the right platform to discuss or ask these guys to provide

something outside of the process of what's allowed, that's called an exaction.

MENNENGA: I said it was unorthodox.

BILLINGSLEY: It's illegal, so we don't want to go down that road. However, I think I do have some important information. I appreciate what you said, Mr. Chairman, and what ended up occurring in that case between SRP and the community of Randolph is what's referred to as a community benefit agreement. Now, as you say, they sat with the community, they negotiated and they came – I'm not advocating for it, I'm just saying this is what it's called - the key thing from the County's perspective is we can't be involved in that. The P&Z, the Board, the staff, the legal team, we can't be involved in that. However, just like SRP, individual applicants can discuss the community benefit agreement potentially on a project outside of the County. As a matter of fact, one of the other projects that are on the agenda today, it was brought to my attention this week, that they're having some conversations about community benefit agreement with respect to that project. So I just thought that would be useful information for the group and to keep us out of trouble. Thank you.

MENNENGA: Well I bet you, I bet you we could get a whole bunch of people here from the community down there to meet with this on that type of project. And I won't say

anymore. You know how I feel, so take it from there.

MOONEY: Chair?

MENNENGA: Yes, please.

MOONEY: If I may talk to Brent? Brent, I am a little confused and I appreciate the information, but we're being asked today to change the plan to green energy, so why isn't today the day to ask that question? Once we approve or dis – well, if we were to approve to change it to green energy and now you're going back going, oh, what are you going to do? I'm not going to do anything because you already changed the zoning. So I don't understand –

MENNENGA: No, there's another separate zoning case here. They've got to come back, okay?

MOONEY: Okay, but this one as I'm reading it, is changing it to green energy. So that's where I'm still (inaudible).

BILLINGSLEY: Mr. Chairman, Ms. Mooney, I think I can help. Today's action is to recommend either a favorable or an unfavorable from the Planning and Zoning Commission to the Board of Supervisors. Ultimately, the Board of Supervisors makes that decision, not the Planning and Zoning Commission. When we talk about a Major Comprehensive Plan Amendment, that is a land use change, not a zoning change. So this is changing the Comprehensive Plan, if approved by the Board of Supervisors, to a green energy land use. The next

step in that process would be to rezone the property commensurate with the proper zoning with respect to constructing a regional solar farm. And then the last piece of that would be putting together a site plan and engineering documents to physically build, have inspected, and approved for use, a solar plant. So we're very early in the process. What I was trying to convey is, this is a land use decision on a Comp Plan. We, as a County, cannot be involved in, we will vote to recommend to the Board of Supervisors to support you, if you do this. That's an exaction, that's illegal. We can't do that. That's not part of this process.

MOONEY: I did understand that part. But if we made that recommendation for green energy and it continues forward and all the details, how - will it ever convert back if it doesn't happen? That that's my concern.

BILLINGSLEY: So the - from a land use perspective, if the Board of Supervisors was to approve a Major Comprehensive Plan Amendment to turn this to green energy, it doesn't automatically go back. Whether they build a solar farm or not, it will go forward as green energy if that was approved by the Board. In order to do something else, there would have to be another Major Comp Plan Amendment to change it to whatever that new category is, if that makes sense.

MOONEY: It does, thank you.

BILLINGSLEY: Yeah. Hope that helps.

DEL COTTO: Chair.

MENNENGA: Commissioner Del Cotto.

DEL COTTO: Chair, Mr. Del Cotto. So if I'm overstepping my - what I'm saying, just hit the hammer, let me know. But how do you as a County, or we as a County, how do you protect people within your County that maybe (A) there's not a lot of them there; (B) they lost the majority of their jobs, and what do we do – and I understand that we can't start negotiating and saying, okay, you know, give everyone on that side of the room $1,000 or whatever the case may be - but how do you try to protect and look out for their well-being and make sure that there's some upside to what they're going to be - what hand they're going to be dealt if we decide as a Commission to move it with a favorable recommendation, which I've kind of always been in support of solar, but then I don't think I've seen a particular case like this where, you know, they lost their jobs and there's a lot of upside over here because the land is cheap, and how do you try to bridge that gap, or what - how do you educate or how do you try to make sure you can go to sleep at night after the whole thing's done and make sure that the people here on the right have had, maybe had to have a lesson or an understanding of what they could or could not be doing to try to help themselves. And I'm just curious.

BILLINGSLEY: Mr. Chairman, Mr. Del Cotto, I think

that may be one of the finest questions that I've been ever asked, ever, in my 30 year career. I mean, I've been doing this for a very long time, I've sat in many of these meetings, thousands and thousands of hours, what a fantastic question. And the reason I say that is that is what the planning field is. That is exactly what the planning field does. And I think 4 or 5 of you got an opportunity to go to the Arizona APA Conference last week and be around that planning community and understand who they are, what they do, the challenges they face. But the most important role for a planning department, and any governmental entity, is to make sure that there's fair and equal representation from both sides of the equation. It makes it a very difficult job because on one side our customer is BHP and an energy company, and we need to give them excellent customer service. We need to be timely, we need to be professional. Our comments need to be based on fact and/or our code policies, documents that have been approved by the Board, the State of Arizona or the federal government. The other side of that equation, the other 50 percent, is understanding and making sure that there's meaningful public involvement for those folks that could be impacted by the project. And that's why you see in this case two mile notice, where we usually have 600 feet. That's why you see community meetings, public hearings, Citizens Advisory Committee, there is a ton of outreach that's done in Pinal County on behalf of

the planning group to try and provide our decision makers, which is ultimately the Board of Supervisors, with as much information as we can so that they can make a decision. I think one of the things that's most understood about what planners do and what community development or development services do, is people assume that we make decisions. We don't. Gilbert, any of our planners - Monika in this case - we don't make any decisions, and in this case, we're not even making a recommendation. We're just trying to provide the facts from both sides, and ultimately provide those tools and that information to the decision makers to make a decision. And today, those decision makers happen to be you guys. No pressure. The seven of you are the decision makers of today. And ultimately, what we hope to end up with is a recommendation for or a recommendation against, which then goes to the Board of Supervisors. Hopefully that was a good answer.

DEL COTTO: Thank you.

LIEFER: Mr. Chairman, may I address one thing I think that maybe is not perfectly clear, or two things, actually. One is the current zoning in the Comprehensive Plan for Low and Medium Residential Housing is not realistic for that site. We would never be able to put houses or apartments or anything on that property. So whether it be green energy or something else, it would need to be changed at some point

in time, even to bring another productive use to the site. Secondly, I know a number of people are concerned about the support for fire districts and things like that, BHP is very active in the region. This solar development would not relieve (inaudible) our responsibilities for that site. We would transfer primary liability to the solar company to manage the property, but we're always there as a backstop. We are not excused from our obligations from maintaining that site, so – nor would we want to be.

MENNENGA: Thank you. Okay.

SMRITI: And Commission Members, we will have opportunity to add stipulations during rezoning.

MENNENGA: Right, right, but we're not at that point, so okay. All right, back to the Commission. What's your pleasure, I guess?

??: Are you looking for (inaudible).

MENNENGA: I am.

PRANZO: (Inaudible). It seems to me that with the Great Wall of China and the abandoned mine, the decision has already (inaudible). Might as well be a neon sign out there that says solar power (inaudible). I don't like what I'm about to do because of the community involvement, but I will make a motion that we recommend to the Supervisors to review the change in zoning.

MENNENGA: Second.

BILLINGSLEY: Just to clarify, he said to review the change in zoning. I think that you meant to give a favorable recommendation to the Board for the land use change, is that correct?

PRANZO: It's my understanding that we were making a recommendation to the Supervisors to look at the zoning, it's up to them to change it.

BILLINGSLEY: To approve. Okay, thank you.

MENNENGA: Second?

SCHNEPF: Does he need to state the case number?

GAREY: Yes, that would be advisable.

MENNENGA: I can do that. Case PZ-PA-005-24 is what this motion is in regards to. I'm looking for a second. If no second –

LIZARRAGA: Lizarraga seconds.

MENNENGA: Second from (inaudible). Let's do a –

BILLINGSLEY: Roll call vote?

MENNENGA: Yep.

BILLINGSLEY: Commissioner Pranzo.

PRANZO: Yes.

BILLINGSLEY: Commissioner Mooney.

MOONEY: No.

BILLINGSLEY: Commissioner Davila. Not here. Commissioner Schnepf.

SCHNEPF: Yes.

BILLINGSLEY: Commissioner Lizarraga.

LIZARRAGA: Yes.

BILLINGSLEY: Commissioner Klob.

KLOB: Yes.

BILLINGSLEY: Commissioner Hartman, are you online? Commissioner Del Cotto?

DEL COTTO: No.

BILLINGSLEY: Chairman Mennenga.

MENNENGA: Yes. Mr. Chairman, that would be a vote of 5 ayes and 2 nays. Motion passes.

MENNENGA: Okay. No we don't - there's no questions.

??: The public wasn't allowed to ask them questions like the other platforms were.

MENNENGA: No, you just had the one chance. Okay.

??: We won't be allowed to make our comments?

MENNENGA: No, you got one chance to speak. That's it, so okay. All right, well at some point then this will come back to this Commission for the zoning change that they need to put this together. I guess I would recommend you all get with these two guys and see what you can do.

OLGIN: Chair, Vice Chair, if I just could add some information.

MENNENGA: Sure.

OLGIN: So this is a recommendation. There'll be an

opportunity for a public hearing at the Board of Supervisors, and that one's scheduled already, so you have another chance to speak at the next public hearing.

??: I thought the other platforms were allowed to ask those other two representatives some questions.

OLGIN: The applicants are allowed to have a conversation with the Board, but public is to make statements and then we move on to the next. And then once the hearing's closed, we move on.

KLOB: Ditto (inaudible) multiple cases.

OLGIN: Yes.

MENNENGA: Okay, let me - hold on a minute. Let me get a consensus here. We had a - we got a gentleman here who's got a case on a cell phone tower out of town. I don't know how long it'd take, but he asked to be moved up on this. Any Commission – any – shall we move that one up ahead? Shouldn't take long? Or should we continue? Okay, go for it.

??: (Inaudible).

MENNENGA: No I (inaudible). I understand, I just wanted everybody's opinion.

KLOB: It gets lonely at the top, doesn't it?

MENNENGA: Yeah, darn it.

OLGIN: Chair, Vice Chair, Commission - Chair, Vice Chair, have we decided to move the SUP up?

MENNENGA: No.

PINAL COUNTY
WIDE OPEN OPPORTUNITY

Leo Lew
County Manager

MEETING DATE: SEPTEMBER 25, 2024

TO: PLANNING AND ZONING COMMISION

CASE NO: **PZ-PA-005-24, ORE TOWN SOLAR**

CASE COORDINATOR: MONIKA SMRITI, PLANNER

Executive Summary: *Public Hearing for a 2019 Pinal County Comprehensive Plan Major Amendment requested by 310SM 8me LLC, applicant/agent to re-designate ±1,227.41 acres of land from Moderate Low Density Residential (MLDR, 1-3.5 du/ac) to Green Energy Production for a photovoltaic Solar Power Plant with battery storage, proposed in San Manual, Arizona. The Project would include solar photovoltaic (PV) panels, a battery energy storage system (BESS), a Project substation, and a generation-tie (gen-tie) transmission line proposed on a vacant land, a portion of the land previously used by the San Manuel Copper Mine for ore processing.*

This report examines the concerns regarding the potential impact of the proposed solar project on local needs and priorities, such as energy demands, economic conditions, and environmental objectives, in alignment with the vision outlined in the Pinal County Comprehensive Plan.

If This Request is Approved by the Board:

If this major amendment to the Pinal County Comprehensive Plan is approved, the action will allow the applicant to begin the process of rezoning the property to develop a photovoltaic solar energy production facility on the subject parcel.

Citizen Advisory Committee Recommendation/Issues for Consideration/Concern:

The Citizen Advisory Committee has recommended approval with a vote of 8-7. The committee addressed the following issues and concerns:

1. The in-place capping status of the old ore processing area, its brownfield status, and fire safety for the proposed solar facility.
2. The health and well-being of the residents of San Manuel Townsite, including both short- and long-term job opportunities available to them.
3. Reevaluation of the comprehensive plan designation after the projects decommissioning.

~~**Staff Recommendations**~~ **Items for Considerations:**

~~Staff recommends approval of the request with the following issues for considerations and concerns:~~

1. Environmental impact, contamination mitigation, structural stability, and offsite drainage mitigation strategies must be carefully considered during the rezoning and site planning process.
2. Pinal County staff have the authority to regulate these concerns during the further site development process and can approve, deny, or modify the proposal to best suit the site. However, it is the developer's responsibility to address community concerns while exercising their private property rights. The project must align with the Pinal County Comprehensive Plan, which emphasizes sense of community, economic sustainability, and the well-being of residents.

TAX PARCELS:
Portions of tax parcels include: 307-08-389E, 307-05-019W, 307-20-002B, 307-20-0010, and 307-05-019R.

LEGAL DESCRIPTION:
Situated on a portion of sections 28, 29, 32, 33, 34, 3, and 4, Township 9 South and 10 South, Range 17 East of the Gila and Salt River Base and Meridian (legal on file).

APPLICANT/AGENT:
310SM 8me LLC, the owner/applicant, Meaghan Austin with SWCA Environmental Consultants, agent.

REQUESTED ACTION & PURPOSE:
PZ-PA-005-24: 310SM 8me LLC, the applicant/agent, is requesting a Major Comprehensive Plan Amendment to re-designate approximately 1,227.41 acres of land in San Manuel, Arizona. The proposed amendment seeks to change the current land use designation from Moderate Low Density Residential (MLDR, 1-3.5 dwelling units per acre) to Green Energy Production.

The purpose of this amendment is to facilitate the development of a 145 MWac photovoltaic solar power plant with 145 MWac battery storage. This shift in land use designation will support the establishment of the facility, which aims to generate renewable energy and enhance energy storage capabilities. The project will significantly contribute to sustainable energy solutions and potentially benefit both the local community, economic development, and environment while repurposing a former ore processing site.

PUBLIC PARTICIPATION:

60 day review period:	06/10/2024 to 08/10/2024
Newspaper Publication:	08/12/2024 (CAC) & 08/15/24 (CAC), 09/03/24 (P&Z) & 09/05/24 (P&Z)
Site Posting:	08/12/2024 (CAC) & 09/03/24 (P&Z)
Property mail outs:	08/20/2024 (CAC) & 09/06/24 (P&Z) (Property owners within a 2-mile radius were notified)
Web posting:	08/15/2024 (CAC) & 09/10/24 (P&Z)

PUBLIC COMMENT:
To date, staff have received (9) oppositions, (1) letter for a conditional support, and (3) letter of full support.

Opposition:
1. Concerns about benefits for the local community.
2. Potential fire hazards and environmental impacts on existing flora and fauna, including Arizona Desert Tortoises and Gila Monsters.
3. Contamination mitigation from previous ore processing and potential waste disposal concerns related to the solar farm.
4. Other allowable uses of current land use designation - MLDR.

Conditional Support:
1. The project is suitable, contingent upon the county and developers initiating the establishment of a fire district in the region.

Full Support:
1. A well-prepared site for a solar farm. Inquiry about potential investment and job opportunities for individuals and the retiree community living in San Manuel.

OTHER REVIEW AGENCY COMMENTS:
As of the writing of this report, comments from the Arizona Game and Fish Agency have been received, highlighting potential impacts on certain desert flora and fauna that need to be considered during the site development process. These comments have been included in the application packet.

PLAN AMENDMENT DISCUSSION:

Project Background:
San Manuel Townsite in Pinal County, Arizona, was a significant copper mining hub in the early 20th century. The San Manuel Copper Mine was vital for the local economy, providing jobs and supporting community growth.

By the early 2000s, declining ore quality and fluctuating copper prices led to the mine's closure in 2003, leaving the ore processing facility idle and highlighting the need for new economic opportunities. San Manuel has since transitioned from a mining community to one focused on self-sustainability and environmental initiatives, demonstrating the region's adaptability and resilience.

A proposal by the former mine owners aims to **redevelop approximately 1,227 acres of the old ore processing site, bordered by mine tailings, into a solar energy facility.** This project seeks to utilize the region's abundant sunshine to generate renewable energy, potentially creating jobs during construction phase and contributing to the tax base while addressing past environmental concerns.

Location and Accessibility:
The proposed project site is located in the San Manuel area, strategically situated along Veteran Memorial Blvd, a designated Rural Major Collector and Regionally Significant Corridor. This alignment supports broader policy objectives related to infrastructure and regional connectivity, as outlined in the Pinal County Regionally Significant Routes for Safety and Mobility report.

Land Use:
The proposed site is a vacant land, with a portion of the project area previously used as an ore processing facility utilized by the San Manuel Copper Mine from 1955 to 2003. To the west of the site is the San Manuel Neighborhood, an area characterized by a mix of residential, commercial, and institutional developments.

Under the existing comprehensive plan, the site is classified for **Moderate Low Density Residential** use. The proposed land use is **Green Energy Production,** to allow a Solar Plant on the subject site.

Transformation of a historically industrial site into a sustainable green energy project represents a significant upgrade from its existing land use to the future land use.

Infrastructure:
The existing infrastructure on the site includes two 115-kV transmission lines located south of South Republic Road, linking Saddlebrooke Ranch to San Manuel and Saguaro to San Manuel. Additionally, the APS San Manuel Substation, situated in the northern part of the project area, will serve as the connection point for the on-site project substation and proposed gen-tie, for the distribution of power to the regional grid.

The proposed project will leverage existing infrastructure and optimize land use for the solar facility, ensuring thorough assessment of community impact during the site development phases.

Land Suitability:
The site lies within the Big Wash-San Pedro River watershed, an area that affects regional hydrology and land use patterns. The presence of non-WOTUS (Waters of the United States) washes, such as the San Pedro Big Wash, indicates a natural drainage system and potential for water quality issues caused by the proposed development. Although these features are not federally regulated, they require careful mitigation during development. The site is classified as Flood Zone X, indicating a minimal risk of flood hazard.

There are minimal cultural constraints, with no significant archaeological resources or protected open spaces and trails as specified in the Pinal County Open Space and Trail Master Plan. The Arizona Game and Fish department has identified protected species in the Greenfield portions of the site.

Since a portion of the site has been previously used for ore processing and currently holds the status of a reclaimed brownfield, along with the presence of mine tailings along the eastern edge, there are **significant health risks and environmental hazards associated with developing the site for uses involving increased human activity**. In contrast, **a solar project would require only two or three employees on-site for operational purposes**. Nonetheless, a thorough environmental impact studies are warranted during the rezoning and site development stages of the proposed project.

Compatibility with Pinal County Comprehensive Plan:
Pinal County Comprehensive Plan checklist provides guidance to ensure conformity of development proposals with the Pinal County Comprehensive Plan. Staff is using it to review development proposals and to eventually make recommendations to decision-makers during the Pinal County comprehensive plan amendment process.

The checklist contains the two major components:

1. Consistency with Pinal County's Vision Components.
2. Consistency with the Plan's key concepts illustrated on land use, circulation, and economic development graphics.

Following are the Pinal County's Vision Components:

a. Sense of Community: The proposed solar project could potentially foster a sense of community by bringing residents together with a shared goal of sustainability, **provided that it involves local participation**, which strengthens community bonds and encourages collective ownership.

b. Mobility and Connectivity: The proposal could potentially improve the existing road infrastructure which will be a requirement for the construction of the proposed project.

c. Economic Sustainability: Solar projects reduce energy costs, generate local employment, and attract investments in green technologies. A recent study reveals that similar projects in Eloy and Coolidge have substantially increased job opportunities and tax revenue. The proposed project is anticipated to have a comparable effect, particularly if it **meets local energy needs** and **supports the San Manuel Townsite residents who have been struggling since the closure of mining operations in 2003.**

d. Open Spaces and Places: Using reclaimed brownfield land for the proposed solar farms preserves open spaces and will not interfere with the Pinal County trails, parks, or recreational areas.

e. **Environmental Stewardship:** The proposed project advocates the use of renewable and alternative energy sources which is consistent with the Environmental Stewardship vision component.

f. **Healthy, Happy Residents:** The proposed project has the potential to enhance the surrounding neighborhoods by transforming an old, vacant mining site into a renewable energy source. This revitalization effort could contribute to maintaining a clean and natural environment. Additionally, the improved infrastructure and job creation associated with the project are likely to boost the overall happiness and well-being of the residents.

g. **Quality Educational Opportunities:** Not applicable.

Following are the Plan's key concepts illustrated on land use, circulation, and economic development graphics.

I. **Consistency with the Land Use Designation Shown on the Graphics:** The proposed land use change aligns with the land use designation shown on the Pinal County Land Use Map.

II. **Consistency with the Mixed Use Activity Center Concepts:** Not Applicable.

III. **Consistency with the Planning Guidelines Described in the Land Use Element:** The proposed project aligns with the planning guidelines of a Green Energy Production land use by utilizing vacant land efficiently and ensuring minimal disruption to surrounding land uses.

IV. **Quality Employment Opportunities Countywide:** The solar project is anticipated to generate significant short-term employment opportunities during construction. However, its contribution to the job market during the operational phase will be limited.

V. **Viable Agriculture, Equestrian, and Rural Lifestyle:** The proposed site, being vacant and not currently in use for agriculture or equestrian activities, will not negatively impact these lifestyles. The project supports rural development goals by transforming underutilized land.

VI. **System of Connected Trails and Preservation of Open Space:** The proposed project does not interfere with the existing Open Space and Trail Master Plan of Pinal County.

VII. **Natural Resource Conservation:** The project promotes the use of renewable energy, aligning with the county's goals for conserving natural resources and reducing reliance on fossil fuels.

Staff Summary ~~and Recommendation~~:
~~Approval of this~~ The proposed amendment supports sustainable energy goals, utilizes a previously industrial site effectively, and could increase tax bases which will be utilized for the benefits to the local community. However, it's important to balance these benefits with the potential impacts of the proposed solar facility on the desert land, local ecosystems, water quality, public health, and community preferences. Trade-offs between solar energy and other potential uses, such as recreation or conservation, need careful consideration.

~~Staff recommends approval of the proposed major comprehensive plan amendment with the following considerations and concerns:~~

Planning and Zoning Commission should consider the following issues and concerns when making their motion to approve or deny the proposed comprehensive plan amendment:

1. **Environmental and Safety Measures:** Ensure comprehensive assessment and mitigation of environmental impacts, including contamination from previous ore processing activities during the site development phases. The project must address fire safety and develop a robust decommissioning plan for the solar facility.

2. **Community Impact:** The developer should focus on addressing community concerns effectively to enhance local benefits.

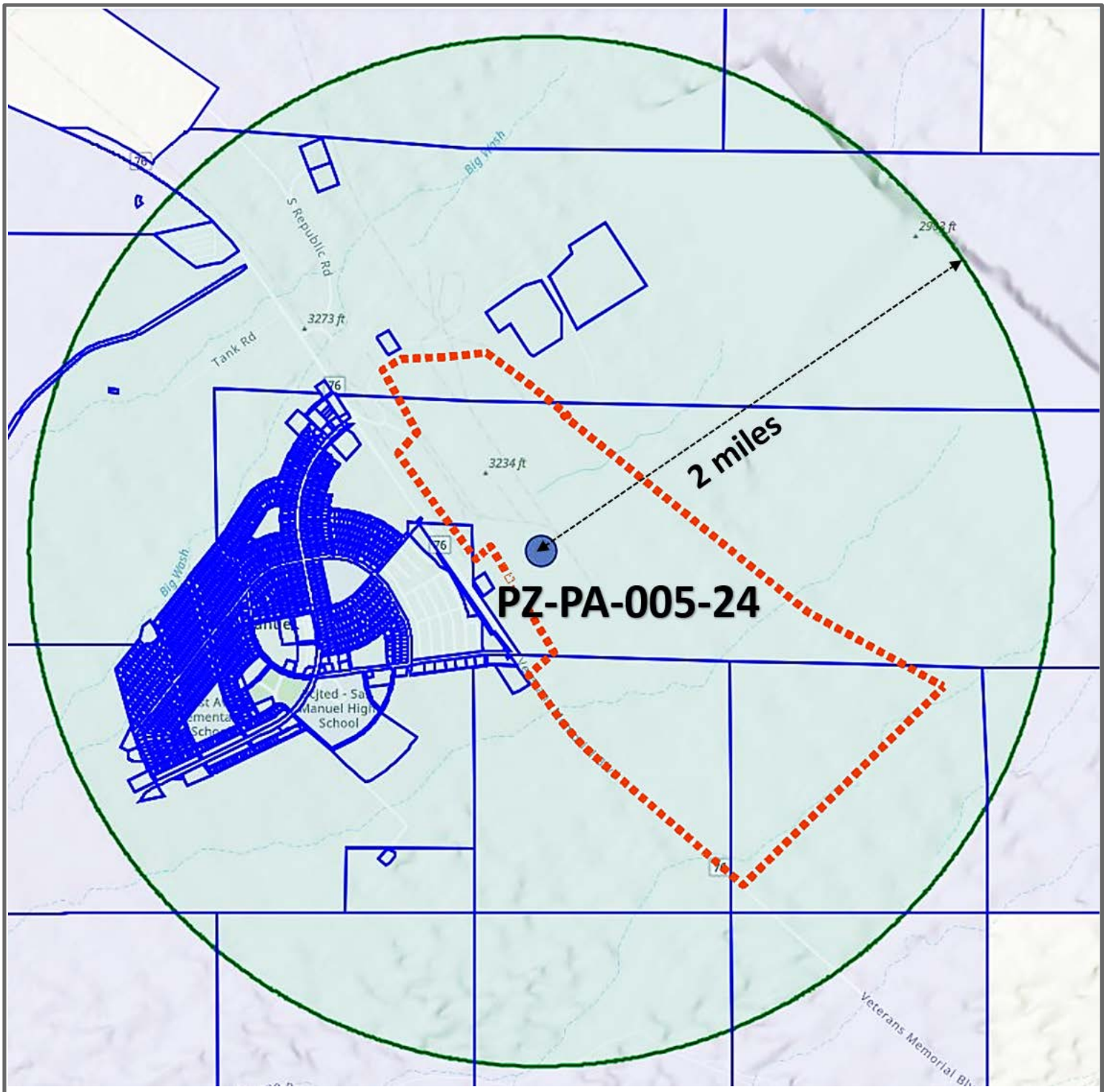
3. **Regulatory Compliance:** Pinal County staff would monitor and regulate compliance with environmental and safety standards during the rezoning and site planning phases.

In conclusion, while the proposed amendment offers significant benefits, including support for sustainable energy and potential economic growth, it is crucial to address all outlined considerations to ensure a balanced and responsible approach. By implementing robust environmental safeguards, engaging with the community, and ensuring regulatory compliance, the project can achieve its goals while minimizing adverse impacts. Approval of the amendment, with these considerations, will facilitate a successful integration of the solar facility into the local landscape.

DATE PREPARED: 09/10/24 – Monika S.
DATE REVISED: 09/24/24 - Monika S.

PZ-PA-005-24

PUBLIC PARTICIPATION



Mail Out Map

Owner/Applicant: 310SM 8me LLC Meaghan Austin with SWCA Environmental Cons	**Legal Description:** situated on a portion of sections 28, 29, 32, 33, 34 Township 9 South, Range 17 East, together with portions of Sections 3 and 4 Township 10 South, Range 17 East of the Gila and Salt River Meridian (legal on file). Portions of tax parcels include: 307-20-0010, 307-20-002B, 307-08-389E, 307-05-019R, and 307-05-019W, located east of S. Republic Rd in the vicinity of San Manuel, within the unincorporated portion of Pinal County. . SEC 28,29,32-34,3,4 TWN 9-10S, RNG 17E	PINAL COUNTY WIDE OPEN OPPORTUNITY	Current Zoning: GR Current Land Use: MLDR

Drawn By:	Date:		
Section 28,29,32-34,3,4	**Township** 9S, 10S	**Range** 17E	
Case Number: **PZ-PA-005-24**			

PZ-PA-005-24

PUBLIC PARTICIPATION LETTERS

PINAL COUNTY

Monika Smriti <monika.smriti@pinal.gov>

Fwd: Fw: PZ-PA-005-24 - PUBLIC HEARING 9-5-24 ENVIRONMENTAL IMPACT STUDY IS WARRANTED

1 message

Susan Rousseau <susan.rousseau@pinal.gov> Fri, Sep 6, 2024 at 9:00 AM
To: Gilbert Olgin <gilbert.olgin@pinal.gov>, Todd Williams <todd.williams@pinal.gov>, Brent Billingsley <brent.billingsley@pinal.gov>, Monika Smriti <monika.smriti@pinal.gov>
Cc: Natasha Kennedy <natasha.kennedy@pinal.gov>

Good Morning,

Please see the below email of opposition for PZ-PA-005-24

---------- Forwarded message ---------
From: **Raneri** <raneri@earthlink.net>
Date: Thu, Sep 5, 2024 at 7:45 PM
Subject: Fw: PZ-PA-005-24 - PUBLIC HEARING 9-5-24 ENVIRONMENTAL IMPACT STUDY IS WARRANTED
To: <smriti@pinal.gov>
CC: <kevin.cavanaugh@pinal.gov>, <mike.goodwin@pinal.gov>, <stephen.miller@pinal.gov>, <bosdistrict4@pinal.gov>, <jeffrey.mcclure@pinal.gov>, <jeff.serdy@pinal.gov>, <wrogers@azleg.gov>, <dcook@azleg.gov>, <dmarshall@azleg.gov>

To Whom it may concern,

I am forwarding the following letter as an endorsement of the writers comments. it reflects proper stewardship of county and State resources. I add my opposition to the proposed project.

I also have a few comments of my own. The reference to stewardship is to reinforce your inferred responsibility to the county and it's inhabitants, not incidentally your constituents.

This ENERGY project is proposed in proximity to a population that has serious energy insecurity. The power goes out when the wind blows, affecting private citizens and small businesses. I happen to own of them, The Oracle Patio Cafe. When I have to send my staff home because it got windy, it affects the area financially.

Also this population has seen historic rate increases along with diminishing service. What is the county doing to correct these issues?

To add insult to injury, we are not able to have a grid tied solar system in Oracle. So you are considering putting 1200 acres of solar panels that benefit the state of California and produce a profit for a foreign entity in a region that suffers from local power blight and is restricted from producing their own solar power?

I must ask any of the supervisors that are considering this approval: How much do you hate your constituents? Are you willing to look them in the face and say you approved a project that has no opportunity to benefit or improve their lot, while at the same time destroying 1200 acres of pristine desert that is your responsibility to steward?

Perhaps if the local population that will be affected by this got a 50% utility credit or a SIGNIFICANT benefit, enough voices would enjoin you to approve it. Apparently this is not the case and you will have appeared have sold Pinal County out to California.

I sincerely hope you at least require a comprehensive Environmental Impact Study. The human impact will be determined at the polls.

Sincerely,

David Raneri
1275 Thunder Rd
Oracle AZ 85623

-----Forwarded Message-----
From: SLC <SLC-2021@protonmail.com>
Sent: Sep 3, 2024 12:37 PM
To: smriti@pinal.gov <smriti@pinal.gov>
Cc: kevin.cavanaugh@pinal.gov <kevin.cavanaugh@pinal.gov>, mike.goodwin@pinal.gov <mike.goodwin@pinal.gov>, stephen.miller@pinal.gov <stephen.miller@pinal.gov>, bosdistrict4@pinal.gov <bosdistrict4@pinal.gov>, jeffrey.mcclure@pinal.gov <jeffrey.mcclure@pinal.gov>, jeff.serdy@pinal.gov <jeff.serdy@pinal.gov>, wrogers@azleg.gov <wrogers@azleg.gov>, dcook@azleg.gov <dcook@azleg.gov>, dmarshall@azleg.gov <dmarshall@azleg.gov>
Subject: PZ-PA-005-24 - PUBLIC HEARING 9-5-24 ENVIRONMENTAL IMPACT STUDY IS WARRANTED

September 3, 2024

VIA EMAIL TO DEPARTMENT'S CONTACT PERSON:
MONIKA SMRITI, PLANNER smriti@pinal.gov
Pinal County Development Services Department
PO BOX 749 / 85 N Florence Street
Florence, AZ 85132

RE: PZ-PA-005-24

To Whom It May Concern:

On August 22nd, I received notice from Pinal County Planning for a hearing only two weeks away scheduled in Florence, 9-5-24 at 6 pm.

After doing a deep dive of research into the growing industry of Solar Power Plants and BESS systems, I am compelled to address this letter of opposition to the requested change in zoning being proposed at the BOS hearing on September 5th at 6pm in Florence. I would further ask that my letter of opposition be entered into the public record at the hearing on September 5th, 2024 in Florence.

Applicants' submittal package was more than 300 pages, but it was not necessary to read the entire submission to realize that this purposed project posed many risks to the health and safety of the entire community of San Manuel, as well as residents throughout the San Pedro River Valley, and our protected wildlife of birds, desert tortoises, and gila monsters.

The fact that the applicant would even proposed a 1,227.5 acre site of photovoltaic solar cells in a NATIONAL RIPARIAN PATHWAY displays both an ignorance and arrogance to the sacred enviroment of the Sonoran's San Pedro River Valley's RIPARIAN PATHWAY. Though those in the solar industry will try to argue with reported "false lakebed effect", it is still a known phenomena that occurs when birds believe they are seeing water and dive to their deaths instead. To even purpose such a project in a riparian pathway seems contradictory to common sense.

310SM 8me LLC, within their submittal package stated within their narrative (very early within the document) that no desert tortoises had been observed within a five mile radius to the proposed site. Such a comment is indicative that they have not done a thorough ENVIRONMENTAL IMPACT STUDY of the area. Both Arizona

Desert Tortoises and Gila Monsters are PROTECTED SPECIES that have specific state laws prohibiting their handling or displacement.

Numerous residents within San Manuel have stated to me directly within the last week, that every year during the tortoises season of activity (not hibernating) that tortoises are rescued REGULARLY as they attempt to cross the Veterans Memorial Highway, and that several were rescued this season, this year. The tortoises were rescued crossing the exact stretch of land where the applicant is purposing their project. They obviously have not done a thorough ENVIRONMENTAL IMPACT STUDY to ensure protected species in the area will not be disturbed. I myself have observed two different gila monsters crossing the Veterans Memorial Highway in the same area within the last six months. The gila monsters are also protected under state law.

In researching the past week about BESS systems, and the problematic occurrences of LITHIUM BATTERY EXPLOSIONS AND FIRES occurring spontaneously, or due to overheating, it is apparent to me that the developer again has NO true knowledge (or concern, or care) of our Sonoran San Pedro River Valley, its environment, and its gale force winds that appear out of nowhere from all directions but especially from the Eastern Galiuros range, and from the Western Catalina range. We also experience tremendous amounts of dry lighting that can combust the desert floor upon impact. If dry lightning were to hit one of the batteries placed on the purposed sit, San Manuel will be in DESPERATE TROUBLE.

Fires that have occurred due to the failure of BESS systems are known to take an unpredictable and dangerous path that requires SPECIALIZED FIRE TRAINING by first responders. It would be well to remember the recent fire that jumped the ridge of the Catalinas and ignited and burned almost to Redington road - and that was a CONVENTIONAL fire.

The community of San Manuel has only one road into the community, and one road out. Placing a BESS system along that only road is inviting disaster and destruction upon the community and its nearly five thousand residents. If the BESS system failed and combusted in any way, and an easterly gale wind were to arise, the entire community and all residents could be wiped out. Additionally the fires could spread throughout the river valley, where many rural residents also have only one road in, and one road out. Again, this all seems contradictory to COMMON SENSE!!!

Applicant claims that their project will provide approximately 200 jobs to the area during the anticipated 20 months of construction, but fail to indicate how many jobs may be provided for the upkeep and maintenance of the facility. I do not see license plates of locals as the "walking man' towers have been erected. No I see plates on vehicles from Texas, Idaho, Utah, and Nevada....NOT ARIZONA. So I challenge that comment, simply by what I have observed the past year as I walk Redington Road daily with my dogs.

As for providing area jobs once they complete their facility, I again question how many of our local residents would actually be offered employment, for what I understand from my research in the past week, the jobs that are available in maintaining and repairing these types of facilities are rather specialized and require technical expertise in the field of solar energy.

In reading about the required maintenance required for such facilities it is written that regular and period cleaning with purified filtered water of the solar cells is required to ensure optimal performance, and without such cleaning the cells will not function correctly. Are we to assume that such water usage will have no effect to our ground water in the valley?

Solar cells are known to have a life expectance of approximately 30 years, after which time they are discarded and replaced. There is no viable recycling of the toxic waste that is created by solar cells that are now being dumped in landfills across our nation and the world. Who will be responsible in the cost removal and dumping of the 1,227.5 acres of solar cells this project will create? Will the developer set aside a fund to deal with the toxic waste they are creating in our community and state? Will they offer to take the toxic waste and place it in landfills in California, since every single MW of power that is going to be produced is going to California? Will they offer to pay for the cleanup and transportation of the toxic waste to their state, since they are the ones insisting it be placed in our back yards? I HIGHLY DOUBT IT!!!

In the past week, I spoke to one of my rural neighbors, who had followed the SunTze submittal and development hearings, which occurred prior to our relocation here. They had studied the submittal packages and they had attended almost every community meeting. They told me last week, that the now purposed Solar Plant being pursued by 310SM 8me LLC, WAS NEVER ONCE included in the SunTze submittal information. This is because developers joined forces, and through loopholes, found it in their best interest to

exclude this information from the those who it would affect the most. The residents of San Manuel, and the rural residents who live throughout the valley. Not a coincidence.

Before any further action is taken in moving this purposed project ahead, a detailed ENVIRONMENTAL IMPACT STUDY is warranted by all. The projected site plan is inappropriate, and places every resident within our community, at risk, and also poses substantial risk and harm to many protected species in our Sonoran desert.

I stand vehmently opposed to the requested zoning change, and ask that an immediate ENVIRONMENTAL IMPACT STUDY be implemented to ensure the health, safety, and well being of the San Manuel community, surrounding area, and protected desert species that dwell within the proposed plan site.

Susan L Clary, Resident and Property Owner
32341 S Redington Road / 206 N Nichols Ave
307-31-005A / 307-08-420A
San Manuel, AZ 85631
760-534-4057

Sent with Proton Mail secure email.

1) Planning Case Number: PZ-PA-005-24
2) Aimee & Aaron Fullerton
   110 S Ave B
   San Manuel, AZ 85631
   Property Tax Parcel Number: 307-07-2580
3) Please See Below
4) We are planning to attend the hearing, we may not wish to speak.

To whom it may concern,

We would like to voice our opposition to the proposed Major Comprehensive Plan Amendment for the following reasons.
The project will diminish the aesthetic of the landscape, which is already being negatively impacted by the Sunzia project.
The project offers little if any benefit to the communities impacted by its presence.
The construction of the project and the road work indicated will be disruptive to local residents as well as the surrounding communities.
Given that the applicant (310SM 8me LLC) is based in an affluent area in California, and its parent company (Avantus) was recently acquired by a multi-billion dollar equity company, we feel that the needs and wishes of our rural community will not be understood or considered.

Please consider relocating this project. Of all the uninhabited land in southern Arizona, there must be a more suitable location that will not impact residents of any community, much less this one. To outsiders this landscape may seem unattractive, but to those of us raised here, it's beautiful and worth preserving. Since the smokestacks of the mine have been removed, and our view has improved, we are loathe to see anything take their place. In addition, we would like to have the zoning remain as is and not be changed to industrial as we feel this opens the door to even less desirable projects/businesses after the 30-40 year projected life of the project.

Thank you for your time and attention.

Sincerely,
Aimee & Aaron Fullerton

1) Planning case number: PZ-PA-005-24 Ore Town Solar

2) Name: Heath Strickland
Address: 907 W 1ST AVE, San Manuel AZ
Telephone #: (520) 800-3562
Tax parcel #: 307-08-0760

3) I **OPPOSE** the request of amending the land use plan to green energy production for the development of a solar power plant with battery storage.
I COULD WRITE A BOOK ON THE REASONS PLACING A GIANT SOLAR FARM RIGHT NEXT TO SAN MANUEL IS A SOPHOMORIC AND LITIGEOUS IDEA. HERE ARE A FEW:

- Its insane to place a solar farm which is 3 times bigger than San Manuel in San Manuel. Stop harassing small towns with little means to defend themselves!
- I have a PhD in Electrical Engineering from Purdue University and my expert testimony is solar panels cause local climate change, mercury poisoning when disposed of, and easily catch on fire via infrastructure. Placing a fire hazard adjacent to a population center will cause death and desert fires. There is plenty of land in Arizona to separate homes from these abominations.
- The contractor is an LLC because they want an easy legal out when the lawsuits are eventually filed for depreciation, quality of life and environmental issues.
- The proposed site is on top of toxic mine tailings that have been somewhat stabilized with 6 inches of topsoil. **Your site is toxic and flawed**. There will be leaching into the San Pedro River and aquifers due to this ill-conceived construction effort. The land is unstable pilings and chemically volatile.
- Insurance companies in Florida are denying coverage to homes that have solar panels on or adjacent to them. This can and will happen to San Manuel home owner's policies.
- There will be no appreciable gain for San Manuel, but there will be appreciable losses in tourism and home evaluations. We moved here because it is pristine desert and now there are ugly giant towers that destroyed much of our recreation land and this solar farm will be a dagger in any potential town expansions.
- There will be no decrease in the citizens electric bills. They will go up instead.
- The OVERWHELMING MAJORITY of San Manuel home owners oppose these ugly solar farms in our town. This is more government intrusion from big cities wanting to punish small towns for the benefit of big city growth.
- That area is a prime hunting regeneration area for deer and Javelina.
- No biological, geological, or hazardous EPA studies have been commissioned.
- No local jobs will come of this project. The procurement LLC prime contracting company is out of state, not local.

4) I will not be appearing at the hearing but will file for litigation soon.

Mary Lavis

115 W Webb Drive
San Manuel, AZ 85631
928-532-3492

Pinal County Development Services Department
PO Box749 (85 N Florence Street)
Florence, AZ 85132

August 28, 2024

LETTER OF OPPOSITION

RE: **Planning Case Number** PZ-PA-005-24

The San Manuel area has beautiful scenery and desert landscape. It's a wonderful sight to look out over the Galiuro Mountain Range.

In recent months our desert view has been marred by enormous ugly power lines and the desert around those lines destroyed. It's a shame and as I understand it San Manuel does not benefit from this project.

And now we have a new solar project that if approved, will be built on desert land right across Veteran's Highway (Reddington Road) from our town. This project will cover an area larger than San Manuel. If you want to build solar fields why not put them in an area that is not seen by residents. There's a lot of land out there, please leave our lovely little area alone and find another location.

Thank you for the opportunity to state my opposition to this solar project. I will not be attending the meeting and do not wish to speak.



Mary Lavis
San Manuel resident
marylcrowder@gmail.com

J Michael and Mary Dudley
135 W 6th Avenue
San Manuel, AZ 85631
jmichaeldudley@msn.com
azhanson101@gmail.com
520-404-7118
808-375-1573

August 25, 2024

Pinal County Development Services Department
P O Box 749 (85 N Florence Street)
Florence, AZ 85132

RE: Case Number PZ-PA-005-24

Dear Sir or Madam:

We are the owners of Parcel Number: **307-07-06209** in the community of San Manuel, Arizona. We have been owners of properties in the community for over 20 years.

It is with disappointment that we received the Notice of Public Hearing regarding the proposed MAJOR COMPREHENSIVE PLAN AMENDMENT to the Pinal County Comprehensive Plan. Although we will be **unable** to attend the public hearing to be held September 5th, in Florence, AZ, we wish to express our thoughts and opinions **opposing** such a proposal.

San Manuel is a small, rural community that has been taken advantage of since the closing of the BHP Mining operation. Not only by the mining company, but also large corporations seeking to improve their personal revenue stream with absolutely no regard for the community. San Manuel is struggling to provide better living conditions and opportunities for its residents. The very "things" which the community naturally has in its favor seem to be systematically eroded. SunZia has scarred the beautiful San Pedro River Valley, and now, more than one thousand acres of solar across an area that was originally designated for moderate low density residential dwellings is being threatened.

The "New Green Deal" has companies receiving monies from the Federal Government to build "green power". The tax credits to these developers will do nothing to support the residents of San Manuel. There are no benefits from "green power" for this community. Does allowing benefits to other communities, and even states, seem acceptable? Will any local, long-term jobs be made? Who will decide what the economic impact will be to this unique small town? Who will remove all the steel and glass if this becomes defunct? Will this property be allowed to look like the old abandoned missile silos? This area is just outside the E77 San Manuel Airport traffic

area. Will there be an impact on the existing sewage treatment facility? Development of future homes will generate property taxes and business far more important to Pinal County.

In the current economic climate, retirees are looking for affordable, economic homes in communities that offer what we have...beautiful mountains, clean air, lovely weather, good people, good medical care, a golf course, and for some, a wonderful airport.

Will you choose large corporations over us, your Pinal County residents? We are not wealthy. We are not a very large community. Sadly, we seem to have no voice. Please speak for us. Speaking for us is the purpose you serve on the Planning and Zoning Board.

Thank you for considering the needs of our community. We need your support to move away from being disadvantaged by big business and large corporations.

Respectfully,



Mary Dudley
J Michael Dudley

PINAL COUNTY

Monika Smriti <monika.smriti@pinal.gov>

PZ-PA-005-24 - HEARING SEPT 5TH 2024

1 message

NavyMike <NavyMike@protonmail.com> Tue, Sep 3, 2024 at 2:22 PM
To: "monika.smriti@pinal.gov" <monika.smriti@pinal.gov>
Cc: "mike.goodwin@pinal.gov" <mike.goodwin@pinal.gov>, "stephen.miller@pinal.gov" <stephen.miller@pinal.gov>, "wrogers@azleg.gov" <wrogers@azleg.gov>, "bosdistrict4@pinal.gov" <bosdistrict4@pinal.gov>, "dcook@azleg.gov" <dcook@azleg.gov>, "dmarshall@azleg.gov" <dmarshall@azleg.gov>, "jeffrey.mcclure@pinal.gov" <jeffrey.mcclure@pinal.gov>, "jeff.serdy@pinal.gov" <jeff.serdy@pinal.gov>, "kevin.cavanaugh@pinal.gov" <kevin.cavanaugh@pinal.gov>

September 3, 2024

Monika Smriti, Planner *VIA EMAIL: MONIKA.SMRITI@PINAL.GOV*
PINAL COUNTY DEVELOPMENT SERVICES DEPARTMENT
PO BOX 740 / 85 N FLORENCE STREET
FLORENCE, AZ 85132

RE: PZ-PA-005-24, Request for zoning change

To Whom It May Concern:

The purpose of the requested zoning change is to allow the applicant to build a 145MW Photovoltaic Solar Power Plant with Battery Energy Storage System (BESS) on 1,227.5 acres across from the community of San Manuel Arizona.

Upon researching these solar power plants and battery energy storage systems, it has been proven to be a fire hazard and requires special fire fighting training and equipment to control such fires, if it is even possible. That presents San Manuel, and the County, with the possibilities of devastating loss of life and property, should a fire ever ignite.

This proposed Solar Power Plant will require the destruction of 1,227.5 acres of beautiful desert flora and fauna. In this area is the location of protected desert species such as the Sonoran Desert Tortoise and the Sonoran's Gila Monster. Unfortunately, the species of the Sonoran Desert Tortoise is not doing well. They are threatened and protected under state law because of their population decline and numerous threats they face, such as human development & harassment, habitat loss, etc.... The Gila Monster according to 3-29-23 article on NationalGeographic.com they are currently considered near threatened by the "International Union for Conservation of Nature". The Gila Monster is also protected by state law in Arizona. It is important to note that it is illegal to kill, capture, pursue, or in anyway impede a Gila Monsters activities. This include touching them in any way.
The Gila Monster, as listed in the Conservation on International Trade in Endangered Species. (CITES) Appendix II, CITES lists species that can become endangered. They were the first venomous animal in North America to get Legal Protection. This means that it is illegal to collect, kill, capture, pursue, or in anyway impede a Gila Monsters activities. I personally have observed Gila Monsters crossing the Veterans Memorial Highway in the area of the proposed site plan.

It if for these important reasons that I am very strongly opposing the application for major comprehensive zoning change to the Pinal County Comprehensive Plan, and ask that my letter of opposition be entered into the public record for the September 5th hearing that is scheduled. It is my belief that a COMPREHENSIVE ENVIRONMENTAL IMPACT STUDY needs to be conducted to ensure the health and safety of citizens living in San Manuel, as well as the San Pedro River Valley, and to ensure the protection of our legally protected desert species.

Michael R Clary
32341 S Redington Rd / 206 S Nichols Ave
307-31-005A / 307-08-420A

San Manuel, AZ 85631
760-534-4219

cc: Other Interested Parties

Sent with Proton Mail secure email.

1) Planning case number: PZ-PA-005-24 Ore Town Solar

2) Name: REBECCA WARD
Address: 909 W 1ST AVE, San Manuel AZ
Telephone #: (406) 304-6482
Tax parcel #: 307-08-0750

3) I oppose the request of amending the land use plan to green energy production for the development of a solar power plant with battery storage.
My reasons for opposing this are the following:
A solar power plant built in the desert is a fire hazard. DC isolators, connectors, cables, and inverters that are used in the solar farm are well known to cause fires. It is especially ridiculous to endanger citizens of San Manuel with this "Green Energy" idea. There was a fire in May 2024 at a solar farm built in Coolidge, AZ that was started under their panels as an example of my concern. This proposition is a danger to where I own property and live!
Another reason I do not want this solar farm put near our town is because home insurance companies are canceling premiums in Florida if a homeowner has a solar panel on their home. I know solar farms are not solar panels on houses, but can Pinal County guarantee that insurance companies will not start doing that here in Arizona? Even insurance companies do not want to take the risk of solar panels. If a whole farm of solar panels are put near homes, it may make people lose their home insurance. Will Pinal County take responsibility if this occurs to citizens of San Manuel?
This is a notice that Pinal County was notified that the reasons I stated may occur due to the rezoning of land for a Solar Power Plant with Battery Storage.

4) I will not be appearing at the hearing

PINAL COUNTY

Monika Smriti <monika.smriti@pinal.gov>

Fw: PZ-PA-005-24 - PUBLIC HEARING 9-5-24 ENVIRONMENTAL IMPACT STUDY IS WARRANTED

1 message

SLC <SLC-2021@protonmail.com> Tue, Sep 3, 2024 at 1:30 PM
To: "monika.smriti@pinal.gov" <monika.smriti@pinal.gov>

Monika,
Attached please find email that I just sent to you in reference to the PZ-PS-005-24, planning hearing on September 5th, 2024, in Florence.

I had your email address incomplete apparently. Please see my letter of opposition below, and enter it into the hearing record.

Thank you,

Susan L. Clary
760-534-4057

Sent with Proton Mail secure email.

------- Forwarded Message -------
From: SLC <SLC-2021@protonmail.com>
Date: On Tuesday, September 3rd, 2024 at 12:37 PM
Subject: PZ-PA-005-24 - PUBLIC HEARING 9-5-24 ENVIRONMENTAL IMPACT STUDY IS WARRANTED
To: smriti@pinal.gov <smriti@pinal.gov>
CC: kevin.cavanaugh@pinal.gov <kevin.cavanaugh@pinal.gov>, mike.goodwin@pinal.gov <mike.goodwin@pinal.gov>, stephen.miller@pinal.gov <stephen.miller@pinal.gov>, bosdistrict4@pinal.gov <bosdistrict4@pinal.gov>, jeffrey.mcclure@pinal.gov <jeffrey.mcclure@pinal.gov>, jeff.serdy@pinal.gov <jeff.serdy@pinal.gov>, wrogers@azleg.gov <wrogers@azleg.gov>, dcook@azleg.gov <dcook@azleg.gov>, dmarshall@azleg.gov <dmarshall@azleg.gov>

September 3, 2024

VIA EMAIL TO DEPARTMENT'S CONTACT PERSON:
MONIKA SMRITI, PLANNER smriti@pinal.gov
Pinal County Development Services Department
PO BOX 749 / 85 N Florence Street
Florence, AZ 85132

RE: PZ-PA-005-24

To Whom It May Concern:

On August 22nd, I received notice from Pinal County Planning for a hearing only two weeks away scheduled in Florence, 9-5-24 at 6 pm.

After doing a deep dive of research into the growing industry of Solar Power Plants and BESS systems, I am compelled to address this letter of opposition to the requested change in zoning being proposed at the BOS hearing on September 5th at 6pm in Florence. I would further ask that my letter of opposition be entered into the public record at the hearing on September 5th, 2024 in Florence.

Applicants' submittal package was more than 300 pages, but it was not necessary to read the entire submission to realize that this purposed project posed many risks to the health and safety of the

entire community of San Manuel, as well as residents throughout the San Pedro River Valley, and our protected wildlife of birds, desert tortoises, and gila monsters.

The fact that the applicant would even proposed a 1,227.5 acre site of photovoltaic solar cells in a NATIONAL RIPARIAN PATHWAY displays both an ignorance and arrogance to the sacred enviroment of the Sonoran's San Pedro River Valley's RIPARIAN PATHWAY. Though those in the solar industry will try to argue with reported "false lakebed effect", it is still a known phenomena that occurs when birds believe they are seeing water and dive to their deaths instead. To even purpose such a project in a riparian pathway seems contradictory to common sense.

310SM 8me LLC, within their submittal package stated within their narrative (very early within the document) that no desert tortoises had been observed within a five mile radius to the proposed site. Such a comment is indicative that they have not done a thorough ENVIRONMENTAL IMPACT STUDY of the area. Both Arizona Desert Tortoises and Gila Monsters are PROTECTED SPECIES that have specific state laws prohibiting their handling or displacement.

Numerous residents within San Manuel have stated to me directly within the last week, that every year during the tortoises season of activity (not hibernating) that tortoises are rescued REGULARLY as they attempt to cross the Veterans Memorial Highway, and that several were rescued this season, this year. The tortoises were rescued crossing the exact stretch of land where the applicant is purposing their project. They obviously have not done a thorough ENVIRONMENTAL IMPACT STUDY to ensure protected species in the area will not be disturbed. I myself have observed two different gila monsters crossing the Veterans Memorial Highway in the same area within the last six months. The gila monsters are also protected under state law.

In researching the past week about BESS systems, and the problematic occurrences of LITHIUM BATTERY EXPLOSIONS AND FIRES occurring spontaneously, or due to overheating, it is apparent to me that the developer again has NO true knowledge (or concern, or care) of our Sonoran San Pedro River Valley, its environment, and its gale force winds that appear out of nowhere from all directions but especially from the Eastern Galiuros range, and from the Western Catalina range. We also experience tremendous amounts of dry lighting that can combust the desert floor upon impact. If dry lightning were to hit one of the batteries placed on the purposed sit, San Manuel will be in DESPERATE TROUBLE.

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performance, and without such cleaning the cells will not function correctly. Are we to assume that such water usage will have no effect to our ground water in the valley?

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Before any further action is taken in moving this purposed project ahead, a detailed ENVIRONMENTAL IMPACT STUDY is warranted by all. The projected site plan is inappropriate, and places every resident within our community, at risk, and also poses substantial risk and harm to many protected species in our Sonoran desert.

I stand vehmently opposed to the requested zoning change, and ask that an immediate ENVIRONMENTAL IMPACT STUDY be implemented to ensure the health, safety, and well being of the San Manuel community, surrounding area, and protected desert species that dwell within the proposed plan site.

Susan L Clary, Resident and Property Owner
32341 S Redington Road / 206 N Nichols Ave
307-31-005A / 307-08-420A
San Manuel, AZ 85631
760-534-4057

Sent with Proton Mail secure email.

Pinal County Development Services Dept.
PO Box 749
Florence, AZ. 85132

8-17-24

919 W Webb Dr
San Manuel, AZ 85631
Property tax parcel # 307-09-039A

Dear Monika,

We are stating our opposition to the proposed solar field at San Manuel, AZ. The planning case # is PZ-PA-005-24

The proposed field would be larger than our whole community, and would detract from the surrounding beauty which is one of the main draws for people living here, and for visitors to our town. Changing the zoning from Moderate Low Density Residential also reduces any expansion that this community may need in the future. This proposed solar field will not add any value to our community. We will not significantly gain anything from it, and would only lose our beautiful views.

We will not be able to attend the hearing in person, so are expressing our opposition to the zoning change, now.

Sincerely,

Susanne Holt

Susanne Holt
406-690-9803

Edward Holt

Ed Holt
406-839-0839

"Concerns About SM Solar Project"

- Case # PZ-PA-005-24

IF Solar Panels, Batteries & ENERGY ARE Allowed to be the second LARGEST Solar Project in ARIZONA and NOT FOR ARIZONA Residents - Then there MUST be SAFETY & SAFE Guards in place & ENFORCED! (Safety) FOR LOCAL Communities! There MUST be a very LARGE Active - well Trained & Maintained Fire Department Nearby & hopefully Not Paid with TAXES thru our County BUT Paid by the Owner of said Benefit & Project! And TAXES Assessed them for Revenue FOR Community & County!
Along with other Benefits to our Communities & County NOT FOR JUST FOR Profit Corporations, other people and other STATES!!!

RECEIVED
SEP 9 2024
PUBLIC WORKS

Sincerely Jennifer Cox
520 730 4515

I plead that the State of ARIZONA Consider its People - And Make this a Win-Win! Please don't Sell out ARIZONA & its people!

Email from Brian Cox regarding PZ-PA-005-24 Ore Valley Solar

On Wed, Aug 28, 2024, 9:30 PM Jennifer Cox <jennifercoxlives@gmail.com> wrote:

Hello-This is Brian Cox a resident who owns a Home in San Manuel for 35 years in Feb 2025 / I have worked for MAGMA Copper Company at the Oxide MINE Division- 6 miles North of San Manuel before it was sold to BHP/ I then worked at ASARCO-Ray MINE near Kearny AZ as a Diesel Mechanic, Machinist,Crane Operator for 20 years and then went to work for APS ELECTRIC COMPANY for 6 years at a Dual Cycle Power Plant west of Phnx,AZ there I was able to witness the preparation, clearing & installation of SOLAR PLANTS on APS Properties on a large scale ! What is proposed in San Manuel Az is a definite positive in all areas, with a very small list of negatives/ the positives are already dealt with like=the proposed area being close to level,reclaimed, & meets EPA Approval and most issues are already dealt like with=water drainage/dust control/ reseeding of low lying plants/fencing to keep the public out/and possibly more! In my opinion this is the Best spot in AZ possibly the USA!/ Not only is the Smelter,Mill,

MINE & Underground MINE- dismantled,removed,fenced & Security Gates with Guard Stations there, There is Electric High Lines with Transformer yard capable of supplying 3 Phase Power,there was Electric Hoist Towers with a large Modern Tank House and once Electro Wining= meaning there is a possibility of Good usable Electricity there! Not only is the site proposed vacant,it appears Drainage and Dust should Not cause any issues! An additional plus is the Open Pit is still accessible and 500-800 Feet deep and higher in Elevation than the San Pedro River/ With Engineering & Planning there is a good opportunity for a project like EAGLE MOUNTAIN in California with lined Lower & Upper Reservoirs-1 being filled intermittently and maybe a possibility of a Lake in the dry San Pedro River Bed with possibility of an Earthen Dam-3 Large ongoing Pipes for a Hydro Electric Generating Station at River bottom with switching capability of pumping water to refill the Upper Reservoir ! Knowledge from the Underground Mine proves there is an excess of ground water Not a shortage!

If there were Lined Upper & Lower Reservoirs I believe No water issues or contamination would apply ! I believe this has Very Good Potential-All Green Power with low installation cost,high benefits! Plus 95% of the Time the Wind Blows away from the Town of San Manuel-So Lots of Pluses and Very Few Negatives

and cheaply dealt with !! There is currently under construction 3 Phase High Tension Lines running thru our vicinity from New Mexico to Casa Grande AZ- Also the high probability of used Hydro Electric Generators

that were abandoned at Childs Generating Station on the Verde River that were used by APS Electric/ I would like to meet with you! I have studied these possibilities and i am highly interested would like to talk them over may want to invest. I don't know of a better situation in all of the USA- Thank You for your time- BRIAN COX-Phone # 520-730-4515

On Wed, Aug 28, 2024 at 9:57 PM Jennifer Cox <jennifercoxlives@gmail.com> wrote:

Oops Typo- instead Diesel Mechanic should be Diesel Electric Mechanic!! Thank You Again! 👆

On Thu, Aug 29, 2024, 8:40 AM Jennifer Cox <jennifercoxlives@gmail.com> wrote:

Additionally There is more area on sloping mesa's that could be achieved and used to everyones benefit- I would like to speak with those envolved I have ideas that would benefit Everyone involved!!

Highly suggest that YouTube Video be about called Descriptive Animation of Eagle Mountain Pumped Storage Facility hosted by Eagle Crest Energy Company

PINAL COUNTY

Monika Smriti <monika.smriti@pinal.gov>

Re: San Manuel Solar Project

1 message

Jennifer Cox <jennifercoxlives@gmail.com> Tue, Sep 24, 2024 at 8:51 AM
To: Chimeen 313 McNab SM <chimeneh@gmail.com>
Cc: Monika Smriti <monika.smriti@pinal.gov>

i have done what i can to encourage people to educate themselves, I'm late in getting involved, the opportunities to express opinions between each other is extremely limited, also many people living in this area may not be able to attend meetings, also I'm finding many people are elderly and disabled and may have trouble going to meetings in Florence also people must make a living. Because of this i am begging for the County officials to bring well publized local meetings to San Manuel, more than 1 meeting. infact several are necessary. In order for everyone to have input into our personal futures. I believe this is Correct Respectful and Necessary. I am respectfully asking for the County cooperation in this effort. it is my belief that the community of San Manuel and surrounding areas deserve this consideration. Please respond with County input.

On Mon, Sep 16, 2024, 4:52 PM Jennifer Cox <jennifercoxlives@gmail.com> wrote:

> On Mon, Sep 9, 2024, 10:56 AM Jennifer Cox <jennifercoxlives@gmail.com> wrote:
>
> ---------- Forwarded message ---------
> From: **Jennifer Cox** <jennifercoxlives@gmail.com>
> Date: Sun, Sep 8, 2024, 6:49 PM
> Subject: Re: San Manuel Solar Project
> To: Monika Smriti <monika.smriti@pinal.gov>
>
> Hi its,Brian Cox again- I would like to share the following= " https://www.symtechsolar.com also See liquid cooled battery energy storage systems at symtechsolar.com / I have read this article and my opinion is lithium ion batteries with out liquid cooling are a fire hazard, in one case in Phoenix an explosion happened during a fire, when fire fighters went into a building the air from opening the door caused an explosion, which hurled 2 firefighters thru the air, as a result policy in Phoenix is to Not send in fire fighters- instead to secure the area and let the batteries burn themselves out. According to reports this can take 7 days. This Article is available on the internet about fluid cooling for battery storage. Following is verbatim from the article =in the ever evolving landscape of battery energy storage systems, the quest for efficiency, reliability, and longevity has lead to the development of more innovative technologies. One such advancement is the liquid cooled energy storage battery system, which offers a range of technical benefits compared to traditional air cooled systems. Much like the transition from air cooled engines to liquid cooled. Energy storage systems are now moving towards the same technological heat management "add on" . Below we will delve into the technical intricacies of liquid cooled energy storage systems and explore their advantages over their air cooled counter parts. #1= basics of liquid cooling---liquid cooling is a technique that involves circulating a coolant, usually a mixture of water and glycol, thru a system to dissipate heat generated during the operation of batteries. This is in stark contrast to air cooled systems, which rely on the ambient and internal or (within an enclosure) modified air to cool the battery cells. #2=Benefits of liquid cooled battery storage systems=(1.) enhanced thermal management: liquid cooling provides superior thermal management capabilities compared to air cooling. It enables precise control over the temperature range. This is crucial for maintaining longevity and performance of batteries. (2.) Higher energy density: Liquid cooling allows for a more compact design and better integration of battery cells. As a result liquid cooled energy storage systems often have higher density compared to their air cooled counter parts. This means that more energy can be stored in a given physical space, making liquid cooled systems particularly advantageous for installation with space contrains. (3.) Improved Safety: efficient thermal management plays a pitiol role in insuring the safety of energy storage systems. Liquid cooling helps prevent hot spots and minimizes the risk of thermal runaway, a phenomenon that could lead to catastrophic failure in battery cells. This is a crucial factor in environments where safety is paramount, such as residential and commercial installations. (4.) Consistant performance: Liquid cooling contributes to maintaining a stable and consistent temperature across all battery cells. This uniform thermal environment translates into more reliable and predictable performance, allowing for better control over the charging and discharging processes. This consistency is particularly important for applications requiring a high level of precision, such as grid stabilization and frequency regulation. (5.)

Extended battery life: by mitigating the impact of heat on battery cells. Liquid cooling contributes to extending the overall life span of the energy storage system. Prolonged battery life is a significant factor in reducing the total cost of ownership and improving economic viability of energy storage solutions. (6.) Flexible installation: Liquid cooling systems offer greater flexibility in terms of installation, as they are Not as dependent on external air circulation. This allows for more versatile placement options, making them suitable for a variety of environments and applications. Temperature regulation for optimal performance: maintaining and optimal operational temperature is paramount for battery performance. Liquid cooled systems provide precise temperature control, allowing for fine tuning of thermal conditions. This level of control ensures that batteries operate in conditions that maximize their efficiency, charge/ discharge rates and overall performance. Integration with renewable energy sources: Liquid cooled energy storage systems are particularly advantageous in conjunction with renewable energy sources,such as solar and wind. The ability to efficiency manage temperature fluctuations ensures that the batteries seamlessly integrate with the intermittent nature of these renewable sources. This integration contributes to a more stable and reliable energy supply, addressing one of the major challenges associated with renewable energy development. Scalability and modular design: Liquid facilitates a more Scalable and modular design for energy storage systems. The ability to efficiently cool individual battery cells enables the creation of modular units that can be easily combined to scale up the storage capacity. This Scalability is essential for adapting energy storage solutions to the varying needs of different applications, from residential setups to large scale grid storage facilities. Environmental considerations: While the environmental impact of any technology is a crucial consideration, liquid cooled systems can be designed with sustainability in mind. Closed looped systems can be implemented to minimize water usage, and environmentally friendly coolant options are available. additionally, the longer life span and increased efficiency of liquid cooled systems contribute to a more sustainable overall energy storage solution. The following is information on more reliable with a better warranty and better than industry standard= " Sun Power Maxion3 Solar Panels- Overview= The degradation rate of Sun Power Maxion3 Solar Panels is 0.25%- per year with a maximum of 2% degradation in the 1st year this means that by year 25, the Panels are guaranteed to produce 92 % of their minimum peak power rating. Efficiency: Upto 22.7 % power output 425 watts warranty 25 years both product and performance. Performance Degradation guaranteed output of 98% in 1st year Power Tolerance: 0--+5% the industry average is 0.5% per year for 25 years. Maxeon are considered an offer a lower degradation rate than industry standard. ENJOY 40 years of reliable energy! Welcome to the Solar industries longest warranty: PV MODULE RELIABILITY SCORECARD. BASED ON DATA FROM ITS PRODUCT (PQP) The scorecard highlights the Exemplary Reliability Performance of Solar Panel Manufacturers Worldwide. Almost 4 times stronger Reliability than conventional Panels.

On Wed, Sep 4, 2024, 4:33 PM Jennifer Cox <jennifercoxlives@gmail.com> wrote:

> Here is additional info from Brian Cox- SUN POWER MAXEON 3 -Solar Panels degradation rate is 0.25% per year with a maximum of 2% degradation in the 1st year/ this means that by year 25 tge panels are guaranteed to produce 92% of their minimum peak power rating = Efficiency: upto 22.7 %/ Power Ouout: 425 watts / Warranty: 25 Years/ Performance Degradation: Guaranteed output of 98% in 1st year / Power Tolerance: 0 to +5%// The industry average degradation is 0.5% per year for 25 years. Maxeon panels are considered premium & offer a lower degradation rate than industry standard. ENJOY 40 YEARS OF RELIABLE ENERGY!! Welcome to the Solar industries longest warranty! Maxeon Panels were recognized in the 2022 PVEL PV Module Reliability Scorecard. Based on data from its Product PQP -the scorecard highlights the Exemplary Reliability Performance of Sokar Panel Manufacturers Worldwide. Almost 4 times stronger Reliability than conventional Panels! All can be viewed on their website.
>
> On Sun, Sep 1, 2024, 6:45 PM Jennifer Cox <jennifercoxlives@gmail.com> wrote:
>
> > Nearly identical landscape and possibilities are available here in SM and Mammoth,with possible 3rd Resevior nearby East of SM Resiviors can be lined, external piping can be done with heavy duty HTPE piping and fusing machines,is capable of withstanding medium to high pressure of 1,000 PSI according to what I've been told. Used Hydro Electric Generators maybe available from San Carlos Lake-Coolidge Dam, that has insufficient water for generating purposes. also as mentioned before Hydro Electric Generators have been abandoned at Childs,AZ an APS ELECTRIC Facility. This equipment maybe available elsewhere in the USA. I SEE THIS AS NEEDFUL SITUATION THAT POSSIBLY CAN BE CONSTRUCTED CHEAPLY AND IS RELIABLE AND ABLE TO PRODUCE FOR PEAK USAGE TIMES. Also possibility of more reseviors if need be at higher elevations in Oracle,Az or Galiuro Mtns. in my opinion all of this is doable, also slag can be purchased from a Smelter in Winkelman AZ for aggregate & concrete, Please check into the sliding jail house in Jerome Az made with the same type of concrete as above mentioned. The has sliden and will not fall apart it is so tough. All of these reccomendations generate positives for everyone involved, our community being supplied with power and is a big plus for making the whole thing go / for customers and suppliers. Please see the suggested YouTube Videos, at this point I can see little to no disadvantages, Please contact me as I have very valuable info to share- Brian Cox #520-730-4515 I am working on a way to make the Sept 5th meeting in Florence
> >
> > On Sun, Sep 1, 2024, 6:15 PM Jennifer Cox <jennifercoxlives@gmail.com> wrote:

Highly suggest that YouTube Video be about called Descriptive Animation of Eagle Mountain Pumped Storage Facility hosted by Eagle Crest Energy Company

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> Additionally There is more area on sloping mesa's that could be achieved and used to everyones benefit- I would like to speak with those envolved I have ideas that would benefit Everyone involved!!
>
> On Thu, Aug 29, 2024, 7:27 AM Monika Smriti <monika.smriti@pinal.gov> wrote:
> > Thank you, Brian, for taking the time to express your support and feedback for the proposed project. I will forward your email to the applicant's team.
> >
> > Please visit this link below to know more about the project in detail.
> >
> > https://www.pinal.gov/DocumentCenter/View/19849/PZ-PA-005-24-PDF
> >
> > Best,
> >
> > **Monika Smriti,** Planner
> > Development Services
> > 85 N. Florence St, First Floor
> > Florence, AZ 85132
> > monika.smriti@pinal.gov
> > 520-866-6294
> >
> > On Wed, Aug 28, 2024 at 9:57 PM Jennifer Cox <jennifercoxlives@gmail.com> wrote:
> >
> > > Oops Typo- instead Diesel Mechanic should be Diesel Electric Mechanic!! Thank You Again! 👍
> > >
> > > On Wed, Aug 28, 2024, 9:30 PM Jennifer Cox <jennifercoxlives@gmail.com> wrote:
> > > > Hello-This is Brian Cox a resident who owns a Home in San Manuel for 35 years in Feb 2025 / I have worked for MAGMA Copper Company at the Oxide MINE Division- 6 miles North of San Manuel before it was sold to BHP/ I then worked at ASARCO-Ray MINE near Kearny AZ as a Diesel Mechanic, Machinist,Crane Operator for 20 years and then went to work for APS ELECTRIC COMPANY for 6 years at a Dual Cycle Power Plant west of Phnx,AZ there I was able to witness the preparation, clearing & installation of SOLAR PLANTS on APS Properties on a large scale ! What is proposed in San Manuel Az is a definite positive in all areas, with a very small list of negatives/ the positives are already dealt with like=the proposed area being close to level,reclaimed, & meets EPA Approval and most issues are already dealt like with=water drainage/dust control/ reseeding of low lying plants/fencing to keep the public out/and possibly more! In my opinion this is the Best spot in AZ possibly the USA!/ Not only is the Smelter,Mill,
> > > > MINE & Underground MINE- dismantled,removed,fenced & Security Gates with Guard Stations there, There is Electric High Lines with Transformer yard capable of supplying 3 Phase Power,there was Electric Hoist Towers with a large Modern Tank House and once Electro Wining= meaning there is a possibility of Good usable Electricity there! Not only is the site proposed vacant,it appears Drainage and Dust should Not cause any issues! An additional plus is the Open Pit is still accessible and 500-800 Feet deep and higher in Elevation than the San Pedro River/ With Engineering & Planning there is a good opportunity for a project like EAGLE MOUNTAIN in California with lined Lower & Upper Reservoirs-1 being filled intermittently and maybe a possibility of a Lake in the dry San Pedro River Bed with possibility of an Earthen Dam-3 Large ongoing Pipes for a Hydro Electric Generating Station at River bottom with switching capability of pumping water to refill the Upper Reservoir ! Knowledge from the Underground Mine proves there is an excess of ground water Not a shortage!
> > > > If there were Lined Upper & Lower Reservoirs I believe No water issues or contamination would apply ! I believe this has Very Good Potential-All Green Power with low installation cost,high benefits! Plus 95% of the Time the Wind Blows away from the Town of San Manuel-So Lots of Pluses and Very Few Negatives
> > > > and cheaply dealt with !! There is currently under construction 3 Phase High Tension Lines running thru our vicinity from New Mexico to Casa Grande AZ- Also the high probability of used Hydro Electric Generators

that were abandoned at Childs Generating Station on the Verde River that were used by APS Electric/ I would like to meet with you! I have studied these possibilities and i am highly interested would like to talk them over may want to invest. I don't know of a better situation in all of the USA- Thank You for your time- BRIAN COX-Phone # 520-730-4515

D&M Terminals LLC
15062 S Highway 77
Mammoth, AZ 85618
Parcel 306-33-00101

Pinal County Development Services Department
PO Box 749 (85 N Florence Dr)
Florence, AZ 85132

RE: **Support for Ore Town Solar & Storage Project**
(Case Number PZ-PA-005-24)

Dear Supervisor McClure,

I am writing **in support** of the Ore Town Solar & Storage Project currently under consideration for a Comprehensive Plan Amendment, to change the Designation from "Moderate Density Residential" to "Green Energy Production". I [do not] wish to appear and be heard at the meeting.

