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MAR 18 2020

**DIVISION OF RECLAMATION
MINING AND SAFETY**

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March 12, 2020

Mined land Reclamation Board/Div. Reclamation Mining and Safety
1313 Sherman ST. Room 215
Denver Colorado 80203

Dear Mined land Reclamation Board/Div. Reclamation Mining and Safety:

I am an owner of land adjacent to the proposed Rifle Gravel Pit #1, Grant Bros. Ranch LLC. Grant Bros. Const. LLC. Operates an active gravel pit on the property.

Scott Contracting has submitted an application for a 112 permit in the name of Rifle Gravel Pit #1 to the Div. of Reclamation Mining and Safety- Mined Land Reclamation Board. (M2020-008) ACY/THM

I am writing to express my concerns about several issues directly affecting my property and mining operation as well as some ambiguities in the application.

First and foremost the application states that the dewatering well will discharge into an onsite existing tailwater ditch that reaches the Colorado River. The water pumped to this tailwater ditch goes across our property in two places and parallels the north boundary of our property to eventually get to the Colorado River. This ditch has a flow that rises and falls with the seasons very little in winter months and an increase in the irrigation season that is irregular tailwater flow. The applicant has no permission to use the ditch that crosses our property for dewatering purposes. Pumping water to dewater a gravel pit is year round and could possibly be perpetual if an evaporative loss replacement contract cannot be obtained at the end of mining. The pumping of ground water to the ditch that was dug years ago to remove surface water from running across our property originating east of us is not an appropriate use nor do I believe a legal use and it is not acceptable in any way. Pumping more water to the ditch increases the flow raises the water level in the ditch and will increase the amount of infiltration into the gravel pit resulting in more cost to dewater our pit and may affect our reclamation of the pit walls resulting in injury to our property and gravel pit operation. Nowhere in the application is there an estimate or projection of the

amount of water (gpm,cfs,etc.) to be discharged into the ditch on our property . Do they even care or know if the ditch is large enough to carry their water without over flowing or causing damage to others property.

While looking at the water issues for this gravel pit there are some areas that need to be addressed.

The rerouting of the water on the property to a ditch along the perimeter of the property within the 25 foot buffer is problematic in that there is going to be a stockpile of soil 24 feet at the base in the buffer strip leaving only 1 foot for a ditch between the property boundary and the stockpile. There is no room for maintenance of the ditch by machine or by hand without getting on the adjacent property. Is a 1 foot ditch sized large enough for the normal tail waters on the property? The application pictured water is a sump that holds water to soak in and does not flow completely across the property allowing water to spread and soak after the sump. The water flow in this 1 foot ditch as designed will flow on to the adjacent property in the event of a plug or ditch bank wash out. In a storm event will the runoff from the soil piles flow into the ditch plugging it and flow water and mud onto the adjacent property? How will you clean this up from your property? This event would put the operator in violation of his stormwater permit .Would the applicant be able to secure a stormwater permit with the design as purposed in a 25 foot buffer? I don't think so if the water quality control div. sees and visualizes this as built on the ground.

The application states in 8.5.2 Water loss with mined aggregate: a production rate of 200,000 tons a year or 16,667 tons per month is the calculation used for water leaving in the gravel. Yet there is 3million tons to be mined on the property for a duration of 5-7 years. At 200,000 tons a year 5years is 1million tons and 7 years is 1.4 million tons. What happens to the remaining 1.6 million tons?

The application does not say there are any water rights with the property. There is going to be a pond that will have evaporation of the surface that will require an augmentation plan at the end of mining. Assuming a water contract would be required for the whole year of evaporation noted in the tables as 179.87(AF). The water contract may be a substantial amount of money to service. So what will happen if the applicant decides at the end of mining it is more cost effective for him to pump the water into the tailwater ditch in perpetuity. I remind you this discharge water is crossing our property as stated earlier in this letter and now will never stop infiltrating into our gravel pit and property.

The sign posted for public notice is not readable from the frontage road. It is a white paper 11"by 17" on a piece of plywood hung on the gate. When driving by it looks like a message sign like no trespassing or other you normally see on farmer fences not a public notice.

My property is adjacent to this property and impacted by pumping water to the ditch on our property we should have been notified by mail. We were not sent a letter.

All through the application and letters to the county and soil conservation service it states the end use is pasture land and irrigated pastureland. Then goes on to show a drawing figure 10 a reclaimed gravel pit filled with water (53 acre pond). Also calculation tables for water consumption by evaporation on the pond surface. What is the end use going to be?

Figure 10 shows the pond and 25 foot buffer and in the lower right corner the tailwater ditch. 25 foot buffer is not adequate. Gravel pits nearby have 35 foot buffers on the side's 100 foot buffers from the river and 200 foot in front along the frontage road. 200 foot buffers along the frontage allows for parking, buildings, picnic tables if a pond is the final use and access to the property without parking or crossing others property no matter the end use. 25 foot buffer is not enough to prevent back cutting of the pit wall from reaching the adjacent property if the pit is mined vertical right to the 25 foot buffer. When large underground streams of water come out of vertical pit walls they can slough the wall to a slope that could reach the adjacent property. Even when dirt is used to slope the vertical wall for reclaiming water can wash the dirt into the pit and still allow the pit wall to back cut into the buffer and potentially to the adjacent property. The tailwater ditch within the 25 foot buffer can saturate the pit wall enough to cause a slouching (caving) situation that could reach the adjacent property as well as be a serious safety problem if someone or equipment is in the bottom of the pit while mining and the pit wall caves- in. The 25 foot buffer has a soil pile with a 24 foot footprint that loads the vertical pit wall on top. This loading adds even more to the chances the saturated pit wall will fail resulting in a cave-in.

