

Response to Public Comments on Elkhorn Goldfields Golden Dream Project

(Comments are listed by date received)

From: Julie Reardon (May 11, 2007 email)

Comment #1:

My son and his family just moved to a quiet little piece of ground along the road going to Elkhorn. With mining, and all the activity, traffic, employees of sometimes questionable background, that quiet little place will no longer be quiet. Now we need to worry about grandkids out playing in the yard. Road dust, speeders...etc.

Response:

Noise: As noted on page 36 and 37 of the Draft Environmental Assessment (EA) (Predicted Noise Levels of Proposed Action During Construction and Operations) and page 51 of the application (Predicted Noise Levels by Activities During Construction and Operations) the majority of sound generated from the proposed mining activity would come from the Saddle Facilities Area (approximately 4,000 feet northwest of the town site), the truck loading facility (approximately 1,400 feet northwest of the town site), and over-the-road truck traffic moving along the south boundary of the town site of Elkhorn. The mine portals are north of the Saddle Facilities Area and located over a prominent ridge and face away from the town site of Elkhorn.

Decibel levels may initially be higher due to start up construction, when near surface blasting events would occur at the portals, and from truck travel through the area to the mine. Sound levels generated by the Proposed Action would decrease as the mine develops underground. At that time, the majority of the sound would come from the loading of haul trucks and the trucks passing through the town of Elkhorn.

A baseline sound investigation was conducted for the Elkhorn Project by Hydrometrics, Inc. in 1993. The study indicated that mining processes had a decibel reading suitable for an area in and around the town site of Elkhorn. Average mining sound levels in the 40-50 dBA range are below the day-night average noise level protective levels for “wooded residential” settings of 52 dBA and “old urban residential area” settings of 59 dBA.

Noise generated from everyday mine operations is not expected to exceed the 40 – 50 dBA range in the town of Elkhorn. Peak sound events such as blasting at the start of mine development could generate short term noise above the “wooded residential” 52 dBA level. The maximum allowed limit in the town of Elkhorn for any noises created by EGI would be 85 dB. This 85 dBA limit parallels the National Institute of Occupational Safety and Health (NIOSH) recommendations on noise safety levels.

Four separate noise level sampling events would be conducted in the town of Elkhorn before mining begins. As an ongoing program, noise levels would be measured once per month during mining. Construction work would be kept to daylight hours only. Mining would be conducted 24 hours per day, 7 days per week. Possible mining noises heard in the town of Elkhorn could be from operating equipment, including six mine haul trucks, a

front end loader, and up to nine over-the-road trucks. Use of engine decompression (jake) brakes would be controlled by speed limits for equipment leaving the property.

The only noise issue of concern for the commenter would be traffic noise along the County Road. The noise would be an unavoidable impact of the mine project.

Traffic: Elkhorn Goldfields has committed to limit traffic along the County Road. On page 36 of the Draft EA (Proposed Transportation Network) and page 50 of the application (Transportation Network to be Used During Construction and Operation Phases, Including a List of the Type and Amount Traffic at Mine or Mill Capacity) it notes: EGI proposes to transport mine employees from a location in the valley to the mine site in light vans or sport utility vehicles. The plan is to reduce traffic on the county road to Elkhorn and increase safety for both mine employees and other road users. On occasion, contract equipment, such as graders, track hoes, and dozers, would be on the mine site for surface maintenance of roadways, stockpile locations, the portal patio, and parking lots. Up to nine 30-ton over-the-road trucks would be hauling ore up to five round trips per day. The increase in traffic would be an unavoidable impact of the mine project.

Road dust: Road dust and traffic would be controlled according to the agreement between EGI and Jefferson County. On page 16 and 17 of the Draft EA (Proposed Location of Roads, County Road) and Appendix 8 of the application, the main points of this agreement with the County are noted as: Clearing brush along the road for improved visibility, widening the road to 24-foot width including cattle guards and culverts, regrading of the Elkhorn Road and surfacing with appropriate gravel material, posting a speed limit of 25 mph, installing signs, traffic lights, etc. to protect public safety at Point of Rocks, Highway 69, and Elkhorn Road Junction, Queens Siding Corner, and at culverts, cattle guards, and bridges on Elkhorn Road, preventing nuisance dust on the Elkhorn Road by applying an approved dust control agent, regrading at least once a year, hiring a contractor for snow removal, rehabilitating road sections that have deteriorated over the years, returning responsibilities for road maintenance to the County once the mine closes, leaving the road in as good as or better condition as of August 2007 and amending this agreement for additional safety concerns due to unforeseen circumstances. The existing dust levels on the road may be reduced once the road is treated with dust control chemicals. An increase in dust would be an unavoidable impact of the mine project until the road is treated with the dust suppression chemicals.

Speeders: The mine employees and truckers would be required to follow approved speed limits as defined in the road agreement with Jefferson County listed above. Speeders could be reported to the Jefferson County Sheriff's department.

The agencies suggest that if impacts arise if the mine is permitted, that the commenter contact the mining company and attend the public meetings they sponsor. This process worked very well in the Gardiner area to improve communications and reduce impacts from the former TVX Mine near Jardine.

Questionable Background: DEQ will not attempt to provide analysis of a comment based on apparent stereotyping of individuals by profession.

Comment #2:

If mining is permitted, law enforcement will need to be much more present in that area.

Response:

Additional law enforcement along the road is outside the jurisdiction of the Metal Mine and Reclamation Act which this program administers. Jefferson County would need to respond to such a request. There are no data to indicate that construction and operation of the mine would need additional law enforcement in the area.

From: Louisa Rothfus (May 28, 2007 letter)

Comment #1:

With the large, loaded ore trucks hauling from the mine and returning, it presents an additional hazard, to say nothing of the damage to the road surface by the heavy trucks constantly hauling.

Response:

The agreement between EGI and Jefferson County for the road use provides for safety issues as noted above (Julie Reardon, Comment #1). The agreement notes that the road would be widened, a speed limit of 25 mph set for heavy trucks, and the road maintained by regrading at least once a year and leaving the road in as good or better condition from its current state in August of 2007.

Comment #2:

We need to be assured that their proposed “water system” will have no effect on the several water wells of the residents of Elkhorn.

Response:

As noted on page 77 of the Draft EA (Mine Dewatering and Flooding) and page 39 of the application (Mine Dewatering) mine dewatering would occur for a period of about 5 years, with an expected average long-term pumping rate of about 100 gpm (Hydrometrics 2006). Such pumping would draw down the groundwater level in bedrock around the pumping wells, with a cone-of-depression initially expanding around the wells until steady-state conditions are reached (*i.e.*, recharge equals discharge). Pumping 255 gpm for 19 days at well PW-3 (located in the portal patio area) resulted in more than 25 feet of groundwater drawdown within a radius of 250 to 400 feet from the test well, reducing to about 2 feet of drawdown approximately 500 feet from the pumping well. Monitoring of water levels in wells in the project area, including some private wells in the town of Elkhorn, would be conducted routinely to observe any changes due to dewatering activities. The nearest private wells are about one mile away from the dewatering wells and beyond a topographic divide.