As a community member, this solar project is the most productive repurposing of this land; furthermore, carefully sited projects such as the Ore Town Solar & Storage Project are an appropriate and important component of our community's development. The project would enhance the resiliency of the electric grid and provide needed electricity to power the continued growth of Arizona and Pinal County.

The economic benefits to the County and community will bolster the local economy and provide an investment in future generations by providing tax revenues, jobs and training opportunities.

We need this project now to help ensure a thriving, future energy-focused County and community. I urge you to approve the Ore Town Solar & Storage Project.

Sincerely,

Michael Conner Cecil
President
B.J. Cecil Trucking

Cc: Monika Smriti, Planner

PINAL COUNTY

Monika Smriti <monika.smriti@pinal.gov>

Solar power plant

1 message

Jose Lopez <jo4glo@gmail.com> Fri, Sep 13, 2024 at 1:31 PM
To: "monika.smriti@pinal.gov" <monika.smriti@pinal.gov>

Hi. My name is Jose Lopez, and I Support the case number PZ-PA-005-24. Jose & Alma Lopez 915 1st Ave San manuel Arizona 85631 520 483-3049 parcel number 307080720. We Support this Idea is time to have jobs in this community.
Thanks 😊

PINAL COUNTY

Monika Smriti <monika.smriti@pinal.gov>

I support PZ-PA-005-24

1 message

T.C. Brown <tcbphoto@yahoo.com> Thu, Sep 19, 2024 at 11:00 AM
To: monika.smriti@pinal.gov

PZ-PA-005-24 Ore Town Solar
Todd Brown
1020 W Webb Drive
San Manuel AZ 85631
520-971-7543
Parcel # 307-09-5440

I support the proposed zoning change on BHP property. I do not feel the local organizations and community members should have a say on what occurs on the private property of a local company. The ones complaining would not like others telling them what to do with their property. All emotional and Not in My Backyard (NIMBY) junk and false information being shared to get others emotional and bent out of shape. I do not plan on attending the meeting.

Sent from my iPhone

San Manuel Fire District
29575 S Veterans Memorial Blvd,
San Manuel AZ. 85631

Pinal County Development Services Department
PO Box 749 (85 N Florence Dr)
Florence, AZ 85132

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Sincerely,

Cc: Monika Smriti, Planner

September 23, 2024

David Prough

222 E. 5th Street

San Manuel, Arizona 85631-1406

Property Tax Parcel #3070740000

Pinal County Development Services Department

P.O. Box 749

Florence, AZ 85132

Jeffrey McClure,

This is to inform you that we are in total support of the Avantus, Ore Town Solar Center in San Manuel. We encourage Pinal County to make any and all necessary changes to move this project forward.

We are aware of the economic benefits that this type of project can make to a community from our many visits to Hatch, New Mexico. This is the future, let's be a part of it.

The opportunity is before us. We urge you to approve Ore Town.

Sincerely,

David, Yvonne & Jeni Prough

David D Prough

Yvonne Prough

Jennifer Prough

[Name] Cecilia M. Zoellner
[Address] 208 E. Ave H San Manuel, Az 85631
[Property tax parcel number]

Pinal County Development Services Department
PO Box 749 (85 N Florence Dr)
Florence, AZ 85132

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Sincerely,

[[Name]] Cecilia M Zoellner

Cc: Monika Smriti, Planner

[Name] José Hurtado
[Address] 623 5th Ave San Manuel AZ 85631
[Property tax parcel number]

Pinal County Development Services Department
PO Box 749 (85 N Florence Dr)
Florence, AZ 85132

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Sincerely,

[[Name]]
Jose Hurtado

Cc: Monika Smriti, Planner

[Name] Albertina Zazueta
[Address] 108 S Ave B - San Manuel / AZ 85631
[Property tax parcel number]

Pinal County Development Services Department
PO Box 749 (85 N Florence Dr)
Florence, AZ 85132

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Sincerely,

[[Name]] Albertina Zazueta

Cc: Monika Smriti, Planner

[Name] Rebecca Zazueta
[Address] 504 Cadera St. San Manuel AZ 85631
[Property tax parcel number]

Pinal County Development Services Department
PO Box 749 (85 N Florence Dr)
Florence, AZ 85132

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Sincerely,

[[Name]] Rebecca Zazueta

Cc: Monika Smriti, Planner

[Name] Lynwood & Barton
[Address] 304 McNab
[Property tax parcel number]

Pinal County Development Services Department
PO Box 749 (85 N Florence Dr)
Florence, AZ 85132

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Sincerely Lynwood Barton

[[Name]]
Lynwood BARTON

Cc: Monika Smriti, Planner

[Name] Jesus A Duarte
[Address] 108 S. Ave B - San Manuel
[Property tax parcel number]

Pinal County Development Services Department
PO Box 749 (85 N Florence Dr)
Florence, AZ 85132

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Sincerely,

[[Name]] Jesus A. Duarte

Cc: Monika Smriti, Planner

[Name] Mary Ellen Hurtado
[Address] 623 5th Ave San Manuel AZ 85631
[Property tax parcel number]

Pinal County Development Services Department
PO Box 749 (85 N Florence Dr)
Florence, AZ 85132

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Sincerely,

[[Name]] Mary Ellen Hurtado

Cc: Monika Smriti, Planner

[Name] Daniel Zazueta
[Address] 504 Ladera Dr.
[Property tax parcel number]

Pinal County Development Services Department
PO Box 749 (85 N Florence Dr)
Florence, AZ 85132

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Sincerely,

[[Name]] Daniel Zazueta

Cc: Monika Smriti, Planner

Robert Lee
223 Ave A
San Manuel AZ 85631

[Name]
[Address]
[Property tax parcel number]

Pinal County Development Services Department
PO Box 749 (85 N Florence Dr)
Florence, AZ 85132

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Sincerely,

[[Name]] Robert Lee

Cc: Monika Smriti, Planner

[Name] Shannon Sanders
[Address] 309 McNabb Pw
[Property tax parcel number]

Pinal County Development Services Department
PO Box 749 (85 N Florence Dr)
Florence, AZ 85132

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[[Name]]

Cc: Monika Smriti, Planner

Stewart Kraft
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RECEIVED
SEP 23 2024

Pinal County Development Services Department
PO Box 749 (85 N Florence Dr)
Florence, AZ 85132

RE: **Support for Ore Town Solar & Storage Project** (Case Number PZ-PA-005-24)

Dear Supervisor McClure,

I am writing **in support** of the Ore Town Solar & Storage Project currently under consideration for a Comprehensive Plan Amendment, to change the Designation from "Moderate Density Residential" to "Green Energy Production". I [do] wish to appear and be heard at the meeting.

As a community member, this solar project is the most productive repurposing of this land; furthermore, carefully sited projects such as the Ore Town Solar & Storage Project are an appropriate and important component of our community's development. The project would enhance the resiliency of the electric grid and provide needed electricity to power the continued growth of Arizona and Pinal County.

The economic benefits to the County and community will bolster the local economy and provide an investment in future generations by providing tax revenues, jobs and training opportunities.

We need this project now to help ensure a thriving, future energy-focused County and community. I urge you to approve the Ore Town Solar & Storage Project.

I am supportive of this project and have not heard in my neighborhood of any massive backlash . When I first saw the area when moving to this town , my thoughts were of how perfect a spot for a solar project as the infrastructure was already in place.

Sincerely,

Stewart Kraft

Cc: Monika Smriti, Planner

PZ-PA-005-24

CITIZEN ADVISORY COMMITTEE MEETING

SYNOPSIS

RIGGS: Any other questions? Any motions?

KALANDROS: If no one else will make a motion, I'd like to make motion, Mr. Chair. I move to recommend approval of PZ-PA- 011-24. Steve Kalandros speaking.

METZGER: Toby Metzger with District 2, and I second.

RIGGS: Okay, any discuss - further discussion from the Committee? We have, right now we have a motion to approve.

KALANDROS: Steve Kalandros again, just explaining my motion. Again, this was one I was really on the fence on, and it seemed like a lot of my concerns are addressed here. And it is literally just down the street from the substation to connect to. It seems like it's got local support, it seems like it's a better fit right now, so it seems like it makes sense to me, and so that's why I recommended approval. Thank you.

??: I agree. I like that we're not losing any farmland and it also creates a nice buffer for the Tesla track, or the Nissan Testing Ground.

TODD: I have a - this Phil Todd again. I have the same concern that we've expressed on the previous ones. We've got 300 megawatts of battery storage. I haven't heard anybody make any comments about the potential issues associated with that. And once again, if it doesn't align with the Pinal

County Comprehensive Plan, then something needs to change somewhere. I vote nay.

RIGGS: Any further discussion? All right, seeing none, we'll proceed with a motion that we approve, or we do recommend that this project move forward. All in favor, please signify by hand. Any opposed?

??: Two against.

RIGGS: Okay, so motion is - we are - the Committee is moving to approve this and it's going to move forward. Or we are recommending this. Sorry. All right, so I think that's most of our public people here, but I think we have several twos.

OLGIN: Committee Members, so we're going to start from the top now. So the next case we're going to review, I should say present, is Ore Town Solar.

RIGGS: You probably thought they were here at the beginning of the agenda.

SMRITI: Good evening Committee Members, County staff and members of the audience. I am Monika Smriti, Planner. I am presenting the case PZ-PA-005-24, Ore Town Solar and battery storage. It's a Comprehensive Plan Major Amendment request by the applicant, SWCA Environmental Consultants, on behalf of the owners, 310SM 8me LLC, to redesignate 1,227 acres of land from Moderate Low Density Residential to Green Energy Production for a 145 megawatt

photovoltaic solar plant with battery storage. It is located in San Manuel (inaudible) designated area, along the South Veteran Boulevard that you can see here on this slide. This is the general location of the site with reference to the San Manuel townsite, and San Pedro River, City of Mammoth, in the (inaudible) area, a mining site as well. This map shows here the current Comprehensive Plan designation that is MLDR, and the proposed land use designation is going to be Green Energy Production because that's where the solar plants are allowed. The other land uses surrounding the proposed site is the General Public Facilities, mid-activity – Mid Intensity Activity Centers, and Major Open Space. This image here shows the current site condition. The proposed site is a vacant land with a portion of the project area previously used as an ore processing site by San Manuel Copper Mine between 1955 to 2003. This aerial image here shows how the site looked in 1971. As you can see here, the Tribing community of San Manuel Townsite and the old processing site. And this is the current condition of San Manuel townsite, on this image. So this particular site is nestled in the foothills of Galiuro Mountains. The proposed site overlooks Rhodes Peak and Grassy Peak, with the San Pedro River flowing further east. The majority of the proposed site is vegetated and generally slopes from southeast to northeast. This site is part of the Big Wash, San Pedro River watershed, with the minor washes

flowing from southwest to northeast, including the San Pedro Big Wash, as you can see here on this image. So the proposal is for a 145 megawatt solar photovoltaic generating facility, with 145 megawatt battery energy storage system, and 115 kilowatt generation tie transmission line to be connected to the regional electric grid at the existing San Manuel substation, that's located on the northern portion of the proposed site. This map shows here the neighbors notified for this public hearing within the radius of two miles. And we have received eight opposition letters and one letter for support. The opposition by these have concerns about benefits for the local community, specifically economic benefits. Potential fire hazards and environmental impacts on existing flora and fauna, including Arizona desert tortoise and Gila monsters. We received this comment from the Arizona Game and Fish Department as well. They have concerns regarding contamination mitigation from previous ore processing and potential waste disposal concerns related to the solar farm after the decommissioning. And they also mention possibility for other allowable uses of current land use designation. The support letter mentioned that the site is well prepared for a solar farm and they inquired about potential investment opportunity for individuals, especially the retiree community living in San Manuel townsite currently. So staff has concluded that the transformation of a portion of the

historically industrial site into a sustainable Green Energy project represents a significant upgrade from its existing land use to the future land use. However, the project must balance community needs with the broader benefit of Green Energy, including enhancements to local infrastructure and economic sustainability. A careful consideration of the existing environment, flora, fauna and drainage mitigation strategy will be required during the site development phase, especially for the remaining Greenfield portion of the site. Thank you.

RIGGS: Any - open it up to the public. Public comments.

MANSAGER: Hello, my name is Deb Mansager. I have been a resident of San Manuel for 40 years. I love my community. I'm there because I choose to be there. We have been bombarded with SunZia and the electrical powers, and they have destroyed our landscape. The pictures that you were shown to give reference to what, doesn't do justice to San Manuel. You need to come out and see San Manuel. It is beautiful. The Galiuros, the San Pedro. We are extremely, extremely worried of the pollution, the battery base that this solar farm will have. We have incredible animals. My house backs the desert, I see bobcats. I have bears, I have owls. It's incredible. We do not want to lose. We are in San Manuel because we choose to be there. We don't even have a

traffic light in our town. A lot of people can't even imagine that. It's incredible. For now to have our - this solar plant farm come in, you're ruining, you're ruining what we have chosen to live for. We are unincorporated, we pay our taxes, we do everything we are supposed to do. We've lost our grocery store, we lost the mine, but we are surviving. And we do not need this solar power farm to help us in any way. We have been destroyed, as I said, with SunZia and what they've done, and we had no input at all. That was just slammed on us, so we are desperately trying to be a part of these meetings and to give our opinion. And I would so - I know earlier it was talked about emotions, well yeah, that's what it is - we are very emotional. We want our community to be as it is. I want to see the stars at night. I want it quiet, I want the animals. Thank you so much.

RIGGS: Thank you. Anyone else? Everyone is signing in as they come up? Thank you.

SCHWANDT: Hi, my name is Genevieve Schwandt. I have been in San Manuel now for 20 years, from Wisconsin. We chose it there because of the site of it being kind of country. We are farm people, and we had annuities and things, but they are gone. We're trying to build the town back up since the mine has left. As she said before, we have a solar plant now that has inundated our place. And as you see these humongous towers, you have a sense of, why us? We're at the

end of Pinal County and why are we being inundated with this? I'm hoping that most of us will come and speak to you and tell you that we don't want this. I, for one, am definitely against it. But I do like solar, but in places that where we don't have children. We are getting families back now, and that's a good thing because then you feel like a community when you have multiple different ages. So please really give this a lot of consideration because I, for one, want to see the children for generations thrive in this community. I don't want them seeing dying. Thank you.

RIGGS: Thank you.

BAKER: Good evening, I have to apologize because it is kind of past my bedtime right now, so…. My name's Jon Baker, I'm from Oro Valley, but I am BHP's land man. I came up here to just speak real quickly on why we chose this and where we're going with this. BHP owned San Manuel and actually created San Manuel back in the, what, 1950s I believe it was. We did remove the mine in 1996 and it did hurt, and we definitely are thoughtful about that at all - at every decision we ever make. Now, this land, specifically, about 50 percent of it is brownfield lands. This is stuff where the smelter was, and the SXW plant was, that cannot be allowed for people to be living on. It's not something that we are okay with from a liability perspective, or any other type of perspective. We chose this one because where it was, next to

the tailings - it's kind of hard to see that, but that tailings there is super tall, and it's up there on the northeast side of that picture. Right? That tailings is probably a good 50 feet high, right? Then the road is higher than where the solar will be. So we chose this spot specifically because it was going to be not as much of an eyesore, because it will be lower and be kind of protected with the wind and whatnot. So we went through an exhaustive search on who we were going to go with this. We went - we interviewed so many different partners and we chose the current partner. We have definitely put in tons of mitigation for decommissioning, tons of mitigation for any and everything you could think of, ethical sourcing of the panels, all of that. With that said, this is what we came here to say and, you know, we hope that you approve them to go forward and.

RIGGS: Thank you. Anything else from the public? All right, we'll close the portion of the public. Does a representative want to come up and do their presentation?

HORWITZ: Good evening, and thank you Committee Members, for having us. I'm Robbie Horwitz with Avantus, the developer of the project. And first off, I want to thank the community members for coming up and speaking as well. We hear your concerns. I want to say that, you know, we really value working with communities and bringing benefits to the communities. We think that this project is actually really

well sited. It's a brownfield site, you know, as Kevin mentioned – or sorry, John mentioned before – you know, there will be minimal visual impacts from the community, or even from the road, because the road is elevated. The panels will only be about 6 to 10 feet off the ground. There's also existing infrastructure on the north end of the site where the existing APS utility substation is located, where the project will interconnect to the grid. So, you know, minimal visual impacts. The project will also create a lot of property tax revenue, which will be beneficial for the community members, the school district, as well as the fire district. So I know there's been a lot of talk about, you know, the concerns around the batteries. This money will bring – or sorry, this project will bring more money to the fire district, and of course, we will use only Tier 1 suppliers who, you know, go through rigorous safety requirements and testing for the battery systems. We'll also have special training for the emergency response teams, fire and emergency personnel. The O&M will – the O&M team will ensure that the battery devices are operating and functioning as they are expected to, and we'll also use and install special fire detection and prevention devices within the battery systems. So, you know, again, the project will generate a lot of revenue for the local community and the State of Arizona, and it will also create a lot of local jobs - both construction, so short term

construction, and longer term operations and maintenance positions as well. And with that, I'd be happy to take any questions that you have. Yeah.

MOORE: Pat Moore. I've been here 25 years in Saddlebrooke, and I've spent a lot of time in San Manuel, and I watched the smelter come down and I watched the contamination from the mines. And from what I can read, the decommissioning was set up that what they should do, and things were buried. There was asbestos involved, there was a lot of chemicals from the tailing ponds involved, and I never saw a closed decommission report on that, number 1. And number 2, how much are you going to have to disturb the ground layer that went over the buried stuff that's down there – and there's a lot of it – in order not to bring that up and pollute the area for the people of San Manuel and cause health problems for them? Because that's been buried since 7, isn't it 2007 when the smelters went down? But there's asbestos, and there's chemicals, and there's arsenic and cadmium and everything else, and you can't just go in there and set these solar panels up without grading and disturbing. So what are we going to hear about?

HORWITZ: That's an excellent question. And so we are avoiding developing on the northern portion of the site where those things are still in the ground. So we're going to avoid that area entirely and - in order to mitigate that risk.

Yeah.

MOORE: Will you cap it so that there's no way that that's going to happen? I mean are you going to cement it or something so the people moving in and out of there with trucks are not disturbing that area?

HORWITZ: I think what we would do is just avoid any activity on that area. But we can, you know, work with the planning team and try to understand what best practices would be around that area. Like you said, I think it was decommissioned in 2010.

MOORE: 7.

HORWITZ: Or yeah, in that timeframe, and so we can look into that. But the plan right now is to avoid that area entirely.

MOORE: I'd like to see that come to the Committee, a decommission plan that was done and closed by the County or whoever closes those decommissionings on things like that. I'd like to see it become part of this thing that you turn in.

HORWITZ: And also –

MOORE: Because I couldn't find it anywhere, where it was done.

HORWITZ: Just on the topic of decommissioning, I just note, because this came up earlier, that we fully expect to have decommissioning requirements in place with both the County and with BHP so that, you know, at the conclusion of

the project's lifespan, it will be removed and return, you know, the area would be restored to the condition that it's in now or better.

MOORE: Okay.

HORWITZ: Yeah, yes sir.

ROBERTSON: Bill Robertson. I'm uniquely familiar with this location. I was the environmental health and safety contractor during the decommissioning of the smelter, so I completely understand the environmental concerns and how it was handled at the time. And so my question is, will this project improve the risk - environmental risk - as opposed to leaving it alone the way it stands now?

HORWITZ: I think in a way, certainly yes. You know, I think solar is a responsible way to develop this site. BHP also came to that conclusion, you know, how can this site best be used? What is the best and most valuable use for this area? You know, solar is not going to involve a lot of people, you know, running around here. It's not going to be turned into a playground or residential. The solar will have, you know, a couple of people performing operations and maintenance. There won't be a lot of vehicle traffic here, and so in that way, by setting it aside as a solar power plant that will be fenced off and, you know, the public would not be able to access it, we think that it, you know, is a safe space.

ROBERTSON: I guess my question was, let's talk about some natural things occurring, like heavy rainstorm and runoff. Is it bad now? Will it be better when the project's completed with infrastructure in place to control runoff and things like that? I'm just trying to get a feel for whether we're moving the needle in a positive direction or not.

HORWITZ: I don't know if that - yeah, sorry. Yeah.

??: (Inaudible). So it was only –

OLGIN: If you can speak into the mic, please.

BAKER: Again, Jon Baker with BHP. I did confirm that it was fully decommissioned, as far as the brownfield area, and approved by ADEQ and all the APP permits, as well as we have Swift permits out there that we actively maintain.

ROBERTSON: So it currently has a brownfield status?

BAKER: Yes.

ROBERTSON: Okay. Another question, it'd to be for him. You talked about jobs. Mostly solar fields don't produce long term jobs in any significant number. I understand the construction phase. What are we talking about actual people onsite getting jobs when it's up and running?

HORWITZ: Yeah, that's right, and I'm not trying to mislead in any way. The most significant, you know, number of jobs would certainly be during the construction period. There will be, you know, a handful of jobs created longer term for operations and maintenance. There would also be, you know,

benefits to local businesses, you know, primarily during the construction period as well, right? The restaurants and hotels or grocery stores or whatever, would be expected to get some additional business.

ROBERTSON: Maybe you'll bring a store in, and a bowling alley, and a Chick-Fil-A.

HORWITZ: Yeah, sorry, only solar for us. But yeah.

ROBERTSON: And you also mentioned, you know, tax revenue. Let's be transparent. That tax revenue is going to go to the County, not to the community, and the community's going to have to fight for those dollars. That's just the way it works.

HORWITZ: Well, I mean, so overall we expect the project to generate about $70 million in property tax revenue over the project's life, and that would be split between the State of Arizona and the County, including, you know, the local fire district, the school district, etc., right? Yes ma'am.

??: As Liz mentioned before, and we had this discussion in San Tan Valley because of some developments here, are you going to promote or create a watchdog group so people in the community can be involved and invested in their safety?

OLGIN: If I may, that's a great question, but I don't think it has relevance tonight. I mean it's way above

what we're doing tonight in regards to the land use. So if we could just kind of - we've been doing really good tonight. Staff has allowed a lot of the questions to go through, but just so we could stay focused on the land use, so we're within open meeting law.

BRISTOW: Yeah, Alicia Bristow again, and we're a neighbor, Tri-Community in Oracle. And when I saw this, I did make some questions. Did you – and so one question I have for you based on input that has been sent in recently, and what's in the report, because the community does not want the solar project. Did you take into consideration what they've already – the work they've put in the last few years since the mine closed? Because it's been tourism and we worked a lot with them. The impacts to tourism, did you even look at that? Because it's not a beautiful community. I mean the scenery's gorgeous, the Galiuro Mountains are beautiful, but they are working so hard for - to bring in tourism and they don't feel that that's the first thing people driving into their community want to see or should see. Have you made any connections with the County, because the County has its own tourism component. I know, because we were promoting Oracle, and so we did work with our other communities. Did you take into consideration how people were going to feel about what you would be doing to their tourism visitors coming in?

HORWITZ: So, you know, generally, you know, our

expectation is that, you know, solar makes a good neighbor, right? It is, again, we don't think that there's going to be, you know, we don't think it's going to be highly visible either from the road or from the town, given that – and there's a couple of things maybe I didn't mention before. I think it was mentioned that the road is higher than where the panels will be.

BRISTOW: You'll be looking down on the panels.

HORWITZ: So yeah, but so you don't have a view from the town or from the road up. But also, the panels will be set back by approximately 200 feet from the road, so that that provides some additional, you know, distance. We are working on some visual simulations that will show that to folks, what we expect it to look like. But, you know, I don't think that it's going to have as much of an impact, you know, visually as people are sort of envisioning. But I don't know if we have spoken to the, you know, the folks focused on tourism. I don't know if my team (inaudible).

??: I don't think we have yet.

HORWITZ: And, you know, we can certainly take that –

BRISTOW: Yeah, you really need to, because they're focused on one direction, and now there's this new. And it may look small in there, but I'm surprised the airport isn't complaining from, but that's a huge area. I mean there's one

road into this town and one road out of it, and that is a humongous area. Couldn't you have picked a better area than that? There's so much desert out there.

HORWITZ: Well, again, it's a brownfield site, so we think it's a good use for this site, which otherwise, you know, might have trouble with development. And we're not using the entirety of the site. We're also, you know, so as I said, we're avoiding the northern portion of the site, which has a lot of stuff underground. We're avoiding those washes to minimize any, you know, runoff impacts or, you know –

BRISTOW: How many service roads will you have constructed in here to accommodate this construction and everything? Because if you know a rural area, you will not keep an ATV rider, an offroad vehicle rider off of your dirt roads if they're not closed off.

??: (Inaudible).

OLGIN: For the minutes, can we get you to come up? Or? And as I said, I think we're kind of drifting off of the land use designation question, so just keep it in mind.

??: Yes, (inaudible), I'm the project engineer with Avantus. So the existing BHP land is fenced off. There is no public access to this property as it stands.

BRISTOW: You'd be surprised what people can get around.

OLGIN: Please speak into the mic, we can't hear

you, Committee Member.

BRISTOW: I'm sorry, I said you'd be surprised what our rural people could get around - barbed wire fences and every - up and down hills and everything. You - have you ever gone ATV riding back in our area?

??: No, I have not, unfortunately.

BRISTOW:. You should, it would be an experience. Thank you.

HORWITZ: You know, I just, I will add, though, you know, if security is a concern, we're worried about people getting into the site either now or particularly when it's a solar project, I mean we certainly would take the appropriate measures to try to enhance security. So, you know, and we typically have different types of security on our plants, you know, across the southwestern U.S.

BECHTEL: I know if Steve's gonna go. Colleen Bechtel. On the executive summary - and this may be more for staff - on the executive summary, there is parcel numbers identified, and the gross acreage of 8,700 and, I don't know, it says 94.88 acres. There's no map of that entire 8,000, almost 8,800 acres. When we vote, are we voting on the gross or the net acreage?

OLGIN: Gross.

BECHTEL: We're voting to amend the plan on the gross. So all 8,794 acres –

SMRITI: No, the net acres, 1,227.5 acres.

BECHTEL: Okay, so I just heard gross, now I'm hearing net. Do we have confirmation of what will be changed on the plan?

OLGIN: Staff will check.

SMRITI: I am not able to see any 8,000 acres.

BECHTEL: In the executive summary, the parcel numbers – so for instance, parcel number 307-08-3 - I gotta put my glasses on - 389E is 30.25 acres. The net acreage is .42, so only .42 will be in the project, but will 30 acres be changed to Green Energy?

SMRITI: No ma'am, only the portions of those parcels are going to be changed into the project area that you see here on this map.

HORWITZ: So the project area is about 1,200 acres.

OLGIN: Okay.

BECHTEL: I understand that, but I just have not seen in my experience where only part of a parcel changes in zoning, and that's why I'm concerned, is that 1,200 acres, we'll be voting on 8,700 acres to go from - to Green Energy.

OLGIN: So actually it's quite common to – so as you know, or you may not know, land use is typically parcel-based, but we have a lot of projects that they start with a larger – for example, State Lane is bought and sold by a developer. We'll have a portion of that property they're going to put the

project on, so it starts as a portion of, and then it leads into a final APN number, but the legal, specifically to that site. (Inaudible) meets and bounds as well. So it is - it can happen, we've had that happen where it's a portion of. So our planner is right, that in this case, it's a portion of. But it won't be - as we go down, if this makes it through this process and gets to zoning, we should have the actual description, the legal description specific to the site. But it's actually quite common, we do it a lot.

BECHTEL: So what I'm hearing is there'll be a legal description on the 1,200+ acres.

OLGIN: Well, there's currently a legal description now, as required, and there's also an (inaudible) on the property that's being affected. I think there might be some confusion on APN, but that's required to move this project forward.

SMRITI: Do you (inaudible)?

BECHTEL: Yeah, please. Okay.

??: (Inaudible).

BECHTEL: Yeah, I appreciate it.

BAKER: Again, Jon Baker with BHP again, right? So historically, these parcels were way too large in this area, right? And what happens is that because they're doing this project, they're doing a survey and they've done the survey, they've got the legal description, and what they're doing now

is we're trying to get this approved so that we can get that that survey approved. When that survey's approved, then it'll cut that parcel out and it'll only be that 1,200 acre parcel. So that's why we're looking for that approval on the 1,200 acre parcel, not the 8,700.

BECHTEL: It's a minor land division?

BAKER: Basically, yes.

RIGGS: Any other questions, Steve?

KALANDROS: There seems to be a couple airstrips nearby, have you heard from the airstrips? Any input or do have any concerns with this land use change?

HORWITZ: Well, we are going through the process with the DOD, and we're not expecting any sort of issues there, but, you know, we will complete that process.

KALANDROS: And we mentioned taxes, I believe you said there's a fire district there and then there's fire district stations right there, right adjacent to the site, right, between the site and the road if I'm not – so are you part of that fire district, and do you pay property taxes directly into that fire district, as well as the property taxes to the County?

BAKER: Because that's more BHP's area, right? Again, Jon Baker with BHP. Right now that portion of the area is not a part of the San Manuel District and we are working to get that part of - a part of the district. We're doing a lot

of negotiations with the County on that site right now, as a matter of fact, and we're expecting that to happen in the next 2 to 3 months, where that - we will become a part of the San Manuel District. Currently, right now, it's part of the Mammoth Fire District, so they have to come all the way up from Mammoth, and we're like, why? You know, that doesn't make sense, why is it not San Manuel reporting, right? Yes ma'am.

KALANDROS: I had a few more.

BAKER: Okay, go ahead.

KALANDROS: Sorry, Steve Kalandros, for the record. Just to address some of the comments that we got from the public here, I think someone mentioned having like a large tower. These are - this is a photovoltaic panel installation, right, it's not one of those giant concentrated towers?

HORWITZ: Yeah, just to clarify, the panels, again, should be 6 to 10 feet off the ground.

KALANDROS: And I don't –

HORWITZ: Sorry, one clarification. There will be a short transmission line built from the project substation to the existing utility substation that's basically adjacent on the north end of it.

OLGIN: Real quick, if I may, Committee Members, we haven't seen panel. That information hasn't been presented to staff. So once again, I think we're kind of getting in the

weeds in regards to the specifics. If we could – we're not at the zoning level yet, so – and that information's coming.

KALANDROS: Then I think the one lady said, she had a concern, she said they don't have a traffic light now, but there's only going to be – am I correct, there's only going to be like two people permanently on the site? And so still no need for a traffic signal, I would think.

HORWITZ: I think for the O&M we're estimating, you know, 3 to 4 long term workers. Again, during the construction phase, it's more like 250 to 300, but that would be for a limited, a limited period.

KALANDROS: So just for the construction.

HORWITZ: About ay ear, a year and a half for construction, right.

KALANDROS: Okay. And quick question for the, on the BHP guy. Even though this is a brownfield, and I mean I wouldn't think you'd want to ever put homes on it, I mean I'm old enough to think of Love Canal when I hear about, you know, putting homes on a site like this.

HORWITZ: Correct.

KALANDROS: What would BHP do if this site, if we go in and say no, you can't put solar panels on, like would you (inaudible) mining at some point?

BAKER: No, it would literally stay just like that. This is the only option we can come up with, and we've been

scouring all kinds of options for brownfield type areas, and this is the only thing we've found that that can be something good for the community.

KALANDROS: Thank you.

RABAGO: Excuse me, this is Pamela Rabago. I thought you said that (inaudible).

OLGIN: Please speak into the mic, we can't hear you. Thank you.

RABAGO: I thought you said it's not going to be on the brown -

SUPRAK: You're going to have to turn your mic on.

OLGIN: Yeah, you –

BAKER: So they're not gonna – so they're not going to put the panels on the brownfield area, they're going to have it south of that brownfield area. But because it's connected to there, we would never put anything in that area, plus it's right there next to the tailings. If something was to happen and that tailings was to fail, that would absolutely just demolish everybody that lived there. So we can not take that as a chance, right?

RABAGO: Okay. I'm not going to vote.

??: So just to be clear, nothing would be built in the area that, you know, is of any concern.

??: Right.

RABAGO: I feel for the small town. They're trying

to come back. They don't need something that's three times the size of their town.

RIGGS: Any other questions for the Committee? I see someone down here on the end.

??: I was looking, I think when BHP took over you also got the water rights on that land, correct?

BAKER: Yes, ma'am.

??: And so for doing the solar panels, is that going to be well water that you use to keep the panels clean and –

BAKER: I cannot answer that one. I don't know how they're going to keep it clean, but I know that we are retaining all of our water rights in that area.

??: So when construction happens, you'll haul water in and you won't take from that well?

HORWITZ: It's a good question, and you know, I don't think we have the answer on the sources of the water yet. We would look into a few different options. One would be purchasing from the town, which would bring additional revenue into the town. If that doesn't work, we would, yeah, look to truck water in.

??: Okay.

BAKER: So we actually deliver water to AWC who delivers water to the town. So we are the ones that actually serve –

??: Oh, you are the water.

BAKER: We are the water, yes. We are the water for the Town of San Manuel, because we deliver it to AWC to process and deliver to the town.

??: Okay. That answers my question, thank you.

FRENZEL: This is Briana Frenzel. I like that you're trying to do something with the land, but because of the situation and what it is, what would happen even if you're near that land and there were some sort of fire event or whatever, is there any impact that would be resulting because of what the previous land use had been?

HORWITZ: According to everything that we got from the ADEQ and APP permits, no.'

RIGGS: On the end.

??: Okay, just one more quick question. Will the panels be non-reflective because of the proximity to the bird areas and the San Pedro Wash?

OLGIN: Committee Members, that's a zoning question, I apologize. We're not talking about the panels at this level. I'd love to, but this is land use. My apologies.

BAKER: I would like to notate then, also, that you know, we've done a lot of type of conservation in that area and we are – we've gotten a lot of awards for our conservation along the San Pedro in that specific area. So we are definitely worried about the conservation of that land in that

area.

RIGGS: Okay, any additional questions? Steve?

TODD: Yes, Phil Tood, Gold Canyon. When the mine was there, did you supply electricity to the town?

BAKER: That I cannot answer. I've only been with BHP, especially the mining side, since 2016. I'd really have to research that to give you that answer. I do know that we had – that APS had the substation on our property that we allowed them to build, and we gave them that land to build.

TODD: I have a real problem supplying solar energy from Arizona to California. A real problem.

HORWITZ: So I can address that. Yeah, so –

TODD: And the comments from SunZia, last year we voted on SunZia. Then I found out they're sending 287 megawatts to the City of Los Angeles. You would be better off putting your own system in and giving the electricity to the community.

HORWITZ: So I just want to say, the system will connect to Arizona Public Service's transmission system, and the expectation is, and our primary target for this energy is, for Arizona Public Service. And I don't know why you're, I mean, you're - Arizona has a –

TODD: Do you know that –

HORWITZ: It's growing energy (inaudible).

TODD: Do you know that Google wants 400 megawatts?

Do you know the Amazon wants 350 megawatts?

CHAIR, Chair, Vice Chair, if we could stay focused on the topic, I think we're going in the weeds again. And it's a violation of open meeting law, that's where we're at today. So just please, let's stick to land use, and any energy questions you can ask, you know, it will be a zoning question, but that's not what we're talking about tonight.

RIGGS: Any other land questions?

BRISOW: I have one. Alicia Bristow from Oracle. You said you're gotta to check on the water usage more because you don't know what water for sure you'll be using. Is that correct?

HORWITZ: Yeah.

BRISTOW: Because I know that SunZia is using our water in Oracle, so don't come to us, please. Arizona Water, and there are huge trucks of water everyday, because the County requires roads that are under construction, any construction work, has to be watered down. They already went to another town - I think it was Wilcox - and depleted their water and actually damaged their pumps for their city. And so they've mitigated that, SunZia's paying for all of that. But I called Wilcox because I wanted to know what was going on, and I was told our water is being metered and pumped out like crazy. And that comes from Saddlebrooke Ranch, I believe, our groundwater. So be very careful about where you're getting

your water from and how much you're going to use. I will vote against it until I know more information.

RIGGS: Okay. All right, any other questions? Steve, I think you have one.

KALANDROS: Mine's for staff. Just real quick. Again, not getting into specifics, does staff believe that if this project were to go forward, that you would be able to impose, you know, sufficient modifications to their plan to protect, I believe it's pronounced zero riparian areas in the project area?

OLGIN: That's a fair question, and two things to keep in mind. As said before, it's a brownfield I'm not supporting or not supporting the case, I'm just saying it's a brownfield. It's difficult to find anything that wants to locate in a brownfield. So I think we have some ability to work with them in regards to that because of the limited things you can do with the property. So in this case, when they come to zoning I think we hold a little more weight in that area. And we do have a specialist, if you will, now, a wildlife planner that is real focused on that. So yes, I think we have a little more weight to kind of mitigate those concerns when we get to that.

SMRITI: And to add to your point, there are other case studies published by EPA that defined a repurposing a mining site with a solar into recommended land use.

RIGGS: Okay, any other questions? All right, thank you for the presentation.

HORWITZ: All right, thank you.

RIGGS: Do we have a motion?

RABAGO: I'll make a motion. I make a motion to deny it because the community does not want it, they're trying to rebuild. They don't want it.

RIGGS: Can you state your name?

RABAGO: Dalton-Rabago.

MADDUX: I'll second. Maddux.

RIGGS: Okay. So there's a motion to deny, or to not approve. I don't know which way we're going technically, but anyway, so discussion from the Committee? Go ahead Steve.

KALANDROS: You know, I want to talk. Steve Kalandros, District 2. I got to admit, I'm really torn on this one because of the community opposition, but what else are they supposed to do with this property? I mean it's a brownfield. Like they just said, there's nothing you can do with it. And they own the property, they have the right to do something with their property. Solar seems to me the absolute ideal thing you can do this. There'd be no noise added, no traffic added, low to the ground. I mean it's absolutely best place I'd want to put a solar plant. You've got the power lines right there, it seems to be the best place to put it. And I say that with great apologies to the people who spoke

out against it, but I'm just not sure what else we can allow them to do with this property to fully utilize their private property.

RIGGS: Thank you. Further discussion? All right, we'll put it to a vote. So as a reminder, the motion currently is to deny this project. All in favor of denying the project, please signify by an uplifted hand. Those opposed to denying the project.

OLGIN: 8. It was 7-8.

RIGGS: So the motion did not pass? Wait. Do we need to do a recount?

OLGIN: Let's do a recount, yeah. I think we're – it's getting late, let's start again.

RIGGS: Those in favor of denying the project, please signify.

OLGIN: I got 7, you got 7? Okay.

RIGGS: All right, those opposed of denying it, please signify.

OLGIN: I got 8. Do you get 8? Someone left. 8. So 8.

RIGGS: So the motion does not pass. So now we need to make a –

OLGIN: You can make another motion.

STOCKTON: Jeanne Stockton, I'd like to make a motion to approve the project, or the change in the plan.

PINAL COUNTY
WIDE OPEN OPPORTUNITY

Leo Lew
County Manager

MEETING DATE: SEPTEMBER 5, 2024

TO: CITIZENS ADVISORY COMMITTEE

CASE NO: **PZ-PA-005-24, ORE TOWN SOLAR**

CASE COORDINATOR: MONIKA SMRITI, PLANNER

Executive Summary: *Public Hearing for a 2019 Pinal County Comprehensive Plan Major Amendment requested by 310SM 8me LLC, applicant/agent to re-designate ±1,227.41 acres of land from Moderate Low Density Residential (MLDR, 1-3.5 du/ac) to Green Energy Production for a photovoltaic Solar Power Plant with battery storage, proposed in San Manual, Arizona. The Project would include solar photovoltaic (PV) panels, a battery energy storage system (BESS), a Project substation, and a generation-tie (gen-tie) transmission line proposed on a vacant, unimproved land previously used by the San Manuel Copper Mine for ore processing.*

If This Request is Approved by the Board:
If this major amendment to the Pinal County Comprehensive Plan is approved, the action will allow the applicant to begin the process of rezoning the property to develop a photovoltaic solar energy production facility on the subject parcel.

Staff Recommendation/Issues for Consideration/Concern:
Staff offers **no recommendation** at this time.

LEGAL DESCRIPTION: ±1,227.41 acres, situated on a portion of sections 28, 29, 32, 33, 34, 3, and 4, Township 9 South and 10 South, Range 17 East of the Gila and Salt River Base and Meridian (legal on file).

TAX PARCELS: Portions of tax parcels include: 307-08-389E, 307-05-019W, 307-20-002B, 307-20-0010, and 307-05-019R.

APPLICANT/AGENT: 310SM 8me LLC, the owner/applicant, Meaghan Austin with SWCA Environmental Consultants, agent.

REQUESTED ACTION & PURPOSE: **PZ-PA-005-24:** 310SM 8me LLC, the applicant/agent, is requesting a Major Comprehensive Plan Amendment to re-designate approximately 1,227.41 acres of land in San Manuel, Arizona. The proposed amendment seeks to change the current land use designation from Moderate Low Density Residential (MLDR, 1-3.5 dwelling units per acre) to Green Energy Production.

The purpose of this amendment is to facilitate the development of a 145 MWac photovoltaic solar power plant with 145 MWac battery storage. This shift in land use designation will support the establishment of the facility, which aims to generate renewable energy and enhance energy storage capabilities. The project will significantly contribute to sustainable energy solutions and potentially

benefit both the local community, economic development, and environment while repurposing a former ore processing site.

PUBLIC COMMENT:
To date no comments in writing have been received from surrounding property owners.

PUBLIC PARTICIPATION:

60 day review period:	06/10/2024 to 08/10/2024
Newspaper Publication:	08/12/2024 & 08/15/24
Site Posting:	08/12/2024
Property mail outs:	08/20/2024
Web posting:	08/15/2024

PLAN AMENDMENT DISCUSSION:

Introduction:
According to data from the EIA, solar is the most prevalent renewal energy sub-sector in Arizona. From 2016 to 2023, the DATABEX projects database recorded 62 new solar projects, 19 of which are located in Pinal County (AzBEX, 2024)[1]. Among these, several projects are already operational, while others are still in the planning or development stages. Dedicating this much of land to solar energy in Pinal County can be seen as a positive move towards sustainable energy production. However, it's important to balance these benefits with potential impacts on agriculture, local ecosystems, and community preferences. There may be trade-offs between using land for solar energy versus other potential uses, such as agriculture, recreation, or development. Additionally, a holistic view of the impact of this proposal within the context of the other existing and proposed solar projects should be considered.

This report examines the concerns regarding the potential impact of the proposed solar project on local needs and priorities, such as energy demands, economic conditions, and environmental objectives, in alignment with the vision outlined in the Pinal County Comprehensive Plan.

Location and Accessibility:
The proposed project site is located in the San Manuel area, strategically situated along Veteran Memorial Blvd, a designated Rural Major Collector and Regionally Significant Corridor. This alignment supports broader policy objectives related to infrastructure and regional connectivity, as outlined in the Pinal County Regionally Significant Routes for Safety and Mobility report.

The site's proximity to the San Manuel Townsite residential community warrants careful consideration of community integration and traffic impact mitigation. Ensuring that the project aligns with transportation policies and addresses potential impacts on the surrounding community will be crucial for meeting comprehensive planning objectives.

[1] AzBEX. (2024, July 23). *2 new solar projects proposed in Pinal.* AzBEX. Retrieved July 24, 2024, from https://azbex.com/planning-development/2-new-solar-projects-proposed-in-pinal/#:~:text=In%20addition%20to%20its%20growth,have%20been%20in%20Pinal%20County.

Land Use:
The proposed site is a vacant land, with a portion of the project area previously used as an ore processing facility utilized by the San Manuel Copper Mine from 1955 to 2003. To the west of the site is the San Manuel Neighborhood, an area characterized by a mix of residential, commercial, and institutional developments.

Under the existing comprehensive plan, the site is classified for Moderate Low Density Residential use. The proposed land use is green energy production to allow a Solar Plant on the subject site.

Transformation of a historically industrial site into a sustainable green energy project represents a significant upgrade from its existing land use to the future land use. However, it's crucial to recognize that the project's lifespan is projected to be 30 to 40 years, requiring a reevaluation of the comprehensive plan designation after the project's decommissioning.

Additionally, it's essential to consider the potential residential uses outlined in the current comprehensive plan land use designation, especially in light of the ongoing affordable housing shortage in Pinal County. The project must balance the neighborhood's residential needs with the broader benefits of green energy, including local infrastructure, and community services.

Infrastructure:
The existing infrastructure on the site includes two 115-kV transmission lines located south of South Republic Road, linking Saddlebrooke Ranch to San Manuel and Saguaro to San Manuel. Additionally, the APS San Manuel Substation, situated in the northern part of the project area, will serve as the connection point for the on-site project substation and proposed gen-tie, for the distribution of power to the regional grid.

To support the development of the solar plant, improvements to both paved and unpaved access roads would be crucial for establishing the required infrastructure for the solar project.

Assessing the potential impacts on the surrounding neighborhood—including local traffic, visual impacts, solar glare, property values, and overall community well-being—is crucial during the infrastructure development process. It is important to weigh the benefits of renewable energy against these local concerns.

Land Suitability:
The site lies within the Big Wash-San Pedro River watershed, an area that affects regional hydrology and land use patterns. The presence of non-WOTUS (Waters of the United States) washes, such as the San Pedro Big Wash, indicates a natural drainage system. Although these features are not federally regulated, they require careful mitigation during development. The site is classified as Flood Zone X, indicating a low risk of flooding.

There are minimal environmental and cultural constraints, with no significant archaeological resources or protected open spaces and trails as specified in the Pinal County Open Space and Trail Master Plan. To ensure compliance with sustainable land use policies and environmental stewardship, it will be important to implement appropriate mitigation strategies to restore the natural drainage flow.

Compatibility with Pinal County Comprehensive Plan:
Pinal County Comprehensive Plan checklist provides guidance to ensure conformity of development proposals with the Pinal County Comprehensive Plan. Staff is using it to review development proposals and to eventually make recommendations to decision-makers during the later stages of the Pinal County comprehensive plan amendment process.

The checklist contains the two major components:

1. Part 1: Consistency with Pinal County's Vision Components
2. Part 2: Consistency with the Plan's key concepts illustrated on land use, circulation, and economic development graphics.

Based on the information provided by the applicant and other sources, staff has prepared the following analysis in alignment with Pinal County's Vision Components. The analysis of Part 2 will be addressed in the subsequent steps of the proposed comprehensive plan amendment process.

a. Sense of Community: The proposed solar project could potentially foster a sense of community by bringing residents together with a shared goal of sustainability, provided that it involves local participation, which strengthens community bonds and encourages collective ownership.

b. Mobility and Connectivity: While solar projects are not directly related to mobility, they can enhance connectivity in indirect ways. For instance, the proposal could potentially improve the existing road infrastructure which will be a requirement for the construction of the proposed project. Furthermore, solar projects can support the development of smart grids that improve energy connectivity.

c. Economic Sustainability: Solar projects contribute to economic sustainability by reducing energy costs for residents and businesses. They create local jobs during installation and maintenance phases and can attract additional investments in green technologies. Savings on energy bills can be reinvested into the local economy, boosting overall economic health.

A study conducted by Rounds Consulting Group in August 2024 on the Economic Benefits of Renewable Energy in Arizona references two case studies of Solar project located in Eloy (800MV solar + 800MW BESS) and Coolidge (150MV solar + 150MW BESS) respectively. The study shows that the Eloy is estimated to support 8,700 jobs, $465.3M in labor income, and $1.3B in economic output during the 30 years of period. Similarly, the Coolidge project is expected to support 3,100 jobs and generate $454.0M in economic output over 30 years. Additionally, Pinal County is expected to collect $9.2M, and $3.0M respectively in tax revenue from both the projects. As the proposed project's size and energy generation capacity is similar to the Coolidge Project, it is expected that the project will contribute significantly to the tax revenues. Staff has reached out to the applicants for further information on this subject matter.

d. Open Spaces and Places: The proposed project utilizes unimproved, vacant land for solar farms, which helps preserve more desirable open spaces. Designing the solar installations with visual considerations in mind will be crucial to ensure they complement and enhance the surrounding open areas rather than detract from them. Additionally, the project does not interfere with any

existing trails, parks, or other recreational facilities identified within the Project Area in the Pinal County Open Space and Trails Masterplan.

e. Environmental Stewardship: The proposed project advocates the use of renewable and alternative energy sources which is consistent with the Environmental Stewardship vision component.

f. Healthy, Happy Residents: The proposed project has the potential to enhance the surrounding neighborhoods by transforming an old, vacant mining site into a renewable energy source. This revitalization effort could contribute to maintaining a clean and natural environment. Additionally, the improved infrastructure and job creation associated with the project are likely to boost the overall happiness and well-being of the residents.

g. Quality Educational Opportunities: This vision component does not apply to this project.

Staff Summary:
The applicant has provided evidence that the proposed solar project will revitalize a vacant mining site and is suitable for construction based on land suitability, with no significant negative environmental impacts. The project is expected to create new jobs during both the construction and maintenance phases. However, staff currently does not have sufficient information to confirm other social and economic benefits, such as increase in tax base, impact on property values, and addressing local energy needs. Additionally, for a large-scale project like this, gathering community feedback as well as input from public committees and boards is essential. Staff will consider these factors moving forward when further studying the project's compatibility with the 2019 Pinal County Comprehensive Plan.

Way Forward:
Based on the feedback collected from the planning and zoning work session, Board of Supervisors work session, Citizen Advisory Committee, and community feedback, staff will analyze the project's alignment with the Pinal County Comprehensive Plan and provide a corresponding recommendation.

DATE PREPARED: 08/22/24 – Monika S.
DATE REVISED: 08/22/24 - Monika S.

PZ-PA-005-24

AGENCY REVIEW COMMENTS

Project Name: Ore Town Solar
Case Number: PZ-PA-005-24
Reviewed By: Arizona Game and Fish Department
Major Comprehensive Plan Amendment 60 day agency review

	Comments
General	The Department would like to work closely with Pinal County and project proponents throughout the preliminary area evaluation, site characterization and design, construction, operation, and decommissioning of the facility. Project proponents should refer to the Solar Communications Framework for a guide on how to maintain effective communication with the Department throughout the life of a solar project.
General	Although each of these projects individually may have a minimal impact on the broader landscape, these projects cumulatively could result in loss of habitat, impact wildlife movements, and affect wildlife-related recreation. Additionally, long-term effects to wildlife can extend several kilometers beyond the footprint of a solar project area (Sawyer et al. 20221).
Genera;	Department also encourages consideration and incorporation of setbacks and design recommendations from the Pinal County Open Space, Parks and Trails Plan (Pinal 2007), Pinal County Open Space and Recreation Area Guideline Manual (2012), Pinal County Floodplain Management Ordinance (2019), and lighting ordinances to be consistent with the vision of Pinal County.
General	The Department recommends conducting surveys in the project areas to determine species presence. These surveys should be of sufficient duration and intensity to adequately assess all habitat types and potential wildlife species occurrence in and adjacent to the project area. Department staff are available to assist project proponents in determining appropriate surveys to conduct and design features and best management practices that can help minimize potential
Wildlife	Potential habitat for the Sonoran desert tortoise, which is a federal and state species of special concern and is covered under a Candidate Conservation Agreement, is present within the project area. The Department recommends conducting surveys, in accordance with the Desert Tortoise Survey Guidelines for Environmental Consultants, to determine the presence of this species or its habitat. If tortoises are identified, please refer to and implement the Recommended Standard Mitigation Measures for Projects in Sonoran Desert Tortoise Habitat and Guidelines for Handling Sonoran Desert Tortoises Encountered on Development Projects.

Wildlife	The Department recommends conducting surveys for nesting birds prior to vegetation removal and/or construction activities that occur during the breeding season. The vegetation within the project area may provide nesting opportunities for avian species that are regulated under the Migratory Bird Treaty Act (MBTA). If it is anticipated the project will not be in compliance with MBTA, the Department recommends contacting the USFWS for technical assistance.
Wildlife	Burrowing mammals could occur within the project area and could be influenced by construction activities and by loss of habitat. Surveys for these species are recommended to determine their presence and to inform pre-construction activities. Department staff are available to assist in identifying suitable conservation measures, such as one-way exclosures on burrows that allow wildlife to exit the burrows and disperse to adjacent lands in advance of construction.
Site Plan	The Department recommends incorporating open unfenced corridors across the project area into the project design to facilitate wildlife movement, including within upland habitats as well as maintaining the ephemeral washes that occur in the project area in their natural state without fencing or other barriers to wildlife movement. These washes serve multiple functions in the ecosystem, including landscape-level conveyance corridors for wildlife movement.
Site Plan	For all projects, the Department recommends conducting minimal grading in the project area. For solar projects, it is recommended that to the extent possible habitat features are retained underneath solar panels, including vegetation and soils. The topography in the majority of the project sites is flat and would require minimal trimming of shrubs and existing vegetation to install the panels. Keeping the existing soil and root structures intact would serve to minimize erosional run-off and help reduce biodiversity loss within the site (Grodsky and Hernandez 20208).
Site Plan	The Department's Wildlife Compatible Fencing Guidelines provide information on how fencing impacts wildlife, ways to design fencing to prevent wildlife entanglement and impalement, and to ensure wildlife movement is not restricted. Department personnel are available as resources to help determine appropriate fencing design and layout that will achieve its objective while reducing impact on wildlife, such as leaving a 6–8-inch gap between the ground surface and bottom of the fence to allow for smaller wildlife species to move freely through the area and make use of any habitat within the project boundary.
Vegetation	Please ensure the Project complies with Arizona Native Plant Law regulations. A Native Plant Inventory may also be needed to be conducted to identify, record,

	and coordinate plant salvage efforts for species that are Protected under the Arizona Native Plant Law.
Vegetation	To minimize the potential introduction or spread of exotic invasive species, including aquatic and terrestrial plants, animals, insects, and pathogens, the Department encourages taking precautions to wash and/or decontaminate equipment before entering and leaving the site. See the Arizona Department of Agriculture website for a list of prohibited and restricted noxious weeds and the Arizona Native Plant Society for recommendations on how to control them. To view a list of documented invasive species or to report invasive species in or near the Project area, visit iMapInvasives, which is a national cloud-based application for tracking and managing invasive species.
Vegetation	The Department recommends revegetating disturbed areas with native drought-tolerant species that represent the natural surrounding landscape. Landscaping with native plants can help support wildlife and pollinator species in the area while reducing dust and erosion. In addition, the applicable land management agencies should be consulted regarding guidelines for revegetation efforts.
Conservation	The Department recommends conducting avian surveys during the planning stage of proposed solar projects in order to better understand species presence and to inform potential conservation measures. Point counts are the preferred method for breeding bird surveys. These surveys are conducted twice a year during the peak breeding season, which is mid-January through June in this area; McLaren et al. (2019)20 outline protocols. Additional surveys for Bendire's thrashers, a bird species of conservation concern, are recommended for Ore Solar and Storage. A draft protocol from the Desert Thrashers Working Group is available online.
Conservation	Large-scale solar PV facilities can result in a high rate of bird mortality due to habitat loss, collision with panels, attraction due to an optical illusion of water, and unknown causes (Kosciuch et al. 202022) These effects could be amplified at this facility due to its proximity to the Lower San Pedro River Important Bird Area (IBA) approximately 1.5 miles east of the proposed project. The Department encourages the use of non-reflective coatings on the solar panels, which can reduce the appearance of the array as a body of water and reduce the attraction of birds to the site.
Conservation	Additionally, maximizing the spacing between solar panels can reduce the appearance of the array as a body of water. The Department would like to emphasize the recommendation that a qualified biologist survey for bird species within the project area to better understand potential impacts from this project. It is also encouraged that the developer implements post-construction monitoring for avian injuries and fatalities.

Conservation	Recommendations for monitoring design and frequency can be found in the U.S. Geological Survey's 2016 Mortality Monitoring Design for Utility-Scale Solar Power Facilities. Any avian injuries or fatalities should be reported both to the Department and by using the USFWS Injury and Mortality Reporting website. Department staff are available to assist in developing the monitoring protocol and to further refine the monitoring and reporting recommendations in order to develop feasible and repeatable protocols to be implemented during operations. The Department is also available to help determine adaptive management measures based on results of the post-construction monitoring. For example, the U.S. Geological Survey has been conducting research that indicates birds are most attracted to solar arrays around midday, and tilting of panels during key times of strikes could reduce bird attraction.
Decommission	The decommissioning plan should include management of invasive species, revegetation with a weed free native seed mix that is commensurate with the surrounding area. The plan should also include fencing removal with other recycling components.
Riparian	Ore Solar and Storage includes identified riparian habitat within and adjacent to the project area. The Department recognizes riparian habitats as areas of environmental importance to wildlife and encourages management practices that maintain current riparian areas. The documents do not seem to include any measures to avoid riparian areas within the project area. There are three identified riparian corridors within the project area that should be avoided. If it is not possible to avoid these areas, at a minimum a buffer should be placed along the length of these areas and set back. The Pinal Riparian Guidelines recommend 250 feet set back on each side of the corridor if mesoriparian species are present and a minimum of 150 feet set back on each side of the corridor if xeroriparian species are present. According to the biological report included in the application, **xeroriparian is present within the project. Please refer to the Riparian Area Guidelines for Pinal County.**
	Guidelines for Solar development within Arizona provided by Arizona Game and Fish Department can be found at in Guidelines for Solar Development in Arizona

Leo Lew
County Manager

PINAL COUNTY
WIDE OPEN OPPORTUNITY

Mary Ellen Sheppard
Deputy County Manager

Himanshu Patel
Deputy County Manager

Open Space, Trails & Regional Parks Department
Development Review Comment Letter

Project Name: Ore Town Solar & Storage
Case Number: PZ-PA-005-24
Reviewed By: Kelley Fox, Urban Wildlife Planner
Review Type: Major Comprehensive Plan Amendment Application
8/01/2024

Comment #	RESPOND TO ALL COMMENTS
1	There is substantial riparian habitat that transects the project area. Riparian habitat is considered to be of critical environmental importance, and is to be protected during development. Its protection is supported by Pinal County's Comprehensive Plan policies 3.1.4.1, 3.9.1.4, and 7.1.2.4, along with Development services code 2.176.090E and 2.176.100D. The AZGFD ERT mapping tool can be used to view the recorded riparian habitat within the project area. A minimum 50ft buffer around riparian habitat (including xeri-riparian) and wildlife friendly fencing is recommended to be incorporated into the project development plan. Information and guidelines concerning riparian habitat within Pinal County can be found below: https://s3-us-west-2.amazonaws.com/azgfd-portal-wordpress-pantheon/wp-content/uploads/archive/PinalCounty_RiparianGuides_FINAL.pdf
2	Noxious weeds have become increasingly problematic in areas of development and on large projects where vegetation management plans are not created or maintained. Due to the increasing threat noxious weeds have on the Sonoran desert and Pinal County landscape it is recommended that the applicant incorporate invasive species/noxious weed management plans for development. Information regarding noxious weeds can be found on the Arizona Department of Agriculture's website.
3	The application narrative states that only one Class C noxious weed was observed within the project area. However, SWCA's prepared biological assessment has also listed a Class B noxious weed, Saharan mustard, present within the project area.
4	Incorporating current guidelines (and any updated publications) for Solar development within Arizona provided by Arizona Game and Fish Department is highly recommended. These guidelines can be found at https://s3.amazonaws.com/azgfd-portal-wordpress/PortalImages/files/wildlife/planningFor/wildlifeFriendlyGuidelines/FinalSolarGuidelines03122010.pdf

5	Review AZGFD fencing guidelines which are in consonance with Pinal County expectations below: https://s3.amazonaws.com/azgfd-portal-wordpress/PortalImages/files/wildlife/planningFor/wildlifeFriendlyGuidelines/110125_AGFD_fencing_guidelines.pdf
6	Any clarifications regarding these comments or recommended guidelines can be directed towards Kelley Fox via email Kelley.fox@pinal.gov or via phone at 520-866-6661

Andrew Smith
Public Works Director

Joe Ortiz
Deputy Director

Christopher Wanamaker
County Engineer

PINAL COUNTY
WIDE OPEN OPPORTUNITY

Leo Lew
County Manager

Public Works Traffic Engineering Review Comment Letter

Project Name:		Ore Town Solar			
Engineering Firm:		HDR		**Reviewed by:**	Garrett Stanwood Christopher Wanamaker
Engineer:		Pronab Kumar Biswas #81664, Sealed 08/23/2024			
Case #:	PZ-PA-005-24	**Review Status:**	1st Review	**Date:**	09/18/2024
		RESPOND TO ALL COMMENTS AND REDLINES:			
Sheet #	**Comment #**				
	1	This report is acceptable for the minor comprehensive Plan and Rezoning stage. Please include a Site Plan with the next version of the traffic Reprot			

Public Works Department

31 N. Pinal Street, Building F., PO Box 727Florence, AZ 85132
T520-509-3555 **Hours:** M-F 8:00 am – 5:00 pm **F**520-866-6511

www.pinalcountyaz.gov

PZ-PA-005-24

APPLICATION PACKET

Leo Lew
County Manager

PINAL COUNTY
WIDE OPEN OPPORTUNITY

PROCEDURE AND APPLICATION FOR A PROPOSED NON-MAJOR COMPREHENSIVE PLAN AMENDMENT

A. Attend a Concept Review (Zoning pre-application (Z-PA)) meeting with the Planning Department and affected County agencies.

B. File an application and all required supporting documentation for a Comprehensive Plan Amendment. Please use the attached application forms.

C. Public hearing before the Planning Commission with Commission recommendation to the Board of Supervisors. Time frame is approximately 10 to 15 weeks from application acceptance by the Planning Department.

D. Public hearing, (approximately 4 to 8 weeks after Planning Commission hearing), before the Board of Supervisors.

PROCEDURE FOR A PROPOSED MAJOR COMPREHENSIVE PLAN AMENDMENT

A. Attend a Concept Review (Zoning Pre-Application (Z-PA)) meeting with the Planning Department and affected County agencies.

B. File an application and all required supporting documentation for a Comprehensive Plan Amendment. Please use the attached application forms.

C. Public meeting with the Citizens Advisory Committee.

D. Public hearing before the Planning Commission with Commission recommendation to the Board of Supervisors.

E. Public hearing before the Board of Supervisors.

*Public hearing schedule will be made available in June.

FEE SCHEDULE FOR MAJOR AND NON-MAJOR AMENDMENTS

A. Major Comprehensive Plan Amendment: $5,091.00

B. Non-major Comprehensive Plan Amendment:

   a. 0-499 mailouts: $4,478.00
   b. 500 or more mailouts: $4,824.00
   c. With accompanying zone change: $3,354.00

COMMUNITY DEVELOPMENT
Planning Division

85 N. Florence St., PO Box 2973, Florence, AZ 85132 T 520-866-6442 FREE 888-431-1311 F 520-866-6530
www.pinalcountyaz.gov

Leo Lew
County Manager

PINAL COUNTY
WIDE OPEN OPPORTUNITY

APPLICATION FOR A COMPREHENSIVE PLAN AMENDMENT IN AN UNINCORPORATED AREA OF PINAL COUNTY, ARIZONA
(All Applications Must Be Typed or Written in Ink)

Comprehensive Plan Amendment unincorporated & Property Information:
(Feel free to include answers and to these questions in a Supplementary Narrative, when doing so write see narrative on the space provided)

1. The legal description of the property: Private land associated with the closed San Manuel Copper Mine.

2. Parcel Number(s): 307200010, 30720002B, 30708389E, 30705019R, 30705019W Total Acreage: 1,227.41 acres

3. Current Land Use Designation: Moderate low density residential

4. Requested Land Use Designation: Green Energy Production

5. Date of Concept Review: April 23, 2024 Concept Review Number: Z-PA-029-24

6. Why is this Comprehensive Plan Amendment being requested? (You must provide a summary of the anticipated development on this page, if not provided, the application cannot be processed.):
See attached narrative.

7. Discuss any recent changes in the area that would support your application.
See attached narrative.

8. Explain why the proposed amendment is needed and necessary at this time.
See attached narrative.

INV#: AMT: DATE: CASE: Xref:

PINAL COUNTY COMPREHENSIVE PLAN AMENDMENT APPLICATION

IN ADDITION TO THIS APPLICATION, YOU WILL NEED TO SUBMIT:

- ☐ A. **Certified Boundary Survey**, including legal descriptions of the proposed designations
- ☐ B. Location map which identifies the property and its relationship to Pinal Countyenvirons.
- ☐ C. Map showing the topography of the property.
- ☐ D. Site map which specifically identifies the property including parcels under separate ownership.
- ☐ E. Property owner(s) authorization for the Comprehensive Plan Amendment.
- ☐ F. Other information as may be determined necessary by the Planning staff or other information the applicant feels is pertinent to this request.
- ☐ G. Non-refundable filing fee as shown on the cover page.
- ☐ H. Narrative in PDF format.
- ☐ I. Neighborhood meeting report

Your application must be submitted digitally via the online submittal portal site at https://citizenaccess.pinalcountyaz.gov/CitizenAccess/Default.aspx

Please call or email the Planning Division for more information.

I certify the information included in this application is accurate, to the best of my knowledge. I have read the application and I have included the information, as requested. I understand if the information submitted is incomplete, this application cannot be processed.

BHP Copper Inc.		
Name of Landowner (Applicant)	Address	Phone Number
See attached Agency Authorization form.		
Signature of Landowner (Applicant)		E-Mail Address
310SM 8me LLC	4370 Town Center Blvd., Suite 110, El Dorado Hills, CA 95762	916-608-9060
Name of Agent	Address	Phone Number
Stephanie Perry, Chief Operating Officer of Avantus LLC, ultimate parent, duly authorized		transactions@avantus.com
Signature of Agent		E-Mail Address

The Agent has the authority to act on behalf of the landowner. The Agent will be the contact person for Planning staff and must be present at all hearings. Please use the attached Agency Authorization form, if applicable

I certify the information included in this application is accurate, to the best of my knowledge. I have read the application and I have included the information, as requested. I understand if the information submitted is incomplete, this application cannot be processed.

310SM 8me LLC	4370 Town Center Blvd, Suite 110, El Dorado Hills, CA 95762	916-608-9060
Name of Applicant	Address	Phone Number
Stephanie Perry Stephanie Perry (Mar 15, 2024 08:54 PDT) Chief Operating Officer of Avantus LLC, ultimate parent, duly authorized	transactions@avantus.com	
Signature of Applicant	E-Mail Address	

Name of Agent/Representative	Address	Phone Number
Signature of Agent/Representative	E-Mail Address	

The Agent/Representative has the authority to act on behalf of the landowner/applicant, which includes agreeing to stipulations. The agent will be the contact person for planning staff and must be present at all hearings. Please use attached Agency Authorization form, if applicable.

see attached authorization form and acknowledgment

Name of Landowner	Address	Phone Number
Signature of Landowner	E-Mail Address	

If landowner is not the applicant, then applicant must submit a signed notarized consent form from the landowner with this application. Please use attached Consent to Permit form, if applicable.

AGENCY AUTHORIZATION

(To be completed by landowners of subject property when landowners do not represent themselves. Instructions for completing required information are in bold and brackets below lines. If applicant is a company, corporation, partnership, joint venture, trustee, etc., please use the corporate signature block and have the notary fill in the notarization section for corporations not individuals and cannot be submitted digitally)

TO: Pinal County Planning & Development Services
P.O. Box 2973
Florence, AZ 85132

BHP Copper Inc. incorporated in the state of Delaware
[Insert Name -- If a Corporation, Partnership or Association, Include State of Incorporation]

hereinafter referred to as "Owner," is/are the owner(s) of 1,227.41 acres located at 28545 S VETERANS MEMORIAL BLVD SAN MANUEL, AZ 85631, and further identified
[Insert Address of Property]

as assessor parcel number 307200010, 30720002B, 30708389E, 30705019R, 30705019W and legally described as follows:
[Insert Parcel Number]

[Legal Description is attached hereto as Exhibit A]

Said property is hereinafter referred to as the "Property."

Owner hereby appoints 310SM 8me LLC (4370 Town Center Blvd, Suite 110, El Dorado Hills, CA 95762)
[Insert Agent's Name. If the Agent Is a Company, Insert Company Name Only]

hereinafter referred to as "Agent," to act on Owner's behalf in relation to the Property in obtaining approvals from Pinal County for any necessary amendment to Pinal County's Comprehensive Plan; zone changes; planned area development overlay districts; platting of the subject property; special use permit or industrial use permit; and to file applications and make the necessary submittals for such approvals.

Owner consents and agrees to be bound by all stipulations agreed to by this Agent in connection with any of above-referenced processes.

[Individual PROPERTY OWNER signature block and acknowledgment. DO NOT SIGN HERE IF SIGNING AS AN OFFICER OF A CORPORATION ON THE NEXT PAGE.]

_____	_____
[Signature]	***[Signature]***
_____	_____
[Address]	***[Address]***
Dated: _____	Dated: _____

STATE OF _____)
) ss.
COUNTY OF _____)

The foregoing instrument was acknowledged before me this ___ day of _____, _____ by _____.
[Insert Name of Signor(s)]

My commission expires _____

_____	_____
Printed Name of Notary	Signature of Notary Public

Corporate PROPERTY OWNER signature block and acknowledgment the appropriate corporate officer or trustee signs this signature block NOT the block on the previous page.

Jon Liefer
[Insert Company or Trustee's Name]

By: _____
[Signature of Authorized Officer or Trustee]

Its: Director
[Insert Title]

Dated: July 16, 2024

STATE OF Arizona)
) ss.
COUNTY OF Gila)

The foregoing instrument was acknowledged before me, this 17 day of July, 2024, by Jon Liefer, Director of
[Insert Signor's Name] *[Insert Title]*
BHP Copper, Inc., an Deleware
[Insert Name of Company or Trust] *[Insert State of Incorporation, if applicable]*

and who being authorized to do so, executed the foregoing instrument on behalf of said entity for the purposes stated therein.

EILEEN MONTIJO
NOTARY PUBLIC - ARIZONA
GILA COUNTY
COMMISSION # 631536
MY COMMISSION EXPIRES
MAY 16, 2026

Eileen Montijo
Notary Public

My commission expires: May 16, 2026

ALTERNATE: Use the following acknowledgment only when a second company is signing on behalf of the owner:

STATE OF _____)
) ss.
COUNTY OF _____)

On this _____ day of _____, _____, before me, the undersigned, personally appeared

_____ Who acknowledged himself/herself to be
[Insert Signor's Name]

_____ of _____
[Title of Office Held] *[Second Company]*

As _____ for _____, and who being
[i.e, member, manager, etc.] *[Owner's Name]*

Authorized to do so, executed the foregoing instrument on behalf of said entities for the purposes stated therein.

My commission expires: _____

_____ _____
Printed Name of Notary Signature of Notary

Ore Town Solar and Storage Project Application for a Major Comprehensive Plan Amendment Narrative Report

MAY 2024

SUBMITTED TO

Pinal County Planning Division

PREPARED BY

SWCA Environmental Consultants

ON BEHALF OF

310SM 8me LLC

ORE TOWN SOLAR AND STORAGE PROJECT
APPLICATION FOR A MAJOR COMPREHENSIVE PLAN AMENDMENT
NARRATIVE REPORT

Z-PA-029-24

Prepared for

Pinal County Planning Division
85 North Florence Street, First Floor
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Florence, Arizona 85132
(520) 866-6442
Attn: Sangeeta Deokar

Prepared by

SWCA Environmental Consultants
1645 South Plaza Way
Flagstaff, Arizona 86001
(602) 772-5593
www.swca.com

On Behalf of

310SM 8me LLC
4370 Town Center Boulevard, Suite 110
El Dorado Hills, California 95762
(916) 608-9060

May 2024

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A. EXECUTIVE SUMMARY

310SM 8me LLC (Applicant) is requesting a major comprehensive plan amendment (MCPA) to the 2019 Pinal County Comprehensive Plan (Comprehensive Plan) (Pinal County 2021) to construct and operate the Ore Town Solar and Storage Project (Project). The Project would include solar photovoltaic (PV) panels, a battery energy storage system (BESS), a Project substation, and a generation-tie (gen-tie) transmission line (Figure A-1 in Appendix A. The Project includes a total of five parcels on approximately 1,227.41 acres near San Manuel in unincorporated Pinal County, Arizona (herein referred to as the Project Area) (Figure 1). The parcels equal 8,794.88 acres total and the Project involves the lease of 1,227.41 acres. Table 1 below describes the Project parcels, including the Assessor's Parcel Numbers (APNs), acreage, and Public Land Survey System (PLSS) locations. Appendix A provides a legal description of the Project, and Appendix B includes a site plan.

