

PPR 234

El Paso County

Stormwater Management Checklist Stormwater Management Plan For

Schubert Ranch Sand Resource Pit COG-50223

Prepared by and for: Ellicott Sand and Gravel LLC, Operator 235 South Franceville Coal Mine Road Colorado Springs, CO 80292 (602) 558-0846

Qualified Stormwater Manager: Christine Wilson Ellicott Sand and Gravel LLC, Operator 235 South Franceville Coal Mine Road Colorado Springs, CO 80292 (602) 558-0846

Contractor Information:

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Please note the document has been prepared for all stages, I through VI even though the approval will be for Stage I.





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EL PASO COUNTY STORMWATER MANAGEMENT PLAN CHECKLIST

EPC Project Number: EA 1881 PPR234

	Revised: July 2019	Applicant	EPC
. <u>S</u>	FORMWATER MANAGEMENT PLAN		1000
1	Applicant (owner/designated operator), SWMP Preparer, Qualified Stormwater Manager, and Contractor Information. (On cover/title sheet)	X()(
2	Table of Contents	X	
3	Site description and location to include: vicinity map with nearest street/crossroads description	X	
4	Narrative description of construction activities proposed (e.g., may include clearing and grubbing, temporary stabilization, road grading, utility / storm installation, final grading, final stabilization, and removal of temporary control measures)	Х	
5	Phasing plan – may require separate drawings indicating initial, interim, and final site phases for larger projects. Provide "living maps" that can be revised in the field as conditions dictate	X	
6	Proposed sequence for major activities: Provide a construction schedule of anticipated starting and completion dates for each stage of land-disturbing activity depicting conservation measures anticipated, including the expected date on which the final stabilization will be completed	X	
7	Estimates of the total site area and area to undergo disturbance; current area of disturbance must be updated on the SWMP as changes occur	X	
8	Soil erosion potential and impacts on discharge that includes a summary of the data used to determine soil erosion potential	X	
9	A description of existing vegetation at the site and percent ground cover and method used to determine ground cover	X	
10	Location and description of all potential pollution sources including but not limited to: disturbed and stored soils; vehicle tracking; management of contaminated soils; loading and unloading operations; outdoor storage of materials; vehicle and equipment maintenance and fueling; significant dust generating process; routine maintenance activities involving fertilizers, pesticides, herbicides, detergents, fuels, solvents, oils, etc.; on-site waste management; concrete truck/equipment washing; dedicated asphalt, concrete batch plants and masonry mixing stations; non-industrial waste such as trash and portable toilets	х	
11	Material handling to include spill prevention and response plan and procedures	X	
12	Spill prevention and pollution controls for dedicated batch plants	X	
13	Other SW pollutant control measures to include waste disposal and off-site soil tracking	X	
14	Location and description of any anticipated allowable non-stormwater discharge (ground water, springs, irrigation, discharge covered by CDPHE Low Risk Guidance, etc.)	X	
15	Name(s) of ultimate receiving waters; size, type and location of stormwater outfall or storm sewer system discharge	X	
16	Description of all stream crossings located within the project area or statement that no streams cross the project area	X	





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EPC Project Number:

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17	SWMP Map to include:	X			
17a	construction site boundaries	X			
17b	flow arrows to depict stormwater flow directions	X			
17c	all areas of disturbance	X			
17d	areas of cut and fill	Х			
7e	areas used for storage of building materials, soils (stockpiles) or wastes	X			
17f	location of any dedicated asphalt / concrete batch plants	X			
17g	location of all structural control measures	X			
7h	location of all non-structural control measures	X			
17i	springs, streams, wetlands and other surface waters, including areas that require maintenance of pre-existing vegetation within 50 feet of a receiving water	X			
18	Narrative description of all structural control measures to be used. Modifications to EPC standard control measures must meet or exceed County-approved details	X			
19	Description of all non-structural control measures to be used including seeding, mulching, protection of existing vegetation, site watering, sod placement, etc.	X			
20	Technical drawing details for all control measure installation and maintenance; custom or other jurisdiction's details used must meet or exceed EPC standards				
21	Procedure describing how the SWMP is to be revised	X			
22	Description of Final Stabilization and Long-term Stormwater Quality (describe nonstructural and structural measures to control SW pollutants after construction operations have been completed, including detention, water quality control measure etc.)	х			
23	Specification that final vegetative cover density is to be 70% of pre-disturbed levels	X			
24	Outline of permit holder inspection procedures to install, maintain, and effectively operate control measures to manage erosion and sediment	Х			
25	Record keeping procedures identified to include signature on inspection logs and location of SWMP records on-site	Х			
26	If this project relies on control measures owned or operated by another entity, a documented agreement must be included in the SWMP that identifies location, installation and design specifications, and maintenance requirements and responsibility of the control measure(s)	X			
	Please note: all items above must be addressed. If not applicable, explain why, simply identifying "not applicable" will not satisfy CDPHE requirement of explanation.	х			
. <u>A</u> l	DDITIONAL REPORTS/PERMITS/DOCUMENTS				
а	Grading and Erosion Control Plan (signed)	X			
b	Erosion and Stormwater Quality Control Permit (ESQCP) (signed)	X			





EL PASO COUNTY STORMWATER MANAGEMENT PLAN CHECKLIST

EPC Project Number:

	Revised: July 2019	Applicant	EPC
3. <u>A</u>	PPLICANT COMMENTS	reprisent	
а			
b			
С			
4. <u>C</u>	HECKLIST REVIEW CERTIFICATIONS		
а	Engineer of Record: The Stormwater Management Plan was prepared under my direction and supervision and is correct to the best of my knowledge and belief. Said Plan has been prepared according to the criteria established by the County and State for Stormwater Management Plans. The Stormwater Management Plan was prepared under my direction and supervision and is correct to the best of my knowledge and belief. Said Plan has been prepared according to the criteria established by the County and State for Stormwater Management Plans. The Stormwater Management Plan was prepared under my direction and supervision and is correct to the best of my knowledge and belief. Said Plan has been prepared according to the criteria established by the County and State for Stormwater Management Plans. The Stormwater Management Plan was prepared under my direction and supervision and is correct to the best of my knowledge and belief. Said Plan has been prepared according to the criteria established by the County and State for Stormwater Management Plans. The Stormwater Management Plans according to the criteria established by the County and State for Stormwater Management Plans. Date The Stormwater Management Plans according to the criteria established by the County and State for Stormwater Management Plans.		
b	Review Engineer: The Stormwater Management Plan was reviewed and found to meet the checklist requirements except where otherwise noted or allowed by an approved deviation request. Compared to the checklist requirements		



El Paso County Stormwater Management Checklist (Plan)

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El Paso County

Stormwater Management

Checklist

1. "STORMWAER MANATEMENT PLAN:"

- 1) "Applicant (owner/designated operator), SWMP Preparer, Qualified Stormwater Manager, and Contractor Information (On cover/title sheet)"
- 2) "Table of Contents"
- 3) "Site description and location to include: vicinity map with nearest street/crossroads description"
 - a) Site Description:

Portions of the proposed mine area are used as an irrigated commercial sod grass farm and irrigated agricultural fields. These are generally associated with irrigation pivots on the north and south sides of the permit area.

As stated above, "The site is currently used as irrigated agriculture and rangeland and consists of a deep sand deposit that parallels both sides of Black Squirrel Creek." (From Pages 5, Exhibit D, Mined Land Reclamation Board Permit Application)

Bisecting the permit area, from north to south, is an ephemeral drainage, Black Squirrel Creek. Big Springs Creek merges with Black Squirrel Creek toward the southern side of the approved permit area. "The landowner has built flow direction berms along the dry creek beds and done some armoring to protect the fields and building from past flooding." (From Pages 4 & 5, Exhibit D, Mined Land Reclamation Board Permit Application)

b) Location: (From the approved Mined Land Reclamation Board Permit Application.)