After cessation of mining, the dewatering wells would no longer be used and the underground workings and decline would be allowed to flood with natural groundwater. This groundwater would rise to pre-mine water level conditions, submerging backfilled non-ore rock and most rock walls of the workings. Quality of this water would be monitored within and outside of the mine workings. Long-term quality of this groundwater is expected to be similar to existing baseline conditions (see Geochemistry section).

Surface water and groundwater monitoring would continue as specified in the operational water quality monitoring plan for a period of two years after the completion of reclamation. As a mitigation the monitoring would be continued until it is demonstrated that all applicable water quality standards have been met.

From: Michele Lemieux (May 29, 2007 email)

Comment #1:

What are their plans for mine related travel up and down the Elkhorn Road? I see the potential for conflicts with ore trucks. There doesn't appear to be much room for road widening, and there is potential for degradation of the nearby stream. I am not sure signage alone (i.e. "Watch out for ore trucks") is sufficient.

Response:

Please see the response to comment above (Julie Reardon, Comment #1) and page 36 of the Draft EA (Proposed Transportation Network).

When road improvements are made to the road, EGI would be required to install Best Management Practices (BMPs) such as silt fences, straw bales, rock check dams, etc. to prevent impacts to the stream.

Comment #2:

Also, I have concern with mine employees traveling up and down the road way in excess of the speed limit (post & pre shift change) - this was a problem I noted in the past mining operation. Is this addressed at all in the application?

Response:

Traffic would be controlled according to the agreement between EGI and Jefferson County. On page 16 and 17 of the Draft EA (Proposed Location of Roads, County Road) and Appendix 8 of the application the issue of speed on the road is addressed. EGI has agreed to limit the speed of heavy trucks from traveling at speeds greater than 25 mph.

On page 34 of the Draft EA (2.2.12 Proposed Transportation Network) it is noted that EGI proposes to transport mine employees from a location in the valley to the mine site in light vans or sport utility vehicles. The plan is to reduce traffic on the county road to Elkhorn and increase safety for both mine employees and other road users.

Comment #3:

A related concern would be ore truck traffic on Highway 69 between the Elkhorn road turnoff and Boulder.

Response:

The ore hauling trucks on Highway 69 would be licensed highway vehicles with loads within limits set by the Montana Department of Transportation. Vehicle traffic would comply with speed, traffic and safety regulations administered by the Montana Highway Patrol and Jefferson County Sheriff's Department. Increased highway traffic would be an unavoidable impact with approval of this operating permit application.

From: Steve Gerdes (June 10, 2007 email)

Comment #1:

My first and most important concern is public safety. As I understand it, Elkhorn Goldfields will run up to 45 loads of ore/day on the Elkhorn road and then on to Montana Tunnels for processing. The Elkhorn road is too narrow to allow this to be done safely given the amount of public traffic accessing the State Park at the town site in Elkhorn. Serious consideration should be given to require widening of the road, to accommodate ore trucks and public traffic at the same time, before ore hauling is permitted.

Response:

As noted in the comments above, road traffic would be controlled according to the agreement between EGI and Jefferson County. On page 16 and 17 of the Draft EA (Proposed Location of Roads, County Road) and Appendix 8 of the application, the main points of this agreement with the County are noted as: Clearing brush along the road for improved visibility, widening the road to 24-foot width including cattle guards and culverts, regrading of the Elkhorn Road and surfacing with appropriate gravel material, posting a speed limit of 25 mph, installing signs, traffic lights, etc. to protect public safety at Point of Rocks, Highway 69, and Elkhorn Road Junction, Queens Siding Corner, and at culverts, cattle guards, and bridges on Elkhorn Road, preventing nuisance dust on the Elkhorn Road by applying an approved dust control agent, regrading at least once a year, hiring a contractor for snow removal, rehabilitating road sections that have deteriorated over the years, returning responsibilities for road maintenance to the County once the mine closes, leaving the road in as good as or better condition as of August 2007 and amending this agreement for additional safety concerns due to unforeseen circumstances.

Comment #2:

My second concern is the impact of the road location to Elkhorn Creek and the fishery it supports. Both the existing condition of the road, and the impacts widening the road would have on the stream and the fishery values. The current situation has potential to result in either mine traffic or public vehicles to end up in the creek due to an inadequate road width to allow safe two-way traffic. Fuel and other automotive toxicants can have adverse impacts to the fishery. Any widening of the road will need to be done in a manner that doesn't either directly impact the stream channel or result in sediment delivery to the stream.

Response:

As noted in the response above there is an agreement between EGI and Jefferson County on widening the road. The agreement noted that notes that “Topsoil removed from back-sloped areas would be replaced on the back-slopes after construction is complete and seeded for erosion control and weed infestation.”

If a vehicle should go off the road the impact would be treated the same as currently handled. The road is outside the jurisdiction of the Metal Mine Reclamation Act which this Bureau regulates. Other state laws would apply to the spillage of materials into running streams. EGI would have to abide by those rules and regulations. When road improvements are made to the road, EGI would be required to install BMPs such as silt fences, straw bales, rock check dams, etc. to prevent impacts to the stream.

From: Shawn Bryant (June 15, 2007 and August 2, 2007 email)

Comment #1:

In many places the road is so narrow that when meeting other passenger vehicles, one must pull off the road and stop for the other to pass. I have heard that the mine is proposing to phase road improvements in over a five year period. What happens in the mean time with 150 loads of ore coming down the road and 150 trucks coming back up the road? This equates to 300 vehicle trips per day. The locals and tourists will be getting hammered. In land development, it is typical that if a project causes the road to exceed 400 trips per day, they must provide hard surfacing at least 24 feet wide (county standards). This project alone will produce at least 300 trips per day with ore trucks, and many more with employees, vendors, visitors etc. Should they be required to upgrade and widen the road (they should), what effects will that have on the stream, wildlife, and historic features (Indian head rock) etc. The structural condition of the existing road is also sub par, and cannot handle the ore truck traffic.

Response:

On page 35 of the Draft EA (Proposed Transportation Network) and page 50 of the application (Transportation Network to be Used During Construction and Operation Phases, Including a List of the Type and Amount Traffic at Mine or Mill Capacity) it notes that EGI proposes to transport mine employees from a location in the valley to the mine site in light vans or sport utility vehicles. The plan is to reduce traffic on the county road to Elkhorn and increase safety for both mine employees and other road users. On occasion, contract equipment, such as graders, track hoes, and dozers, would be on the mine site for surface maintenance of roadways, stockpile locations, the portal patio, and parking lots. Up to nine 30-ton over-the-road trucks would be hauling ore up to five round trips per day.

