FORMAL PROTEST – OGILVY RIVER FARM APPLICATION # M-2024-006
MAY 2024

INTRODUCTION

My name is Roberta Smith, I am the landowner adjacent to the applicant's property. My land borders on the east and north to his property with the South Platte river bordering on the west and south. I own 20 acres. My husband and I bought the land in the 1960's and built our home here in 1984. My husband was the Vocational Agriculture teacher at nearby Platte Valley High School in Kersey approximately 2 miles south. I am a retired pediatric Occupational Therapist having worked at Children's Hospital in Denver for 20+ years and then pediatric home health till retirement. We raised our four children at this location. My husband was killed in an auto accident in 2011.

I will list my topics to be addressed individually with information and details of concerns for each item.

RIGHT OF WAY / DRIVEWAY

INFORMATION– In 1982, a legal 24-foot recorded right-of-way (ROW) was filed with Weld County to allow us access to our property. For many years prior, the access to the property had been thru the former owner's yard. When we decided to build a house, a formal declared (ROW) was agreed upon with the former owners to allow our access on the north of their house rather than thru their yard. This is filed with the Weld county Clerk and Recorders office. At that time, it was also decreed that we would be allowed to have our utilities come down the right of way that included the water line, power, and telephone line.

Currently, at the entrance to my driveway, I have:

1. At the edge of my driveway by County Road 53 (CR 53), I have a North Weld County Water District meter that attaches to my water line. The water line runs down the (ROW)/driveway buried at 6-8 feet deep traveling to my house and is my only access to drinking water.
2. A Poudre Valley REA power pole and power line is directly across from the water meter with poles/lines located along the right of way back to my house.
3. A US post office mailbox is located at the entrance to my driveway and is where I get my mail delivered.
4. There is an active gas line under that area of my driveway that was capped when the oil well in the field was removed.
5. This is my only entrance and exit to my land that is used multi times daily by me and anyone else coming to my property.
6. I have a rental and land business; I store my trailers, equipment, extra vehicles, tools and supplies at my place and need access to them at all times.

CONCERNS

1. The very poor almost unreadable application maps indicates where the entrance to the pit will be located. This is **TOTALLY UNACCEPTABLE** to use my ROW for access to the gravel pit. This is the only access to my property, by allowing my driveway to be the mine entrance is denying me unobstructed access to my place and could cause safety concerns for me.

2. My understanding is the applicant has to be 200 feet from any structure of which I was told these are considered structures and those items listed above would not be at the 200-foot restriction from the access road.
3. That driveway is not wide enough for semi-trucks to enter or exit especially with the water meter on the north side of the driveway, the power pole and mailbox on the south.
4. In the ROW recorded agreement filed with Weld County, it states "The Grantors agree that they will not use vehicles upon the right of way which are in excess of the capacity of the roadway constructed by the grantees". This road was **DEFINITELY NOT** constructed to handle heavy semi-trucks loaded with sand and gravel.
5. I have to have full unimpeded access to my place at all times of the day and night for my safety.
6. I own a rental units and a land business. This location is where all the trailers, vehicles, farm equipment, and supplies are stored, I need full access to those.
7. There are major highway concerns from the driveway – will address this concern under highway concerns.

My right of way looking east to road
My PVREA poles on right

Entrance to right of way with water meter by blue stake
water line is buried in the middle of the driveway
mailbox and REA power pole on left
Yellow pole is gas line marker.
White stake marks a culvert running under driveway

North Weld Co water meter next to blue stake. White marker for edge of culvert

Mailbox, PVREA power pole, yellow gas line marker

HOUSE, SHOP, OUTBUILDINGS, WELL, PROPANE TANK, SEPTIC SYSTEM, LAND

INFORMATION– I own our 6-bedroom, 2 bath four level home. This house was built in 1983-84. This house is a tri-level home with a finished basement. There is an engineered septic system in front of the house to the east. I have a 90' x 50' shop that was built with a concrete foundation, located on the north side of my property adjacent to the applicant's land. This shop is presently filled with farming equipment and vehicles with a current estimated contents weight of 100,000 lbs. The shop has a capacity of 200,000 lbs. (50 – 100 tons) To the west of the shop, about the same distance from the property line are greenhouses, next to that is my propane tank with an underground gas line to my house, next to that is a two-car shed and just west of the shed is my irrigation well.

There is a 50' drop in elevation from the north side of the applicant's property by the Ogilvy Ditch Canal to my property's lower pasture, with another 5-6 feet to the river basin. This 55' drop in elevation over less than a half mile will have a huge effect on water flow and implications for water storage. The application has the land use listed as agriculture and industrial. The land has always been agriculture there has never been any industrial use (industrial use is listed in the application).

During the major flood of 2013 my lower land was underwater but not the house although I did have water that was in the basement from the water level being extremely high.

CONCERNS

1. Again, with the noted 200-foot restriction from any structure for this gravel pit application, the shop, house, outbuildings, propane tank and irrigation well are all closer than 200' from his proposed pit.
2. If the slurry wall is constructed on the north side of the pit, with water table rising on the elevated side what is to prevent the water from coming around the wall and undermining my basement and engineered septic system especially knowing the 50' drop in elevation from the north side of the property to the south as underground water is returning to the river.
3. I have an old, adjudicated irrigation well with a registration # 12254 that was originally registered to George Jurgens who we bought the land from. The information on the well indicates it is 48' deep, 40 x16" diameter with a 29" casing. The static water is at 14', with a pump of 1000 gpm from 25 feet. The pump was first used in 1952. The well is not currently augmented or used but once augmentation is

acquired the well is operational and could be used and needs to be protected. A recent check showed the static water still at the 14' level. What will be the long-term effect of this pit have on my well? This a huge concern for me to be able to ensure the integrity of my well and its future use.

4. If the well water level is now at 14' and that is approximately the same elevation drop to the South Platte river basin, this mean the proposed mining will be tapping into the South Platte River flow basin and the potential consequences of interfering with the flow of the river.
5. My shop that is located close to the applicant's proposed pit wall. This shop is filled with heavy farm equipment and vehicles estimated at 100,000 lbs. This weight load has not been factored into the ground stability analysis. A 39' setback for the pit will undermine the integrity of my shop.
6. With mining operations there is the potential of adverse vibration to the propane tank, the connections and underground lines that could possibly lead to an explosion.
7. I have serious concerns regarding his proposed water storage unit especially related to the dramatic drop in elevation from north to south of the proposed location which is not mention. The west to east elevation drop is noted as 17'. The north to south drop in elevation is approximately 30' and definitely should be addressed as that is critical to me.
8. The dewatering trenches during mining are not located. This is critical for my safety.
9. The inflow and outflow locations for the water reclamation plan are not listed. To me if water storage is the end goal of this application these concerns to be included in this application. I have some very serious concerns for my safety with a large water storage just north of my property as well as inflow and out flow locations.

