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10 June 2024

From: Marshall Magruder

To: Kerwin S. Dewberry, Forest Supervisor, Coronado National Forest
(ATTN: Hermosa Critical Mineral Project)
300 West Congress Street
Tucson, Arizona 85701

Subject: Issues Concerning Roads and Transportation, Scoping Comment #2

References:

- (a) *Federal Register*, Notice of Intent to Prepare an Environmental Impact Statement, 10 May 2024, Vol 89, No 92, pp. 40462-64.
- (b) South32 Hermosa Inc., Critical Minerals Exploration and Mine Plan of Operations, Dec. 1 2023, revised 16 April 2024 (MPO).
- (c) Arizona Corporation Commission Order No. 79005 (28 July 2023), Power Plant and Transmission Line Siting Committee Case No. 218 (Siting Case 218).

Background. As a former 25-year resident of Tubac, Santa Cruz County Energy Commissioner, professional income tax preparer, retired systems engineer and naval officer, it is requested that some issues involving transportation appear to need additional study and during the Draft EIS process in the forthcoming Environmental Impact Statement (EIS) (ref a) described in the proposed Hermosa Mine Plan of Operation (ref b).

A Critical Area of Concern. Important issues involving this project include Mine Access Road concerns. My Scoping Comment #1 requested two new EIS Alternatives be considered. This Scoping Comment #2 asks questions for study during the EIS environmental analysis involving various road and transportation concerns.

Discussion. Two access roads are proposed in the MPO (ref (b) for the Hermosa mine; however, only one access road via Flux Canyon was considered in CEC ref (c). The MPO proposes “short-term” and “long-term” temporarily access roads for the project.

The Arizona Corporation Committee (ACC) approved Certification of Environmental Compatibility (CEC) in Case No. 218 on 25 April 2023 (ref c), granted on 28 June 2023 by the Arizona Power Plant and Transmission Line Siting Committee (Siting Committee) long before starting this Scoping phase for a draft EIS. The Siting Committee considered some environmental impacts but not to the degree required for an EIS. This appears accomplished with little or no coordination with the Coronado National Forest (CNF). There was very little public input or limited discussions during the Siting Committee hearing that had no intervenors to question the utility, UNS Electric (USNE).

Coordination between the Coronado National Forest and Line Siting Committee.

The environment is the same at the boundary of the National Forest public land and land in the State of Arizona. The environment is identical on either side of this boundary. Further, the ACC's CEC includes a transmission line easement in the CNF, along Flux Canyon Road.

- Q1. Will the EIS study discuss why the Certification of Environmental Compatibility for the transmission line was completed in April 2023, long before the MPO was available and prior to starting the EIS Scoping process for the environmental impacts for that line within the National Forest?

Separate and Independent Environmental Analyses. Since these two environmental analyses (CEC and EIS) were not performed simultaneously, they will probably consider different data, facts, and conclusions. Without coordination, this could ensure there may be recommended transmission siting differences, as occurred in the infamous Line Siting Case No. 111. The CNF that was not a direct participant but did appear at some hearings. This resulted in significant CNF and proponent labor hours and financial costs wasted (over \$5 million was lost by the utility) due primarily a lack of coordination and consensus to determine the transmission line easement. For example, the unique requirements for any CEC could easily be included in an appendix to the EIS using a combined CEC/EIS joint environmental analysis that is formatted to meet the ACC siting process requirements in Arizona Revised Statutes §40-360, *et al.* This should reduce CNF workloads and costs for the CNF and funds from the proposer, in this case, Hermosa project.

- Q2. Will the CNF conduct a study to coordination its EIS process with the ACC's Siting Committee so in the future to prevent disagreement over transmission line siting easements. Over 20 states use one process for combined state and federal environmental analyses.
- Q3. Will the EIS study discuss if UNS Electric needs CNF 's EIS Record of Decision (ROD) to commence installation of this line? Please note that my Comments #1 and below present other line siting Alternatives with different access road proposals.
- Q4. Will the EIS study indicate how the Forest Service can reconcile environmental differences between the analysis in the CEC and this draft EIS?
- Q5. Will the EIS study discuss if the Line Siting Committee environmental analysis completed by UNSE coordinated with South 32 prior to Line Siting Committee hearing on 25 April 2023?
- Q6. Will the EIS study discuss any differences between the CEC environmental impacts wh eb compared to those in the Draft EIS? If so, will these differences be adjudicated by a modified CEC?