The property title exceptions call for access and maintenance of the last chance ditch traversing the property. I believe this is the last chance ditch across the interstate on property that originally was part of this pit property. I don't believe the applicant's property has any Last Chance water or right of ways or laterals. Maybe fluctuating tail water from properties east of the pit property. And no water rights for irrigating any land. The construction of the interstate and drains were sometimes excavated like the sump on the applicant's pit property.

Is there surface land for an oil and gas well pad mentioned in the exceptions? Can land for a well pad be provided for with a 53 acre pond as depicted in figure 10?

9.4 Effects to Wildlife: After reclamation the property will be converted back to irrigated pasture. Where is the Pond? Is the irrigated pasture the 25 foot buffer?

8.2.3 and 8.24 are about the fish in the area. These two address impacts to fish and both say there is no discharging to the Colorado River. Where does the water go if not to the Colorado River? Will the discharge water be tested or not for contaminants and silt/mud?

I find it quite humorous in 8.3 and the discussion 4.3: The wet lands on site will likely disappear in a reality short period of time following the onset of dewatering. Drilling logs show ground water near the surface. Where is the Army Corps. Of engineers? Wetlands on property that is claimed to be

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irrigation induced, irrigation water is removed and then wait a certain amount of time to show or prove they go away if not mitigation is warranted. I do not believe ground water dewatering is an appropriate way to show wetlands are irrigation induced.

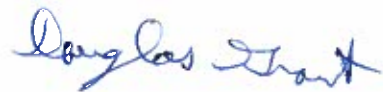
No mention of an onsite wash plant or water for one. So a wash plant should not be there or mud flowing to the dewatering well and discharged to the ditches.

One place in the application there is one sentence about importing fill material to backfill the pit and provide a place for disposal of material. Please no contaminated material or garbage that might leach into our property by ground water. Test somehow.

Enclosed are pages, pictures, figures, from the application highlighted for the points talked about above. Some show our property and gravel pit with the ditch that cross our property that is the proposed ditch for pumping ground water from the Rifle Gravel Pit #1.

There is no permission or access on or over our property for anyone (people) or for dewater water from this pit.

Sincerely,

A handwritten signature in blue ink that reads "Douglas Grant". The signature is written in a cursive, flowing style.

Douglas Grant

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Grant Bros. property line (red) approx.

[illegible]

Figure 3. Exhibit C - Affected Lands and Roads

Drain Ditch on over property and along East & North boundaries.