My house and shop

My irrigation well near fence line

The propane tank on north side of my property
This propane is used to heat my house and water.

Aerial view of my property – applicant land at bottom of picture
Showing the close proximity of my house, shop, and outbuildings to his land

HIGHWAY SAFETY

INFORMATION – County Road 53 (CR53) is the main arterial road that serves all of the northeast part of Weld County and beyond. It is one of the few roads that cross the South Platte River going north. Until the construction of the Weld County Parkway it was the only way across the river for many miles in either direction.

Even with the construction of the parkway, CR 53 continues to carry very heavy traffic for a small narrow county road. The traffic includes, semi-trucks, belly dump semis, side dump semi-trucks, regular dump trucks, oil trucks, oil construction trucks, livestock haulers, farm trucks, farm equipment, school buses, emergency vehicles along with regular pickups and cars. There is a constant stream of traffic all hours of the day and night using this road.

It is the main road used for the Platte Valley School District to transport students living north of the river, as well as emergency vehicles for all calls north of the river. This is a high-speed road with most vehicles traveling 55 -65 MPH past my location.

In 2013 the flood destroyed the bridge that crosses the river. It had to be replaced, the present bridge is narrow with no shoulders.

CONCERNS

1. This county road was **NOT** built for heavy truck traffic, it has no shoulders and even with paving not too long ago it shows significant damage from the overuse by the heavy weight truck traffic. If there is a dramatic increase in heavy sand and gravel truck traffic, the heavy weight overuse will destroy the road.

2. The 2013 flood destroyed the old bridge across the South Platte River on CR 53 just south of his property. A new bridge had to be constructed. This heavily used bridge is extremely narrow with no edges between highway and guard rails. If there is a dramatic increase of heavy semi traffic over this bridge it will have a destructive effect on the integrity and safety of this bridge.

3. I was told recently of an accident of two large vehicles with extended mirrors hitting the vehicle's mirror traveling in opposite direction causing major damage. When I drive north across the bridge, the guard rail edge of the bridge sets off my mirror alarms for a close object. There is no place to pull over if the oncoming vehicle happens to be traveling even on the yellow line let alone if it is the oncoming lane. This bridge is an accident waiting to happen with the very large wide trucks that have no room for error when meeting one another on the bridge.

4. An even worse scenario what if it was a sand and gravel belly dump truck from the proposed pit and a school bus loaded with students trying to pass one another crossing that bridge and one of the large vehicle's is not in it's lane. It is scary to think of what the catastrophic consequences of that could be.

5. When entering CR 53 from my driveway (the proposed entrance to the applicant's pit) there is very limited sight distance especially to the north. You cannot see past the crest of the hill at the north side of his property. It will become a **serious safety hazard** if a slow-moving sand and gravel truck is trying to enter traffic or turning to exit.

6. CR 53 is a high-speed narrow road especially as it passes my driveway. The speed limit on this road is 55 MPH. Most vehicles drive at 55 -65 MPH especially on that part of the road along the applicant's proposed site.

7. Coming from the south, driving north at my driveway (proposed pit access location) there is a curve in the road that limits vision of oncoming traffic, as well as the crest of the hill, both limiting vision of oncoming vehicles especially when they are traveling at a high speed. This

could be disastrous for any truck attempting to turn there. It would still be dangerous even with a turn lane. I**t is NOT a location for access to the proposed pit**

8. There are no shoulders or turn lanes for any entering or exiting trucks this could cause catastrophic consequences for traffic. I have seen pictures of belly dump trucks lining the edge of the Weld Co Parkway waiting for the pit to open. This also was an issue on CR 58 when the pit was being mined over there That would be totally disastrous in this location, even with shoulders and turn lanes, it would block traffic causing a serious hazardous situation.

9. This highway is used for the school buses needing to transport students to the Platte Valley School living north of the river. It is a very serious concern for the safety of students on the buses as well as any teenage drivers or parent driving their students to and from school. It could be catastrophic!!

From my driveway looking north limited Vision - crest of hill is edge of his property

Looking north, my driveway is second power pole on the left side - vision is limited with curve in road

Note the damage to road caused by heavy trucks That will get much worse with dramatic increase in heavy sand and gravel trucks using this road

Driving across bridge showing how narrow it is. There are **NO** shoulders at all

Picture of my mirror alarm going off next To the guard rail as I drive over the bridge

OGILVY DITCH CANAL

Information – The Ogilvy Ditch canal runs the full length along the applicant's property on the north side from west to east. This canal supplies many farms their needed irrigation water for farms east of CR 53. During the summer this canal carries a high volume of water.

Concerns

1. If with the presence of a slurry wall just to the south of this irrigation canal and as the water table rises north of the canal, the underground water returning to the river could potentially cause the water level to undermine the irrigation canal causing serious loss of irrigation water in sand that sits below that ditch. If that happens what is to prevent it from flowing south and potentially destroying my basement and septic system? In 2013 with the rise of the flood water I had water in my basement.

2. During the 2013 flood, portions of the proposed pit were under flowing water. This could be disastrous if another flood like that happened. There is no mention of any plans to handle possible future flood. With climate changing our weather patterns this concern and a plan to deal with it needs to be in the application.

3. When the water table rises upslope from the slurry wall, there is an elevation drop of 55 feet from the northside of his property to the river basin. The significant drop in elevation, in that short of a distance, increases the likelihood of increased underground water causing damage to my basement and septic system.

4. In the applicant's water engineering report conclusion, it even states "We ignored the presence of the New Cache La Poudre ditch and the Ogilvy ditch flow from the west to the east north of the ORFP". How in the world can you ignore a large irrigation canal that is within a few feet of a slurry wall with underground water flowing back downhill from the north toward the river? Common sense tells you it will affect it.

Ogilvy Ditch north of applicant property.