Table 1. Proposed Major Comprehensive Plan Amendment Parcels

APN	Gross Acreage	Net Acreage	PLSS Location
30708389E	30.25	00.42	32 09S 17E
30705019W	3443.13	78.29	28 09S 17E
30720002B	624.71	232.03	4 10S 17E
307200010	1838.80	283.91	2 10S 17E
30705019R	2857.99	632.76	33 09S 17E
Total	8,794.88	1,227.41	-

Source: Pinal County Assessor (2024).

The Project would include an up-to-145-megawatt (MWac) solar photovoltaic (PV) generating facility and an up-to-145-MWac battery energy storage system (BESS) in San Manuel, Arizona. The Project is proposed on approximately 1,227.41 acres of private property (Project Area) in unincorporated Pinal County, Arizona (Figure 2). A study area for resource surveys within a 1-mile buffer around the Project Area (1-mile study area) is depicted in Figures 3 and 4.

Paved and unpaved rural roads provide access to the site and adjacent properties, including paved portion of South Veterans Memorial Boulevard (also known as State Route [SR] 76 or South Redington Road) in a north-south alignment from SR 77 to the Project Area. The remaining roads are unpaved and consist of the north-south–aligned San Manuel Airport and South Republic Roads, east-west–aligned BHP Copper Company Road, and unnamed unpaved roads affiliated with the San Manuel Copper Mine. The closest major paved road is South Veterans Memorial Boulevard, adjacent to the Project Area to the west.

The MCPA is needed to facilitate development of the PV solar facility and BESS to provide clean, safe, affordable, efficient energy to the regional transmission grid. This Project will connect to the existing, 115-kilovolt (kV) San Manuel Substation on the northern portion of the Project Area. Project development would likely take 2 to 3 years for the planning, design, and construction of the facility.

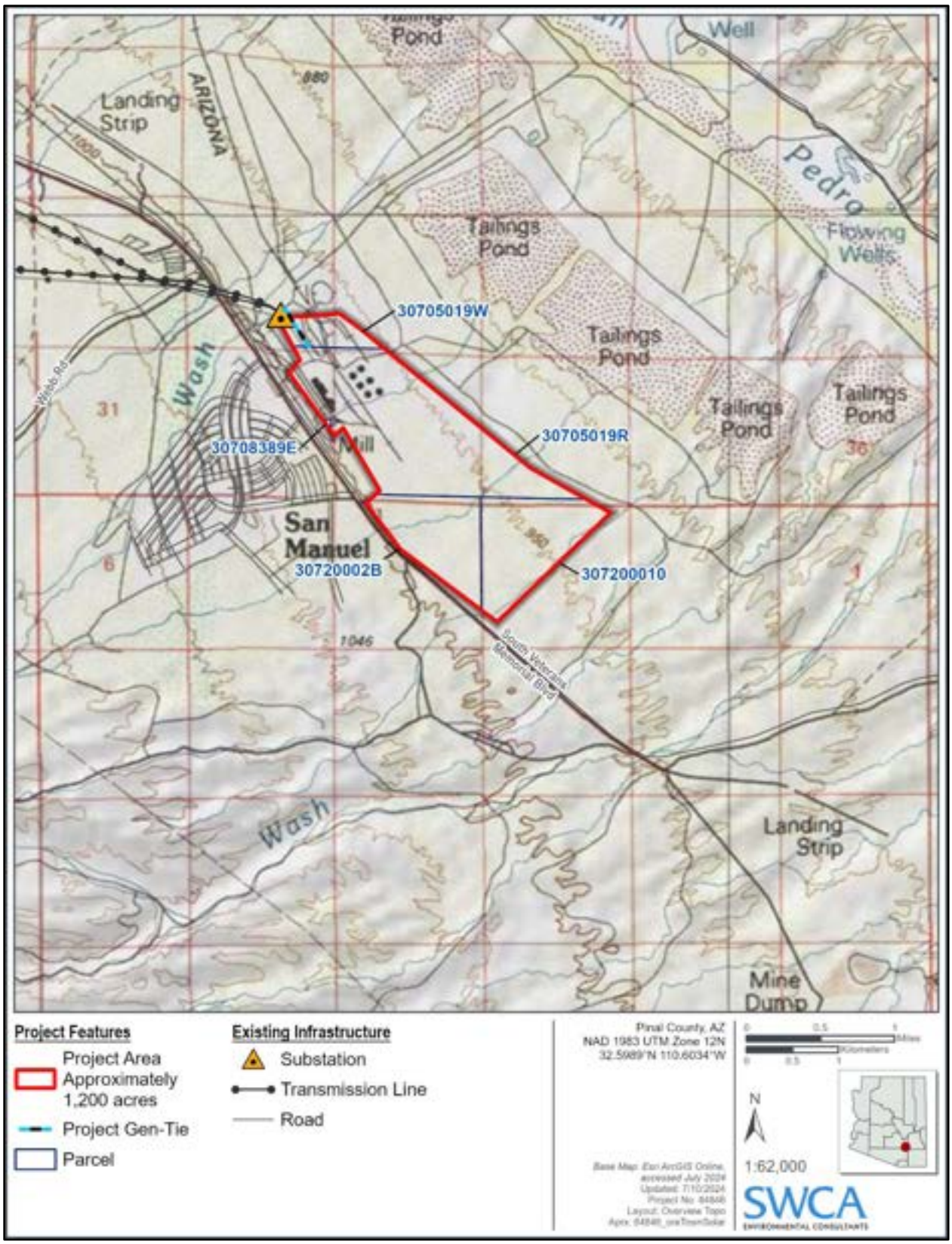


Figure 1. Topographic map.

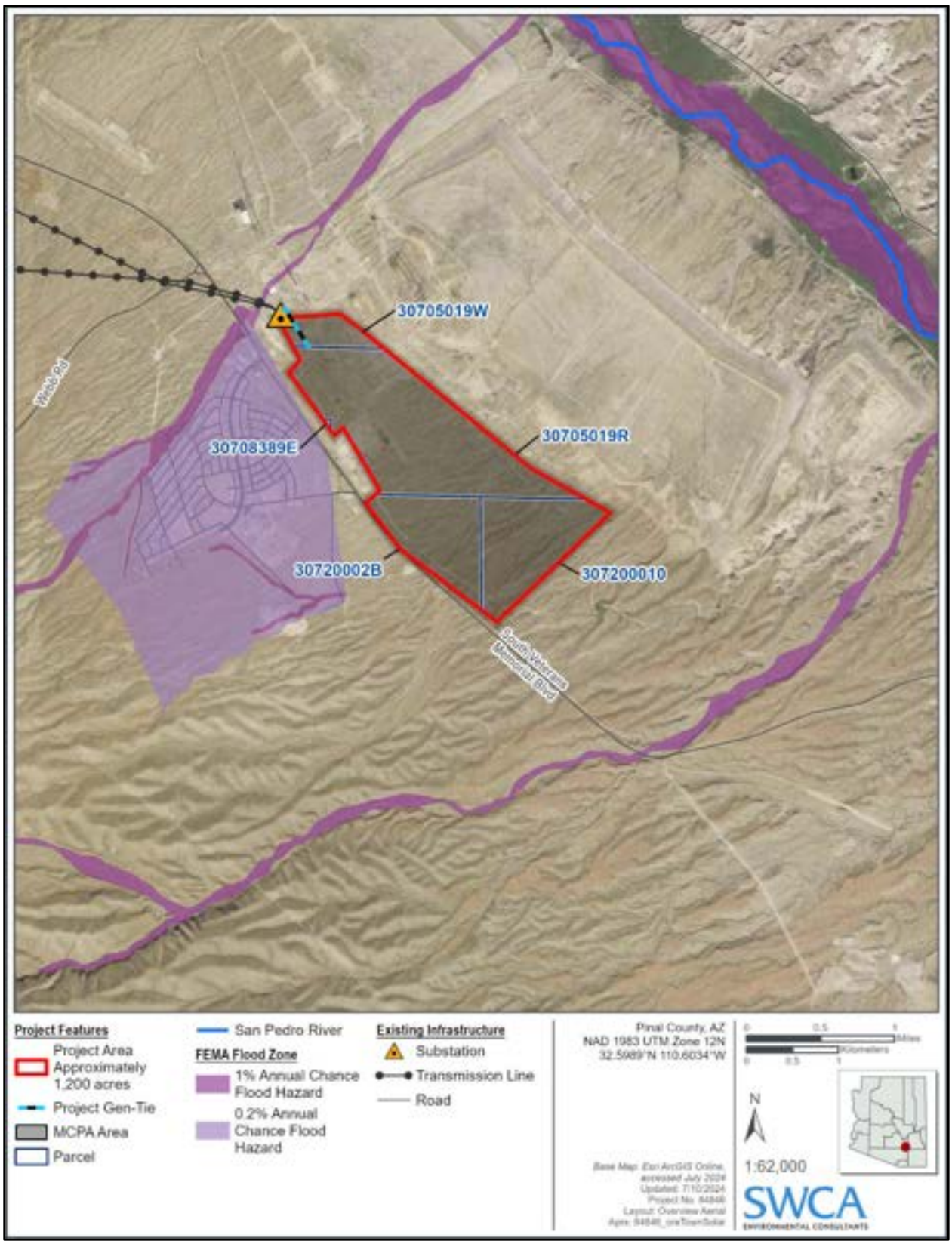


Figure 2. Project parcels.

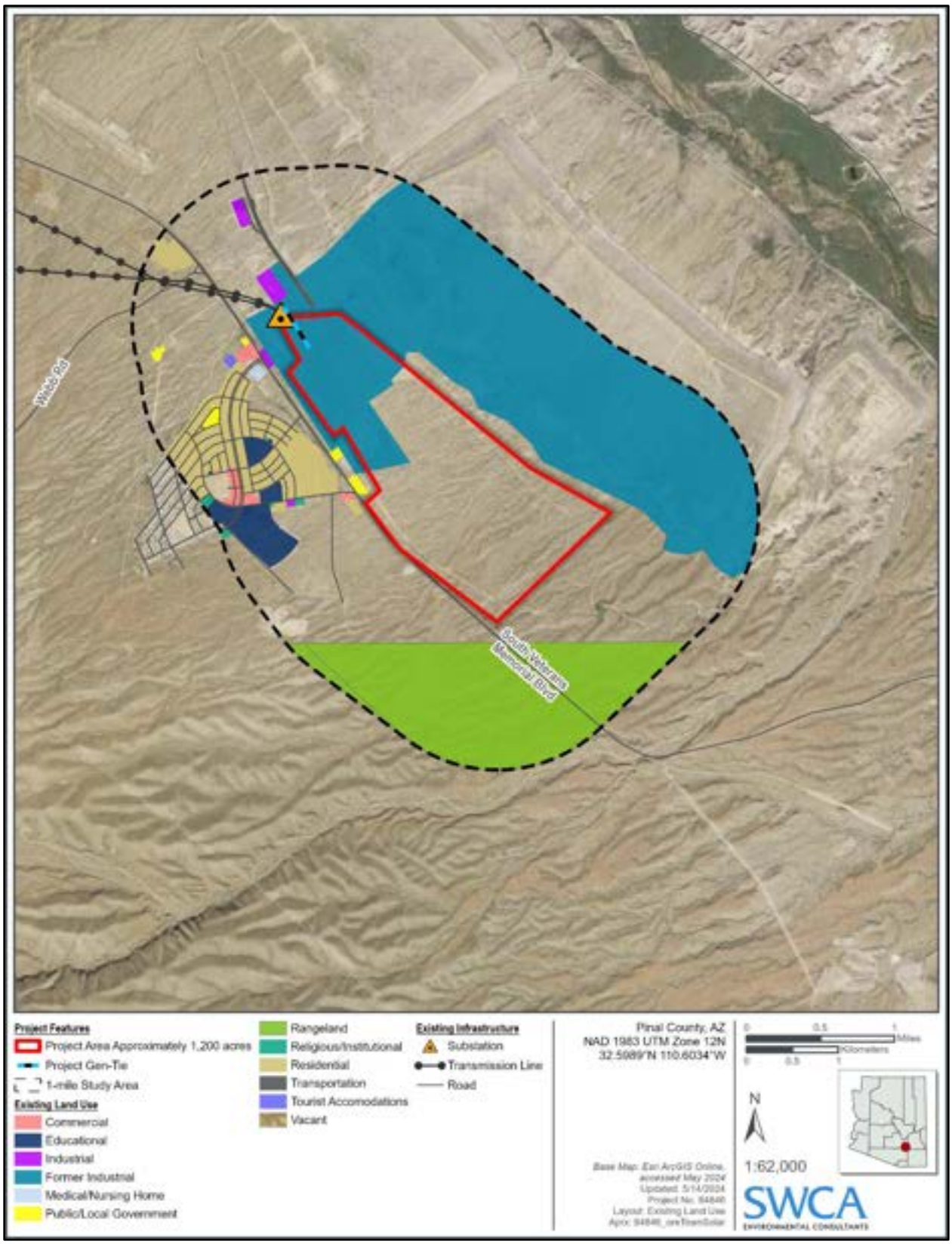


Figure 3. Existing land use.

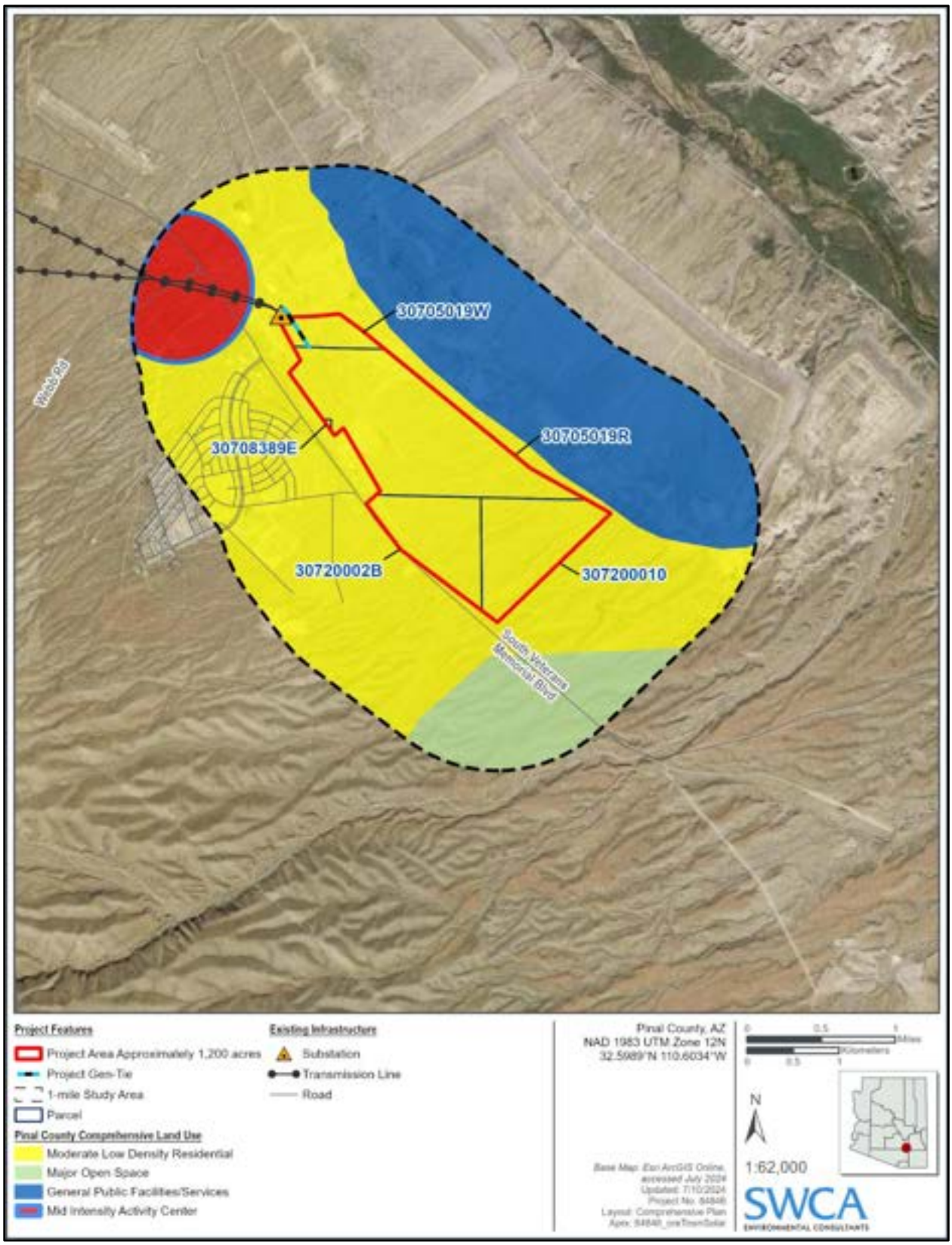


Figure 4. Planned land use.

A.1 Proposed Land Use

The Applicant is requesting an MCPA for approximately 1,227.41 acres on private land in Sections 28, 29, 32, 33, and 34, Township 9 South, Range 17 East together with portions of Sections 3 and 4, Township 10 South, Range 17 East. (see Figure 1). The Comprehensive Plan designates the land use for the Project Area as Moderate Low Density Residential (see Figure 3). Solar generating facilities are not identified in the Comprehensive Plan as a compatible or alternative use for areas designated as Moderate Low Residential. As such, the Applicant is submitting an MCPA application to redesignate the Project Area to Green Energy Production.

A.2 Location and Accessibility

The Project Area is within a portion of the closed San Manuel Copper Mine, which operated from 1955 to 2003, adjacent to the unincorporated community of San Manuel, north of South Veterans Memorial Boulevard/Redington Road (see Figure 1). The proposed Project Area comprises parcels that are largely undeveloped, having been used previously by the San Manuel Copper Mine for ore processing; the parcels were not used for mining. After the mine's closure, it was decommissioned, and most major equipment was removed after 2010. The Project Area is owned by BHP Copper, Inc., a wholly owned subsidiary of Group Ltd. (BHP) and would be leased to the Applicant to develop the Project.

A.3 Site Suitability

The Applicant identified the Project Area as an optimal location for an electrical generation facility based on favorable resources available at and in close proximity to the project site including large, generally level land areas and existing utility transmission and interconnection facilities. The project is on a portion of the closed San Manuel Copper Mine, as noted above, the San Manuel Copper Mine was closed in the early 2000s, with most major equipment apparently decommissioned or removed before 2010.
The Project Area lacks sensitive biological resources in terms of Endangered Species Act (ESA)-listed species.

There are no perennial surface waters or wetlands in the Project Area.

The Project Area is in Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map panel 04021C2550E and is mapped as Zone X, an area of minimal flood hazard (FEMA 2024) (see Figure 2). Project development would not require a floodplain use permit from the Pinal County (County) Flood Control District at the time of Site Plan review nor prior to the issuance of a building permit to ensure development meets minimum requirements of the National Flood Insurance Program and County Floodplain Ordinance.

A.4 Public Services/Utilities

Existing utilities within the Project Area include two 115-kV transmission lines south of South Republic Road (Saddlebrooke Ranch to San Manuel and Saguaro to San Manuel). The Project gen-tie line would run approximately 0.35 mile from the Project Area to the San Manuel Substation, which is in the northern portion of the Project. Water is expected to be hauled to the site during construction; section C.2.7.3 provides more details on water resources and infrastructure. Any road construction, if needed, to access the Project Area would be paid for and constructed by the Applicant, in coordination with the County Public Works Department (Public Works), as necessary. Overall, the Project Area would increase the land's taxable value while adding little, if any, burden to public services.

The County Sheriff's Office provides law enforcement services in the Project Area vicinity, and the Regional Fire and Rescue Department provides subscription-based fire and emergency medical services to the region. New or additional public services resulting from the MCPA are not anticipated.

B. PROJECT NARRATIVE

B.1 Introduction

This narrative report provides the information required to support the Applicant's request for an MCPA for the Project on unincorporated land in Pinal County. The Applicant is requesting this MCPA to construct and operate a PV solar facility, BESS, and substation. The Project Area consists entirely of privately owned parcels (see Figure 1) of undeveloped land previously used by the San Manuel Copper Mine for ore processing. (see Figure B-1 in Appendix B). The Project would also require a gen-tie line and additional Project infrastructure. The gen-tie line would run to the existing San Manuel Substation within the Project Area.

Subsequent to approval of the MCPA by the County, the Applicant intends to apply for a change in zoning of the MCPA parcels from General Rural (GR) to Industrial Zoning District (I-3) and request to change the Comprehensive Plan land use designation for the Project Area from Moderate Low Density Residential to Green Energy Production to allow for the development of the Project.

Changing the zoning and land use designation would allow for an increase in energy production as electrical demand increases in the region. A positive economic effect is expected to result from the proposed energy facility development by providing short- and long-term job opportunities in the area, tax benefits to the County, and local economic activity from transactions of Project workers with local businesses. The Applicant would use local labor and local contractors/materials as much as possible for the Project.

A certificate of environmental compatibility (CEC) is not anticipated to be required from the Arizona Corporation Commission for the Project because the 0.35-mile gen-tie line connecting the generation facility to the existing power grid at the Arizona Public Service (APS) San Manuel Substation is less than 1-mile threshold for a CEC.

The Project Area is well suited for the proposed changes to the Comprehensive Plan. The primary criteria for determining the location of power generation facilities include the existence of compatible adjacent and nearby land uses; minimal topographic variability; and the proximity to existing electrical infrastructure (see Figures 1, 3, and).

As part of the MCPA process, the Applicant was required to hold a neighborhood meeting that complied with the citizen review process outlined in Chapter 2.166.050, Section E: Citizen Review of the County Development Services Code (Development Services Code) (Pinal County 2023). To support the neighborhood meeting, the Applicant initiated a public outreach program to ensure that community residents and local property owners were provided with the opportunity to learn and comment on the Project. To contact the potentially affected residents, the Applicant developed and facilitated public participation measures, including an informational mailer, newspaper advertisements, email address, and a telephone information line. The Applicant held an in-person public open house on April 24, 2024. These outreach efforts provided information to members of the public, solicited feedback on the Project, and helped identify potential issues relative to Project development.

The Applicant has prepared a neighborhood meeting report (Appendix C) to document compliance with the neighborhood meeting process and to meet the reporting requirements described in the Development Services Code (Pinal County 2023).

B.1.1 Project Description

The Project would include a PV solar field consisting of panels with an output of up to approximately 145 MWac. The potential BESS would be developed with the PV solar field as part of the Project. Additionally, the Project would include an on-site Project substation and gen-tie line with a proposed connection to the San Manuel Substation. The Applicant has developed multiple projects with the largest utilities in California and Nevada and successfully developed, financed and constructed over 2 Gigawatts (GW) of operating solar projects and have one of the largest portfolio of smart power plants with integrated storage under development across the western United States.

As the solar PV panels generate power, electricity will either be dispatched to the regional grid or directed to the BESS, where the energy would be stored and dispatched to the grid when that power is needed. The electricity generated by the PV panels is in the form of direct current (DC). Inverters will be installed to convert the DC output of the PV panels into alternating current (AC). Electricity will then flow through the gen-tie line and into the APS San Manuel Substation, which would connect directly to the gen-tie line infrastructure. If the power generated by the solar PV panels is stored for later, it would be directed into the BESS via a network of underground AC 34.5-kV collector circuits. When it is advantageous to do so, the BESS will send electricity to the regional power grid via the Project substation, gen-tie line, and APS San Manuel Substation.

The Applicant will require construction contractors to install temporary erosion and sediment control features to prevent construction-period stormwater discharges. The Project Area is relatively flat. The Project will be designed with appropriately sized, permanent stormwater management features such that post-construction stormwater discharges do not exceed existing conditions. Refer to section C.2.7.3 for further information.

The operational lifespan of the Project is anticipated to be 30 to 40 years, as determined by electrical demand, maintenance requirements, and the expected life of facilities and components; the continued feasibility of the Project and the integrity of structures associated with the Project will be evaluated periodically. If the Project is decommissioned after this 30- to 40-year period, Project equipment will be dismantled and removed from the site, and disturbed land associated with the Project will be reclaimed in compliance with applicable federal, state, and local requirements. Many of the activities associated with decommissioning are similar to those performed during Project construction.

B.1.2 Project Decommissioning

The Applicant expects this Project to operate for approximately 30 to 40 years. Decommissioning the Project will involve equipment removal in accordance with industry standards and appropriate site restoration. When possible, equipment in good working condition may be repurposed for other projects. Other materials will be returned to their manufacturer, recycled by specialized contractors, or disposed of at an appropriate facility. Site restoration will include filling depressions left after equipment is removed and reseeding as dictated by agreements with private landowners. As design and equipment selection is finalized, the Applicant will prepare a decommissioning plan for the Project outlining expected timelines, sequences, and recycling or disposal procedures for the various Project components.

Materials that can be reused or recycled will be hauled away from the site and sold. Waste from end-of-life solar panels may have potential for recycling at the time of decommissioning; however, solar panel recycling is a new and growing industry and not yet functioning at a commercial scale (U.S. Environmental Protection Agency [EPA] 2024a). Batteries include lithium-ion, which degrades, but can be recycled or repurposed. Metal and scrap equipment and parts that do not have free-flowing oil may be sent for salvage. Water used during decommissioning will be approximately 1 acre-foot, used primarily for dust suppression.

The proposed strategy to achieve closure, decommissioning, or reclamation could include the following:

- Analyze alternatives other than full restoration of the site (for instance, removal of old facilities and upgrading to newer solar technology).
- Use industry-standard demolition means and methods to decrease personnel and environmental safety exposures by minimizing time and keeping personnel from close proximity to actual demolition activities to the extent practical.
- Plan components of decommissioning to ensure that personnel and environmental safety are maintained while completing the work efficiently.
- Provide for recycling the components of the plant (metal, panels, concrete, etc.) and propose disposal of all other materials;
- Remove all residual materials and chemicals from the site prior to demolition for reuse at other facilities or disposal at licensed facilities.
- Conduct soils cleanup, if needed, particularly at locations where hazardous materials were used or stored, to ensure that clean closure is achieved.
- Restore lines and grades to match the natural gradient and reestablish native vegetation in the disturbed areas.

Site dismantling consists of four stages:

1. Removal and demolition of aboveground structures
2. Dismantling and removal of concrete structures so that no concrete remains within 3 feet of final grade.
3. Removal of underground utilities within 3 feet of final grade.
4. Excavation and removal of soils to return the disturbed areas to near original condition.

B.2 Physical Settings, Existing Uses, and Relationship to Surrounding Land Uses

The Project Area is entirely in unincorporated Pinal County, east of San Manuel, Arizona, is on privately owned land (see Figure 2) zoned as GR and contains no residences, businesses, or buildings. Existing land use consists of vacant, unimproved land that was previously used by the San Manuel Copper Mine for ore processing (see Figure 3). The Project Area does not contain any federal, state, or local municipal properties.

Existing land uses within 1 mile of the Project Area include single-family, low-density residential, San Manuel Arizona Railroad, San Manuel Airport (FAA identifier E77), San Manuel Copper Mine, and wash (associated with Peppersauce Wash), as well as utility (including Saddlebrooke Ranch to San Manuel, 115-kV and Saguaro to San Manuel, 115-kV) (see Figure 3).

The Project Area lies within the closed-basin 33,936-acre Big Wash–San Pedro River watershed (12-digit Hydrologic Unit Code 150502030802, as defined by the U.S. Geological Survey (USGS) Watershed Boundary Dataset (EPA 2024b; USGS 2024a).

Transportation and travel routes in the vicinity of the Project Area include the north-east–aligned South Veterans Memorial Boulevard, adjacent west of the Project Area; north-south–aligned SR 77, approximately 4 miles north of the Project Area; east-west–aligned Interstate 10, approximately 45 miles south of the Project Area; and several paved and unpaved local roads.

C. COMPREHENSIVE PLAN AMENDMENT CRITERIA

The overall intent of the Comprehensive Plan is to act as a tool that will serve to "steer the County on a positive course of action to manage growth, preserve the quality of life, and promote sustainability. It is a long-term vision that promotes effective economic vitality while ensuring environmental stewardship. The Plan articulates the vision and outlines the strategic direction to position Pinal as a vibrant, healthy, and economically sustainable region within the state of Arizona" (Pinal County 2021).

To ensure conformity with the Comprehensive Plan, all development proposals must meet the criteria outlined in the Comprehensive Plan compliance checklist (Pinal County 2021: Appendix A).
The Comprehensive Plan compliance checklist is focused on two major components:

- Consistency with Pinal County's vision components
- Consistency with the Plan's key concepts illustrated on land use, circulation, and economic development graphics.

C.1 Consistency with Pinal County's Vision Components

The land use proposed in this MCPA would be consistent with the goals, objectives, and policies of the current Comprehensive Plan.

The chapters of the Comprehensive Plan include the following: Sense of Community; Mobility and Connectivity; Economic Sustainability; Open Spaces and Places; Environmental Stewardship; Healthy, Happy Residents; and Quality Educational Opportunities. These chapters are also the vision components, which are discussed in sections C.1.1 through C.1.7 below with specific responses to the applicable questions included in the Comprehensive Plan compliance checklist.

C.1.1 Sense of Community

Is the proposal consistent with the Sense of Community vision component?

Sense of Community is largely achieved by paying close attention to residential and commercial land uses in the area. Densities of development either encourage or discourage a sense of community, based on the land uses described in the Comprehensive Plan. The land use plan described in Chapter 3: Sense of Community includes Objective 3.1.5.1 – Promote appropriate post-mining land uses. The Project Area is in an undeveloped area where a utility-scale solar facility is unlikely to interfere with other planned developments or sensitive land uses. Passive solar use is less intrusive/disruptive to a sense of community than mining, therefore the development of solar may help redevelop a sense of community.

The MCPA is consistent with Policy 3.1.1.5, which is included in the Comprehensive Plan's Sense of Community vision component: "locate more impactful commercial and industrial uses in areas away from homes where negative impacts can be mitigated." A portion of the Project Area was historically used for ore processing; however, it was not part of the area once mined. The MCPA is consistent with Policy 3.1.1.2, "encourage, coordinate and support commercial and industrial land uses in appropriate areas to maximize adequate services including transportation, water, sewer, fire suppression and utilities."

The MCPA would be consistent with the Sense of Community vision, as described in the Comprehensive Plan, because the Project Area is in a remote location where a utility-scale solar facility is unlikely to interfere with other planned developments or sensitive land uses.

C.1.2 Mobility and Connectivity

Is the proposal consistent with the Mobility and Connectivity vision component?

The MCPA is consistent with the Mobility and Connectivity vision component. Chapter 4: Mobility and Connectivity of the Comprehensive Plan explains the County's vision to strive to serve persons with multimodal transportation options in transportation corridors at appropriate locations. Under the goals, objectives, and policies in this chapter, Policy 4.1.1.4 states that "The County will evaluate the transportation impacts of all proposed Comprehensive Plan amendments and rezonings on Pinal County's regional transportation system" (Pinal County 2021). Development of power generation facilities in the Project Area would have minimal impact on planned land uses from traffic and the goals that address this vision.

The Project would require an access road network, which would consist of existing primary access roadways (Republic Road, San Manuel Airport Road, San Pedro River Road and South Veterans Memorial Boulevard/Redington Road), which may be improved, and the construction of internal access roads via new driveways from these primary access roadways. The Applicant plans to develop sufficient access roads to the Project site for construction workers/equipment and operational needs. During operation, the Project would require infrequent visits for routine maintenance and repairs; as such, the Applicant does not anticipate the Project to have a negative effect on local roads.

Construction is anticipated to last approximately 14 months. There would be a temporary increase in daily vehicle trips during the construction period related to workers arriving and departing and equipment deliveries. During operation, the Project would require infrequent visits for routine maintenance and repairs; given this, the Applicant does not anticipate the Project will have a negative effect on local roads. The Applicant anticipates the preparation of a Traffic Impact Statement to evaluate the Project's impact on traffic and construction traffic. In addition, the Applicant will also review potential locations of solar project site access, in accordance with the *Pinal County Access Management Manual* (Pinal County 2017).

C.1.3 Economic Sustainability

Is the proposal consistent with the Economic Sustainability vision component?

The MCPA is consistent with the Economic Sustainability vision component. Balancing residential growth with job creation is the central theme of the Economic Sustainability element. The Economic Development element concentrates on the County's ability to provide quality employment opportunities for its residents by setting specific goals, objectives, and policies. Two main goals that address this vision are:

1. *Encourage a full range of quality jobs for residents of Pinal County and increase the jobs per capita ratio.*
2. *Encourage sustainable development consistent with Pinal County's environmental preservation philosophy* (Pinal County 2021).

The MCPA would further promote economic diversity and employment opportunities in the area by providing direct and indirect employment during the construction and operational life of the proposed facility. Additionally, power generated by the proposed facility could potentially support residential growth and job creation by providing clean, safe, affordable, and efficient electricity to local communities and the region. The Project would provide the opportunity for construction employment, which is considered an important employment sector for Pinal County (Pinal County 2021). The MCPA would be compatible with the vision outlined in Chapter 5: Economic Sustainability as described in the Comprehensive Plan.

C.1.4 Open Spaces and Places

Is the proposal consistent with the Open Spaces and Places vision component?

The MCPA is consistent with the Open Spaces and Places vision component. According to the Comprehensive Plan, siting of specific proposed open space and trails is based on the "suitability of activities, surrounding land uses, ecological factors, topography, viewsheds, and cultural resources" (Pinal County 2021).

According to the Pinal County Comprehensive Plan (Pinal County 2007, 2021) the Project Area does not intersect any proposed open spaces or proposed trails. The Project Area is not designated as a Recreation/Conservation area in the Comprehensive Plan, and there are no existing trails, parks, or other recreational facilities identified within the Project Area in the *Pinal County Open Space and Trails Master Plan* (Open Space and Trails Master Plan) (Pinal County 2007).

C.1.5 Environmental Stewardship

Is the proposal consistent with the Environmental Stewardship vision component?

The MCPA is consistent with the Environmental Stewardship vision component. Throughout initial Project planning, the Applicant has considered potential environmental impacts and is committed to minimizing impacts to the human, natural, and cultural environments resulting from the proposed development. The Project will comply with all applicable federal, state, and local laws, regulations, and guidelines, as required.

Solar generation conserves natural resources, and battery energy storage facilitates the integration of renewable resources into the power grid (see section C.2.7 for additional information regarding Project natural resource conservation). The Comprehensive Plan, Chapter 7: Environmental Stewardship, states that "Pinal County will provide support for the development and location of renewable sources" and that "the expansion of renewable energy opportunities should be supported by the County through its land use planning and permitting process" (Pinal County 2021). Under the goals, objectives, and policies of the same chapter, Policy 7.6.2.1 states that the County will "identify through specific area planning potential locations for renewable energy production". The Project Area would contribute to providing a source of renewable energy production and therefore is consistent with the Environmental Stewardship vision of the Comprehensive Plan as it relates to energy. In addition, the current Project design includes the use of PV solar panels, which minimize water use. The use of renewable energy sources (Objective 7.3.1) and the minimization of water use (Policy 7.7.2.2) are both stated elements of the Environmental Stewardship vision of the Comprehensive Plan.

Regarding air quality and water resources, the Comprehensive Plan, Chapter 7: Environmental Stewardship, includes Goal 7.1.3, "improve air quality" and Goal 7.2.2, "encourage the maximum conservation of water resources currently available in Pinal County." As a renewable energy source, solar PV facilities generate no air emissions and use less water compared to traditional fossil fuel-based energy sources. As such, the Project Area would allow the County to further its Environmental Stewardship objectives as they relate to promoting renewable energy, without compromising air quality or water resources.

Chapter 7 of the Comprehensive Plan also notes that environmentally sensitive areas require special consideration during the development design process. Section C.2.7 provides a discussion of biological and cultural resources at the Project Area. The Applicant will continue to develop this Project in a manner that minimizes impacts to the human, natural, and cultural environments.

C.1.6 Healthy, Happy Residents

Is the proposal consistent with the Healthy, Happy Residents vision component?

The MCPA is consistent with the Healthy, Happy Residents vision component. Factors that contribute to Healthy, Happy Residents include well-designed neighborhoods, cost of housing and public services, and availability of healthy foods. Chapter 8: Healthy, Happy Residents of the Comprehensive Plan (Pinal County 2021) states the following goals:

Goal 8.1*: Pinal County has a mix of housing types and is well positioned to respond to emerging housing industry trends and markets.*

Goal 8.2*: Maximize residential development opportunities where existing infrastructure and services are provided or planned.*

Goal 8.3*: Promote a philosophy that new growth pays for its share of financial impacts in an equitable manner.*

Goal 8.4*: Maintain long-term financial sustainability for Pinal County.*

Goal 8.5*: Pinal County and its residents have access to healthy foods.*

The MCPA would be consistent with this vision and would contribute to maintaining long-term financial stability (Goal 8.4) by generating revenues and contributing to the tax base for Pinal County and by allowing the contribution of clean, safe, affordable, and efficient energy to the regional transmission grid. Additionally, the MCPA would be consistent with Goal 8.3 because the Applicant is committed to paying its proper and reasonable share of the costs of new infrastructure, services, and other public improvements that may be required for this Project. Whereas no Project-related public expenditures are proposed or anticipated, the Applicant would likely need to improve the primary access roadways, South Republic Road and San Manuel Airport Road. Any proposed road construction needed to access the Project would be constructed and paid for by the Applicant in coordination with the Arizona Department of Transportation (ADOT) and/or Public Works, as necessary, and would not require public expenditures.

As a renewable energy source with no air emissions, the Project would contribute to maintaining a clean, natural environment for Pinal County residents. Tax revenue from the Project would support Pinal County services.

C.1.7 Quality Educational Opportunities

Is the proposal consistent with the Quality Educational Opportunities vision component?

As indicated in the Comprehensive Plan compliance checklist (Pinal County 2021: Appendix A), this vision component may not apply to all projects. The Applicant does not anticipate that this vision component would apply to this Project because no educational opportunities are associated with the Project.

C.2 Consistency with the Plan's Key Concepts Illustrated on Land Use, Economic, and Circulation Graphics

C.2.1 Consistency with the Land Use Designation Shown on the Graphics

Land use within the Project Area includes designated Moderate Low Density Residential (see Figure 3). The land use designations surrounding the Project Area are Commercial, Educational, Industrial, Former Industrial, Medical/Nursing Home, Public/Local Government, Rangeland, Religious/Institutional, Residential, Transportation, Tourist Accommodations, and Vacant. This MCPA application requests to change the land use designation from Moderate Low Density Residential to Green Energy Production in the Project Area. The land use change would be consistent with supporting public utility infrastructure and energy facility uses and the major high-voltage transmission line that passes through the Project Area. The land use change would be consistent with the surrounding land uses, which include currently vacant areas of the former mine site, a residential area south of South Veterans Memorial Boulevard (i.e., San Manuel), and undeveloped land (see Figure 3). Green energy production, solar in the case, is a passive land use that does not create large land impacts outside of development boundaries. Therefore, the requested Project Area would not be incompatible with surrounding land uses.

The Land Use Plan states that it "must be flexible enough to adjust to changing conditions and economic opportunities" (Pinal County 2021). Therefore, the land use change proposed for the Project would be consistent with the Comprehensive Plan's Land Use graphic.

C.2.2 Consistency with the Mixed Use Activity Center Concepts

Not Applicable. The MCPA is not for a mixed-use project.

C.2.3 Consistency with the Planning Guidelines Described in the Land Use Element

The land uses proposed for the Project Area are consistent with the applicable planning guidelines described in the Comprehensive Plan's Land Use element (i.e., Chapter 3). The Land Use element (does not include planning guidelines for Green Energy Production. Given that the Project would be a passive, low-intensity use, the MCPA would be consistent with surrounding land uses, which include Moderate Low Density Residential on currently vacant parcels. The Project Area is in a relatively remote area of Pinal County; therefore, the MCPA is unlikely to conflict with other proposed developments or sensitive land uses.

The parcels adjacent to the Project Area are mainly Former Industrial, Vacant, Residential and Rangeland areas. Transmission lines and associated structures cross the Project Area and in nearby areas, and South Veterans Memorial Boulevard is immediately west of the Project Area.

Approval of this MCPA would be a step toward allowing additional power generation and BESS facilities and infrastructure, which would contribute toward meeting regional electrical needs.

C.2.4 Quality Employment Opportunities Countywide

The MCPA is consistent with the Economic Development element. The MCPA would further promote economic diversity and employment opportunities in the area by providing quality jobs during the construction and operational life of the facility. The Applicant estimates that approximately 200 construction jobs would be created by the Project. The MCPA would be compatible with the vision outlined in Chapter 5: Economic Sustainability of the Comprehensive Plan.

C.2.5 Viable Agriculture, Equestrian, and Rural Lifestyle

The MCPA would allow the Project to develop currently vacant and unimproved land in a location where agriculture is infeasible due to past mining uses; therefore, the Project would not impede any agricultural activity in Pinal County.

C.2.6 System of Connected Trails and Preservation of Open Space

The MCPA is consistent with the *Pinal County Open Space and Trails Master Plan* (Open Space and Trails Master Plan) (Pinal County 2007) and Chapter 6: Open Spaces and Places of the Comprehensive Plan. The Open Spaces and Places chapter of the Comprehensive Plan's vision is to site specific proposed open space and trails based on the "suitability of activities, surrounding land uses, ecological factors, topography, viewsheds, and cultural resources" (Pinal County 2021).

The Open Space and Trails Master Plan promotes the quality of life of the region by providing areas of passive and active recreational opportunities, while conserving existing resources, such as natural scenic beauty, view corridors, wildlife habitat, agricultural resources designated at risk, and cultural heritage for the benefit of present and future generations.

The MCPA is consistent with this key concept because the Applicant's current solar build out is not designated as Recreation/Conservation. The site is a closed copper mine and there are no existing trails, parks, or other recreational facilities within the Project Area. In addition, the Project Area does not intersect any proposed open spaces or proposed trails.

C.2.7 Natural Resource Conservation

The Applicant has considered potential environmental impacts of the Project and would mitigate impacts to the natural and cultural environment by minimizing ground disturbance where possible. Development of the Project would comply with all applicable federal, state, and local environmental laws, regulations, and guidelines, as required. Based on preliminary review, the Project Area is in an area with minimal sensitive environmental resources; however, environmentally sensitive areas that the Project may impact are described below.

C.2.7.1 BIOLOGICAL RESOURCES

C.2.7.1.1 Federally Protected Species

The U.S. Fish and Wildlife Service (USFWS) maintains a list of protected species and the critical habitat known to occur in each Arizona county. These species are currently listed or are proposed for listing as endangered or threatened under the ESA (16 United States Code [USC] 1531 et seq.). The list also includes candidate species proposed as threatened or endangered, species delisted from protection under the ESA, and species delisted from protection under the ESA but currently proposed for relisting.
The ESA specifically prohibits the "take" of listed endangered and listed threatened wildlife species if an ESA Section 4(d) rule was designated at the time of listing. Take is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to engage in any such conduct," but the ESA does not provide the same take protections of plant species (except on federal land). Some bird species also receive legal protection under the federal Migratory Bird Treaty Act (MBTA) (16 USC 703–712). Only species listed by the USFWS are afforded protection under the ESA. The special-status species evaluated in this document were based on the list of endangered, threatened, and proposed delisted species for Pinal County, Arizona, available in the USFWS Information for Planning and Consultation (IPaC) system (USFWS 2024a).

Data from the IPaC system (USFWS 2024a), Ecological Conservation Online System (ECOS) (USFWS 024b), Arizona Game and Fish Department (AZGFD) Online Environmental Review Tool (AZGFD 2024), USGS National Hydrography Dataset (USGS 2024b), recent aerial photography imagery available online (Google Earth 2024), and USGS topographic maps (USGS 2024c) were reviewed to assess the potential for occurrence of federally protected species and their habitat.

No designated or proposed critical habitat for federally protected species is known to occur in the Project Area. The nearest designated or proposed critical habitat occurs approximately 2.25 miles northeast of the Project Area within the San Pedro River (AZGFD 2024). Outside of the 1-mile study area in the San Pedro River, designated critical habitat occurs for two species listed under ESA, southwestern willow flycatcher (*Empidonax traillii extimus*) and yellow-billed cuckoo (*Coccyzus americanus*).

The USFWS IPaC system identified eight federally listed (or candidate for listing) species with the potential to occur in the Project Area: ocelot (*Leopardus pardalis*), cactus ferruginous pygmy-owl (*Glaucidium brasilianum cactorum*), Mexican spotted owl (*Strix occidentalis lucida*), yellow-billed cuckoo, Gila chub (*Gila intermedia*), Gila topminnow (*Poeciliopsis occidentalis*), monarch butterfly (*Danaus plexippus*), and Huachuca water umbel (*Lilaeopsis schaffneriana* var. *recurva*). The search results are included in Appendix D. The Project Area and 1-mile study area lack suitable habitat for seven of the eight species, are distant from the nearest known populations, or both. Monarch butterfly, a candidate species for listing, may occur in or near the Project Area wherever flowering plants are present for foraging or milkweed plants (family Asclepiadaceae) are present for breeding.

To help validate IPaC findings, the AZGFD Heritage Data Management System (HDMS), which tracks records for federally listed species and other species of special concern database, was accessed through the AZGFD Arizona Heritage Geographic Information System (AZHGIS) online environmental review tool to determine whether any federally proposed or designated critical habitat or special-status species have been documented on or near the Project Area. The search results are included in Appendix E.

According to AZHGIS, there are records for two listed species within 5 miles of the Project Area, the southwestern willow flycatcher (*Empidonax traillii extimus*) and the yellow-billed cuckoo. There is no suitable riparian woodland habitat for either of these species in the 1-mile study area, and they would not be expected to occur in the Project Area to breed, disperse, migrate, or forage.

Biological field surveys, completed on April 9 and 10, 2024, have confirmed that no habitat is present for federally protected species within the Project Area (Appendix F). Although no federally listed species may occur or are known to occur in the Project Area, should a species become listed or new information become available, the Applicant would coordinate with a qualified biologist to determine whether coordination or consultation with USFWS is required.

C.2.7.1.2 Other Federally Protected Species

The MBTA provides federal protection to nearly all birds native to North America, including their nests and eggs, on all lands (public or private). The MBTA does not protect nonnative bird species, and it does not protect certain native birds (quails, grouse, or turkeys, or their relatives). Numerous species protected by the MBTA are expected to forage and nest in the 1-mile study area and/or migrate through the 1-mile study area. The Applicant would comply with the MBTA when constructing, operating, and maintaining the Project. Bald eagle (*Haliaeetus leucocephalus*) and golden eagle (*Aquila chrysaetos*) are protected under both the MBTA and the Bald and Golden Eagle Protection Act (BGEPA) on all lands (public or private). The golden eagle has the potential to hunt within the 1-mile study area or disperse across it. The bald eagle has potential to disperse across the 1-mile study area. There is no bald or golden eagle nesting habitat (i.e., cliffs or tall trees) within the 1-mile study area. Therefore, the Project is unlikely to impact golden or bald eagles.

C.2.7.1.3 State-Protected Species

The State of Arizona does not have an equivalent counterpart to the federal ESA, and there is no comparable permitting process for harm to wildlife during development. AZGFD can provide an advisory role during the planning and permitting of energy infrastructure and may provide formal comments during state and local permitting processes. Species of Greatest Conservation Need (SGCN) is a nonregulatory AZGFD status that lists wildlife of conservation priority in the state of Arizona (described nationally as Wildlife of Greatest Conservation Need). SGCN are species of vertebrates, crustaceans, and mollusks that rank high in the AZGFD vulnerability assessment and have been identified as priorities for immediate conservation action, as detailed in *The Arizona Wildlife Conservation Strategy (2022–2032)*

(AZGFD 2022). Each species is assessed by AZGFD in terms of vulnerability and assigned a Tier 1, 2, or 3 ranking, with Tier 1 representing the highest threat level (AZGFD 2022). The SGCN list may overlap species already discussed above under relevant federal laws. SGCNs not otherwise protected by federal laws are not given additional protection under state law except that generally no hunting or capture of SGCN is allowed with some exceptions for managed recreational fisheries of native fish (AZGFD 2017) and recreational capture of certain reptiles (AZGFD 2015).

According to AZHGIS, there are records for 54 non-federally listed wildlife species within 5 miles of the Project Area, including two amphibian species, 45 bird species, one fish species, one mammal species, and five reptile species (see Appendix E) (AZGFD 2024). Many of these species records likely originate from the San Pedro River, which lies approximately 2.25 miles northeast of the Project Area; however, many of the species use upland or xeroriparian habitat and have the potential to occur in the Project Area.

The Sonoran desert tortoise (*Gopherus morafkai*), an SGCN Tier 1 species additionally protected under ARS 17-306 and 17-309, has occurrence records within 5 miles of the MCPA (see Appendix E) (AZGFD 2024). The Project Area does not contain suitable rocky slope habitat for the Sonoran desert tortoise, though it does contain incised washes with caliche caves suitable for use by this species. Sonoran desert tortoises may disperse into the MCPA from nearby mountainous bajadas. In the event a Sonoran desert tortoise is encountered during construction activities, the *Guidelines for Handling Sonoran Desert Tortoises* (AZGFD 2014) should be followed.

The Arizona Native Plant Law (ANPL) (Arizona Revised Statutes 3-904) protects certain native plants on private and public lands in Arizona (Arizona Department of Agriculture [AZDA] 2024). The only exception to this law is for plant removal on federal and Tribal lands, in which case the federal land management agency or Tribe must be contacted directly for guidance on their requirements for native plants. Harvest and transport of native plants or native plant materials from any land, including private land, requires permission from the landowner and a permit from the AZDA. The AZDA also requires notification before land clearing is undertaken, even if the plants would be destroyed or salvaged and replanted off-site. Projects of 40 acres or more require written submittal of the Notice of Intent to Clear Land to the AZDA 60 days prior to construction plant clearance. A separate application is required for the permits necessary to salvage and transport protected native plants off-site. The landowner has the right to transplant on-site or to destroy any plants occurring on the property without permits. A search of the AZHGIS online environmental review tool returned three ANPL-protected plant species with occurrence records within 5 miles of the Project Area (see Appendix C) (AZGFD 2024).

C.2.7.1.4 Noxious Weeds

The AZDA defines three classes of noxious weeds in the state of Arizona (Arizona Administrative Code R3-4-245) (AZDA 2024):

- Class A is categorized as a species of plant that is not known to exist or that is of limited distribution in the state and is a high-priority pest for quarantine, control, or mitigation.
- Class B is categorized as a species of plant that is known to occur but that is of limited distribution in the state and may be a high-priority pest for quarantine, control, or mitigation if a significant threat to a crop, commodity, or habitat is known to exist.
- Class C is categorized as a species of plant that is widespread but may be recommended for active control based on risk assessment.

Two restrictions have been developed to control noxious weeds in Arizona: 1) a Class A, B, or C noxious weed or a commodity infested or contaminated with a Class A, B, or C noxious weed cannot be admitted into the state unless otherwise authorized by the AZDA and 2) the AZDA may quarantine and abate an

area infested or contaminated with a Class A or Class B noxious weed if it has been determined that an imminent threat to agriculture or horticulture exists.

A Class C noxious weed, buffelgrass (*Pennisetum ciliare*), has been observed along an active roadway within 5 miles of the Project Area (iMapInvasives 2024).

C.2.7.1.5 Pinal County Riparian Habitat

The County has existing policies, codes, and regulations that stress the importance of riparian areas and provide guidance toward protecting them including the Comprehensive Plan, Open Space and Trails Master Plan, and P Development Services Code. The *Pinal County Riparian Area Guidelines* (AZGFD 2019) provide a description of riparian areas and mitigation measures should a project be expected to impact a riparian area.

The AZHGIS online environmental review tool response also indicated that a Pinal County riparian area occurs in the Project Area (AZGFD 2024; Pinal County 2019). The mapped riparian area in the Project Areas is closely associated with xeroriparian desert scrub vegetation and could be impacted if Project development impacts the xeroriparian washes within the Project Area. The Applicant will work with the County regarding riparian area impacts.

C.2.7.2 CULTURAL RESOURCES

A desktop review of AZSITE, Arizona's online cultural resources database, which includes records from the Arizona State Museum (ASM), Arizona State University, and the Bureau of Land Management, was conducted to identify previous cultural resources investigations and known cultural resources in the 1-mile study area (Appendix G).

According to AZSITE, nine previous cultural resources surveys have taken place within the 1-mile study area, three of which intersect with the Project Area (Table 2). Three surveys overlapped with approximately 6 percent of the study area; the remaining Project Area has not been surveyed. Approximately 35 percent of the surrounding 1-mile radius of the Project has been surveyed for cultural resources. These surveys were conducted for underground communications cable, railroad abandonment, a master planning effort, and proposed mining.

Table 2. Previously Conducted Archaeological Surveys

Agency Number	Project Name (AZSITE Data)	Author(s) (Date)
1989-59.ASM	San Manuel-Mammoth Underground	Adams (1989)
1999-438.ASM	BHP San Manuel Diversion Channel Project	Hesse (1999)
2006-250.ASM	BHP Railroad Survey	Brack (2006)
2006-891.ASM	Redington Interconnect Class IIII	Buckles (2007)
2007-658.ASM	BHP San Manuel Survey	Whitney (2007)
2008-318.ASM / 2009-142.ASM	APS On-Call Cultural Resources Services	Foster and Davis (2011)
2011-111.ASM	Redington Addendum 1 Class III Survey	Buckles (2009)
2012.53.ASM	Oracle Ridge Mine	Luchetta et al. (2012)

There are two sites (AZ AA:7:641[ASM] and AZ BB:6:241[ASM]) that have been documented within a 1.0-mile radius of the Project Area, both of which partially overlap with the Project Area (Table 3). AZ AA:7:641(ASM) is the in-use historic-era San Manuel–Saguaro transmission line, which was

constructed in 1956. In 2022, it was determined eligible for the National Register of Historic Places (NRHP) and Arizona Register of Historic Places (ARHP) by the State Historic Preservation Office (SHPO) under Criterion A for its association with the electrification and development of mining areas in Pinal County. AZ BB:6:241(ASM) is the in-use APS 46-kV power line constructed prior to 1955 to supply power to rural customers. In 2009, it was determined ineligible in the NRHP/ARHP by SHPO.

Table 3. Previously Recorded Archaeological Sites within the 1-Mile Study Area

Site Number	Site Description	Distance from Project Area (miles)	ARHP Status	Author(s) (Date)
AZ AA:7:641(ASM)	In-use historic-era San Manuel-Saguaro Line transmission line	0.10	Determined eligible	Foster and Davis (2011)
AZ BB:6:241(ASM)	In-use Arizona Public Service 46-kV power line	0.32	Determined ineligible	Buckles (2007)

No NRHP-listed properties were identified in a search of the National Park Service NRHP database for properties in or within 3 miles of the Project Area (NPS 2024). The closest NRHP-listed property is the Kannally Ranch, which is approximately 6.3 miles west of the Project Area.

A review of May 2023 aerial imagery (Google Earth 2024) shows that the northwest 300 acres of the Project Area have been previously bladed. This area was part of the San Manuel Copper mine operations that contained a sulfuric acid plant, ore concentrator, smelter, and other mining facilities.

C.2.7.3 WATER RESOURCES, PUBLIC FACILITIES/SERVICES, AND INFRASTRUCTURE SUPPORT

Adequate services are in place or are planned for within a reasonable time of the start of the new development.

The County Sheriff's Office provides law enforcement services to the Project Area. The Regional Fire and Rescue Department provides subscription-based fire and emergency medical services to the region. New or additional public services resulting from the MCPA are not anticipated.

No public improvements to sewer systems or water systems would be needed as a result of the Project, portable toilets will be utilized as necessary. The Applicant will evaluate the impact of the Project on traffic and will work with the County to determine whether any road improvements are needed. Water is expected to be hauled to the site during construction and operation. Water hauled to the site would be from permitted sources with existing water rights.

Any proposed road construction needed to access the Project would be constructed and paid for by the Applicant, in coordination with ADOT and Public Works, as necessary, and would not require public expenditures.

Development of the Project would not impact existing water quality. The Project Area would be designed such that stormwater from off-site would flow through or around the site in a manner similar to the existing conditions. Based on a final hydrologic analysis of the site, on-site drainage would be routed as necessary to retention basins, in accordance with Public Works regulations (Appendix H). This drainage design concept would allow the site to be developed without increasing stormwater runoff or creating an adverse impact on adjacent properties. Site design that is sensitive to existing topography and drainage patterns would also function to protect surface water quality.

In areas where there is any potential for contamination, all stormwater would be retained on-site to comply with Arizona Department of Environmental Quality requirements. The Project would comply with the Arizona Pollutant Discharge Elimination System construction general permit. In addition, the Project will adhere to the Arizona Department of Environmental Quality Aquifer Protection Program and biannual water quality assessment report, as required by the Clean Water Act.

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APPENDIX A

Boundary Survey

Ore Town Solar & Bess Project

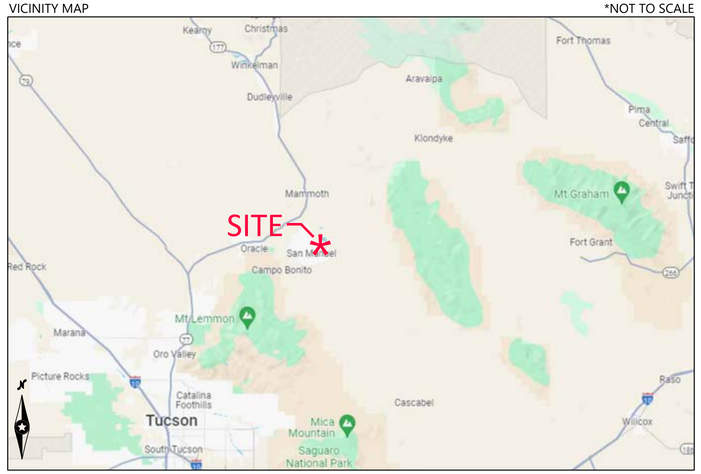
Pinal County, Arizona

BOUNDARY SURVEY

GENERAL DRAWINGS

DWG NO.		TITLE
SHEET	01	COVER SHEET
SHEET	02	SHEET INDEX AND GENERAL NOTES
SHEETS	03-09	SECTIONAL DETAIL SHEETS
SHEET	10	OVERVIEW - KMZ BOUNDARY OVERLAY
SHEET	11-12	DETAILS
SHEET	13	LEGAL DESCRIPTIONS AND SCHEDULE B EXCEPTIONS

VICINITY MAP *NOT TO SCALE



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PREPARED FOR:

AVANTUS

REVISIONS:

#	DATE	COMMENT

Ore Town Solar & BESS Project
Pinal County, Arizona

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
71745
ERICK A. WELCH
Date Signed 07/17/2024
ARIZONA, U.S.A.

CERTIFICATION

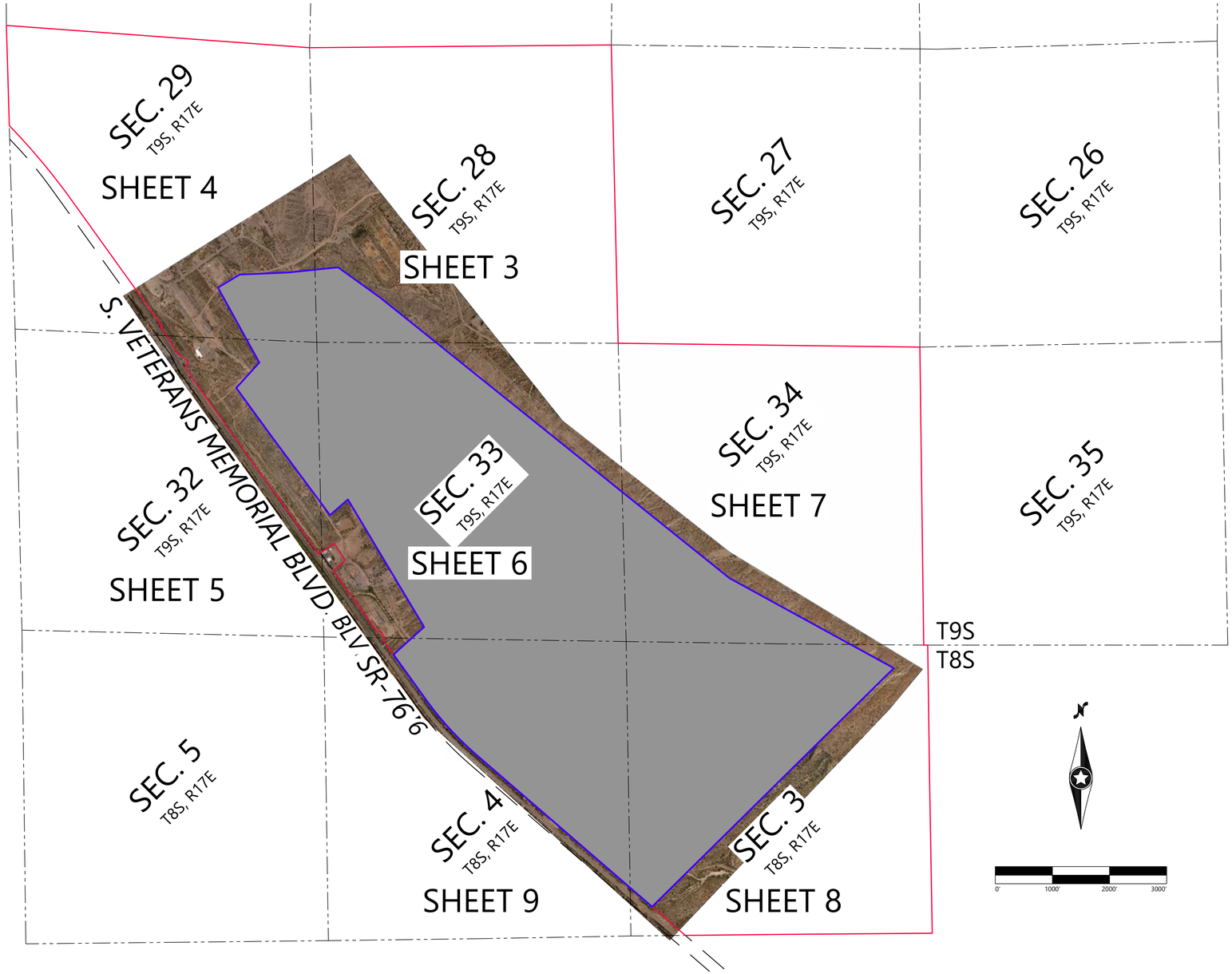
I HEREBY CERTIFY THAT THIS SURVEY WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT ALL MONUMENTS SHOWN ARE OF THE CHARACTER DESCRIBED, AND OCCUPY THE POSITIONS SHOWN.

ERICK A. WELCH, RLS, CFEDS *DATE 07/17/2024*
ARIZONA LICENSE NO. 71745
ERICK.WELCH@WESTWOODPS.COM

DATE: *7/17/2024*

SHEET: *1 OF 13*

N:\2023\3374.02\h_CAD_Survey\20231107_COVER.dwg, 7/17/2024 4:17 PM, Nathan Cruz



GENERAL NOTES

1. PARCEL INFORMATION WAS TAKEN FROM THE TITLE COMMITMENT ISSUED BY STEWART TITLE GUARANTY COMPANY, FILE NUMBER 2272951 HAVING AN EFFECTIVE DATE OF MAY 9, 2024.

2. BEARINGS AND DISTANCES ARE GRID, BASED ON NAD83(2011) (EPOCH1010.00), ARIZONA STATE PLACE COORDINATE SYSTEM, CENTRAL ZONE (0202), INTERNATIONAL FOOT. VERTICAL DATUM IS BASED ON NAVD88 (GEOID18). THE COMBINED SCALE FACTOR IS 0.99992819 FROM AN OPUS POST PROCESSING SOLUTION ABOUT THE WESTWOOD CONTROL POINT NO. 1, BEING A MAG NAIL AT THE APEX OF AN AERIAL CONTROL TARGET LOCATED AT N: 589705.332, E: 1097383.201. TO DETERMINE DISTANCES IN GROUND, MULTIPLY GRID VALUES SHOWN HEREON BY THE RECIPROCAL OF THE COMBINED SCALE FACTOR, OR 1.000071815.

3. THE SOUTHWEST CORNER OF SECTION 32 WAS CALCULATED USING THE AMENDED PLAT OF THE ORIGINAL TOWNSITE OF SAN MANUEL, RECORDED AS CABINET B SLIDE 6, PINAL COUNTY RECORDERS, MARCH 24, 1988. THE DISTANCE OF THE TIE LINE WAS HELD PER RECORD, THE BEARING WAS ROTATED TO MATCH THE FOUND MONUMENTS ALONG WEBB DRIVE BETWEEN GIFFEN AVENUE AND DOUGLAS AVENUE.

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REVISIONS:

#	DATE	COMMENT

LEGEND

- PROJECT BOUNDARY
- PARCEL BOUNDARY
- ROADWAY RIGHT OF WAY
- SECTION LINES

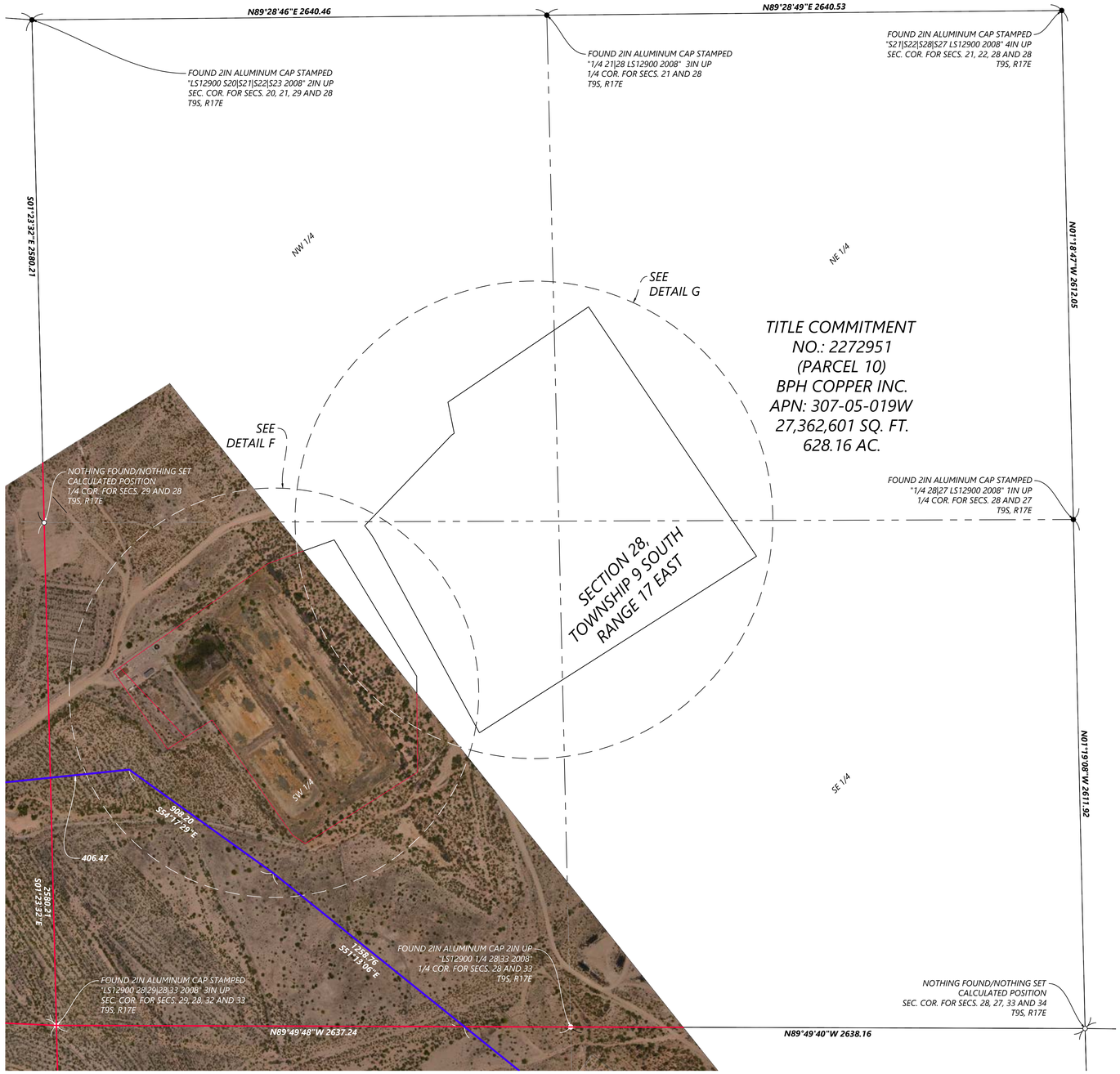
Ore Town Solar & BESS Project
Pinal County, Arizona

DATE: 7/17/2024

SHEET: 2 OF 13

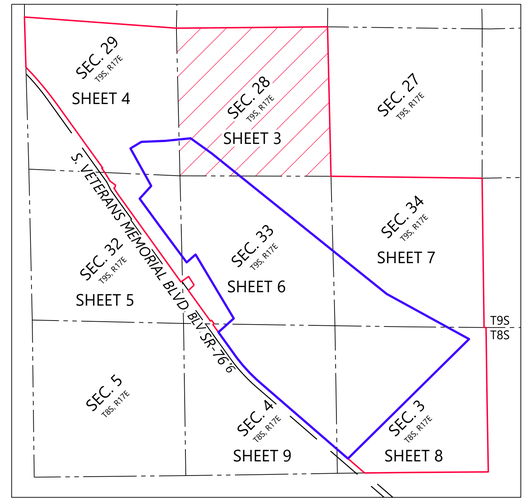
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SECTION 28, TOWNSHIP 9 SOUTH, RANGE 17 EAST, GILA AND SALT RIVER MERIDIAN



SEE SHEET 4 OF 13

SEE SHEET 6 OF 13



KEY MAP
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#	DATE	COMMENT

LEGEND

- PROJECT BOUNDARY
- PARCEL BOUNDARY
- ROADWAY RIGHT OF WAY
- SECTION LINES
- FOUND MONUMENT (AS NOTED)
- NOTHING FOUND/NOTHING SET (AS NOTED)
- *FOUND 3IN BRASS CAP IN CONCRETE WITH PUNCH MARK STAMPED "ARIZONA HIGHWAY DEPT. 19"*
- *FOUND STEEL ANGLE IRON HIGHWAY RIGHT-OF-WAY*

0' 300' 600' 900'

Ore Town Solar & BESS Project

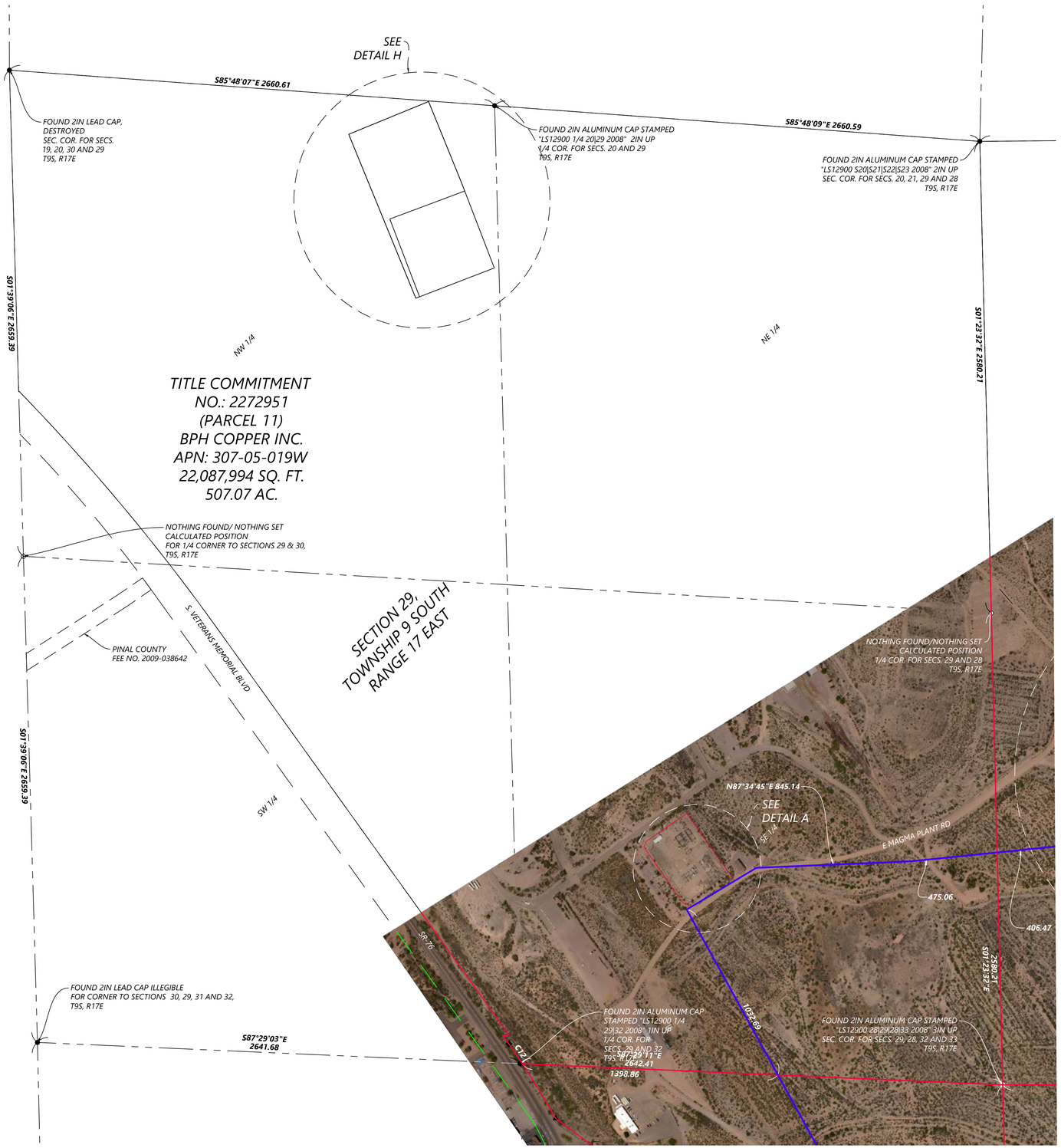
Pinal County, Arizona

DATE: 7/17/2024

SHEET: 3 OF 13

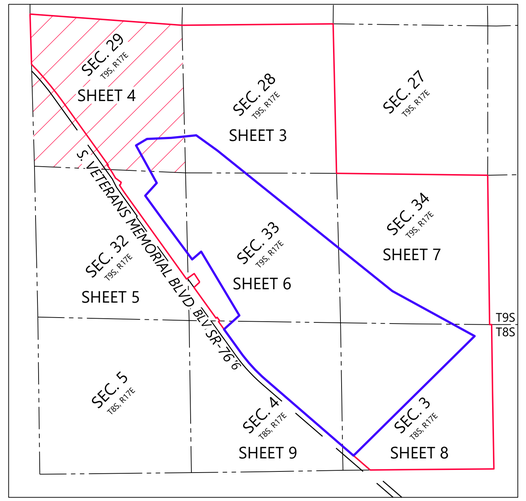
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SECTION 29, TOWNSHIP 9 SOUTH, RANGE 17 EAST, GILA AND SALT RIVER MERIDIAN

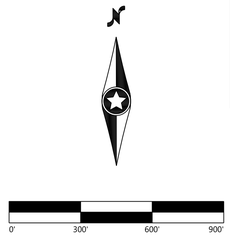


SEE SHEET 3 OF 13

SEE SHEET 5 OF 13



KEY MAP
(NOT TO SCALE)



LEGEND

- PROJECT BOUNDARY
- PARCEL BOUNDARY
- ROADWAY RIGHT OF WAY
- SECTION LINES
- FOUND MONUMENT (AS NOTED)
- NOTHING FOUND/NOTHING SET (AS NOTED)
- *FOUND 3IN BRASS CAP IN CONCRETE WITH PUNCH MARK STAMPED "ARIZONA HIGHWAY DEPT. 19"*
- *FOUND STEEL ANGLE IRON HIGHWAY RIGHT-OF-WAY*

Ore Town Solar & BESS Project

Pinal County, Arizona

DATE: 7/17/2024

SHEET: 4 OF 13

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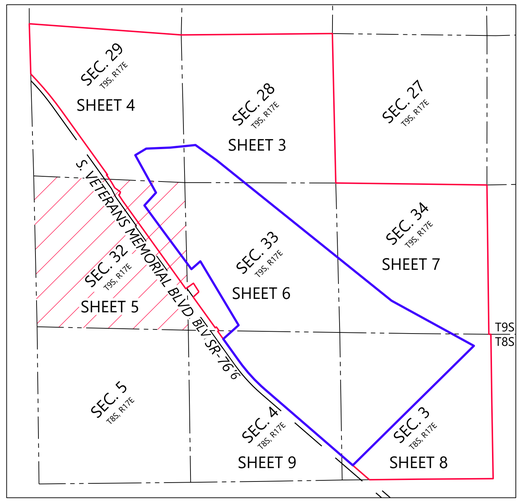
REVISIONS:

#	DATE	COMMENT

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SEE SHEET 4 OF 13

SECTION 32, TOWNSHIP 9 SOUTH, RANGE 17 EAST, GILA AND SALT RIVER MERIDIAN



KEY MAP
(NOT TO SCALE)

S87°29'03"E 2641.68

FOUND 2IN LEAD CAP ILLEGIBLE
SEC. COR. FOR SECS. 30, 29, 31 AND 32
T9S, R17E

FOUND 2IN ALUM CAP STAMPED "LS12900 1/4 29|32 2008" 1IN UP 1/4 COR. FOR SECS. 29 AND 32 T9S, R17E

FOUND 2IN ALUMINUM CAP STAMPED "LS12900 1/4 29|32 2008" 1IN UP 1/4 COR. FOR SECS. 29 AND 32 T9S, R17E

S87°29'11"E 2642.41

1398.86

FOUND 2IN ALUMINUM CAP STAMPED "LS12900 28|29|28|33 2008" 3IN UP SEC. COR. FOR SECS. 29, 28, 32 AND 33 T9S, R17E

FOUND 2IN ALUMINUM CAP STAMPED "LS12900 28|29|28|33 2008" 3IN UP SEC. COR. FOR SECS. 29, 28, 32 AND 33 T9S, R17E

N42°12'30"E 601.05

N01°17'33"W 2636.18

NW 1/4

NE 1/4

S. VETERANS MEMORIAL BLVD

N38°06'42"W 1098.47

N01°22'57"W 2580.16

TITLE COMMITMENT
NO.: 2272951
(PARCEL 1)
BPH COPPER INC.
APN: 307-05-019R
5,089,771 SQ. FT.
116.84 AC.