EXHIBIT A

LEGAL DESCRIPTION

Part fo the S½N½SE¼, S½SE¼, and SE¼SW¼of Section 20, and

The E½E½ and NW¼NE¼ and parts of the SW¼NE¼, SW¼SE¼, and NW¼SE¼ of Section 29 and

The E½NE¼, SW¼NE¼, & SE½NW¼, and parts of the NW½NE¼ & NE½NW¼, Section 32, Township 14 South, Range 62 West, 6th P.M. El Paso County, Colorado

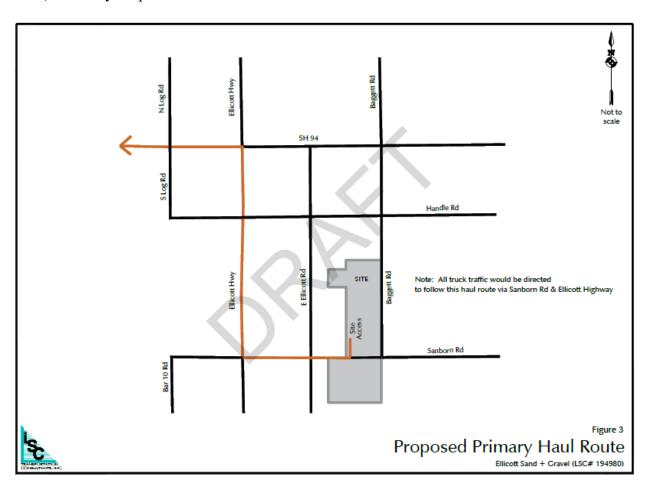
Containing 733.7 acres more or less.

Entrance location Stage I: 30°47'43.59"N, 104°21'17.601"

Revised Entrance Location: 2,280 Feet West of Baggett Road on Sanborn Road, or 39°47'43.2602" N, 104°21'29.8902" W.



c) Vicinity Map:



Please note the haul route has been revised to exit the northeast corner of the permit area and use Baggett Road north to Colorado 94. Please see the revised traffic report.



4) Narrative description of construction activities proposed (e.g., may include clearing and grubbing, temporary stabilization, road grading, utility / storm installation, final grading, final stabilization, and removal of temporary control measures)

MINING PLAN

Of the 733.7 acres ± in the permit area a maximum of 561.7 acres ± will be disturbed by the mining operation over the life of the mine. The area is broken into 6 mining stages for sake of discussion. When a stage is opened the 25 foot mining setbacks will be delineated along the permit/affected lands line and 150 feet from the top of the bank along Black Squirrel Creek. If mining will take place near a structure not covered bu a Structure agreement a 200 foot setback will be established from the closest structure where on agreement is in place. This setback is Shown on the Mining Plan and Reclamation Plan maps. When a Geotechnical Stability Analysis is approved mining will return to a setback distance consistent with the factors of safety determined bu that analysis.

Mining will begin in Stage I west of Black Squirrel Creek and north of Sanborn Road. A 30 acre area will be stripped within the setbacks explained above that will be used as the active mining area, plant site and stockpile area. Mining will move south to north in this stage once a working face that trends east-west across the stage. We expect to mine approximately 35 feet deep in the stripped area creating the first level. Once enough area is open a second 35 foot deep cut will be made to reach the final floor of the mine. This will create two 35 foot

5 (revised 10.31/19)



benches that extend from east to west across the stage as shown on the MINING PLAN MAP - EXHIBIT C-1. The typical layout of the bench is show on Figure D-1 following the Mining Timetable. Eventually, an additional 10 acres of partially reclaimed area will be present since reclamation will run concurrent with mining, so the total bonded disturbance allowed will be 40 acres.

There will be a 25-foot or wider digline setback maintained from the permit boundary so there is adequate space on the level above the slope for property line access, setback maintenance, grading and shaping. In Stage VI the setback from the northern house will be between 210 and 215 feet and on the southern ranch complex it will vary from 50 to 130 feet.

As mining progresses across a stage the exterior slope will be mined % to 1 until it is within 55 feet of a stage perimeter then shaped to the final 3:1 rate from the surface to the top of the first bench. Once that slope toe of that slope is established another 55 foot wide vertical mining setback will be established to leave enough material to create the bottom of the 3:1 cut/fill slope along the outer limits of a Stage.