The five trips per truck with nine trucks is equivalent to 45 round trips per day. As noted above (Julie Reardon, Comment #1) the road would be widened in agreement with Jefferson County where possible to a 24 foot width.

Comment #2:

What will be the impact to HWY 69 and the town of Boulder? 300 Ore trucks per day will be a significant impact. The same goes for Jefferson City.

Response:

As noted above there would be a maximum of 45 round trips per day, not 300. The impact to Highway 69 and the towns of Boulder and Jefferson City is considered minimal. The Montana Department of Transportation has jurisdiction for traffic on Highway 69.

Comment #3:

What impact is going to happen to the creek running alongside the Elkhorn road? What happens when one of these ore trucks wrecks and fuel or other products are spilled into the creek?

Response:

The road is outside the jurisdiction of the Metal Mine Reclamation Act which this Bureau regulates. Other state laws would apply to the spillage of materials into running streams. EGI would have to abide by those rules and regulations.

From: John E. Smith (June 15, 2007 email)

Comment #1:

I am sure the mine will work to make road travel safe, but will there be a mechanism to effectively address road and safety issues that may arise after granting a permit?

Response:

As noted above, road use beyond the proposed permit boundary is outside the jurisdiction of the Metal Mine Reclamation Act. However, EGI has an agreement with Jefferson County (Appendix 8 of the application) concerning road use and maintenance. The agreement contains provisions for the life of mine and also for the final year and closure of the mine. Complaints about the road would be addressed with the Jefferson County Commissioners. Please see the other comment responses regarding this issue.

Comment #2:

What recourse do I have if my water well diminishes in volume and quality? Will there be a bond covering water issues if the mine collapses financially?

Response:

Surface water and groundwater monitoring (page 98 of the Draft EA, 7.0 Need for Further Analysis), would continue as specified in the operational water quality monitoring plan for a period of two years after the completion of reclamation. As a proposed mitigation measure monitoring would be continued until it is demonstrated that all applicable water quality standards have been met.

The reclamation bond would cover the costs of monitoring. In addition, MCA 82-4-355 addresses damages to water supply and replacement if the company is found to be at fault.

Comment #3:

Can the mine address dust abatement on the mine property and the County road leading into Elkhorn?

Response:

As noted on page 48 (Air Quality) of the Draft EA, impacts to air quality would be increased due to dust and tail pipe emissions from proposed mining traffic in the project area and ore hauling on the county road. There would be a maximum of 45 round trips a day by nine, 30-ton over-the-road haul trucks plus the traffic generated by employees and suppliers.

Dust control on the county and mine roads is proposed through the Jefferson County road use agreement (Appendix 8 of the Draft EA) and Draft EA (page 16, Proposed Location of Roads). EGI proposes to control dust through water or approved dust control agent on its property and the Elkhorn County road. Monitoring and protection of air quality would be regulated under the Air Quality permit that would have to be approved by the DEQ. EGI would have to comply with the limits in the Air Quality permit.

The main points of the agreement with the County that address dust are: regrading of the Elkhorn Road and surfacing with appropriate gravel material, posting a speed limit of 25 mph, preventing nuisance dust on the Elkhorn Road by applying an approved dust control agent, and regrading at least once a year.

From: Bob Rux (June 19, 2007 email)

Comment #1:

The last two times mining operations took place in the Elkhorn area the well we use for filling our fire trucks and for fire fighting has been pumped dry during the dewatering activities. How is this going to be avoided this time?

Response:

Previous mining operations were much closer to the Elkhorn town site than the current proposal. As noted on page 77 of the Draft EA (Mine Dewatering and Flooding) and page 39 of the application (Mine Dewatering) pumping tests were conducted in 2005 and 2006. Two wells were installed in the portal/patio area of the proposed Golden Dream Mine Project to dewater mine workings as part of the approved bulk sample program. Well PW-3 was installed in July 2005 and completed to a depth of 440 feet. Well PW-4 was installed in May 2006 and completed to a depth of 572 feet. Long-term pumping tests were conducted in August 2005 for well PW-3 and in July/August 2006 for well PW-4.

The primary objectives for conducting pumping tests were to determine aquifer characteristics and hydraulic properties of the bedrock aquifer in the Study Area, and to evaluate the cone-of-depression created in groundwater by dewatering activities. A 25-hp submersible pump was installed in well PW-3 at a depth of 400 feet and pumped for 19 days at a constant rate of approximately 255 gpm. Water levels in the well dropped at a rate of 9 to 11 feet per day. Upon completion of the pumping test, water levels recovered at approximately 4 feet per day. Based on the recovery response during the test, well PW-3 appears capable of sustaining a long-term withdrawal rate between 100 and 120 gpm (Hydrometrics 2005).

Drawdown of 100 feet or more occurred within a radius of about 150 to 250 feet from the test well, and 25 feet of drawdown from 250 to 400 feet from the test well (Hydrometrics 2005). Greater drawdown occurs over horizontal distance along the east-west axis, versus the north south axis. An observation well near Greyback Gulch (500 feet northwest of test well) had about 2 feet of drawdown at the end of the pumping period.

A 25-hp submersible pump was installed in well PW-4 at a depth of 555 feet and pumped for 12 days at a constant rate of approximately 215 gpm. Water levels in the well dropped at a rate of approximately 13 feet per day. The linear drawdown trend exhibited during the test is characteristic of the type of response produced when water is removed primarily from storage with comparatively low rates of regional recharge. Water levels recovered at about 30 percent of the drawdown rate (i.e., approximately 6 feet per day, gradually decreasing to 3 feet per day), suggesting an inflow rate over the recovery period of approximately 75 gpm.

The nearest private wells are about one mile away from the dewatering wells, and beyond a topographic divide. Monitoring of water levels in wells in the project area, including some private wells in the town of Elkhorn, would be conducted routinely to observe any changes due to dewatering activities.

Comment #2:

The road into town has deteriorated from the constant use of haul trucks to the point it wasn't safely usable by passenger cars.

Response:

As noted on page 35 of the Draft EA (Proposed Transportation Network) and page 50 of the application (Transportation Network to be Used During Construction and Operation Phases, Including a List of the Type and Amount Traffic at Mine or Mill Capacity) EGI proposes to transport mine employees from a location in the valley to the mine site in light vans or sport utility vehicles. The plan is to reduce traffic on the county road to Elkhorn and increase safety for both mine employees and other road users. On occasion, contract equipment, such as graders, track hoes, and dozers, would be on the mine site for surface maintenance of roadways, stockpile locations, the portal patio, and parking lots. Up to nine 30-ton over-the-road trucks would be hauling ore up to five round trips per day.

While road use outside the proposed permit boundary is beyond the jurisdiction of the Metal Mine Reclamation Act which this Bureau regulates, EGI has an agreement with Jefferson County (Appendix 8 of the application) concerning road use and maintenance. See response to similar comments (Julie Reardon, Comment #1 and Steve Gerdes, Comment #1).