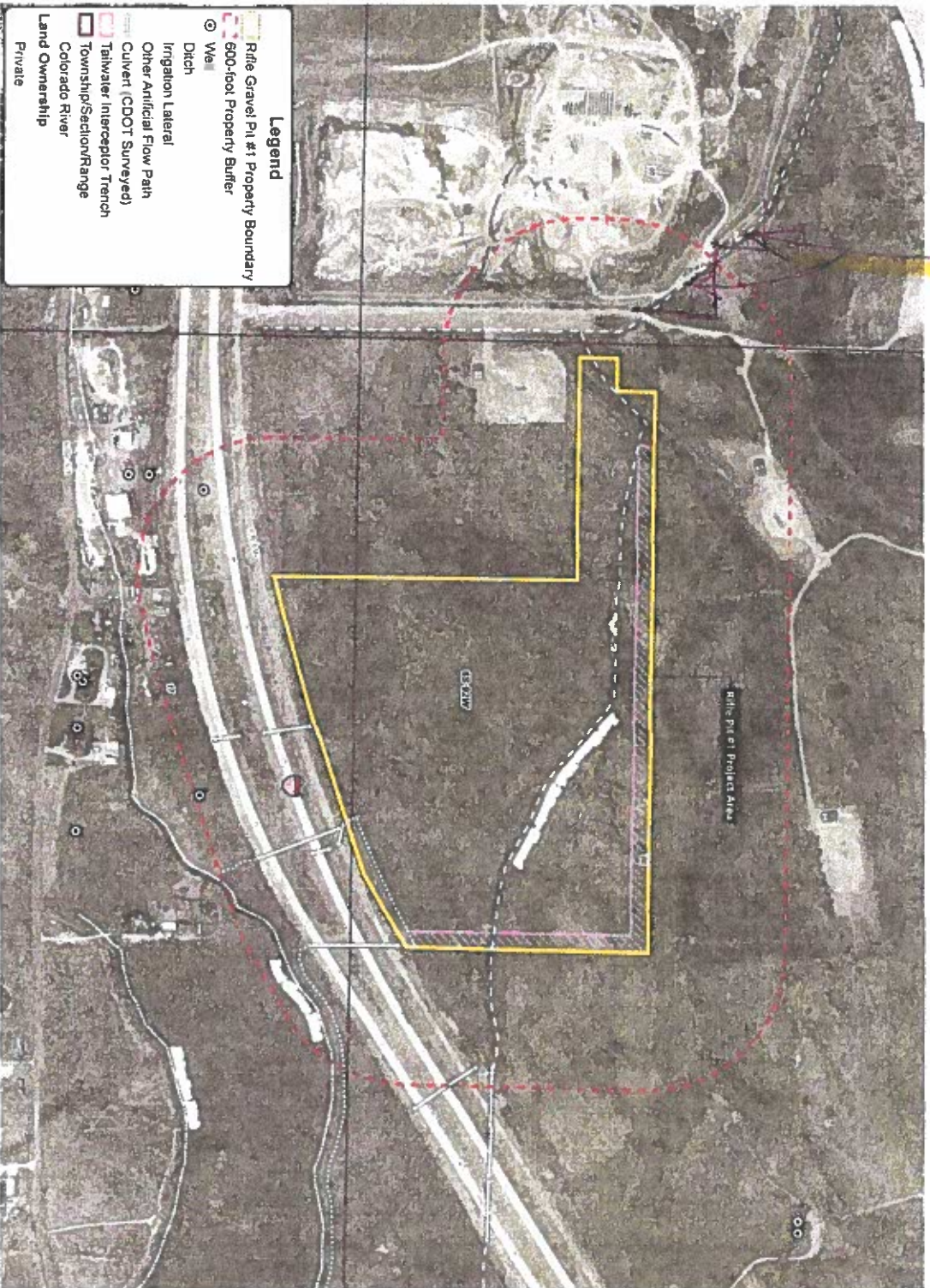


Figure 4. Exhibit C – Creeks, Waterways, and Wells

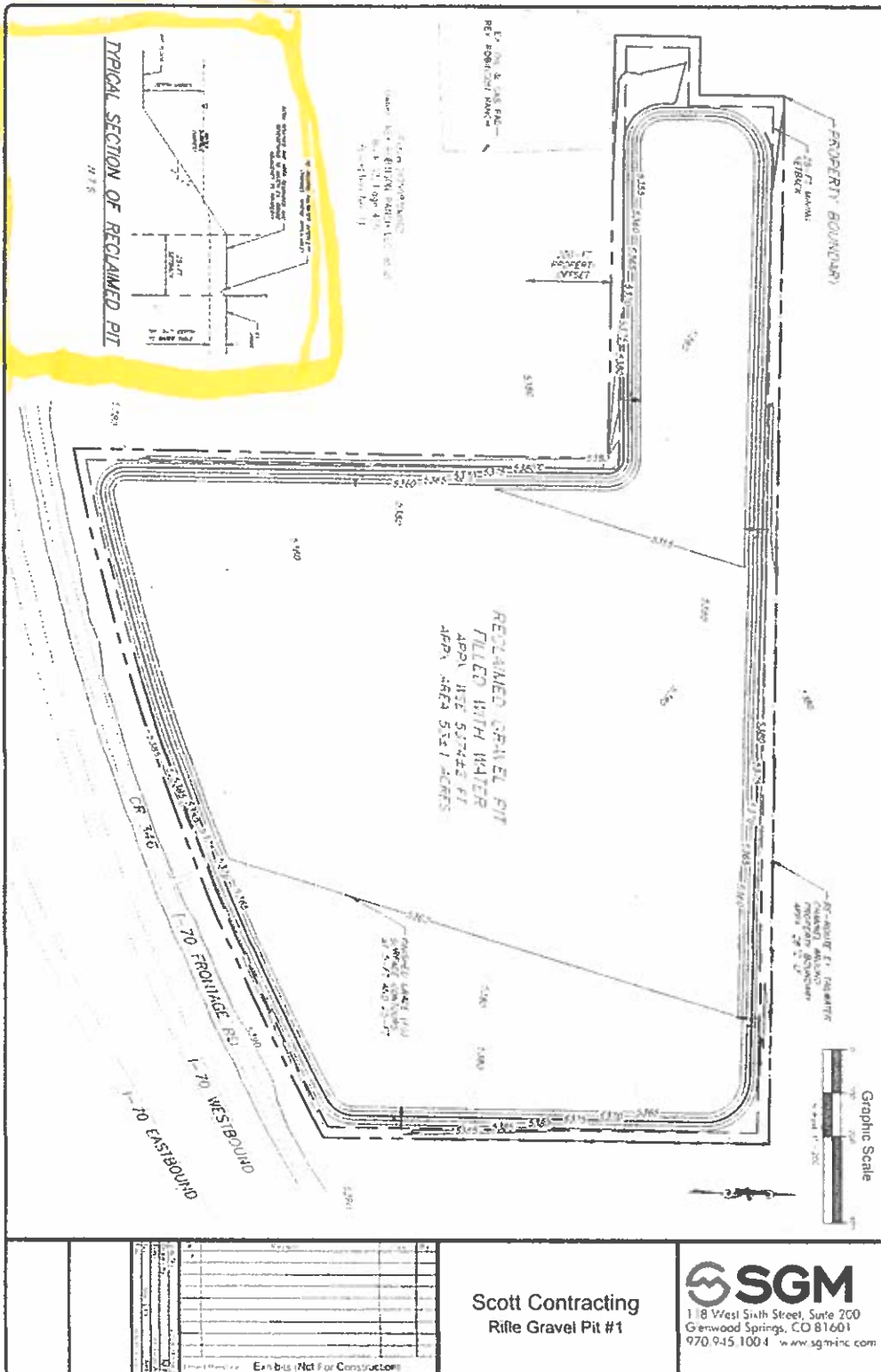


Figure 10. Exhibit F Reclamation Plan Map

This shows 1 foot ditch in the 25 foot buffer where is parking and access, oil pad area, ditch cleaning access area?