The CEC on site hearing in Nogales. There were no intervenors in the Line Siting case, which is unusual for similar actions in Santa Cruz County. Public comments were very constrained, and few questions raised by the public were discussed by the Line Siting Committee. If there had been an intervenor, questions from the public could receive additional discussion and possible resolutions by the Committee.

The below slide from the Siting Committee hearings (slide 46) shows the location of “public comments” prior to the Siting Committee hearing. Most public comments objected and showed concerns to the final CEC route. Very few comments were received on a Henshaw-Duquesne Route shown in Figure 1 below.

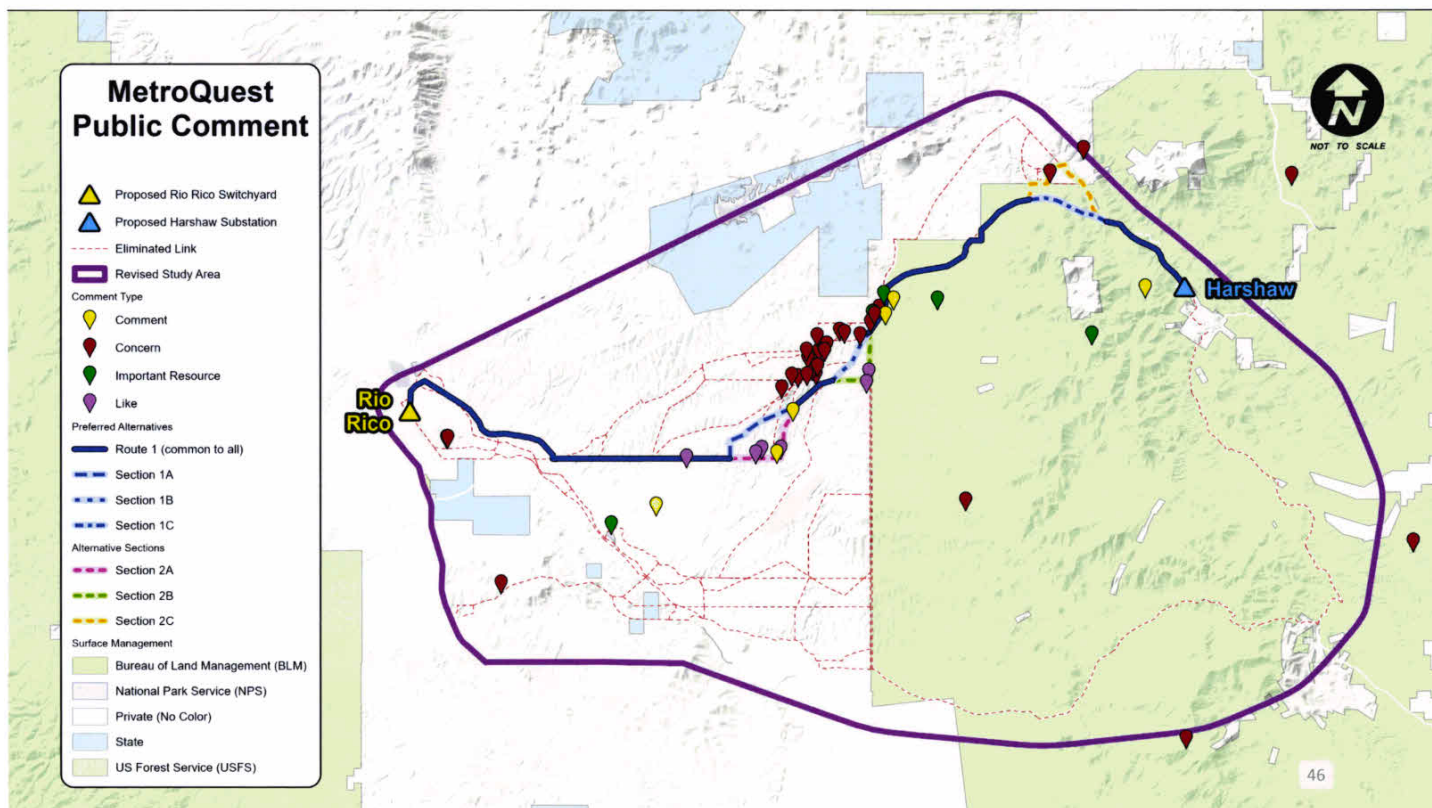


Figure 1, UNS Electric Line Siting Hearing Brief Slide 46 shows locations of transmission line commentors within the “study area”. The preferred (solid-line) transmission line was approved with route segments links as dashed lines in Sections 1b, 2b and 3b.

Letter from CNF to Arizona Senator John McCain. In 2018 the CNF sent a letter to Senator McCain that authorized road access to the Hermosa mine area via Flux Canyon Road without a prior environmental review. The Mining Acts of 1866 and 1872, et al, requires all federal land managers to grant access for mine operations in federal land. Providing road access to inholdings, such as to the Hermosa area, is appropriate.

Q7. Does CNF consider their CNF letter to Sen. McCain prohibits any other temporary access road, than via Flux Canyon Road, to the Hermosa mine area?

Transmission Line Siting Options. Other Alternative transmission lines and roads are not located along Flux Canyon Road. Figure 2 shows an Alternate 1 along Soldier Basin Road. Figure 3 below shows Alternative 2 along South Harshaw-Duquesne Road.