SEE DETAIL J

7431.86

SEE DETAIL I

FOUND 2IN ALUMINUM CAP STAMPED "LS12900 1/4 31|32 2008" 2IN DOWN 1/4 COR. FOR SECS. 31 AND 32 T9S, R17E

SECTION 32, TOWNSHIP 9 SOUTH, RANGE 17 EAST

FOUND 2IN ALUMINUM CAP STAMPED "LS12900 1/4 32|33 2008" 2IN UP 1/4 COR. FOR SECS. 32 AND 33 T9S, R17E

S48°45'53"W 415.95

APN: 307-08-389A
(NOT A PART)

SR-76

FOUND 2IN ALUMINUM CAP STAMPED "LS12900 1/4 32|33 2008" 2IN UP 1/4 COR. FOR SECS. 32 AND 33 T9S, R17E

SEE DETAIL C

SEE DETAIL D

N30°51'37"W 2600.66

N01°17'55"W 2638.05

FOUND 1IN IRON PIPE
7IN DOWN

SW 1/4

SE 1/4

S35°40'39"E 771.06

APN: 307-08-389C
(NOT A PART)

SR-76

2580.41
S01°22'31"E

SEE DETAIL E

FOUND 1IN IRON PIPE
7IN DOWN

NOTHING FOUND/NOTHING SET
CALCULATED POSITION
SEC. COR. FOR SECS. 31, 32,
6 AND 5
T9S, R17E

NOTHING FOUND/NOTHING SET
CALCULATED POSITION
1/4 COR. FOR SECS. 32 AND 5
T9S, R17E

S88°41'55"E 2642.64

S88°41'55"E 2642.64

NOTHING FOUND/NOTHING SET
CALCULATED POSITION
FOR CORNER TO SECTIONS 32 AND 33, T9S, R17E
AND SECS. 5 AND 4, T10S, R17E

APN: 307-08-389C
(NOT A PART)

MAIN STREET

20' ALLEY
PER CAB 35
SLIDE B

8 9 10

WEBB DRIVE

FOUND
1IN IRON PIPE
7IN DOWN

NOTHING FOUND/
NOTHING SET
CALCULATED POSITION
FOR CORNER TO
SECTIONS 32 AND 33,
T9S, R17E
AND SECS. 5 AND 4,
T10S, R17E

RONALD L. &
SANDRA J. BRYANT
APN:307-20-001C
FEE NO.
2006-012533
218,043 S.F.
5.006 AC.

0' 300' 600' 900'

SEE SHEET 6 OF 13

4

LEGEND

- PROJECT BOUNDARY
- PARCEL BOUNDARY
- ROADWAY RIGHT OF WAY
- SECTION LINES
- FOUND MONUMENT (AS NOTED)
- NOTHING FOUND/NOTHING SET (AS NOTED)
- FOUND 3IN BRASS CAP IN CONCRETE WITH PUNCH MARK STAMPED "ARIZONA HIGHWAY DEPT. 19"
- FOUND STEEL ANGLE IRON HIGHWAY RIGHT-OF-WAY

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REVISIONS:

#	DATE	COMMENT

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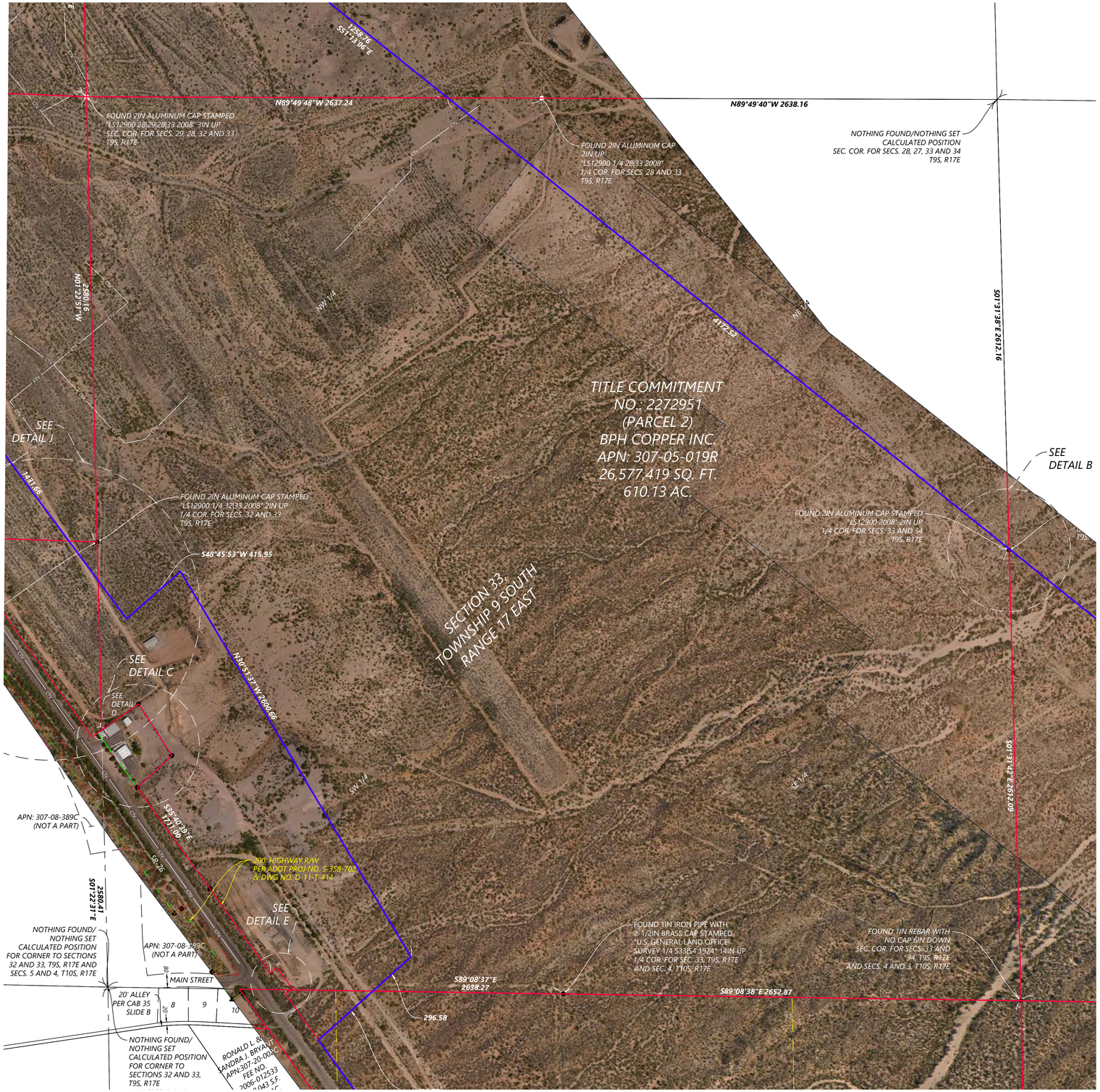
Pinal County, Arizona

DATE: 7/17/2024

SHEET: 5 OF 13

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SEE SHEET 3 OF 13

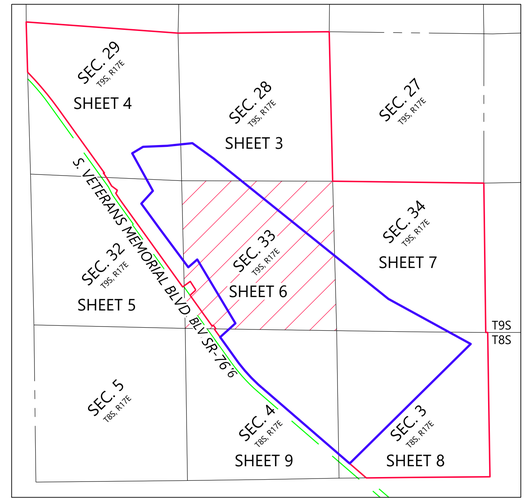


SEE SHEET 5 OF 13

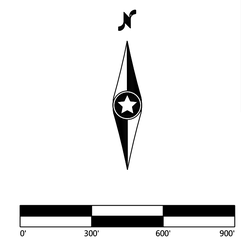
SEE SHEET 7 OF 13

SEE SHEET 9 OF 13

SECTION 33, TOWNSHIP 9 SOUTH, RANGE 17 EAST, GILA AND SALT RIVER MERIDIAN



KEY MAP
(NOT TO SCALE)



LEGEND

- PROJECT BOUNDARY
- PARCEL BOUNDARY
- ROADWAY RIGHT OF WAY
- SECTION LINES
- ● FOUND MONUMENT (AS NOTED)
- ○ NOTHING FOUND/NOTHING SET (AS NOTED)
- ◆ *FOUND 3IN BRASS CAP IN CONCRETE WITH PUNCH MARK STAMPED "ARIZONA HIGHWAY DEPT. 19"*
- ▲ *FOUND STEEL ANGLE IRON HIGHWAY RIGHT-OF-WAY*

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REVISIONS:

#	DATE	COMMENT

Ore Town Solar & BESS Project

Pinal County, Arizona

DATE: 7/17/2024

SHEET: 6 OF 13

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SECTION 34, TOWNSHIP 9 SOUTH, RANGE 17 EAST, GILA AND SALT RIVER MERIDIAN

S89°16'14"E 2640.34

NOTHING FOUND/NOTHING SET
CALCULATED POSITION
SEC. COR. FOR SECS. 28, 27, 33 AND 34
T9S, R17E

S89°16'09"E 2640.57

FOUND 2IN ALUMINUM CAP 2IN UP
"LS12900 27|34 2008"
1/4 COR. FOR SECS. 27 AND 34
T9S, R17E

FOUND 2IN ALUMINUM CAP STAMPED
"LS12900 27|26|34|35 2008" 2IN UP
SEC. COR. FOR SECS. 27, 26, 34 AND 35
T9S, R17E

S01°31'38"E 2612.16

2604.86

NW 1/4

NE 1/4

N00°44'07"W 2609.18

SEE
DETAIL B

FOUND 2IN ALUMINUM CAP STAMPED
"LS12900 2008" 2IN UP
1/4 COR. FOR SECS. 33 AND 34
T9S, R17E

FOUND 2IN ALUMINUM CAP STAMPED
"LS12900 1/4 34|35 2008" FLUSH
1/4 COR. FOR SECS. 34 AND 35
T9S, R17E

SECTION 34,
TOWNSHIP 9 SOUTH
RANGE 17 EAST

N57°13'06"W 2408.22

SW 1/4

S01°31'42"E 2672.09

TITLE COMMITMENT
NO.: 2272951
(PARCEL 3)
BPH COPPER INC.
APN: 307-05-019R
27,390,194 SQ. FT.
628.79 AC.

SE 1/4

N00°44'01"W 2608.99

FOUND 2-1/2IN BRASS CAP STAMPED
"U.S. GENERAL LAND OFFICE SURVEY
T10S R17E S3 1924" 24IN DOWN
SEC. COR. FOR SECS. 3 AND 2
T10S, R17E

FOUND 4X4 PILE OF ROCKS
SHOT ON CENTER ROCK MASS
SEC. COR. FOR SECS. 34 AND 35,
T9S, R17E
ALSO, FOUND 1.5" IP S79°45'23"E, 1.73'
FROM STONE MOUND

2417.02

S01°16'58"E 2280.01

FOUND 1IN REBAR WITH
NO CAP 8IN DOWN
SEC. COR. FOR SECS. 33 AND
34, T9S, R17E
AND SECS. 4 AND 3, T10S, R17E

FOUND 1IN IRON PIPE WITH
2-1/2IN BRASS CAP STAMPED
"U.S. GENERAL LAND OFFICE
SURVEY 1/4 S34|S3 1924" 14IN UP
1/4 COR. FOR SEC. 34, T9S, R17E
AND SEC. 3, T10S, R17E

S89°08'04"E 2637.41

N89°29'30"W
1290.11

N89°29'30"W 1280.97

T9S, R1

T10S, R

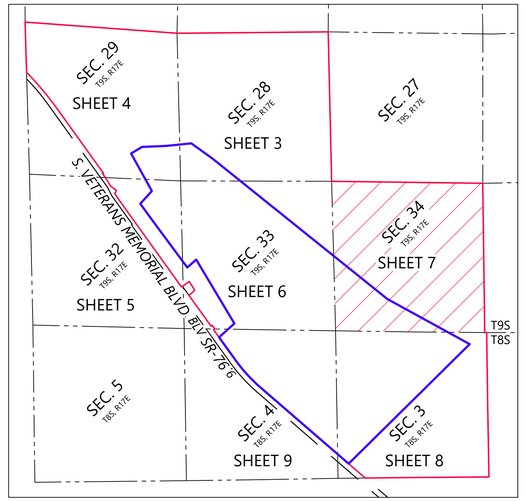
FOUND 4X4 PILE OF ROCKS SHOT ON
CENTER ROCK MASS SEC. COR. FOR
SECS. 34 AND 35, T9S, R17E
ALSO, FOUND 1.5" IP
S79°45'23"E, 1.73' FROM
STONE MOUND

N89°44'06"E
70.07

868.00

SEE SHEET 6 OF 13

SEE SHEET 8 OF 13



KEY MAP
(NOT TO SCALE)

LEGEND

- PROJECT BOUNDARY
- PARCEL BOUNDARY
- ROADWAY RIGHT OF WAY
- SECTION LINES
- FOUND MONUMENT (AS NOTED)
- NOTHING FOUND/NOTHING SET (AS NOTED)
- FOUND 3IN BRASS CAP IN CONCRETE WITH PUNCH MARK STAMPED "ARIZONA HIGHWAY DEPT. 19"
- FOUND STEEL ANGLE IRON HIGHWAY RIGHT-OF-WAY

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westwoodps.com

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PREPARED FOR:

AVANTUS

REVISIONS:

#	DATE	COMMENT

Ore Town Solar & BESS Project

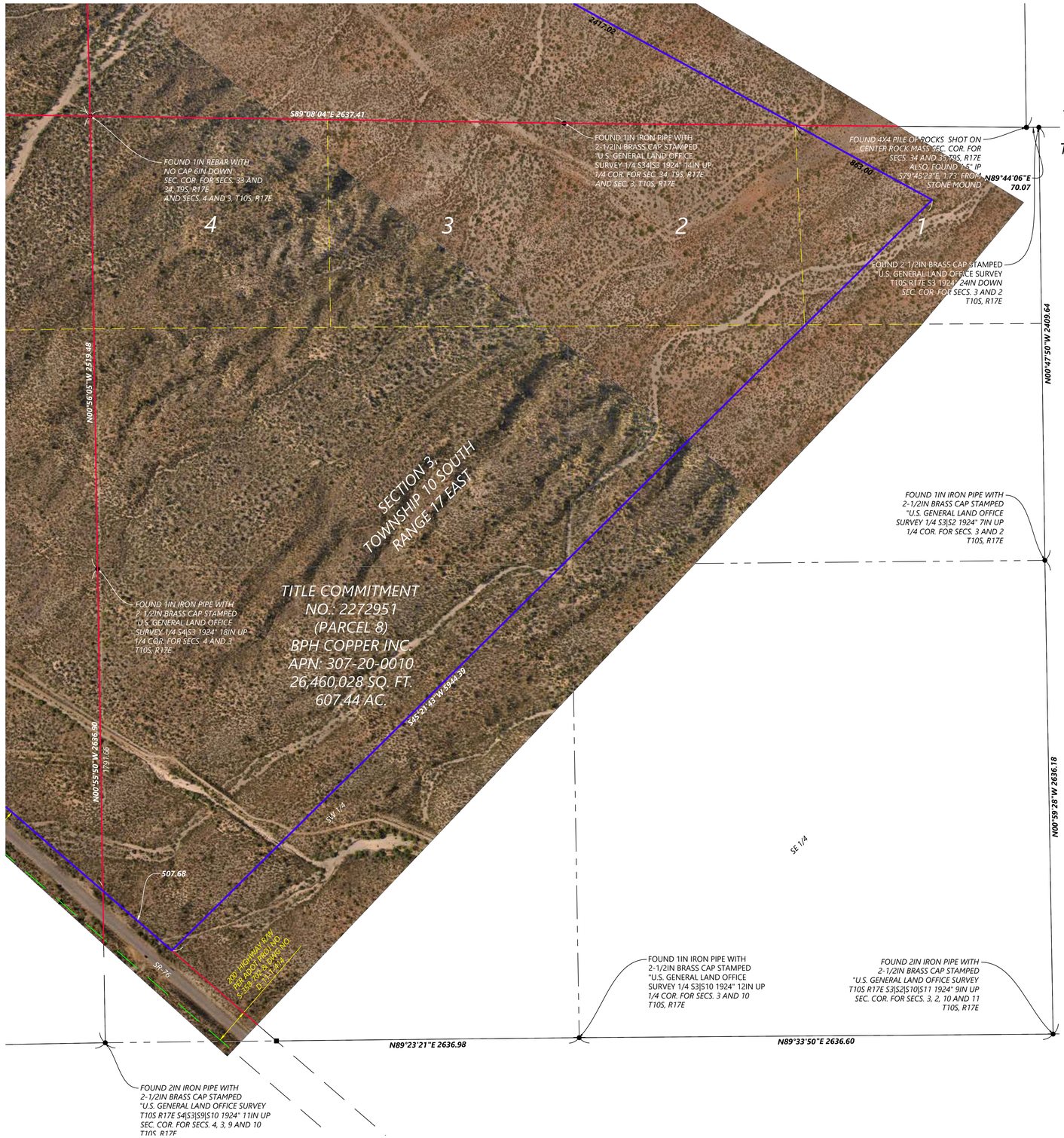
Pinal County, Arizona

DATE: 7/17/2024

SHEET: 7 OF 13

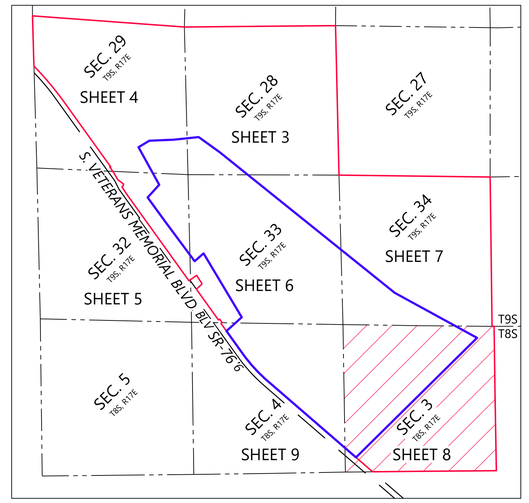
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SEE SHEET 7 OF 13



SEE SHEET 9 OF 13

SECTION 3, TOWNSHIP 10 SOUTH, RANGE 17 EAST, GILA AND SALT RIVER MERIDIAN



KEY MAP
(NOT TO SCALE)

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PREPARED FOR:

AVANTUS

REVISIONS:

#	DATE	COMMENT

LEGEND

- PROJECT BOUNDARY
- PARCEL BOUNDARY
- ROADWAY RIGHT OF WAY
- SECTION LINES
- FOUND MONUMENT (AS NOTED)
- NOTHING FOUND/NOTHING SET (AS NOTED)
- *FOUND 3IN BRASS CAP IN CONCRETE WITH PUNCH MARK STAMPED "ARIZONA HIGHWAY DEPT. 19"*
- *FOUND STEEL ANGLE IRON HIGHWAY RIGHT-OF-WAY*

N

0' 600' 1200' 1800'

Ore Town Solar & BESS Project

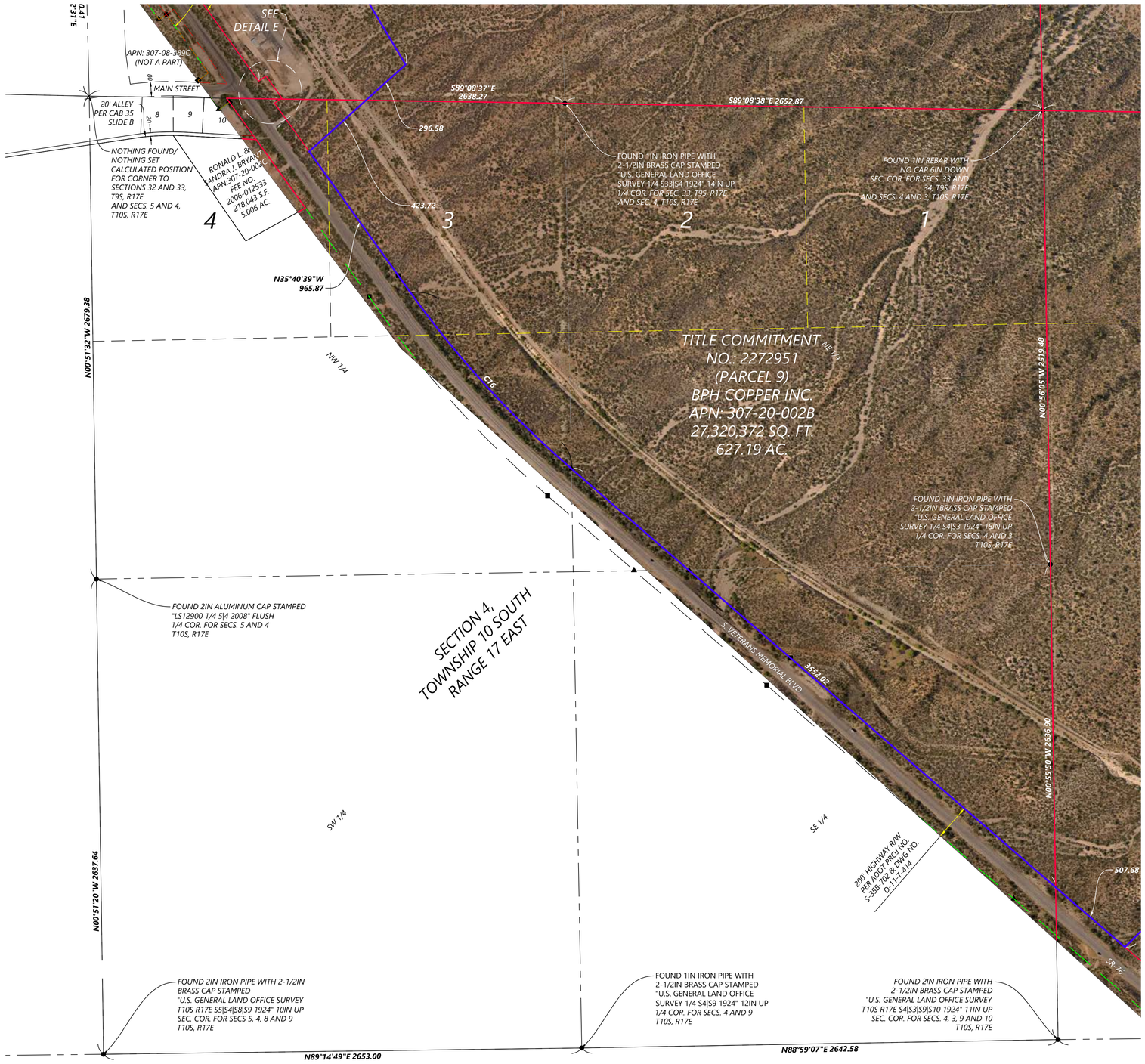
Pinal County, Arizona

DATE: 7/17/2024

SHEET: 8 OF 13

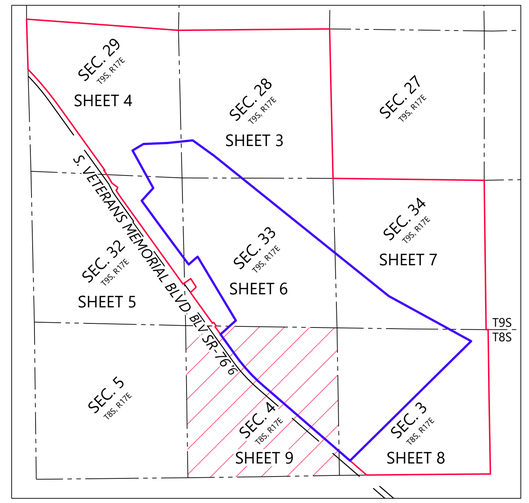
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SEE SHEET 6 OF 13



SEE SHEET 8 OF 13

SECTION 4, TOWNSHIP 10 SOUTH, RANGE 17 EAST, GILA AND SALT RIVER MERIDIAN



KEY MAP
(NOT TO SCALE)

Westwood

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Fax (480) 367-8025
6909 East Greenway Parkway, Suite 250
Scottsdale, AZ 85254
westwoodps.com

Westwood Professional Services, Inc.

PREPARED FOR:

AVANTUS

REVISIONS:

#	DATE	COMMENT

LEGEND

- PROJECT BOUNDARY
- PARCEL BOUNDARY
- ROADWAY RIGHT OF WAY
- SECTION LINES
- FOUND MONUMENT (AS NOTED)
- NOTHING FOUND/NOTHING SET (AS NOTED)
- *FOUND 3IN BRASS CAP IN CONCRETE WITH PUNCH MARK STAMPED "ARIZONA HIGHWAY DEPT. 19"*
- *FOUND STEEL ANGLE IRON HIGHWAY RIGHT-OF-WAY*

0' 600' 1200' 1800'

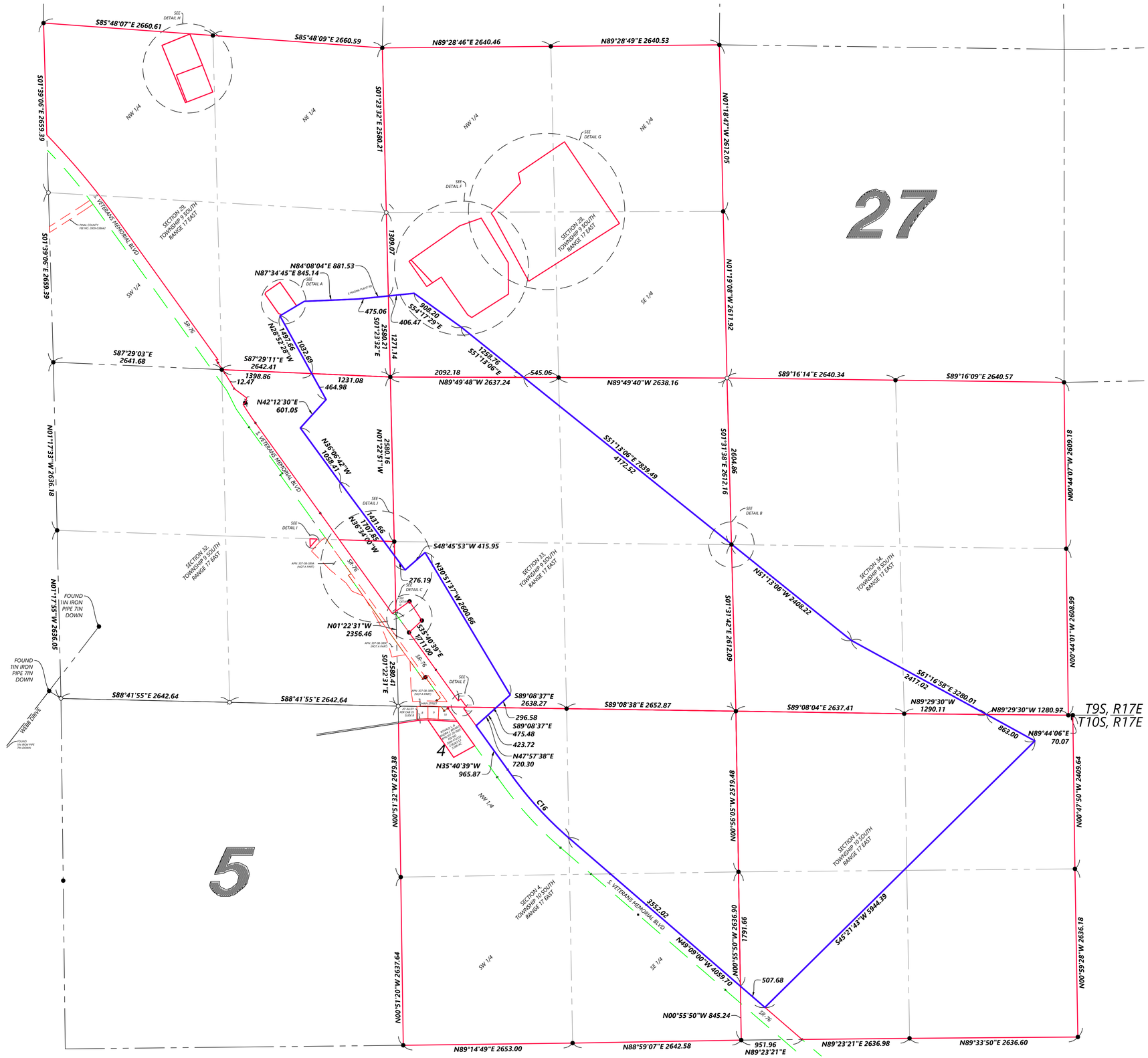
Ore Town Solar & BESS Project

Pinal County, Arizona

DATE: 7/17/2024

SHEET: 9 OF 13

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CURVE TABLE			
CURVE #	LENGTH	RADIUS	DELTA
C14	348.126	4643.66	4° 17' 43"
C15	353.07	4523.66	4° 28' 19"
C11	1682.594	11359.16	8° 29' 13"
C12	122.646	4643.66	01° 30' 48"
C16	1323.737	5629.58	13° 28' 21"

APN	Gross Acreage	Net Acreage	PLSS Location
30708389E	30.25	0.42	32 09S 17E
30705019W	3443.13	78.29	28 & 29 09S 17E
30720002B	624.71	232.03	4 10S 17E
307200010	1838.8	283.91	3 10S 17E
30705019R	2857.99	632.76	32, 33 & 34 09S 17E
Total	**8,794.88**	**1,227.41**	

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AVANTUS

REVISIONS:

#	DATE	COMMENT

0' 750' 1,500' 2,250'

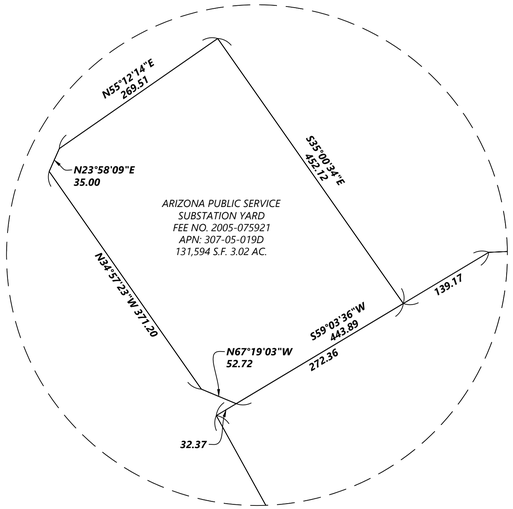
Ore Town Solar & BESS Project

Pinal County, Arizona

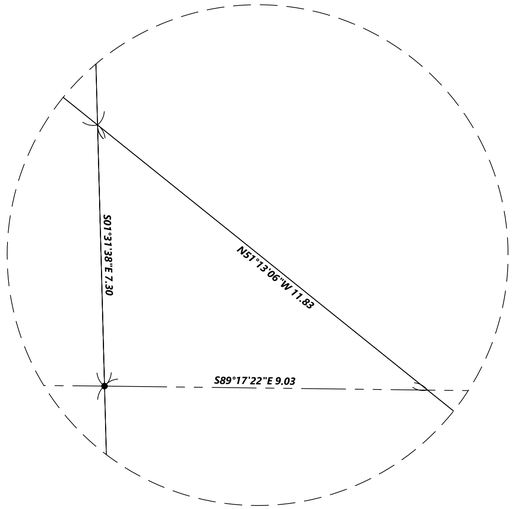
DATE: 7/17/2024

SHEET: 10 OF 13

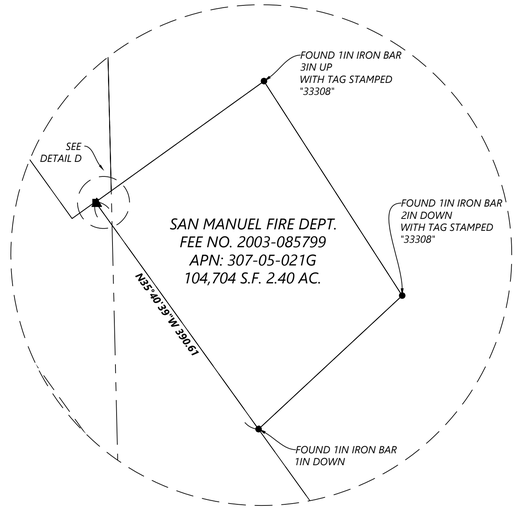
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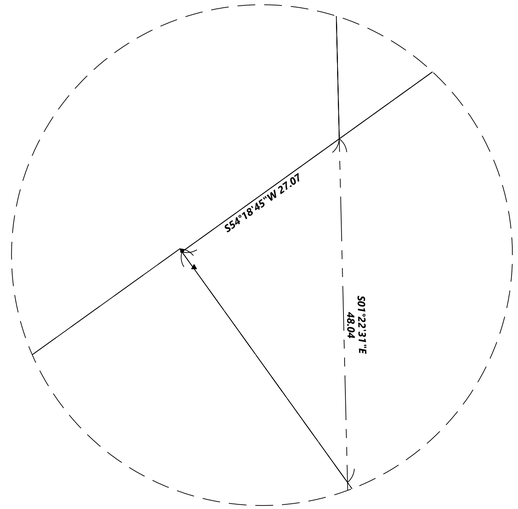
DETAIL A
SCALE: 1" = 100'



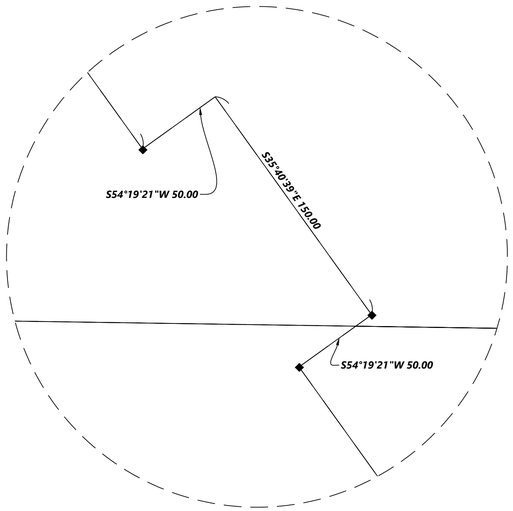
DETAIL B
SCALE: 1" = 2'



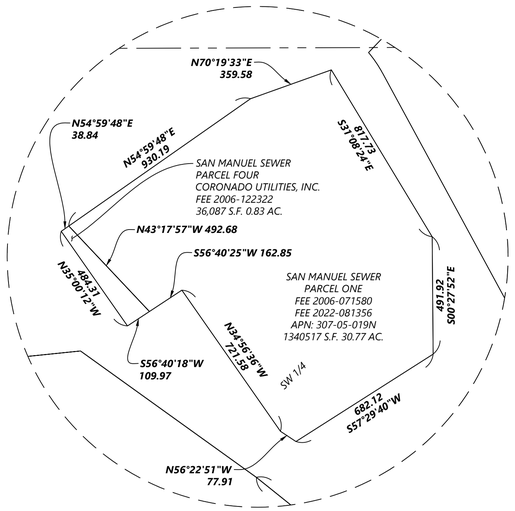
DETAIL C
SCALE: 1" = 100'



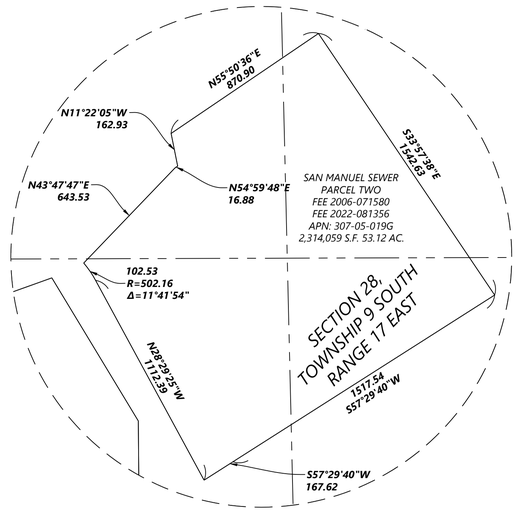
DETAIL D
SCALE: 1" = 10'



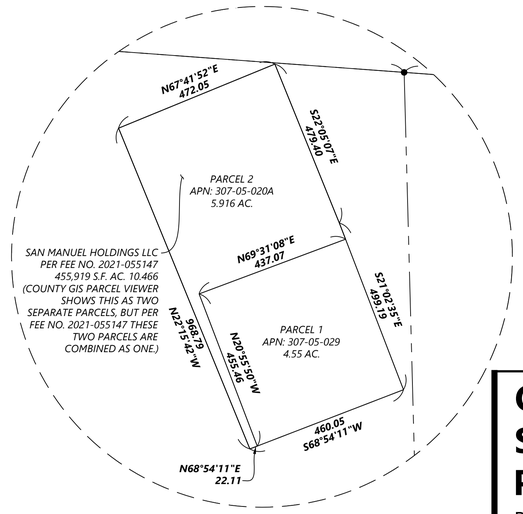
DETAIL E
SCALE: 1" = 40'



DETAIL F
SCALE: 1" = 300'



DETAIL G
SCALE: 1" = 350'



DETAIL H
SCALE: 1" = 200'

Westwood

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westwoodps.com

Westwood Professional Services, Inc.

0' 300' 600' 900'

PREPARED FOR:

AVANTUS

211 Sutter Street 6th Floor
San Francisco, CA 94108

REVISIONS:

#	DATE	COMMENT

LEGEND

- PROJECT BOUNDARY
- PARCEL LINE
- ROADWAY RIGHT OF WAY
- EASEMENT LINE
- SECTION LINES
- QUARTER SECTION LINES
- ADJOINERS PROPERTY LINES
- FENCE
- BUILDING
- FIBER OPTIC UNDERGROUND
- POWER OVERHEAD
- UNPAVED TRAIL OR ROAD
- ASPHALT LINE
- CREEK
- GRAVEL ROAD
- CENTURY LINK
- ARIZONA WATER COMPANY
- FEMA LINE
- FEMA BOUNDARY
- FEMA ZONE A
- FEMA ZONE X
- POWER POLE
- WATER METER
- SIGN
- FIBER OPTIC PEDESTAL
- TELEPHONE PEDESTAL
- ELECTRIC METER
- CULVERT
- FOUND MONUMENT (AS NOTED)
- NOTHING FOUND/ NOTHING SET (AS NOTED)
- FOUND 3IN BRASS CAP IN CONCRETE WITH PUNCH MARK STAMPED "ARIZONA HIGHWAY DEPT. 19"
- FOUND STEEL ANGLE IRON HIGHWAY RIGHT-OF-WAY

ORE TOWN SOLAR AND BESS PROJECT

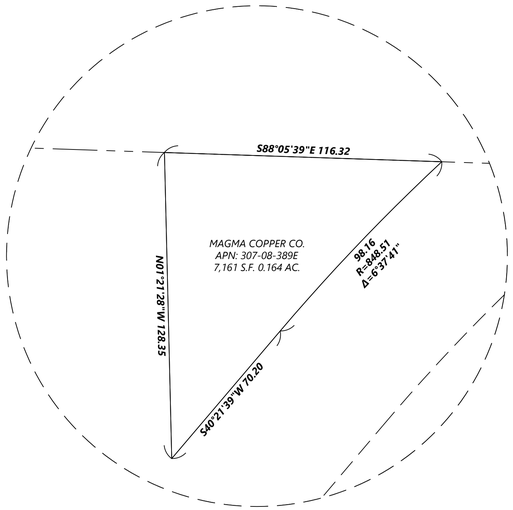
PINAL COUNTY, ARIZONA

ALTA/NSPS
LAND TITLE SURVEY

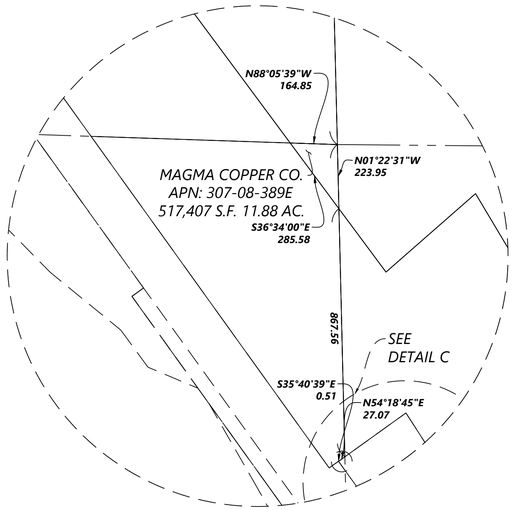
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SHEET: 11 OF 13

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DETAIL I
SCALE: 1" = 30'



DETAIL J
SCALE: 1" = 250'

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0' 300' 600' 900'

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San Francisco, CA 94108

REVISIONS:

#	DATE	COMMENT

LEGEND

- PROJECT BOUNDARY
- PARCEL LINE
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- SECTION LINES
- QUARTER SECTION LINES
- ADJOINERS PROPERTY LINES
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- FOUND STEEL ANGLE IRON HIGHWAY RIGHT-OF-WAY

ORE TOWN SOLAR AND BESS PROJECT

PINAL COUNTY, ARIZONA

ALTA/NSPS
LAND TITLE SURVEY

DATE: 7/17/2024

SHEET: 12 OF 13

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TITLE COMMITMENT - LEGAL DESCRIPTION

PER STEWART TITLE GUARANTY COMPANY COMMITMENT NO.: 2272951

THE LAND REFERRED TO HEREIN IS SITUATED IN THE STATE OF ARIZONA, PINAL COUNTY AND DESCRIBED AS FOLLOWS:

PARCEL 1:

ALL OF SECTION 32, TOWNSHIP 9 SOUTH, RANGE 17 EAST, GILA AND SALT RIVER BASE AND MERIDIAN, PINAL COUNTY, ARIZONA, LYING EAST OF THE EAST LINE OF THE VETERANS MEMORIAL BOULEVARD / REDDINGTON ROAD.

PARCEL 2:

ALL OF SECTION 33, TOWNSHIP 9 SOUTH, RANGE 17 EAST, GILA AND SALT RIVER BASE AND MERIDIAN, PINAL COUNTY, ARIZONA, LYING EAST OF THE EAST LINE OF THE VETERANS MEMORIAL BOULEVARD / REDDINGTON ROAD.

EXCEPT THAT PORTION DEEDED TO SAN MANUEL FIRE DEPARTMENT OF SAN MANUEL, ARIZONA RECORDED DECEMBER 9 2003 IN FEE NO. 2003085799

PARCEL 3:

ALL OF SECTION 34, TOWNSHIP 9 SOUTH, RANGE 17 EAST, GILA AND SALT RIVER BASE AND MERIDIAN, PINAL COUNTY, ARIZONA.

PARCEL 4:

INTENTIONALLY DELETED

PARCEL 5:

INTENTIONALLY DELETED

PARCEL 6:

INTENTIONALLY DELETED

PARCEL 7:

INTENTIONALLY DELETED

PARCEL 8:

THAT PORTION OF SECTION 3 AND LOTS 1, 2, 3 AND 4 IN TOWNSHIP 10 SOUTH, RANGE 17 EAST, LYING NORTHEAST OF THE EAST RIGHT OF WAY OF THE VETERANS MEMORIAL BOULEVARD / REDDINGTON ROAD GILA AND SALT RIVER BASE AND MERIDIAN, PINAL COUNTY, ARIZONA GILA AND SALT RIVER BASE AND MERIDIAN, PINAL COUNTY, ARIZONA.

PARCEL 9:

THAT PORTION OF SECTION 4 AND LOTS 1, 2, 3 AND 4 IN TOWNSHIP 10 SOUTH, RANGE 17 EAST, LYING NORTHEAST OF THE EAST LINE OF THE VETERANS MEMORIAL BOULEVARD / REDDINGTON ROAD GILA AND SALT RIVER BASE AND MERIDIAN, PINAL COUNTY, ARIZONA.

EXCEPT THAT PORTION DESCRIBE IN DEED RECORDED JANUARY 26 2006 IN FEE NO. 2006-012533

PARCEL 10:

ALL OF SECTION 28, TOWNSHIP 9 SOUTH, RANGE 17 EAST, GILA AND SALT RIVER BASE AND MERIDIAN, PINAL COUNTY, ARIZONA.

EXCEPT THAT PORTION DEEDED TO CORONADO UTILITIES INC., AN ARIZONA CORPORATION RECORDED IN FEE NO. 2006-122322

PARCEL 11

THAT PORTION OF SECTION 29, TOWNSHIP 9 SOUTH, RANGE 17 EAST, LYING NORTHEAST OF THE EAST RIGHT OF WAY OF THE VETERANS MEMORIAL BOULEVARD / REDDINGTON ROAD GILA AND SALT RIVER BASE AND MERIDIAN, PINAL COUNTY, ARIZONA.

EXCEPT THAT PORTION DEEDED TO SAN MANUEL TOWNSITE COMPANY, AN ARIZONA CORPORATION RECORDED IN DOCKET 217 PAGE 339

EXCEPT THAT PORTION DEEDED TO ARIZONA PUBLIC SERVICE, AN ARIZONA CORPORATION RECORDED IN FEE NO. 2005-075921

ALSO EXCEPT THAT PORTION DEEDED TO PINAL COUNTY, A POLITICAL SUBDIVISION OF THE STATE OF ARIZONA RECORDED IN FEE NO. 2009-038642

FURTHER EXCEPT THAT PORTION DESCRIBED IN FEE NO. 2021-022162

PROJECT BOUNDARY LEGAL DESCRIPTION

THAT PORTION OF SECTIONS 28, 29, 32, 33, AND 34, TOWNSHIP 9 SOUTH, RANGE 17 EAST, TOGETHER WITH PORTIONS OF SECTIONS 3 AND 4, TOWNSHIP 10 SOUTH, RANGE 17 EAST OF THE GILA AND SALT RIVER MERIDIAN, PINAL COUNTY, ARIZONA, AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE 2-INCH ALUMINUM CAP STAMPED "LS 12900 ¼ 28|33 2008" FOUND AT THE QUARTER CORNER COMMON TO SAID SECTIONS 28 AND 33, FROM WHICH THE 2-INCH ALUMINUM CAP STAMPED "LS 12900 28|29|32|33 2008" FOUND AT THE CORNER COMMON TO SAID SECTIONS 28, 29, 32, AND 33, BEARS NORTH 89 DEGREES 49 MINUTES 48 SECONDS WEST A DISTANCE OF 2637.24 FEET, SAID LINE BEING THE NORTH LINE OF THE NORTHWEST QUARTER OF SAID SECTION 33, SAID LINE ALSO BEING THE BASIS OF BEARINGS FOR THIS DESCRIPTION;

THENCE ALONG SAID NORTH LINE, NORTH 89 DEGREES 49 MINUTES 48 SECONDS WEST A DISTANCE OF 545.06 FEET TO THE **POINT OF BEGINNING**;

THENCE SOUTH 51 DEGREES 13 MINUTES 06 SECONDS EAST A DISTANCE OF 4172.52 FEET TO THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 33, FROM WHICH THE 2" ALUMINUM CAP STAMPED "LS 12900 2008" FOUND AT THE EAST QUARTER CORNER FOR SAID SECTIONS 33 BEARS SOUTH 01°31'38" EAST A DISTANCE OF 7.30 FEET;

THENCE CONTINUING SOUTH 51 DEGREES 13 MINUTES 06 SECONDS EAST A DISTANCE OF 2408.22 FEET;

THENCE SOUTH 61 DEGREES 16 MINUTES 58 SECONDS EAST A DISTANCE OF 2417.02 FEET TO THE SOUTH LINE OF THE SOUTHEAST QUARTER OF SAID SECTION 34, FROM WHICH THE MOUND OF STONES FOUND AT THE SOUTH EAST CORNER OF SAID SECTION 34 BEARS SOUTH 89°29'30" WEST A DISTANCE OF 1280.97 FEET;

THENCE CONTINUING SOUTH 61 DEGREES 16 MINUTES 58 SECONDS EAST A DISTANCE OF 863.00 FEET;

THENCE SOUTH 45 DEGREES 21 MINUTES 43 SECONDS WEST A DISTANCE OF 5944.39 FEET TO THE EXISTING NORTHEAST RIGHT-OF-WAY LINE OF THE STATE ROUTE 76 (VETERANS MEMORIAL BOULEVARD) PER ARIZONA DEPARTMENT OF TRANSPORTATION (ADOT) DRAWING NUMBER D-11-T-414, PROJECT NUMBER S-358-702;

THENCE ALONG SAID NORTHEAST RIGHT-OF-WAY LINE, NORTH 49 DEGREES 09 MINUTES 00 SECONDS WEST A DISTANCE OF 507.68 FEET TO THE WEST LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 3, FROM WHICH THE 2.5" US GLO BRASS CAP FOUND AT THE SOUTHWEST CORNER OF SAID SECTION 3 BEARS SOUTH 00°55'50" EAST A DISTANCE OF 845.24 FEET;

THENCE CONTINUING ALONG SAID NORTHEAST RIGHT-OF-WAY LINE AND CONTINUING NORTH 49 DEGREES 09 MINUTES 00 SECONDS WEST A DISTANCE OF 3552.02 FEET TO A POINT OF CURVATURE FOR A TANGENT CURVE TO THE RIGHT HAVING A RADIUS OF 5629.58 FEET;

THENCE CONTINUING ALONG SAID NORTHEAST RIGHT-OF-WAY LINE AND ALONG SAID CURVE HAVING AN ARC LENGTH OF 1323.74 FEET THROUGH A CENTRAL ANGLE OF 13 DEGREES 28 MINUTES 21 SECONDS;

THENCE CONTINUING ALONG SAID NORTHEAST RIGHT-OF-WAY LINE, NORTH 35 DEGREES 40 MINUTES 39 SECONDS WEST A DISTANCE OF 965.87 FEET;

THENCE NORTH 47 DEGREES 57 MINUTES 38 SECONDS EAST A DISTANCE OF 423.72 FEET TO THE NORTH LINE OF THE NORTHEAST QUARTER LINE OF SECTION 4, FROM WHICH THE 2.5" US GLO BRASS CAP FOUND AT THE NORTH QUARTER CORNER OF SAID SECTION 4 BEARS SOUTH 89°08'37" EAST A DISTANCE OF 1103.59 FEET;

THENCE CONTINUING NORTH 47 DEGREES 57 MINUTES 38 SECONDS EAST A DISTANCE OF 296.58 FEET;

THENCE NORTH 30 DEGREES 51 MINUTES 37 SECONDS WEST A DISTANCE OF 2600.66 FEET;

THENCE SOUTH 48 DEGREES 45 MINUTES 53 SECONDS WEST A DISTANCE OF 415.95 FEET;

THENCE NORTH 36 DEGREES 34 MINUTES 00 SECONDS WEST A DISTANCE OF 276.19 FEET TO THE WEST LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 33, FROM WHICH THE 2" ALUMINUM CAP STAMPED "LS 12900" FOUND AT THE WEST QUARTER CORNER OF SAID SECTION 33 BEARS NORTH 01°22'31" WEST A DISTANCE OF 223.95 FEET;

THENCE CONTINUING NORTH 36 DEGREES 34 MINUTES 00 SECONDS WEST A DISTANCE OF 1431.66 FEET;

THENCE NORTH 36 DEGREES 06 MINUTES 42 SECONDS WEST A DISTANCE OF 1058.41 FEET;

THENCE NORTH 42 DEGREES 12 MINUTES 30 SECONDS EAST A DISTANCE OF 601.05 FEET;

THENCE NORTH 28 DEGREES 52 MINUTES 28 SECONDS WEST A DISTANCE OF 464.98 FEET TO THE NORTH LINE OF THE NORTHEAST QUARTER OF SAID SECTION 32, FROM WHICH THE 2" ALUMINUM CAP STAMPED "LS 12900 2008" FOUND AT THE NORTHEAST CORNER OF SAID SECTION 32 BEARS SOUTH 87°29'11" EAST A DISTANCE OF 1231.08 FEET;

THENCE CONTINUING NORTH 28 DEGREES 52 MINUTES 28 SECONDS WEST A DISTANCE OF 1032.69 FEET;

THENCE NORTH 59 DEGREES 03 MINUTES 36 SECONDS EAST A DISTANCE OF 32.37 FEET TO THE EXISTING SOUTHEAST LINE OF THE ARIZONA PUBLIC SERVICE SUBSTATION YARD PER FEE NUMBER 2005-075921 PINAL COUNTY RECORDER (PCR);

THENCE ALONG SAID SOUTHEAST LINE AND CONTINUING NORTH 59 DEGREES 03 MINUTES 36 SECONDS EAST A DISTANCE OF 411.53 FEET;

THENCE NORTH 87 DEGREES 34 MINUTES 45 SECONDS EAST A DISTANCE OF 845.14 FEET;

THENCE NORTH 84 DEGREES 08 MINUTES 04 SECONDS EAST A DISTANCE OF 475.06 FEET TO THE EAST LINE OF THE SOUTHEAST QUARTER OF SAID SECTION 29, FROM WHICH THE 2" ALUMINUM CAP STAMPED "LS 12900 2008" FOUND AT THE SOUTHEAST CORNER OF SAID SECTION 29 BEARS SOUTH 01°23'32" EAST A DISTANCE OF 1271.14 FEET;

THENCE CONTINUING NORTH 84 DEGREES 08 MINUTES 04 SECONDS EAST A DISTANCE OF 406.47 FEET;

THENCE SOUTH 54 DEGREES 17 MINUTES 29 SECONDS EAST A DISTANCE OF 908.20 FEET;

THENCE SOUTH 51 DEGREES 13 MINUTES 06 SECONDS EAST A DISTANCE OF 1258.76 FEET TO THE **POINT OF BEGINNING**.

CONTAINING 53,466,285 SQUARE FEET OR 1,227.417 ACRES, MORE OR LESS.

AREA, BEARINGS AND DISTANCES ARE BASED ON ARIZONA STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, NAD83(2011), INTERNATIONAL FEET. THE RECIPROCAL OF THE COMBINED SCALE FACTOR IS 1.000071815.

Westwood

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6909 East Greenway Parkway, Suite 250
Scottsdale, AZ 85254
westwoodps.com

Westwood Professional Services, Inc.

PREPARED FOR:

AVANTUS™

REVISIONS:

#	DATE	COMMENT

Ore Town Solar & BESS Project

Pinal County, Arizona

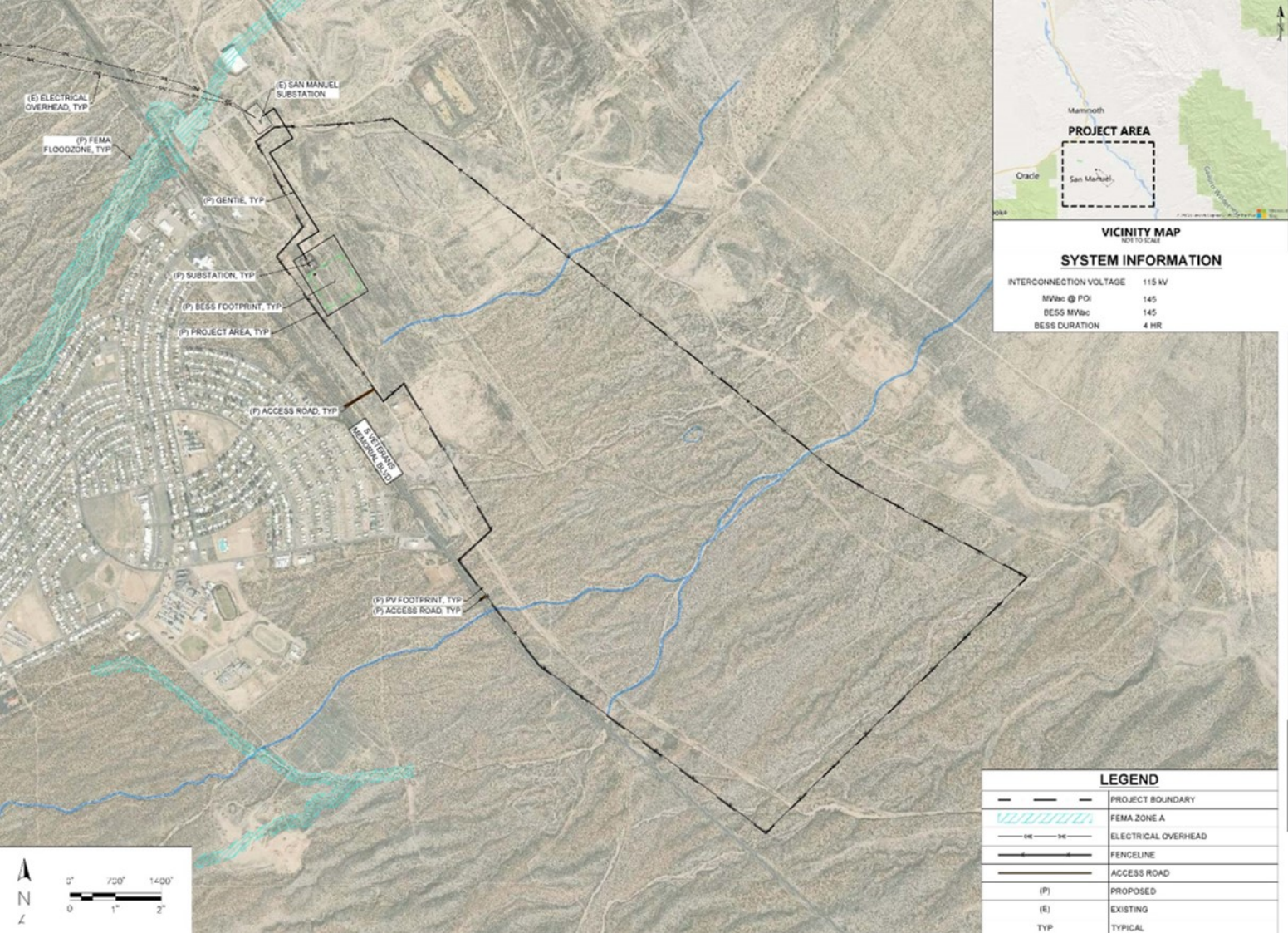
DATE: *7/17/2024*

SHEET: *13* OF *13*

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APPENDIX B

Site Plan and Location



VICINITY MAP
NOT TO SCALE

SYSTEM INFORMATION

INTERCONNECTION VOLTAGE	115 kV
MWac @ POI	145
BESS MWac	145
BESS DURATION	4 HR

LEGEND

	PROJECT BOUNDARY
	FEMA ZONE A
OHE OHE	ELECTRICAL OVERHEAD
	FENCELINE
	ACCESS ROAD
(P)	PROPOSED
(E)	EXISTING
TYP	TYPICAL

AVANTUS
250 Sutter Street, 6th Floor
San Francisco, CA 94108

1	06/04/2024	PRELIMINARY PANEL LAYOUT

NOTES:

1. PRELIMINARY DESIGN SUBJECT TO CHANGE.

310SM 8ME ORE TOWN

PINAL COUNTY, AZ

PRELIMINARY PANEL LAYOUT

DATE: June 4, 2024

SHEET: EX-1

APPENDIX C

Neighborhood Report

Neighborhood Meeting Report for the Ore Town Solar Project

MAY 2024

SUBMITTED TO

Pinal County Planning Division

PREPARED BY

SWCA Environmental Consultants

APPLICANT

310SM 8me LLC

NEIGHBORHOOD MEETING REPORT FOR THE ORE TOWN SOLAR PROJECT

PRE-APPLICATION CASE NO: Z-PA-029-24

Prepared for

Pinal County Planning Division
85 North Florence Street
First Floor
P.O. Box 2973
Florence, Arizona 85132
(520) 866-6442
Attn: Sangeeta Deokar

Prepared by

SWCA Environmental Consultants
1750 South Woodlands Village Boulevard, Suite 200
Flagstaff, Arizona 86001
(602) 774-5500
www.swca.com

On Behalf of

310SM 8me LLC
4370 Town Center Blvd., Suite 110
El Dorado Hills, California 95762
(916) 608-9060
Attn: Jennifer Jackson

May 2024

CONTENTS

Introduction **1**
Neighborhood Meeting Notifications **2**
Mailing List 2
Notice of Public Meeting 2
Neighborhood Meeting **2**
Stakeholder Feedback 3
Comment Themes 3
Comments 3
Proposed Mitigation of Concerns 5
Literature Cited **6**

Appendices

Appendix A. Informational Flyer and Mailing List
Appendix B. Images of Neighborhood Meeting
Appendix C. Neighborhood Meeting Informational Poster Displays
Appendix D. Neighborhood Meeting Supporting Materials
Appendix E. Neighborhood Meeting Sign-In Sheet
Appendix F. Neighborhood Meeting Written Comments

Tables

Table 1. Stakeholder Comments and Responses 4

INTRODUCTION

310SM 8me LLC (Applicant), a wholly owned subsidiary of Avantus, is requesting a major comprehensive plan amendment (MCPA) to the 2019 Pinal County Comprehensive Plan (Comprehensive Plan) (Pinal County 2019) to construct and operate the Ore Town Solar Project (Project) on approximately 1,227.41 acres of private land in unincorporated Pinal County, Arizona.

The Project would consist of arrays of solar panels, inverter stations, electrical collection lines, an up to 145-megawatt battery energy storage system (BESS), a step-up substation, and a generation-tie transmission line (gen-tie). The gen-tie corridor is approximately 0.35 mile and would connect the Project to the regional electric grid at the existing San Manuel Substation. The Project is proposed on approximately 1,227.41 acres of undeveloped private property in San Manuel, Arizona, off Veterans Memorial Boulevard.

The Project site is zoned General Rural (GR) and is designated as Moderate Low Density Residential per the Comprehensive Plan. The Comprehensive Plan does not allow utility-scale solar generating facilities and BESSs on land designated as Moderate Low Density Residential. To develop the Project, the Applicant has prepared an application for an MCPA to request the land use designation be changed from Moderate Low Density Residential to Green Energy Production. The MCPA was assigned a pre-application Pinal County planning case number Z-PA-029-24. The Applicant held a pre-application meeting with Pinal County for the MCPA on April 23, 2024.

As part of the MCPA process, the Applicant is required to hold a neighborhood meeting that complies with the Citizen Review process outlined in Chapter 2.166.050, Section E: Citizen Review, of the Pinal County Development Services Code (Pinal County 2023).

The process for the neighborhood meeting is described as follows:

i. *Notice of the meeting shall be sent to the head of homeowners' or community associations nearest the property proposed for rezoning.*

ii. *Notice shall be sent to all real property owners, as shown on the last assessment of the property, within 1,200 feet of the property proposed for rezoning.*

iii. *Notification shall include the date, time and location of the meeting; a description and location of the project; and how verbal and written comments can be submitted.*

iv. *Notwithstanding the notice requirement, the failure of any person or entity to receive notice shall not constitute grounds for preventing any action by the county*. (Pinal County 2023)

As part of the process, the report must include the following:

i. *Dates and locations of all meetings where citizens were invited to discuss the applicant's proposal.*

ii. *Content, dates mailed, numbers of mailings, including letters, meeting notices, newsletters and other publications, and names and addresses where mailed.*

iii. *Copies of mailings.*

iv. *Copies of sign-in sheets from all public meetings.*

v. *A summary of concerns, issues and problems expressed during the process, including:*

   A. *The substance of the concerns, issues, and problems.*

B. *Statement as to how the applicant has addressed or intends to address concerns, issues and problems expressed during the process.*

C. *A statement about the concerns, issues, and problems the applicant is unwilling or unable to address and why.* (Pinal County 2023)

This Neighborhood Meeting Report documents that the Applicant has complied with the neighborhood meeting process and has met the reporting requirements described in Chapter 2.166.050, Section E: Citizen Review, of the Pinal County Development Services Code (Pinal County 2023). This Neighborhood Meeting Report is part of the application for an MCPA for the Project.

NEIGHBORHOOD MEETING NOTIFICATIONS

Mailing List

The Applicant developed a mailing list that included six real property owners within 1,600 feet of the project. The Applicant extended the outreach area an additional 400 feet beyond the requirements to ensure that any property owners on the edge of the 1,200-foot notice requirement were included. A copy of the mailing list is included in Appendix A; duplicates have been omitted. The mailing list and parcel data were obtained from the Pinal County Assessor's Office. The Applicant sent the informational flyer described in the following section to the property owners on the mailing list as well as to Pinal County and the San Manuel Airport. The mailing list and informational flyer are included in Appendix A.

Notice of Public Meeting

The informational flyer was a full-color, 8.5 × 11–inch document that included the date, time, and location of the meeting; a description and map of the project location; and guidance on submitting comments, including a physical address, telephone number, and email address (see Appendix A). The flyer was mailed to the names on the mailing list on April 5, 2024, approximately 2 weeks before the neighborhood meeting.

In addition, a newspaper notice was published on April 10, 2024, in the *San Manuel Miner*, a local newspaper published weekly in San Manuel in Pinal County, Arizona. The announcement included the date, time, and location of the meeting; a description of the project location; and guidance on submitting comments, including a physical address, telephone number, and email address (see Appendix A).

NEIGHBORHOOD MEETING

The Applicant held a neighborhood meeting on Wednesday, April 24, 2024, from 5:30 p.m. to 7:00 p.m., at the San Manuel Community Center. The San Manuel Community Center is located at 111 West 5th Avenue, San Manuel, Arizona 85631, and is within 5 miles of the project.

The neighborhood meeting was presented in an open-house format. There was no formal presentation. Upon entering, attendees were asked to provide their contact information at a sign-in table, were invited to take copies of the informational flyers, and were then led to a series of informational posters. Applicant subject matter experts were available to answer attendee questions on a one-on-one basis. This format allowed community members to attend at their convenience, review displays, and speak with Project representatives.

Images of the neighborhood meeting, taken both before and during the meeting, are shown in Appendix B.

At the meeting, the Applicant provided 10 poster boards set up on tripods around the community center (Appendix C), a meeting sign-in sheet, comment forms, copies of the posters on letter-size paper, copies of the 2024 Pinal County Comprehensive Plan Major Amendment schedule, and copies of frequently asked questions and answers. The posters presented background information on Avantus, a description of the Project, maps of the proposed Project area, information about the land use and the Community Master Plan update, the Pinal County General Plan, the benefits of solar, and where to learn more about the Project and submit comments. In total, 66 individuals signed in at the neighborhood meeting; a few attendees declined to do so. Additionally, the Pinal County Board of Supervisors District 4 Supervisor, Jeffrey McClure, was in attendance for the duration of the neighborhood meeting. The following Project representatives were present at the meeting to interact with the public, listen to concerns, and answer questions:

- Jason Moretz – Development Manager, Utility-Scale Development, Avantus
- Jennifer Jackson – Director, Utility-Scale Development, Avantus
- Meaghan Austin – Lead Project Manager, SWCA Environmental Consultants (SWCA)
- Colin Agner – Project Manager, SWCA

Copies of additional supporting materials, including the 2024 Pinal County Comprehensive Plan Major Amendment schedule, frequently asked questions and answers, a blank comment form, and a blank sign-in sheet, are included in Appendix D.

A copy of the completed sign-in sheet from the neighborhood meeting is provided in Appendix E.

Stakeholder Feedback

Throughout the public involvement program, the Ore Town Solar Project team solicited public comments. During the April 24, 2024, neighborhood meeting, the Applicant received six comment forms (Appendix F).

Comment Themes

The topics addressed during the meeting included the site selection process, if any visual screening will take place, how solar facilities function in general, who will benefit from the renewable energy produced from the facility, and if locals will be considered for employment. Avantus and SWCA both answered questions and concerns.

Comments

The Applicant did not receive any inquiries from stakeholders in advance of the neighborhood meeting. Six written comments were provided (see Appendix F); however, the vast majority of comments were verbal and occurred during the neighborhood meeting. Table 1 summarizes these discussions and responses.