[illegible]

This shows a 24' base for soil pile in the 25 foot buffer just above and on the edge of the vertical pit wall as high as 20 feet plus.

EXHIBIT B
To General Warranty Deed

Permitted Exceptions

1. TAXES AND ASSESSMENTS FOR THE YEAR 2019 AND SUBSEQUENT YEARS, A LIEN, NOT YET DUE OR PAYABLE.
2. ANY AND ALL RIGHTS OF A DITCH COMPANY RELATING TO THE LAST CHANCE DITCH TRAVERSING SUBJECT PROPERTY, INCLUDING BUT NOT LIMITED TO DITCH MAINTENANCE AND ACCESS RIGHTS TO LANDS ADJOINING THE DITCH OR CANAL.
3. NOTWITHSTANDING THE INSURING CLAUSES OF THE POLICY, THE COMPANY DOES NOT INSURE AGAINST LOSS OR DAMAGE BY REASON OF A LACK OF A RIGHT OF PHYSICAL ACCESS TO AND FROM THE LAND.
4. RIGHT OF THE PROPRIETOR OF A VEIN OR LODE TO EXTRACT AND REMOVE HIS ORE THEREFROM, SHOULD THE SAME BE FOUND TO PENETRATE OR INTERSECT THE PREMISES HEREBY GRANTED, AND A RIGHT OF WAY FOR DITCHES OR CANALS CONSTRUCTED BY THE AUTHORITY OF THE UNITED STATES, AS RESERVED IN UNITED STATES PATENT RECORDED MARCH 05, 1906 IN BOOK 56 AT PAGE 537.
5. RESERVATION OF ONE-HALF INTEREST IN ALL OIL, GAS AND OTHER MINERALS AS EVIDENCED IN INSTRUMENT RECORDED MARCH 27, 1972 IN BOOK 428 AT PAGE 459, AND ANY AND ALL ASSIGNMENTS THEREOF OR INTERESTS THEREIN.
6. ALL OIL, GAS, HYDROCARBONS AND OTHER MINERALS, TOGETHER WITH SO MUCH OF THE SURFACE AS MAY BE NECESSARY FOR THE CONVENIENT MINING OR EXTRACTION OF SAME, AND TOGETHER, FURTHER, THE RIGHT OF INGRESS AND EGRESS FOR THE PURPOSES OF PROSPECTING FOR, DEVELOPING AND PRODUCING SAME, AS RESERVED IN INSTRUMENTS RECORDED FEBRUARY 13, 1973 IN BOOK 440 AT PAGE 469, AND ANY AND ALL ASSIGNMENTS THEREOF OR INTERESTS THEREIN.
7. NO RIGHT OR RIGHTS OF ACCESS TO AND FROM THE HIGHWAY AS EVIDENCED IN RULE AND ORDER RECORDED FEBRUARY 24, 1977 IN BOOK 493 AT PAGE 768.
8. OIL AND GAS LEASE RECORDED NOVEMBER 02, 1982, IN BOOK 612 AT PAGE 973, AND ANY AND ALL ASSIGNMENTS THEREOF OR INTERESTS THEREIN.

9. RESERVATION OF ALL OIL SHALE, KEROGEN, SHALE OIL, COAL, OIL, GAS, FISSIONABLE MATERIAL AN ALL OTHER MINERALS OF ANY KIND OR NATURE AS EVIDENCED BY SPECIAL WARRANTY DEED RECORDED NOVEMBER 03, 1989 IN BOOK 766 AT PAGE 317, AND ANY AND ALL ASSIGNMENTS THEREOF OR INTERESTS THEREIN.

10. TERMS, CONDITIONS, PROVISIONS, BURDENS AND OBLIGATIONS AS SET FORTH IN WATER WELL SHARING AGREEMENT RECORDED JUNE 05, 2009 UNDER RECEPTION NO. 769089.

11. ANY INCREASE OR DECREASE IN THE AREA OF THE LAND AND ANY ADVERSE CLAIM TO ANY PORTION OF THE LAND WHICH HAS BEEN CREATED BY OR CAUSED BY ACCRETION OR RELICTION, WHETHER NATURAL OR ARTIFICIAL; AND THE EFFECT OF THE GAIN OR LOSS OF AREA BY ACCRETION OR RELICTION UPON THE MARKETABILITY OF THE TITLE OF THE LAND.