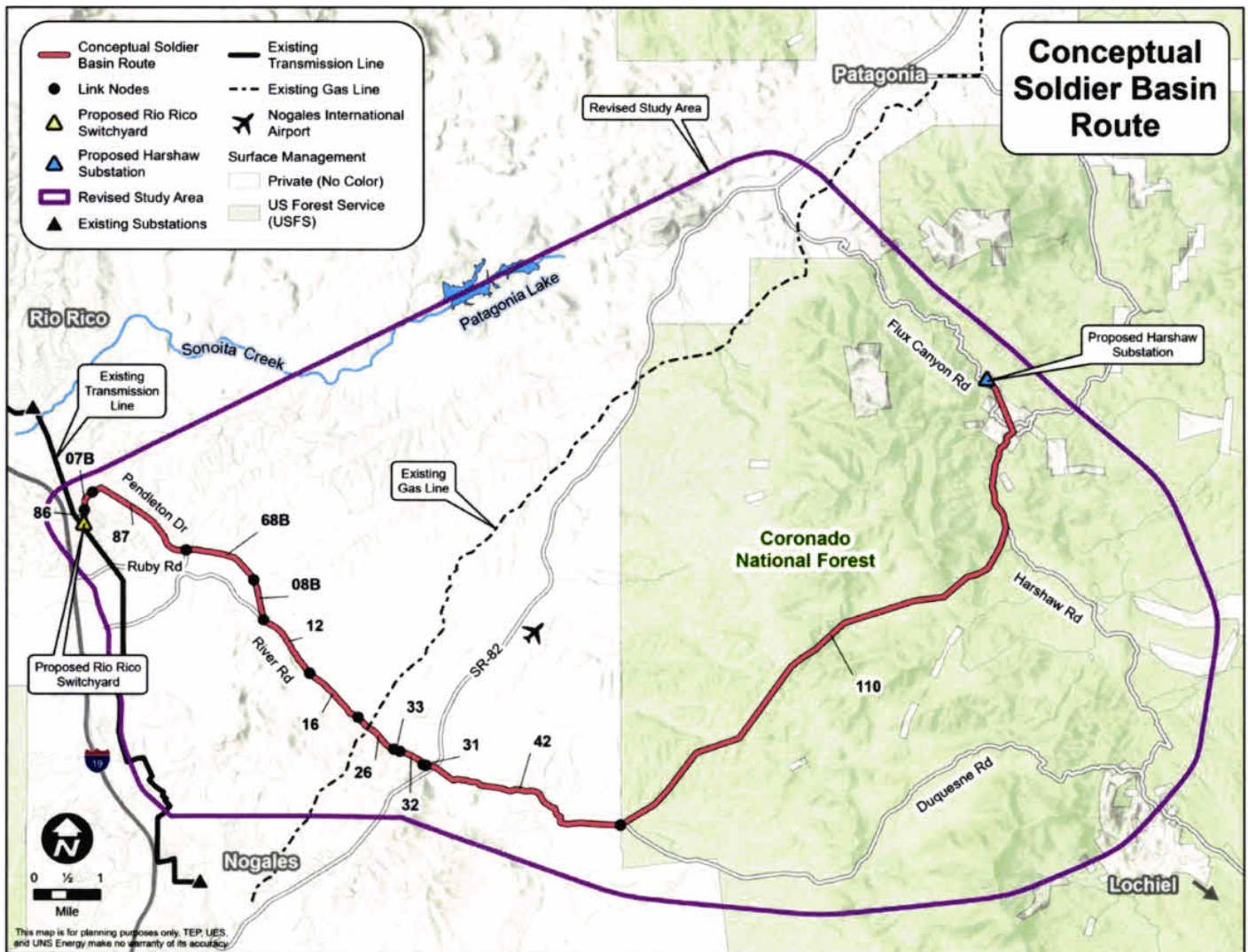


Figure 2, Slide 70 from UNS Electric Line Siting Hearing Brief (slide 71) on 17 April 2023, shows the Soldier Basin Access Road Alternative 1 with a parallel transmission line to a Switchyard in Rio Rico.

Figure 3 below shows Alternative 2 along South Harshaw-Duquesne Road. The ACC will need to modify the present CEC if an Alternative transmission line route in the CNF is approved. Alternative 2 is shorter than Alternative 1