Ditch with drop to irrigated farmland

My shop, house and land from north side of proposed pit

ENVIRONMENTAL CONCERNS

INFORMATION – A sand and gravel pit will have numerous loud pieces of equipment including machines with the backup beepers. There will be a constant flow of heavy-duty diesel sand and gravel trucks that will pollute the air and create dust not to mention the extractors of the sand and gravel creating noise and pollution. There can be strong winds in this area that will create massive amounts of blowing dirt and sand. There are other concerns with “dewatering trenches”, and “mining will not expose ground water prior to slurry wall being constructed”, a “sediment pond” “dewatering pumps”.

CONCERNS

1. Loud and very annoying noise from all types of machines. There will be constant noise from the scrapers, extractors, compactors back up beepers etc etc! There will be the continual noise of diesel semi-trucks that will run continuously while at the site.
2. The ground water is at 14' at my land – ground water will be exposed with the construction of the slurry wall – how will this be handled?
3. "Dewatering trenches" where will they be located; how will they be managed, and will they adversely affect me?
4. Sediment pond is indicated but does not state where or for how long and what are the implications of it to me.
5. What will the noise level be with the constant running of the dewatering pumps? Will these pumps be running constantly day and night?
6. Dust from the extraction process as well as all the increased traffic at the site. This area has a lot of wind and my location is most of the time downwind from the site. With the top soil stored near my property how will wind affect the erosion of that. As the dirt and sand is mined it will blow over onto my land, into my house and shop.
7. Diesel from the semis and other machines will cause air pollution and a nasty smell. What happens to the ground and the water if a hydraulic hose blows out, or diesel or gas is spilled. It could easily get into our water system downstream especially knowing you are tapping into the South Platte River basin. That will happen over the course of the proposed operation.
8. Knowing there is a capped abandoned oil well in the proposed mining site could easily be damaged causing extremely serious consequences.
9. There are numerous horizontal oil and gas lines under that property (I receive royalties from two pads to the east of the land and one to the north). Those lines have to lie under the applicant's property. How does the extraction process with the disruption of the earth above including possible vibration etc. by the mining and later the weight of the water, affect the horizontal gas and oil well lines? Will the fractured earth above the lines result in any damage to the oil and gas well production?

WILDLIFE INFORMATION/CONCERNS

The report for the application reports the siting of a bald eagle's nest as well as a red tail hawk nest. I see bald eagles year-round down along the river. The red tail hawks soar over this area frequently sometimes as I drive into my place the hawk will take flight from top of the power pole. I have seen all the animals and birds listed but there are quite a few that have been missed.

CONCERNS

1. The animals I have seen that are not listed include: mule deer, wild turkeys, pelicans and blue herons along the river. I have heard that the mountain lions run up and down the river but have never seen one.

2. There are bald eagle nests along the river that I have spotted in the past, and there are red tail hawk nests, but I have not spotted them. These birds need to be protected.
3. I have seen spotted owls and great horned owls.
4. There is a long list of birds not listed – these are ones that have come to my bird feeders in past years, they include: blue jays, Eurasia collared doves, spotted towhees, various varieties of sparrows – field, lark , song, house, fox, and black throated; common grackle, house finch, European starling, black headed grossbeak, rose breasted grossbeak, brown thrasher, house wrens, red and yellow winged blackbirds, northern flicker, downy woodpecker, red bellied woodpecker, Lewis woodpecker, red headed woodpecker, lesser gold finch, northern cardinals, white breasted nuthatch, western tanager, dark eyed junco and black capped chickadees.

HISTORIC ARCHEOLOGICAL CONCERNS

Information – Directly across the South Platte River to the south at about the same distance from the river on land near the northwest corner of CR 53 and CR 58 two very famous prehistoric archeological digs discovered in the 1960's. In 1965 "Frank Frazier discovered two Paleo Indian sites while investigating gravel deposits. He started the extensive project by uncovering 13 hide scrapers. The resulting project was led by Dr. H.M Wormington, curator of archaeology for the Denver Museum of Nature and Science. "resulting in one of the most excellent contributions yet in the field of Paleo-Indian studies. The Frazier Site became well documented with numerous bison (extinct species) bones, teeth, points, knives, and other habitation site artifacts." The Kersey Historical Museum highlighted the find with a page in their 2024 calendar. The photos on the page and many more are stored at the University of Northern Colorado Michener Library in the Archives/Special Collections Department.

My grandchildren found a hide scraper on my land down on the riverbed. The former owners of the applicant's property had an extensive collection of Indian arrowheads and other artifacts - some found on their property.