12. THE FACTS, RIGHTS, INTERESTS OR CLAIMS WHICH MAY EXIST OR ARISE BY REASON OF THE FOLLOWING FACT SHOWN ON ALTA/NSPS LAND TITLE SURVEY CERTIFIED AUGUST 08, 2019 PREPARED BY SHAWN BINION, P.L.S. #38200, ON BEHALF OF SGM INC., JOB #2019-341.001:

- a. FENCE LINES DO NOT COINCIDE WITH THE PROPERTY BOUNDARIES

[End of Exhibit B]

Equipment for this phase will include, but not be limited to, a bulldozer, track-hoe, and a 35-ton haul truck.

5.2.3.2 Water Handling and Dewatering

Phase 1 dewatering activities will continue throughout this phase. Any water encountered at the bottom of the pit during this phase will be intercepted by a buried perforated pipe (estimated at three feet below the mining floor). It is assumed that any water captured in the perforated pipe will be pumped by the dewatering well.

SCI will comply with the State Engineer Office's (SEO) rules and regulations regarding any water depletions that may also occur during mining operations from water lost with mined aggregate and water used for dust suppression.

5.2.3.3 Schedule of Operations

The Rifle Gravel Pit will operate from 7 am to 7 pm Monday through Friday, and occasional weekends, as needed. Approximately 5 employees will be on site during this phase of the mining operations. No nighttime activities are anticipated. Occasional equipment repair, or maintenance may be conducted at night, but lighting will be kept to a minimum and directed inward; the site will not have ambient lighting.

5.2.4 Reclamation (Phase 4)

The reclamation of the property will be completed as per the phasing plan and restored back to natural conditions as soon as practicable. See Section 6 for additional information regarding reclamation of the property.

5.3 Mining Timetable

SCI anticipates extracting approximately 3 million tons of sand and gravel over 5 to 7 years. Sand and gravel are the anticipated primary and secondary commodities to be mined and extracted from this property and used for future projects. There are no incidental materials expected to be extracted from this site.

The following table provides a range of the duration of mining by phase/stage, estimated nature, depth and thickness of the deposit to be mined and type of overburden to be removed. Figure 9 depicts the size, location and area of each phase/stage. Attachment A includes the exploratory boring logs and material information.

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The specific elements of SCI's Reclamation Plan are addressed in the following sections per the guidelines outlined in Rule 6.4.5. Reclamation of previously mined and scheduled mining areas will occur within the 58.7 acres.

SCI plans to reclaim the property as each mining stage commences. Areas disturbed during development shall be restored with natural-appearing landforms that blend with the adjacent undisturbed topography within 90 days of completion to meet Garfield County standards. Scott Contracting will start the reclamation process as soon as mining progresses throughout the site. After each mining phase is completed, SCI will start backfilling pits with excess dirt and unused material. The pits will not be filled in completely as part of the reclamation plan is to create a recreational pond. See Figure 10 for proposed pond location. The site will be graded to compliment the surrounding topography, and slopes will be mined and graded at a 3:1 slope.

Area disturbed by grading will be contoured so they can be revegetated and will be revegetated to stabilize the surface from erosion. No trees, shrubs, or bushy-type vegetation will be planted; only the appropriate grasses selected by the Natural Resource Conservation Service (NRCS) will be used.

6.1 Description and Types of Reclamation

SCI will achieve the required reclamation of the affected land per the Garfield County Land Use Permitting and seeding regulations using existing and available equipment. The primary reason for this goal is to minimize dust and erosion of the property and restore the site back to its natural conditions to the extent practicable.

Figure 10, Exhibit F, Reclamation Plan Map, depicts the amount of acreage proposed for each reclamation activity. All reclamation will occur with specified equipment and methods for attaining successful revegetation of the property. It is assumed that a 53-acre pond will be present post-mining.

6.2 Post-Mining Land Use

The adjacent properties are primarily agricultural, county and interstate roadways, oil and gas well pad and the Colorado River. The post-mining land uses will be like the current land use and not conflict with adjacent land uses, which are currently comprised of agricultural uses.

6.3 Implementation of the Reclamation Plan

6.3.1 Topsoil Segregation, Preservation, and Replacement

The topsoil excavated, stockpiled and or used for berm construction during Phase 1 will be used to support the revegetation of the site.

Backfilling and recontouring of the site will occur after the mining and extraction activities finish. Pit slopes will generally be backfilled with subsoils, overburden, and unmined materials. This will be placed with a bulldozer and haul trucks. Then the use for a roller for

compaction and sloping will be tracked in. Recontouring to a rough texture will support the establishment of broadcasted seeds and moisture retention.

Stored topsoil and growth medium will be replaced evenly to a depth of 4-6 inches unless site conditions preclude this depth. Topsoil will also be left very rough. Soils will not be worked when wet to avoid mixing, loss of topsoil, and potential erosion issues.

6.3.2 Final Grading

Final grading of the site is depicted in Figure 10. This figure shows the anticipated maximum slope gradient range for reclamation. The site will need to take on fill dirt for a source of a disposal area for clean dirt and to fill part of the pit, minimizing the size of the pond and reducing evaporation potential.

The creation of a pond is planned for the site. Existing ephemeral draws and washes passing through the mine area will be reestablished or allowed to continue conveyance of ephemeral flows through the site. Details regarding surface water can be found in Exhibit C (Figure 4).