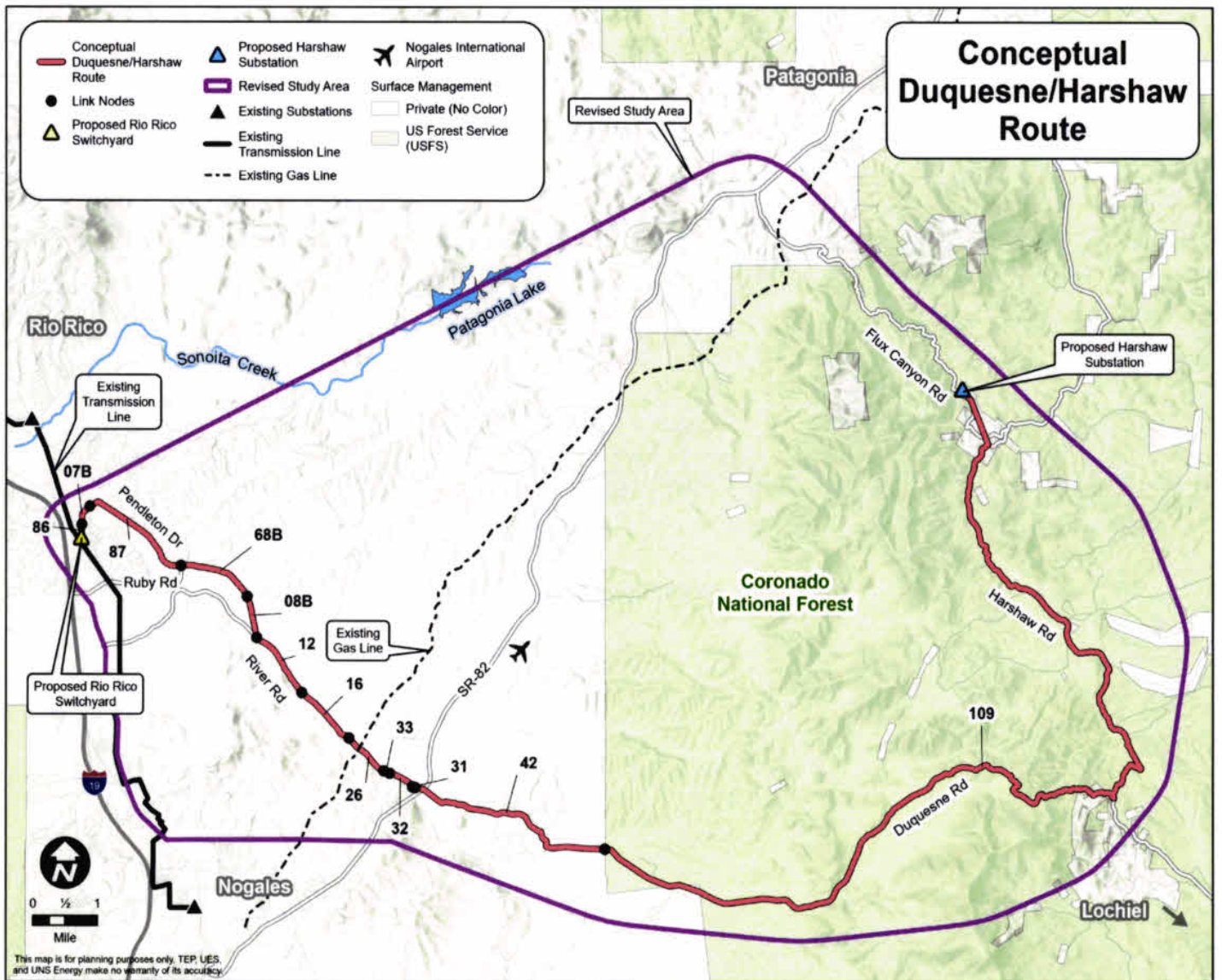