CONCERNS

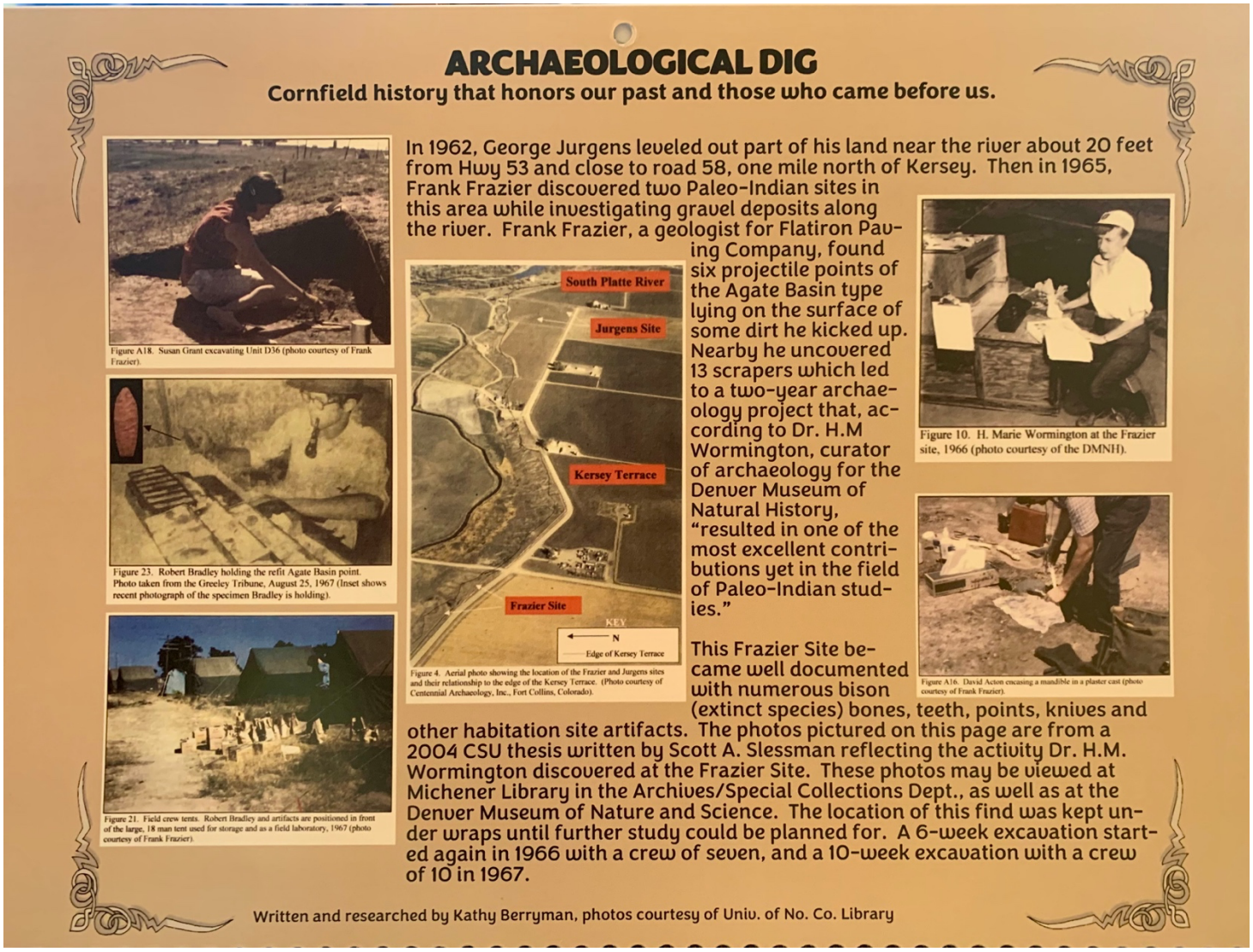
1. There is a high possibility another prehistoric Paleo-Indian site could be found on this side of the river that needs to be fully investigated by archeologists.

2. The Cultural Resources report of the archeological review that was submitted by the applicant, reported where these sites are in their report. **BUT,** what they reported to determine the finding of a possible site on the applicant's land was a "shovel exploration" to determine if anything was there. Of course, a shovel is not going to uncover anything, this ground has been farmed for 50+ years with continual cultivation.This will eliminate finding anything on the surface. It will take careful archeological exploration to find any artifacts buried underground

3. Because of the close proximity to the important known site, it is ultimately important to do an exploration of this site.

4. If both my family and the former owners of the applicant's land have found artifacts of Indians, this needs to be further explored.

This is the hide scrapper my grandchildren found on my property down at the river



ARCHAEOLOGICAL DIG

Cornfield history that honors our past and those who came before us.

In 1962, George Jurgens leveled out part of his land near the river about 20 feet from Hwy 53 and close to road 58, one mile north of Kersey. Then in 1965, Frank Frazier discovered two Paleo-Indian sites in this area while investigating gravel deposits along the river. Frank Frazier, a geologist for Flatiron Paving Company, found six projectile points of the Agate Basin type lying on the surface of some dirt he kicked up. Nearby he uncovered 13 scrapers which led to a two-year archaeology project that, according to Dr. H.M Wormington, curator of archaeology for the Denver Museum of Natural History, "resulted in one of the most excellent contributions yet in the field of Paleo-Indian studies."

This Frazier Site became well documented with numerous bison (extinct species) bones, teeth, points, knives and other habitation site artifacts. The photos pictured on this page are from a 2004 CSU thesis written by Scott A. Slessman reflecting the activity Dr. H.M. Wormington discovered at the Frazier Site. These photos may be viewed at Michener Library in the Archives/Special Collections Dept., as well as at the Denver Museum of Nature and Science. The location of this find was kept under wraps until further study could be planned for. A 6-week excavation started again in 1966 with a crew of seven, and a 10-week excavation with a crew of 10 in 1967.

Figure A18. Susan Grant excavating Unit D36 (photo courtesy of Frank Frazier).

Figure 23. Robert Bradley holding the refit Agate Basin point. Photo taken from the Greeley Tribune, August 25, 1967 (Inset shows recent photograph of the specimen Bradley is holding).

Figure 21. Field crew tents. Robert Bradley and artifacts are positioned in front of the large, 18 man tent used for storage and as a field laboratory, 1967 (photo courtesy of Frank Frazier).

Figure 4. Aerial photo showing the location of the Frazier and Jurgens sites and their relationship to the edge of the Kersey Terrace. (Photo courtesy of Centennial Archaeology, Inc., Fort Collins, Colorado).

Figure 10. H. Marie Wormington at the Frazier site, 1966 (photo courtesy of the DMNH).

Figure A16. David Acton encasing a mandible in a plaster cast (photo courtesy of Frank Frazier).

Written and researched by Kathy Berryman, photos courtesy of Univ. of No. Co. Library

The page from the 2024 Kersey Historical Museum calendar detailing the find located directly across the river to the south from the proposed pit location.

OTHER QUESTIONS AND CONCERNS AFTER REVIEW OF APPLICATION

1. My understanding is that sand and gravel are considered minerals. The former owner told me she sold her mineral rights. So, does the applicant actually own the rights to the sand and gravel?
2. Calculating the figures given in the application it states that 650,000 tons will be removed from this pit per year. If you calculate that amount to the load of one truck estimated at 20 tons per truck, a calculation indicates 2708 loads per month, or 136 loads per day leaving. the pit when operating five days. That is a huge number of trucks entering and leaving the site each day. That will have a huge devastating effect on the traffic on CR53.
3. The water reclamation plan in the application has no information on the inlet and outlet water facilities. This information needs to be indicated in the application as it directly affects me and the ROW access to my property.
4. Who will regulate and monitor the ground water level and its effects on the flow of the South Platte river? It cannot be the applicant or his contractor, it needs to be an overseer.
5. Who monitors the dust and control of the dust? What recourse do I have as a landowner downwind from the pit when the sand and dust are not controlled?
6. Part of the proposed pit was under running water in the 2013 flood. Has that been factored in with the potential of another flood of that magnitude?
7. On page 96 of the water engineering report, it states “there is unusual bedrock elevation drop of 20-30’. “there needs. to be special care when keying into bedrock” Shouldn’t that serious concern need to be addressed and determined if it is safe to have a large elevation drop in the bedrock before mining is approved?
8. The water level contours of the pit are noted from west to east are listed at 17 feet but there is no. listing of the water level contours from north to south. The elevation drop from the ditch road to my house is 30 feet. That figure is not listed and has to be factored into the application.
9. Exhibit S is missing some crucial information. Missing are PVREA poles/lines, the deeded right of way with the NWCWD water meter/water line, mail box, capped gas line, my well, my propane tank, my engineered septic system.