6.3.3 Seeding

There are different types of seed mixes to support temporary and permanent stabilization and reclamation of the site.

6.3.3.1 Temporary Seed Mix

Final seeding is best done in the late fall; therefore, if construction occurs in the summer, it may be desirable to apply a temporary seed mix to the area to help minimize erosion and provide some site stabilization. Temporary seed mixes are relatively inexpensive, and the large seeds germinate quickly. Two recommended varieties include:

- Annual rye (*Lolium multiflorum*)
- Regreen (a wheat and wheatgrass cross)

Seeding can occur at a rate of around 20 lbs. per acre.

6.3.3.2 Long-Term/Permanent Seed Mix

Seeding should occur in the late fall to avoid seeds from germinating in the summer or early fall, and then either desiccating or freezing. Drill seeding could be utilized on more level terrain, but broadcast seeding will likely be needed on steeper slopes. Drill seeding will be the preferred method where equipment access is feasible; seed will be placed in direct contact with the soil at an average depth of 0.5 inch. For drill seeding applications, small seeds shall be packaged separately to allow for separate application. The drill seeding rate is 18 lbs per acre and the broadcast seeding rate is 25 lbs per acre.

Broadcast seeding will be employed in areas where drill seeding is not possible. Seed will be uniformly applied over the disturbed areas with manually operated cyclone-bucket spreaders or mechanical spreaders. The following seed mix is based on the surrounding pasture grass vegetation and likely long-term uses of the parcel.

Figure 10, Exhibit F, Reclamation Plan Map includes information required per Rule 6.4.6. Figure 9 and Figure 10 depict the proposed affected land, by all phases of the total scope of the mining operation, including the expected physical appearance of the affected land, correlated to the proposed mining and reclamation timetables. These maps also show the proposed topography of the area with contour lines of sufficient detail to portray the direction and rate of slope of all reclaimed lands and the proposed final land use for each portion of the affected lands. The location of the recreational pond is also depicted in Figure 10 (estimated at 53 acres in size).

Figure 4, Exhibit C depicts the rivers, creeks, water courses, and ditches on the site and adjacent lands.

Mining of an aggregate deposit like the Rifle Pit will involve affecting local groundwater and surface water. During active mining operations, local dewatering efforts will pump groundwater to allow for aggregate mining. Pumped water from the dewatering well will be discharged into an onsite existing tailwater ditch which ultimately reaches the Colorado River. During active mining, a perforated pipe will be buried three feet below the mining floor to intercept additional groundwater, as needed during each mining phase. It is assumed that this water will continue to be intercepted underground and piped to the onsite dewatering well so as not to be exposed to the surface.

Water depletions will occur during mining operations from water lost with mined aggregate and water used for dust suppression. On-site sourced water will not be used for potable water demands. After mining is completed water depletions from the pit will be solely from evaporation of the exposed groundwater in the finished gravel pit pond.

Augmentation of the exposed and captured groundwater is required per Colorado's Revised Statutes to protect downstream senior water right holders and will be addressed by SCI prior to subsurface mining.

8.1 Aquifers

The groundwater aquifer/water table depth across the site varies from 3 feet to 8 feet below the surface. The aquifer is alluvial in nature and connected to the Colorado River. See Attachment A for information regarding the water depths at five boring locations.

8.2 Groundwater

It is anticipated that the dewatering activities prior to mining will limit the exposure of groundwater and thus loss of groundwater to evaporation, during mining. The potential for this exposure of groundwater, however, will necessitate augmentation for the life of the operation. Augmentation – via a decreed augmentation plan or a substitute water supply plan (SWSP) – will be in place with the SEO prior to beginning subsurface mining activities to prevent potential injury to downstream water rights. The depletions from any captured or exposed groundwater from the Rifle Pit mining operations will have to be replaced in time, amount, and location during times of a downstream senior call.

Evaporation from the post-mining finished pond will require a decreed augmentation plan. Active mining operations may be covered by the same augmentation plan or may temporarily be covered by an SWSP. SCI will file a Water Court application or contract with West Divide Water Conservancy District (or similar agency) under their decreed umbrella protection plan for an augmentation plan to replace depletions from the Rifle Pit operations (after active mining operations and potentially during active mining operations). The process of obtaining a project specific court-approved decreed augmentation plan can take from 1-3 years, depending on negotiations with the Division of Water Resources (DWR - SEO) and any potential opposers. Therefore, SCI will also file an application for a SWSP which will allow the gravel pit to operate without causing injury to other water rights holders before a

final decree is entered, with temporary approval from the SEO. An SWSP can only be approved for one year, but the applicant may request renewal of the SWSP by repeating the application.

There are no existing wells on the Rifle Pit property. Nearby wells that have been identified are located Figure 4 Exhibit C, using GIS data from the DWR-SEO. The closest operating wells are on the adjacent property to the north, owned by Colorado River Ranch, LLC but are over 600 feet from the permit boundary. If any impact is detected by the well owners, SCI will work with them to restore full function of said wells. Two other wells within 600 feet of the permit boundary have been identified but are unused.