Table 1. Stakeholder Comments and Responses

Comment Method	Comment	Applicant Response
Telephone	Hello, my name is Daniel Nayara. I just saw the ad in the paper about this proposed project. I won't be able to make the meeting, and I'm sure there's going to be pushback by a dozen or so people who push back on everything. But they definitely don't speak for the rest of the community. A lot of people don't attend meetings just because, you know, they have other things going on. But any project in our area is, in my opinion, a great thing. I hope this moves forward and put the jobs in the community, even if it's a few so definitely you got my support on it. Thank you.	No response.
Telephone	Yes, this is Will Howard. I'm a San Manuel resident who went to the open house a couple of days ago. Please give me a call back. I have some questions about the project. Thank you.	Applicant answered questions about the BESS location, height of the solar panels and the acreage of the project.
Verbal	Commenter was concerned about fire safety of the BESS.	Applicant provided responses explaining how BESS facilities integrate fire safety into their design. Applicant noted that it continuously monitors these facilities and is immediately alerted to any potential issues. Additionally, Applicant explained that it provides technical information and resources to local fire departments before and after construction to ensure emergency services are equipped to respond to battery storage project emergencies.
Verbal	Commenter was concerned about the substrate stability at the site.	Applicant provided information on how facility locations are chosen (e.g., relatively flat land, close to existing electrical infrastructure, having landowner interest in the project, etc.).
Verbal	Commenter was concerned about visual impact.	Applicant provided elevation gradients of site, displaying the limited visibility from Veterans Memorial Boulevard and the town of San Manuel. Applicant also noted that screening requirements may be required as part of the permitting process.
Verbal	Commenter was concerned about avian impacts.	Applicant responded that the project must comply with the Migratory Bird Treaty Act, which protects nesting birds in the Project.
Verbal	Commenter was concerned about lighting needed on-site.	Applicant responded that some lighting is needed on-site, but that Federal Aviation Administration (FAA) lighting would not be needed as the structure heights are too low.
Verbal	Commenter asked where the electricity will go.	Applicant explained that the electricity will serve the regional grid.
Verbal	Commentor asked who was funding the project.	Applicant explained it was privately funded.
Verbal	Commenter(s) expressed support of the project.	Applicant thanked them for their comments.
Verbal	Commenter was overall opposed to the project.	Applicant thanked them for their comment.
Written	I think the solar collector plan for San Manuel area is a great way to utilize property that can't be lived on because of the tailings which were left behind by Magma Copper Co. & BHP. I think it will benefit the Tri Community in the long run and hopefully Arizona, California and other places within the USA.	No response.
Written	I have no opposition to the proposed plan but would like to see a little love given to our community. I have suggested the solar company offer an olive branch and maybe supply our community center with a well and some grass area for the people of our community as there isn't anywhere for us who walk to enjoy a green area.	No response.

Comment Method	Comment	Applicant Response
Written	Why not on tailings from mining to be a Brown Field project. Federal funding would enhance the viability and profitability of project. Why not a microgrid with transfer switch at San Manuel transformer station/substation to provide town with battery power during power outages. What installation [Engineering and Procurement Contractor] EPC will get bid-best price most knowledge best performance? What will Avantus do to provide for San Manuel? Scholarships? Sponsorships?	No response.
Written	I am confused as to how this is going to benefit San Manuel. We are barely recovering from the added traffic from the Sunzia project. We are not a bunch of country folk who don't know what's going on! Many people moved here for a quiet life, but that doesn't seem to be possible with companies thinking this area is fair game for their project.	No response.
Written	My concern is building this project on the tailings because it would be on an unstable surface. Worry about drainage, and the project collapsing.	No response.
Written	A great informational gathering. This sounds like a great use of the vacant land. I'm all for it!	No response.
Email	Hi, I'm getting information about the Ore Town Project. I don't know if I can join the Apr 24 meeting in San Manuel. Can you please send back for information.	Applicant provided commenter with a copy of the neighborhood meeting informational poster displays.
Email	Hello, I'd like to learn more about your new solar project planned for San Manuel, AZ, since I live not too far away. Can you point me to a good detailed map of the location and other info about it? I was unable to attend the meeting.	Applicant provided commenter with a copy of the neighborhood meeting informational poster displays.

Proposed Mitigation of Concerns

Based on the comments provided during the neighborhood meeting (see Table 1), no concerns, issues, or problems were identified during the neighborhood meeting that require additional mitigation. If any concerns, issues, or problems arise during the project permitting process that require additional mitigation, the Applicant will address those to the extent feasible.

LITERATURE CITED

Pinal County. 2019. *We Create Our Future: Pinal County Comprehensive Plan.* Available at: https://www.pinal.gov/DocumentCenter/View/627/Comprehensive-Plan-2020-PDF?bidId=. Accessed April 2024.

———. 2023. Development Services Code. Available at: https://library.municode.com/az/pinal_county/codes/development_services_code_and_floodplain_management_?nodeId=DEVELOPMENT_SERVICES_CODE_TIT2ZO_CH2.166RE_2.166.050APPR. Accessed April 2024.

APPENDIX A

Informational Flyer, Mailing List, and Newspaper Notice

April 5, 2024

Dear Community Member:

310SM 8me LLC, the Applicant, a subsidiary of Avantus – a leading developer of solar and energy storage projects – proposes to develop the **Ore Town Solar Project** (Project) in San Manuel, Arizona. The Project will be an up to 145 megawatt (MW) solar energy generating station and battery energy storage system (BESS). The solar facility is planned on a 1,200-acre site and would include solar panel arrays, inverter stations, electrical collection lines, and a Project step-up substation. The BESS includes containerized battery cells capable of storing electricity from solar panels for use when the sun is down. An approximately 0.35-mile-long, 115 kilovolt generation-tie transmission line would connect the Project to the regional electric grid through the existing San Manuel Substation. The Project will be located on a portion of the closed San Manuel Copper Mine, north of South Veterans Memorial Highway. The enclosed map shows the approximate planned location of the Project.

The Applicant plans to file an application with Pinal County for a Major Comprehensive Plan Amendment (MCPA) to change the project's Comprehensive Plan land use designation from Moderate Low Density Residential (1-3.5 dwelling units per acre) to Green Energy Production. The MCPA application is the first step in the Pinal County permitting process for the Project. You are invited to attend an open house to learn more about the project, ask questions, and provide input. The meeting will be held at the following location, date, and time:

San Manuel Community Center
111 West 5th Avenue, San Manuel, Arizona 85631
April 24, 2024
5:30pm – 7:00pm

You may reach the Project team or submit comments through the following points of contact:

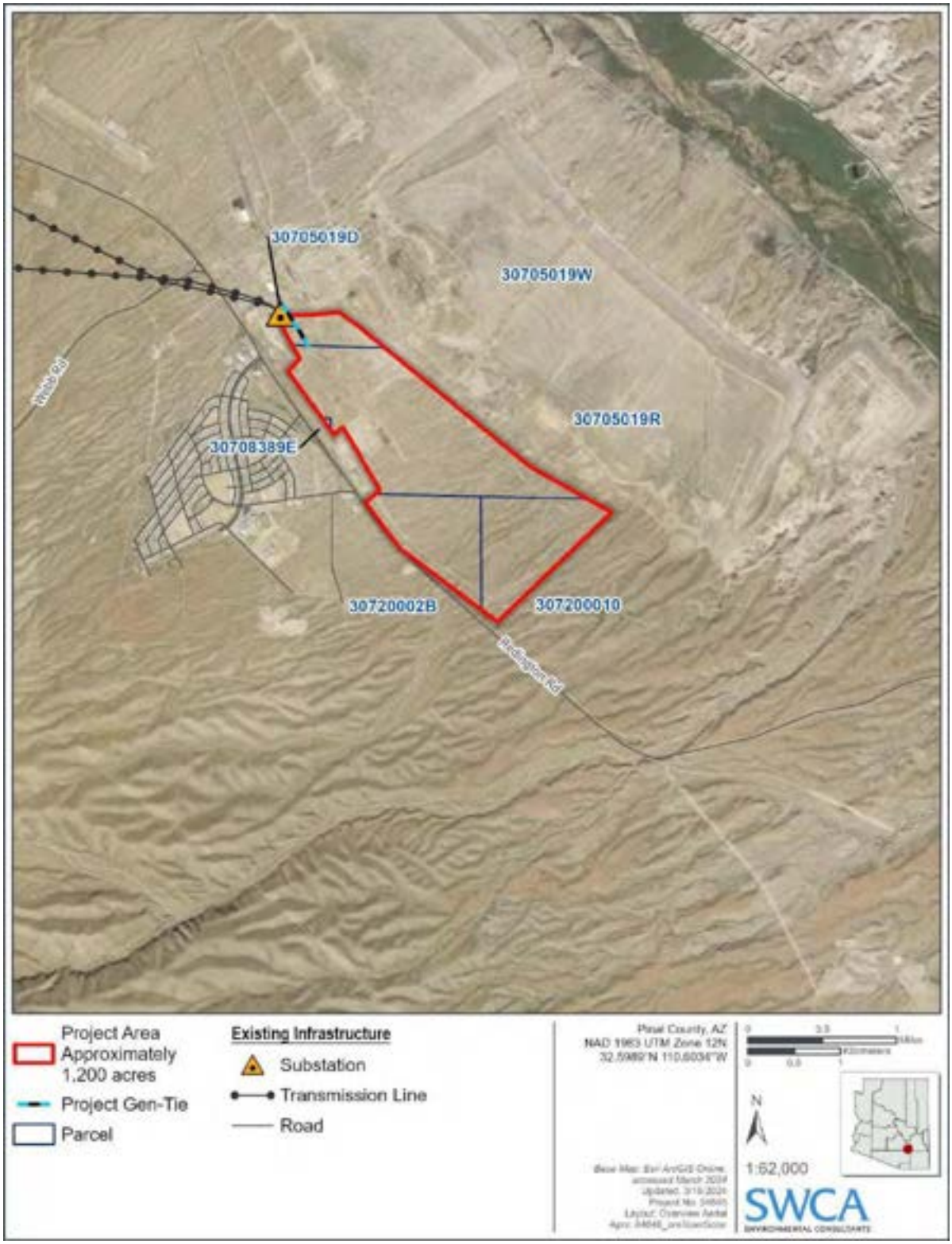
Email:	oretownsolar@swca.com
Phone:	(520) 527-2168
Mailing address:	Ore Town Solar c/o SWCA Environmental Consultants 1645 S Plaza Way, Flagstaff, AZ 86001

Sincerely,



Jennifer Jackson
Project Point of Contact

Ore Town Solar Project Overview Map



State of Arizona
County of Pinal

AFFIDAVIT OF PUBLICATION

James Carnes being first duly sworn deposes and says that she is a representative of the *San Manuel Miner*, a legal newspaper published weekly at San Manuel, in the County of Pinal, State of Arizona that the legal entitled, Ore Town Solar Project Open House (310SM 8me LLC), a printed copy of which is hereto attached, has been or will be published in all the regular weekly editions of said newspaper (and not a supplement thereof) for ONE week, the date of publication being as follows, to-wit:

4/10/24

Representative

Subscribed and sworn to before me this

16 **DAY OF** APRIL **, 2024**

Notary Public

MELISSA A. HARRISON
Notary Public - State of Arizona
PINAL COUNTY
Commission # 625777
Expires May 14, 2026

Gila County to celebrate National County Government Month; leaders to highlight county innovations

Gila County will celebrate National County Government Month (NCGM) during the month of April to showcase how the county achieves healthy, safe, and vibrant communities.

The theme for this year's celebration of NCGM is "ForwardTogether," inspired by the signature focus of National Association of Counties (NACo) President Mary Jo McGuire. The theme highlights the powerful role of county governments as intergovernmental partners that:

• Connect, building bridges to advance excellence and networks in county government.
• Inspire, driving community engagement and residents' trust in county government, and
• Lead, spearheading local, state, federal and tribal intergovernmental partnerships, and common-sense policy solutions.

"Gila County is proud of the programs and services we provide to our residents," said Board Chairman Steve Christensen. "This month we celebrate the ways our government connects, inspires, and leads every day – within our community and in collaboration with our state and federal partners. I encourage all county residents to participate in National County Government Month outreach events to learn about the important role of county government."

Since 1991, NACo has encouraged counties across the country to raise public awareness about county roles and responsibilities during the month of April.

FOR SALE! BOOKS

The Oracle Public Library will have a Book Sale
Saturday, April 20
9 a.m. to 3 p.m.

Thousands of Books:
• Paperbacks
• Hardback
• Fiction
• Non-Fiction
• CDs & DVDs
• Audio Books

Oracle Public Library
A Community Institution for Over 100 Years

FROM 2-3 P.M. FILL A BAG WITH BOOKS FOR ONLY –> $5
(We supply the bag and your job is to fill it!)

565 E. American Avenue • Oracle • 520-896-2121

Cheetovibez SMOKE SHOP

Come Join Us For Our 5th Anniversary
CELEBRATION!
Saturday, April 20
Starting at Noon

Horseshoe & Cornhole Tournament
$20 per person Blind Draw

50/50 Split Da Pot · Raffles All Day

Flash Tattoos by 2 Artists

LIVE MUSIC ALL DAY

Six Food Vendors & Many More Vendors

520.780.0651 · Cheetovibez.com
1995 W. American Ave., Oracle, AZ 85623

Ore Town Solar Project Open House

310SM 8me LLC, the Applicant, invites you to learn about and provide input on its proposed Ore Town Solar Project (Project). The Project would be an up to approximately 145-megawatt solar energy generating station and battery energy storage system. The Project is proposed on 1,200 acres of private land in San Manuel, unincorporated Pinal County, Arizona, on a portion of the closed San Manuel Copper Mine, north of South Veterans Memorial Highway. The Project would connect to the regional electrical grid through the existing 115-kilovolt San Manuel Substation.

The Applicant plans to file an application with Pinal County for a Major Comprehensive Plan Amendment (MCPA). The MCPA application proposes to change the Project's Comprehensive Plan's land use designation from Moderate Low Density Residential (1-3.5 dwelling units per acre) to Green Energy Production. The MCPA application is the first step in the Pinal County permitting process for the Project. Prior to submitting the Project's MCPA application, we are hosting a neighborhood meeting.

The Applicant invites you to attend an open house meeting to learn more about the Project. You will be able to speak one-on-one with team members, ask questions, and provide input. The meeting will be held at the following location, date, and time:

San Manuel Community Center
111 West 5th Avenue
San Manuel, Arizona 85631
April 24, 2024
5:30 PM – 7:00 PM

The Applicant welcomes public comment throughout the MCPA process. Questions and comments can be submitted using one of the following options:

Email: oretownsolar@swca.com

Telephone: (520) 527-2168

Mail: Ore Town Solar Project
c/o SWCA Environmental Consultants
1645 S Plaza Way
Flagstaff, AZ 86001

Owner Name	Address	City	ST	Zip 1	Zip 2
JAMGOCHIAN HAIGH JR	101 S AVENUE B	SAN MANUEL	AZ	85631	1113
Current Resident	101 S MCNAB PKWY	SAN MANUEL	AZ	85631	
Current Resident	102 S AVENUE B	SAN MANUEL	AZ	85631	
KINCADE VERLYN C & MARGARET D	103 S AVENUE B	SAN MANUEL	AZ	85631	8563
KOCHERSPERGER MARITZA MARIBE	103 S MCNAB PKWY	SAN MANUEL	AZ	85631	1111
CLINE DALE & KRYSTAL S	1033 W WEBB DR	SAN MANUEL	AZ	85631	1104
BURGESS BRIDGET C	104 S AVENUE B	SAN MANUEL	AZ	85631	1113
Current Resident	105 S AVENUE B	SAN MANUEL	AZ	85631	
COKER DEBORAH S	106 S AVENUE B	SAN MANUEL	AZ	85631	1113
SWEENEY DELMER T & VIRGINIA J	107 S AVENUE B	SAN MANUEL	AZ	85631	1113
Current Resident	109 S AVENUE B	SAN MANUEL	AZ	85631	
Current Resident	109 S MCNAB PKWY	SAN MANUEL	AZ	85631	
CARENDER EILEEN E	111 S AVENUE B	SAN MANUEL	AZ	85631	8563
Current Resident	113 S AVENUE B	SAN MANUEL	AZ	85631	
HOGAN DAVID W & SHARON D	121 S MCNAB PKWY	SAN MANUEL	AZ	85631	1111
BRYANT RONALD L & SANDRA J	12501 N DORAL AVE	MARANA	AZ	85653	3960
Current Resident	129 W 8TH AVE	SAN MANUEL	AZ	85631	
Current Resident	130 W 8TH AVE	SAN MANUEL	AZ	85631	
GARRICK EARL D & LINDA R	13004 N PIONEER WAY	ORO VALLEY	AZ	85755	5173
Current Resident	136 W 8TH AVE	SAN MANUEL	AZ	85631	
Current Resident	140 W 8TH AVE	SAN MANUEL	AZ	85631	
Current Resident	16 S AVENUE A	SAN MANUEL	AZ	85631	
Current Resident	18 S MCNAB PKWY	SAN MANUEL	AZ	85631	
KUNTZ SUSAN A	1850 W BEL AIRE CT	TUCSON	AZ	85705	5484
ROTHERHAM NANCIE J	20 S MCNAB PKWY	SAN MANUEL	AZ	85631	8563
WHATTON AMY A	204 S NICHOLS AVE APT N	SAN MANUEL	AZ	85631	1104
Current Resident	21 S AVENUE A	SAN MANUEL	AZ	85631	
Current Resident	212 E 5TH ST	SAN MANUEL	AZ	85631	
Current Resident	213 E 5TH PL	SAN MANUEL	AZ	85631	
BARAJAS JERRY C	214 E 5TH ST	SAN MANUEL	AZ	85631	1140
FRY HERMAN M & VERONICA S	215 E 5TH PL	SAN MANUEL	AZ	85631	1142
CLINTON LARRY DON	216 E 5TH ST	SAN MANUEL	AZ	85631	1140
DIONNE PAUL A	217 E 5TH PL	SAN MANUEL	AZ	85631	8563
COTA JUDY L	220 E 5TH ST	SAN MANUEL	AZ	85631	1140
PROUGH DAVID D & YVONNE C	222 E 5TH ST	SAN MANUEL	AZ	85631	1140
SUN LIFE FAMILY HEALTH CENTER II	23 S MCNAB PKWY	SAN MANUEL	AZ	85631	1115
JOHNSON RICHARD W & SANDRA G	2834 HIGHWAY 231	VALLEY	WA	99181	1966
Current Resident	28380 S VETERANS MEMORI	SAN MANUEL	AZ	85631	
Current Resident	28403 S VETERANS MEMORI	SAN MANUEL	AZ	85631	
REDHAWK COPPER INC	28480 S VETERANS MEMORI	SAN MANUEL	AZ	85631	8563
SALT N PEPPER #3 LLC	28510 S VETERANS MEMORI	SAN MANUEL	AZ	85631	8563
Current Resident	28545 S VETERANS MEMORI	SAN MANUEL	AZ	85631	
Current Resident	29575 S VETERANS MEMORI	SAN MANUEL	AZ	85631	

FINLEY JACK W & KRISTI Y	301 E 5TH PL	SAN MANUEL	AZ	85631	8563
Current Resident	30130 S VETERANS MEMORI	SAN MANUEL	AZ	85631	
JONES ROBERT L & CECILIA M	302 E 5TH PL	SAN MANUEL	AZ	85631	1141
GONZALES LEONARD C & GLORIA C	302 E 5TH ST	SAN MANUEL	AZ	85631	8563
Current Resident	303 E 5TH PL	SAN MANUEL	AZ	85631	
SANTA MARIA JOHN JESUS	304 E 5TH PL	SAN MANUEL	AZ	85631	1141
PENA MARIA	304 E 5TH ST	SAN MANUEL	AZ	85631	1140
Current Resident	305 E 4TH ST	SAN MANUEL	AZ	85631	
Current Resident	305 E 5TH PL	SAN MANUEL	AZ	85631	
STOVER MARY ANN	306 E 5TH PL	SAN MANUEL	AZ	85631	8563
GUERRERO ALEXANDRO	306 E 5TH ST	SAN MANUEL	AZ	85631	1140
LOVIO ELIASAR & ROSA E	307 E 5TH PL	SAN MANUEL	AZ	85631	1141
Current Resident	307 E MAIN ST	SAN MANUEL	AZ	85631	
Current Resident	308 E 5TH PL	SAN MANUEL	AZ	85631	
Current Resident	308 E 5TH ST	SAN MANUEL	AZ	85631	
SANCHEZ RAMON Z & ANGELA A	309 E 4TH ST	SAN MANUEL	AZ	85631	1142
DAWSON JAKE LEE & SHELBY	309 E 5TH PL	SAN MANUEL	AZ	85631	1141
Current Resident	309 E MAIN ST	SAN MANUEL	AZ	85631	
ATTRELL CLIFFORD E & GLENNA L TI	310 E 5TH PL	SAN MANUEL	AZ	85631	1141
Current Resident	310 E 5TH ST	SAN MANUEL	AZ	85631	
ANAYA GABRIEL MANUEL & CHRIST	311 E 4TH ST	SAN MANUEL	AZ	85631	1142
ANDERSON RICHARD	311 E 5TH PL	SAN MANUEL	AZ	85631	1141
PENA LUCILLE	312 E 5TH ST	SAN MANUEL	AZ	85631	1140
Current Resident	313 E 4TH ST	SAN MANUEL	AZ	85631	
GUERRERO YVETTE & GILBERTO	313 E 5TH PL	SAN MANUEL	AZ	85631	1141
CARRILLO ROBERTO & MARIA	314 E 5TH PL	SAN MANUEL	AZ	85631	1141
VELASCO ALBERT MICHAEL & MARI	314 E 5TH ST	SAN MANUEL	AZ	85631	1140
Current Resident	315 E 5TH PL	SAN MANUEL	AZ	85631	
GONZALES LEONARDO C & GLORIA	316 E 5TH PL	SAN MANUEL	AZ	85631	8563
SANCHEZ DAVID M JR	316 E 5TH PL	SAN MANUEL	AZ	85631	1141
OCHOA RICHARD D & ROSA MARIA	316 E 5TH ST	SAN MANUEL	AZ	85631	1140
GARZA RONALD G & DEBORAH A	318 E 5TH ST	SAN MANUEL	AZ	85631	1140
EQUITY TRUST COMPANY	3567 E SUNRISE DR STE 125	TUCSON	AZ	85718	8320
WASKO JUAN I & VICTORIA L	3568 E NORTHERN DANCER I	TUCSON	AZ	85739	9835
SCHNEIDER SALLY LIVING TRUST	38290 S BOGIE CT	TUCSON	AZ	85739	9106
Current Resident	401 E MAIN ST	SAN MANUEL	AZ	85631	
Current Resident	401 S LADERA PL	SAN MANUEL	AZ	85631	
Current Resident	403 E MAIN ST	SAN MANUEL	AZ	85631	
Current Resident	407 E MAIN ST	SAN MANUEL	AZ	85631	
DEWEY BRUCE G & EARLENE REV LI	440 S VAL VISTA DR UNIT 82	MESA	AZ	85204	4327
SMALL DAVID J & JOLENE A	45 COTTONWOOD WAY	ABSAROKEE	MT	59001	1621
STANFORD JOHN C & NORMA CHAR	503 S AVENUE D	SAN MANUEL	AZ	85631	1130
SOUTHARD DOUGLAS	610 W 6TH AVE	SAN MANUEL	AZ	85631	1110
HALLINAN WILLIAM	6212 N DESERT MOON LOOP	TUCSON	AZ	85750	0099

MAGMA COPPER CO	6840 N ORACLE RD STE 100	TUCSON	AZ	85704	4424
BHP COPPER INC	6840 N ORACLE RD STE 100	TUCSON	AZ	85704	4424
RANCHO SAN MANUEL ESTATES LLC	9454 WILSHIRE BLVD PH	BEVERLY HILLS	CA	90212	2293
RSM PARTNERS LLC	9454 WILSHIRE BLVD STE 92(	BEVERLY HILLS	CA	90212	2292
JACOB ROSEMARIE	PO BOX 27443	PRESCOTT VALL	AZ	86312	2744
SAN MANUEL LODGE 2007 BPOE	PO BOX 3	SAN MANUEL	AZ	85631	1000
ARIZONA PUBLIC SERVICE	PO BOX 53999, MS 9565	PHOENIX	AZ	85072	2399
VASQUEZ JOSE B & MARIA A	PO BOX 572	SAN MANUEL	AZ	85631	1057
BARAJAS JOEL	PO BOX 61	SAN MANUEL	AZ	85631	8563
SAN MANUEL FIRE DEPARTMENT	PO BOX 651	SAN MANUEL	AZ	85631	1065
GONZALES MICHELLE REV LIV TRUS	PO BOX 659	SAN MANUEL	AZ	85631	8563
SALAS XOCHITL	PO BOX 764	SAN MANUEL	AZ	85631	1076
PINAL COUNTY	PO BOX 827	FLORENCE	AZ	85132	2301
ROTHERHAM NANCIE J	PO BOX 3331	MONTROSE	CO	81402	2333

From:	Meaghan Austin
To:	Jim.Petty@pinalcountyaz.gov
Subject:	San Manuel - Ore Town proposed Solar project
Date:	Wednesday, April 17, 2024 10:49:00 AM
Attachments:	Neighborhood Meeting - Notice Letter Ore Town_final .pdf image001.png

Good morning,

The FAA has you listed as the Airport Ownership/Management contact for the San Manuel Airport.

Please find the following neighborhood meeting invitation attached for a proposed solar project on the San Manual Copper Mine site.

Please reach out with any questions, comments or concerns.

Thank you,

Meaghan Austin
Lead Project Manager

SWCA Environmental Consultants
1645 S Plaza Way
Flagstaff, AZ 86001
P: 602-772-5593
meaghan.austin@swca.com



APPENDIX B

Images of Neighborhood Meeting



Photograph B-1. Ore Town Open House Set Up.



Photograph B-2. Ore Town Open House Set Up.



Photograph B-3. Attendees during the open house meeting.



Photograph B-4. Attendees during the open house meeting.

APPENDIX C

Neighborhood Meeting Informational Poster Displays

Ore Town Solar Project

Neighborhood Meeting

Welcome – please sign in

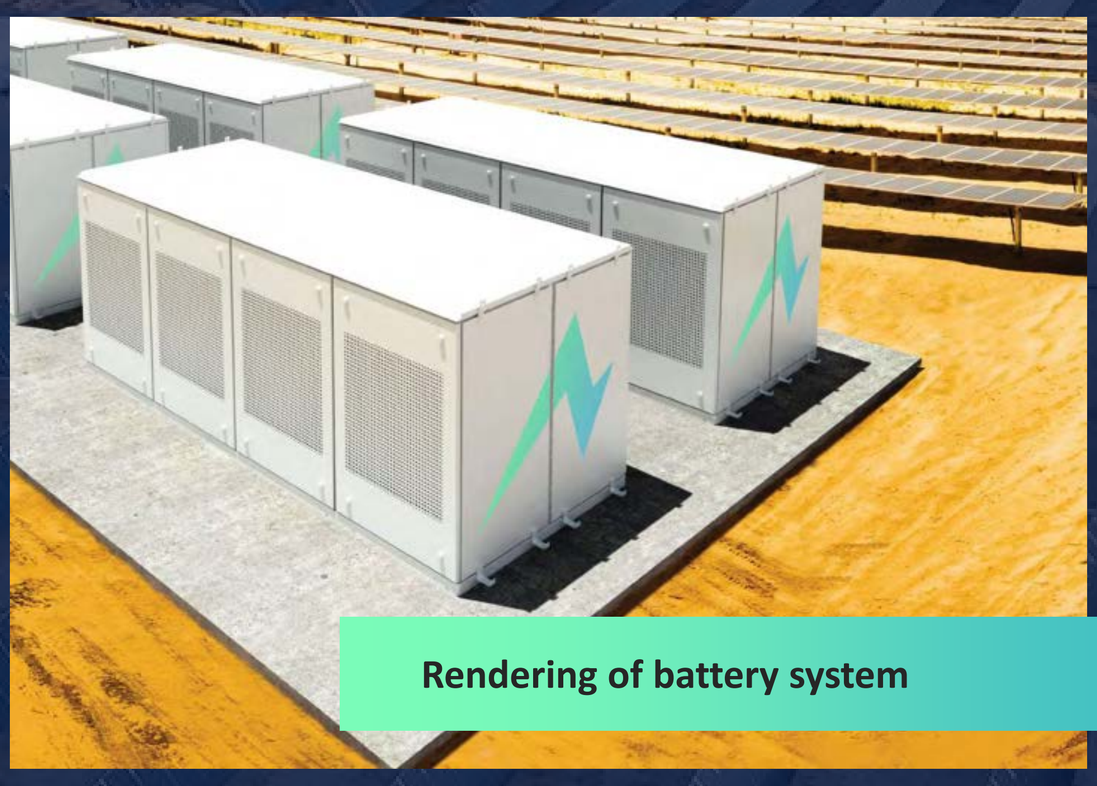
Ore Town SOLAR

The proposed Ore Town Solar Project (Project) will be an up to 145 megawatt (MW) solar energy generating station and battery energy storage system.

The Project is planned on 1,200-acre site owned by BHP. The project area includes lands within the now-closed San Manuel Copper Mine formerly used for ore processing.



Road view of example solar field



Rendering of battery system

Key Project facilities include:

- Solar panel arrays, inverter stations, electrical collection lines, and a project step-up substation.
- The battery systems are housed in protected containers. The batteries store electricity from the solar panels for use when the sun is down.
- An approximately 0.35-mile-long, kilovolt 115 generation-tie transmission line will connect the Project to the regional electric grid through the existing San Manuel Substation.

Ore Town SOLAR

Project Area



The proposed Ore Town Solar Project area comprises lands adjacent to the community of San Manuel, north of South Veterans Memorial Boulevard on a portion of the closed San Manuel Copper Mine.

Ore Town
SOLAR

About the Applicant

- The Project is being developed by 310SM 8me LLC (Applicant) – a subsidiary of Avantus – a leading developer of solar and energy storage projects across the Western United States.

- Avantus has over a decade of experience developing safe, high quality and sustainable projects in partnership with utilities, landowners, communities and other key stakeholders.

- Our legacy of leadership in next generation solar energy includes developing one of the nation's largest solar clusters and one of the first solar plants to deliver energy for less than fossil fuel prices back in 2016.

Ore Town SOLAR

Land Use

Existing Land Use

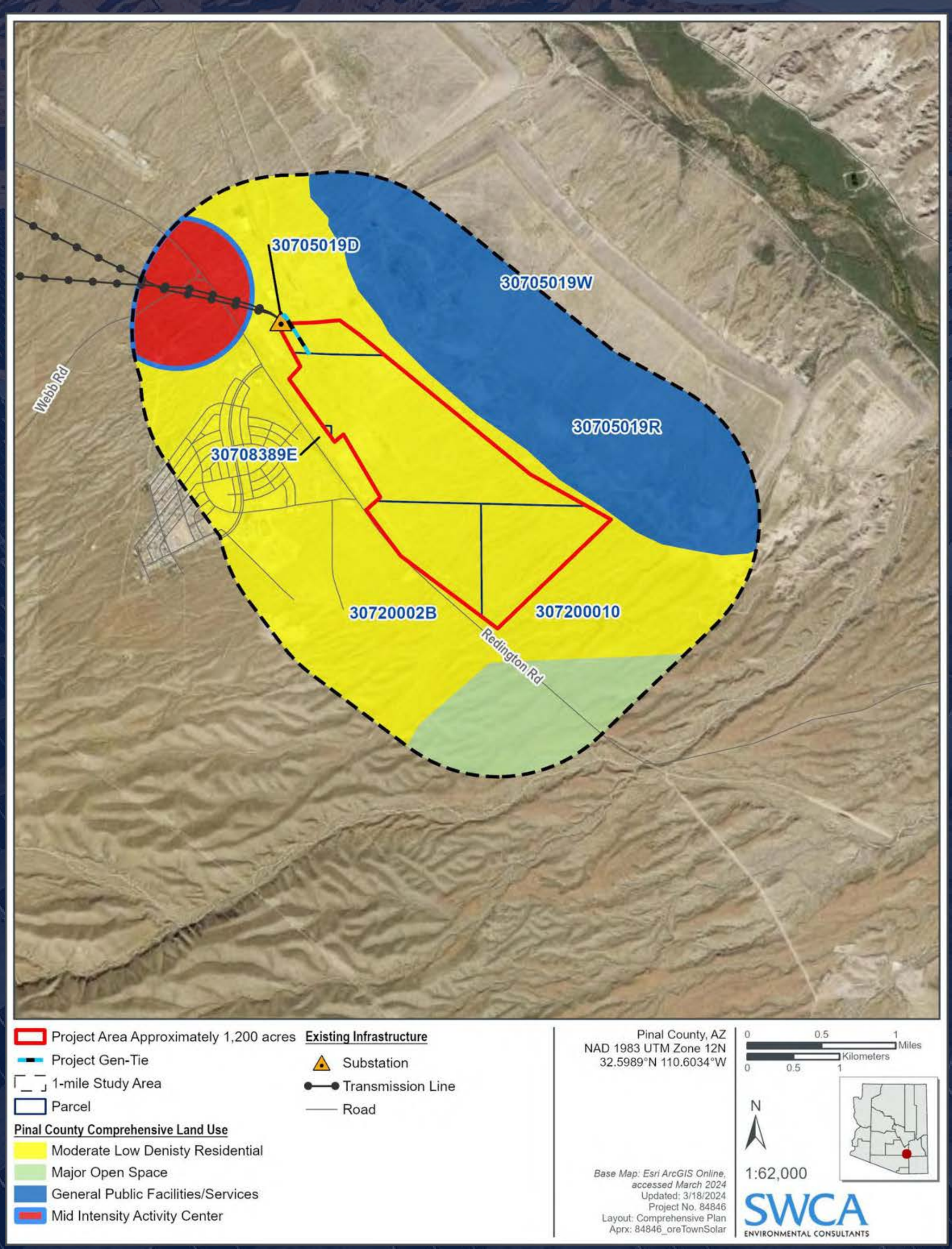
- Existing land use at the Project includes undeveloped land previously used by the San Manuel Copper Mine for ore processing.
- The Project area is adjacent to the community of San Manuel.

Planned Land Use

- The Pinal County Comprehensive Plan is the County's principle long-range planning document. The Comprehensive Plan includes various planned land use designations intended to guide the location and intensity of development.
- The planned land use designation for the Solar Project is "Moderate Low Density Residential".

Ore Town SOLAR

Pinal County Comprehensive Plan



The Pinal County Comprehensive Plan designates the Solar Project as “Moderate Low Density Residential.”

April 2024

Ore Town SOLAR

Proposed MCPA

- The Pinal County Comprehensive Plan provides guidance to ensure conformity of development proposals.

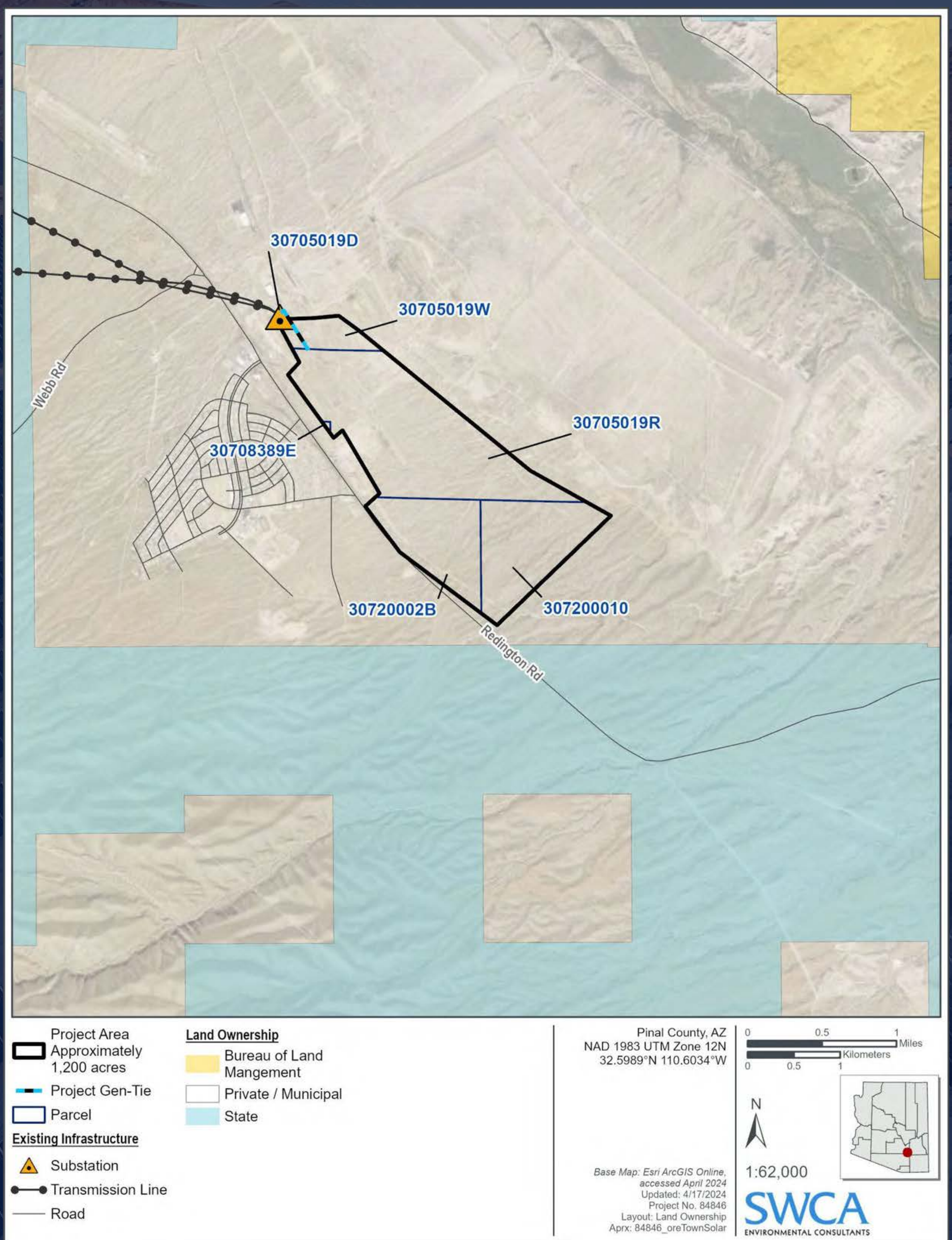
- 310SM 8me LLC proposes to amend the Project area's Comprehensive Plan land use designation from Moderate Low Density Residential to Green Energy Production.

- The proposed amendment is considered a 'Major' Comprehensive Plan Amendment and will therefore require hearings before the Pinal County Planning and Zoning Commission and Pinal County Board of Supervisors.

- The Comprehensive Plan Amendment is the first step in the County permitting process. If the plan amendment is approved, 310SM 8me LLC will subsequently request to rezone the Project area from General Rural to Industrial I-3.

Ore Town SOLAR

Land Ownership



The project area is approximately 1,200 acres of privately owned land by BHP.

Ore Town SOLAR

Project Benefits



Project construction will create job opportunities

Once operational, the Project will:

1. Provide significant state & local tax revenues to fund essential public services once the Project is contracted and moves to construction.
2. Enhance the resiliency of the electric grid and provide enough clean energy to power 35,000 Arizona homes.
3. Generate little to no daily traffic.
4. Require substantially less water to operate than commercial or residential developments of similar scale.

Project will avoid floodplains where possible and minimize disturbance to natural drainage patterns.

Ore Town
SOLAR

Opportunities for Public Comment

The Applicant welcomes your feedback, comments, and questions. Please reach the project team at the following points of contact:

Mail

Ore Town Solar Project
c/o SWCA Environmental Consultants
1645 S Plaza Way
Flagstaff, AZ 86001

Email

oretownsolar@swca.com

Telephone Line

(520) 527-2168

APPENDIX D

Neighborhood Meeting Supporting Materials

Leo Lew
County Manager

PINAL COUNTY
WIDE OPEN OPPORTUNITY

SCHEDULE-2024

Comprehensive Plan Major Amendment

Friday, May 14:	**Deadline to submit Comprehensive Plan pre-application form**
Tuesday, May 28:	Deadline for applicants to complete pre-application meeting with staff
Friday, May 31:	**Deadline for application submittal (4:30 pm)**
Friday, June 10:	Applications mailed to agencies for 60 day review
Wednesday, June 19*:	Work Session with Board of Supervisors *(county initiated items only)*
Thursday, July 18:	Work Session with Planning and Zoning Commission
Wednesday, August 7*:	Work Session with Board of Supervisors
Wednesday, August 10:	Deadline for 60 day review responses
Thursday, September 5:	Citizen Advisory Committee reviews requests and makes recommendations to the Planning and Zoning Commission
Thursday, September 19:	**Public Hearing of the Planning and Zoning Commission to review requests and make recommendations to the Board of Supervisors**
Wednesday, October 23*:	Public Hearing of the Board of Supervisors to approve, deny, or continue requests

**Dates are subject to change based on schedule provided by the Clerk of the Board*

DEVELOPMENT SERVICES
Community Development- Planning Division

85 N Florence St., PO Box 749, Florence, AZ 85132 T 520-866-6442 FREE 888-431-1311 F 520-866-6530 www.pinalcountyaz.gov

FAQ's

What is a Comprehensive Plan Major Amendment?

A Major Amendment is defined by the Arizona State statues as a "substantial alteration of the County's land use mixture or balance as established in the County's existing Comprehensive Plan Land Use element for that area of the County." The criteria for determining if a proposed amendment is considered a Major Amendment can be found in Chapter 10: Implementation of the Pinal County Comprehensive Plan.

What is a Comprehensive Plan Major Amendment Process?

The Comprehensive Plan Major Amendment Process is an opportunity for landowners to apply for changes to the Comprehensive Plan for their properties, or for Counties to update the Comprehensive Plan to have it match new County policies or ordinances. The process also provides an opportunity for landowners/residents, agencies and surrounding jurisdictions to comment on the proposed changes to the Comprehensive Plan through the Public Hearings held before the Planning and Zoning Commission and the Board of Supervisors.

Why is the Major Amendment Process Done Once a Year?

Major amendments typically involve larger pieces of land or more dramatic changes in use. The State of Arizona mandates that Major Comprehensive Plan Amendments occur once a year, and must be completed in the year they were started.

How Can Citizens Participate in the Major Amendment Process?

Citizens may participate in the Major Amendment Process by attending any one of the Public Hearings shown in the Major Amendment Schedule shown above. Citizens may also submit a written statement to the County regarding a particular amendment (be sure to contact County staff for submittal deadlines).

Is it Possible that the Process Shown Here Could Change?

Yes, if you want to attend meetings or hearings regarding the Comprehensive Plan Major Amendment Process please check the County Website for any changes that may occur.

How Can I Make Comments or Ask Specific Questions?

Please contact: DSPublicRecordsRequest@pinalcountyaz.gov

Comment Form

Ore Town Solar Project
Neighborhood Meeting
April 24, 2024
5:30 PM – 7:00 PM

Name:

Affiliation:

Email:

Phone:

Address:

City State Zip

Comment:

April 24, 2024
5:30 PM – 7:00 PM
Z-PA-029-24

Ore Town Solar
Neighborhood Meeting
Sign-In Sheet

Full Name	Email Address	Telephone	Want to receive project updates?*

By providing your information, you agree Avantus may contact you at the number you provided above with information about the project in the future. We will not share your information with any 3rd party sources.

APPENDIX E

Neighborhood Meeting Sign-In Sheet

April 24, 2024
5:30 PM – 7:00 PM
Z-PA-029-24

Ore Town Solar
Neighborhood Meeting
Sign-In Sheet

Full Name	Email Address	Telephone	Want to receive project updates?*
Mike Hall	[redacted]		yes!
Taylor Glen			yes
Kaytlin Reiter			yes
Shelby Johnson			yes
Doug Southard			yes
Michael Lake			yes
Phillip + Deborah Pfaff			yes
Sharon Scale Matthews			yes

*By providing your information, you agree Avantus may contact you at the number you provided above with information about the project in the future. We will not share your information with any 3rd party sources.

April 24, 2024
5:30 PM – 7:00 PM
Z-PA-029-24

Ore Town Solar
Neighborhood Meeting
Sign-In Sheet

Full Name	Email Address	Telephone	Want to receive project updates?*
JEFF McCLURE	[redacted]	[redacted]	YES
John Royal	[redacted]	[redacted]	yes
Rockf Ortlieb	[redacted]	[redacted]	Yes
Jeanette Dalen	[redacted]	[redacted]	Yes
[signature]	[redacted]	[redacted]	yes
[signature]	[redacted]	[redacted]	" "
DAVID, YVONNE & JENI TROUGH	[redacted]	[redacted]	yes
M. PUENTE	[redacted]	[redacted]	YES

*By providing your information, you agree Avantus may contact you at the number you provided above with information about the project in the future. We will not share your information with any 3rd party sources.

April 24, 2024
5:30 PM – 7:00 PM
Z-PA-029-24

Ore Town Solar
Neighborhood Meeting
Sign-In Sheet

Full Name	Email Address	Telephone	Want to receive project updates?*
Will Howard	[redacted]		Yes
Annette Cook			yes.
Steven & Liz Rasenguist			Yes
Jean M ~~Estel~~			YES
Kennedy Ivy			Yes
Jim Miller			YES
John & Jessie David			Yes
Mark & Diane Bender			Yes

*By providing your information, you agree Avantus may contact you at the number you provided above with information about the project in the future. We will not share your information with any 3rd party sources.

April 24, 2024
5:30 PM – 7:00 PM
Z-PA-029-24

Ore Town Solar
Neighborhood Meeting
Sign-In Sheet

Full Name	Email Address	Telephone	Want to receive project updates?*
Freddie Rodriguez	[redacted]	[redacted]	Yes
Paul Valencia			
Calvin Harriel			Yes
Nathaniel Lopez			Yes
Hazel Cooper			yes
T.C. Brown Joellen Brown			Yes
Wendy Schollian			yes
Maria Clay			yes website

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April 24, 2024
5:30 PM – 7:00 PM
Z-PA-029-24

Ore Town Solar
Neighborhood Meeting
Sign-In Sheet

Full Name	Email Address	Telephone	Want to receive project updates?*
★ Jerry Myers	[redacted]		Yes
Keith Bamberger			Yes
Pamela Hess			Yes
Joey C. Dale			Yes
Jennifer Ruderman			yes
Jon Lee			No
Paul W Gonzales			No
Rosalina Pennacchio			yes

**By providing your information, you agree Avantus may contact you at the number you provided above with information about the project in the future. We will not share your information with any 3rd party sources.*

April 24, 2024
5:30 PM – 7:00 PM
Z-PA-029-24

Ore Town Solar
Neighborhood Meeting
Sign-In Sheet

Full Name	Email Address	Telephone	Want to receive project updates?*
Janet Sparks	[redacted]	[redacted]	y
Melissa Fry			y
Hector Lovelace			no
Mack A. Skeen			y
[illegible]			y
[illegible]			y
Ernest [illegible]			
Deb Mansinger			y

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April 24, 2024
5:30 PM – 7:00 PM
Z-PA-029-24

Ore Town Solar
Neighborhood Meeting
Sign-In Sheet

Full Name	Email Address	Telephone	Want to receive project updates?*
Tracy Elizabeth	[redacted]	[redacted]	Yes
Carl J. Matthews			
Stewart W. Kraft			YES
Julia Laguna Bossvine			Yes
JAMES BERGSTROM			YES
Jen Walden			yes

*By providing your information, you agree Avantus may contact you at the number you provided above with information about the project in the future. We will not share your information with any 3rd party sources.

April 24, 2024
5:30 PM – 7:00 PM
Z-PA-029-24

Ore Town Solar
Neighborhood Meeting
Sign-In Sheet

Full Name	Email Address	Telephone	Want to receive project updates?*
Susanne Holt	[redacted]		Yes
Jim Bingham + Linda Bingham			
Laurie Smalla			Yes

*By providing your information, you agree Avantus may contact you at the number you provided above with information about the project in the future. We will not share your information with any 3rd party sources.

APPENDIX F

Neighborhood Meeting Written Comments

Comment Form

Ore Town Solar Project
Neighborhood Meeting
April 24, 2024
5:30 PM – 7:00 PM

Name: MACK A. SKEEN

Affiliation:

Email: [redacted]

Phone:

Address:

City [redacted] State [redacted] Zip [redacted]

Comment: I think the SOLAR COLLECTOR PLAN for SAN MANUEL AREA IS A GREAT WAY TO UTILIZE PROPERTY THAT CAN'T BE LIVED ON BECAUSE OF THE TAILINGS WHICH WERE LEFT BEHIND BY MAGMA COPPER CO. & BHP.

I think it will benefit the TRI COMMUNITY IN THE LONG RUN & HOPEFULLY ARIZONA, CALIFORNIA, AND other PLACES WITHIN the USA.

Comment Form

Ore Town Solar Project
Neighborhood Meeting
April 24, 2024
5:30 PM - 7:00 PM

Name: STEWART KRAFT

Affiliation: HOME OWNER

Email: [redacted]

Phone: [redacted]

Address: [redacted]

City [redacted] State [redacted] Zip [redacted]

Comment: I HAVE NO OPPOSITION TO THE PROPOSED PLAN BUT WOULD LIKE TO SEE A LITTLE LOVE GIVEN TO OUR COMMUNITY. I HAVE SUGGESTED THAT SOLAR COMPANY OFFER AN CLINIC BRANCH AND MAYBE SUPPLY OUR COMMUNITY CENTER WITH A WELL AND SOME GRASS AREA FOR THE PEOPLE OF OUR COMMUNITY AS THERE ISN'T ANYWHERE FOR US WHO WALK TO ENJOY A GREEN AREA.

Comment Form

Ore Town Solar Project
Neighborhood Meeting
April 24, 2024
5:30 PM – 7:00 PM

Name: Doug Southard
Affiliation: Home owner NABCEP Certified
Email: [redacted]
Phone:
Address:
City [redacted] State [redacted] Zip [redacted]

Comment: ① Why not on tailings from mining to be a Brown Field project. Federal funding would enhance the viability & profitability of project
② Why not a micro grid with transfer switch at San manuel transformer station to provide town with battery power during power outages.
③ What installation EPC will get bid- best price most knowledge best performance?
④ What will Evantys do to provide for San manuel? Scholarships? Sponsorships?

Thank you.

Comment Form

Ore Town Solar Project
Neighborhood Meeting
April 24, 2024
5:30 PM – 7:00 PM

Name: Susanne Holt

Affiliation: SMRC

Email: [redacted]

Phone:

Address:

City [redacted] State [redacted] Zip [redacted]

Comment: I am confused as to how this is going to benefit Lon Mansel. We are barely recovering from the added traffic from the Jumpin project. We are not a bunch of country folks who don't know what going on. Many people moved here for a quiet life, but that doesn't seem to be possible with companies thinking this area is fair game for their projects

Comment Form

Ore Town Solar Project
Neighborhood Meeting
April 24, 2024
5:30 PM – 7:00 PM

Name: Sharon Matthews

Affiliation: Sin RC

Email: [redacted]

Phone:

Address:

City [redacted] State [redacted] Zip [redacted]

Comment:

My concern is building this project on the tailings because it would be built on an unstable surface. Worry about drainage and the project collapsing.

Comment Form

Ore Town Solar Project
Neighborhood Meeting
April 24, 2024
5:30 PM - 7:00 PM

Name: Joellen Brown

Affiliation: Resident of San Manuel

Email:

Phone:

Address: [redacted]

City [redacted] State [redacted] Zip [redacted]

Comment:

A great informational gathering.
This sounds like a great
use of the vacant land.
I'm all for it!

Comment Form

Ore Town Solar Project
Neighborhood Meeting
April 24, 2024
5:30 PM – 7:00 PM

Name:

Affiliation:

Email:

Phone:

Address:

City State Zip

Comment: Excited!

Comment Form

Ore Town Solar Project
Neighborhood Meeting
April 24, 2024
5:30 PM – 7:00 PM

Name:

Affiliation:

Email:

Phone:

Address:

City State Zip

Comment:

Not in a Fire District

APPENDIX D

U.S. Fish and Wildlife Service Site-Specific IPaC Resource List

IPaC **U.S. Fish & Wildlife Service**

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

NOT FOR CONSULTATION

Location

Pinal County, Arizona



Local office

Arizona Ecological Services Field Office

(602) 242-0210
(602) 242-2513

9828 North 31st Ave
#c3
Phoenix, AZ 85051-2517

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

---

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

NOT FOR CONSULTATION

2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
Ocelot Leopardus (=Felis) pardalis Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4474	Endangered

Birds

NAME	STATUS
Cactus Ferruginous Pygmy-owl Glaucidium brasilianum cactorum Wherever found There is **final** critical habitat for this species. https://ecos.fws.gov/ecp/species/1225	Threatened
Mexican Spotted Owl Strix occidentalis lucida Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/8196	Threatened
Yellow-billed Cuckoo Coccyzus americanus There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/3911	Threatened

Fishes

NAME	STATUS
Gila Chub Gila intermedia Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/51	Endangered

NOT FOR CONSULTATION

Gila Topminnow (incl. Yaqui) Poeciliopsis occidentalis Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/1116	Endangered

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Flowering Plants

NAME	STATUS
Huachuca Water-umbel Lilaeopsis schaffneriana var. recurva Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/1201	Endangered

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

There are no documented cases of eagles being present at this location. However, if you believe eagles may be using your site, please reach out to the local Fish and Wildlife Service office.

NOT FOR CONSULTATION

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply). To see a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

NOT FOR CONSULTATION

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats[3] should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON

NOT FOR CONSULTATION

Bendire's Thrasher Toxostoma bendirei — Breeds Mar 15 to Jul 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9435

Black-chinned Sparrow Spizella atrogularis — Breeds Apr 15 to Jul 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9447

Gilded Flicker Colaptes chrysoides — Breeds May 1 to Aug 10
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/2960

Phainopepla Phainopepla nitens lepida — Breeds Mar 1 to Aug 20
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/1372

NOT FOR CONSULTATION

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

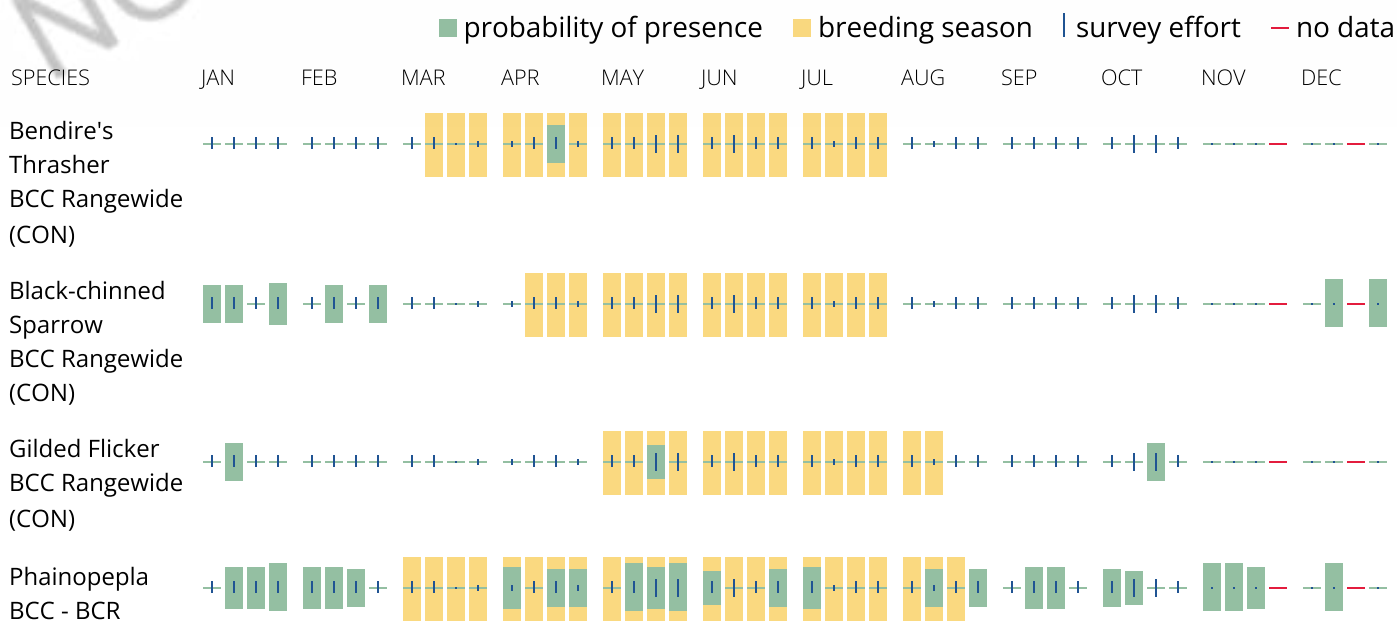
Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

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Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

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1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or

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minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER POND

PUSAh

RIVERINE

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R4SBC

A full description for each wetland code can be found at the National Wetlands Inventory website

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

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APPENDIX E

Arizona Environmental Online Review Tool Report

Arizona Environmental Online Review Tool Report

Arizona Game and Fish Department Mission
To conserve Arizona's diverse wildlife resources and manage for safe, compatible outdoor recreation opportunities for current and future generations.

Project Name:

Ore Town Solar

Project Description:

SWCA Environmental Consultants (SWCA) understands that Avantus is evaluating a potential solar development on up to approximately 1,100 acres in unincorporated Pinal County, referred to as Ore Town Solar Project (project).

Project Type:

Energy Production/Storage/Transfer, Energy Production (generation), photovoltaic solar facility (new/expansion)

Contact Person:

Neil Clark

Organization:

SWCA

On Behalf Of:

FERC

Project ID:

HGIS-21512

Please review the entire report for project type and/or species recommendations for the location information entered. Please retain a copy for future reference.

Disclaimer:

1. This Environmental Review is based on the project study area that was entered. The report must be updated if the project study area, location, or the type of project changes.
2. This is a preliminary environmental screening tool. It is not a substitute for the potential knowledge gained by having a biologist conduct a field survey of the project area. This review is also not intended to replace environmental consultation (including federal consultation under the Endangered Species Act), land use permitting, or the Departments review of site-specific projects.
3. The Departments Heritage Data Management System (HDMS) data is not intended to include potential distribution of special status species. Arizona is large and diverse with plants, animals, and environmental conditions that are ever changing. Consequently, many areas may contain species that biologists do not know about or species previously noted in a particular area may no longer occur there. HDMS data contains information about species occurrences that have actually been reported to the Department. Not all of Arizona has been surveyed for special status species, and surveys that have been conducted have varied greatly in scope and intensity. Such surveys may reveal previously undocumented population of species of special concern.
4. Arizona Wildlife Conservation Strategy (AWCS), specifically Species of Greatest Conservation Need (SGCN), represent potential species distribution models for the State of Arizona which are subject to ongoing change, modification and refinement. The status of a wildlife resource can change quickly, and the availability of new data will necessitate a refined assessment.

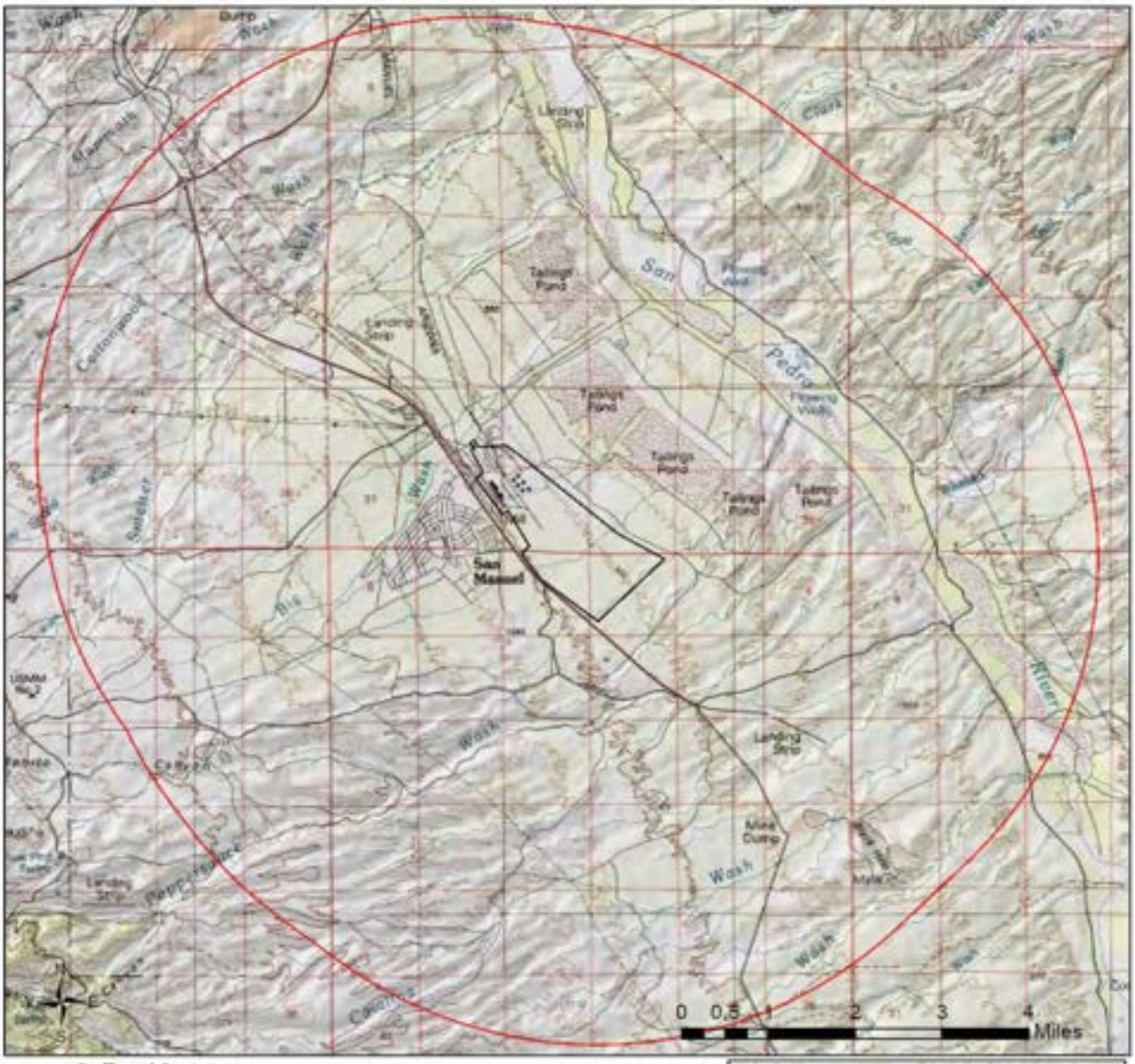
Locations Accuracy Disclaimer:
Project locations are assumed to be both precise and accurate for the purposes of environmental review. The creator/owner of the Project Review Report is solely responsible for the project location and thus the correctness of the Project Review Report content.

Recommendations Disclaimer:

1. The Department is interested in the conservation of all fish and wildlife resources, including those species listed in this report and those that may have not been documented within the project vicinity as well as other game and nongame wildlife.
2. Recommendations have been made by the Department, under authority of Arizona Revised Statutes Title 5 (Amusements and Sports), 17 (Game and Fish), and 28 (Transportation).
3. Potential impacts to fish and wildlife resources may be minimized or avoided by the recommendations generated from information submitted for your proposed project. These recommendations are preliminary in scope, designed to provide early considerations on all species of wildlife.
4. Making this information directly available does not substitute for the Department's review of project proposals, and should not decrease our opportunity to review and evaluate additional project information and/or new project proposals.
5. Further coordination with the Department requires the submittal of this Environmental Review Report with a cover letter and project plans or documentation that includes project narrative, acreage to be impacted, how construction or project activity(s) are to be accomplished, and project locality information (including site map). Once AGFD had received the information, please allow 30 days for completion of project reviews. Send requests to:
   Project Evaluation Program, Habitat Branch
   Arizona Game and Fish Department
   5000 West Carefree Highway
   Phoenix, Arizona 85086-5000
   Phone Number: (623) 236-7600
   Fax Number: (623) 236-7366
   Or
   PEP@azgfd.gov
6. Coordination may also be necessary under the National Environmental Policy Act (NEPA) and/or Endangered Species Act (ESA). Site specific recommendations may be proposed during further NEPA/ESA analysis or through coordination with affected agencies.

Ore Town Solar

USA Topo Basemap With Locator Map



Buffered Project Boundary

Project Boundary

Project Size (acres): 1,207.67

Lat/Long (DD): 32.6032 / -110.6078

County(s): Pinal

AGFD Region(s): Tucson

Township/Range(s): T10S, R17E; T9S, R17E

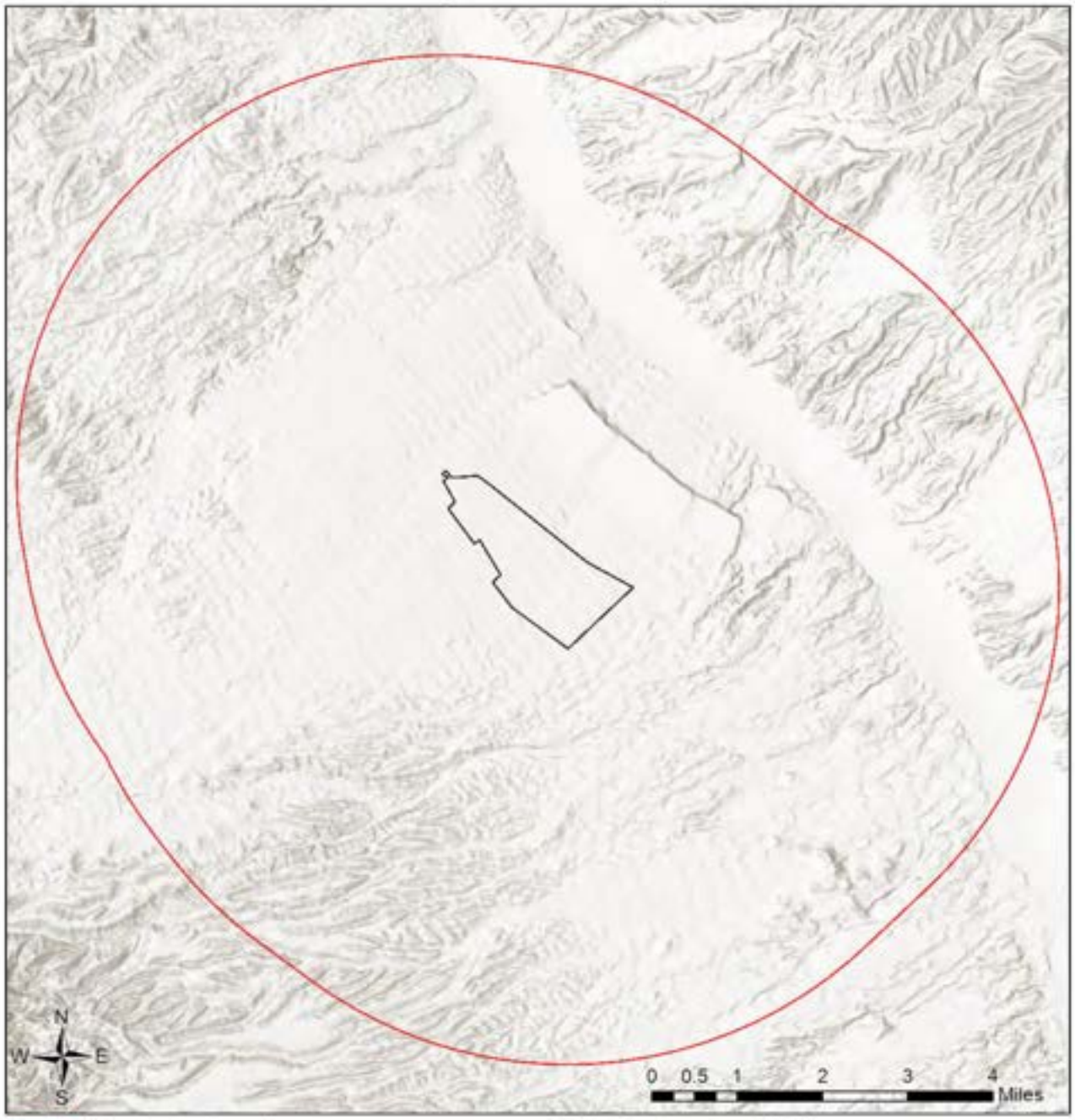
USGS Quad(s): CAMPO BONITO; PEPPERSAUCE WASH



Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, IKCEAS, IILS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community

Ore Town Solar

Web Map As Submitted By User



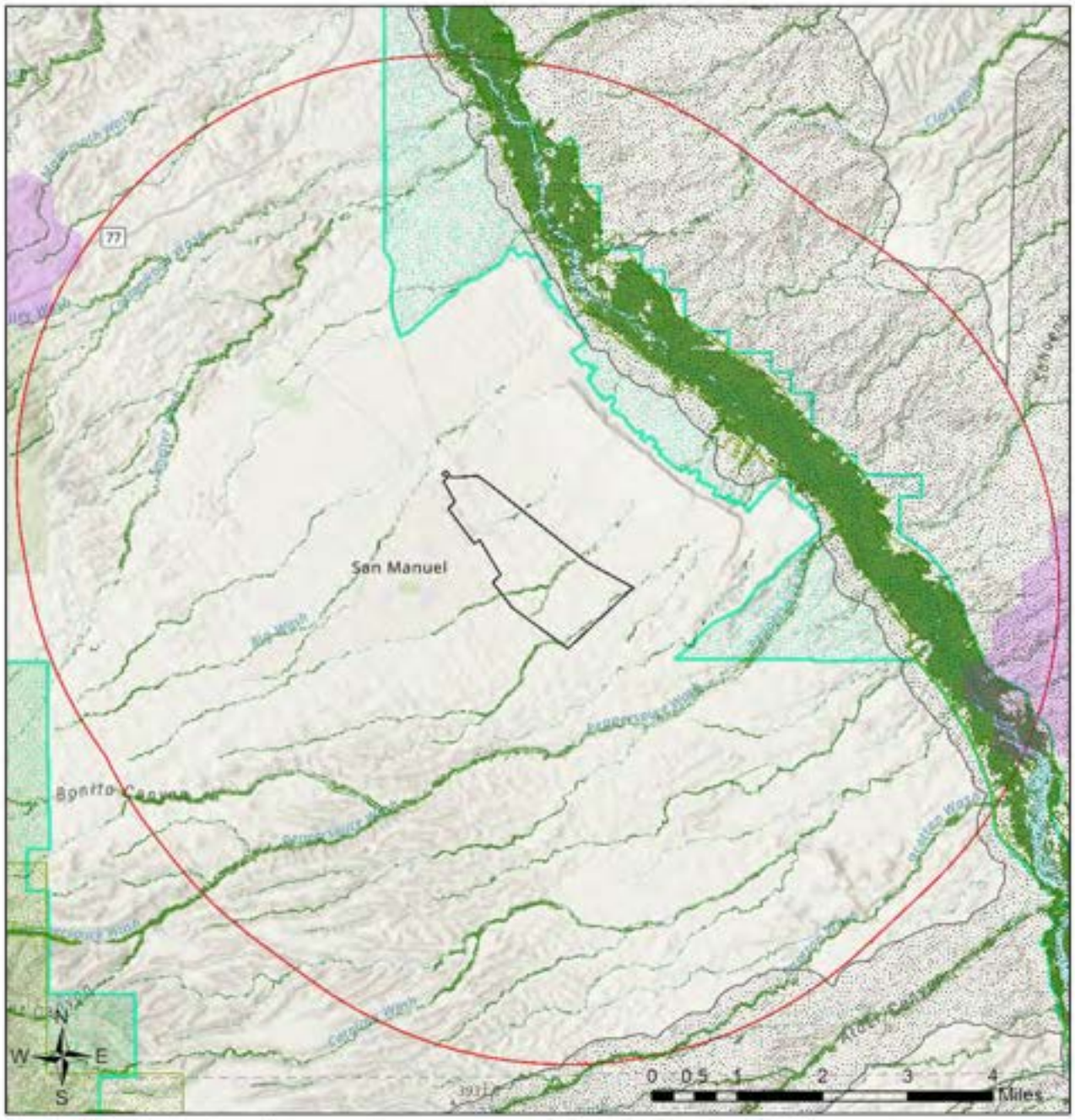
Buffered Project Boundary
Project Boundary

Project Size (acres): 1,207.67
Lat/Long (DD): 32.6032 / -110.6078
County(s): Pinal
AGFD Region(s): Tucson
Township/Range(s): T10S, R17E; T9S, R17E
USGS Quad(s): CAMPO BONITO; PEPPERSAUCE WASH

Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community

Ore Town Solar

Important Areas



- Buffered Project Boundary
- Project Boundary
- Important Bird Areas
- Critical Habitat
- Pinal County Riparian
- Important Connectivity Zones
- Wildlife Connectivity

Project Size (acres): 1,207.67

Lat/Long (DD): 32.6032 / -110.6078

County(s): Pinal

AGFD Region(s): Tucson

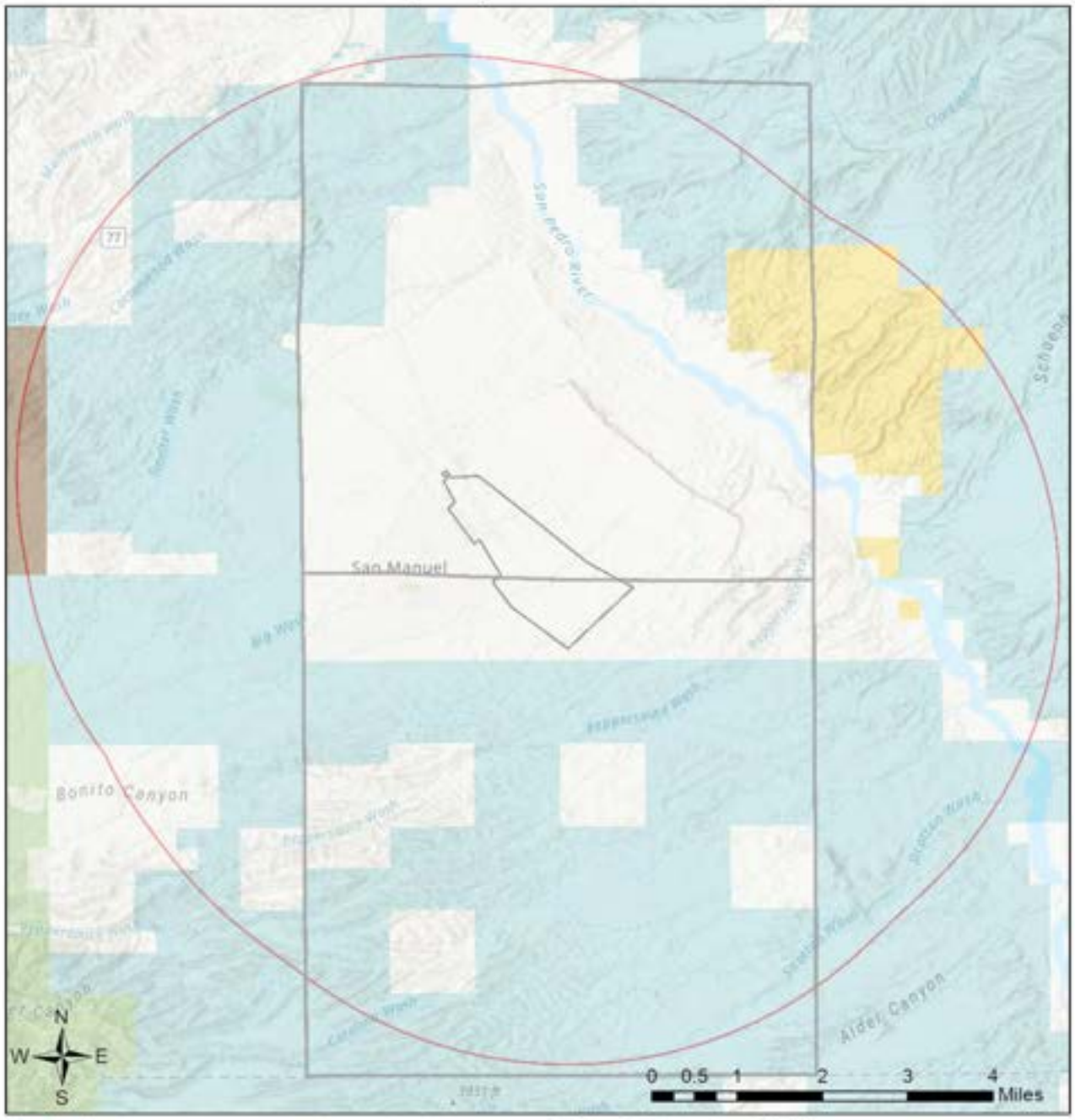
Township/Range(s): T10S, R17E; T9S, R17E

USGS Quad(s): CAMPO BONITO; PEPPERSAUCE WASH

Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community
Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

Ore Town Solar

Township/Ranges and Land Ownership



- Buffered Project Boundary
- Project Boundary
- AZ Game & Fish Dept.
- BLM
- BOR
- Indian Res.
- Military
- Mixed/Other
- National Park/Mon.
- Private
- State & Regional Parks
- State Trust
- US Forest Service
- Wildlife Area/Refuge
- Township/Ranges

Project Size (acres): 1,207.67

Lat/Long (DD): 32.6032 / -110.6078

County(s): Pinal

AGFD Region(s): Tucson

Township/Range(s): T10S, R17E; T9S, R17E

USGS Quad(s): CAMPO BONITO; PEPPERSAUCE WASH

Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community
Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

Special Status Species Documented within 5 Miles of Project Vicinity

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Agelaius phoeniceus	Red-winged Blackbird					2
Agosia chrysogaster chrysogaster	Gila Longfin Dace	SC		S		
Amphispiza bilineata	Black-throated Sparrow					2
Anthus rubescens	American Pipit					2
Aphelocoma woodhouseii	Woodhouse's Scrub-Jay					2
Aquila chrysaetos	Golden Eagle			S		2
Asio otus	Long-eared Owl					2
Aspidoscelis sonorae	Sonoran Spotted Whiptail					2
Auriparus flaviceps	Verdin					2
Buteo plagiatus	Gray Hawk	SC				
Buteo swainsoni	Swainson's Hawk					2
Calamospiza melanocorys	Lark Bunting					2
Calypte costae	Costa's Hummingbird					2
Camptostoma imberbe	Northern Beardless-Tyrannulet		S			2
Campylorhynchus brunneicapillus	Cactus Wren					2
Cardinalis sinuatus	Pyrrhuloxia					2
Chordeiles minor	Common Nighthawk					2
Coccyzus americanus	Yellow-billed Cuckoo (Western DPS)	LT	S	S		1
Colaptes chrysoides	Gilded Flicker			S		2
Coluber bilineatus	Sonoran Whipsnake					2
Columbina inca	Inca Dove					2
Contopus cooperi	Olive-sided Flycatcher	SC				2
Contopus sordidulus	Western Wood-Pewee					2
Corvus cryptoleucus	Chihuahuan Raven					2
Cynanthus latirostris	Broad-billed Hummingbird		S			2
Echinomastus erectocentrus var. erectocentrus	Needle-spined Pineapple Cactus	SC			SR	
Empidonax traillii extimus	Southwestern Willow Flycatcher	LE				1
Empidonax traillii extimus	Southwestern Willow Flycatcher	LE		S		1
Empidonax wrightii	Gray Flycatcher					2
Eriogonum capillare	San Carlos Wild-buckwheat	SC			SR	
Falco peregrinus anatum	American Peregrine Falcon	SC	S	S		1
Falco sparverius	American Kestrel					2
Geothlypis tolmiei	MacGillivray's Warbler					2
Gopherus morafkai	Sonoran Desert Tortoise	CCA	S	S		1
Heloderma suspectum	Gila Monster					1
Icterus bullockii	Bullock's Oriole					2
Icterus cucullatus	Hooded Oriole					2
Icterus parisorum	Scott's Oriole					2
Ictinia mississippiensis	Mississippi Kite					2

Special Status Species Documented within 5 Miles of Project Vicinity

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Incilius alvarius	Sonoran Desert Toad					2
Lanius ludovicianus	Loggerhead Shrike	SC				2
Lepus alleni	Antelope Jackrabbit					2
Megascops kennicottii	Western Screech-owl					2
Megascops trichopsis	Whiskered Screech-owl		S			2
Melanerpes uropygialis	Gila Woodpecker					2
Melospiza lincolnii	Lincoln's Sparrow					2
Melozone aberti	Abert's Towhee		S			2
Melozone fusca	Canyon Towhee					2
Myiarchus tuberculifer	Dusky-capped Flycatcher					2
Opuntia versicolor	Stag-horn Cholla				SR	
Parabuteo unicinctus	Harris's Hawk					2
Patagioenas fasciata	Band-tailed Pigeon					2
Peucaea carpalis	Rufous-winged Sparrow					2
Pooecetes gramineus	Vesper Sparrow					2
Rana yavapaiensis	Lowland Leopard Frog	SC	S	S		1
Selasphorus platycercus	Broad-tailed Hummingbird					2
Setophaga nigrescens	Black-throated Gray Warbler					2
Spizella breweri	Brewer's Sparrow					2
Terrapene ornata luteola	Desert Box Turtle			S		
Tyrannus crassirostris	Thick-billed Kingbird		S			2

Note: Status code definitions can be found at https://www.azgfd.com/wildlife-conservation/on-the-ground-conservation/state-wildlife-action-plan/state-wildlife-action-plan-status-definitions/.