Comment #3:

I am very concerned about the well we plan to drill for personal use. If the fire well has been pumped dry twice, what guarantee do I have that this won't happen to our personal well? We are also trying to get funding to drill another well for fire use. My question is the same with this well. I am also very concerned about the quality of the water once the mining activities start.

Response:

Please see response above (John Smith, Comment # 2) regarding water quantity. As noted on page 76 of the Draft EA (Water Treatment and Percolation Ponds) and page 40 of the application (Percolation Ponds) the underground mine workings would be dewatered using deep dewatering wells in proximity to the decline. This water would be pumped to an underground sump and then to a water treatment plant. The treatment system would be skid-mounted and would use adsorptive media of ferric oxide or ferric hydroxide product. Based on water quality analyses conducted during the dewatering well aquifer tests, arsenic may exceed standards and would be the focus of water treatment. In addition, any excess water collected in the underground workings would be first pumped to a nitrate bioreactor to reduce expected elevated nitrate concentrations from blasting compounds, followed by distribution to the arsenic treatment plant. Water from the treatment plant, after meeting groundwater quality standards (Table 10 of the Draft EA), would be pumped to various percolation ponds for infiltration.

Percolation ponds would be constructed to bedrock with dimensions of about 20 feet by 40 feet. Water would be pumped into the ponds at a rate and for such a time period as to let the pond naturally percolate the water into bedrock. Preliminary estimates of percolation rate range from 40 to 580 gpm based on test pits (Hydrometrics 2006). It is expected that water would be pumped to the percolation ponds in rotation to ensure no one area becomes over-saturated and develops springs or overland flow. The long-term dewatering rate is expected to be about 100 gpm, with short-term peak rates of approximately 300 gpm (Hydrometrics 2006).

Metal mobility test results are summarized in Table 12 of the Draft EA. Results from metal mobility tests or rock samples from the Golden Dream Project show that most metals were not detected at their respective reporting levels. Arsenic concentrations measured in extracts from the hornfels composite and the historic non-ore rock quartz monzonite composite marginally exceeded the DEQ-7 groundwater standard. Manganese concentrations in extracts from the diorite and endoskarn composites exceeded the aesthetically-based secondary groundwater standard. No other samples or constituents exceeded water quality standards, including the two amended quartz monzonite samples.

Quality of water pumped to the percolation ponds would be monitored routinely during the period of water discharge. No adverse impacts would occur to groundwater quantity/quality as a result of water treatment and monitoring infiltration capacity of the ponds. In addition, the volume of water would not exceed the storage capacity of the ponds and would not affect surface water.

Comment #4:

Although this may not be a direct DEQ issue, what is going to be done to protect the public safety on the road when haul trucks are running up & down all day? There was virtually no dust abatement prevention efforts made during the last two mining operations.

Response:

As noted above, road use outside the proposed permit boundary is outside the jurisdiction of the Metal Mine Reclamation Act that this Bureau regulates. However, EGI has an agreement with Jefferson County concerning road use and maintenance. Please see response to other comments on this issue (Julie Reardon, Comment #1, Steve Gerdes, Comment #1, Louisa Rothfus, Comment #1, and John Smith, Comment #1 and #3).

Elkhorn Landowners Protective Association, Bud Smith (May 27, 2008 letter)

Comment #1:

Agreements for water wells in the community must be signed before the permit is issued.

Response:

Page 24 of the Draft EA states: In order to address public concerns about possible dewatering of local well water, EGI has committed to monthly sampling of strategic local wells. These levels are being recorded and kept in EGI records and are available to well owners. Baseline water samples would be taken from the wells in the spring of 2008 by a consultant in accordance with the agreements with each well owner. Each agreement would be a separate agreement between EGI and the well owner. All well owners would have access to their well information (personal communication Shane Parrow, 2008).

Gene Compton, Compton Ranch (May 27, 2008 letter)

Comment #1:

I am concerned about their ability to safely move high volumes of ore from Elkhorn to Highway 69. The increase in heavily loaded trucks that are unable to stop quickly and are constantly on the road put me and my family in danger. The dust the trucks kick up will be horrible and decrease visibility/breathability even more.

Response:

As noted above, road use beyond the proposed permit boundary is outside the jurisdiction of the Metal Mine Reclamation Act that this Bureau regulates. However, EGI has an agreement with Jefferson County (Appendix 8 of the application) concerning road use and maintenance. Please see response to other comments on this issue (Julie Reardon,

Comment #1, Steve Gerdes, Comment #1, Louisa Rothfus, Comment #1, and John Smith, Comment #1 and #3).

Comment #2:

I would like a travel plan to be created that seriously address the speed, size and frequency (for trucks and mine employees) of the traffic on the Lower Valley and Elkhorn road and enforced.

Response:

EGI has worked out an agreement with Jefferson County for a road use agreement (Appendix 8 of the application). The agreement notes that the speed of heavy trucks would be below 25 mph. The Draft EA notes that EGI plans a maximum of nine 30-ton trucks hauling up to five round trips per day. Please see responses to comment under; Julie Reardon, Comment #1, Louis Rothfus, Comment #1, Steve Gerdes, Comment #1, John Smith, Comments #1 and #3, and Bob Rux, Comment #4.

From: Zeb Compton (May 30, 2008 email)

Comment #1:

They want to haul out 45 loads of ore a day tearing up the countryside and polluting the air for a 1/4 ounce of gold per ton. They should mill the ore on site and then haul out the high grade.

Response:

The agency disagrees that EGI would be tearing up the countryside. Since a mill and tailings facility already exist at the Montana Tunnels mine, use of those facilities eliminates creating additional disturbance for a tailings impoundment and mill at the proposed Elkhorn Goldfields Golden Dream Project. EGI has limited the footprint of the mine to about 27 acres. They are reclaiming some past historic disturbance in the process.

EGI would need to abide with their air quality permit and the Jefferson County Road agreement.

Comment #2:

Also, they said the majority of the miners wouldn't even be local people.

Response:

Finding workers with experience in underground mining is becoming increasingly difficult throughout the state of Montana and the western US. Company management has indicated that they would like to hire more people locally, but that is not always possible.

Comment #3:

In the information sent out they said the posted speed limit would be 25 mph, but they never said anything about any kind of enforcement of that and I think that needs to be addressed.

Response:

The company does not have authority to enforce speed limits on a public road. However, they can limit the speed of their own vehicles on the road, which they have proposed to do. The agreement with Jefferson County (Appendix 8 of the application) notes: "Establish a speed limit policy that would prevent the heavy trucks from traveling at speeds greater than 25 mph." Posted speed limit violations would be enforced by the Jefferson County Sheriff's Department.

