

Minutes of the Arizona Game and Fish  
Commission Tour of Rosemont Mine  
Tuesday, August 31, 2010  
Rosemont Mine Activity Center  
12700 E. Greaterville Road  
Sonoita, Arizona 85637

PRESENT: (Commission)

(Director's Staff)

Vice Chair Robert R. Woodhouse  
Commissioner Jack F. Husted  
Commissioner John W. Harris

Josh Avey, Habitat Branch Chief  
John Windes, Region V Habitat Program  
Manager  
Aaron Miller, District Wildlife Manager  
Linda Pollock, Assistant Attorney General

This tour/meeting followed an agenda dated August 27, 2010. The following three members of the public were present: Bob Hernbrode, former AGFD Commissioner, Bobbie Lindstrom, State Transportation Board, and Larry Audsley, Arizona Wildlife Federation. The purpose of the trip was for Rosemont Copper representatives to provide information regarding the proposed Rosemont Mine project to members of the Commission. The Commission did not discuss, deliberate or take action on any matter for legal action.

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The meeting commenced at approximately 10:15 a.m. August 31, 2010 at the Rosemont Activity Center, the former Thurber Ranch located on Greaterville Road. Dennis Fischer, Rosemont Project Site Coordinator and Holly Lawson, Rosemont Reclamation Specialist, gave an overview of the proposed mine. Rosemont owns 132 patented and 995 unpatented claims. The site was first owned by Banner Mining Company. Anaconda/Anamax conducted exploration drilling. The site was then owned by Atlantic Richfield which sold it to Grupo Mexico. Grupo sold the site to a local Tucson developer who sold it to Rosemont in 2005. Rosemont also acquired three ranches, including the Rosemont and Thurber ranches.

The mine will have a 4425 acre footprint, with 3330 acres on Forest Service lands. Contrast this footprint with that of the Sierrita Mine, at 9800 acres, and Mission Mine, at 18,000 acres. The dry stack tailings will be deposited on 900 acres, the location of which is subject to Forest Service review. The tailings will be buttressed to avoid airborne emissions, and Rosemont is conducting test plots of vegetation for native vegetative slope coverage.

The mine will produce both oxide and sulfide ores. The first eight years of operation will involve the mining and solvent extraction/electrowinning of oxide ores. The oxide ore is placed on a heap leach pad, to which a weak sulfuric solution (raffinate) is added. The solution is captured at the toe of the heap leach pad in a pregnant leach solution pond which is piped to the solvent extraction/electrowinning plant for plating onto steel cathodes. After year 8, the mine will be producing primarily sulfide ores, which are crushed to a powder using huge steel balls. The material is suspended in a slurry and sent to flotation tanks where the copper concentrate is separated from tailings. Two tailings disposal areas are planned for the site, including Barrel

Canyon. Rosemont will be utilizing a cutting-edge dry stack tailings process which will reduce water consumption.

Rosemont requires 21 regulatory permits and expects the final EIS to be completed by 2011. The open pit will be 6500 x 6000 feet wide and 2000 feet deep. The pit will reach its ultimate diameter in year 12 of mine operations.

The mine will be visible from Highway 83 between mileposts 43 and MP 47 and will also be visible in Elgin. Rosemont will build a four-lane interchange off Highway 83 at MP 46-47 to the mine site. Eighteen-wheel trucks will haul copper concentrate from the mine using I-10 to Kolb Road then to Tucson. Rosemont has not contracted with a smelter yet. The only smelters in Arizona are in Globe and Hayden. Rosemont copper concentrate may be smelted overseas and shipped back to Amarillo Texas for refining.

1.8 billion tons of material will be taken out of the mine pit, and by year 22 of mine operation Barrel Canyon will be filled with mine tailings.

Tetra Tech has conducted another hydrological model run for Rosemont. The model was run over a 1000-year period of time. The pit lake is predicted to reach equilibrium in 700-900 years. The pit lake is not anticipated to be acidic, with only 3% of the exposed rock to be acid-generating. Heavy metals concentration in pit lake waters is estimated at 1.3 ppb metals. The new model run predicts that the mine pit will not affect groundwater in Cienega Basin. The mine will affect 50% of the Barrel Canyon watershed, 16% of the Davidson Canyon drainage and 1% of the Cienega Basin.

In response to a question from Commissioner Husted, Fischer stated that some seeps and springs in the vicinity of the mine pit will be dewatered.