8.3 Surface Water

The Colorado River is generally located north of the mining area and comes as close as approximately 0.25-mile northwest of the mining area. The property currently has a return channel of the Last Chance Ditch, which generally bisects the property from east to west and discharges into the Colorado River. The Last Chance Ditch is located south of the property on the south side of Interstate 70. The wetlands that are on site were created by irrigation activities, see Section 4.3 discussion, and will likely disappear in a relatively short period of time following the onset of dewatering. An existing irrigation tailwater ditch runs across the property east to west and ultimately discharges into the Colorado River. This tailwater ditch will be realigned around the Rifle Pit property along the eastern and northern property boundaries. See Figure 4, Exhibit C.

8.4 Water Management

Incidental runoff moving away from pits and working areas will be controlled using standard stormwater Best Management Practices (BMPs). A Colorado Discharge Permit System (CDPS) Construction Stormwater Permit will be acquired from the CDPHE-WQCD prior to any discharge.

8.5 Project Water Requirements

Rule 6.4.7 requires the operator/applicant shall provide an estimate of the project water requirements including flow rates and annual volumes for the development, mining and reclamation phases of the project. The following subsections outline the estimated project water requirements estimating methods with a summary of the annual active mining and post-mining demands shown in Table 3 and Table 4, respectively.

8.5.1 Water Requirements During Mining Phase

During active mining, depletions to the Colorado River will occur from water lost with mined aggregate (trucked offsite with mined aggregate) and water used for dust control. Depletions are not expected from evaporation associated with dewatering efforts; SCI plans to intercept any groundwater with perforated pipe and pump it to the tailwater ditch without evaporation. Gravel pit operations also typically include domestic or commercial indoor uses; however, SCI expects to provide trucked water from offsite for indoor water use.

8.5.2 Water Lost with Mined Aggregate

SCI estimates a production rate of 200,000 tons of aggregate per year, or 16,667 tons per month assuming a year-round operation. DWR-SEO uses a standard assumption that

aggregate production water depletions are four percent of the production rate when washed and mined below the groundwater table, which results in total annual demand of 5.89 acre-feet (AF) for 200,000 tons of aggregate.

8.5.3 Water Used for Dust Control

Dust control water will be captured from the dewatering well. SCI estimates that the active mining operations will use 50,000 gallons per day for dust suppression. Based on 20 operational days per month, this results in an annual demand of 36.83 AF.

8.5.4 Water Lost Due to Evaporation During Dewatering

Evaporation from exposed groundwater during active mining is expected to be minimal. A dewatering well will lower the local groundwater table at the site and allow for dry mining operations. In the instance mining exposes groundwater not pumped by the dewatering well, a perforated pipe will be buried in a trench at least 3 feet below the mining floor, allowing this water to be intercepted and directed to the dewatering well. Hence, it is assumed that no water is lost to evaporation during active mining.

8.5.5 Water Used Indoors (Domestic and Commercial)

SCI does not anticipate using water from the site for indoor water demands. Because potable water is not available from City of Rifle or Town of Silt and because drilling a well for potable water on the property is not feasible given the mining plan, SCI is planning to truck potable water onto the site to supply employees with potable water.

8.5.6 Water Requirements During Reclamation Phase (Post Mining)

After mining is completed, water depletions from the site will be solely from evaporation of the exposed groundwater in the finished gravel pit pond. Annual gross evaporation for the Rifle area is estimated at 45 inches based on the contours from National Oceanic and Atmospheric Administration Technical Report NWS 33 dated June 1982, Map No. 3. Annual evaporation was distributed annually using the DWR General Guidelines for Substitute Water Supply Plans for Sand and Gravel Pits (DWR Gravel Pit Guidelines) annual distribution for elevations below 6,500 feet. The evaporation was then reduced to account for periods when the pit is expected to be frozen over when the average temperature is below freezing, typically December through February for Rifle.

The completed size of the gravel pit pond is not yet known, however for this preliminary analysis 53 acres is estimated, which includes all of the property area within the 25-foot setback. 53 acres of surface evaporation is estimated to have 179.87 AF of depletions annually. Table 4 presents the post-mining phase water use demand.

Table 3. Water Use Demands for Active Mining

Month	Amount of Aggregate Production (tons)	Water Lost With Mined Aggregate (AF)	Water Used for Dust Control (AF)	Exposed Groundwater Evaporation (AF)	Domestic / Commercial Indoor Use (AF)	Total Operational Water Use	
						Volume (AF)	Avg Rate (gpm)
Jan	16,667	0.491	3.07	0.00	0.00	3.56	26.0
Feb	16,667	0.491	3.07	0.00	0.00	3.56	28.8
Mar	16,667	0.491	3.07	0.00	0.00	3.56	26.0
Apr	16,667	0.491	3.07	0.00	0.00	3.56	26.9
May	16,667	0.491	3.07	0.00	0.00	3.56	26.0
Jun	16,667	0.491	3.07	0.00	0.00	3.56	26.9
Jul	16,667	0.491	3.07	0.00	0.00	3.56	26.0
Aug	16,667	0.491	3.07	0.00	0.00	3.56	26.0
Sep	16,667	0.491	3.07	0.00	0.00	3.56	26.9
Oct	16,667	0.491	3.07	0.00	0.00	3.56	26.0
Nov	16,667	0.491	3.07	0.00	0.00	3.56	26.9
Dec	16,667	0.491	3.07	0.00	0.00	3.56	26.0
Total	200,000	5.89	36.83	0.00	0.00	42.72	