Comment #4:

I'm also sure that they will use magnesium chloride to keep the dust down on that road. While I do agree that there needs to be some dust control I have heard that it can get down into the groundwater, as well as kill trees. I would like someone to look at these issues, because my well is next to the road as well as trees I just planted for a windbreak.

Response:

Application of magnesium chloride solution is a common dust control method, particularly in western states. Magnesium is a plant nutrient, and all plants require moderate amounts of magnesium to live, since it is a required ingredient in chlorophyll. Magnesium also counteracts the effects of sodium in water by lowering the sodium absorption ratio. Magnesium toxicity is very rare in plants and animals.

Chloride is found everywhere in the environment, including tree sap, but in excessive amounts it can damage plants. The toxic effect is the same as the effect of excessive salinity. The US Department of Agriculture recommends levels of chloride below 121 parts per million (0.012%) in irrigation water but also notes that trees are more sensitive than row crops to chloride. Excessive chloride in irrigation water can cause browning of leaves.

The amount of magnesium chloride applied to roads must be carefully controlled to avoid the effects of excess chloride. At moderate application rates there should be no ill effects to trees or groundwater.

The agencies suggest you contact the Jefferson County Commissioners to discuss your concerns as other dust control agents exist such as lignin sulfonate which do not contain chloride.

*Ron McGinnis, Rosemary McGinnis, Dwight Charles, Gloria Charles, and Maurice Smith, John Smith, Robert Stubblefield, and Cheryl Smith
(May 29, 2008 letter)*

Comment #1:

EA section 2.2.10: What is to say that after the permit is granted that they will even upgrade the power lines? What about the pollutants from the generators that will be introduced into the air, soil, or water?

Response:

The core shed area would continue to use line power that is already in place. As noted on page 34 of the Draft EA (Power) and 49 of the application: During exploration, Northwestern Energy would deliver an upgraded power system and line power to the three locations as well as the town of Elkhorn. In addition to the line power, a small 250-500 kW diesel generator would be maintained on-site for emergencies. This generator would power evacuation and communication systems when line power is not available and would allow water to be pumped and treated. The backup generator would be located in the Office/Shop structure in the Saddle Facilities Area. EGI would need to submit an application for a minor revision or amendment to the permit if they wished to change the plan as proposed.

EGI would also need to comply with rules and regulations regarding air and water, or contamination of soil.

Comment #2:

EA section 2.2.8: We want a detailed protection plan from the mine if any well goes dry or gets contaminated. We want a monthly report or statement from the mine on each monthly sampling.

Response:

On page 44 (Monitoring of Adjacent Water Resources, and Monitoring Quality of Re-Introduced Groundwater) of the application a monitoring plan is laid out. In addition, page 45 (Additional Monitoring Sites) notes other sites to be monitored.

The Draft EA notes on page 23 (Groundwater and Surface Water Monitoring Programs) that: Water monitoring would be undertaken to ensure that operations do not negatively impact surrounding waters as defined by the Montana Water Quality Act. The sampling program is divided into two parts:

- Monitoring neighboring surface water and groundwater sites to ensure no mine discharges cause exceedance of water quality standards in the surrounding surface and groundwater.
- Monitoring water quality of groundwater being reintroduced into the regional groundwater system.

Regional sampling during operations would mirror the Baseline Water Resources Sampling and Analysis Plan (Hydrometrics 2007a). When mine dewatering would commence, the sampling program would continue as discussed in the approved baseline plan. Frequencies for surface water and groundwater sites would be increased to semi-monthly for the first three months of pumping and monthly thereafter for the first year. After the first year, sampling would return to the frequency stipulated in the baseline plan, unless directed otherwise by DEQ.

An annual hydrology report would be submitted to DEQ each year and contain surface and groundwater monitoring results. This report would be available to the public.

Comment #3:

We want to know who has the final say on why and who is responsible if something happens and how that would be determined. If the mine says it wasn't because of them, what recourse do we have as landowners? Who is going to protect us? And where do we go?

Response:

The DEQ would administer the operating permit. If a problem were to be reported to the agency it would be investigated. EGI would need to abide by the rules and regulations of the Metal Mine Reclamation Act and other applicable laws and regulations.

Comment #4:

EA section 2.2.4: How often will they apply a dust control agent? Will it be as needed according to the mine or who? As for re-grading the road at least once a year, what if it needs to be done more, and who do we contact?

Response:

The agreement with Jefferson County (Appendix 8 of the application) notes that nuisance dust on the Elkhorn Road would be prevented by applying an environmentally approved dust control agent to the road surface. The document does not provide further information on dust control or regrading. Since the road would be outside the permit boundary, such concerns would need to be addressed to Jefferson County Board of County Commissioners.

Comment #5:

EA section 2.2.12 (Proposed Transportation Network): What reassurance do we get that this is to be done? Who do we contact if this isn't happening?

Response:

The Draft EA on page 35 (Proposed Transportation Network) notes: EGI proposes to transport mine employees from a location in the valley to the mine site in light vans or sport utility vehicles. The plan is to reduce traffic on the county road to Elkhorn and increase safety for both mine employees and other road users. On occasion, contract equipment, such as graders, track hoes, and dozers, would be on the mine site for surface maintenance of roadways, stockpile locations, the portal patio, and parking lots.

The application contains similar language on page 50. Failure by EGI to follow-through on instituting the plan should be reported to the DEQ.

Comment #6:

If they are hauling more than nine trucks a day, who do we contact?

Response:

EGI has noted in the application (page 50) that they would use a maximum of nine trucks per day each making 5 round trips. If this number is exceeded please contact DEQ.

Comment #7:

Comments were made concerning sewage treatment if employers or employees are allowed to park RV's at the mine site or in the town of Elkhorn. Where would they get their water supply from? If in town, what would be the plan to protect wells of the landowners? We want reassurance that if the employers and/or employees bring up RV's to live in up in Elkhorn, that their sewage is not deposited on the ground. The water and sewage issue needs to be addressed in the EA, to protect the landowners.

Response:

EGI would not allow employees to live on site during operations. They have allowed one employee to stay on site temporarily to watch over the site during the busier tourist season during the exploration phase. Due to vandalism that occurred last year, they felt this was a necessary precaution to protect the environment and equipment.

A pre-existing EGI owned well is being used to supply water. Discharge of sewage is against County and State codes/laws and it is not discharged on the ground or at the site. When the outhouses are pumped, they also pump out the storage tank on the camper. Once EGI receives approval to start operations, they would not allow employees to camp or live on site.

Land and water well protection in the town of Elkhorn is on private ground not owned by EGI. The landowners would have the right to prosecute for trespass (personal communication, Tom Smith, EGI).

Comment #8:

If the mine isn't doing what is stated in the EA, who do we contact and how? Is the DEQ the one responsible for ensuring the mine does everything they stated in the EA? We want a list of names and phone numbers other than staff at the mine who we can contact if the mine does not fulfill their obligation.