OVERALL CONCERNS

1. The proposed pit land is highly productive farm ground. Every year it produces high yielding 10-14’ tall corn. To take this income producing agricultural land out of production forever is a serious and sad lost to the agricultural economy and farmers of Weld County. There are plenty of other locations on the South Platte River that have large deposits of sand and gravel that are not suited for farming that could be used for sand and gravel mining and subsequent water storage that will not negatively impact the agricultural economy of Weld County, the farmers, the surrounding land, the home and business owners, as well as the Kersey community and anyone that travels on CR53..

2. What is the historical long-term information of slurry wall reservoirs? How long do these walls hold up? What will happen if the slurry wall gives away releasing the water stored within it. If that ever happened it could cause major damage to my house, shop and land.

3. **NOWHERE** in the report does it detail the **water storage unit** and how it will operate. If that is the end goal that should be detailed in the full application. That is critical for me and how it will impact me. The applicant's river access is across my recorded ROW.

CONCLUSION

I am extremely concerned about this application and its very close proximity to my house and land. I am most concerned with the attempted use of my driveway, my recorded ROW/ driveway with all its utilities, mailbox, road size and weight limits as his entrance to the pit. I worry about the negative devastating impact it will have on my home and the land, the decrease in value, and the home I have loved and lived on for 40 years.

There are **EXTREMELY SERIOUS CONCERNS** on the impact it will have on CR53. This has to be a major concern for the community of Kersey and all that travel that road. You put a sand and gravel pit in this location, and you are asking for a catastrophic accident to happen.

This is highly productive farm ground that will be eliminated from Weld County agriculture economy forever. Farming is extremely important to the economy of Weld County. Do not allow productive farm ground to be replaced with a sand and gravel pit. You can never get back the lost farmland. This highly productive farmland is too valuable to be lost. This is not the proper place to locate a sand and gravel pit/water storage. There are plenty of other places along the South Platte river to locate a pit. Put the sand and gravel pits/water storage units on nonproductive flat ground that will not so severely impact the adjacent landowners, farmers, business owners and the entire community's safety. **THERE WILL BE NO AGREEMENT TO THE PRESENTED APPLICATION**

INTRODUCTION - I requested Linda Bowles, a civil engineer, who worked many years as an engineer for the Federal Bureau of Reclamation overseeing federally funded water projects to review this application and give her analysis of the application. The following is her review of the application.

Ogilvy River Farm Pit Review

Linda M. Bowles
Professional Engineer, CO #26990
Retired Bureau of Reclamation Civil Engineer

May 3, 2024

I have reviewed the documents sent to me on April 2, 2024 from Jan Warwick, Deputy Clerk to the Board, in Weld County. The Ogilvy River Farm Pit, File No. M-2024-006 proposal should not be approved until the Fatal Flaws and Major Concerns listed below are addressed. I have also listed in the Additional Comments section other items that were found during my review that should be corrected.

FATAL FLAWS

ACCESS ROAD ENTRANCE – The access into the Ogilvy River Farm Pit appears to be from County Road 53. The two drawings in Exhibit C are very small with a lot of lines in the junction of County Road 53 and the Ogilvy River Farm Access Road. The delineation of the Ogilvy River Farm Access Road and the Smith residence Access Road is not clear. Are they the same? Using large trucks to haul the mined sand and gravel should require an acceleration and deceleration lane to minimize the traffic impact on County Road 53. No additional details are provided on Drawing 2 in Exhibit C or elsewhere in the document. Details of the planned access from County Road 53 must be included before this proposal is considered.

SLOPE STABILITY - The report includes a slope stability report by J&T Consulting, February 2024 (pages 180-325), for the ground with the mining operations and the water storage basin. The Smith property is Case SS-3 and the access road is Case SS-6. The Smith Property has a building that houses farm equipment (ie. tractors, etc.) near the property line. The report states on page 185 “The mining operation is adjacent to a gravel road, fence and buildings on the south side of the pit. The proposed setback for mining is 39 feet from the gravel road”. However, the slope stability analysis, SS3, does not seem to include the building or farm equipment loads. If building and farm equipment loads were used, then they should be clearly stated and the building/farm equipment should be shown on the diagrams in the slope stability study (pages 199 and 200). In addition, the input data used for Case SS-3 appears to be the same as for all the case studies (page 244) and does not include any loads for the buildings or farm equipment. The proposed mining setback of 39 feet does not seem to adequately account for the heavy loads on the Smith property. The analysis for Case SS-3 must be re-analyzed to include the building and farm equipment loads to provide a more accurate setback length.

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Ogilvy River Farm Pit Review Linda M Bowles, PE May 2024 CO #26990

EXISTING SEPTIC SEWER SYSTEM – The Smith residence uses a septic sewer system which is not listed anywhere in this document. The Smith septic system will be directly affected by the mining operations and its slurry wall. The impacts to the Smith septic system must be included before this proposal is considered.

EXISTING PROPANE TANK AND GAS LINE – The Smith residence uses propane and has a tank next to the property line adjacent to the proposed sand and gravel mine. The proposal on page 23 of Exhibit D Mining Plan states that "Various setbacks from adjacent roads, adjacent structures, and oil and gas infrastructure will be maintained as mining occurs. All setbacks specified in the surface use agreements with the oil/gas companies will be followed. The final executed agreements are expected to be obtained in the near future and will be forwarded to the Division when they are available. A minimum 200-foot setback from any existing oil/gas facility will be maintained until that time." There is not a 200-foot setback between the proposed mining operations and the propane tank and gas line. No agreement has been reached with the Smith family that owns the property and uses the propane tank and gas line. The nearby mining operations could damage the connections between the tank and the gas line, as well as any other underground fittings, and could cause an explosion. The mining operation's plan must be modified to protect the Smith propane tank and gas line before this proposal is considered.