Rosemont has a permit from ADWR (Arizona Department of Water Resources) to pump the Santa Cruz basin at 6000 acre/feet a year; the mine needs are expected to be 5100 acre/feet a year. Mr. Fischer claimed that currently, 90,000 a/f is pumped from the Santa Cruz basin; of that amount, FICO (Farmers Investment Company) and Dick and Nan Waldman, FICO principals, are the biggest water users in the basin. Rosemont will use less water per pound of copper than FICO uses per pound of pecans. Rosemont will use 6% of the water versus 30% for FICO, and Rosemont will recharge with CAP water, having purchased 45,000 a/f in the Tucson Active Management aquifer. The recharge basin will be located in Marana, Arizona, which Fischer stated is "the same aquifer". Rosemont is in the process of purchasing parcels for a recharge facility in Duvall Mine Road in Green Valley. The pipeline and recharge facility will be given to the Green Valley Water Company, which will take the allotment and sell water back to Rosemont.

Rosemont has also offered a well guarantee program to all well owners in Sahuarita Heights. Sixty well owners have signed up.

The Commissioners, AGFD staff, former Commissioner Bob Hernbrode, Bobbie Lindstrom of the State Transportation Board and Larry Audsley of the Arizona Wildlife Federation proceeded on the mine site tour, led by Mr. Fischer. The first stop was on Highway 83 off MP 44, where the Commission viewed the northern Santa Rita Mountains from a distance where the mine

project will be located. The second stop was in Barrel Canyon, the location of the waste rock storage area, the heap leach pad and pit area. Mr. Fischer pointed out that Seventy million tons of rock will be placed on the heap leach pad for the first eight years of oxide ore production.

The tour then proceeded on the 4059 Road down Barrel Canyon and up Wasp Canyon where dry stack tailings disposal area #1 are proposed to be situated. The final tour stop was in the vicinity of the proposed open pit where Fischer and Lawson talked about affected native plants and animals. Lawson described how Rosemont is relocating Palmer agaves, whose flowers are important food sources for the lesser long-nosed bat. Fischer disputed the claim that the Rosemont Talus snail is a distinct species.

Commissioners and AGFD staff then proceeded to the Steak Out Restaurant in Sonoita, arriving at approximately 1:35 pm. Present at the meeting were several community members, including David Steele and Lynn Carey representing FICO, Jimmy Pepper of Sonoita representing the Mountain Empire Action Alliance, Ann Gibson of Sonoita, Fred Baker, former Arizona Game and Fish Commissioner, Trevor Hare of the Sky Island Alliance, and Gayle Hartmann and Leslie Kramer of Save the Scenic Santa Ritas.

David Steele gave a PowerPoint presentation on the Rosemont Mine project. He pointed out that Augusta Resources, Rosemont's corporate parent, has no history of copper production. The mine will permanently alter the landscape and the habitat in the Santa Rita Valley. He noted that Rosemont may also develop its other mine claims at the site: the Peach-Elgin, Copper World and Broad Top claims.

Jimmy Pepper handed out a copy of the Tom Powers study on the effect of the Rosemont Mine to the Tucson economy. He also showed a PowerPoint slide of the geographical location of public lands in the vicinity of the mine site, and talked about the wildlife and habitat values.

Trevor Hare spoke about Pima County's purchases of the Kline and Empirita Ranches and the wildlife corridor study by NAU Professor Paul Beier, funded by AGFD. The landscape of the Pima County Conservation Land System is oak savanna graded into pine oak lands, and includes the Chiricahua Leopard Frog (listed threatened); the black-tailed prairie dog, introduced into the Cienega Basin by AGFD, and two orchid species unique to the region. Mountain lions rely on sky island corridors to travel between the Santa Ritas, the Whetstones, and the Rincon mountain ranges. One desert tortoise was radiotracked traveling all the way from Cienega Creek to the Rosemont project site and back. Davidson Canyon and Cienega Creek support a cottonwood willow gallery and the Cienega Creek has native endangered fish and other riparian species.

Ann Gibson, a local Realtor and member of a historic ranching family, told Commissioners that people came to this area for its quality of life, which the mine will obliterate.

Fred Baker, a former AGFD Commissioner and rancher, thanked the Commissioners for taking the time to meet with the public today, and expressed appreciation for the sacrifice and dedication involved in their role on behalf of Arizona's wildlife. He was sure that Rosemont Mine is only one of several significant issues demanding the Commissioner's attention at the moment.

Mr. Baker stated that people come to this beautiful part of the state to live and recreate, because they are in search of beauty, space, privacy, and wildlife. He quoted from the Department's mission statement, which is to conserve, enhance, and restore Arizona's diverse wildlife resources and habitats through aggressive protection and management programs, and to provide wildlife resources for the enjoyment, appreciation, and use by present and future generations.