Response:

The DEQ would administer the operating permit. If a problem were to be reported to the agency it would be investigated. EGI would need to abide by the laws and regulations of the Metal Mine Reclamation Act and their approved mining and reclamation plan and stipulations contained in the permit. Please call Herb Rolfes at 406-444-3841.

Phil Brooks (May 30, 2008 email)

Comment #1:

Last paragraph, p. 86, use the 2000 Census of Population and Housing persons per household for Boulder of 2.34 and thus change the 4th sentence to: "brought in 1.34 other persons with them, a total of 164"

Response:

The paragraph stated:

The impact of Golden Dream employees, 70 at maximum, would be felt mostly in the town of Boulder. This is the nearest town with services and with significant housing available. The town of Elkhorn does not presently have services, nor a significant amount of vacant housing. The 70 employees, if they all resided in Boulder or near Boulder and were all new workers from the outside, would represent only a small fraction of Boulder's total population. If each employee brought one other person with them, a total of 140 new arrivals, they would represent a larger fraction, just under 4% of Boulder's total population. Despite this small number, it would pose some impacts on local schools, police and services in the short-run (the first 12 months) due to the sudden arrival of these new people all at once.

The last two sentences should be corrected to:

If each employee brought one other person with them, a total of 164 new arrivals, they would represent a larger fraction, just over 10% of Boulder's total population. This could pose some impacts on local schools, police and services in the short-run (the first 12 months) due to the sudden arrival of these new people all at once.

Comment #2:

First paragraph, 4th sentence, p.87, assumes that the local hires were all unemployed. This assumption is not valid unless there are 35 unemployed people in the Boulder area that have the skills to work at the mine. The 2000 Census of Population and Housing counted a total of 31 unemployed persons. Some of these presumably would have the necessary skills.

Response:

The paragraph stated:

There is good reason to believe, however, that these impacts would not be significant in the long-run and would be easily absorbed over the first few months of mine operation. The estimated growth in population in Boulder from 2000 to 2006 was 145 persons, slightly larger than the maximum 164 new persons that the mine could potentially bring into the area. Also, it is very likely that some hired for the mine would be locals who already live in the area. If half of new hires for the mine were local, then impacts on services of newcomers would be cut in half. Some of the workers moving in from elsewhere would probably reside outside of Boulder, and use the services in Boulder. A few might locate near Helena, Butte or Whitehall, and not use services in Boulder. Finally, the impact would depend in part on perception of the local population. New employment opportunities would likely be welcomed in Jefferson County, a county long associated with mining. Also, residents would welcome new tax revenue that the mine would have to pay and that its workers would have to pay.

The comment is considered accurate and is so noted.

Comment #3:

Third paragraph, 2nd sentence, p. 87, I would use the Boulder 2.34 persons per household, and the 10% vacancy rate for Boulder from the 2000 Census, which yields 62 instead of 60 vacant residences.

Response:

The paragraph stated:

Negative impacts could also be felt in the area, although they are likely to be insignificant due to the smaller size of the mine. In terms of housing for the new workers, if Boulder has the county average of persons per household (2.62), and the county average vacancy rate (11%), then about 60 vacant residences would be available in town $((1,445/2.62)*0.11)$. This would not be enough for 70 new families, but likely some of the 70 workers would already live in town (thus not needing new housing), and other incoming families could build something new, or live outside of town, but still within commuting distance. New people coming to town could create new social opportunities and new social tensions as well, with newcomers potentially bringing different values with them. The other services in town should be able to adjust to a 4% or less population increase, even a sudden one, within a year. New tax dollars from the mine and its workers could pay for most or all of needed new services, although there might be a lag between needed services and incoming new tax dollars. Overall, the long-run positive and negative impacts are expected to be insignificant, with the exception of mine-related tax revenues.

The comment is considered accurate and is so noted.

Comment #4:

First paragraph, 2nd sentence, p. 86, "2006 total personal income at \$354 million (U.S. Bureau of Economic Analysis, April 2008).

Response:

The paragraph stated:

On July 1, 2006, Boulder had an estimated population of 1,445. (U.S. Census 2007). For all of Jefferson County total employment was estimated at 4,608 jobs (2000), total personal income at \$267 million (2002), and budgeted expenditures at \$6,417,751 (fiscal year 2003). Total county-wide assessed valuation was over \$526 million with a taxable value of almost \$20 million. The taxable value of net and gross proceeds was just over \$2.5 million (Ramey 2004). Mill rates vary by area based on school and other special district assessments.

The comment on 2006 personal income is considered accurate and is so noted.

Comment #5:

Second paragraph, p. 86, substitute: "2005 Jefferson County median household income was \$49,152 (U.S. Census Bureau, 2008). In 2006 Jeffersonof \$32,511 which was 106 percent of the 2006 Montana average of \$30,790, and 89 percent of the 2006 U.S. average. In 2006, Jefferson.....about \$354 million, which accounted for 1.4 percent of the state total. This was up from about \$252 million in 2000 (U.S. Bureau of Economic

Analysis, 2008). The average wage.....was \$29,703 in 2006, which was 106 percent of the 2006 Montana average of \$30,534, and 71 percent of the 2006 U.S. average of \$41,991 (U.S. Bureau of Economic Analysis, 2008).

Response:

The paragraph stated:

In 2000, Jefferson County median household income was \$41,506 (U.S. Census 1997). In 2002, Jefferson County residents had a per capita personal income of \$25,696, which was 103 percent of the 2002 Montana average of \$24,831 and 83 percent of the 2002 U.S. average of \$30,906. In 2002, Jefferson County residents earned a total personal income of about \$267 million, which accounted for 1.2 percent of the state total. This was up from about \$240 million total personal income for Jefferson County in 1999 (U.S. Bureau of Economic Analysis 2004). The average wage per job in Jefferson County was \$27,117 in 2002, which was 105 percent of the 2002 Montana average of \$25,790, and 75 percent of the 2002 U.S. average of \$36,167 (U.S. Bureau of Economic Analysis 2004a).

The comment is considered accurate and is so noted except that the value of \$29,703 found in the last sentence is 97% of the 2006 Montana average wage instead of the noted value of 106%.

From: Maurice Smith (May 30, 2008 email)

Comment #1:

The dewatering puts the Elkhorn water aquifer at risk of either being contaminated or drained.

Response:

Please see the response to comments above (Louisa Rothfus, Comment #2, and Bob Rux, Comment #1) which address the issue of dewatering. The two dewatering wells, installed in the portal patio areas indicated that a cone of depression would be limited in area.

Comment #2:

The past dewatering operation by this company has proven to have had an affect on the Elkhorn water table.

Response:

The past dewatering effort involved a decline situated near the turnoff at the edge of the town of Elkhorn. Whether the dewatering efforts for that exploration effort affected the local wells is unknown.