MAJOR CONCERNS

SLURRY WALL – The proposal includes a slurry wall to be constructed around the perimeter of the mining area so that the sand and gravel deposit can be dry mined. The proposal states two different timelines for the slurry wall completion. Exhibit D Mining Methods on page 24, states that "Mining will not expose groundwater prior to the slurry wall being constructed." Exhibit G Water Information on page 34 states "The gravel pit will have a slurry wall liner constructed prior to the commencing of mining." In addition, the design and construction specifications for the slurry wall are not included in this report. Only that "Design specifications for slurry wall and quality control procedures used during construction will ensure that the reclaimed reservoir meets State Engineer's Office (SEO) performance standards" (page 24 under Exhibit D Mining Methods). The slurry wall is used in the Ground Water Evaluation and Slope Stability Study. Review of the design of the slurry wall and its adequacy for short and long term could not be done to ensure that the Smith residence is not negatively impacted. Additional details for the slurry wall design should be provided.

MINING PROCESSING EQUIPMENT LOCATIONS - The Scaling Equipment and Processing Equipment are listed in the proposal (page 24), however, the Mining Plan Map does not show where they are going to located. The document states that the Processing Equipment locations will be mobile and temporary. The Scaling Equipment will have concrete pads and will be somewhat permanent. Where will the scaling equipment's concrete pad be located? How close to the Smith property will the movable processing equipment be allowed?

NOISE AND LIGHTS – The proposal does not include any limitations on noise or lights under the Mining Plan. The Smith residence is adjacent to the mining operations and will be negatively impacted by the noise from the excavating, hauling, and processing of the sand and gravel. There is no mention of the hours of operation. In addition, there is no mention of where the lights, if used, will be located during the mining operation and later during the water storage operation. Limitations for the mining contractor on the noise (decibels), lighting (lumens) and hours of operations need to be included.

TOPSOIL AND STOCK PILES – There are sparse and confusing details on the stockpiles for topsoil and overburden, their location, the order of mining operations and subsequent seeding. The amount of topsoil is either 6-inches or 12-inches (Exhibit D and Exhibit E). The location of the stockpiles is hard to determine as they seem to be placed on the side of the basin where the mining will start (Exhibit C Drawing 2).

For Example: The drawing on page 22 shows the location of the overburden stockpile adjacent to the Smith property and on the side slope in the western part of the mining operation. An arrow seems to indicate that the mining operation will start in the west and move to the east. In Exhibit D, Topsoil Handling Plant states "The topsoil will be stripped and stockpiled prior to mining operations. The height of the topsoil stockpile will be approximately 15 feet." If the stockpile is located as shown, then how is the mining operation going to start in the west? The proposal states on page 25 "All soil and overburden material will be used on-site for reclamation; so long-term stockpiling of these materials is not anticipated". The on-site reclamation, based on the figures and drawings, seems to be done after the entire area is mined and stated in Exhibit D of the document as 12 years or longer "The overall time to required to complete the mining and reclamation is estimated to be 12 years based on the average rate of 650,000 tons per year". Also, the statement on page 28, "Topsoil will be rehandled as little as possible" seems to indicate that there will be one pile at the beginning that won't be moved.

Further conflicting information on topsoil and stockpiles are listed in the Additional Comments section.

The Topsoil and Stockpile information needs to be revised to provide clear and coordinated information on the topsoil and stockpiles.

MINING TIMELINE – The mining timeline is very confusing. The timeline of 12 years or more is stated in Exhibit D, whereas a timeline of 5 years, 6 months is mentioned in Exhibit E

and elsewhere in the document. For additional details on timeline issues, see Additional Comments. The mining phase timeline needs to be clarified to provide clear and coordinated information on how many years the mining operations will be conducted.

RECLAMATION STRUCTURES – None of the structures for the water storage aspect of this project were included. Exhibit E states "During reclamation activities, inlet and outlet facilities for the reservoir will be designed and installed once the operational criteria of the proposed reservoir have been identified by an end user." The Smith property could be adversely affected by the location of the inlet and outlet facilities. Preliminary designs and locations for the Reclamation Structures and features should be provided.

Additional Comments

1. Page 1 and 15 – Applications - Resource is spelled wrong – "Developed Water Resourse".
2. Page 21 – Ogilvy River Farm Pit Pre Mining Plan - The proposed mine entrance is similar or adjacent to the Smith entrance from County Road 53. The water and power to the Smith residence are not shown on this and subsequent drawings.
3. Page 25 – Exhibit D Mining Methods – Where are the first top soil stock piles going to be located? The Mining Plan Map locates the stockpiles on the western side slopes of the excavation. What is the definition of long-term storage as used in "All soil and overburden material will be used on-site for reclamation; so long-term stockpiling of these materials is not anticipated."? Elsewhere in this document states that mining operations will take from 5 to 12 years, maybe longer.
4. Page 25 – Exhibit D Topsoil Handling Plan – The document states that the depth of topsoil is approximately 12-inches deep, whereas Exhibit E Topsoil states that the topsoil is 6-inches deep. The estimated 90,000 cubic yards of topsoil volume is closer to the 12- inches deep measurement. Usually, all the topsoil is cleared at the beginning and therefore, the stockpile will be above natural ground surface and will need to be seeded immediately with the seeding process stated later in this document since the top soil is to be used in the reclamation process...5 to 12 years later. Also, the statement on page 28 - 'Topsoil will be rehandled as little as possible" seems to indicate that there will be one pile at the beginning that won't be moved...which is where? And on page 29 "Reservoir side slopes below the anticipated reservoir water level will not be seeded" which leaves the side slopes of the mining operation below anticipated water levels open for extended periods of time.
5. Page 25 – Exhibit D Mine Phasing – The statement "The overall time required to complete the mining and reclamation is estimated to be 12 years based on an average rate of 650,000 tons per year" conflicts with the statement on page 28, Exhibit E Topsoil

which states “By using concurrent reclamation techniques, the topsoil is not expected to remain in stockpiles for more than one to five years....All topsoil will be retained onsite to reclaim reservoir shoreline, and other areas of disturbed by mining activities.” And on page 29 “Reservoir side slopes below the anticipated reservoir water level will not be seeded” which leaves the side slopes of the mining operation below anticipated water levels open for extended periods of time. The stockpiling of topsoil location and seeding is not very clear.