Special Areas Documented that Intersect with Project Footprint as Drawn

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Riparian Area	Riparian Area					

Note: Status code definitions can be found at https://www.azgfd.com/wildlife-conservation/on-the-ground-conservation/state-wildlife-action-plan/state-wildlife-action-plan-status-definitions/.

Species of Greatest Conservation Need Predicted that Intersect with Project Footprint as Drawn, based on Predicted Range Models

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Ammospermophilus harrisii	Harris' Antelope Squirrel					
Anthus spragueii	Sprague's Pipit	SC				2
Antrostomus ridgwayi	Buff-collared Nightjar		S			2
Aquila chrysaetos	Golden Eagle			S		2
Artemisiospiza nevadensis	Sagebrush Sparrow					
Asio otus	Long-eared Owl					2

Species of Greatest Conservation Need Predicted that Intersect with Project Footprint as Drawn, based on Predicted Range Models

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Aspidoscelis sonorae	Sonoran Spotted Whiptail					2
Auriparus flaviceps	Verdin					2
Botaurus lentiginosus	American Bittern					2
Buteo regalis	Ferruginous Hawk	SC		S		2
Buteo swainsoni	Swainson's Hawk					2
Buteogallus anthracinus	Common Black Hawk					2
Calypte costae	Costa's Hummingbird					2
Camptostoma imberbe	Northern Beardless-Tyrannulet		S			2
Campylorhynchus brunneicapillus	Cactus Wren					2
Chaetodipus baileyi	Bailey's Pocket Mouse					2
Charadrius montanus	Mountain Plover	SC				2
Chilomeniscus stramineus	Variable Sandsnake					2
Choeronycteris mexicana	Mexican Long-tongued Bat	SC	S	S		2
Coccyzus americanus	Yellow-billed Cuckoo (Western DPS)					
Colaptes chrysoides	Gilded Flicker			S		2
Coluber bilineatus	Sonoran Whipsnake					2
Columbina inca	Inca Dove					2
Corvus cryptoleucus	Chihuahuan Raven					2
Corynorhinus townsendii pallescens	Pale Townsend's Big-eared Bat	SC	S	S		1
Crotalus tigris	Tiger Rattlesnake					2
Empidonax traillii extimus	Southwestern Willow Flycatcher					
Empidonax wrightii	Gray Flycatcher					2
Eumops perotis californicus	Greater Western Bonneted Bat					
Falco mexicanus	Prairie Falcon					2
Falco peregrinus anatum	American Peregrine Falcon					
Falco sparverius	American Kestrel					2
Gopherus morafkai	Sonoran Desert Tortoise	CCA	S	S		1
Heloderma suspectum	Gila Monster					1
Icterus bullockii	Bullock's Oriole					2
Icterus cucullatus	Hooded Oriole					2
Ictinia mississippiensis	Mississippi Kite					2
Incilius alvarius	Sonoran Desert Toad					2
Kinosternon sonoriense sonoriense	Desert Mud Turtle					
Lanius ludovicianus	Loggerhead Shrike	SC				2
Lasiurus blossevillii	Western Red Bat		S			2
Lasiurus cinereus	Hoary Bat					2
Lasiurus xanthinus	Western Yellow Bat		S			2
Leptonycteris yerbabuenae	Lesser Long-nosed Bat	SC				1
Lepus alleni	Antelope Jackrabbit					2

Species of Greatest Conservation Need Predicted that Intersect with Project Footprint as Drawn, based on Predicted Range Models

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Lithobates yavapaiensis	Lowland Leopard Frog	SC	S	S		1
Macrotus californicus	California Leaf-nosed Bat	SC		S		2
Megascops kennicottii	Western Screech-owl					
Melanerpes uropygialis	Gila Woodpecker					2
Melospiza lincolnii	Lincoln's Sparrow					2
Melozone aberti	Abert's Towhee		S			2
Micrathene whitneyi	Elf Owl					
Micruroides euryxanthus	Sonoran Coralsnake					2
Myadestes townsendi	Townsend's Solitaire					2
Myotis thysanodes	Fringed Myotis	SC				2
Myotis velifer	Cave Myotis	SC		S		2
Myotis yumanensis	Yuma Myotis	SC				2
Nyctinomops femorosaccus	Pocketed Free-tailed Bat					2
Nyctinomops macrotis	Big Free-tailed Bat	SC				2
Parabuteo unicinctus	Harris's Hawk					2
Passerculus sandwichensis	Savannah Sparrow					2
Perognathus amplus	Arizona Pocket Mouse					2
Peucaea carpalis	Rufous-winged Sparrow					2
Phrynosoma solare	Regal Horned Lizard					2
Phyllorhynchus browni	Saddled Leaf-nosed Snake					2
Pooecetes gramineus	Vesper Sparrow					2
Progne subis hesperia	Desert Purple Martin					
Spizella breweri	Brewer's Sparrow					2
Tadarida brasiliensis	Brazilian Free-tailed Bat					
Terrapene ornata	Ornate Box Turtle			S		1
Toxostoma bendirei	Bendire's Thrasher					2
Troglodytes pacificus	Pacific Wren					2

Species of Economic and Recreation Importance Predicted that Intersect with Project Footprint as Drawn

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Callipepla gambelii	Gambel's Quail					
Patagioenas fasciata	Band-tailed Pigeon					
Pecari tajacu	Javelina					
Puma concolor	Mountain Lion					
Zenaida asiatica	White-winged Dove					
Zenaida macroura	Mourning Dove					

Project Type: Energy Production/Storage/Transfer, Energy Production (generation), photovoltaic solar facility (new/expansion)

Project Type Recommendations:
During the planning stages of your project, please consider the local or regional needs of wildlife in regards to movement, connectivity, and access to habitat needs. Loss of this permeability prevents wildlife from accessing resources, finding mates, reduces gene flow, prevents wildlife from re-colonizing areas where local extirpations may have occurred, and ultimately prevents wildlife from contributing to ecosystem functions, such as pollination, seed dispersal, control of prey numbers, and resistance to invasive species. In many cases, streams and washes provide natural movement corridors for wildlife and should be maintained in their natural state. Uplands also support a large diversity of species, and should be contained within important wildlife movement corridors. In addition, maintaining biodiversity and ecosystem functions can be facilitated through improving designs of structures, fences, roadways, and culverts to promote passage for a variety of wildlife. Guidelines for many of these can be found at: https://www.azgfd.com/wildlife-conservation/planning-for-wildlife/planning-for-wildlife-wildlife-friendly-guidelines/.

Consider impacts of outdoor lighting on wildlife and develop measures or alternatives that can be taken to increase human safety while minimizing potential impacts to wildlife. Conduct wildlife surveys to determine species within project area, and evaluate proposed activities based on species biology and natural history to determine if artificial lighting may disrupt behavior patterns or habitat use. Use only the minimum amount of light needed for safety. Narrow spectrum bulbs should be used as often as possible to lower the range of species affected by lighting. All lighting should be shielded, canted, or cut to ensure that light reaches only areas needing illumination.

Minimize the potential introduction or spread of exotic invasive species, including aquatic and terrestrial plants, animals, insects and pathogens. Precautions should be taken to wash and/or decontaminate all equipment utilized in the project activities before entering and leaving the site. See the Arizona Department of Agriculture website for a list of prohibited and restricted noxious weeds at https://www.invasivespeciesinfo.gov/unitedstates/az.shtml and the Arizona Native Plant Society https://aznps.com/invas for recommendations on how to control. To view a list of documented invasive species or to report invasive species in or near your project area visit iMapInvasives - a national cloud-based application for tracking and managing invasive species at https://imap.natureserve.org/imap/services/page/map.html.

- To build a list: zoom to your area of interest, use the identify/measure tool to draw a polygon around your area of interest, and select “See What’s Here” for a list of reported species. To export the list, you must have an account and be logged in. You can then use the export tool to draw a boundary and export the records in a csv file.

Minimization and mitigation of impacts to wildlife and fish species due to changes in water quality, quantity, chemistry, temperature, and alteration to flow regimes (timing, magnitude, duration, and frequency of floods) should be evaluated. Minimize impacts to springs, in-stream flow, and consider irrigation improvements to decrease water use. If dredging is a project component, consider timing of the project in order to minimize impacts to spawning fish and other aquatic species (include spawning seasons), and to reduce spread of exotic invasive species. We recommend early direct coordination with Project Evaluation Program for projects that could impact water resources, wetlands, streams, springs, and/or riparian habitats.

The Department recommends that wildlife surveys are conducted to determine if noise-sensitive species occur within the project area. Avoidance or minimization measures could include conducting project activities outside of breeding seasons.

For any powerlines built, proper design and construction of the transmission line is necessary to prevent or minimize risk of electrocution of raptors, owls, vultures, and golden or bald eagles, which are protected under state and federal laws. Limit project activities during the breeding season for birds, generally March through late August, depending on species in the local area (raptors breed in early February through May). Conduct avian surveys to determine bird species that may be utilizing the area and develop a plan to avoid disturbance during the nesting season. For underground powerlines, trenches should be covered or back-filled as soon as possible. Incorporate escape ramps in ditches or fencing along the perimeter to deter small mammals and herpetofauna (snakes, lizards, tortoise) from entering ditches. In addition, indirect affects to wildlife due to construction (timing of activity, clearing of rights-of-way, associated bridges and culverts, affects to wetlands, fences) should also be considered and mitigated.

Based on the project type entered, coordination with State Historic Preservation Office may be required (https://azstateparks.com/).

Based on the project type entered, coordination with U.S. Fish and Wildlife Service (Migratory Bird Treaty Act) may be required (https://www.fws.gov/office/arizona-ecological-services).

Vegetation restoration projects (including treatments of invasive or exotic species) should have a completed site-evaluation plan (identifying environmental conditions necessary to re-establish native vegetation), a revegetation plan (species, density, method of establishment), a short and long-term monitoring plan, including adaptive management guidelines to address needs for replacement vegetation.

The Department requests further coordination to provide project/species specific recommendations, please contact Project Evaluation Program directly at PEP@azgfd.gov.

Project Location and/or Species Recommendations:
HDMS records indicate that one or more native plants listed on the **Arizona Native Plant Law and Antiquities Act** have been documented within the vicinity of your project area. Please contact:
Arizona Department of Agriculture
1688 W Adams St.
Phoenix, AZ 85007
Phone: 602.542.4373
https://agriculture.az.gov/sites/default/files/Native%20Plant%20Rules%20-%20AZ%20Dept%20of%20Ag.pdf starts on page 44

HDMS records indicate that one or more **Listed, Proposed, or Candidate** species or **Critical Habitat** (Designated or Proposed) have been documented in the vicinity of your project. The Endangered Species Act (ESA) gives the US Fish and Wildlife Service (USFWS) regulatory authority over all federally listed species. Please contact USFWS Ecological Services Offices at https://www.fws.gov/office/arizona-ecological-services or:

Phoenix Main Office
9828 North 31st Avenue #C3
Phoenix, AZ 85051-2517
Phone: 602-242-0210
Fax: 602-242-2513

Tucson Sub-Office
201 N. Bonita Suite 141
Tucson, AZ 85745
Phone: 520-670-6144
Fax: 520-670-6155

Flagstaff Sub-Office
SW Forest Science Complex
2500 S. Pine Knoll Dr.
Flagstaff, AZ 86001
Phone: 928-556-2157
Fax: 928-556-2121

This review has identified **riparian areas** within the vicinity of your project. During the planning stage of your project, avoid, minimize, or mitigate any potential impacts to riparian areas identified in this report. Riparian areas play an important role in maintaining the functional integrity of the landscape, primarily by acting as natural drainages that convey water through an area, thereby reducing flood events. In addition, riparian areas provide important movement corridors and habitat for fish and wildlife. Riparian areas are channels that contain water year-round or at least part of the year. Riparian areas also include those channels which are dry most of the year, but may contain or convey water following rain events. All types of riparian areas offer vital habitats, resources, and movement corridors for wildlife. The Pinal County Comprehensive Plan (i.e. policies *6.1.2.1* and *7.1.2.4*), Open Space and Trails Master Plan, Drainage Ordinance, and Drainage Design Manual all identify riparian area considerations, guidance, and policies. Guidelines to avoid, minimize, or mitigate impacts to riparian habitat can be found at https://www.azgfd.com/wildlife-conservation/planning-for-wildlife/planning-for-wildlife-wildlife-friendly-guidelines/. Based on the project type entered, further consultation with the Arizona Game and Fish Department and Pinal County may be warranted.

HDMS records indicate that **Sonoran Desert Tortoise** have been documented within the vicinity of your project area. Please review the Tortoise Handling Guidelines found at https://s3.amazonaws.com/azgfd-portal-wordpress/PortalImages/files/wildlife/2014%20Tortoise%20handling%20guidelines.pdf.

APPENDIX F

Biological Technical Memorandum

SWCA
ENVIRONMENTAL CONSULTANTS
Sound Science. Creative Solutions.®

20 East Thomas Road, Suite 1700
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Tel 602.274.3831 Fax 602.274.3958
www.swca.com

TECHNICAL MEMORANDUM

To: 310SM 8me LLC

Submitted via email: jjackson@avantus.com,

From: Neil Clark, Staff Biologist

Date: May 2, 2024

Re: **Biological Resources Evaluation for the Ore Town Solar Project, Pinal County, Arizona / SWCA Project No. 84846**

INTRODUCTION

SWCA Environmental Consultants (SWCA) has prepared this biological resources evaluation (BRE), at the request of 310SM 8me LLC, to address federal, state, and local biological regulations to support the proposed Ore Town Solar Project (project) (Figure 1). The project would include solar photovoltaic (PV) panels, a battery energy storage system (BESS), a project substation, and a generation tie transmission line (gen-tie line). The project would include an up to 145-megawatt capacity (MWac) solar PV generating facility and up to 145-MWac BESS in San Manuel, Arizona. The project is proposed on approximately 1,227.41 acres of private property (project area) in unincorporated Pinal County, Arizona. The MCPA Major Comprehensive Plan Amendment is needed to facilitate development of the solar PV facility and BESS to provide clean, safe, affordable, efficient energy to the regional transmission grid. This project would likely connect to the existing, 115-kilovolt San Manuel Substation on the northern portion of the project area. Project development would likely take 2 to 3 years, for the planning, design, and construction of the facility. The project is on approximately 1,227.41 acres of private land in Sections 2, 4, 28, 32, and 33, Townships 9 and 10 South, Range 17 East, Gila and Salt River Baseline and Meridian, as depicted on the Peppersauce Wash, Arizona, U.S. Geological Survey (USGS) 7.5-minute quadrangle (Figure 2).

This BRE addresses the Endangered Species Act of 1973 (16 United States Code [USC] 1531 et seq.) (ESA), the Migratory Bird Treaty Act of 1918 (16 USC 703–712) (MBTA), the Bald and Golden Eagle Protection Act of 1940, as amended (16 USC 668–668d and 50 Code of Federal Regulations 22) (BGEPA), the Arizona Department of Agriculture (AZDA)–administered Arizona Native Plant Law (NPL) (Arizona Revised Statutes [ARS] 3-904), the AZDA's noxious weed regulations (Arizona Administrative Code R3-4-245), Pinal County Riparian Area Guidelines, and relevant items in the Arizona Game and Fish Department (AZGFD) *Guidelines for Solar Development in Arizona* (Guidelines) (AZGFD 2010), such as biological resource categories (i.e., wildlife corridors and linkages) and special-status species (i.e., Species of Greatest Conservation Need [SGCN]).



Figure 1. General location of the project area.



Figure 2. Project area location.

METHODS

Two SWCA biologists visited the project area on April 9 and 10, 2024, to collect the data necessary to complete this BRE. The U.S. Geological Survey Peppersauce, Arizona 7.5-minute quadrangle for Pinal County, Arizona, and files provided by 310SM 8me LLC were used for general orientation and to locate the project boundaries. The site visit consisted of a pedestrian survey of the project area to evaluate vegetation and landscape features considered important to the potential occurrence of special-status plant and animal species. This field reconnaissance did not include any species-specific surveys or any systematic surveys for protected biological components, such as bird nests, burrows, and vegetation density. Vegetation was classified to the community level according to the map "Biotic Communities of the Southwest" (Brown 1994). The Natural Resources Conservation Service (2024) PLANTS database was used for plant naming conventions. Federally listed plants are referred to by the nomenclature used by the U.S. Fish and Wildlife Service (USFWS) for listing.

RESULTS

The following subsections provide information based on our field reconnaissance and desktop analysis using the best available science on the current condition of the project area and also addresses all relevant federal, state, and local regulations related to the biological environment.

Ecological Overview

The project area is mapped within the Arizona Upland subdivision of the Sonoran Desertscrub biotic community (Brown 1994) at an elevation of approximately 3,100 to 3,300 feet above mean sea level (amsl). The project area is located directly east of South Veterans Memorial Boulevard, on a portion of the closed San Manuel Copper Mine. The San Pedro River lies approximately 2.75 miles northeast of the project area. Mine tailings occur adjacent to the project area to the northeast, and these mine tailings lie between the project area and the San Pedro River, removing connectivity of any of the ephemeral drainages in the project area to the San Pedro River. The project area is located in the northern portion of the San Pedro Basin, with the river ultimately joining the Gila River about 27 miles northwest of the project area.

No broadleaf deciduous riparian vegetation communities (i.e., communities containing cottonwood [*Populus* spp.], willow [*Salix* spp.], ash [*Fraxinus* spp.], etc.) were noted in the project area. No suitable bat roost sites (e.g., natural caves, mine features, buildings, palm trees [Family Arecaceae]) were noted in the project area. No milkweed plants (Family Asclepiadaceae) were observed in the project area.

Vegetation

Native plant species identified during the site visit included blue paloverde (*Parkinsonia florida*), bristly fiddleneck (*Amsinckia tessellata*), brittlebush (*Encelia farinosa*), brownplume wirelettuce (*Stephanomeria pauciflora*), brown-spined pricklypear (*Opuntia phaeacantha*), candy barrelcactus (*Ferocactus wislizeni*), chain-fruit cholla (*Cylindropuntia fulgida*), Coues' cassia (*Senna covesii*), creosote bush (*Larrea tridentata*), desert globemallow (*Sphaeralcea ambigua*), desert marigold (*Baileya multiradiata*), desertbroom (*Baccharis sarothroides*), distant phacelia (*Phacelia distans*), Engelmann's hedgehog cactus (*Echinocereus engelmannii*), Graham's nipple cactus (*Mammillaria grahamii*), mesquite mistletoe (*Phoradendron californicum*), New Mexico plumeseed (*Rafinesquia neomexicana*), ocotillo (*Fouquieria splendens*), saguaro (*Carnegiea gigantea*), soaptree yucca (*Yucca elata*), spreading fleabane (*Erigeron divergens*), teddybear cholla (*Cylindropuntia bigelovii*), tufted evening primrose (*Oenothera caespitosa*), velvet mesquite (*Prosopis* velutina), water jacket (*Lycium andersonii*), whitethorn acacia (*Vachellia constricta*), and yellow paloverde (*Parkinsonia microphylla*).

Non-native and invasive species observed include buffelgrass (*Pennisetum ciliare*), London rocket (*Sisymbrium irio*), redstem stork's bill (*Erodium cicutarium*) and Asian (=Saharan mustard) (*Brassica tournefortii*).

Wildlife

Nineteen avian species were documented within the project area during the site visit: ash-throated flycatcher (*Myiarchus cinerascens*), black-chinned hummingbird (*Archilochus alexandri*), black-throated sparrow (*Amphispiza bilineata*), common raven (*Corvus corax*), Costa's hummingbird (*Calypte costae*), curve-billed thrasher (*Toxostoma curvirostre*), Gambel's quail (*Callipepla gambelii*), Gila woodpecker (*Melanerpes uropygialis*), gray flycatcher (*Empidonax wrightii*), gray hawk (*Buteo plagiatus*), house finch (*Haemorhous mexicanus*), ladder-backed woodpecker (*Dryobates scalaris*), mourning dove (*Zenaida macroura*), northern mockingbird (*Mimus polyglottos*), phainopepla (*Phainopepla nitens*), Say's phoebe (*Sayornis saya*), turkey vulture (*Cathartes aura*), verdin (*Auriparus flaviceps*), and white-crowned sparrow (*Zonotrichia leucophrys*).

Other wildlife observed were black-tailed jackrabbit (*Lepus californicus*), desert cottontail (*Sylvilagus audubonii*), and painted lady (*Vanessa cardui*), with scat for American black bear (*Ursus americanus*) and mule deer (*Odocoileus hemionus*) seen within the project area. No burrows suitable for use by western burrowing owl (*Athene cunicularia hypugaea*) were observed within the project area.

Endangered Species Act

The ESA specifically prohibits the "take" of a listed endangered wildlife species on all lands (public or private). However, some listed threatened wildlife species have take protections if a 4(d) rule was established with the listing. The ESA does not provide the same take protections of plant species, except on federal land. Take is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to engage in any such conduct."

Federal species protected under the ESA and evaluated in this BRE were based on a county-level list of endangered, threatened, non-essential experimental population (EXPN), and candidate species obtained through the USFWS's online Information for Planning and Consultation (IPaC) system database for Pinal County, Arizona (USFWS 2024a). In Pinal County, the USFWS IPaC system (USFWS 2024a) lists 25 ESA species. However, even though Arizona eryngo (*Eryngium sparganophyllum*), California least tern (*Sternula antillarum browni*), and Sonoyta mud turtle (*Kinosternon sonoriense longifemorale*) appear in the IPaC query report for Pinal County, they are not known to occur in Pinal County. Therefore, their inclusion in the list is considered an IPaC error, and they are not analyzed in this document.

The project-specific IPaC lists include species that are currently listed as endangered or threatened under the ESA, as well as EXPN and candidate species (USFWS 2024b). The project-specific USFWS IPaC results (Appendix A) (USFWS 2024a) list eight ESA species that have the potential to occur in the project area: ocelot (*Leopardus* [=*Felis*] *pardalis*), cactus ferruginous pygmy-owl (*Glaucidium brasilianum cactorum*), Mexican spotted owl (*Strix occidentalis lucida*), yellow-billed cuckoo (*Coccyzus americanus*), Gila chub (*Gila intermedia*), Gila topminnow (*Poeciliopsis occidentalis*), monarch butterfly (*Danaus plexippus*), and Huachuca water-umbel (*Lilaeopsis schaffneriana* var. *recurva*).Whilst these 8 species are listed as potentially occurring, most are likely listed due to the proximity of the project area to the San Pedro River. According to the AZGFD Arizona Heritage Geographic Information System Online Environmental Review Tool (ERT) report (AZGFD 2024a), there are occurrence records for two ESA-listed species within 5 miles of the project area, southwestern willow flycatcher (*Empidonax traillii extimus*) and yellow-billed cuckoo).

The county-level USFWS list also indicated that designated critical habitat for eight ESA-listed species is present in Pinal County. However, review of the USFWS Critical Habitat Mapper indicates that none of these critical habitats are present in the project area (USFWS 2024c).

Species Evaluation

The species analysis (i.e., occurrence and effects) in this report is based on the ESA standard of reasonably certain to occur [50 CFR 402.02]. The potential for occurrence of each species was summarized according to the categories listed below. Because not all species are accommodated precisely by a given category (i.e., category definitions may be too restrictive), an expanded rationale for each category assignment is provided. Potential for occurrence categories are as follows.

- *Known to occur*—the species has been documented in the project area by a reliable observer.
- *May occur*—the project area is within the species' currently known range, and vegetation communities, soils, etc., resemble those known to be used by the species.
- *Unlikely to occur*—the project area is within the species' currently known range, but vegetation communities, soils, etc., do not resemble those known to be used by the species, or the project area is clearly outside the species' currently known range.

Species listed by the USFWS were assigned to one of three categories of possible effect, in accordance with the following USFWS recommendations:

- *May affect, is likely to adversely affect*—the proposed project is likely to adversely affect a listed species if 1) the species occurs or may occur in the project area and 2) any adverse effect on listed species may occur as a direct or indirect result of the proposed action or its interrelated or interdependent actions, and the effect is not discountable, insignificant, or beneficial.[1] In the event that the overall effect of the proposed action is beneficial to the listed species but also is likely to cause some adverse effects, the proposed action "is likely to adversely affect" the listed species.
- *May affect, is not likely to adversely affect*—the project is not likely to adversely affect a listed species if 1) the species may occur but its presence has not been documented and/or surveys following approved protocol have been conducted with negative results, and/or 2) project activity effects on a listed species are expected to be discountable, insignificant, or completely beneficial.
- *No effect*—the project will have no effect (including effects that may be beneficial, insignificant, or discountable) on a listed species if 1) the species is considered unlikely to occur (range, vegetation, soils, etc. are inappropriate), or 2) neither the species nor its sign were observed during surveys of the project area.

Because species not listed as threatened or endangered are not protected under the authority of the ESA, impact determinations for these species do not follow the above USFWS recommendations. Instead, the

[1] Beneficial effects are contemporaneous positive effects without any adverse effects on the species. Insignificant effects relate to the size of the impact and should never reach the scale where take occurs. Discountable effects are those extremely unlikely to occur. Based on best judgment, a person would not 1) be able to meaningfully measure, detect, or evaluate insignificant effects, or 2) expect discountable effects to occur.

impact determinations for any species listed as candidate or proposed endangered/threatened and not protected under the ESA are as follows:

- *No impact*—the project would have no impact on a species if 1) the species is considered unlikely to occur (range, vegetation, etc., are inappropriate) and 2) neither the species nor its sign was observed during surveys of the project area.
- *Beneficial impact*—the project is likely to benefit the species, whether it is currently present or not, by creating or enhancing habitat elements known to be used by the species.
- *May impact individuals but is not likely to result in a trend toward federal listing or loss of viability*—the project is not likely to adversely impact a species if 1) the species may occur but its presence has not been documented and 2) project activities would not result in disturbance to areas or habitat elements known to be used by the species.
- *May impact individuals and is likely to result in a trend toward federal listing or loss of viability*—the project is likely to adversely impact a species if 1) the species is known to occur in the project area and 2) project activities would disturb areas or habitat elements known to be used by the species or would directly affect an individual.

Species Occurrence and Effects Analysis

An analysis of potential occurrence and a determination of effect (based on the methods outlined in Section 4.2.1) for each of the 22 ESA species listed for Pinal County by the USFWS is provided in Table 1.

Table 1. Federally Listed Species Potentially Occurring in Pinal County, Arizona

Common Name (Species Name)	Status*	Range or Habitat Requirements	Potential for Occurrence in Project Area	Determination of Effect
Acuña cactus (*Echinomastus erectocentrus* var. *acunensis*)	E	Occurs in disjunct populations across southern Arizona on well-drained gravel ridges and knolls on granite-derived soils. It grows in the Arizona Upland subdivision of the Sonoran desertscrubbiotic community at elevations between 1,198 and 2,789 feet amsl. This species occurs in Maricopa, Pima, and Pinal Counties.	Unlikely to occur. There are no gravel ridges or knolls with granite-derived soils, and the project area is not within the current range of this species.	No effect.
Arizona hedgehog cactus (*Echinocereus arizonicus* ssp. *arizonicus*)	E	Found on open slopes of rugged, steep-walled canyons with granite or dacite bedrock among boulder piles in Arizona desert grassland and in the understory of shrubs in the ecotone between Madrean evergreen woodland and interior chaparral at elevations between 3,400 and 5,300 feet amsl. The species is found in Gila, Maricopa, and Pinal Counties.	Unlikely to occur. The project area does not contain canyons or woodlands suitable for species occurrence. The project area is not within the species' known range.	No effect.

Common Name (Species Name)	Status*	Range or Habitat Requirements	Potential for Occurrence in Project Area	Determination of Effect
Cactus ferruginous pygmy-owl (*Glaucidium brasilianum cactorum*)	T	Found in heavily wooded xeroriparian washes with large saguaros (Carnegiea gigantea) or trees with suitable cavities in Sonoran desertscrub or semidesert grassland. This species' distribution is currently limited to portions of Pima County in Arizona. In addition, pygmy-owls continue to be absent from Pinal County and around Tucson where they were found as recently as the early 2000s (USFWS 2022). This species still occupies historical locations in the Altar Valley, Avra Valley, and Organ Pipe Cactus National Monument, and it is known to occur on the Tohono O'odham Nation.	Unlikely to occur. This species' range is currently restricted to the Altar and Avra Valleys, which are approximately 60 and 40 miles southwest of the project area, respectively. The species would be unlikely to disperse from those areas to the project area since Interstate 10 is a barrier for this low-flying species.	No effect.
Chiricahua leopard frog (*Rana chiricahuensis*)	T	Historically occurred in cienegas, pools, livestock tanks, lakes, reservoirs, streams, and rivers at elevations of 3,281 to 8,890 feet amsl. It is now often restricted to springs, livestock tanks, and streams in the upper portions of watersheds where non-native predators either have yet to invade or habitats are marginal for them.	Unlikely to occur. The project area is not within the range of this species and does not contain suitable habitat for occurrence.	No effect.
Gila chub (*Gila intermedia*)	E	Found in pools in smaller streams, cienegas, and artificial ponds ranging in elevation from 2,000 to 5,500 feet amsl. Highly secretive, adults prefer deeper, quieter waters in pools and eddies below riffles or runs, often remaining in cover from terrestrial vegetation, boulders, and fallen logs.	Unlikely to occur. There are no permanent water sources suitable for this species in or adjacent to the project area.	No effect.
Gila topminnow (incl. Yaqui) (*Poeciliopsis occidentalis*)	E	Occurs in small streams, springs, and cienegas at elevations below 4,500 feet amsl, primarily in shallow areas with aquatic vegetation and debris for cover. In Arizona, most of the remaining native populations are in the Santa Cruz River system.	Unlikely to occur. There are no permanent water sources suitable for this species in or adjacent to the project area.	No effect.
Gila trout (*Oncorhynchus gilae*)	T	Occurs in small, mountain headwater streams above 5,000 feet amsl.	Unlikely to occur. There are no permanent water sources suitable for this species in or adjacent to the project area.	No effect.
Huachuca water-umbel (*Lilaeopsis schaffneriana* var. *recurva*)	E	Semi-aquatic to aquatic perennial found in shallow water or saturated soil of cienegas or marshy wetlands at elevations between 4,000 and 6,500 feet amsl. Known from the Huachuca Mountains, Canelo Hills, headwaters of the Santa Cruz River to Black Draw, and the San Pedro River.	Unlikely to occur. The project area does not contain water sources or saturated soils and is below the elevation required for species occurrence.	No effect.

Common Name (Species Name)	Status*	Range or Habitat Requirements	Potential for Occurrence in Project Area	Determination of Effect
Jaguar (*Panthera onca*)	E	Although jaguars were once more common in southern Arizona, currently they are most associated with expansive rugged areas within the Madrean evergreen woodland and semidesert grasslands biotic communities and distant from human presence and roads while near water, prey, and cover in the mountain ranges of southeastern Arizona. Additionally, valley bottoms and drainage features may provide travel corridors for jaguars between these areas. In the past 28 years (1996–2023), there have been reliable and spatially accurate sighting records of seven, possibly nine, male jaguars (including five individuals sighted multiple times) in the mountain ranges and canyons in southeastern Arizona (USFWS 2024d).	Unlikely to occur. Although the project area is within the historic geographic range of this species and the San Pedro River (a possible corridor) is 3 miles to the east, jaguars are unlikely to occur because of the lack of suitable habitat in the project area and their current known range in southeastern Arizona is distant from the project area.	No effect.
Loach minnow (*Tiaroga cobitis*)	E	Occurs in turbulent, rocky riffles of mainstream rivers and tributaries at or less than 7,200 feet amsl. Habitat that is occupied is relatively shallow and has a moderate to swift current, with gravel to cobble-dominated substrates.	Unlikely to occur. No permanent water sources are present in the project area.	No effect.
Mexican spotted owl (*Strix occidentalis lucida*)	T	Found in mature montane forests and woodlands and steep, shady, wooded canyons. Can also be found in mixed-conifer and pine–oak vegetation types. Generally, nests in older forests of mixed conifers or ponderosa pine (*Pinus ponderosa*)–Gambel oak (*Quercus gambelii*). Nests in live trees on natural platforms (e.g., dwarf mistletoe [*Arceuthobium* spp.] brooms), snags, and canyon walls at elevations between 4,100 and 9,000 feet amsl.	Unlikely to occur. The project area does not contain suitable habitat for this species, and the project area is below the known elevational range of this species.	No effect.
Mexican wolf (*Canis lupus baileyi*)	E/EXPN	In Arizona, most individuals only occur within the Mexican Wolf Experimental Population Area south of Interstate 40 to the United States–Mexico border; however, individuals have been documented infrequently traveling outside of this area. Mexican wolves are found in a variety of Southwestern habitats; however, they are absent from the desert areas and prefer mountain woodlands.	Unlikely to occur. The project area does not contain suitable habitat for the species and is outside the species' known range and known introduction areas. The project area is outside of the experimental population area.	No impact.

Common Name (Species Name)	Status*	Range or Habitat Requirements	Potential for Occurrence in Project Area	Determination of Effect
Monarch butterfly (*Danaus plexippus*)	C	A migratory species found in a variety of habitats; monarchs require milkweed (Family Asclepiadaceae) for breeding. During fall migration in Arizona, monarchs favor nectar from a variety of native plants and garden plants. Populations in Arizona can migrate either to California or Mexico for winter or may overwinter in the low deserts in California or Arizona. In the southwestern United States, migrating monarchs often occur near water sources (e.g., rivers, creeks, riparian corridors, roadside ditches, irrigated gardens). In the low deserts of Arizona, monarchs breed in late August to early September.	May occur. The project area could be potentially used as a migratory stopover as flowering plants are present. No milkweed species or individuals were observed during field reconnaissance and there are no occurrence records of the species or milkweed within the project area (Western Monarch Milkweed Mapper 2024).	Project activities would remove potential foraging plants. However, other foraging plants are present throughout the vicinity and removal of plants within the project area would not have a significant impact on the availability of foraging plants. As such, the project *may impact individuals but is not likely to result in a trend toward federal listing or loss of viability*.
Nichol's Turk's head cactus (*Echinocactus horizonthalonius* var. *nicholii*)	E	Found in Sonoran desertscrub with limestone-derived alluvium at elevations between 2,000 and 3,600 feet amsl. In Arizona, its known range is limited to the Waterman and Vekol Mountains.	Unlikely to occur. The project area is far from known populations in the Waterman and Vekol Mountains.	No effect.
Northern Mexican gartersnake (*Thamnophis eques megalops*)	T	This species is most abundant at elevations between 3,000 and 5,000 feet amsl in densely vegetated habitat surrounding cienegas, streams, and stock tanks, in or near water along streams in valley floors and generally open areas, but not in steep mountain canyon stream habitat (Rosen and Schwalbe 1988). Considered extant in fragmented populations within the middle to upper Verde River drainage, middle to lower Tonto Creek, Cienega Creek, and a small number of isolated wetland habitats elsewhere in southeastern Arizona.	Unlikely to occur. The project area is below the typical elevational range for the species, and suitable habitat for this species is not present in or adjacent to the project area.	No effect.
Ocelot (*Leopardus pardalis*)	E	In Arizona, this species has typically been observed in subtropical thorn forest, thornscrub, and dense, brushy thickets at elevations below 8,000 feet amsl and is often found in riparian bottomlands. The essential habitat component is dense cover near the ground and complete avoidance of open country. Most recently, this species has only been detected in the Huachuca Mountain range in southeastern Arizona.	Unlikely to occur. The species is very rare, and there are no dense, brushy thickets or riparian bottomlands in the project area. In addition, the project area is distant from the recent detections of the species.	No effect.
Razorback sucker (*Xyrauchen texanus*)	E	Found in riverine and lacustrine areas, generally not in fast-moving water, and may use backwaters at elevations below 6,000 feet amsl.	Unlikely to occur. There are no permanent water sources suitable for this species in or adjacent to the project area.	No effect.

Common Name (Species Name)	Status*	Range or Habitat Requirements	Potential for Occurrence in Project Area	Determination of Effect
Sonoran pronghorn (*Antilocapra americana sonoriensis*)	E/EXPN	Found in Sonoran desertscrub within broad, intermountain alluvial valleys with creosote bush (*Larrea tridentata*)–bursage (*Ambrosia* spp.) and paloverde (*Parkinsonia* spp.)–mixed cacti associations at elevations between 2,000 and 4,000 feet amsl. The only extant U.S. population is in southwestern Arizona; however, the USFWS has established two 10(j) areas for reintroductions. The current reintroduction locations are in and near the Kofa National Wildlife Refuge and within the Barry M. Goldwater Range East.	Unlikely to occur. Although the project area is within the experimental population area, no pronghorn reintroductions have occurred in this area, and the project area is outside the currently known range for this species.	No effect.
Southwestern willow flycatcher (*Empidonax traillii extimus*)	E	Found in dense riparian habitats along streams, rivers, and other wetlands where cottonwood, willow, boxelder (*Acer negundo*), saltcedar (*Tamarix ramosissima*), Russian olive (*Elaeagnus angustifolia*), buttonbush (*Cephalanthus* spp.), and arrowweed (*Pluchea sericea*) are present. Nests are found in thickets of trees and shrubs, primarily those that are 13 to 23 feet high, among dense, homogeneous foliage. Habitat occurs at elevations below 8,500 feet amsl.l	Unlikely to occur. There is no suitable habitat for this species in or near the project area. Although the Environmental Review Tool (ERT) results included a record of occurrence for this species within 5 miles (AZGFD 2024a), that record is likely along the San Pedro River.	No effect.
Spikedace (*Meda fulgida*)	E	Found in mid-water habitats, including runs, pools, and swirling eddies below 4,500 feet amsl.	Unlikely to occur. There is no suitable habitat for this species in or near the project area.	No effect.
Yellow-billed cuckoo (*Coccyzus americanus*)	T	Typically found in riparian woodland vegetation (cottonwood, willow, or saltcedar) at elevations below 6,600 feet amsl. Dense understory foliage appears to be an important factor in nest site selection. The highest concentrations in Arizona are along the Agua Fria, San Pedro, upper Santa Cruz, and Verde River drainages, and Cienega and Sonoita Creeks. Found in mid-water habitats, including runs, pools, and swirling eddies below 4,500 feet amsl.	Unlikely to occur. There is no suitable habitat for this species in or near the project area. Although the ERT results included a record of occurrence for this species within 5 miles (AZGFD 2024a), that record is likely along the San Pedro River. According to eBird (2024), there have been no recorded sightings within the project area or project vicinity.	No effect

Common Name (Species Name)	Status*	Range or Habitat Requirements	Potential for Occurrence in Project Area	Determination of Effect
Yuma Ridgway's rail (*Rallus obsoletus yumanensis*)	E	Typically associated with dense emergent riparian vegetation. The species requires wet substrate (mudflat, sandbar) with dense herbaceous or woody vegetation for nesting and foraging. Freshwater marshes dominated by cattail (*Typha* spp.) or bulrush (*Schoenoplectus* spp.) are preferred habitat. Marshes with little residual vegetation may be preferred as well. Habitat should be in a mosaic of vegetated areas interspersed with shallow (less than 12 inches) open water areas. The minimum size of suitable habitats is unclear, but the species has been found in areas as small as 2 to 3 acres, depending on the quality of the mosaic. Typically found below 4,500 feet amsl.	Unlikely to occur. There is no suitable habitat for this species in or near the project area.	No effect.

Sources: Range or habitat information is from the AZGFD (2024b); Arizona Rare Plant Committee (ca. 2001); Corman and Wise-Gervais (2005); and USFWS (2024e).

* USFWS Status Definitions:

C = Candidate. Candidate species are those for which the USFWS has sufficient information on biological vulnerability and threats to support proposals to list as endangered or threatened under the ESA. However, proposed rules have not yet been issued because such actions are precluded at present by other listing activity.

E = Endangered. An animal or plant species in danger of extinction throughout all or a significant portion of its range.

EXPN = Experimental Population, Non-Essential. Experimental populations of a species designated under Section 10(j) of the ESA for which the USFWS, through the best available information, believes is not essential for the continued existence of the species. Regulatory restrictions are considerably reduced under an EXPN designation.

T = Threatened. An animal or plant species likely to become endangered within the foreseeable future throughout all or a significant portion of its range.

Migratory Bird Treaty Act

The MBTA provides federal protection to nearly all birds native to North America, including their nests and eggs, on all lands (public or private). The MBTA does not protect nonnative bird species, and it does not protect certain native birds (quails, grouse, or turkeys, or their relatives). The MBTA defines "take" as "to pursue, hunt, take, capture, kill, attempt to take, capture, or kill, possess, offer for sale, sell, offer to barter, barter, offer to purchase, purchase, deliver for shipment, ship, export, import, cause to be shipped, exported, or imported, deliver for transportation, transport or cause to be transported, carry or cause to be carried, or receive for shipment, transportation, carriage, or export, any migratory bird, any part, nest, or egg of any such bird, or any product, whether or not manufactured, which consists, or is composed in whole or part, of any such bird or any part, nest, or egg thereof." Take is prohibited without a permit. If birds, nests, or eggs are present in the project area and cannot be avoided, they must be relocated before construction begins, which would require an MBTA permit from the USFWS.

If non–western burrowing owl MBTA-protected individuals or nests occur in the project area and cannot be avoided during construction, the nests and individuals will need to be relocated. The USFWS's Destruction and Relocation of Migratory Bird Nest Contents Memorandum states that if a nest is completely inactive at the time of destruction or movement, a permit is not required to comply with the MBTA (USFWS 2018). If vegetation clearing is expected to take place during the nesting season (i.e., generally mid-February through late September for most bird species and January through June for raptors), it is recommended that a nesting bird survey be conducted before vegetation-clearing activities are performed to locate any active nests. In central Arizona, some bird species are multi-clutch species, which means that they nest multiple times during the nesting season. Measures should then be taken to

protect the nest from destruction and to avoid a violation of the MBTA. To relocate or alter any non–burrowing owl MBTA-protected individuals or nests that are active, 310SM 8me LLC will need a permit from the USFWS for relocation.

Nineteen avian species were observed in the project area during field reconnaissance. Except for Gambel's quail, all of the birds observed and most of the potentially occurring species in the project area are protected under the MBTA. No birds' nests were observed during field reconnaissance.

The western burrowing owl is a common species in southern Arizona. However, this species is unlikely to occur in the project area. Suitable open habitat was not observed during field reconnaissance. No individuals or indicators of burrow use (e.g., fresh whitewash, fresh pellets, feathers, or nest ornamentation) by the western burrowing owl were observed in the project area. According to the ERT report (AZGFD 2024a), no occurrence records for the western burrowing owl exist within 5 miles of the project area.

Bald and Golden Eagles

Bald eagle (*Haliaeetus leucocephalus*) and golden eagle (*Aquila chrysaetos*) are protected under both the MBTA and the BGEPA on all lands (public or private). The BGEPA prohibits anyone without a permit from "taking" eagles, their parts, eggs, or nests. Take is defined by the BGEPA as "to pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb." The BGEPA's definition of "take" differs from the definition in the ESA in that it does not include habitat destruction or alteration, unless such damage "disturbs" an eagle. The BGEPA defines disturb as "to agitate or bother to a degree that causes, or is likely to cause, based on the best scientific information available, (1) injury to an eagle, (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior."

Bald eagles are found primarily near rivers and large lakes and nest in tall trees or on cliffs near water. Although this species typically hunts live prey (especially fish and waterfowl), it also scavenges in a wide variety of habitats. Wintering habitat is typically more general than nesting habitat. Bald eagles can occur anywhere in Arizona in winter, and the Little Colorado River provides the large, fish-bearing waters essential for bald eagle breeding (AZGFD 2022a). No suitable bald eagle nesting, foraging (e.g., flowing rivers or lakes containing fish) or perching habitat of tall trees, water towers, or high transmission towers are within the project area.

Golden eagles range across Arizona. Foraging habitat consists of open country, particularly in mountainous areas. Nesting habitat consists of rock ledges, cliffs, and large trees at elevations between 4,000 and 10,000 feet amsl (AZGFD 2022b). The ERT has occurrence records of the golden eagle within 5 miles of the project area (AZGFD 2024a). eBird (2024) shows two occurrence records for golden eagles within 1.6 miles of the project area, one to the south and one to the west. The project area does not contain suitable nesting, or perching habitat for the golden eagle. The project area may provide limited hunting habitat for the golden eagle as it contains desert vegetation and prey species. The ERT has occurrence records of the golden eagle within 5 miles of the project area (AZGFD 2024a). eBird (2024) shows two occurrence records for golden eagles within 1.6 miles of the project area, one to the south and one to the west.

Bald and golden eagles could fly over the project area for dispersal. In addition, the golden eagle may hunt within the project area. However, the area of impact for the project is localized and would represent an extremely small portion of an individual eagle's potential foraging area. Therefore, impacts to foraging eagles of either species would be unlikely to result from the proposed project activities.

State of Arizona and Local Conservation Priorities

The State of Arizona does not have an equivalent counterpart to the federal ESA, and there is no comparable permitting process for harm to wildlife during development. The AZGFD can provide an advisory role during the planning and permitting of energy infrastructure and may provide formal comments during state and local permitting processes. The AZGFD will also respond to requests for informal guidance from developers. The ERT may identify several categories of state conservation priorities, beyond the federal laws already addressed, as well as certain local conservation priorities identified at the county level. SWCA has included the results from the ERT query in this BRE in the event that stakeholders request consideration of these resources during the project's planning and permitting process (Appendix B) (AZGFD 2024a).

This section addresses the following resources:

- SGCN
- Species of Economic and Recreational Importance (SERI)
- Special areas
  - Wildlife corridors
  - Pinal County Riparian Habitat
  - Important Connectivity Zones
  - Conservation Opportunity Areas

Species of Greatest Conservation Need

"SGCN" is a non-regulatory AZGFD status that denotes wildlife of conservation priority in the state of Arizona (described nationally as Wildlife of Greatest Conservation Need). SGCN are species of vertebrates, crustaceans, and mollusks that rank high in the AZGFD vulnerability assessment and have been identified as priorities for immediate conservation action, as detailed in *The Arizona Wildlife Conservation Strategy (2022–2032)* (AZGFD 2022c). Each species is assessed by the AZGFD in terms of vulnerability and assigned a Tier 1, Tier 2, or Tier 3 ranking, with Tier 1 representing the highest threat level (AZGFD 2022c).

The SGCN list may overlap species already discussed above under relevant federal laws. SGCNs not otherwise protected by federal laws are not given additional protection under state law and are therefore not addressed in detail in this BRE. Appendix B provides the results of the ERT query, which identified 59 special-status species with occurrence records within 5 miles of the project area, including two amphibian species, 47 bird species, one fish species, one mammal species, five reptile species, and three plants (AZGFD 2024a). Two of these species are also federally listed species discussed in Table 1, and three of these species are protected native plants discussed in the Arizona Department of Agriculture Native Plant Law Section, below. Many of these species records likely originate from the San Pedro River, which lies approximately 2.75 miles northeast of the project area. However, many of the species use upland or xeroriparian habitat and have the potential to occur in the project area on a permanent or limited basis. The project may impact individuals of these species, but because abundant desertscrub habitat occurs in the vicinity of the project, the project is unlikely to impact any of these species on a population level.

Sonoran desert tortoise (*Gopherus morafkai*), an SGCN Tier 1 species additionally protected under ARS 17-306 and 17-309, has occurrence records within 5 miles of the project area (AZGFD 2024a). During the field survey, an SWCA biologist found suitable desert tortoise habitat, with the larger washes having caliche caves with potential for burrows, but no individuals or sign of tortoise (i.e., scat or active burrows)

were observed. Though Sonoran desert tortoise primarily occurs on rocky slopes, washes and valley bottoms may be used for dispersal, moving from one area of suitable habitat to another. The project area is within close proximity to suitable habitat in the Santa Catalina Mountains. In the event that a desert tortoise is encountered during construction activities, the *Guidelines for Handling Desert Tortoises Encountered on Development Projects* (AZGFD 2014) (Appendix C) should be followed.

Species of Economic and Recreational Importance

The ERT report indicates that six SERI, which are particular game species, are predicted to occur in or within a 5-mile radius of the project area: band-tailed pigeon (*Patagioenas fasciata*), Gambel's quail, javelina (*Dicotyles tajacu*), mountain lion (*Puma concolor*), mourning dove, and white-winged dove (*Zenaida asiatica*). SERI are not given special protection under state laws. Suitable habitat is present in the project area for all these SERI species except band-tailed pigeon and mountain lion. In southern Arizona, band-tailed pigeons are found in the sky islands and would not be expected in the project area's lower elevation. Mountain lions range throughout the state, but are concentrated in mountainous terrain of steep slopes, rocky crevices, and caves, in search of prey. The species travels frequently along ridgetops and uses riparian vegetation corridors for cover if traveling through open areas. A solitary species, mountain lions avoid areas of human development (AZGFD 2024b). Within the project area, suitable mountain lion habitat is significantly lacking, and the species would not be strongly attracted to hunt, shelter, or travel in or adjacent to the project's boundaries.

Special Areas

No wildlife movement corridors or important connectivity zones are mapped within the project area (AZGFD 2024a) (see Appendix B). Because mine tailings lie between the project area and the San Pedro River, the project area would provide minimal connectivity for wildlife movement on a landscape level. There are also no Conservation Opportunity Areas designated within the project area.

Pinal County has existing policies, codes, and regulations that stress the importance of riparian areas and provide guidance towards protecting them, including the Pinal County Comprehensive Plan, the Pinal County Open Space and Trails Master Plan, and the Pinal County Development Services Code. The *Pinal County Riparian Area Guidelines* (AZGFD 2019) provide a description of riparian areas and mitigation measures should a project be expected to impact a riparian area. The *Pinal County Riparian Area Guidelines* identify three categories of riparian habitat in Pinal County: hydroriparian areas, mesoriparian areas, and xeroriparian areas (Pinal County 2019):

A) Hydroriparian areas are critical landscape linkages that are associated with perennial or intermittent water sources and possess hydric soils or substrates. According to the *Pinal County Riparian Guidelines*, the only known hydroriparian areas in Pinal County include the Lower San Pedro River and the Gila River. Indicator species in hydroriparian areas include Goodding's willow (*Salix gooddingii*), Fremont cottonwood (*Populus fremontii*), Arizona sycamore (*Plananus wrightii*), seepwillow (*Baccharis salicifolia*), and coyote willow (*Salix exigua*).

B) Mesoriparian areas are of medium to high habitat quality that may also serve as critical landscape linkages. They are associated with intermittent water sources, ephemeral wetlands, or shallow groundwater and do not possess hydric soils as they are dry seasonally. In Pinal County, examples of mesoriparian areas include portions of the Lower San Pedro and Gila Rivers, Greene's Wash, Picacho Reservoir, and the Lower Santa Cruz River. Indicator species in mesoriparian areas include Goodding's willow, Fremont cottonwood, Arizona sycamore, Arizona walnut (*Juglans major*), netleaf hackberry (*Celtis reticulata*), seepwillow, arrow-weed (*Pluchea sericea*), and mesquite (*Prosopis* spp.).

C) Xeroriparian areas are of medium habitat quality that may also serve as critical landscape linkages. They are associated with ephemeral surface water and do not have hydric soils as they are dry most of the year. Indicator species for xeroriparian areas include blue paloverde, desert willow (*Chilopsis linearis*), desertbroom, fourwing saltbush (*Atriplex canescens*), brittlebush, acacia species (Family Fabaceae), tamarisk species (*Tamarix* spp.), and mesquite.

The ERT indicated that Pinal County riparian areas occurs in the project area (AZGFD 2024a; Pinal County 2019). The mapped riparian area in the project area is closely associated with xeroriparian desert scrub vegetation. The riparian areas within the project area are considered xeroriparian areas as defined by the *Pinal County Riparian Area Guidelines*. No indicator species for hydroriparian areas or mesoriparian areas occurred in the project area. Several of the indicator species for xeroriparian areas were observed within drainages in the project area, and the project area does not occur within the Gila River, San Pedro River, Greene's Wash, Picacho Reservoir, or the Lower Santa Cruz River. Pinal County riparian areas could be impacted if project development impacts the xeroriparian washes within the project area. The project proponent should work with Pinal County and the AZGFD to minimize or mitigate impacts to these areas.

Arizona Department of Agriculture Native Plant Law

The NPL (ARS 3-904) (AZDA 2024a) protects certain native plants on private and public lands in Arizona. The only exception to this law is for plant removal on federal and tribal lands, in which case the federal land management agency or the tribe must be contacted directly for guidance on their requirements for native plants. Harvest and transport of native plants or native plant materials from any land, including private land, requires permission from the landowner and a permit from the AZDA. The AZDA also requires notification before land clearing is undertaken, even if the plants would be destroyed or salvaged and replanted off-site. Appendix D provides the AZDA's Notice of Intent to Clear Land form, which lists submittal deadlines based on the acreage of vegetation removal. A separate application is required for the permits necessary to salvage and transport protected native plants off-site. The landowner has the right to transplant on-site or to destroy any plants occurring on the property without permits.

Twelve plant species documented in the project area are protected under the NPL: blue paloverde, brown-spined pricklypear, candy barrelcactus, chain-fruit cholla, Engelmann's hedgehog cactus, Graham's nipple cactus, ocotillo, saguaro, soaptree yucca, teddybear cholla, velvet mesquite, and yellow paloverde. Other protected native species have the potential to occur since a full inventory was not completed for this effort. If native plants on-site cannot be avoided during construction, the AZDA Notice of Intent to Clear Land form (see Appendix D) must be completed and submitted to the AZDA before any land-clearing activities are undertaken.

Arizona Department of Agricultural Noxious Weed Regulations

Two restrictions have been developed to control noxious weeds in Arizona (the AZDA definitions of the three classes of noxious weeds are given below). First, a Class A, B, or C noxious weed or a commodity infested or contaminated with a Class A, B, or C noxious weed cannot be admitted into the state unless otherwise authorized by the AZDA. Second, the AZDA may quarantine and abate an area infested or contaminated with a Class A or Class B noxious weed if it has been determined that an imminent threat to agriculture or horticulture exists.

The AZDA defines three classes of noxious weeds in the state of Arizona (Arizona Administrative Code R3-4-245) (AZDA 2024b):

- Class A is categorized as a species of plant that is not known to exist or that is of limited distribution in the state and is a high-priority pest for quarantine, control, or mitigation.
- Class B is categorized as a species of plant that is known to occur but that is of limited distribution in the state and may be a high-priority pest for quarantine, control, or mitigation if a significant threat to a crop, commodity, or habitat is known to exist.
- Class C is categorized as a species of plant that is widespread but may be recommended for active control based on risk assessment.

Two noxious weed species were observed in the project area: buffelgrass and Asian (=Saharan) mustard. Asian mustard is classified as a Class B noxious weed, and buffelgrass is classified as a Class C noxious weed.

Typical best management practices (such as cleaning equipment before entering the site and again before leaving the site, as well as using weed-free materials such as soil and gravel) can minimize the spread of noxious weed species.

Arizona Game and Fish Department Solar Development Guidance

The AZGFD's *Guidelines for Solar Development in Arizona* (Guidelines) outline regulations and important biological resource categories, such as wildlife corridors/linkages, SGCN from AZGFD's *Arizona Wildlife Conservation Strategy 2022–2032*, and wildlife habitat, which should be considered and addressed for solar developments (AZGFD 2010). The relevant biological regulations mentioned in the Guidelines are addressed in this report, as well as all special-status species. The project area does not intersect any wildlife movement areas (Appendix B).

The AZGFD Guidelines also refer to potential solar site categories. In SWCA's opinion, this project area would fall under Resource Category IV. AZGFD (2010) defines Resource Category IV as "Habitats in this category are of medium to low value for Arizona wildlife species, due to proximity to urban development or low productivity associated with these lands." Examples of such habitats would be agricultural lands, undeveloped urban areas, or habitats exhibiting low wildlife productivity as a result of human influences (AZGFD 2010).

310SM 8me LLC should consider consulting the Guidelines, some of which are also provided on pages 12 to 14 of the ERT report (see Appendix B), during site design and development to incorporate any relevant recommendations presented in the Guidelines that could preserve wildlife resources in the project vicinity.

RECOMMENDATIONS

The following items are recommendations for maintaining the project's compliance with environmental regulations:

- If vegetation-disturbing activities are planned to occur during the migratory bird nesting season (February–September, or January–June for raptors), measures to avoid any active bird nests within the project area, such as preconstruction surveys for migratory bird nests conducted by a qualified biologist, should be taken to maintain compliance with the MBTA.
- Should a Sonoran desert tortoise be encountered during project activities, reference the *Guidelines for Handling Desert Tortoises Encountered on Development Projects* (Appendix C).

- The ADA Notice of Intent to Clear Land form should be filled out and submitted to the ADA prior to conducting land-disturbing activities at least 60 days before land clearing begins (see Appendix D).
- To minimize the introduction and spread of invasive species and noxious weeds, use standard best management practices during construction. These practices can include measures such as cleaning equipment prior to and following mobilization to the project area.
- Although currently the western burrowing owl is unlikely to occur, site conditions may change prior to construction. Therefore, if a western burrowing owl is observed prior to or during construction activities, SWCA recommends following the *Burrowing Owl Project Clearance Guidance for Landowners* (ABOWG 2009) for further guidance (see Appendix E), which includes preconstruction surveys for the species.

LIMITATIONS AND WARRANTY

Within the limitations of schedule, budget, and scope of work, SWCA warrants that this study was conducted in accordance with accepted environmental science practices, including the technical guidelines, evaluation criteria, and species' listing status in effect at the time this evaluation was performed, as outlined in the species evaluation.

The results and conclusions of this report represent the best professional judgment of SWCA scientists and are based on information provided by the project proponent and on information obtained from agencies and other sources during the course of the study. No other warranty, expressed or implied, is made. This report should be reviewed by the appropriate regulatory agencies prior to any detailed site-planning or construction activities.

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APPENDIX A

USFWS-Listed Species IPaC Database Receipt

IPaC **U.S. Fish & Wildlife Service**

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

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Location

Pinal County, Arizona



Local office

Arizona Ecological Services Field Office

(602) 242-0210
(602) 242-2513

9828 North 31st Ave
#c3
Phoenix, AZ 85051-2517

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Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

---

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

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2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
Ocelot Leopardus (=Felis) pardalis Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4474	Endangered

Birds

NAME	STATUS
Cactus Ferruginous Pygmy-owl Glaucidium brasilianum cactorum Wherever found There is **final** critical habitat for this species. https://ecos.fws.gov/ecp/species/1225	Threatened
Mexican Spotted Owl Strix occidentalis lucida Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/8196	Threatened
Yellow-billed Cuckoo Coccyzus americanus There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/3911	Threatened

Fishes

NAME	STATUS
Gila Chub Gila intermedia Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/51	Endangered

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Gila Topminnow (incl. Yaqui) Poeciliopsis occidentalis Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/1116	Endangered

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Flowering Plants

NAME	STATUS
Huachuca Water-umbel Lilaeopsis schaffneriana var. recurva Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/1201	Endangered

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

There are no documented cases of eagles being present at this location. However, if you believe eagles may be using your site, please reach out to the local Fish and Wildlife Service office.

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Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply). To see a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

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Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats[3] should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON

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Bendire's Thrasher Toxostoma bendirei — Breeds Mar 15 to Jul 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9435

Black-chinned Sparrow Spizella atrogularis — Breeds Apr 15 to Jul 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9447

Gilded Flicker Colaptes chrysoides — Breeds May 1 to Aug 10
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/2960

Phainopepla Phainopepla nitens lepida — Breeds Mar 1 to Aug 20
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/1372

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Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

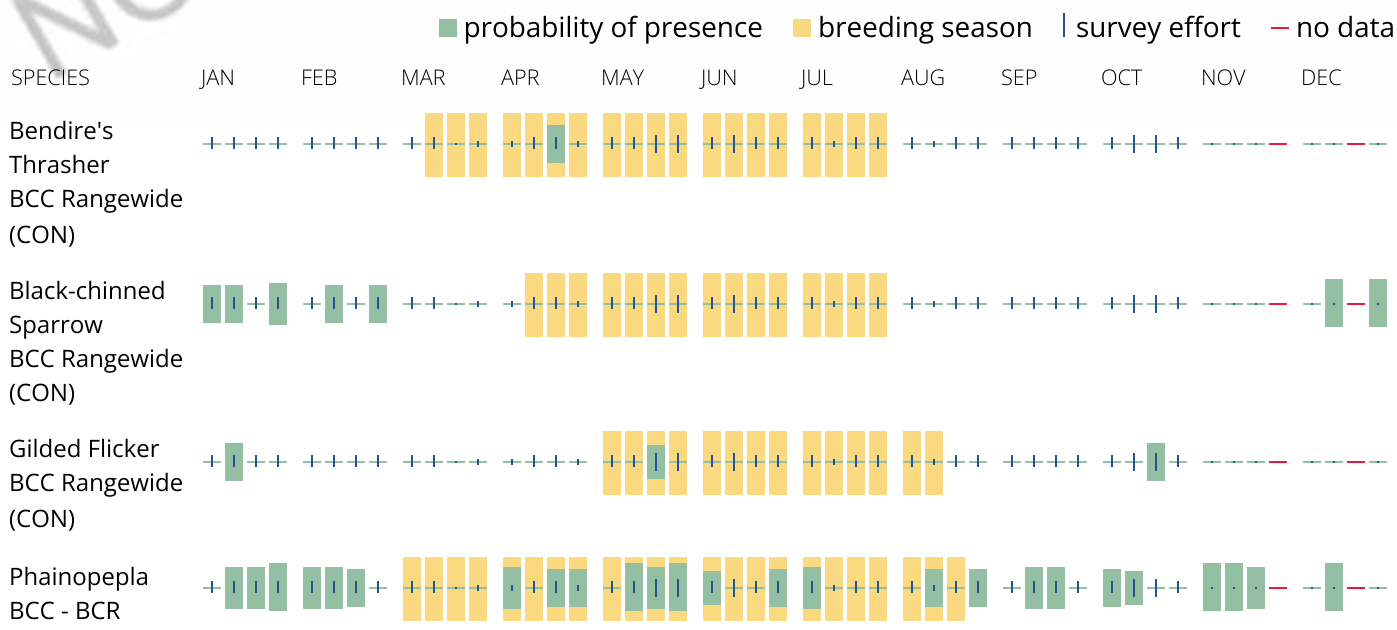
Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

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Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

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1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or

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minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER POND

PUSAh

RIVERINE

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R4SBC

A full description for each wetland code can be found at the National Wetlands Inventory website

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

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APPENDIX B

AZGFD ERT Report

Arizona Environmental Online Review Tool Report

Arizona Game and Fish Department Mission
To conserve Arizona's diverse wildlife resources and manage for safe, compatible outdoor recreation opportunities for current and future generations.

Project Name:

Ore Town Solar

Project Description:

SWCA Environmental Consultants (SWCA) understands that Avantus is evaluating a potential solar development on up to approximately 1,100 acres in unincorporated Pinal County, referred to as Ore Town Solar Project (project).

Project Type:

Energy Production/Storage/Transfer, Energy Production (generation), photovoltaic solar facility (new/expansion)

Contact Person:

Neil Clark

Organization:

SWCA

On Behalf Of:

FERC

Project ID:

HGIS-21512

Please review the entire report for project type and/or species recommendations for the location information entered. Please retain a copy for future reference.

Disclaimer:

1. This Environmental Review is based on the project study area that was entered. The report must be updated if the project study area, location, or the type of project changes.
2. This is a preliminary environmental screening tool. It is not a substitute for the potential knowledge gained by having a biologist conduct a field survey of the project area. This review is also not intended to replace environmental consultation (including federal consultation under the Endangered Species Act), land use permitting, or the Departments review of site-specific projects.
3. The Departments Heritage Data Management System (HDMS) data is not intended to include potential distribution of special status species. Arizona is large and diverse with plants, animals, and environmental conditions that are ever changing. Consequently, many areas may contain species that biologists do not know about or species previously noted in a particular area may no longer occur there. HDMS data contains information about species occurrences that have actually been reported to the Department. Not all of Arizona has been surveyed for special status species, and surveys that have been conducted have varied greatly in scope and intensity. Such surveys may reveal previously undocumented population of species of special concern.
4. Arizona Wildlife Conservation Strategy (AWCS), specifically Species of Greatest Conservation Need (SGCN), represent potential species distribution models for the State of Arizona which are subject to ongoing change, modification and refinement. The status of a wildlife resource can change quickly, and the availability of new data will necessitate a refined assessment.