Comment #3:

The mining of the ore body that EGI has proposed is ore that is highly acidic and has high levels of arsenic. The removal and stockpiling of this ore is a contaminant to the environment. This acidic/arsenic laced ore will leach off and has the potential to kill the entire Elkhorn drainage.

Response:

See Appendix 11 of the application. On page 59 of the draft EA it notes: Ore-grade mineralization at the Golden Dream Mine occurs as three different mineral assemblages: pyrrhotite-chalcopyrite mineralization, magnetite-vosenite skarn, and oxidized ore. (For a more detailed description of the ore, please refer to the 2007 Golden Dream Operating Permit Application.) This ore would be transported to the Montana Tunnels Mine for processing. EGI has recently analyzed 46 ore samples for acid-base accounting (modified Sobek method) and whole-rock metals (ALS Chemex method MEMS-41). A summary of these data was not yet available, but historic acid-base accounting data reported in the operating permit application (Elkhorn Goldfields 2007) indicate that the oxidized ore zone has an average net neutralizing capacity of 27.6 tons calcium carbonate CaCO_3 per kiloton of rock (17 samples), and the sulfide-magnetite ores have an average net acid generating capacity of -127.2 tons CaCO_3 per kiloton of rock (83 samples). A review of the recent ore sample data shows that the pyrrhotite ore is net acid generating, magnetite ore has an uncertain acid generating potential, and oxide ore has a net acid neutralizing capacity.

The ore would be transported to the Montana Tunnels for milling. Only non-ore rock would be placed on the surface at the mine site. Ore would be temporarily stockpiled at a loadout area. The ore loadout area is described on page 78 of the Draft EA. The section notes: The proposed Ore Load-out Area, located in lower Slaughterhouse Gulch, would be constructed with a concrete pad that would slope toward a lined sediment collection pond (Basin-10). The ore is stored on the pad temporarily until it can be loaded onto trucks for shipment to the Montana Tunnels Mine site. Any runoff from the ore pile that collects in the lined pond would be pumped for use in underground operations, or trucked to the water treatment plant in the Saddle Facilities Area for treatment, if necessary.

Beginning on page 49 of the Draft EA (Environmental Geochemistry) is a discussion of geochemistry. The geochemistry section notes: The acid-base accounting test results for the Golden Dream Mine Project non-ore rock samples are contained in the *Final Golden Dream Project Baseline Environmental Geochemistry Evaluation of Mine Decline Development Rock* (Tetra Tech 2007a) prepared for EGI. These data from all phases of sampling are summarized in Table 11. These results show that, on average, the quartz monzonite lithology has uncertain acid generation potential, while the other three lithologies present an unlikely risk of acid generation. ABA results are supported by additional, longer-term humidity cell testing, which is a more rigorous test. At the time of writing this document, the kinetic test is in progress for the quartz monzonite. Further testing also includes the meteoric water mobility procedure (MWMP) and saturated paste extract pH test.

Values of pH measured in saturated paste extracts prepared from historic non-ore rock dump samples of diorite, endoskarn, hornfels, and quartz monzonite had final pH values from 7.75 to 8.58—neutral to slightly basic. The extract pH values prepared from the Golden Dream Mine Project diorite, endoskarn, and hornfels rock samples ranged from 6.85 to 8.58 (neutral to slightly basic). (Tetra Tech 2007a). These data indicate that

sufficient neutralizing minerals are present to neutralize potential acidity after a prolonged period of weathering under field conditions.

Metal mobility test results are summarized in Table 12. Results from metal mobility tests or rock samples from the Golden Dream Project show that most metals were not detected at their respective reporting levels. Arsenic concentrations measured in extracts from the hornfels composite and the historic non-ore rock quartz monzonite composite marginally exceeded the DEQ-7 groundwater standard. Manganese concentrations in extracts from the diorite and endoskarn composites exceeded the aesthetically-based secondary groundwater standard.

No other samples or constituents exceeded water quality standards, including the two amended quartz monzonite samples. Gross alpha and gross beta radionuclide tests were included in the MWMP analyses presented in Table 12, with concentrations ranging from 2.7 to 6.0 picocuries per liter in the quartz monzonite sample.

Values of pH measured in MWMP samples from drill core composite samples, amended samples, and historic non-ore rock dump samples range from 6.85 to 7.65 (Table 12). These results are within the Montana groundwater quality standard for pH of 6.5 to 8.5 (Circular DEQ-7; DEQ 2006).

Arsenic would be treated to meet or exceed standards before being discharged to percolation ponds as noted on page 42 of the application (Mine Dewatering).

Comment #4:

The transporting of this contaminate is not only an environmental hazard but also a traveling hazard created by the haul trucks and their continuous travel. No matter how much the Elkhorn road is improved, traveling to Elkhorn will be life threatening for everyone.

Response:

While road use outside the proposed permit boundary is beyond the jurisdiction of the Metal Mine Reclamation Act, EGI has an agreement with Jefferson County (Appendix 8 of the application) concerning road use and maintenance.

The main points of this agreement with the County are: Clearing brush along the road for improved visibility, widening the road to 24-foot width including cattle guards and culverts, regrading of the Elkhorn Road and surfacing with appropriate gravel material, posting a speed limit of 25 mph, installing signs, traffic lights, etc. to protect public safety at Point of Rocks, Highway 69, and Elkhorn Road Junction, Queens Siding Corner, and at culverts, cattle guards, and bridges on Elkhorn Road, preventing nuisance dust on the Elkhorn Road by applying an approved dust control agent, regrading at least once a year, hiring a contractor for snow removal, rehabilitating road sections that have deteriorated over the years, returning responsibilities for road maintenance to the County once the mine closes, leaving the road in as good as or better condition as of August 2007 and amending this agreement for additional safety concerns due to unforeseen circumstances.

Comment #5:

The noise levels in Elkhorn will be deafening. Their proposed generators are unacceptable. The noise levels with proper electrical equipment will be shattering to the community, that's with the proper noise filters. The truck and heavy equipment noise alone will be intolerable at best, another health issue!

Response:

Please see comments above (Julie Reardon, Comment #1) concerning noise levels (which are addressed in the Draft EA on pages 36 and 37 and page 51 of the application (Predicted Noise Levels by Activities During Construction and Operations). The generators would only be used during the exploration phase and would be located in the saddle area, approximately 4,000 feet northwest of the town site.

The truck loading facility is approximately 1,400 feet northwest of the town site.

Comment #6:

The proposed disturbance area is a resident elk calving area.