6. Page 27 – Exhibit E Reclamation Plan – A bench is mentioned in “Upon placing the backfill material, 95 percent compaction will be achieved to ensure adequate integrity of the clay liner above the bench, backfilled areas for haul/access roads....” A bench was not on the cross sections of the basin walls in Exhibit F.
7. Page 27 – Exhibit E Reclamation Plan – The document states that “Recommendations for monitoring of slope stability...” will be done weekly during construction and then every 6 months, and after a major precipitation event. Are these requirements or just recommendations and do not need to be done? Who oversees and enforces the requirements/recommendations?
8. Page 28 – Exhibit E Reclamation Plan Topsoil – As mentioned earlier, there is a difference of depth of topsoil, 6-inches here, and 12-inches on page 24.
9. Page 28 – Exhibit E Reclamation Plan Topsoil – As mentioned earlier, there is a difference of time for how long the topsoil will need to be retained, one to five years here, whereas on page 24 it will take 12 years or more to mine. If all of the topsoil is removed at one time, there is a time difference. If the topsoil is removed in stages, then maybe, but that does not seem economical.
10. Page 29 – Exhibit E Reclamation Plan Revegetation – To control weeds, the document states “Chemical methods will only be used if no other alternative produces acceptable results.” However, in Exhibit J, page 106, the document states that “Mowing will be terminated in late August followed by a herbicide treatment during late September through October – before a hard frost.” Isn’t herbicide a chemical?
11. Page 30 – Exhibit E Reclamation Plan Groundwater – From the report and models showing expected drawdowns from the slurry wall which are depicted in Figure A-9 on page 83, the expected drawdown near the Smith home is 1.5 to 3 feet. Since the existing Smith well is near the slurry wall, there probably will be a difference, maybe greater than 3 feet since the upstream gradient will be cut-off and the river probably won’t be able to fill it back in.
12. Page 30 – Exhibit E Reclamation Plan – Approximate Time Table – This section states “The total time frame to mine all phases assuming an average production rate of 650,000 tons per year is approximately 5 years and 6 months” is different than what Exhibit D Topsoil Handling Plan, page 25, states of 12 years or longer using the same average production rate of 650,000 tons per year.

13. Page 30 – Exhibit # Reclamation Plan Approximate Time Table – The section states "For more information on sequencing and size of the reclamation activities refer to Exhibit L financial warranty calculations". There is not much information in Exhibit L on sequencing and size of reclamation activities.
14. Page 33 – Exhibit F Sheet 2 – Seeding Map – The base of the water reservoir will be at Elevation 4534. The Smith residence does have a basement which was flooded in 2013 when the Platte River exceeded the 100-year flood. If the slurry wall fails, then the Smith basement will be flooded once the pit is reclaimed and filled with water.
15. Page 33 - Exhibit F Sheet 2 – Seeding Map – The seeding is shown encompassing the Smith access road. A note does state "All disturbed areas outside of the water surface will be seeded and mulched with the exception of the access road which will be gravel surfaced." Will the Smith access road also be gravel surfaced?
16. Page 34 - Exhibit G Water Information – The time listed is again 5 years, 6 months which is different than what Exhibit D Topsoil Handling Plan, page 25, states 12 years or longer.
17. Page 34 – Exhibit G Water Information Introduction – The proposal states "The water will be pumped into dewatering ditch, which traverses the site and ultimately into the South Platte River." The location of the dewatering ditch extension to the South Platte River is not shown. Does it cross the Smith access road? If so, how and where?
18. Page 35 – Exhibit G Water Information Operational Loss – Dust control is listed as 6 days a week, 4 weeks/month and 10 months per year. Does that mean that they will be mining 6 days a week for 10 months? Or is that the average if they take the holidays (Memorial Day, Fourth of July, Labor Day) off. What are the planned operational hours for the mining?
19. Page 35 and 36- Exhibit G Water Information Surrounding Water Rights – Table G-1 does not list the Smith property as having an active well which is true, however, the well could be activated in the future and should be included in the study.
20. Page 37 – Exhibit G Water Information Impacts to Groundwater/Hydrologic Balance – The document states "If groundwater levels drop to a level that prevents an adjacent well from performing acceptably, according to that well's owner, Ogilvy River Farm, LLC will either implement a groundwater recharge ditch/pond near the well in order to raise the groundwater level in the vicinity of the well and hence return it's operation to acceptable standards, or will negotiate an agreement with that well owner to replace the well or provide replacement water via other means until the mining and reclamation activities are concluded but it is not anticipated that any groundwater levels will drop since the slurry wall will be installed prior to exposing groundwater." Since the Smith well is inside the shown water level drop zone, the existing well may be impacted by the slurry wall and mining operations if it is reactivated. The Smith residence also uses a septic system which was not mentioned in the report.

21. Page 37 – Exhibit G Water Information Impacts to Groundwater/Hydrologic Balance – The document states that the "...exact physical location of these wells will be determined during the SWSP and well permit application processes. If wells are found to be within 600 feet of the mining limits, Ogilvy River Farm, LLC will either obtain a well waiver from the owner of the well or provide an agreement with the well owner that Ogilvy River Farm, LLC will mitigate and [sic] material damage to the well that is directly attributable to the mining and reclamation of the site." The existing Smith well is not currently active, although it would be impacted by the mining operations if it is reactivated and therefore, should be included or at least mentioned in the well permit application process.
22. Page 53 – Exhibit G – McCrane Water Engineering Report – Table 1 in the report does not list the existing Smith well as a registered well. McCrane evaluated the ground water changes caused by the slurry wall and concluded that uphill from the river, the mounding upgradient could be as high as 10 feet, whereas, downhill from the slurry wall, the mounding is less and could reduce the aquifer saturation thickness. Therefore, the Smith family basement should not be impacted adversely if the slurry wall works as intended, however, the existing septic system is also not mentioned and will be impacted by the changing ground water table.
23. Page 55 – Exhibit G – McCrane Water Engineering Report - Figure 1 does not show the existing Smith well which means that they did not account for it in their report.
24. Page 66 – Exhibit G – McCrane Water Engineering Report – Table A1 – SEO Well Permit Data (1 of 3) – The report does not mention the existing Smith septic system or explain the impacts to it.
25. Page 125 – Exhibit J Overview Aquatic Resource Delineation Map – The notes have the county listed as Summit County, not Weld County.
26. Page 179 – Exhibit S Permanent Man-Made Structures within 200 Ft of the Affected Lands – Roberta Smith is listed as owning "House, Outbuilding, and Fence". There is no mention of the well, septic system, propane tank, water lines, power lines, etc. The existing septic system and propane tank are important features that are missing from this report. The change in the aquifer from the slurry wall will affect the septic system operations and should be included. The vibrations from the mining activities could damage the propane tank and fittings and could cause an explosion.
27. Page 199 – Exhibit S Permanent Man-Made Structure J&T Consulting Inc. – All of the drawings showing the cross section have the blue clay layer extending down the slurry wall and then horizontally daylighting in the basin floor. The scale is too small to determine if the slurry wall is keyed in the 3 to 4 feet as depicted on page 22 of the Typical Mining Section. The cross section on page 22 is different than the ones shown in the J&T Consulting, Inc report.