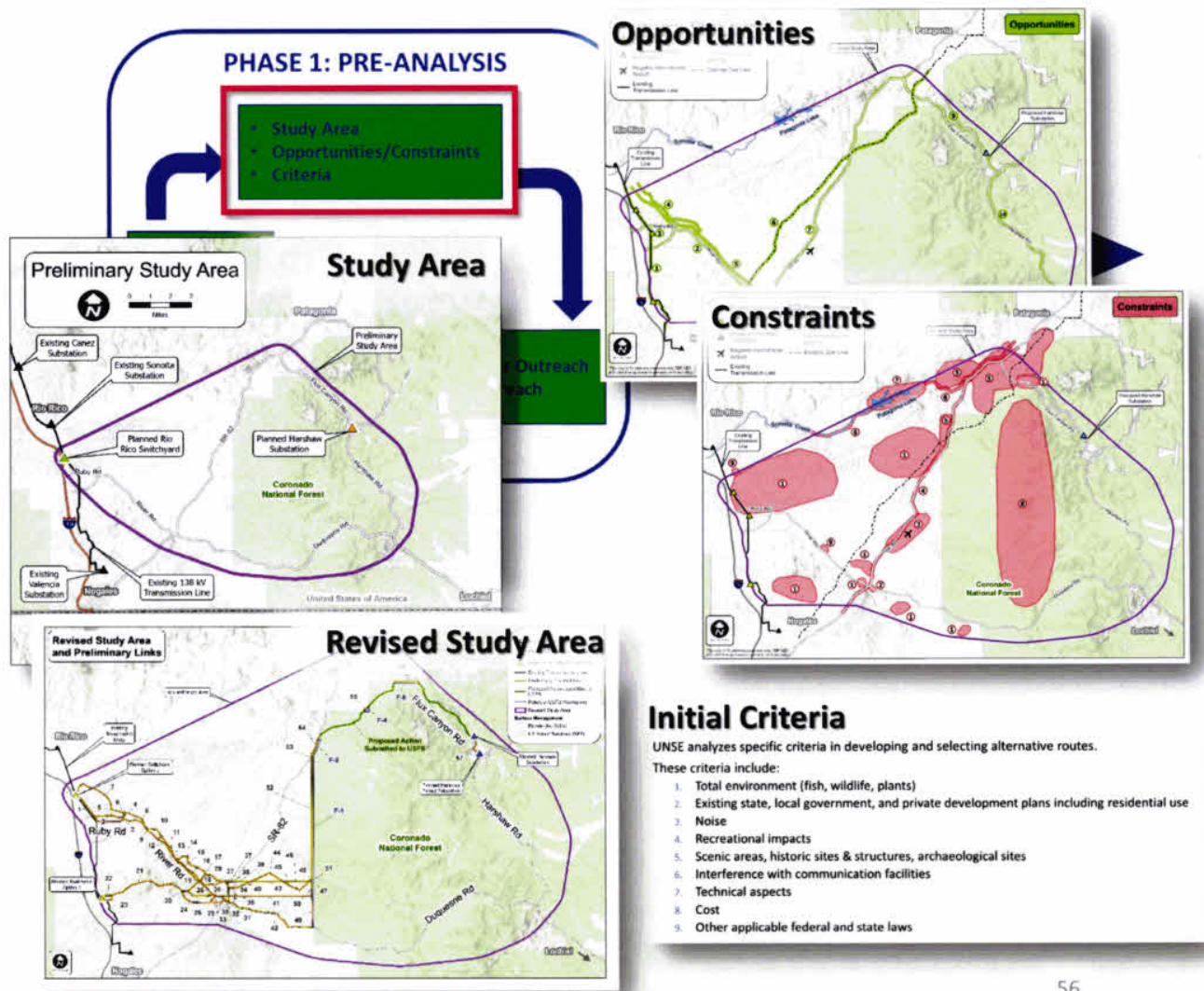