Table 4. Water Use Demands for Post Mining

Month	Gross Unit Evaporation / Per 1 Acre (AF)	Gross Evaporation - Post Mining For Finished Pond Surface Area: 53 acres	
		Volume (AF)	Average Rate (gpm)
Jan	0.11	-	
Feb	0.13	-	
Mar	0.21	10.93	79.8
Apr	0.34	17.89	134.9
May	0.45	23.85	174.1
Jun	0.54	28.82	217.4
Jul	0.56	29.81	217.6
Aug	0.51	26.83	195.8
Sep	0.38	19.88	149.9
Oct	0.26	13.91	101.5
Nov	0.15	7.95	60.0
Dec	0.11	-	
Total	3.75	179.87	

8.6 Colorado Discharge Permitting System (CDPS) Permit

SCI will have an approved CDPS permit from the CDPHE-WQCD prior to any discharge.

August 31) to avoid any potential for direct impact to cuckoos. The anticipated indirect impacts to foraging habitat would result in an insignificant and temporary degradation of potential habitat for cuckoo in the vicinity of the Project. Therefore, the Proposed Action "may affect, but is not likely to adversely affect" yellow-billed cuckoo.

The project does not cross proposed Critical Habitat for the cuckoo; therefore, the project would have had "no effect" on Critical Habitats.

9.2.3 Colorado River Endangered Fish

The USFWS identified the bonytail chub, Colorado pikeminnow, humpback chub and the razorback sucker for potential impacts from this project. These species occur in lower elevation, larger rivers, including the Colorado River in the vicinity of Rifle, immediately downstream of the Project. The project will be complying with a CDPHE Stormwater Permit and will not be discharging into the Colorado River. No work is proposed within natural hydrologic features tributary to the Colorado River, or within the Colorado River itself. Given there will be no direct or indirect impacts to occupied habitats or these species, this project will have No Effect on these species, and No Effect to Critical Habitats.

9.2.4 Greenback cutthroat trout

No habitat exists on the property or in the adjacent Colorado River for native cutthroat trout. In addition, no work is proposed within the channel of the Colorado River or any natural tributaries. Therefore, no direct impacts would result from this project. USFWS lists these species as potentially impacted due to the presence of occupied habitat downstream from the Parcel, and the potential for indirect impacts to water quality via water depletions. Potential indirect impacts would include water depletions or water quality degradation in potential or occupied habitat. However, the project area is not tributary to any downstream waters that are known or suspected of containing cutthroat, therefore the potential for indirect impacts is very low.

The project would comply with CDPHE-WQCD Stormwater Permit requirements: site stormwater would be collected and treated appropriately and would not be discharged to the Colorado River. Therefore, the project is not anticipated to increase the likelihood of future contamination of downstream waters. For these reasons, the project would have no effect on the greenback cutthroat trout.

9.2.5 Debeque phacelia

No habitat exists on the property or in nearby adjacent or downgradient areas. This species is restricted entirely to outcroppings of the Wasatch geological formation, generally in areas of steep gradient and extensive bare mineral soil. The proper geologic substrate is not found on the property, nor are the native xeric biological communities where the species is found. Because the project will not directly or indirectly impact habitats, and is relatively far from potentially occupied habitats, there is no anticipated direct, indirect or cumulative impacts to habitats. This project will have No Effect to the phacelia or its Critical Habitat.

9.2.6 Ute ladies'-tresses

Habitat for this orchid occurs along riparian edges, gravel bars, old oxbows, high flow channels, and moist to wet meadows along perennial streams. It typically occurs in stable wetland and seepy areas associated with stable features within historical floodplains of

- Mule Deer (Resident Population Area, Severe Winter Range, Winter Concentration Area, Winter Range, Overall Range)
- Wild Turkey (Winter Concentration Area, Winter Range, Overall Range)

Figures 11 through 15 depict the CPW wildlife habitat maps and seasonal uses of the area.

9.4 Effects to Wildlife

Mining will remove vegetation in phases allowing incidental use of the site by wildlife, if needed. Wildlife will likely avoid the parcel entirely once mining development commences, and the existing level of casual use will be displaced to adjacent unimpacted habitats along the southern bank of the Colorado River. It is expected that the itinerant species will continue to utilize surrounding habitats given the small area of the mine. After reclamation, the property will be converted back to irrigated pasture. However, the existing mosaic of meadows and riparian woodland will not be recovered, and the property will support a much less complex environment dominated by agricultural cultivars. This could continue to provide winter grazing habitat for elk and mule deer, although the habitat quality would be low due to a lack of woody cover vegetation. Wild Turkey would likely abandon the parcel. Bald eagle foraging is concentrated along the Colorado River, and would be minimally impacted by the proposed development. Most small mammal and passerine bird species will be able to resume use of the area once reclamation is complete; the longest-term potential habitat detractor will be persistence by noxious weeds.