END OF REPORT FROM LINDA BOWLES

INTRODUCTION

The following comments and concerns are from Karen Kromrey who worked for 35 years for the US Forest Service in Alaska. She was the Natural Resources Specialist over seeing the Mineral Administration Program. In that position she supervised the sand and gravel permitting on US Forest Service land . I asked her to review the application and list any comments and concerns regarding this application

COMMENTS

Exhibit C – Maps

Pre-mining Exhibit C1 – This map is at such a small scale with so many overlapping features that the key information is indiscernible. The applicant needs to provide separate maps showing easements, utilities, constructed features, waterlines, etc. so that commenters can see what the applicant is acknowledging as pre-mining condition.

Exhibit C2 – Mining Map

This map does not show where the road will access the mining area or if it does, it is not discernible by the reviewers. There is a half circle diagram in the middle of the northwestern part of the mining area but no description as to what this is.

Exhibit D – Mining Plan

Mining Methods

How close to the mining boundary will the slurry wall be located? The diagram on the Mining Map has wording/numbers that are indiscernible to the reviewer. How close will the slurry wall be to the Smith residence? There is no description of how this slurry wall may affect the irrigation well on the Smith property or the septic system.

There are no stated hours of operation in Appendix D. Reasonable hours of operation are crucial with a private residence located directly adjacent to the mining operation. Will there be 24 hour operations? Will pumps be running 24 hours/day to pump ground water into dewatering ditches? Where will these pumps be located?

Will lights be used for any operations conducted in low light times? This is not mentioned in the application.

Will the road leading to the Smith property be used for any part of the mining or reclamation process? There is no mention of use except that the reclamation map has a proposed access road around the entire perimeter of the proposed reclamation area.

Exhibit E Reclamation plan

Water – general requirements

e) How will the application mitigate any damage to adjacent irrigation well on Smith residence? Exhibit G has very vague language that measures will be taken with no detail description.

Who has oversight in the groundwater monitoring that application states will be done?

Exhibit F Reclamation Map

There is a proposed access road shown on the reclamation map that circles the entire proposed water storage area but no mention of this road in Exhibit E. Who would have access to this road, where is the

access to this road, what type of equipment/and/or vehicles would be allowed on the road, and what would the expected frequency of us?
The existing access road to the Smith property is shown as being seeded during reclamation.

Exhibit G Water
Evaporative losses – The application describes that the evaporative losses will not exceed the maximum but does not describe what this maximum is or who defines the maximum, or how this evaporative loss will be measured.

Table G-1 – Wells within 600 feet of mining boundary
Smith's irrigation well is not listed on this table and likely is the closest well and the one that could be most impacted by the mining operations. The application states that if material injury occurs to the surrounding wells, Ogilvy River Farms, LLC will ensure that all necessary measures will be taken to address the issues. There are no details of what these measures would be.

Ground water impacts
The application states that Ogilvy River Farms, LLC will monitor groundwater levels but does not say who they will report their findings to or how often they will be monitoring the ground water levels.

McGrane Water Engineering, LLC – Letter dated September 19,2023 (part of the application)
This reports states that impacts of a slurry wall on ground water include a rise in the water table ("mounding") on the upgradient side of the slurry wall which could lead to water levels within 10 feet of the surface and could cause flooding of low-lying structures such as basements. The applicant has made no mention of this possible impact to the Smith residence which is the closest residential structure to the proposed mining operation, nor have they mentioned what mitigation they would employ to ensure flooding of the basement would not occur. In addition, the Smith residence also has a septic system with a leach field and there is no mention of how changing water tables might affect the functionality of the septic system.
The McGrane letter lists potential impacts to area wells (of which the Smith irrigation well is not on this list) based on their use of the USGS MODFLOW 2000 modeling program, but there is no mention of impacts to the Smith residence such as flooding in their basement or potential impacts to a septic system.

Exhibit J – Vegetation Information
Weed control through herbicide treatment
This exhibit mentions chemical control by using herbicide treatments occurring in September through October. There is no further information on what type of herbicide, frequency of application, and what type of application will be used. The Smith residence is directly adjacent to the area where this chemical control would be administered.

Exhibit L Reclamation Cost
This exhibit mentions the Bernhardt Sand and Gravel Pit mining site operation. What does this mining operation have to do with the Ogilvy River Farms, LLC? Is any of the other information in this exhibit correct for the application by Ogilvy River Farms, LLC.?

Exhibit N – Source of Legal Right to Enter
As mentioned previously in comments about the reclamation map, there is no description of any other use of existing roads that are for access to the Smith residence.

Exhibit S – Permanent Man-made structures within 200 feet of the affected land
Seven items are listed in this exhibit within 200 feet of the affected land but a residential home is not listed among the seven structures unless it falls in the category with Fences/Structures. There is a significant difference between a fence and a home. The Smith home is listed on the next page but the septic system is not listed there.

Slope Stability Report
On pages 2-3 of this report, the cases SS-1 through SS-6 are listed with what structures are located on in these areas and the proposed setbacks. SS-3 and SS-6 have structures critical to the Smith residence. The SS-3 lists a proposed setback of 39 feet from the gravel road which is just adjacent to the Smith outbuilding and not much farther from the Smith residence. This proposed setback is the narrowest of all of the Cases around the mining area and is too narrow given what type of structures these are (residential home, outbuilding, irrigation well, and septic system). Any type of slope failure while mining is occurring could have a severe consequence to the Smith residence, building, and septic system. A more reasonable setback would be at least 200 feet from the closest structure on the Smith property.
SS-6 doesn't list the water line which leads to the Smith property and provides the domestic water for the household.
Appendix B shows a series of graphs that show the stability analysis of each case. There is no definition of what the red line on the graph means. Is this the expected failure line? In addition, there is a lighter blue line and there is no definition of what this is. Is this the current ground water level?