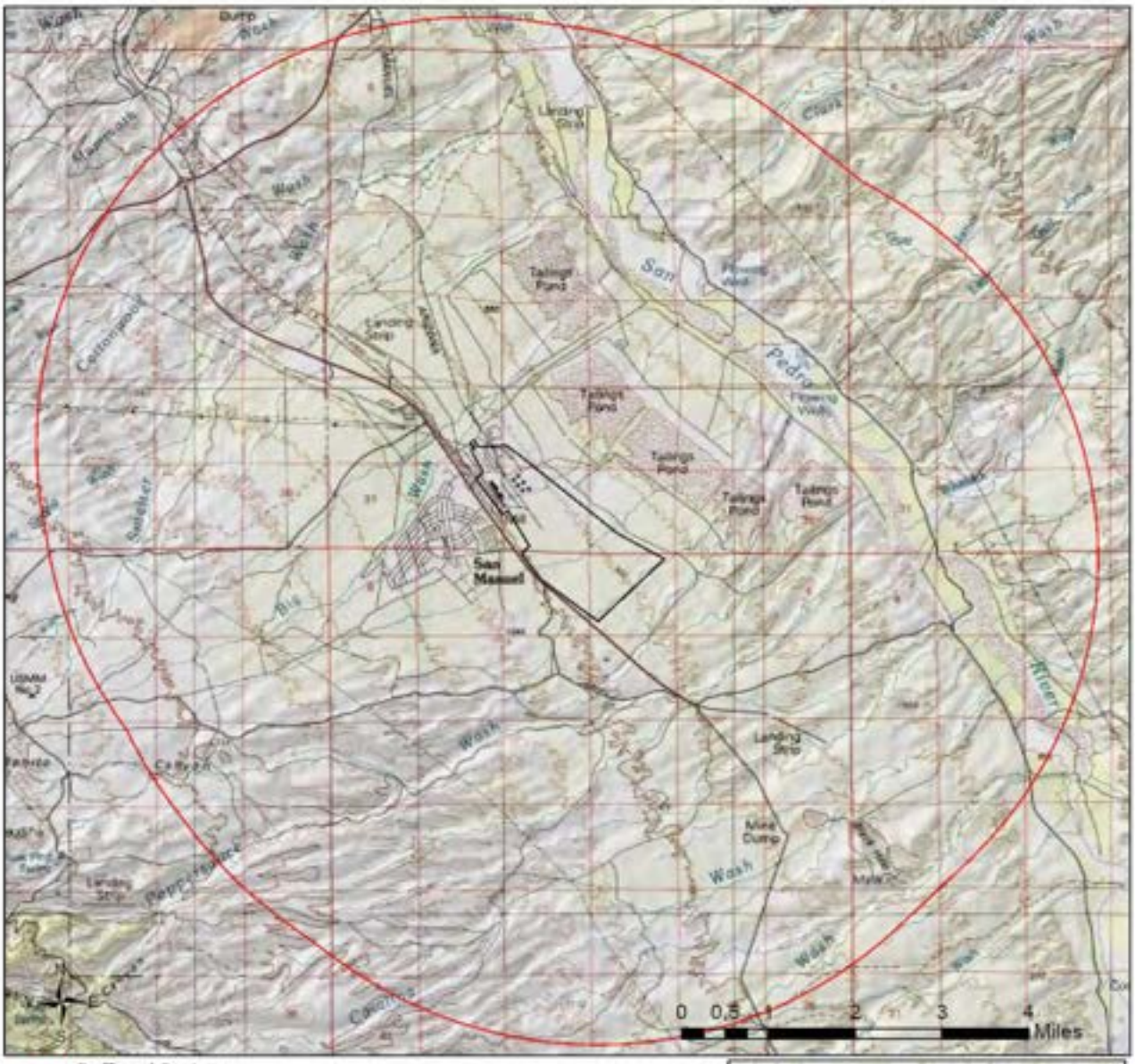
Locations Accuracy Disclaimer:
Project locations are assumed to be both precise and accurate for the purposes of environmental review. The creator/owner of the Project Review Report is solely responsible for the project location and thus the correctness of the Project Review Report content.

Recommendations Disclaimer:

1. The Department is interested in the conservation of all fish and wildlife resources, including those species listed in this report and those that may have not been documented within the project vicinity as well as other game and nongame wildlife.
2. Recommendations have been made by the Department, under authority of Arizona Revised Statutes Title 5 (Amusements and Sports), 17 (Game and Fish), and 28 (Transportation).
3. Potential impacts to fish and wildlife resources may be minimized or avoided by the recommendations generated from information submitted for your proposed project. These recommendations are preliminary in scope, designed to provide early considerations on all species of wildlife.
4. Making this information directly available does not substitute for the Department's review of project proposals, and should not decrease our opportunity to review and evaluate additional project information and/or new project proposals.
5. Further coordination with the Department requires the submittal of this Environmental Review Report with a cover letter and project plans or documentation that includes project narrative, acreage to be impacted, how construction or project activity(s) are to be accomplished, and project locality information (including site map). Once AGFD had received the information, please allow 30 days for completion of project reviews. Send requests to:
   Project Evaluation Program, Habitat Branch
   Arizona Game and Fish Department
   5000 West Carefree Highway
   Phoenix, Arizona 85086-5000
   Phone Number: (623) 236-7600
   Fax Number: (623) 236-7366
   Or
   PEP@azgfd.gov
6. Coordination may also be necessary under the National Environmental Policy Act (NEPA) and/or Endangered Species Act (ESA). Site specific recommendations may be proposed during further NEPA/ESA analysis or through coordination with affected agencies.

Ore Town Solar

USA Topo Basemap With Locator Map



Buffered Project Boundary

Project Boundary

Project Size (acres): 1,207.67

Lat/Long (DD): 32.6032 / -110.6078

County(s): Pinal

AGFD Region(s): Tucson

Township/Range(s): T10S, R17E; T9S, R17E

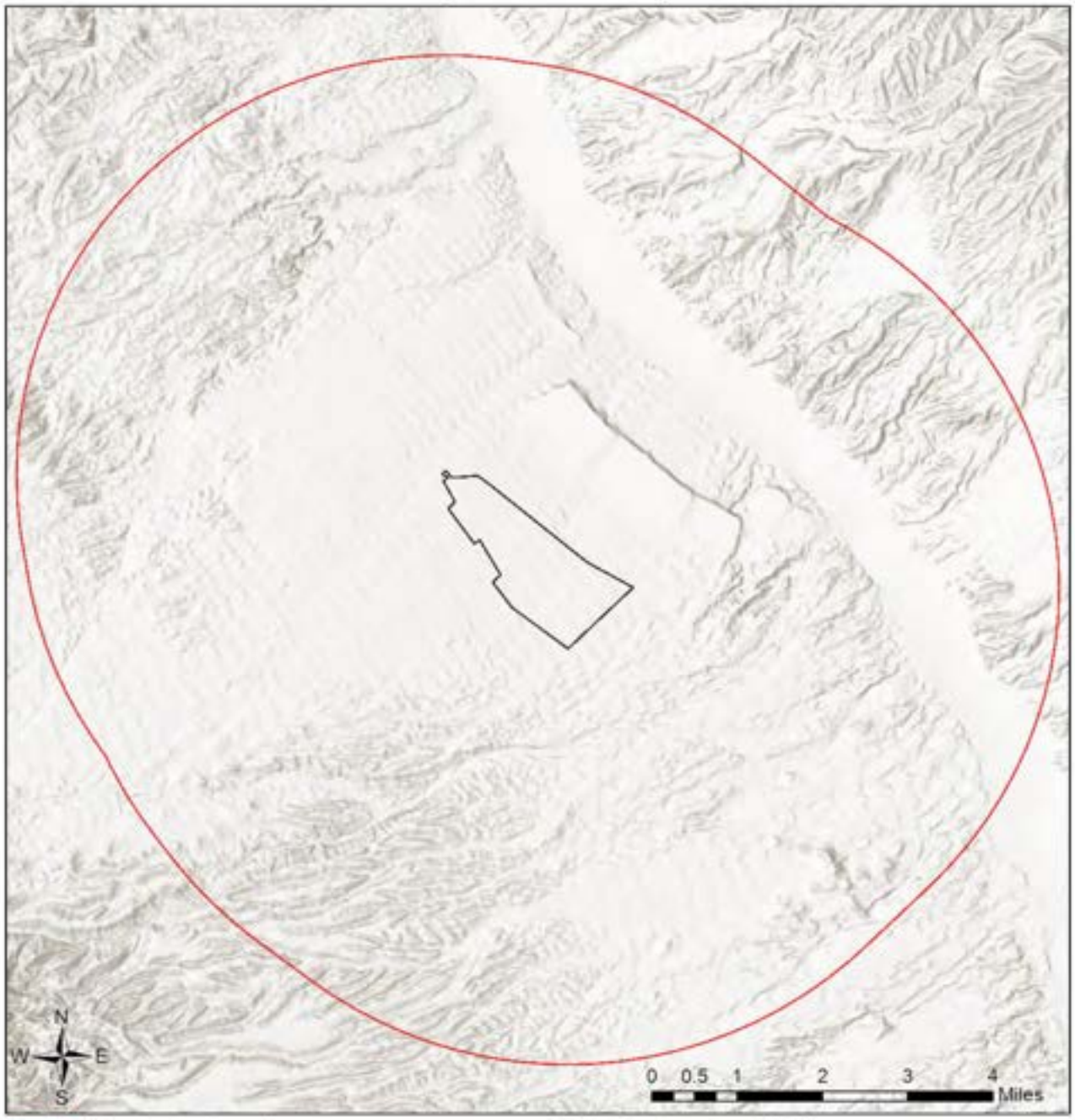
USGS Quad(s): CAMPO BONITO; PEPPERSAUCE WASH



Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, IKCEAS, IILS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community

Ore Town Solar

Web Map As Submitted By User



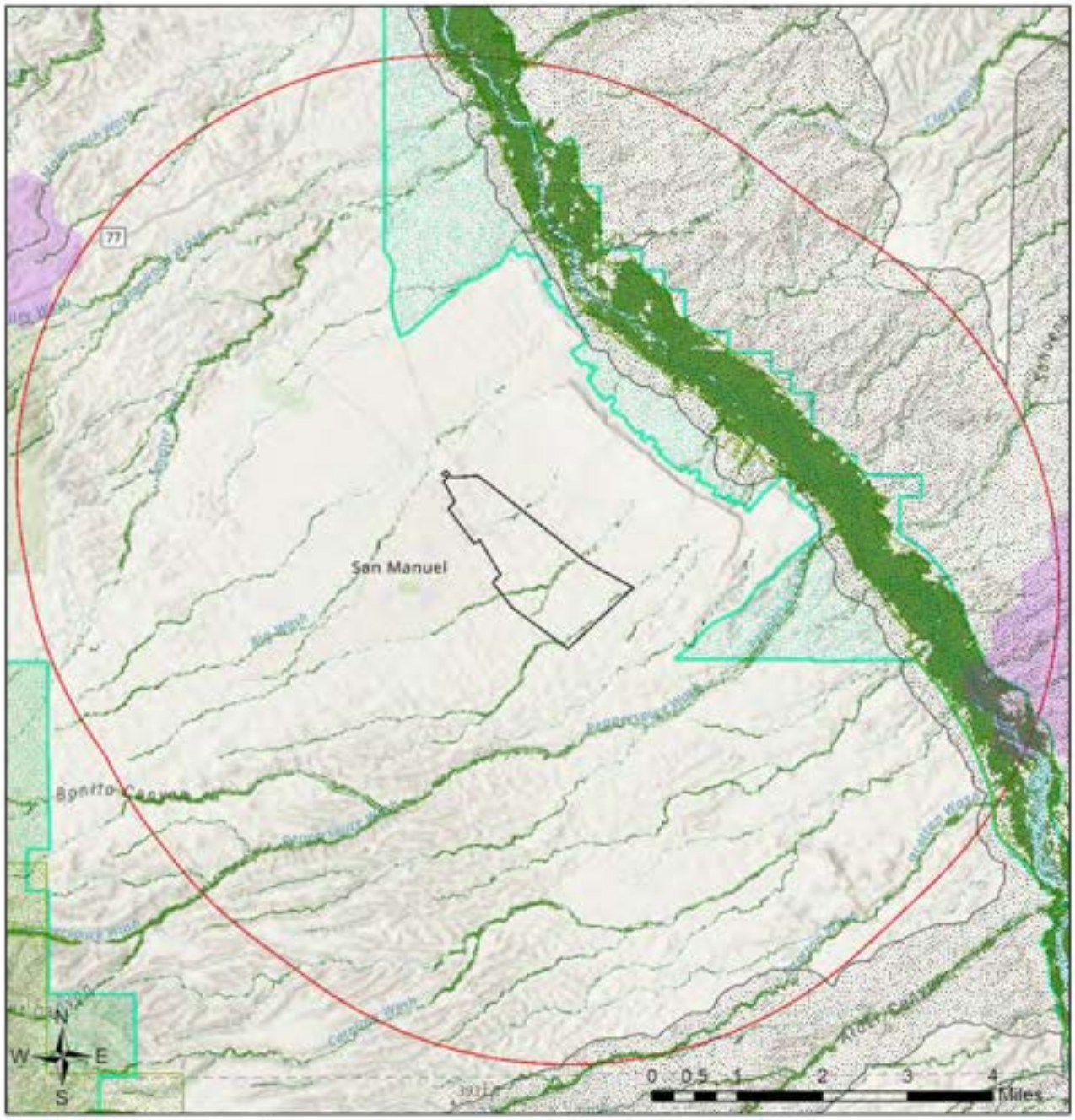
Buffered Project Boundary
Project Boundary

Project Size (acres): 1,207.67
Lat/Long (DD): 32.6032 / -110.6078
County(s): Pinal
AGFD Region(s): Tucson
Township/Range(s): T10S, R17E; T9S, R17E
USGS Quad(s): CAMPO BONITO; PEPPERSAUCE WASH

Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community

Ore Town Solar

Important Areas



- Buffered Project Boundary
- Project Boundary
- Important Bird Areas
- Critical Habitat
- Pinal County Riparian
- Important Connectivity Zones
- Wildlife Connectivity

Project Size (acres): 1,207.67

Lat/Long (DD): 32.6032 / -110.6078

County(s): Pinal

AGFD Region(s): Tucson

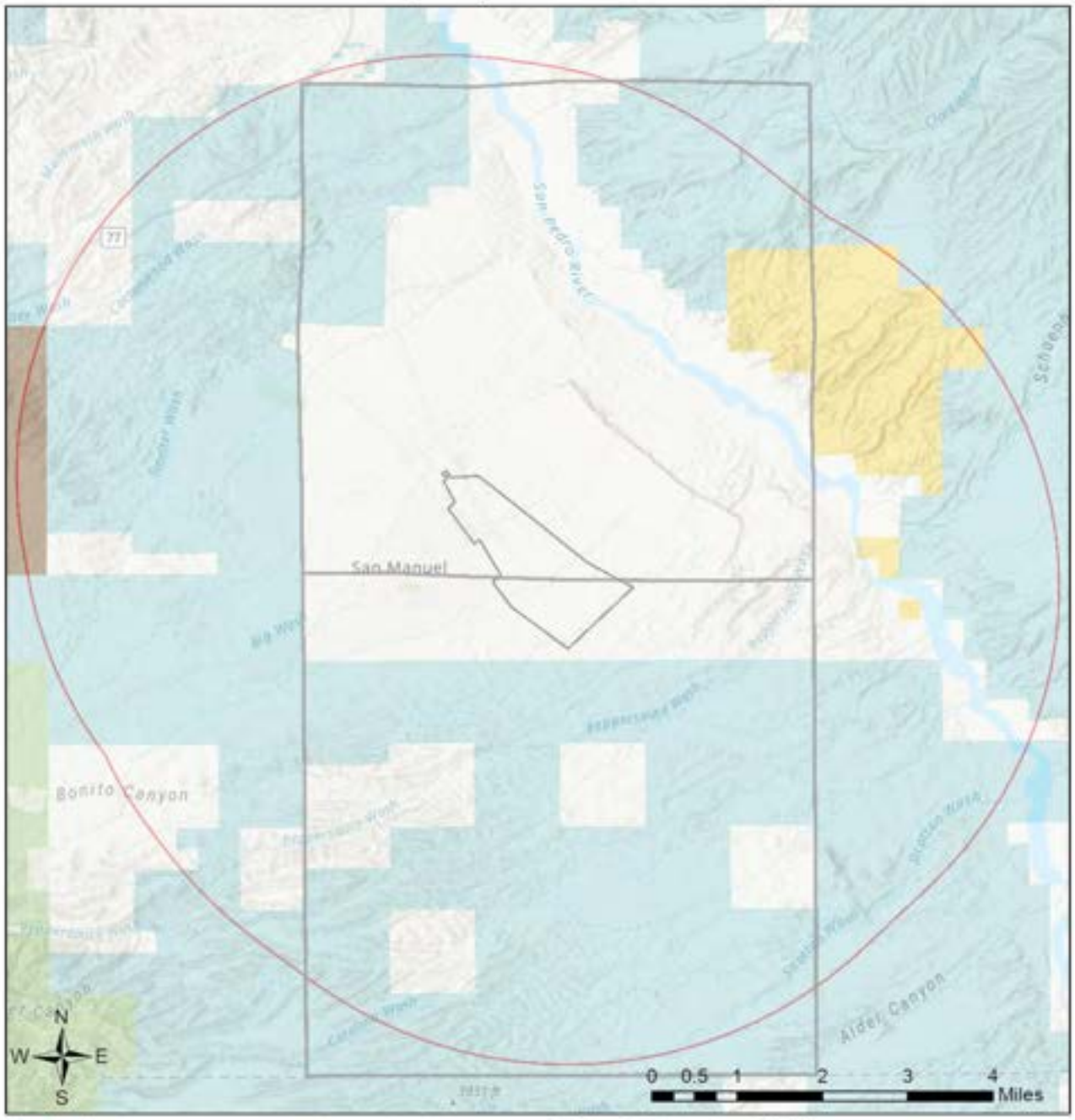
Township/Range(s): T10S, R17E; T9S, R17E

USGS Quad(s): CAMPO BONITO; PEPPERSAUCE WASH

Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community
Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

Ore Town Solar

Township/Ranges and Land Ownership



- Buffered Project Boundary
- Project Boundary
- AZ Game & Fish Dept.
- BLM
- BOR
- Indian Res.
- Military
- Mixed/Other
- National Park/Mon.
- Private
- State & Regional Parks
- State Trust
- US Forest Service
- Wildlife Area/Refuge
- Township/Ranges

Project Size (acres): 1,207.67

Lat/Long (DD): 32.6032 / -110.6078

County(s): Pinal

AGFD Region(s): Tucson

Township/Range(s): T10S, R17E; T9S, R17E

USGS Quad(s): CAMPO BONITO; PEPPERSAUCE WASH

Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community
Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

Special Status Species Documented within 5 Miles of Project Vicinity

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Agelaius phoeniceus	Red-winged Blackbird					2
Agosia chrysogaster chrysogaster	Gila Longfin Dace	SC		S		
Amphispiza bilineata	Black-throated Sparrow					2
Anthus rubescens	American Pipit					2
Aphelocoma woodhouseii	Woodhouse's Scrub-Jay					2
Aquila chrysaetos	Golden Eagle			S		2
Asio otus	Long-eared Owl					2
Aspidoscelis sonorae	Sonoran Spotted Whiptail					2
Auriparus flaviceps	Verdin					2
Buteo plagiatus	Gray Hawk	SC				
Buteo swainsoni	Swainson's Hawk					2
Calamospiza melanocorys	Lark Bunting					2
Calypte costae	Costa's Hummingbird					2
Camptostoma imberbe	Northern Beardless-Tyrannulet		S			2
Campylorhynchus brunneicapillus	Cactus Wren					2
Cardinalis sinuatus	Pyrrhuloxia					2
Chordeiles minor	Common Nighthawk					2
Coccyzus americanus	Yellow-billed Cuckoo (Western DPS)	LT	S	S		1
Colaptes chrysoides	Gilded Flicker			S		2
Coluber bilineatus	Sonoran Whipsnake					2
Columbina inca	Inca Dove					2
Contopus cooperi	Olive-sided Flycatcher	SC				2
Contopus sordidulus	Western Wood-Pewee					2
Corvus cryptoleucus	Chihuahuan Raven					2
Cynanthus latirostris	Broad-billed Hummingbird		S			2
Echinomastus erectocentrus var. erectocentrus	Needle-spined Pineapple Cactus	SC			SR	
Empidonax traillii extimus	Southwestern Willow Flycatcher	LE				1
Empidonax traillii extimus	Southwestern Willow Flycatcher	LE		S		1
Empidonax wrightii	Gray Flycatcher					2
Eriogonum capillare	San Carlos Wild-buckwheat	SC			SR	
Falco peregrinus anatum	American Peregrine Falcon	SC	S	S		1
Falco sparverius	American Kestrel					2
Geothlypis tolmiei	MacGillivray's Warbler					2
Gopherus morafkai	Sonoran Desert Tortoise	CCA	S	S		1
Heloderma suspectum	Gila Monster					1
Icterus bullockii	Bullock's Oriole					2
Icterus cucullatus	Hooded Oriole					2
Icterus parisorum	Scott's Oriole					2
Ictinia mississippiensis	Mississippi Kite					2

Special Status Species Documented within 5 Miles of Project Vicinity

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Incilius alvarius	Sonoran Desert Toad					2
Lanius ludovicianus	Loggerhead Shrike	SC				2
Lepus alleni	Antelope Jackrabbit					2
Megascops kennicottii	Western Screech-owl					2
Megascops trichopsis	Whiskered Screech-owl		S			2
Melanerpes uropygialis	Gila Woodpecker					2
Melospiza lincolnii	Lincoln's Sparrow					2
Melozone aberti	Abert's Towhee		S			2
Melozone fusca	Canyon Towhee					2
Myiarchus tuberculifer	Dusky-capped Flycatcher					2
Opuntia versicolor	Stag-horn Cholla				SR	
Parabuteo unicinctus	Harris's Hawk					2
Patagioenas fasciata	Band-tailed Pigeon					2
Peucaea carpalis	Rufous-winged Sparrow					2
Pooecetes gramineus	Vesper Sparrow					2
Rana yavapaiensis	Lowland Leopard Frog	SC	S	S		1
Selasphorus platycercus	Broad-tailed Hummingbird					2
Setophaga nigrescens	Black-throated Gray Warbler					2
Spizella breweri	Brewer's Sparrow					2
Terrapene ornata luteola	Desert Box Turtle			S		
Tyrannus crassirostris	Thick-billed Kingbird		S			2

Note: Status code definitions can be found at https://www.azgfd.com/wildlife-conservation/on-the-ground-conservation/state-wildlife-action-plan/state-wildlife-action-plan-status-definitions/.

Special Areas Documented that Intersect with Project Footprint as Drawn

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Riparian Area	Riparian Area					

Note: Status code definitions can be found at https://www.azgfd.com/wildlife-conservation/on-the-ground-conservation/state-wildlife-action-plan/state-wildlife-action-plan-status-definitions/.

Species of Greatest Conservation Need Predicted that Intersect with Project Footprint as Drawn, based on Predicted Range Models

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Ammospermophilus harrisii	Harris' Antelope Squirrel					
Anthus spragueii	Sprague's Pipit	SC				2
Antrostomus ridgwayi	Buff-collared Nightjar		S			2
Aquila chrysaetos	Golden Eagle			S		2
Artemisiospiza nevadensis	Sagebrush Sparrow					
Asio otus	Long-eared Owl					2

Species of Greatest Conservation Need Predicted that Intersect with Project Footprint as Drawn, based on Predicted Range Models

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Aspidoscelis sonorae	Sonoran Spotted Whiptail					2
Auriparus flaviceps	Verdin					2
Botaurus lentiginosus	American Bittern					2
Buteo regalis	Ferruginous Hawk	SC		S		2
Buteo swainsoni	Swainson's Hawk					2
Buteogallus anthracinus	Common Black Hawk					2
Calypte costae	Costa's Hummingbird					2
Camptostoma imberbe	Northern Beardless-Tyrannulet		S			2
Campylorhynchus brunneicapillus	Cactus Wren					2
Chaetodipus baileyi	Bailey's Pocket Mouse					2
Charadrius montanus	Mountain Plover	SC				2
Chilomeniscus stramineus	Variable Sandsnake					2
Choeronycteris mexicana	Mexican Long-tongued Bat	SC	S	S		2
Coccyzus americanus	Yellow-billed Cuckoo (Western DPS)					
Colaptes chrysoides	Gilded Flicker			S		2
Coluber bilineatus	Sonoran Whipsnake					2
Columbina inca	Inca Dove					2
Corvus cryptoleucus	Chihuahuan Raven					2
Corynorhinus townsendii pallescens	Pale Townsend's Big-eared Bat	SC	S	S		1
Crotalus tigris	Tiger Rattlesnake					2
Empidonax traillii extimus	Southwestern Willow Flycatcher					
Empidonax wrightii	Gray Flycatcher					2
Eumops perotis californicus	Greater Western Bonneted Bat					
Falco mexicanus	Prairie Falcon					2
Falco peregrinus anatum	American Peregrine Falcon					
Falco sparverius	American Kestrel					2
Gopherus morafkai	Sonoran Desert Tortoise	CCA	S	S		1
Heloderma suspectum	Gila Monster					1
Icterus bullockii	Bullock's Oriole					2
Icterus cucullatus	Hooded Oriole					2
Ictinia mississippiensis	Mississippi Kite					2
Incilius alvarius	Sonoran Desert Toad					2
Kinosternon sonoriense sonoriense	Desert Mud Turtle					
Lanius ludovicianus	Loggerhead Shrike	SC				2
Lasiurus blossevillii	Western Red Bat		S			2
Lasiurus cinereus	Hoary Bat					2
Lasiurus xanthinus	Western Yellow Bat		S			2
Leptonycteris yerbabuenae	Lesser Long-nosed Bat	SC				1
Lepus alleni	Antelope Jackrabbit					2

Species of Greatest Conservation Need Predicted that Intersect with Project Footprint as Drawn, based on Predicted Range Models

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Lithobates yavapaiensis	Lowland Leopard Frog	SC	S	S		1
Macrotus californicus	California Leaf-nosed Bat	SC		S		2
Megascops kennicottii	Western Screech-owl					
Melanerpes uropygialis	Gila Woodpecker					2
Melospiza lincolnii	Lincoln's Sparrow					2
Melozone aberti	Abert's Towhee		S			2
Micrathene whitneyi	Elf Owl					
Micruroides euryxanthus	Sonoran Coralsnake					2
Myadestes townsendi	Townsend's Solitaire					2
Myotis thysanodes	Fringed Myotis	SC				2
Myotis velifer	Cave Myotis	SC		S		2
Myotis yumanensis	Yuma Myotis	SC				2
Nyctinomops femorosaccus	Pocketed Free-tailed Bat					2
Nyctinomops macrotis	Big Free-tailed Bat	SC				2
Parabuteo unicinctus	Harris's Hawk					2
Passerculus sandwichensis	Savannah Sparrow					2
Perognathus amplus	Arizona Pocket Mouse					2
Peucaea carpalis	Rufous-winged Sparrow					2
Phrynosoma solare	Regal Horned Lizard					2
Phyllorhynchus browni	Saddled Leaf-nosed Snake					2
Pooecetes gramineus	Vesper Sparrow					2
Progne subis hesperia	Desert Purple Martin					
Spizella breweri	Brewer's Sparrow					2
Tadarida brasiliensis	Brazilian Free-tailed Bat					
Terrapene ornata	Ornate Box Turtle			S		1
Toxostoma bendirei	Bendire's Thrasher					2
Troglodytes pacificus	Pacific Wren					2

Species of Economic and Recreation Importance Predicted that Intersect with Project Footprint as Drawn

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Callipepla gambelii	Gambel's Quail					
Patagioenas fasciata	Band-tailed Pigeon					
Pecari tajacu	Javelina					
Puma concolor	Mountain Lion					
Zenaida asiatica	White-winged Dove					
Zenaida macroura	Mourning Dove					

Project Type: Energy Production/Storage/Transfer, Energy Production (generation), photovoltaic solar facility (new/expansion)

Project Type Recommendations:
During the planning stages of your project, please consider the local or regional needs of wildlife in regards to movement, connectivity, and access to habitat needs. Loss of this permeability prevents wildlife from accessing resources, finding mates, reduces gene flow, prevents wildlife from re-colonizing areas where local extirpations may have occurred, and ultimately prevents wildlife from contributing to ecosystem functions, such as pollination, seed dispersal, control of prey numbers, and resistance to invasive species. In many cases, streams and washes provide natural movement corridors for wildlife and should be maintained in their natural state. Uplands also support a large diversity of species, and should be contained within important wildlife movement corridors. In addition, maintaining biodiversity and ecosystem functions can be facilitated through improving designs of structures, fences, roadways, and culverts to promote passage for a variety of wildlife. Guidelines for many of these can be found at: https://www.azgfd.com/wildlife-conservation/planning-for-wildlife/planning-for-wildlife-wildlife-friendly-guidelines/.

Consider impacts of outdoor lighting on wildlife and develop measures or alternatives that can be taken to increase human safety while minimizing potential impacts to wildlife. Conduct wildlife surveys to determine species within project area, and evaluate proposed activities based on species biology and natural history to determine if artificial lighting may disrupt behavior patterns or habitat use. Use only the minimum amount of light needed for safety. Narrow spectrum bulbs should be used as often as possible to lower the range of species affected by lighting. All lighting should be shielded, canted, or cut to ensure that light reaches only areas needing illumination.

Minimize the potential introduction or spread of exotic invasive species, including aquatic and terrestrial plants, animals, insects and pathogens. Precautions should be taken to wash and/or decontaminate all equipment utilized in the project activities before entering and leaving the site. See the Arizona Department of Agriculture website for a list of prohibited and restricted noxious weeds at https://www.invasivespeciesinfo.gov/unitedstates/az.shtml and the Arizona Native Plant Society https://aznps.com/invas for recommendations on how to control. To view a list of documented invasive species or to report invasive species in or near your project area visit iMapInvasives - a national cloud-based application for tracking and managing invasive species at https://imap.natureserve.org/imap/services/page/map.html.

- To build a list: zoom to your area of interest, use the identify/measure tool to draw a polygon around your area of interest, and select “See What’s Here” for a list of reported species. To export the list, you must have an account and be logged in. You can then use the export tool to draw a boundary and export the records in a csv file.

Minimization and mitigation of impacts to wildlife and fish species due to changes in water quality, quantity, chemistry, temperature, and alteration to flow regimes (timing, magnitude, duration, and frequency of floods) should be evaluated. Minimize impacts to springs, in-stream flow, and consider irrigation improvements to decrease water use. If dredging is a project component, consider timing of the project in order to minimize impacts to spawning fish and other aquatic species (include spawning seasons), and to reduce spread of exotic invasive species. We recommend early direct coordination with Project Evaluation Program for projects that could impact water resources, wetlands, streams, springs, and/or riparian habitats.

The Department recommends that wildlife surveys are conducted to determine if noise-sensitive species occur within the project area. Avoidance or minimization measures could include conducting project activities outside of breeding seasons.

For any powerlines built, proper design and construction of the transmission line is necessary to prevent or minimize risk of electrocution of raptors, owls, vultures, and golden or bald eagles, which are protected under state and federal laws. Limit project activities during the breeding season for birds, generally March through late August, depending on species in the local area (raptors breed in early February through May). Conduct avian surveys to determine bird species that may be utilizing the area and develop a plan to avoid disturbance during the nesting season. For underground powerlines, trenches should be covered or back-filled as soon as possible. Incorporate escape ramps in ditches or fencing along the perimeter to deter small mammals and herpetofauna (snakes, lizards, tortoise) from entering ditches. In addition, indirect affects to wildlife due to construction (timing of activity, clearing of rights-of-way, associated bridges and culverts, affects to wetlands, fences) should also be considered and mitigated.

Based on the project type entered, coordination with State Historic Preservation Office may be required (https://azstateparks.com/).

Based on the project type entered, coordination with U.S. Fish and Wildlife Service (Migratory Bird Treaty Act) may be required (https://www.fws.gov/office/arizona-ecological-services).

Vegetation restoration projects (including treatments of invasive or exotic species) should have a completed site-evaluation plan (identifying environmental conditions necessary to re-establish native vegetation), a revegetation plan (species, density, method of establishment), a short and long-term monitoring plan, including adaptive management guidelines to address needs for replacement vegetation.

The Department requests further coordination to provide project/species specific recommendations, please contact Project Evaluation Program directly at PEP@azgfd.gov.

Project Location and/or Species Recommendations:
HDMS records indicate that one or more native plants listed on the **Arizona Native Plant Law and Antiquities Act** have been documented within the vicinity of your project area. Please contact:
Arizona Department of Agriculture
1688 W Adams St.
Phoenix, AZ 85007
Phone: 602.542.4373
https://agriculture.az.gov/sites/default/files/Native%20Plant%20Rules%20-%20AZ%20Dept%20of%20Ag.pdf starts on page 44

HDMS records indicate that one or more **Listed, Proposed, or Candidate** species or **Critical Habitat** (Designated or Proposed) have been documented in the vicinity of your project. The Endangered Species Act (ESA) gives the US Fish and Wildlife Service (USFWS) regulatory authority over all federally listed species. Please contact USFWS Ecological Services Offices at https://www.fws.gov/office/arizona-ecological-services or:

Phoenix Main Office
9828 North 31st Avenue #C3
Phoenix, AZ 85051-2517
Phone: 602-242-0210
Fax: 602-242-2513

Tucson Sub-Office
201 N. Bonita Suite 141
Tucson, AZ 85745
Phone: 520-670-6144
Fax: 520-670-6155

Flagstaff Sub-Office
SW Forest Science Complex
2500 S. Pine Knoll Dr.
Flagstaff, AZ 86001
Phone: 928-556-2157
Fax: 928-556-2121

This review has identified **riparian areas** within the vicinity of your project. During the planning stage of your project, avoid, minimize, or mitigate any potential impacts to riparian areas identified in this report. Riparian areas play an important role in maintaining the functional integrity of the landscape, primarily by acting as natural drainages that convey water through an area, thereby reducing flood events. In addition, riparian areas provide important movement corridors and habitat for fish and wildlife. Riparian areas are channels that contain water year-round or at least part of the year. Riparian areas also include those channels which are dry most of the year, but may contain or convey water following rain events. All types of riparian areas offer vital habitats, resources, and movement corridors for wildlife. The Pinal County Comprehensive Plan (i.e. policies *6.1.2.1* and *7.1.2.4*), Open Space and Trails Master Plan, Drainage Ordinance, and Drainage Design Manual all identify riparian area considerations, guidance, and policies. Guidelines to avoid, minimize, or mitigate impacts to riparian habitat can be found at https://www.azgfd.com/wildlife-conservation/planning-for-wildlife/planning-for-wildlife-wildlife-friendly-guidelines/. Based on the project type entered, further consultation with the Arizona Game and Fish Department and Pinal County may be warranted.

HDMS records indicate that **Sonoran Desert Tortoise** have been documented within the vicinity of your project area. Please review the Tortoise Handling Guidelines found at https://s3.amazonaws.com/azgfd-portal-wordpress/PortalImages/files/wildlife/2014%20Tortoise%20handling%20guidelines.pdf.

APPENDIX C

Guidelines for Handling Sonoran Desert Tortoises Encountered on Development Projects

GUIDELINES FOR HANDLING SONORAN DESERT TORTOISES ENCOUNTERED ON DEVELOPMENT PROJECTS

Arizona Game and Fish Department
Revised September 22, 2014

The Arizona Game and Fish Department (Department) has developed the following guidelines to reduce potential impacts to desert tortoises, and to promote the continued existence of tortoises throughout the state. These guidelines apply to short-term and/or small-scale projects, depending on the number of affected tortoises and specific type of project.

The Sonoran desert tortoise occurs south and east of the Colorado River. Tortoises encountered in the open should be moved out of harm's way to adjacent appropriate habitat. If an occupied burrow is determined to be in jeopardy of destruction, the tortoise should be relocated to the nearest appropriate alternate burrow or other appropriate shelter, as determined by a qualified biologist. Tortoises should be moved less than 48 hours in advance of the habitat disturbance so they do not return to the area in the interim. Tortoises should be moved quickly, kept in an upright position parallel to the ground at all times, and placed in the shade. Separate disposable gloves should be worn for each tortoise handled to avoid potential transfer of disease between tortoises. Tortoises must not be moved if the ambient air temperature exceeds 40° Celsius (105° Fahrenheit) unless an alternate burrow is available or the tortoise is in imminent danger.

A tortoise may be moved up to one-half mile, but no further than necessary from its original location. If a release site or alternate burrow is unavailable within this distance, and ambient air temperature exceeds 40° Celsius (105° Fahrenheit), contact the Department for guidance. Tortoises salvaged from projects which result in substantial permanent habitat loss (e.g. housing and highway projects), or those requiring removal during long-term (longer than one week) construction projects, may be placed in the Department's tortoise adoption program. *Managers of projects likely to affect desert tortoises should obtain a scientific collecting license from the Department to facilitate handling or temporary possession of tortoises.* Likewise, if large numbers of tortoises (>5) are expected to be displaced by a project, the project manager should contact the Department for guidance and/or assistance.

Please keep in mind the following points:

- Use the Department's Environmental On-Line Review Tool Department during the planning stages of any project that may affect desert tortoise habitat.
- Unless specifically authorized by the Department, or as noted above, project personnel should avoid disturbing any tortoise.
- Take is prohibited by state law.
- These guidelines do not apply to Mojave desert tortoises (north and west of the Colorado River). Mojave desert tortoises are listed as threatened under the Endangered Species Act, administered by the U.S. Fish and Wildlife Service.
- These guidelines are subject to revision at the discretion of the Department.

APPENDIX D

AZDA Notice of Intent to Clear Land Form

Arizona Department of Agriculture (AZDA)
Central Licensing
Physical Location: 1010 W Washington St., Phoenix, AZ 85007
Mailing Address: 1802 W Jackson St., #78 Phoenix, AZ 85007
Phone: (602) 542-6408 Fax: (602)542-0466
Website: https://agriculture.az.gov Email: licensing@azda.gov

Notice of Intent to Clear Land — ARS § 3-904

Pursuant to A.R.S. § 3-904 the undersigned, as Owner of the Property described herein, gives this Notice of Intent to Clear Land of protected native plants.

1. **Owner/landowner's agent.** The owner or landowner's agent of the Property upon which protected native plants will be affected:

   Owner's Name _____ Phone _____

   Address _____

   Agent's Name _____ Phone _____

   Address _____

2. **Property.** The description and location of the Property upon which protected native plants will be affected:

   County _____

   Name of Property/Project _____

   Address _____

   Physical Location (attach map) _____

   (Note: Map must also show surrounding land for 1/2 mile in each direction)

   Tax Parcel ID Nos. _____

   Legal Description (or attach copy) _____

   Number of Acres to be Cleared _____

3. **Owner's Intent.** Landowner's intentions when clearing private land of protected native plants.

   ☐ Owner intends to allow salvage of the plants, and agrees to be contacted by native plant salvagers.

   ☐ Owner intends to transplant the plants onto the same property, or to another property he also owns.

   ☐ Owner has already arranged for salvage of the plants.

   ☐ Owner does not intend to allow salvage of the plants.

   ☐ Other _____

4. **Approximate starting date.** _____
   (See notice period listed on reverse side)

   The information contained in this application is true and accurate to the best of my knowledge. I understand that providing false information is a felony in Arizona

Signature _____ **Date** _____

Notice to salvagers: Consent of the landowner is required before entering any lands described in this notice.

Explanation Of This Form

1. **Notice of Intent to Clear Land.**
   The majority of the desert plants fall into one of four groups specially protected from theft, vandalism or unnecessary destruction. They include all of the cacti, the unique plants like Ocotillo, and trees like Ironwood, Palo Verde and Mesquite. In most cases the destruction of these protected plants may be avoided if the private landowner gives prior notice to the Arizona Department of Agriculture.

2. **Notice Period.**
   When properly completed, this form is to be sent to the Department within the time periods described below. Landowners/ developers are encouraged to salvage protected native plants whenever possible.

3. **Information to Interested Parties.**
   The information in this notice will be posted in the applicable state office of the Department and mailed to those parties (salvage operators, revegetation experts) who have an interest in these plants and may approach the landowner with the possibility of saving the plant(s) from unnecessary destruction.

Notice to Landowner:

1. The owner may not begin destruction of protected native plants until he receives confirmation from the Arizona Department of Agriculture and the time prescribed below has elapsed. The "Confirmed" stamp only verifies that the Notice has been filed.

Size of area over which the Destruction of Plants will occur	**Length of Notice Period**
Less than one acre	20 days, oral or written
One acre or more, but less than 40 acres	30 days, written
40 acres or more	60 days, written

2. If you are clearing land over an area of less than one acre, oral notice may be given by calling the applicable state office at the telephone number given below.
3. If the land clearing or plant salvage does not occur within one year, a new Notice is required.

This Notice must be sent to the applicable state office of the Department of Agriculture at the address given below:

Central Licensing
Physical Location: 1010 W Washington St., Phoenix, AZ 85007
Mailing Address: 1802 W Jackson St., #78 Phoenix, AZ 85007
Email: licensing@azda.gov

Notice to salvagers: Consent of the landowner is required before entering any lands described in this notice.

APPENDIX E

Burrowing Owl Project Clearance Guidance for Landowners

BURROWING OWL PROJECT CLEARANCE GUIDANCE FOR LANDOWNERS

Arizona Burrowing Owl Working Group



Arizona Game and Fish Department
5000 West Carefree Highway
Phoenix, Arizona 85086

January 2009

Bruce Taubert

BURROWING OWL PROJECT CLEARANCE GUIDANCE FOR LANDOWNERS

Arizona Burrowing Owl Working Group

INTRODUCTION

The western burrowing owl (*Athene cunicularia*) is one of the most interesting birds of prey in Arizona (Figure 1). Its species name, *cunicularia*, means "miner", in reference to this owl's unusual habit of spending time underground. It is also called the "rattlesnake owl", because young burrowing owls make a buzzing sound that sounds like a rattlesnake when disturbed. Burrowing owls can be seen during daylight hours, and use underground burrows for nesting and escape cover. Despite the fact they are active during the day and are adaptable to human presence, the burrowing owl can go unnoticed in an area due to their secretive nature. Their use of burrows also makes them susceptible to impacts from ground disturbing activities.



Figure 1. Adult burrowing owl. *Photo by Bruce Taubert.*

Over the past 50 years, most burrowing owl populations have experienced declines throughout their range in North America. Because of this decline, these owls are protected by various Federal, state, and local laws. The burrowing owl is listed by the USFWS as a National Bird of Conservation Concern, listed as endangered in Canada, and threatened in Mexico. It is also listed as endangered, threatened, or a species of concern in 9 U.S. States. All owls in Arizona are protected federally by the Migratory Bird Treaty Act (MBTA) and Arizona state law (ARS Title 17). Violation of these laws, intentional or benign, may result in prosecution.

Burrowing owls are found in areas of Arizona where urbanization and other human activities are occurring. Arizona is one of the fastest growing states in the U.S., leading to frequent conflicts between burrowing owls and development. Owls can be affected by disturbance and habitat loss, even though there may be no direct impacts to the birds themselves or their burrows. There is often inadequate information about the presence of burrowing owls on a project site until ground disturbance is imminent. By then, it is too late to develop a solution that is helpful to the owls or the developer. These guidelines are intended to provide information and tools than can be applied when there is the potential for a project or action to adversely affect burrowing owls and the resources that support them. Each project and situation is different and should be evaluated for the tools and approach that is most effective in allowing a project to move forward while achieving burrowing owl conservation. These guidelines may not provide the necessary procedures for every project, and we encourage coordination with the agencies and entities listed in the Contact section of this document (Appendix A).

BURROWING OWLS SURVEY PROTOCOL

This guidance was developed by State, Federal, and other burrowing owl experts to help individuals avoid violating the laws protecting burrowing owls. This effort will provide a standardized means for conducting burrowing owl surveys in areas where burrows are likely to be disturbed by projects that may displace them in order to minimize impacts to the owls.

This protocol involves visual surveying for owls and burrows using transects to look for occupancy and/or signs of occupancy. We recommended that only individuals with proper training and certification conduct the survey. This document will be revised as necessary, and updates will be provided to certified surveyors, along with any guidance related to maintaining certification. Updates to this document will also be made available to the public. To facilitate statewide burrowing owl management, we recommend that all survey areas, routes, times, and detections be reported to Arizona Game and Fish Department (AGFD) within 30 days of survey completion. If owls or active burrows are detected, coordination with the appropriate agencies prior to initiating ground-disturbing activity will facilitate compliance with the applicable laws (see Appendix A).

SUITABLE HABITAT

Burrowing owl nesting habitat typically consists of dry, treeless, short-grassland or prairie plains. In the desert environment they nest in areas of short, open scrublands such as mesquite (*Prosopis* spp.), creosote bush (*Larrea tridentate*), rabbit-brush (*Chrysothanmus nauseous*), and four-wing saltbush (*Atriplex canescens*). They tend to be tolerant of human presence, and will nest in human-modified landscapes such as: abandoned lots within rapidly developing urban areas, airports, golf courses, agricultural fields, irrigation canals, storm drains, roadsides, and parking lots (Figure 2). In the western United States, burrowing owls do not dig their own burrows, and therefore depend on the presence of burrowing mammals. Throughout Arizona, burrowing owls are associated with Gunnison's prairie dogs (*Cynomys gunnisonii*), American badgers (*Taxidea taxus*), ground squirrels (*Spermophilus* spp.), rock squirrels (*Spermophilus variegatus*), foxes (*Vulpes* spp.), and coyotes (*Canis latrans*). Therefore, any open grassland, scrubland, or park-like area devoid of dense tree cover and containing burrowing mammals or adequate artificial nest burrows (e.g., erosion channels or storm drain pipes) can represent adequate nesting, wintering or migratory habitat.



Figure 2. Natural burrow on a wash bank. *Photo by Elissa Ostergaard.*

SURVEYOR CREDENTIALS

Burrowing owl surveyors should have burrowing owl survey protocol certification (training provided by AGFD; see Website in Contacts below for next date and location) with appropriate documentation.

Completed burrowing owl survey reports provided to AGFD should include each surveyor's certification. Certification will be awarded on an individual basis based on attendance at the training, and will not need to be renewed unless new information or conditions dictate substantial change to the survey protocol.

SURVEY TIMING

Burrowing owls are most likely to occupy breeding burrows between March and mid-July (Figure 3). While burrowing owl migration habits are not well documented, it is believed that owls in northern Arizona generally migrate south for the winter, whereas a larger proportion (12 to 61%; Conway and Ellis 2004) of owls in southern and western Arizona is thought to be non-migratory (Sheffield 1997).

We recommend that preliminary surveys be conducted at the time of property acquisition or before project design to allow time to properly accommodate or mitigate for owls, if present (Table 1). We recommend avoiding project initiation in March due to the possibility of new owls arriving during construction unless all suitable burrows were permanently closed by a properly permitted individual or group before project-related activities. If owls or occupied burrows are detected within the construction area at any time during project implementation, burrows must be avoided (see below for buffer requirements) until: 1) status of the burrows can be determined and owls removed by properly permitted individuals or groups, or 2) other conservation measures are implemented.



Figure 3. Artificial burrow with signs of occupancy. *Photo by Elissa Ostergaard.*

Surveys should be conducted within first light (typically ½ hour before sunrise) and 3 hours after sunrise, and between 2 hours before sunset until dusk (typically ½ hour after sunset). Do not conduct surveys during or within 24 hours after a heavy rain or when wind speed is greater than 32 km/hr (20 mi/hr).

Table 1. Schedule for burrowing owl surveys.

Fall or Winter Initial Survey	
Results	Action
No burrows detected	None.
Unoccupied burrows found	Implement conservation measures* and conduct a second survey 90 days prior to grading.
Occupied burrows or owls found	Implement conservation measures* and survey 30 days prior to grading.
Spring or Summer Initial Survey	
Results	Action
No burrows detected	None.
Unoccupied burrows found	Implement conservation measures* and conduct a second survey 30 days prior to grading.
Occupied burrows or owls found	See below.

*Potential conservation measures include: 1) collapsing all unoccupied burrows of suitable dimensions by a permitted individual, 2) identifying open space areas to be protected as a buffer around occupied and suitable owl burrows, 3) passive exclusion of owls, or 4) translocation of owls by a permitted individual.

FIELD SURVEY PROTOCOL

We recommend that surveys be conducted in all portions of the project site that fit the description of Suitable Habitat (see above). Surveys are conducted by walking straight-line transects 10 m (33 ft) apart (or arranged so that all ground surfaces can be seen) and looking for evidence of owls: individuals, burrows, and sign of occupancy at burrow entrances (pellets, feces or other "ornamentation", feathers, prey remains, whitewash, etc) (Figure 4). Transects should be located over the entire project area, and oriented so the tops and sides of all topographic features are examined. For example, if the project area includes a wash with a steep bank, one transect should be near the top of the bank, and another near the base of the bank in the wash.



Figure 4. Adult burrowing owl at an artificial burrow entrance. *Photo by Bruce Taubert.*

At the start of each transect and every 100 m (300 ft), scan the entire visible project area for owls using binoculars or a spotting scope. Record the location of all burrows (natural and artificial). Burrows may include holes dug by mammals, birds, or created by erosion, pipes, spaces below concrete or other solid structures, etc. Each burrow (entrance height 8 + cm [3 + in]; width 8 +

cm [3 + in]; burrow depth > 1 m [3 ft]) should be assessed to determine potential use by burrowing owls, unless owls are present.

An "active" burrow has a live owl or owls, or shows sign of recent use (e.g., fresh whitewash, fresh pellets, feathers, or nest ornamentation – Figure 2). A "potentially active" burrow is one with evidence of previous use, but not recent (e.g., old whitewash, old pellets, cobwebs over entrance, and/or debris at burrow entrances). An "inactive" burrow exhibits no evidence of use by burrowing owls but is of suitable size for occupancy.

Record the number and location of all owls seen within or near the project area. Clean and remove all owl sign at potentially active burrows. Visit the site again after 2-8 days and check all potentially active burrows for fresh sign.

SURVEY REPORTING

Record the surveys locations, dates, and the details of all burrow and owl detections (even if outside the construction zone), either on a hard copy map or as UTMs (Universal Transverse Mercator map coordinates compatible with GIS and GPS systems) using the standard form provided. Attach credentials of all surveyors as described above. Send within 30 days to raptors@azgfd.gov (preferred) or by mail:

Raptor Management Coordinator
Arizona Game and Fish Department
Nongame Branch
5000 West Carefree Highway
Phoenix, Arizona 85086

OWL DETECTIONS, CONSERVATION AND MITIGATION

Should preliminary measures fail to prevent burrowing owl occupancy of a project site during implementation, or if active burrows are located in the construction zone during construction activities, the owls should not be disturbed as it may violate federal and state laws. A 35-m (100-ft) radius buffer, excluding all heavy machinery and foot traffic, should be set up around all active burrow entrances during construction and until the appropriate conservation action is determined (B. Fox, pers. comm.). To permanently accommodate owls on site, we recommend that a buffer of 35-m (100-ft) should remain in perpetuity between the burrows and new construction and managed to maintain breeding habitat suitability (Millsap and Bear 2000). On-site conservation areas should be connected to adjacent burrowing owl habitat through the use of habitat connections. Conservation areas should avoid isolation or fragmentation of burrowing owl habitat. Delineating protected areas (fencing, cones, etc.) is encouraged as long as it does not enclose the owls or prevent the owls' ability to see nearby predators.

If after surveys are completed and reports submitted to AGFD, burrowing owls or active or potentially active burrows are located within the project boundaries, the landowner is advised to contact the nearest AGFD office (see Appendix A) for direction. Further mitigation or costs may be avoided if occupied owl areas can be set aside for at least 10 years and if suitable habitat for nesting and foraging will remain after development is finished. If it is determined that the best option is to disturb and then mitigate for the disturbance of the owls, the owner must obtain a permit from U.S. Fish and Wildlife Service. Mitigation may include excluding owls from disturbed burrows prior to construction and/or providing artificial burrows on-site or in a different location and monitoring to determine the success of the actions taken.



Figure 5. Owlets at a natural burrow entrance. *Photo by Bruce Taubert.*

LITERATURE CITED

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Conway, C.J. and L.A. Ellis. 2004. Demography of Burrowing Owls Nesting in Urban and Agricultural Lands in Southern Arizona. Arizona Game and Fish Department, Heritage Grant Technical Report U03006, Phoenix, AZ.

Millsap, B.A. and C. Bear. 2000. Density and reproduction of burrowing owls along an urban development gradient. Journal of Wildlife Management 64:33-41.

Sheffield, S.R. 1997. Current status, distribution and conservation of the Burrowing Owl (*Speotyto cunicularia*) in midwestern and western North America. Pages 399-407 in J.R. Duncan, D.H. Johnson, and T.H. Nicholls [Eds.], Biology and Conservation of Owls of the Northern Hemisphere: Second International Symposium, February 5-9, 1997, Winnepeg, Manitoba, Canada. USDA For. Serv. Gen. Tech. Rep. NC-190.

U.S. Fish and Wildlife Service. Migratory Bird Treaty Act, Migratory Bird Permit Office. Last accessed May 4, 2007. http://www.fws.gov/permits/mbpermits/birdbasics.html

APPENDIX A: CONTACTS

In Tucson and southern AZ:

Arizona Game and Fish Department
Urban Wildlife Program, Tucson Office
555 N. Greasewood Rd.
Tucson, AZ 85745
(520) 628-5376

US Fish and Wildlife Service
Ecological Services Office
201 N. Bonita Ave., Ste. 141
Tucson, AZ 85745
(520) 670-6144

In Phoenix, central and northern AZ:

Arizona Game and Fish Department
Raptor Management Coordinator
5000 W. Carefree Highway
Phoenix, AZ 85086
(623) 236-7500
www.azgfd.gov

US Fish and Wildlife Service
Ecological Services Office
2321 W. Royal Palm Road, Ste. 103
Phoenix, AZ 85021
(602) 242-0210
http://www.fws.gov/southwest/es/arizona/

Burrowing Owl Working Group Members

Marit Alanen, U.S. Fish and Wildlife Service
Troy Corman, Nongame Branch, Arizona Game and Fish Department
Tim Snow, Region V, Arizona Game and Fish Department
James Driscoll, Nongame Branch, Arizona Game and Fish Department
Bob Fox, Wild At Heart (Burrowing Owl Conservation Group)
Sam Fox, Wild At Heart (Burrowing Owl Conservation Group)
David Grandmaison, Research Branch, Arizona Game and Fish Department
Mike Ingraldi, Research Branch, Arizona Game and Fish Department
Shawn Lowery, Research Branch, Arizona Game and Fish Department
Scott Richardson, U.S. Fish and Wildlife Service
Ray Schweinsberg, Research Branch, Arizona Game and Fish Department
Aninna Thornburg, Region V, Arizona Game and Fish Department

APPENDIX B. BURROWING OWL SURVEY REPORT FORM

Surveyor(s): Date of Survey:

Project Location Information
Project Name:
City:
County:
Legal Description (address, ¼ Section, Township, Range):

Weather Conditions During Survey
Precipitation: Y / N (circle one)
Wind Speed (mph):
Temperature: °F / °C (circle)
% Cloud Cover:

Survey Data
Area Surveyed: acres / ha / km^2 / m^2 (circle one)
Adult burrowing owls detected:
Juvenile burrowing owls detected:
Total # burrowing owls detected:
Total # Active burrows:
Total # Potentially Active burrows:

Habitat Description within Project Area (check if applicable)
- Open, treeless area
- Creosote flats
- Wash corridor
- Suitable burrows
- Fossorial mammals present – list species:
- Sonoran desert scrub
- Agriculture
- Urban development

Attach map of surveyed area with locations of survey transects. Identify locations of owls and suitable burrows. List owl detections and active or potentially active burrow locations in the following table (please include coordinates and datum) Attach additional pages if necessary:

Observation Type (Owl or Burrow)	Coordinates

Observation Type (Owl or Burrow)	Coordinates

Return completed forms (regardless of whether burrowing owls are detected) along with the surveyor's certification to:

Raptor Management Coordinator
Arizona Game and Fish Department
Nongame Branch
5000 West Carefree Highway
Phoenix, AZ 85086
(623) 236-7500
raptors@azgfd.gov

APPENDIX G

Cultural Survey Report Summary

1. REPORT TITLE

1a. Report Title: Cultural Resources Archival Review for the Proposed Ore Town Solar Facility in San Manuel, Pinal County, Arizona

1b. Report Author: David M. R. Barr

1c. Date: 4/19/2024 **1d. Report No.:** 24-242

2. PROJECT REGISTRATION/PERMITS

2a. ASM Accession Number: Not Applicable (N/A)

2b. AAA Permit Number: N/A

2c. ASLD Right-of-Way Number(s): N/A

2d. Other Permit Number(s): N/A

3. ORGANIZATION/CONSULTING FIRM

3a. Name: SWCA Environmental Consultants (SWCA)

3b. Internal Project Number: 84846

3c. Internal Project Name: Ore Town Solar

3d. Contact Name: David Barr

3e. Contact Address: 343 West Franklin Street, Tucson, Arizona 85701

3f. Contact Phone: (520) 325-9194

3g. Contact Email: dbarr@swca.com

4. SPONSOR/LEAD AGENCY

4a. Sponsor: Avantus

4b. Lead Agency: Pinal County

4c. Agency/Sponsor Project Number(s): N/A

4d. Agency Project Name: N/A

4e. Funding Source(s): Private

4f. Other Involved Agencies: N/A

4g. **Applicable Regulations:** Arizona Historic Preservation Act, Arizona Antiquities Act

5. DESCRIPTION OF PROJECT: 310SM 8me LLC proposes a solar development that includes a 0.35-mile generation tie transmission line that would connect the proposed solar energy generating facility to the regional electric grid through the existing 115-kilovolt (kV) San Manuel Substation. The proposed facility will be on privately held lands leased to Avantus by BHP in San Manuel, Pinal County (Figure 1).

In anticipation of submitting a major Comprehensive Plan amendment that would include rezoning a planned development area, as well as a site plan review by Pinal County, Avantus contracted SWCA to

conduct an archival review of the proposed project area and a 1-mile radius to assess the project's potential to adversely affect previously identified cultural resources (study area).

6. PROJECT AREA: The area of the archival review for the proposed project is approximately 1,227.41 acres (solar energy facility/study area) plus a 1-mile search radius.

7. PROJECT LOCATION

7a. Address: N/A

7b. Route: N/A

7c. Mileposts Limits: N/A

7d. Nearest City/Town: San Manuel **7e. County:** Pinal County

7f. Project Locator UTM: 536905 Easting, 3607212 Northing **7g. NAD** 83 **7h. Zone:** 12S

7i. Baseline & Meridian: Gila and Salt River

7j. USGS Quadrangle(s): Campo Bonito and Peppersauce Wash, Arizona

7k. Legal Description(s): The proposed Ore Town Solar facility is in Sections 28, 29, and 32–34, Township 9 South, Range 17 East, and Sections 3 and 4, Township 10 South, Range 17 East, Gila and Salt River Baseline and Meridian, and can be found on the U.S. Geological Survey (USGS) Campo Bonito and Peppersauce Wash, Arizona, 7.5-minute quadrangles (Figure 2).

8. SURVEY AREA

8a. Total Acres: N/A

8b. Location Survey Area.

1. Land Jurisdiction	2. Total Acres Surveyed	3. Total Acres Not Surveyed	4. Justification for Areas Not Surveyed
Private (BHP)	0	1,227.41	Archival review only

9. ENVIRONMENTAL CONTEXTS

9a. Landform: The proposed Ore Town Solar facility is in the lower San Pedro River Valley, southeast of the town of San Manuel. Specifically, the study area is located on the eastern edge of the bajada zone of the Catalina Mountains and west of the San Pedro River floodplain.

9b. Elevation: The elevation is approximately 3,092 to 3,280 feet above mean sea level.

9c. Surrounding Topographic Features: The project area is approximately 3.2 miles west of the San Pedro River and 3.7 miles northeast of the Catalina Mountains.

9d. Nearest Drainage: Peppersauce Wash is approximately 1.5 miles southeast, and the San Pedro River is approximately 3.2 miles east.

9e. Local Geology: The main geological unit that encompasses the project area is Quaternary surficial deposits (Arizona Geological Survey 2024).

9f. Vegetation: The project area is within the Arizona Upland Subdivision of the Sonoran Desertscrub biotic community (Brown 1994). Common vegetation associated with the biotic community includes

creosote bush (*Larrea tridentata*), mesquite (*Prosopis* spp.), whitethorn acacia (*Vachellia constricta*), barrel cactus (*Ferocactus wislizeni*), desertbroom (*Baccharis sarothroides*), blue paloverde (*Parkinsonia florida*), purple pricklypear (*Opuntia macrocentra*), saguaro (*Carnegiea gigantea*), and cholla (*Cylindropuntia* spp.).

9g. Soils/Deposition: Soils within the project area are mapped as Tubac-Rillino clay loam (Natural Resources Conservation Service 2024). This soil consists of fine sandy loam that is very deep, well drained, and formed from alluvium from mixed sources.

9h. Buried Deposits: Unlikely

9i. Justification: The project area is not in an area where buried deposits are likely without some indication on the ground surface.

10. BUILT ENVIRONMENT: No existing built environment is located within the study area; however, the northwestern portion, approximately 300 acres, was part of the San Manuel copper mine facility.

11. INVENTORY CLASS COMPLETED

11a. Class I Inventory: ☒

11b. Researcher(s): David Barr

11c. Class II Survey: ☐

11d Sampling Strategy:

11e. Class III Inventory: ☐

12. BACKGROUND RESEARCH SOURCES

12a. AZSITE: ☒ David Barr

12b. ASM Archaeological Records Office: ☒ Paul Rawson 4/9/24

12c. SHPO Inventories and/or SHPO Library: ☐

12d. NRHP Database: ☒ David Barr

12e. ADOT Portal: ☐

12f. Historical Maps: The General Land Office (GLO) plat map for Township 9 South, Range 17 East, filed in 1878, was examined within the 1-mile search radius; no features are within the project area or within the 1-mile radius.

The GLO plat map for Township 10 South, Range 17 East, filed in 1926, was examined. This map depicts an unnamed east-west–trending road in the N½ of Section 4 that extends into the NW¼ of Section 3. No other historic-era buildings, ranches, or other landscape modifications are depicted within the project area or search radius.

The 1913 edition of the Winkelman, Arizona, 1 × 2–degree minute quadrangle does not depict any features within the study area; however, there is a roughly northeast-southwest–trending road, C 3 RANCH, to the San Pedro River outside and north of the study area.

The 1948 USGS Peppersauce Wash, Arizona, 7.5-minute quadrangle depicts a TANK in Section 33, Township 9 South, Range 17 East, and a TANK in Section 4, Township 10 South, Range 17 East. No other historic-era features are depicted within the study area or within the 1-mile radius.

The 1951 USGS Mammoth, Arizona, 15-minute quadrangle depicts the same two tanks depicted on the Peppersauce Wash quadrangle and an additional tank in Section 3, Township 10 South, Range 17 East. In addition, there is an unnamed, roughly east-west–trending road that extends from the MT LEMON ROAD to the San Pedro River bisecting Sections 9 and 10 of Township 10 South, Range 17 East.

Finally, the 1964 USGS Tucson, Arizona, 1:250000 map depicts the town of San Manuel, a CHIMNEY, two instances of INDUSTRIAL RAILROAD, and a SMELTER DUMP in and within 1-mile radius of the study area. The chimney and the two railroads are located with the study area, and the smelter dump is northeast of the study area but within the 1-mile radius.

12g. Land-Managing Agency Files: N/A

12h. Tribal Cultural Resources Files: N/A

12i. Local Government Websites: N/A

12j. Other: N/A

13. BACKGROUND RESEARCH RESULTS

13a. Previous Projects within Study Area—1.0-mile Radius of Project Area.

According to a search of the archaeological site files and records maintained at the Arizona State Museum (ASM) and the AZSITE online database, nine archaeological surveys have been conducted between 1989 and 2012 within the 1.0-mile search radius of the project area(Table 1). Three surveys (1999-438.ASM, 2006-891.ASM, and 2011-111.ASM) overlapped with approximately 6 percent of the study area (Figures 3a and 3b). In 1999, SWCA conducted a linear survey for a proposed diversion channel. This survey identified three isolated occurrences (IOs) and no archaeological sites (Hesse 1999). In 2006, WestLand Resources conducted a survey for a proposed transmission line. This survey identified 13 archaeological sites and 41 Ios; one site (AZ AA:7:641[ASM]) partially overlaps with the study area (Buckles 2006). In 2008 and 2009, Logan Simpson Design conducted a linear survey for Arizona Public Service's vegetation management project. This survey identified three archaeological sites and four Ios; one site (AZ BB:6:241[ASM]) partially overlaps with the current study area (Foster and Davis 2011). In 2009, WestLand Resources conducted a block survey for a proposed transmission line. This survey identified one archaeological site and four IOs, none of which overlap the current project area (Buckles 2009). Approximately 35 percent of the surrounding 1-mile radius of the project has been surveyed for cultural resources. These surveys were conducted for underground communications cable, railroad abandonment, a master planning effort, and proposed mining.

Table 1. Previous Projects within the Study Area and within a 1-Mile Radius

1. Project Reference Number	2. Project Name	3. Author(s)	4. Year
1989-59.ASM	San Manuel–Mammoth Underground	Adams	1989

1. Project Reference Number	2. Project Name	3. Author(s)	4. Year
1999-438.ASM	BHP San Manuel Diversion Channel Project	Hesse	1999
2006-250.ASM	BHP Railroad Survey	Brack	2006
2006-891.ASM	Redington Interconnect Class III	Buckles	2007
2007-658.ASM	BHP San Manuel Survey	Whitney	2007
2008-318.ASM / 2009-142.ASM	APS On-Call Cultural Resources Services	Foster and Davis	2011
2011-111.ASM	Redington Addendum 1 Class III Survey	Buckles	2009
2012-53.ASM	Oracle Ridge Mine	Luchetta et al.	2012

13b. Previously Recorded Cultural Resources within Study Area and 1.0-mile Radius of Project Area.

Two sites (AZ AA:7:641[ASM] and AZ BB:6:241[ASM]) have been documented within a 1.0-mile radius of the project area and both partially overlap with the current study area (Table 2; see Figures 3a and 3b). AZ AA:7:641(ASM) is the in-use historic-era San Manuel–Saguaro transmission line that was constructed in 1956. In 2022, it was determined eligible for the National Register of Historic Places (NRHP) and Arizona Register of Historic Places (ARHP) by the State Historic Preservation Office (SHPO) under Criterion A for its association with the electrification and development of mining areas in Pinal County. AZ BB:6:241(ASM) is the in-use Arizona Public Service 46-kV power line constructed prior to 1955 to supply power to rural customers. In 2009, it was determined ineligible for listing in the NRHP/ARHP by SHPO.

Table 2. Previously Recorded Archaeological Sites Within 1 Mile of the Project Area

1. Site Number	2. Site Description	3.Eligibility Status	4. Associated Reference	5. Distance from Project Area (miles)
AZ AA:7:641(ASM)	In-use historic-era San Manuel–Saguaro Line transmission line	Determined eligible	Foster and Davis (2011)	0.10
AZ BB:6:241(ASM)	In-use Arizona Public Service 46-kV power line	Determined ineligible	Buckles (2007)	0.32

13c. Historic Buildings/Districts/Neighborhoods/Structures.

The National Park Service NRHP database was searched to identify properties listed in the NRHP that are in or within 3 miles of the project area. No NRHP-listed properties were identified within the search area. The closest NRHP-listed property is the Kannally Ranch, which is approximately 6.3 miles west of the project area.

14. CULTURAL CONTEXTS

14a. Prehistoric Culture: Hohokam, Mogollon, Salado

14b. Protohistoric Culture: O'odham, Sobaípuri, Apache

14c. Indigenous Historic Culture: O'odham, Apache

14d. Euro-American Culture: Hispanic, Anglo-American, African-American

15. FIELD SURVEY PERSONNEL

15a. Principal Investigator: Suzanne Griset

15b. Field Supervisor: N/A

15c. Crew: N/A

15d. Fieldwork Date(s): N/A

16. SURVEY METHODS

16a. Transect Intervals: N/A

16b. Coverage (%): N/A

16c. Site Recording Criteria: ASM

16d. Ground Surface Visibility:

16e. Observed Disturbances: A review of May 2023 aerial imagery (Google Earth 2024) shows that the northwest 300 acres of the project area have been previously bladed. This area was part of the San Manuel Copper mine operations that contained a sulfuric acid plant, ore concentrator, smelter, and

other mining facilities. This area was decommissioned and removed after August 2005 and before June 2007 based on aerials.

17. FIELD SURVEY RESULTS

17a. No Cultural Resources Identified: ☐

17b. Isolated Occurrences (IOs) Only: ☐

17c. Number of IOs Recorded:

18. COMMENTS: An archival review of the project area revealed that very little pedestrian survey has been conducted in the study area. Surveys conducted within the surrounding 1-mile radius have documented no significant archaeological sites, so SWCA anticipates a limited number of significant archaeological sites within the study area; however, SWCA recommends that a pedestrian survey be conducted within the study area if mandated by a permitting agency or requested by 310SM 8me LLC as due diligence.

SECTION 19. ATTACHMENTS

19a. References: ☒

19b. Project Location Maps: ☒ Figures 1 and 2

19c. Land Jurisdiction Map: ☒ See Figure 2

19d. Background Research Map(s): ☒ Figures 3a–3b

19e. GLO Map(s): ☐

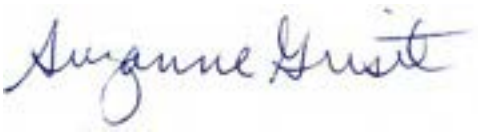
19f. Results Map: ☐

19d. Aerial of Project Area: ☐

19g. Photographs of the Project Area: N/A

SECTION 20. CONSULTANT CERTIFICATION

I certify that the information provided herein has been reviewed for content and accuracy and all work meets applicable agency standards.



_____

Suzanne Griset, Ph.D.
Principal Investigator

SECTION 21. DISCOVERY CLAUSE

In the event that previously unreported cultural resources are encountered during ground-disturbing activities, all work must immediately cease within 30 m (100 feet) until a qualified archaeologist has documented the discovery and evaluated its eligibility for the ARHP or NRHP in consultation with the lead agency, the SHPO, and Tribes, as appropriate. Work must not resume in this area without approval of the lead agency.

If human remains are encountered during ground-disturbing activities, all work must immediately cease within 30 m (100 feet) of the discovery and the area must be secured. The ASM must be notified of the discovery. Pursuant to Arizona Revised Statutes §41-844 and §41-865, work must not resume in this area without authorization from the ASM.

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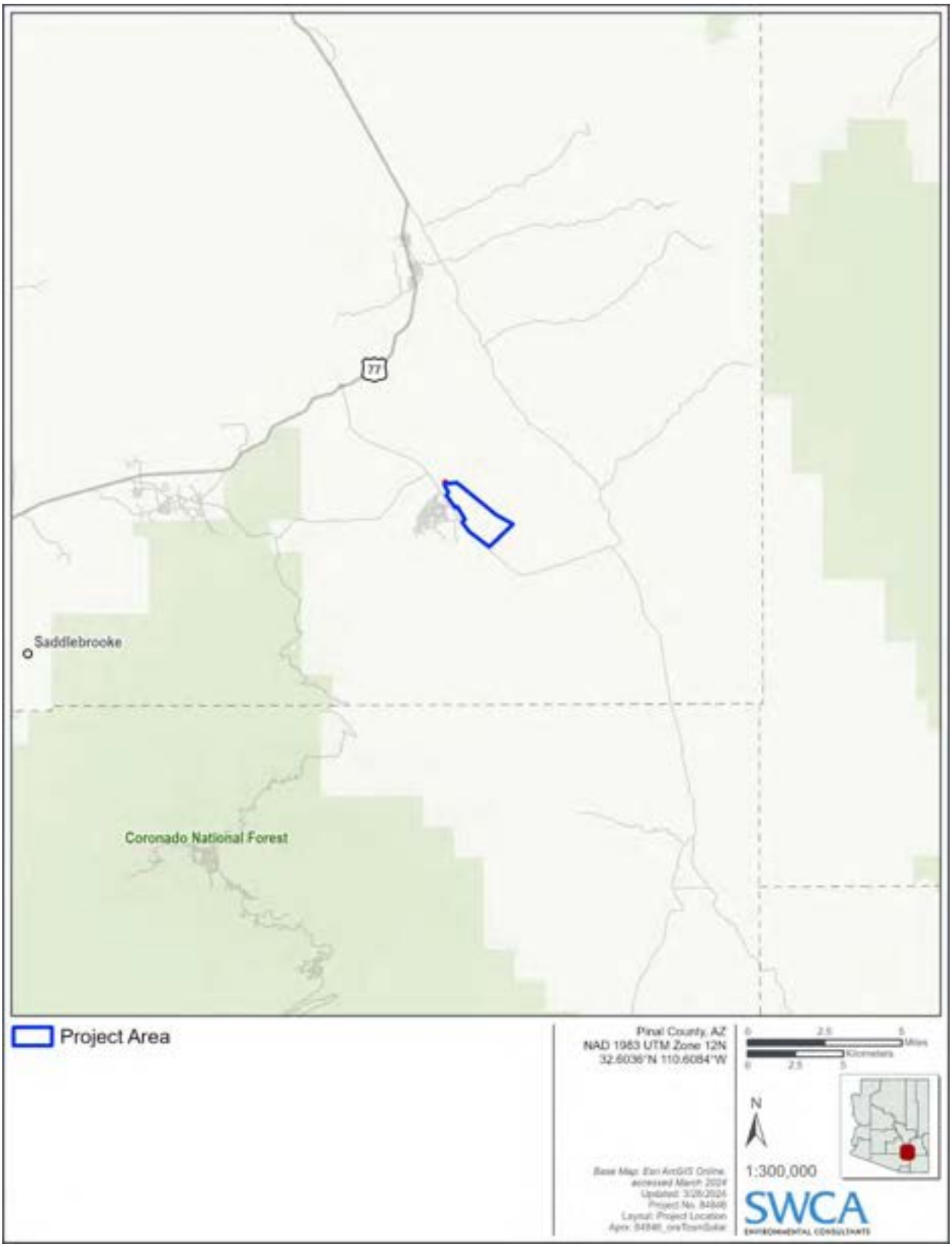


Figure 1. Project location map.