Mr. Baker stated Rosemont Mine is one of those phenomena where the Commission's opportunities as policymakers are not divergent from the Department's responsibilities under its Mission Statement. Rosemont claims that it will be one of the most technologically advanced mines in the world, with one of the best mine reclamation projects ever, with the appearance of caring about long-term values related to our environment. But the facts of the project as put forward by Rosemont in its Mine Plan of Operations submitted to the Forest Service show that the project's footprint will be almost 4,500 acres, 79% of which will be on public lands – Forest Service, BLM or State Trust Lands. The pit will be at least 6,000 feet rim to rim and 1,800 to 2,900 feet deep and will remain unreclaimed after mining is complete. Significant areas of the site will be comprised of waste rock and tailings piles that will be approximately 600 feet high if not higher. The project is located at the headwaters of Davidson Canyon and Cienega Creek watersheds, with springs or seeps in the immediate vicinity of the project. The onsite ore processing will be done using water intensive methods including froth and flotation and heap leaching. When you consider wildlife and wildlife habitat, it is pretty clear that this project will forever alter the ecosystem of this region. Mr. Baker quoted from a July 2008 letter written by Joan Scott, former Region V Habitat Program Manager to the Coronado National Forest containing the Department's scoping comments. The letter stated the Department's belief that the mine will impact wildlife, wildlife habitat and wildlife recreation in an area much larger than the actual footprint of the mine, and that the entire northern portion of the Santa Rita Mountains will be virtually lost for wildlife values. Mr. Baker concluded his remarks by expressing his opinion that the Rosemont mine should not go forward considering the wildlife and habitat that will permanently be lost to hunters, birdwatchers, hikers and other lovers of the outdoors today and in the future, and that the jobs Rosemont claims they will bring to our economy are short-run effects, and will be gone long before the scars of their entrepreneurial activity will.

David Steele then distinguished FICO's use of groundwater versus Rosemont. Rosemont does not consider FICO's groundwater recharge of water by agriculture. FICO has been in the upper Santa Cruz Valley for 60 years. Rosemont is using FICO as an excuse to destroy the groundwater resources. Rosemont is taking CAP water to offset a new groundwater use, not an existing use.

Commissioner Woodhouse noted that CAP Colorado River water may be rationed in the future, which is a concern he has for the community. If CAP water is rationed, it will affect all Santa Cruz water users. What will be the effect on mine operations?

Gayle Hartmann noted that nearly every elected body has come out in opposition to the municipalities, Pima County, the majority of elected officials and two members of the Arizona congressional delegation.

Bob Hernbrode stated that he sees the role of the Department and Commission as professional advocates for wildlife. He asked those present what they expected from the Commission. He noted that Joan Scott's letter to the Forest Service had been approved by the Commission.

Fred Baker replied that the opinion of the Commission is important. He urged the Commission to have an agenda item on the Rosemont Mine project. The Department has the resources to measure the impacts of the mine on wildlife.

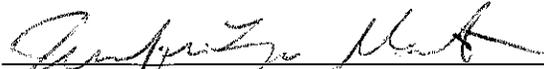
Commissioner Woodhouse endorsed the idea of having the Rosemont Mine as a future agenda item.

(These minutes were submitted by Linda Pollock, Assistant Attorney General)

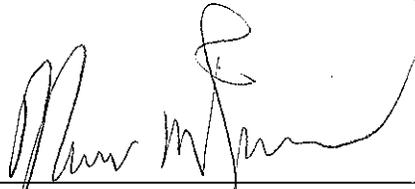
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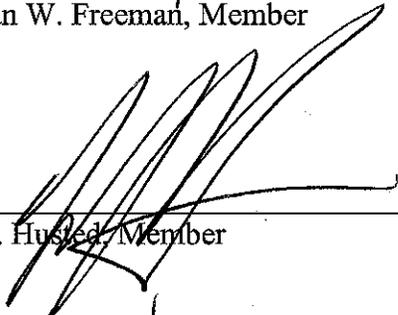
Meeting adjourned at approximately 4:00 p.m.

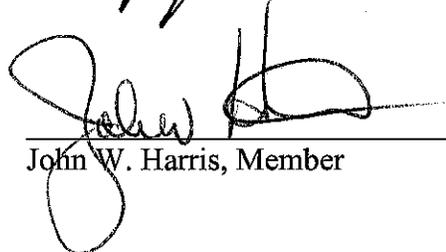
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Jennifer L. Martin, Chair

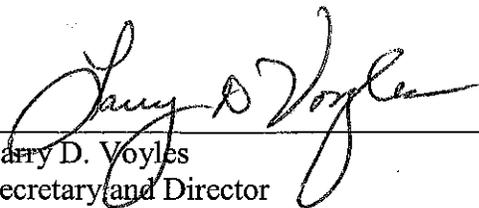
  
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Robert R. Woodhouse, Vice-Chair

  
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Norman W. Freeman, Member

  
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Jack F. Husled, Member

  
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John W. Harris, Member

ATTEST:

  
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Larry D. Voyles  
Secretary and Director