Figure 3, Slide from UNS Electric Line Siting Hearing Brief (slide 72) shows the study areas, opportunities and constraints determined in the CEC analysis.



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Figure 4, Slide from UNS Electric Line Siting Hearing Brief (slide 56) shows the Flux Canyon access road and the South Harshaw-Duquesne Road Alternative 2 with a parallel transmission line to a Switchyard in Rio Rico.

During the CEC hearings, UNEE presented slide 56 in Figure 4 below. This slide shows the “study areas” that includes two access roads to the mine in the CNF, one via SR 82 and Flux Canyon Road to SR 82 via the City of Nogales to the ROC. The other access road shown is via Harshaw-Duquesne Road, Alternative 2 in Figure 3. The other access road Alternative 2 is via Soldier Basin

This slide also shows the concentration of residential areas, as “constraints” in pink, along each access road. The residential areas constraints are denser near the SR 82-Flux Canyon Road route than along the Harshaw-Duquesne Roads near Kino Springs. The large constraint in the Patagonia Mountains is due to wild life impacts.

If either Alternative is chosen, the transmission line segment from SR 82 to the Rio Rico switchyard will probably not change as proposed in UNSE's preferred route. If the location of the switchyard changes, this should change the line segment from SR 82 to its new location.

- Q8. Should the EIS study consider the data from the UNS Electric CEC proposal, or will it develop different views towards only issues within the CNF?
- Q9. Will the EIS study include the adequate information for UNSE to recommend modification of the CEC?
- Q10. Will the EIS study recommend where the transmission line should be sited within and outside the CNF?

Compare the access roads.

The MPO (para 3.5.11, Appendix A) provides details concerning upgrading both the Flux Canyon access road with little information on a Harshaw-Duquesne access road. Also, the design final plans for the Flux Canyon road were not complete when the MPO was issued. If Alternatives 1 or 2 are selected in the EIS, then MPO Appendix A will need major changes.

- Q11. Will the EIS study compare the comprehensive environmental impacts for each access road, including impacts on SR 82 and continuing to the Mine Operations Center in Nogales?
- Q12. Will the EIS study determine the estimated cost for each access road? How much of this cost is estimated to be paid by Santa Cruz County, the CNF and/or South32?
- Q13. Will the EIS study determine the total estimated cost for the City of Nogales and Santa Cruz County for annual road operations and maintenance from the access road exit from the CNF including on SR 82 via Nogales to the Mine Operations Center?
- Q14. Will the EIS study determine the estimated annual access road maintenance cost in the CNF?
- Q15. Who will fund the maintenance, South32 or CNF, for the resultant access road?
- Q16. Will the EIS study determine the visual scenic impacts for the transmission line along SR 82 and within the National Forest?
- Q17. Will the EIS study determine the resultant spectrum road noise levels (in dBA) along each road for large trucks including inside the City of Nogales to the ROC?

Q18. Will the EIS study determine the resultant spectrum road noise levels (in dBA) along each access road that could interfere with endangered species, including the Jaguar and Ocelot?