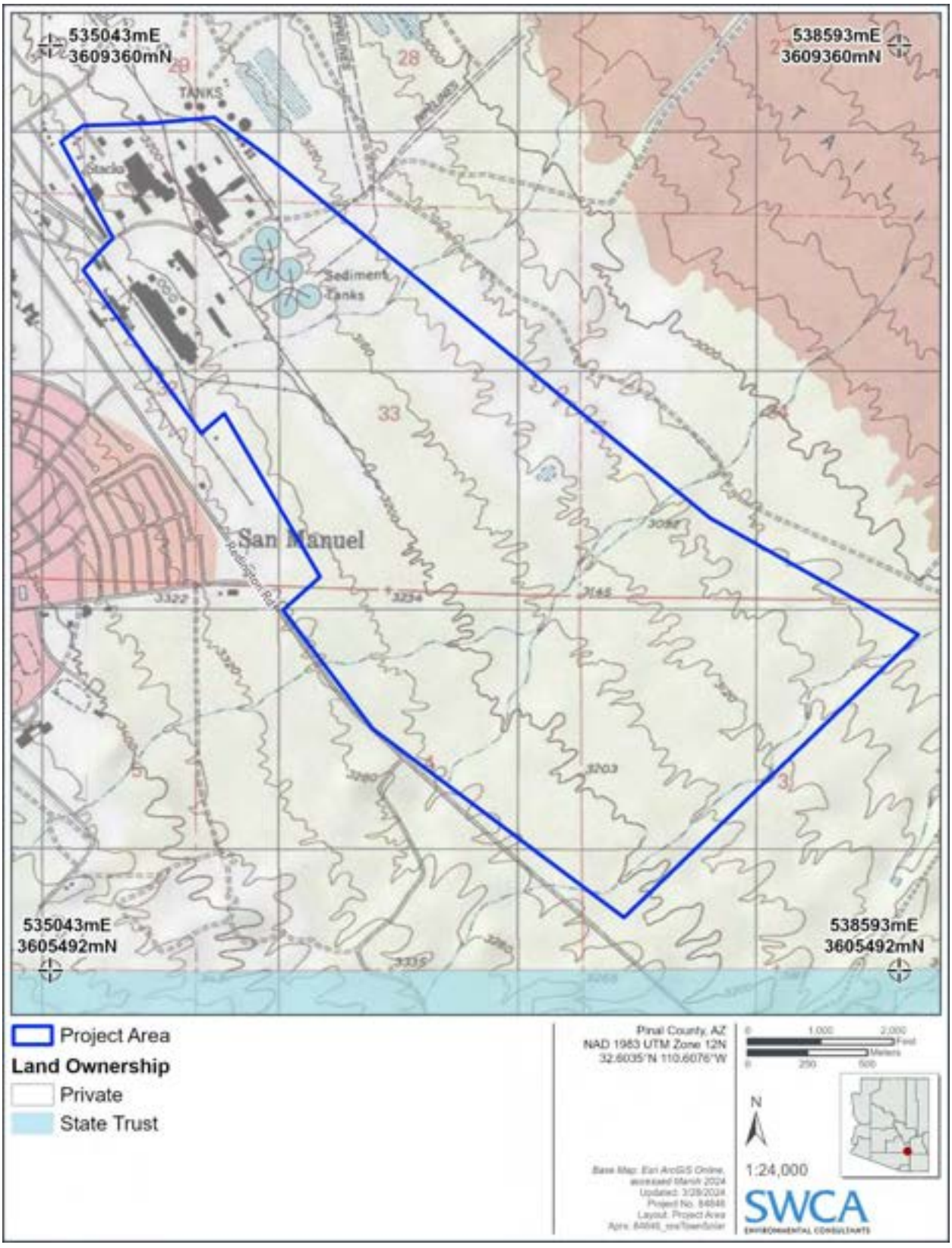


Figure 2. Project area map.

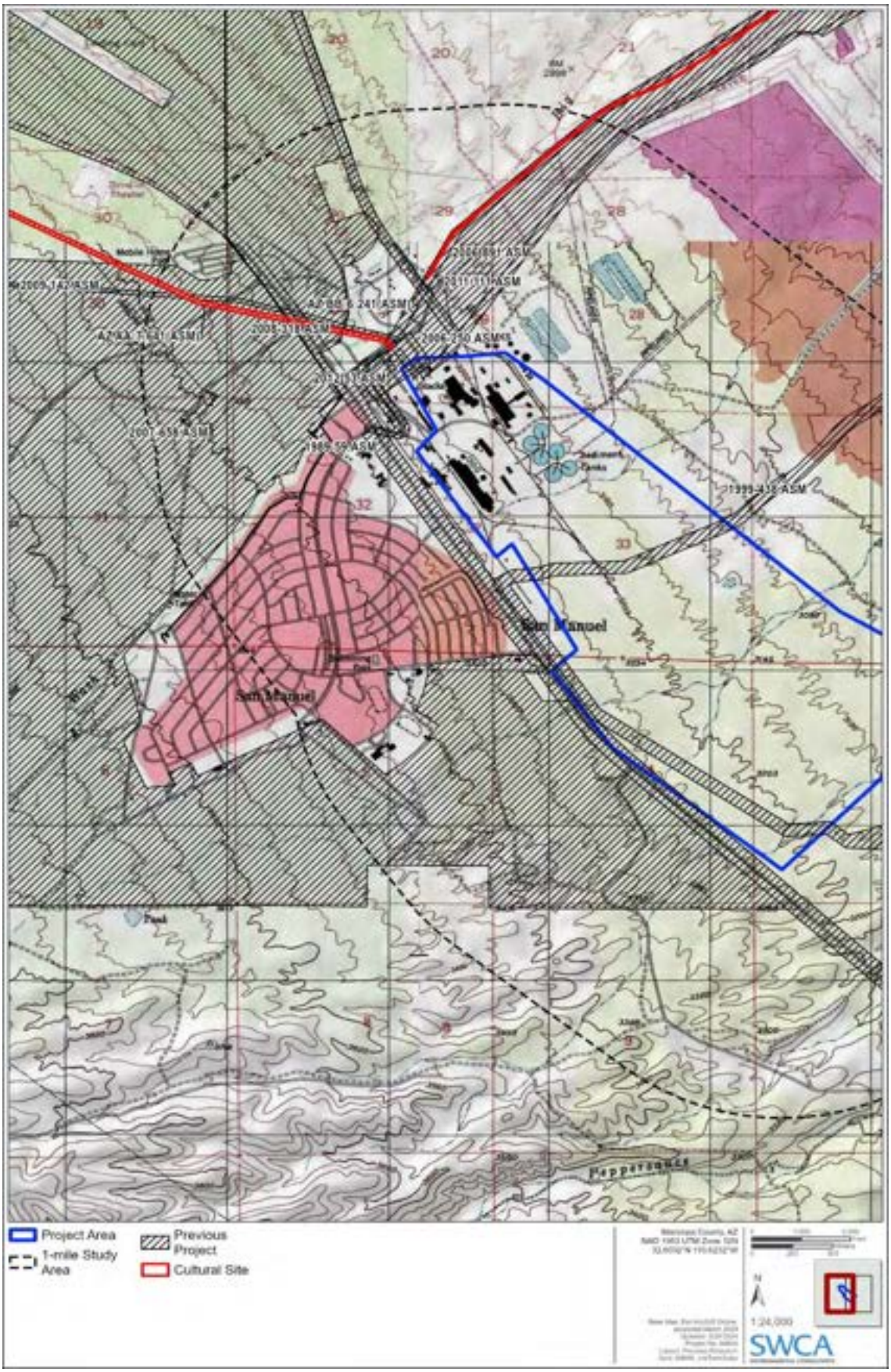


Figure 3a. Previous research in and within a 1-mile radius of the project area.

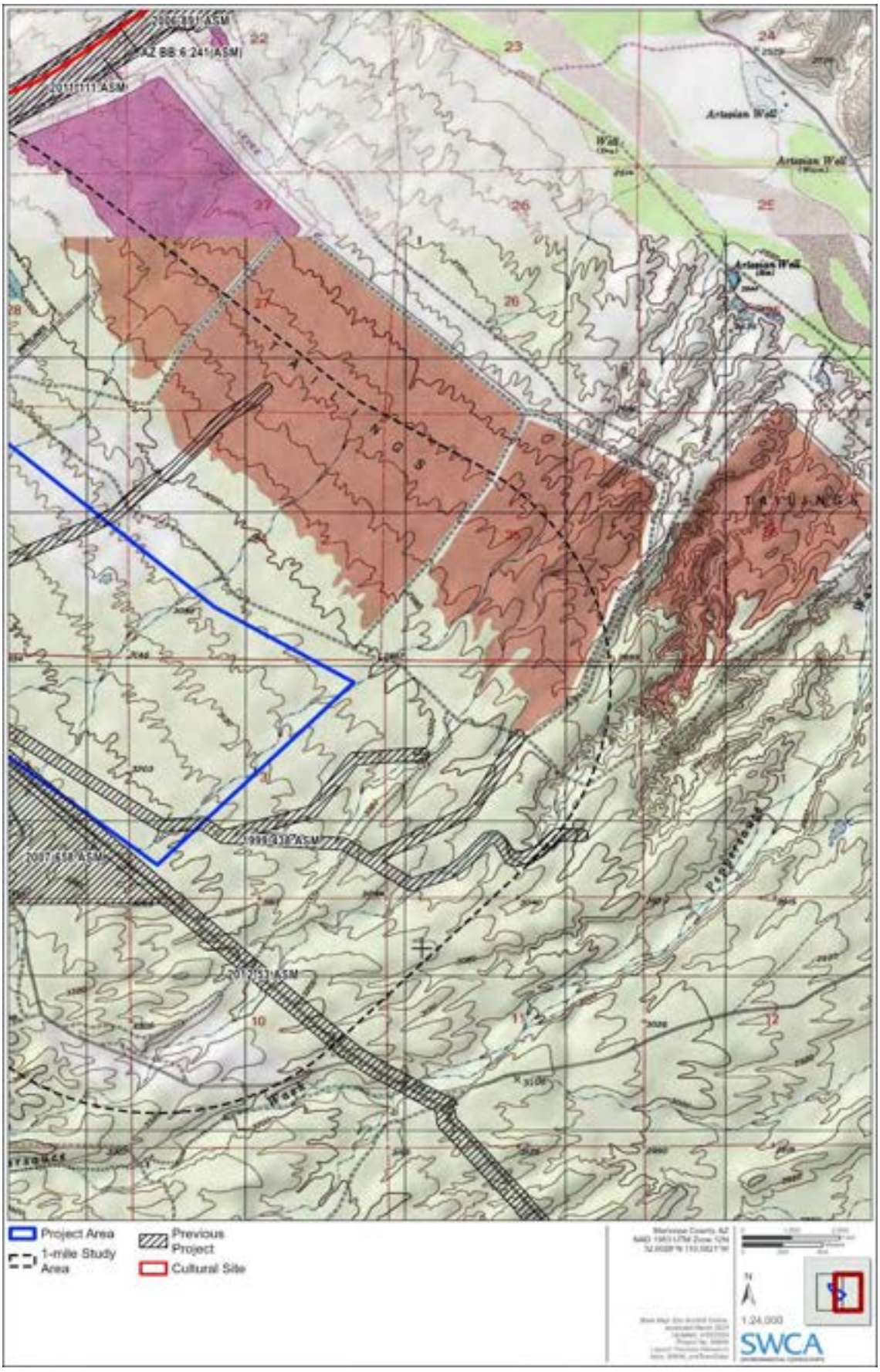


Figure 3b. Previous research in and within a 1-mile radius of the project area.

STATE HISTORIC PRESERVATION OFFICE
SURVEY REPORT SUMMARY FORM

April 2024

APPENDIX H

Aquatic Resources Assessment

Aquatic Resources Assessment/ Jurisdictional Delineation for the Ore Town Solar Project in Pinal County, Arizona

MAY 2024

PREPARED FOR

310SM 8me LLC

PREPARED BY

SWCA Environmental Consultants

AQUATIC RESOURCES ASSESSMENT/JURISDICTIONAL DELINEATION FOR THE ORE TOWN SOLAR PROJECT IN PINAL COUNTY, ARIZONA

Prepared for

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SWCA Project No. 84846

May 2024

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1 INTRODUCTION

310SM 8me LLC retained SWCA Environmental Consultants (SWCA) to complete an aquatic resources assessment and a jurisdictional delineation for the Ore Town Solar Project (project) in Pinal County, Arizona. The proposed project is located on a private lands, largely undeveloped, previously used by the San Manuel copper Mine for ore processing and not historically mined. The proposed project is adjacent to the community of San Manuel, north of South Veterans Memorial Highway (Figure 1). The project includes the development of a photovoltaic solar energy generation facility with an associated generation-tie transmission line connecting the facility to the San Manuel electrical substation located adjacent to the proposed facility. The proposed solar facility is approximately 1,227.41 acres and consists entirely of private land owned by BHP (Figure 2). The approximate center point of the project area is 32.603442°, −110.608592°.

SWCA conducted this assessment of potential waters of the United States (WOTUS), including wetlands, to support a request to the U.S. Army Corps of Engineers (USACE) for a written determination of WOTUS in the project area. The purpose of this assessment is twofold: 1) to document whether any natural or constructed drainages within the project area may be WOTUS as defined under 33 Code of Federal Regulations (CFR) 328.3 and would thus be subject to federal regulation under Section 404 of the Clean Water Act (CWA) (33 United States Code 1344); and 2) to determine the geographic limits of federal jurisdiction (as outlined in 33 CFR 328.4–5) of any WOTUS that may be present within the project area.

2 METHODS

This report and associated field reconnaissance were completed in accordance with the USACE *Minimum Standards for Acceptance of Aquatic Resources Delineation Reports* (USACE 2017), *Corps of Engineers Wetlands Delineation Manual* (USACE 1987), *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2)* (USACE 2008), and *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (Lichvar and McColley 2008). In addition, the *User Manual for a Beta Streamflow Duration Assessment Method (SDAM) for the Arid West of the United States* (*Version 1.0*) (Mazor et al. 2021) was used to help characterize the flow regimes. Flow regime of surface water features was determined based on information gathered during the desktop review and field investigation. Vegetation species observed during the field reconnaissance were compared with the wetland indicator plant list for Arizona (USACE 2020) to determine if they are considered hydrophytic species in the Arid West region.

Prior to conducting field reconnaissance, SWCA personnel completed a desktop review to identify potential WOTUS, including wetlands and other special aquatic sites, as defined under the CWA (33 CFR 328.3 (a)), within the project area. SWCA accessed several public databases to characterize surface water features and provide additional data relating to their function. SWCA personnel reviewed recent aerial photographs and online datasets relative to water resources within the boundaries of the project area.



Figure 1. General project area location.

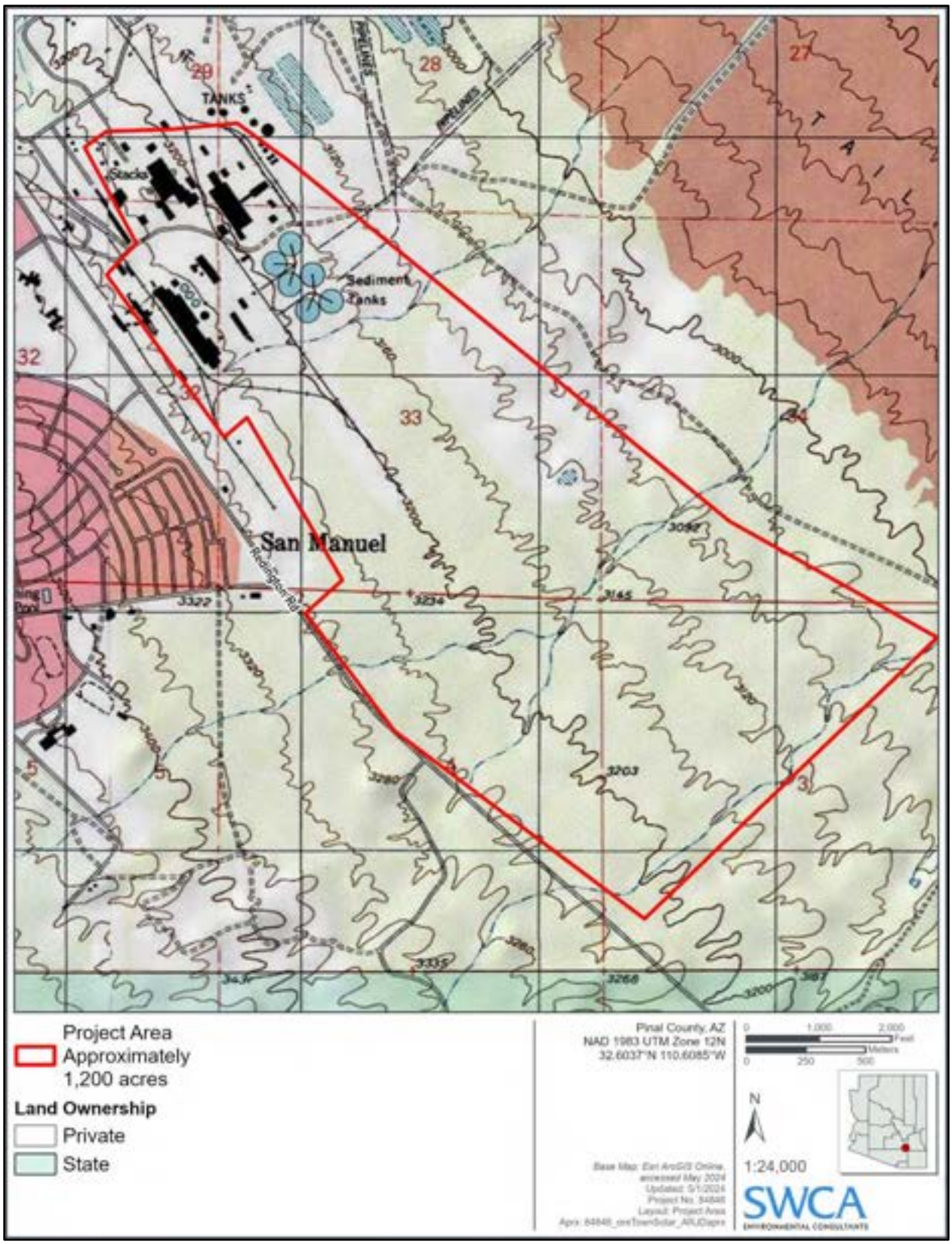


Figure 2. Project area, land ownership, and topography.

The following specific data sources were accessed:

- Aerial imagery (Google Earth 2024)
- U.S. Environmental Protection Agency (EPA) Watershed Assessment, Tracking and Environmental Results System (WATERS) Surface Water Information System, which includes National Hydrography Dataset (NHD) streams, U.S. Geological Survey (USGS) watersheds, and other surface water feature data (EPA 2024)
- Natural Resources Conservation Service (NRCS) Soil Survey data (NRCS 2024)
- USGS topographic maps (Peppersauce Wash and Campo Bonito, Arizona, 7.5-minute quadrangles)
- Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) (FEMA 2024)
- U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) mapper (USFWS 2024)
- Arizona Department of Water Resources (ADWR) website registry of wells (ADWR 2024)
- Arizona Department of Environmental Quality (ADEQ) eMaps (ADEQ 2024)
- USACE Antecedent Precipitation Tool (USACE 2024)

During the field reconnaissance on April 9 and 10, 2024, SWCA water resources specialists traversed the project area by vehicles and on foot. Representative ground-level photographs (Appendix A) were taken including a 1-meter scale bar for reference at surface water features with the potential to be considered WOTUS, and field data for these features were recorded using GPS technology. Field GPS data were then transferred to a geographic information system (GIS) platform and mapped onto aerial photograph base maps to create figures that depict sample point locations and surface water features exhibiting ordinary high-water marks (OHWMs) within the project area (Appendix B, Figures B-1–B-5).

3 RESULTS

3.1 Project Area Setting

3.1.1 *Topography and Land Use*

The project area is located in the San Pedro Valley approximately 2.5 miles southwest of the San Pedro River and its surrounding floodplains, with the Santa Catalina Mountains further to the southwest and the Galiuro Mountains to the northeast. The northern portion of the project area has been highly disturbed by past mining activities, but the southern portion is mostly native desert. In addition, the native desert between the project area's northeast boundary and the San Pedro River floodplain is completely disturbed by past mining activities related to the stockpiling of tailings. The topography of the project area slopes gently towards the northeast and elevations in the project area range from approximately 3,090 to 3,300 feet above mean sea level. Land use in the vicinity of the project area includes the town of San Manuel to the west, the closed San Manuel Mine property to the north, mine tailings to the northeast, and open rangeland to the south.

3.1.2 *Hydrography*

The project area lies within the 33,936-acre Big Wash-San Pedro River watershed (12-digit Hydrologic Unit Code 150502030802), as defined by the USGS Watershed Boundary Dataset (EPA 2024; USGS 2024a). Review of FEMA FIRM Panel 04021C2550E indicates that the project area is within a Zone X area of minimal flood hazard (FEMA 2024).

The topographic maps, NHD data, and NWI data review identified surface water features within the project area, including linear and pond features modeled by both the NHD and the NWI (EPA 2024; USFWS 2024; USGS 2024b) (Table 1 and Appendix C). Additional potential surface water features were identified in the project area through a review of available aerial imagery.

Table 1. NWI and NHD Features within the Project Area

NWI or NHD Feature Code	Code Translation	Quantity within Analysis Area	Associated Feature(s)
R4SBC	Riverine, intermittent, streambed, seasonally flooded	4	Unnamed natural ephemeral drainages
PUSAh	Palustrine, unconsolidated shore, temporarily flooded, excavated	1	Stock watering pond
Waterbody	Lake/pond		
Flowline	Ephemeral stream/river	4	Unnamed natural ephemeral drainages

Sources: Cowardin et al. (1979); USFWS (2024)

The average annual precipitation over the period of 2001 to 2023 for the nearby San Manuel, Arizona, weather station was 11.52 inches (National Oceanic and Atmospheric Administration 2024). Results from the USACE Antecedent Precipitation Tool indicate that the April 2024 survey was conducted during the dry season, the drought index was “mild wetness”, and the vicinity of the project area had been experiencing “wetter than normal” antecedent precipitation conditions in the 90 days prior to the site visit (USACE 2024).

No Outstanding Arizona Waters, impaired waters, or waterbodies designated as not attaining water quality standards are located within or immediately adjacent to the project area (ADEQ 2024). The closest impaired water is the San Pedro River, approximately 2.5 miles downstream (northeast) of the project area.

A check of the ADWR website registry of wells in Arizona indicates that depth to groundwater in the vicinity of the project area ranges from 226 feet below the surface (registered well 55-615728) to 240 feet below the surface (registered well 55-629399) (ADWR 2024).

3.1.3 *Vegetation*

The project area is within the Arizona Uplands subdivision of the Sonoran Desertscrub biotic community as described and mapped by Brown (1994). Dominant plant species observed during the survey included creosote bush (*Larrea tridentata*), whitethorn acacia (*Vachellia constricta*), and desert globemallow (*Sphaeralcea ambigua*). Other plants observed included velvet mesquite (*Prosopis velutina*), yellow paloverde (*Parkinsonia microphylla*), blue paloverde (*P. florida*), desertbroom (*Baccharis sarothroides*), waterjacket (*Lycium andersonii*), brittlebush (*Encelia farinosa*), Coues’ cassia (*Senna covesii*), saguaro (*Carnegiea gigantea*), brown-spined pricklypear (*Opuntia phaeacantha*), chain-fruit cholla

(*Cylindropuntia fulgida*), teddybear cholla (*C. bigelovii*), candy barrelcactus (*Ferocactus wislizenii*), and Engelmann's hedgehog cactus (*Echinocereus engelmannii*). None of these species are listed as facultative wetland or obligate indicator species in the latest wetland indicator plant list for the Arid West Land Resource Region (USACE 2020).

3.1.4 *Soils*

The NRCS indicates that three soil map units are mapped in the project area. Listed in order of relative abundance in the project area, these map units are Tubac-Rillino complex, 3 to 25 percent slopes (66.3%); mined land (29.1%); and Queencreek soils and riverwash, 0 to 5 percent slopes (4.6%). None of these soils has a hydric soil rating and all have a "well-drained" to "excessively drained" natural drainage classification (see Appendix C) (NRCS 2024). In addition, conditions on-site, including the lack of wetland hydrology or wetland indictor plant species, are not conducive to the development of hydric soils even at the stock watering ponds.

3.2 Surface Water Features

A total of 10 surface water features or systems of features were identified during desktop review and assessed during the field investigations. Surface flows to Features 2–6 were found to be blocked upstream by construction of a raised roadbed associated with Feature 1 that intercepts natural stormwater runoff stream flows and diverts them from their historic flow paths across the project area to the southeast and outside of the project area. Table 2 summarizes individual data points and ground-level photographs taken at 74 representative data points are provided in Appendix A. Aerial photograph figures showing all numbered features and data point locations are presented in Appendix B (Figures B-1–B-5).

Table 2. Summary of Surface Water Features within the Project Area

Feature ID	Data Point No.	Photo # (Appx. A)	Map # (Appx. B)	Latitude (°N), Longitude (°W)	Notes	Associated NWI Code	OHWM Indicators Observed	OHWM Width (Feet)	Potential WOTUS?
1	DP-2	1, 2	5	32.589490 / 110.599938	Identified from aerial imagery as a potential surface water feature.	None	Cut bank, shelving, bed and banks, debris line	7	No
2	DP-4	3, 4	5	32.592054 / 110.597719	Identified by NHD and NWI as a linear surface water feature.	R4SBC	Shelving, bed and banks, debris line	12	No
	DP-5	5, 6	4	32.595257 / 110.593113			Cut bank, shelving, bed and banks, debris line	26	
	DP-6	7, 8	4	32.597997 / 110.589164			Change in substrate, debris line	8	
3	DP-13	9, 10	4	32.601740 / 110.594778	Identified from aerial imagery as a potential surface water feature.	None	Shelving, bed and banks, debris line	15	No
4	DP-26	11, 12	3, 5	32.594250 / 110.608152	Identified by NHD and NWI as a system of linear surface water feature.	R4SBC	Bed and banks	12	No
	DP-27	13, 14	3, 4	32.595620 / 110.606281			Change in substrate	20	
	DP-30	15, 16	3, 4	32.595598 / 110.607202		None		7	
	DP-31	17, 18	3, 4	32.596554 / 110.606077		R4SBC		30	
	DP-33	19, 20	3, 4	32.597068 / 110.606686				16	
	DP-34	21, 22	3, 4	32.598409 / 110.605319				35	
	DP-35	23, 24	3	32.597868 / 110.614173			Bed and banks, change in substrate	15	
	DP-36	25, 26	3	32.598687 / 110.608998			Change in substrate	50	
	DP-37	27, 28	3, 4	32.598991 / 110.605790				20	
	DP-38	29, 30	3, 4	32.601069 / 110.603102			Bed and banks, change in substrate	45	

Feature ID	Data Point No.	Photo # (Appx. A)	Map # (Appx. B)	Latitude (°N), Longitude (°W)	Notes	Associated NWI Code	OHWM Indicators Observed	OHWM Width (Feet)	Potential WOTUS?
	DP-39	31, 32	2	32.604089 / 110.598747				42	
	DP-41	33, 34	3	32.600287 / 110.610170		None	Change in substrate	7	
	DP-42	35, 36	2, 3	32.602034 / 110.608290				11	
	DP-43	37, 38	2, 3	32.602720 / 110.606442			Bed and banks, change in substrate	18	
	DP-44	39, 40	2, 3, 4	32.602151 / 110.603390			Bed and banks	15	
	DP-45	41, 42	2	32.603318 / 110.600427		R4SBC	Change in substrate	50	
5	DP-46	43, 44	2	32.603364 / 110.603883	Identified from aerial imagery as a system of potential surface water features.	None	Change in substrate	5	No
	DP-47	45, 46	2	32.605387 / 110.600768				25	
6	DP-48	47, 48	3	32.601564 / 110.614727	Identified from aerial imagery as a potential surface water feature.	None	Change in substrate	25	No
	DP-49	49, 50	2, 3	32.602066 / 110.611895				28	
	DP-50	51, 52	2	32.603671 / 110.610135				20	
	DP-51	53, 54	2	32.604589 / 110.607065			Shelving, change in substrate	12	
	DP-55	55, 56	2	32.603181 / 110.615364			Bed and banks, change in substrate	12	
	DP-56	57, 58	2	32.604026 / 110.613307			Bed and banks, change in substrate, debris line	18	
	DP-57	59, 60	2	32.604556 / 110.609274			Cut bank, shelving, bed and banks	24	
	DP-58	61, 62	2	32.605412 / 110.607815				20	

Feature ID	Data Point No.	Photo # (Appx. A)	Map # (Appx. B)	Latitude (°N), Longitude (°W)	Notes	Associated NWI Code	OHWM Indicators Observed	OHWM Width (Feet)	Potential WOTUS?
	DP-59	63, 64	2	32.605756 / 110.605818			Cut bank, bed and banks	15	
	DP-60	65, 66	2	32.606724 / 110.602406			Cut bank, shelving, bed and banks	20	
7	DP-62	67, 68	2	32.607083 / 110.607984	Identified from aerial imagery as a potential surface water feature.	None	Bed and banks, change in substrate	45	No
	DP-63	69, 70	2	32.608323 / 110.604833			Cut banks, shelving	32	
8	DP-64	71, 72	2	32.607494 / 110.612204	Identified from aerial imagery as a potential surface water feature.	None	Change in substrate	8	No
	DP-65	73, 74	2	32.608051 / 110.609210				10	
	DP-66	75, 76	2	32.609096 / 110.605805			Cut bank, bed and banks	34	
9	DP-67	77, 78	2	32.607891 / 110.613692	Identified from aerial imagery as a potential surface water feature.	None	Cut bank, bed and banks	15	No
	DP-68	79, 80	2	32.609875 / 110.611146			Change in substrate	8	
	DP-69	81, 82	1	32.611451 / 110.609094			Cut bank, bed and banks, change in substrate	25	
10	DP-71	83, 84	1, 2	32.610304 / 110.613754	Identified from aerial imagery as a potential surface water feature.	None	Cut bank, bed and banks, change in substrate	18	No
	DP-72	85, 86	1	32.611918 / 110.609834			Cut bank, shelving, bed and banks, change in substrate	10	
-	DP-1	87, 88	5	32.589274 / 110.602438	Upland sheet flow identified by NHD and NWI as a linear surface water feature.	R4SBC	None	-	No
-	DP-3	89, 90	5	32.590323 / 110.600243	Upland sheet flow identified by NHD and NWI as a linear surface water feature.	R4SBC	None	-	No
	DP-7	91, 92	5	32.594157 / 110.598085		None		-	
	DP-8	93, 94	4	32.595882 / 110.595258				-	

Feature ID	Data Point No.	Photo # (Appx. A)	Map # (Appx. B)	Latitude (°N), Longitude (°W)	Notes	Associated NWI Code	OHWM Indicators Observed	OHWM Width (Feet)	Potential WOTUS?
	DP-9	95, 96	4	32.598107 / 110.591334				-	
-	DP-10	97, 98	5	32.592232 / 110.605723	Upland sheet flow identified from aerial imagery as a potential surface water feature.	None	None	-	No
	DP-11	99, 100	3, 4, 5	32.594386 / 110.602130				-	
	DP-12	101, 102	3, 4	32.596534 / 110.599095				-	
	DP-14	103, 104	3, 4	32.596783 / 110.601973				-	
	DP-15	105, 106	3, 4	32.597980 / 110.598980				-	
	DP-16	107, 108	4	32.599824 / 110.596014				-	
-	DP-17	109, 110	3, 4	32.598902 / 110.598880	Small erosional feature and upland sheet flow identified from aerial imagery as a potential surface water feature.	None	None	-	No
	DP-18	111, 112	4	32.601359 / 110.595485				-	
-	DP-19	113, 114	3, 4	32.596025 / 110.605256	Upland sheet flow identified from aerial imagery as potential surface water features.	None	None	-	No
	DP-20	115, 116	3, 4	32.598363 / 110.603099				-	
	DP-21	117, 118	3, 4	32.597133 / 110.603696				-	
	DP-22	119, 120	3, 4	32.598689 / 110.601623				-	
	DP-23	121, 122	3, 4	32.600324 / 110.599992				-	
	DP-24	123, 124	3, 4	32.601625 / 110.598578				-	
	DP-25	125, 126	3, 4	32.601200 / 110.599847				-	

Feature ID	Data Point No.	Photo # (Appx. A)	Map # (Appx. B)	Latitude (°N), Longitude (°W)	Notes	Associated NWI Code	OHWM Indicators Observed	OHWM Width (Feet)	Potential WOTUS?
-	DP-28	127, 128	3, 5	32.594492 / 110.608339	Small erosional features and upland sheet flow identified from aerial imagery as a potential surface water feature.	None	None	-	No
	DP-29	129, 130	3	32.595295 / 110.608382				-	
	DP-32	131, 132	3	32.595230 / 110.611137				-	
	DP-40	133, 134	3	32.598295 / 110.613032				-	
-	DP-53	135, 136	2	32.604347 / 110.605680	Upland sheet flow and relict livestock tank identified by NHD and NWI as a pond feature.	None	None	-	No
	DP-54	137, 138	2	32.605195 / 110.604084		PUSAh		-	
-	DP-61	139, 140	2	32.606750 / 110.611210	Small erosional feature identified from aerial imagery as a potential surface water feature.	None	None	-	No
-	DP-70	141, 142	2	32.609290 / 110.617127	Rock-lined drainage swale identified from aerial imagery as a potential surface water feature.	None	None	-	No
-	DP-73	143, 144	1	32.617283 / 110.625629	Rock-lined drainage swale identified from aerial imagery as a potential surface water feature.	None	None	-	No
	DP-74	145, 146	1	32.618033 / 110.622426				-	
	DP-75	147, 148	1	32.617994 / 110.618722				-	

3.2.1 *Flow Regime*

For all surface water features evaluated, conditions observed on-site indicate all exhibit an ephemeral flow regime based on the application of the SDAM (Mazor et al. 2021). These results are based on the following observations:

1. There are no hydrophytic plant species (i.e., facultative wetland or obligate wetland plant species); aquatic invertebrates; Ephemeroptera, Plecoptera, or Trichoptera taxa; algae; or fish present within the project area.
2. Depth to groundwater in the project vicinity is 226 feet or more below the surface.
3. There are no hydric soils mapped in the project area (and none observed during field reconnaissance).
4. There are no wetland features in the project area.
5. The arid climate of the region precludes any significant spring snowmelt runoff from the nearby mountains to contribute to seasonal flows in or through the Project area (National Oceanic and Atmospheric Administration 2024).

3.2.2 *Geographic Scope and Flow Path*

Strahler's stream order is a common classification system for identifying stream/tributary relationships. The headwater of a stream and its downstream segment until it joins another stream is designated as Order 1. Where two Order 1 streams meet, the downstream segment is an Order 2 stream. When two Order 2 streams meet, the downstream segment is an Order 3 stream. If two different stream orders join, the downstream segment retains the order of the highest order link (e.g., an Order 2 stream joining with an Order 3 stream leads to an Order 3 stream segment).

Review of NHDPlus HR data (USGS 2024c) indicates that the surface water flows to the northern portion of the project area are blocked by the town of San Manuel and diverted to the north to Big Wash; therefore, the features in the northern portion of the project area originate there and are Order 1. Streams flowing to the southern portion of the project area range from Order 1 to Order 3, but as mentioned earlier the streamflows are intercepted by Feature 1 and diverted out of the project area to the southeast. This outflow is Order 3 and it flows to a sink on the upstream side of the mine tailings located between the project area and the San Pedro River according to review of NHDPlus HR data (see Appendix C) and historic aerial photography. Due to the presence of Feature 1, and like the features in the northern portion of the project area, the features in the southern portion of the project area are Order 1 and they also flow to sinks on the upstream side of the mine tailings northeast of the project area. Because all features in the project area terminate at sinks, there is no continuous flow path from these features to a downstream traditionally navigable water (TNW).

3.2.3 *Section 404 Regulatory Background*

The CWA serves as the federal regulatory structure to protect surface water quality. Federal jurisdiction of surface waters extends to features that meet the definition of WOTUS, as defined under 33 CFR 328. The CWA and associated WOTUS definitions have undergone a series of changes in recent years. Most recently, the March 2023 *Revised Definition of Waters of the United States* (2023 WOTUS Rule) was amended on September 8, 2023, to conform the definition of WOTUS to the Supreme Court of the United States decision in the *Sackett* v. *Environmental Protection Agency* case (USACE and EPA 2023). The 2023 WOTUS Rule and amendment were developed by the EPA and the USACE to clarify

nationwide regulations that define the jurisdictional extent of the CWA and the definition of WOTUS for use in regulations under the CWA. In accordance with 33 CFR 328.3 definitions:

a. *Waters of the United States* means:

1. Waters which are:
    i. Currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
    ii. The territorial seas; or
    iii. Interstate waters;
2. Impoundments of waters otherwise defined as waters of the United States under this definition, other than impoundments of waters identified under paragraph (a)(5) of this section;
3. Tributaries of waters identified in paragraph (a)(1) or (2) of this section that are relatively permanent, standing or continuously flowing bodies of water;
4. Wetlands adjacent to the following waters:
    i. Waters identified in paragraph (a)(1) of this section; or
    ii. Relatively permanent, standing or continuously flowing bodies of water identified in paragraph (a)(2) or (a)(3) of this section and with a continuous surface connection to those waters;
5. Intrastate lakes and ponds, streams, or wetlands not identified in paragraphs (a)(1) through (4) of this section that are relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to the waters identified in paragraph (a)(1) or (a)(3)(i) of this section.

b. The following are not *Waters of the United States*, even where they otherwise meet the terms of (a)(2) through (5):

1. Waste treatment systems, treatment ponds or lagoons, designed to meet the requirements of the CWA;
2. Prior converted cropland designated by the Secretary of Agriculture. The exclusion would cease upon a change of use, which means that the area is no longer available for the production of agricultural commodities. Notwithstanding the determination of an area's status as prior converted cropland by any other Federal agency, for the purposes of the Clean Water Act, the final authority regarding CWA jurisdiction remains with EPA;
3. Ditches (including roadside ditches) excavated wholly in and draining only dry land and that do not carry a relatively permanent flow of water;
4. Artificially irrigated areas that would revert to dry land if the irrigation ceased;
5. Artificial lakes or ponds created by excavating or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing;
6. Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating or diking dry land to retain water for primarily aesthetic reasons;
7. Waterfilled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States; and

8. Swales and erosional features (e.g., gullies, small washes) characterized by low volume, infrequent, or short duration flow.

Non-navigable tributaries must have OHWMs and be relatively permanent, standing, or continuously flowing waters with a continuous surface connection to a TNW, territorial sea, or interstate water, and wetlands must have a continuous surface connection to a relatively permanent water, TNW, territorial sea, or interstate water. Ephemeral streams are not explicitly excluded under the 2023 WOTUS Rule, and there is no specific flow duration identified for "relatively permanent," which leaves ephemeral and intermittent streams open for review by the USACE on a case-by-case basis.

3.2.4 *Conclusions*

3.2.2.1 WATERS OF THE UNITED STATES

Based on observations from the field reconnaissance, the desktop review of available information, and the current definition of WOTUS under the amended 2023 rule, the surface water features in the project area are unlikely to be considered WOTUS. The 10 numbered features in the project area display indicators of OHWMs; however, the flow regime of the features is ephemeral, they are non-relatively permanent, and they lack a continuous surface connection to a TNW due to the presence of sinks on the upstream side of the mine tailings located between the project area and the San Pedro River (Table 3). The remaining features in the project area that do not display OHWMs are characteristically consistent with non-jurisdictional uplands, sheet flow, or swales and small erosional features excluded from jurisdiction under 33 CFR 328 (b)(8), and the stock watering pond would be excluded under 33 CFR 328 (b)(5).

Table 3. Summary Surface Water Feature with OHWMs within the Project Area

Feature ID	Approximate Center Location		Length (feet)	Average Width (feet)	Area (square feet)	Area (acres)	Potential WOTUS?
	(latitude°)	(longitude°)					
1	32.594997	-110.608975	6,785	26	172,455	3.96	No
2	32.594137	-110.594911	4,754	26	126,439	2.90	No
3	32.601617	-110.594766	413	25	11,032	0.25	No
4	32.600163	-110.604599	13,783	32	411,816	9.45	No
5	32.604393	-110.601967	1,524	20	29,883	0.69	No
6	32.604845	-110.607919	10,526	38	366,517	8.41	No
7	32.607476	-110.607849	2,601	23	60,153	1.38	No
8	32.608264	-110.608642	2,348	15	34,084	0.78	No
9	32.609859	-110.611002	2,193	13	28,129	0.65	No
10	32.610870	-110.612503	2,144	11	23,618	0.54	No

4 LIMITATIONS AND WARRANTY

The results and conclusions of this report represent the best professional judgment of SWCA scientists and are based on information provided by the project proponent and on information obtained from agencies and other sources during the course of the study. No other warranty, expressed or implied, is made. The USACE and the EPA have the ultimate authority to determine the jurisdictional status of any surface water feature.

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APPENDIX A

Representative Site Photographs

(Data Points Keyed to Figures B-1–B-5 in Appendix B)



Photograph A-1. Feature 1, data point (DP)-2; view facing upstream.



Photograph A-2. Feature 1, DP-2; view facing downstream.



Photograph A-3. Feature 2, DP-4; view facing upstream.



Photograph A-4. Feature 2, DP-4; view facing downstream.



Photograph A-5. Feature 2, DP-5; view facing upstream.



Photograph A-6. Feature 2, DP-5; view facing downstream.



Photograph A-7. Feature 2, DP-6; view facing upstream.



Photograph A-8. Feature 2, DP-6; view facing downstream.



Photograph A-9. Feature 3, DP-13; view facing upstream.



Photograph A-10. Feature 3, DP-13; view facing downstream.



Photograph A-11. Feature 4, DP-26; view facing upstream.



Photograph A-12. Feature 4, DP-26; view facing downstream.



Photograph A-13. Feature 4, DP-27; view facing upstream.



Photograph A-14. Feature 4, DP-27; view facing downstream.



Photograph A-15. Feature 4, DP-30; view facing upstream.



Photograph A-16. Feature 4, DP-30; view facing downstream.



Photograph A-17. Feature 4, DP-31; view facing upstream.



Photograph A-18. Feature 4, DP-31; view facing downstream.



Photograph A-19. Feature 4, DP-33; view facing upstream.



Photograph A-20. Feature 4, DP-33; view facing downstream.



Photograph A-21. Feature 4, DP-34; view facing upstream.



Photograph A-22. Feature 4, DP-34; view facing downstream.



Photograph A-23. Feature 4, DP-35; view facing upstream.



Photograph A-24. Feature 4, DP-35; view facing downstream.



Photograph A-25. Feature 4, DP-36; view facing upstream.



Photograph A-26. Feature 4, DP-36; view facing downstream.



Photograph A-27. Feature 4, DP-37; view facing upstream.



Photograph A-28. Feature 4, DP-37; view facing downstream.



Photograph A-29. Feature 4, DP-38; view facing upstream.



Photograph A-30. Feature 4, DP-38; view facing downstream.



Photograph A-31. Feature 4, DP-39; view facing upstream.



Photograph A-32. Feature 4, DP-39; view facing downstream.



Photograph A-33. Feature 4, DP-41; view facing upstream.



Photograph A-34. Feature 4, DP-41; view facing downstream.



Photograph A-35. Feature 4, DP-42; view facing upstream.



Photograph A-36. Feature 4, DP-42; view facing downstream.



Photograph A-37. Feature 4, DP-43; view facing upstream.



Photograph A-38. Feature 4, DP-43; view facing downstream.



Photograph A-39. Feature 4, DP-44; view facing upstream.



Photograph A-40. Feature 4, DP-44; view facing downstream.



Photograph A-41. Feature 4, DP-45; view facing upstream.



Photograph A-42. Feature 4, DP-45; view facing downstream.



Photograph A-43. Feature 5, DP-46; view facing upstream.



Photograph A-44. Feature 5, DP-46; view facing downstream.



Photograph A-45. Feature 5, DP-47; view facing upstream.



Photograph A-46. Feature 5, DP-47; view facing downstream.



Photograph A-47. Feature 6, DP-48; view facing upstream.



Photograph A-48. Feature 6, DP-48; view facing downstream.



Photograph A-49. Feature 6, DP-49; view facing upstream.



Photograph A-50. Feature 6, DP-49; view facing downstream.



Photograph A-51. Feature 6, DP-50; view facing upstream.



Photograph A-52. Feature 6, DP-50; view facing downstream.



Photograph A-53. Feature 6, DP-51; view facing upstream.



Photograph A-54. Feature 6, DP-51; view facing downstream.



Photograph A-55. Feature 6, DP-55; view facing upstream.



Photograph A-56. Feature 6, DP-55; view facing downstream.



Photograph A-57. Feature 6, DP-56; view facing upstream.



Photograph A-58. Feature 6, DP-56; view facing downstream.



Photograph A-59. Feature 6, DP-57; view facing upstream.



Photograph A-60. Feature 6, DP-57; view facing downstream.



Photograph A-61. Feature 6, DP-58; view facing upstream.



Photograph A-62. Feature 6, DP-58; view facing downstream.



Photograph A-63. Feature 6, DP-59; view facing upstream.



Photograph A-64. Feature 6, DP-59; view facing downstream.



Photograph A-65. Feature 6, DP-60; view facing upstream.



Photograph A-66. Feature 6, DP-60; view facing downstream.



Photograph A-67. Feature 7, DP-62; view facing upstream.



Photograph A-68. Feature 7, DP-62; view facing downstream.



Photograph A-69. Feature 7, DP-63; view facing upstream.



Photograph A-70. Feature 7, DP-63; view facing downstream.



Photograph A-71. Feature 8, DP-64; view facing upstream.



Photograph A-72. Feature 8, DP-64; view facing downstream.



Photograph A-73. Feature 8, DP-65; view facing upstream.



Photograph A-74. Feature 8, DP-65; view facing downstream.



Photograph A-75. Feature 8, DP-66; view facing upstream.



Photograph A-76. Feature 8, DP-66; view facing downstream.



Photograph A-77. Feature 9, DP-67; view facing upstream.



Photograph A-78. Feature 9, DP-67; view facing downstream.



Photograph A-79. Feature 9, DP-68; view facing upstream.



Photograph A-80. Feature 9, DP-68; view facing downstream.



Photograph A-81. Feature 9, DP-69; view facing upstream.



Photograph A-82. Feature 9, DP-69; view facing downstream.



Photograph A-83. Feature 10, DP-71; view facing upstream.



Photograph A-84. Feature 10, DP-71; view facing downstream.



Photograph A-85. Feature 10, DP-72; view facing upstream.



Photograph A-86. Feature 10, DP-72; view facing downstream.



Photograph A-87. DP-1; view facing upgradient.



Photograph A-88. DP-1; view facing downgradient.



Photograph A-89. DP-3; view facing upgradient.



Photograph A-90. DP-3; view facing downgradient.



Photograph A-91. DP-7; view facing upgradient.



Photograph A-92. DP-7; view facing downgradient.



Photograph A-93. DP-8; view facing upgradient.



Photograph A-94. DP-8; view facing downgradient.



Photograph A-95. DP-9; view facing upgradient.



Photograph A-96. DP-9; view facing downgradient.



Photograph A-97. DP-10; view facing upgradient.



Photograph A-98. DP-10; view facing downgradient.



Photograph A-99. DP-11; view facing upgradient.



Photograph A-100. DP-11; view facing downgradient.



Photograph A-101. DP-12; view facing upgradient.



Photograph A-102. DP-12; view facing downgradient.



Photograph A-103. DP-14; view facing upgradient.



Photograph A-104. DP-14; view facing downgradient.



Photograph A-105. DP-15; view facing upgradient.



Photograph A-106. DP-15; view facing downgradient.



Photograph A-107. DP-16; view facing upgradient.



Photograph A-108. DP-16; view facing downgradient.



Photograph A-109. DP-17; view facing upgradient.



Photograph A-110. DP-17; view facing downgradient.



Photograph A-111. DP-18; view facing upgradient.



Photograph A-112. DP-18; view facing downgradient.



Photograph A-113. DP-19; view facing upgradient.



Photograph A-114. DP-19; view facing downgradient.



Photograph A-115. DP-20; view facing upgradient.



Photograph A-116. DP-20; view facing downgradient.



Photograph A-117. DP-21; view facing upgradient.



Photograph A-118. DP-21; view facing downgradient.



Photograph A-119. DP-22; view facing upgradient.



Photograph A-120. DP-22; view facing downgradient.



Photograph A-121. DP-23; view facing upgradient.



Photograph A-122. DP-23; view facing downgradient.



Photograph A-123. DP-24; view facing upgradient.



Photograph A-124. DP-24; view facing downgradient.



Photograph A-125. DP-25; view facing upgradient.



Photograph A-126. DP-25; view facing downgradient.



Photograph A-127. DP-28; view facing upgradient.



Photograph A-128. DP-28; view facing downgradient.



Photograph A-129. DP-29; view facing upgradient.



Photograph A-130. DP-29; view facing downgradient.



Photograph A-131. DP-32; view facing upgradient.



Photograph A-132. DP-32; view facing downgradient.



Photograph A-133. DP-40; view facing upgradient.



Photograph A-134. DP-40; view facing downgradient.



Photograph A-135. DP-53; view facing upgradient.



Photograph A-136. DP-53; view facing downgradient.



Photograph A-137. DP-54; view facing upgradient.



Photograph A-138. DP-54; view facing downgradient.



Photograph A-139. DP-61; view facing upgradient.



Photograph A-140. DP-61; view facing downgradient.



Photograph A-141. DP-70; view facing upgradient.



Photograph A-142. DP-70; view facing downgradient.



Photograph A-143. DP-73; view facing upgradient.



Photograph A-144. DP-73; view facing downgradient.



Photograph A-145. DP-74; view facing upgradient.



Photograph A-146. DP-74; view facing downgradient.



Photograph A-147. DP-75; view facing upgradient.



Photograph A-148. DP-75; view facing downgradient.

APPENDIX B

Aerial Photographs



APPROVED JURISDICTIONAL DETERMINATION
SECTION 404 CLEAN WATER ACT

U.S. Army Corps of Engineers, Los Angeles District
Application No. SPL-

Boundary of area surveyed for jurisdictional waters of the United States

Approximate Ordinary High Water Mark

Potential Waters of the United States

Potential Wetlands (If legend is blank no wetlands occur with survey area.)

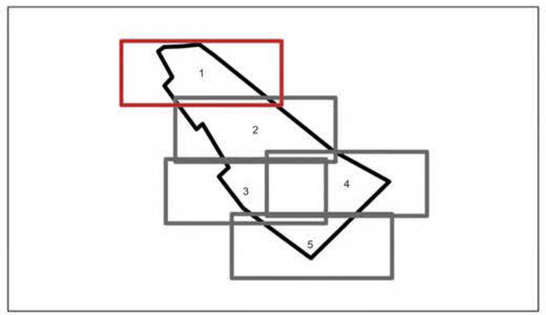
Scale: See scale bar Photograph Date: 6/27/2023
Site Visit by Corps(Y/N) Date:
Determination Issued:
Project Manager:

Sheet 1 of 5

Data Point

Photo Direction

Road



Pinal County, AZ
USGS 7.5' Quadrangle:
Campo Bonito, AZ, 32110-E6
Peppersauce Wash, AZ, 32110-E5
T10S R17E Section 03,04
T9S R17E Section 28,29,32-,34
NAD 1983 UTM Zone 12N
32.6145°N 110.6188°W

Base Map: Esri ArcGIS Online, accessed May 2024
Updated: 5/6/2024
Project No. 84922
Layout: JD 24x36
Aprx: 84846_oreTownSolar_ARJDaprx

1 Inch Equals 200 Feet
0 500 1,000 Feet
0 130 260 Meters

N

1":200'

SWCA
ENVIRONMENTAL CONSULTANTS



APPROVED JURISDICTIONAL DETERMINATION
SECTION 404 CLEAN WATER ACT

U.S. Army Corps of Engineers, Los Angeles District
Application No. SPL-

Boundary of area surveyed for jurisdictional waters of the United States

Approximate Ordinary High Water Mark

Potential Waters of the United States

Potential Wetlands (If legend is blank no wetlands occur with survey area.)

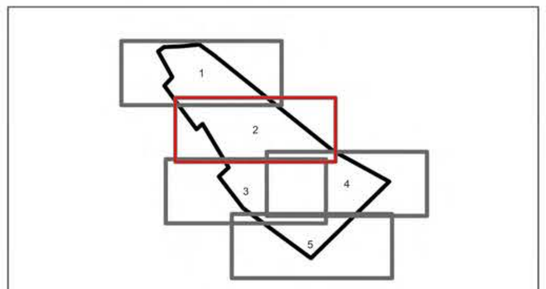
Scale: See scale bar Photograph Date: 6/27/2023
Site Visit by Corps(Y/N) Date:
Determination Issued:
Project Manager:

Sheet 2 of 5

Data Point

Photo Direction

Road



Pinal County, AZ
USGS 7.5' Quadrangle:
Campo Bonito, AZ, 32110-E6
Peppersauce Wash, AZ, 32110-E5
T10S R17E Section 03,04
T9S R17E Section 28,29,32-,34
NAD 1983 UTM Zone 12N
32.6064°N 110.61°W

Base Map: Esri ArcGIS Online, accessed May 2024
Updated: 5/6/2024
Project No. 84922
Layout: JD 24x36
Aprx: 84846_oreTownSolar_ARJDaprx

1 Inch Equals 200 Feet

0 500 1,000 Feet

0 130 260 Meters

N

1":200'

SWCA ENVIRONMENTAL CONSULTANTS



APPROVED JURISDICTIONAL DETERMINATION
SECTION 404 CLEAN WATER ACT

U.S. Army Corps of Engineers, Los Angeles District
Application No. SPL-

Boundary of area surveyed for jurisdictional waters of the United States

Approximate Ordinary High Water Mark

Potential Waters of the United States

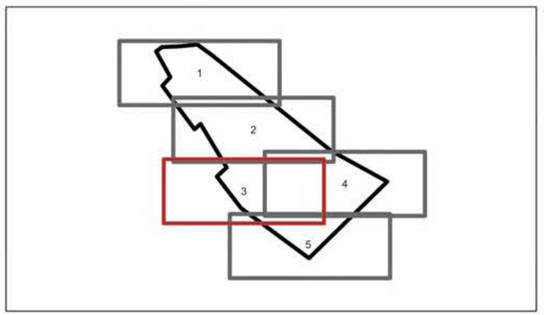
Potential Wetlands (If legend is blank no wetlands occur with survey area.)

Scale: See scale bar Photograph Date: 6/27/2023
Site Visit by Corps(Y/N) Date:
Determination Issued:
Project Manager: Sheet 3 of 5

Data Point

Photo Direction

Road



Pinal County, AZ
USGS 7.5' Quadrangle:
Campo Bonito, AZ, 32110-E6
Peppersauce Wash, AZ, 32110-E5
T10S R17E Section 03,04
T9S R17E Section 28,29,32-,34
NAD 1983 UTM Zone 12N
32.5978°N 110.6117°W

Base Map: Esri ArcGIS Online, accessed May 2024
Updated: 5/6/2024
Project No. 84922
Layout: JD 24x36
Aprx: 84846_oreTownSolar_ARJDaprx

1 Inch Equals 200 Feet
0 500 1,000 Feet
0 130 260 Meters

N

1":200'

SWCA
ENVIRONMENTAL CONSULTANTS



APPROVED JURISDICTIONAL DETERMINATION
SECTION 404 CLEAN WATER ACT

U.S. Army Corps of Engineers, Los Angeles District
Application No. SPL-

Boundary of area surveyed for jurisdictional waters of the United States

Approximate Ordinary High Water Mark

Potential Waters of the United States

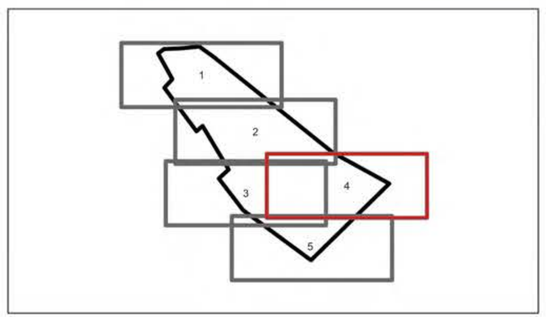
Potential Wetlands (If legend is blank no wetlands occur with survey area.)

Scale: See scale bar Photograph Date: 6/27/2023
Site Visit by Corps(Y/N) Date:
Determination Issued:
Project Manager:

Sheet 4 of 5

Data Point

Photo Direction



Pinal County, AZ
USGS 7.5' Quadrangle:
Campo Bonito, AZ, 32110-E6
Peppersauce Wash, AZ, 32110-E5
T10S R17E Section 03,04
T9S R17E Section 28,29,32-,34
NAD 1983 UTM Zone 12N
32.5987°N 110.5949°W

Base Map: Esri ArcGIS Online, accessed May 2024
Updated: 5/6/2024
Project No. 84922
Layout: JD 24x36
Aprx: 84846_oreTownSolar_ARJDaprx

1 Inch Equals 200 Feet
0 500 1,000 Feet
0 130 260 Meters

N

1":200'

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APPROVED JURISDICTIONAL DETERMINATION
SECTION 404 CLEAN WATER ACT

U.S. Army Corps of Engineers, Los Angeles District
Application No. SPL-

Boundary of area surveyed for jurisdictional waters of the United States

Approximate Ordinary High Water Mark

Potential Waters of the United States

Potential Wetlands (If legend is blank no wetlands occur with survey area.)

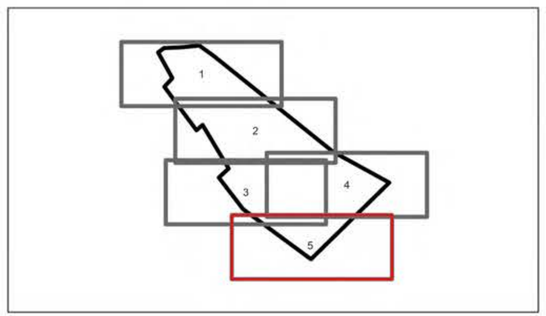
Scale: See scale bar Photograph Date: 6/27/2023
Site Visit by Corps(Y/N) Date:
Determination Issued:
Project Manager:

Sheet 5 of 5

Data Point

Photo Direction

Road



Pinal County, AZ
USGS 7.5' Quadrangle:
Campo Bonito, AZ, 32110-E6
Peppersauce Wash, AZ, 32110-E5
T10S R17E Section 03,04
T9S R17E Section 28,29,32-,34
NAD 1983 UTM Zone 12N
32.59°N 110.6008°W

Base Map: Esri ArcGIS Online, accessed May 2024
Updated: 5/6/2024
Project No. 84922
Layout: JD 24x36
Aprx: 84846_oreTownSolar_ARJDaprx

1 Inch Equals 200 Feet
0 500 1,000 Feet
0 130 260 Meters

N

1":200'

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APPENDIX C

Supporting Agency Data

U.S. Environmental Protection Agency National Hydrography Dataset, U.S. Fish and Wildlife Service National Wetlands Inventory, and Federal Emergency Management Administration Floodplain Map

Natural Resources Conservation Service Soils Map

U.S. Army Corps of Engineers Antecedent Precipitation Tool Results

NHDPlus HR Flow Path Map



Project Area

NHD Flowlines

Stream/River

Artificial Path

NHD Waterbodies

Lake Pond

Reservoir

NWI Wetlands

Freshwater Pond

Lake

Riverine

Floodplains

Zone A

Zone X Area of Minimal Flood Hazard

Pinal County, AZ
USGS 7.5' Quadrangle:
Campo Bonito, AZ, 32110-E6
Peppersauce Wash, AZ, 32110-E5
NAD 1983 UTM Zone 12N
32.6037°N 110.6085°W

Base Map: Esri ArcGIS Online, accessed March 2024
Updated: 3/1/2024
Project No. 84846
Layout: NHD NWI FEMA
Apx: 84846_proTowerSolar_AFUDapm

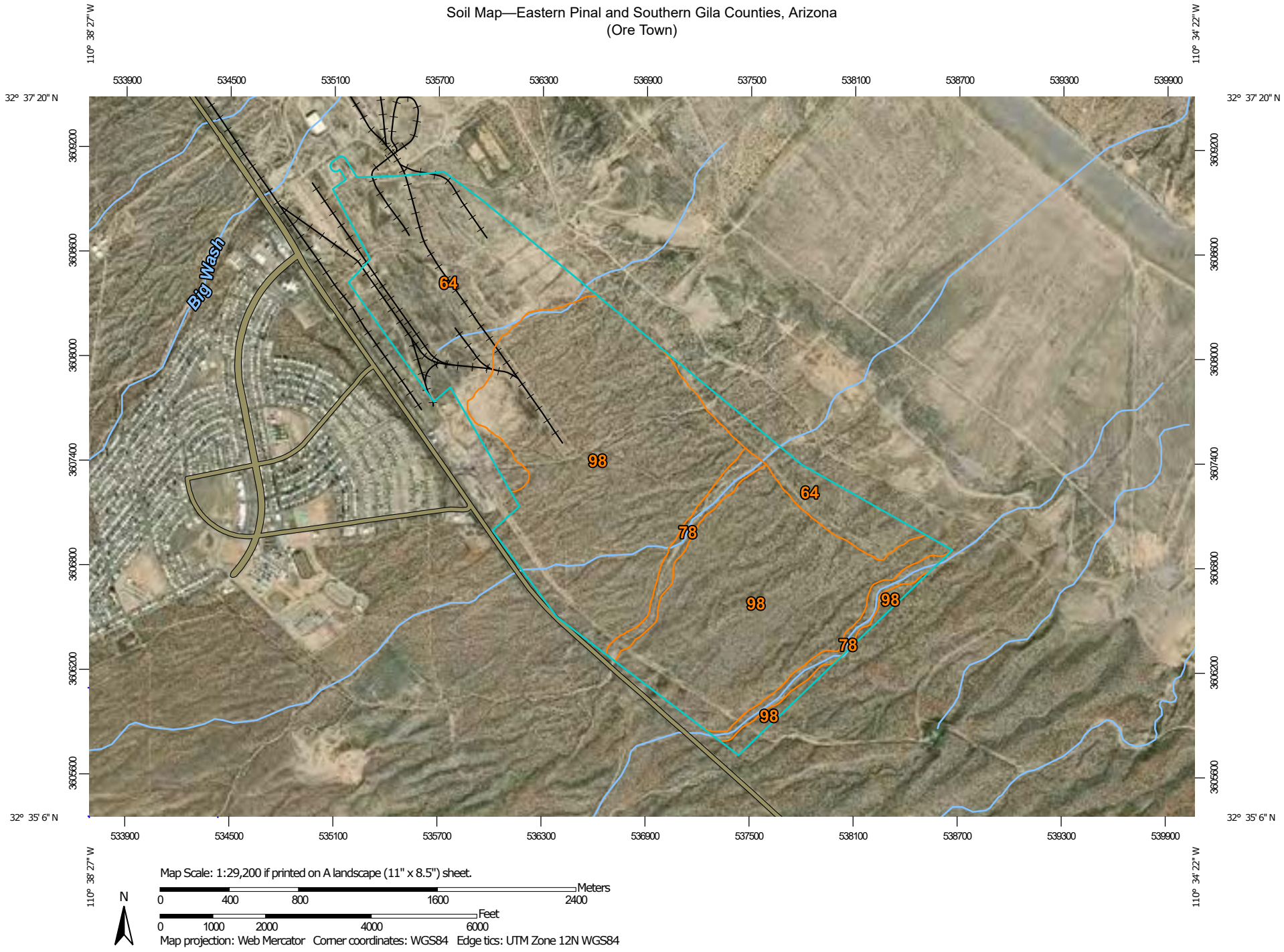
0 1,000 2,000 Feet
0 250 500 Meters

N

1:24,000

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Soil Map—Eastern Pinal and Southern Gila Counties, Arizona
(Ore Town)



MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Eastern Pinal and Southern Gila Counties, Arizona
Survey Area Data: Version 19, Sep 8, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

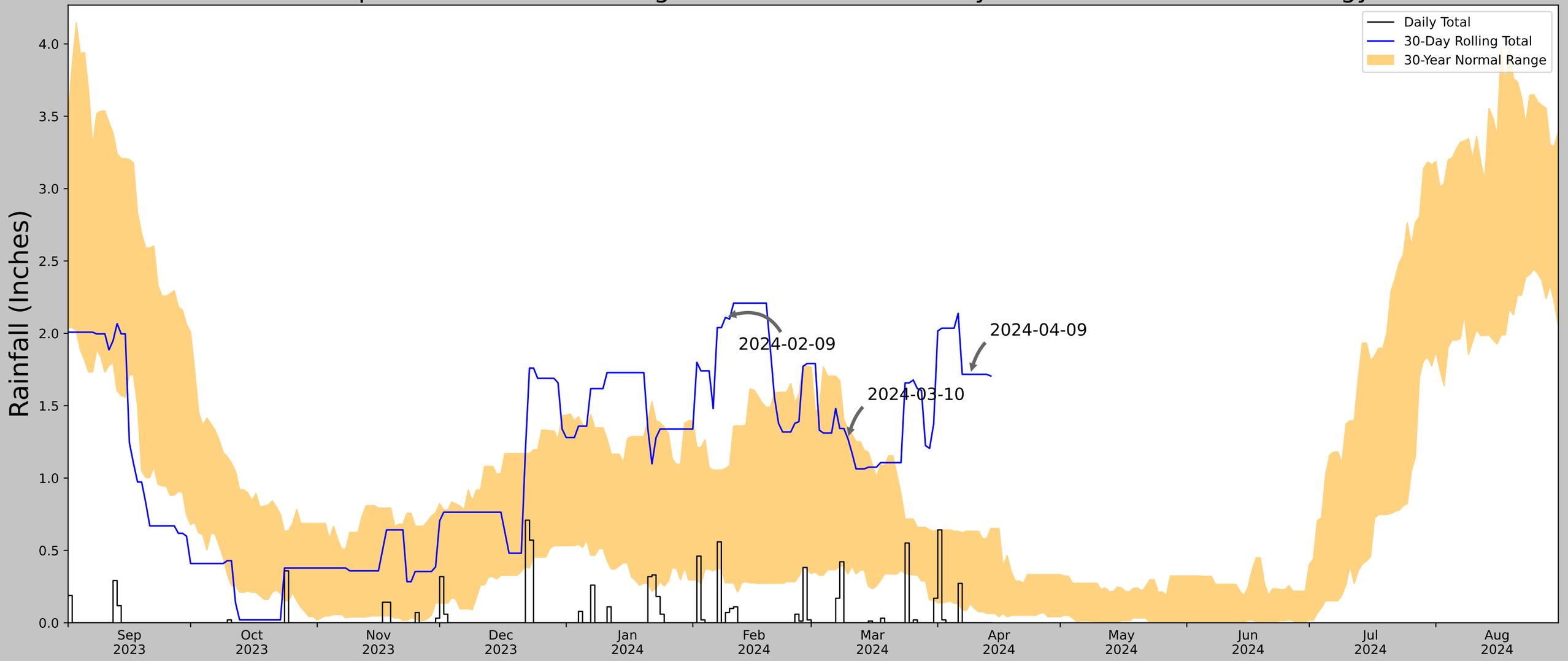
Date(s) aerial images were photographed: Dec 31, 2009—Oct 30, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
64	Mined land	351.4	29.1%
78	Queencreek soils and riverwash, 0 to 5 percent slopes	55.9	4.6%
98	Tubac-Rillino complex, 3 to 25 percent slopes	801.3	66.3%
Totals for Area of Interest		**1,208.6**	**100.0%**

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	32.603442, -110.608592
Observation Date	2024-04-09
Elevation (ft)	3178.691
Drought Index (PDSI)	Mild wetness (2024-03)
WebWIMP H_2O Balance	Dry Season

30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2024-04-09	0.132283	0.632283	1.716535	Wet	3	3	9
2024-03-10	0.337008	1.339764	1.271654	Normal	2	2	4
2024-02-09	0.275591	1.065354	2.110236	Wet	3	1	3
Result							Wetter than Normal - 16

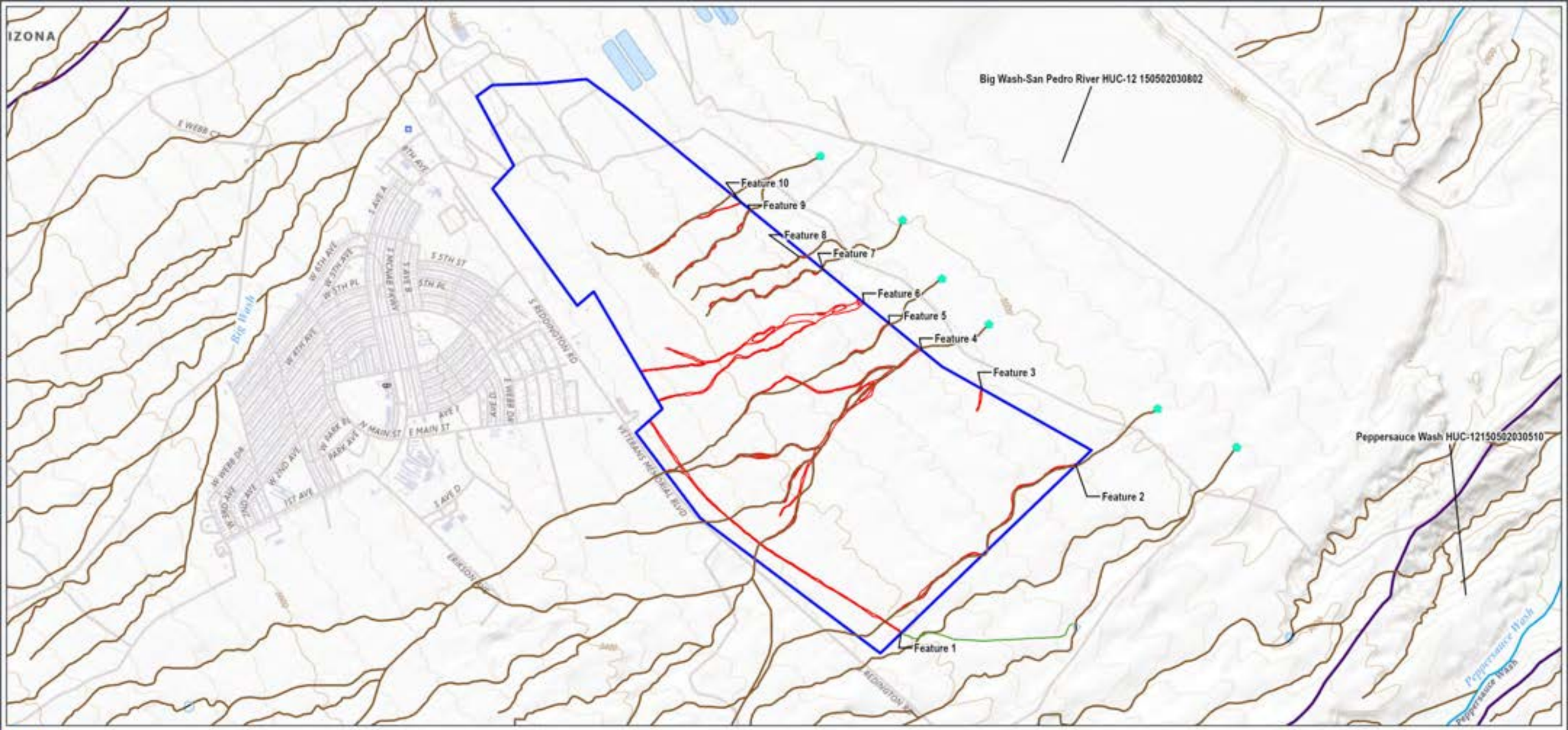
US Army Corps of Engineers

ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
SAN MANUEL	32.6014, -110.6292	3419.948	1.208	241.257	0.835	11079	86
SADDLEBROOKE 0.7 ENE	32.5364, -110.8721	3517.06	14.84	97.112	8.119	0	4
SADDLEBROOKE 0.1 N	32.5372, -110.8828	3338.911	15.418	81.037	8.188	1	0
CATALINA 2.5 ESE	32.4892, -110.8841	3348.097	16.748	71.851	8.74	4	0
MAMMOTH 1.2 S	32.7033, -110.6408	2603.018	7.073	816.93	8.961	29	0
ORACLE 2 SE	32.6025, -110.7344	4509.843	6.124	1089.895	9.43	85	0
SADDLEBROOKE 1.5 ESE	32.5304, -110.8593	3205.053	14.269	214.895	9.487	10	0
REDINGTON	32.4275, -110.4875	2883.858	14.578	536.09	14.375	114	0
CASCABEL	32.2617, -110.3481	3193.898	28.629	226.05	19.355	30	0



Project Area
OHWM
Presumed Feature 1 Flow Path Identified From Aerial Imagery
NHDPlus HR Watershed Boundary
NHDPlus HR Sink

NHDPlus HR Flowline
Intermittent
Ephemeral
Artificial Path

Pinal County, AZ
USGS 7.5' Quadrangle:
Campo Bonito, AZ, 32110-E6
Peppersauce Wash, AZ, 32110-E5
T10S R17E Section 03,04
T9S R17E Section 28,29,32-34
NAD 1983 UTM Zone 12N
32.6034°N 110.6069°W

Base Map: Esri ArcGIS Online, accessed May 2024
Updated: 5/6/2024
Project No. 94846
Layout_Simplified Flow Figure
Aprx: 94846_areTownSolar_MXD.aprx

0 1,000 2,000 Feet
0 200 500 Meters
N
1:24,000

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