Response:

As noted on page 48 of the Draft EA (Wildlife) a wildlife baseline study of 3,360 acres including the Proposed Action area observed 89 species of birds, 33 mammals, and 2 reptiles (WESTECH 1995). Elk, moose, and mule deer were the big game species observed on or near the project area. Blue grouse and ruffed grouse were also recorded near the project area. The area is utilized as a normal summer range for elk and mule deer. The project area is not used by elk for "key summer" or "key winter" range habitat. An update of the area wildlife inventories was performed in June 2006 (WESTECH 2006). It includes: Fisheries and Species of Concern, Aquatic Biological Resources and Species of Concern, Wildlife Habitats, and Bats and Terrestrial Vertebrate Species of Concern. Wildlife evaluations of the Golden Dream Mine Project site identified logging and grazing impacts as having reduced the availability of habitat for deer and elk in the project area since the 1995 study. The application also addresses this issue on page 18 (Wildlife).

Comment #7:

A Lynx has been seen on Whiskey Mountain. Much has changed in the Elkhorn environment since the last EA/EIS.

Response:

The Draft EA notes on page 49 that "It is possible that Canadian lynx are present at least as transients in the Elkhorn Mountains but the habitats in and adjacent to the Golden Dream Mining Project are not preferred. The probability of lynx use of the proposed permit area is considered to be low. No threatened or endangered species have been found on or near the proposed mine site" (WESTECH 2006).

Comment #8:

The impact this operation will have on the Elkhorn area will change the entire existence of the wildlife.

Response:

As noted under the responses to comments #7 and #8 above the impact to wildlife is considered to be minimal.

Comment #9:

Goldfields/Santa Fe was an experienced mining company with experienced mining professionals whereas EGI, due to greenness, poses significant risk. Should some unforeseen problem occur, this inexperienced company has neither the know-how, experience, nor financial backing to mitigate such problems.

Response:

Currently, EGI reports that they have 12 employees with a sum total of about 180 years experience or an average of about 15 years. The years of experience would increase as they hire experienced underground miners.

A reclamation bond would be in place to ensure that reclamation is carried out.

Comment #10:

The way of life in Elkhorn, should you permit this, will be drastically changed forever. Though Elkhorn was once an old mining town it has since become a retreat and get away. The landowners and home owners use their properties to relax, hunt, fish, hike, ski, read and sleep.

Response:

Please see the response (Julie Reardon, Comment #1) that addresses noise.

Additionally, the Draft EA starting on page 86 (Socio-Economics) notes that: The impact of Golden Dream employees, 70 at maximum, would be felt mostly in the town of Boulder. This is the nearest town with services and with significant housing available. The town of Elkhorn does not presently have services, nor a significant amount of vacant housing.

The Golden Dream Mine Project, as proposed by EGI, would employ a maximum of 70 employees. EGI has made the commitment in the permit application and to local community leaders through public meetings to hire and train as much local help as possible. EGI has also committed to provide funds to improve the Elkhorn county road and to provide assistance in fire fighting and utilities acquisition for the residents of Elkhorn.

The town of Elkhorn was established to service the mines, and during its peak the town's population reached over 1,000 people. Elkhorn was connected to the Northern Pacific Railway by a spur line from Boulder constructed in 1887. A series of mills evolved at Elkhorn to handle the increasingly complex ores. After the arrival of the railroad, the Elkhorn and other mines, such as the C & D, Elkhorn, Queen, and Dunstone, shipped ore and concentrates to the smelter in East Helena. In 1891, the District was producing at a rate of \$1 million a year. The Holter Mine produced ore continuously until 1900. Fluctuating silver prices caused several closures of the mine until 1951, when it was operated briefly for the last time.

In the 1980's, modern exploration began in the Elkhorn Mining District when Gold Fields Mining Corporation initiated a drilling program concentrating on various gold mines and prospects in the District. The drilling identified several areas of gold skarn mineralization, including significant deposits in the Sourdough/Golden Dream, Mount Heagan/Gold Hill, East Butte, and Carmody areas. Gold Fields Mining Corporation, and subsequently Santa Fe Pacific Gold Corporation, that inherited the property through a series of exchanges, examined several alternatives for mining the deposit and had concentrated on a combination of three open pits and a small underground program to develop the deposits. Santa Fe Pacific Gold Corporation was in the process of developing this alternative when in 1996 it was purchased by Newmont Mining Corporation which decided the property did not fulfill its corporate strategy for development projects. Treminco Resources Limited then obtained the property from Newmont Mining Corporation and subsequently became Elkhorn Goldfields, Inc.

From these excerpts the impacts to the town of Elkhorn would be mostly limited to truck traffic on the edge of the town site. The town site has historically been a focus of mining and that can be expected to continue into the future.

Comment #11:

The current situation has potential to result in either mine traffic or public vehicles to end up in the creek due to an inadequate road width to allow safe two-way traffic.

Response:

The agreement between EGI and Jefferson County addresses widening the road to 24 feet where practicable. In addition, please see the response to comments above (Julie Reardon, Comment #1, Louisa Rothfus, Comment #1, Michele Lemieux, Steve Gerdes, Comment #1, and Shawn Byrant, Comment #1).

Comment #12:

Fuel and other automotive toxicants can have adverse impacts to the fishery.

Response:

Page 45 of the Draft EA (Fisheries and Aquatic Resources) notes: The fisheries and aquatic resources survey performed by Westech (1994) was reevaluated in 2006 to determine whether the description of the fisheries is still valid. The study indicated that brook trout is the primary fishery in the project area with the most fish inhabiting Turnley and Elkhorn creeks (both classified as third order streams). Of the total 253 brook trout collected for the study, 57 percent of the fish were collected in Turnley Creek. One mottled sculpin was collected in the study area. No fish were collected or observed in certain reaches due to shallow stream depth and low flow. Length frequency distribution data showed that all age classes were present in Elkhorn and Turnley creeks (WESTECH 1994).

The fishery inventory classified brook trout as the primary fishery. No threatened or endangered species were encountered (Appendix 20, Aquatic Biological Baseline Monitoring). The Montana Fish, Wildlife & Parks MFISH database also only lists brook trout as the species present. Researching MT's 303(d) list (cwaic.mt.gov) of impaired water bodies states that Elkhorn Creek has a water quality category of 5 (impaired) and a

use class of B-1 (suitable for industrial water supply) (personal communication, Tom Smith, EGI).

As noted in the response to comments, EGI has an agreement with Jefferson County to widen the road and undertake other measures to make the road safer. If a vehicle should go off the road the impact would be treated the same as is currently being done.

Comment #13:

Any widening of the road will need to be done in a manner that doesn't either directly impact the stream channel or result in sediment delivery to the stream.

Response:

Currently, EGI is not in the process of performing actual road widening activities on the Elkhorn Road. The only work performed so far has been clearing of brush from the right-of-way and some fence work. Where Elkhorn Creek approaches the roadway, they have placed straw wattles, straw bales, and sediment fence where necessary in anticipation of beginning the construction efforts. EGI plans on sloping the road away from Elkhorn Creek where the road comes along the creek. This would direct any runoff away from the stream, as is the common construction and best management practice (BMP). EGI also intends to have personnel on site during the roadway construction to provide construction management as another form of BMPs (personal communication, Tom Smith, EGI).