Q19. Will the EIS study determine the impacts of light on endangered species within the CNF for each access road and the mine operational area?

Q20. For all new surface earth movements including road construction, will the EIS study require a qualified archaeologist, preferably from a local Native American tribe, be on site?

Q21. Will the EIS study determine “cross-traffic” density for the access roads outside the CNF?

Traffic Density. The anticipated operational traffic volumes from MPO (p. 2-87) is shown in Table 2-9 (retyped below) is the anticipated traffic by vehicle type for various activities:

“Anticipated traffic volumes during the maximum operational period are summarized in Table 2-9.

Table 2-9. Anticipated Maximum Project Operational Traffic Volumes		
Activity	Type of Vehicle	Anticipated Round Trips
Zinc and lead/silver concentrate transportation	Large truck	88 round trips/day at peak
Vehicles supporting mining of sulfite ore	Large truck	22 round trips/day at peak
	Light Vehicle	12 round trips/day at peak
Compressed natural gas deliveries for self-generation	Large truck	54 round trips/day at peak
Oxide ore transportation	Large truck	48 round trips/day at peak
Vehicles supporting mining of oxide ore	Large truck	8 round trips/day at peak
Vehicles supporting exploration activities	Large truck	14 round trips/day at peak
Personnel	Bus	11 round trips/day at peak
	Light vehicle	38 round trips/day at peak

Note; This table includes only the estimated operational traffic volumes. During construction, additional one-time trips may occur for delivery of supplies, materials, and equipment.

** As described in Section 3.3 (environmental protection measures related to air qualify), the use of line power would greatly reduce the need for compressed natural gas deliveries.”*

Q22. Will the EIS study include any vehicles towing more than one trailer?

Q23. Will the EIS study determine the large truck and light vehicle characteristics, including weight, length, width, type of fuel, miles per gallon and engine type?

Q24. Will the EIS study show fuel storage on site? If so, what is the storage capacity by type of fuel? Where will this fuel be stowed? Will each fueling station have a remote quick shut down switch, and portable fire extinguishers?

Q25. Will the EIS study show what company vehicles will have fire extinguishers onboard and will contractors be required to have fire extinguishers in their vehicles?

- Q26. Will the EIS study provide details about the various hazards associated with each type of vehicle including hazardous loads and materials carried to and from the mine area?
- Q27. Will the EIS study include impacts of “oversize” loads with large special mine equipment comply with the legal and safety transportation restrictions on SR 82 both north and south of the access roads and inside the City limits of Nogales?
- Q28. Will the EIS study the hours and other conditions that will determine “oversize” loads be transported to not interfere with other traffic on SR 82 and access roads? Will any “oversize” loads use Interstate I-19?
- Q29. Will the EIS study if any vehicles in Table 2-9 are planned to cross the border in Nogales?
- Q30. Will the EIS study include impacts on any road bridges between the mine and the MOP in Nogales, other than one to be constructed on Flux Canyon Road need to be reinforced or reconstructed due to weight or size of the truck? Who will fund such construction?
- Q31. Will the EIS study show any other contractor, government or other service vehicles, such as explosives transported by an “explosives distributor” (MOP p. 2-71) not included in Table 2-9?
- Q32. Will the EIS study discuss how workers with private vehicles will impact the number of vehicles using an access road?
- Q33. Will the EIS study discuss the impacts from any private vehicles such as for miners and managers using North Harshaw Road to and from Patagonia and Nogales? Are these vehicles included in Table 2-9?

Total Vehicles Passing any point between the mine and the ROC in the City of Nogales. The Total vehicles passing by the Little Red School House between the mine and the City of Nogales are twice the number trips per day, per year, and for the 60-year life of the mine based on data in MPO Table 2-9.

Magruder Table 2-9a below shows twice the number vehicles passing any point on the roads between the mine and ROC. It was derived from MPO Table 2-9 round-trips. Each transportation road option will pass by the Little Red School House on SR 82 or any location between the mine and ROC.

The Magruder Table 2-9b totals for each vehicle type passing any point between the mine and the ROC in Nogales. This table was derived from Magruder Table 2-9a above. For example, the Little Red School House will be passed by either route.

Magruder Table 2-9a. Total Vehicles during Peak Operations that Pass by the Little Red School between the Mine and in to the City Of Nogales				
Activity	Type of Vehicle	Daily	Annual	60-year Life of Mine
Zinc and lead/silver concentrate transportation	Large truck	176	64,240	3,854,400
Vehicles supporting mining of sulfite ore	Large truck	44	16,060	963,600
	Light Vehicle	24	8,760	525,600
Compressed natural gas deliveries for self-generation	Large truck	108	39,420	2,365,200
Oxide ore transportation	Large truck	96	25,040	1,502,400
Vehicles supporting mining of oxide ore	Large truck	16	5,840	350,400
Vehicles supporting exploration activities	Large truck	28	10,220	613,200
Personnel	Bus	22	8,030	481,800
	Light vehicle	76	27,740	1,664,400
TOTAL		610	222,650	13,041,600

Magruder Table 2-9b. Total Vehicle Types Passing the little School House at Peak Operations Between the Mine and the City Of Nogales				
Type of Vehicle	DAILY Vehicles Passing Red School House	Frequency of vehicles, by type, passing the Red School House	Annual Vehicles Passing Red School House	60-year Life of Mine Vehicles Passing Red School House
Large Truck	468	One Large Truck every 3.08 minutes	170,820	10,249,200
Light Vehicle	120	One Light Vehicle every 12.0 minutes	43,800	2,628,000
Bus	22	One bus every 65.5 minutes	8,030	1,664,400
TOTAL	610	One vehicle every 2.36 minutes	222,650	13,041,600

Number of minutes between vehicles was determined by dividing number of 1440 minutes per day by the number passing the Red School House.

Thus, One Large Truck will pass by the Little Red School House every **3.08 minutes**,
 One Light Vehicle will pass by the Little Red School House every 12.00 minutes,
 One Bus will pass by the Little Red School House every 65.5- minutes, or
 One Large Truck, Light Vehicle or Bus will pass by the Little Red School every **2.36 minutes**.

Q34. Will the EIS study show any daily variations in vehicle traffic that will increase traffic during a shift changes, weather events, or seasonally?

Magruder Table 2-9c. Total Vehicle Driven at Peak Operations Between the Mine and the City Of Nogales			
Type of Vehicle	Vehicle Miles per DAY	Vehicle Miles per YEAR	Vehicle Miles for LIFE of MINES
Large Trucks	13,573	4,954,145	297,248,900
Light Vehicle	3,480	1,370,200	82,212,000
Bus	638	232,870	13,722,000
TOTAL	17,691	6,457,215	393,432,900

Number of miles was determined by multiplying the vehicle trips by 29 miles between IROC and the mile using Flux Canyon Road. by the number passing the Red School House.

Vehicle Miles Driven. Table 2-9c shows the miles driven per day, year or the life of the mine.

- Q35. Will the EIS study show how many tons of greenhouse gasses will be emitted by its vehicles in Magruder Table 2.9c?
- Q36. The City of Nogales is an EPA “non-attainment” area for both 10PM and 2.5PM. Will the EIS study show the impact of the mine’s vehicles on the already bad air pollution situation in Nogales?
- Q37. Will the EIS study include response times from local fire departments in Patagonia, Sonoita, Nogales, Rio Rico and Tubac to the site?
- Q38. Will the EIS study show if the first aid capabilities at the mine can handle a mass-casualty?
- Q39. Does the EIS study include response times for EMT and the first ambulance to arrive at the site and for multiple ambulances in case of a mass-casualty accident?
- Q40. Will the EIS study include medivac helicopter access to the site? What will be the day and night time medivac helicopter response time?
- Q41. Will the EIS study determine if a heliport should be on site, and if so, that meets FAA requirements for day and night operation?
- Q42, Will the EIS study determine if an appropriate quality of aviation/jet fuel be available for medivac helicopters?
- Q42. Does the EIS study include mine safety and rescue personnel response times in case of a major underground accident beyond the limited medical capabilities in MPO para 2.5.9.1.

Your review of these concerns and issues is appreciated to ensure a successful project.

Respectfully submitted,



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