The Plant Site/stockpile area will start on the surface, but once the initial level is reached it will be moved below grade so it is screened below the surrounding areas. Map Exhibit C-1 shows how the site would look when the mine reaches full production.

On the Mining Plan Map the processing/stockpile and partially reclaimed areas covers approximately 22.0 acres, there is 15.0 ac. of bench and working face area and 3.0 acres stripped. The highwall is 500 feet long with approximately 4100 feet being temporary graded to 2h to 1v. As the mining face extends across the property, we will maintain a 500 foot long, near vertical, working face. The remaining highwall will be kept at an interim grade of 2h to 1v. The working face will move from the top bench to the mine floor as it progresses across a given Stage. The plan is to continue to mine into the sand deposit at the mining face until the permit limits are reached.

Typically mining will be done in cycles. These cycles involve moving a crushing plant into a mine and beginning to process material until there is a six month to 1 year supply of material stockpiled. Once an adequate supply is processed, the processing plant and equipment is moved to another mine. The



stockpiles will be used throughout the year by the company. As mining ends on a section of the working face it is temporally graded to 2:1 so it is stable when there are no activities in the mine. Any resoiling and revegetation needed will be completed when the area where material is removed will not be redisturbed. This cycle continues until the mine is played out.

Each time the mine is re-entered, mining begins by setting up the plant and if needed an area is stripped. The salvaged topsoil will be stockpiled along the mine perimeter setbacks or on the mine floor, i.e., in places where it will not be disturbed until needed. Much of the permit area will continue to be used by the owners for their ranching purposes throughout the life of the mine. The approximate location of the soil piles are shown on the MINING PLAN MAP.

Mining will begin on a section of the slopes created at the end of the last mining cycle until a near vertical face is open. This face will be worked to the east and west until it extends across the property and at that time mining will progress to the south or north depending on the Stage mining is taking place. As mining progresses thru the site the processing plant will be set near the open face to reduce the haul distance from the mine face.

As mining progresses the plan is to begin to armor both sides of the embankment along the creek channel. The plan entails building the channel side as mining progresses when mining gets within 400 feet of the channel bank. When mining reaches the final dig line on the excavation side that section will be armored. In general, the toe of the armoring will be below the thalweg of the channel, so on the outside it will be 5 ft below and in the inside it will be 3 feet below. The material will be placed a minimum of two (2) feet thick.

The armoring material to be used will be recycled concrete with all exposed rebar removed, that conforms to the definition of Inert Material, available to the Ellicott Sand & Gravel, the exterior slopes will be graded 2.5:1 and the inside slopes will be 3:1. The size of the material will fall in the range of 12 to 36 24 inches with some larger pieces and intermixed with fines and will be placed below grade and on the inside it will be covered with material from onsite. Adequate quantities will be stored onsite, to complete the necessary armoring on any give

7 (revised 10.31/19)



section. It will then be seeded when the area is reclaimed. The Typical Armoring Cross Section show on Figure D-2 provides details.

This pit will be operated year-around by Ellicott Sand & Gravel LLC, weather permitting. There may be periods when the demands for material are slow and no mining will take place at which time the mine will become an *Intermediate Operation*. Stockpiles of material will be maintained on the site and as the need arises, it will be hauled to our project sites or sold to the public.

This will be a six stage operation, starting in Stage I and working counter clock wise around the permit area so mining ends in the northeast corner. Generally, mining will be to the north and south depending on what stage is being mined with the mining face extended across each stage from east to west.

Review of Map Exhibit C-1 shows how we expect the site to look when mining is approximately 20% done. Note, the floor of the excavation is flat and the exterior slopes into the mined area are graded 3:1 where reclaimed, 2:1 when temporary grading is done and near vertical where mining is taking place. Material will be left along the mine perimeter to do a cut/fill sloping operations for the final slopes.

Mining equipment may include but is not limited to, frontend loaders, scrapers, bulldozers, dump trucks and a water truck. Processing equipment may include but is not limited to conveyors, crushers and screen plants. A scale and scale house as well as a shop and maintenance building may also be built at the mine during its life. No blasting will take place at this mine.

As much as possible, the surface drainage will be maintained in the same direction as it now exists. The proposed sloping plan for the excavated area should eliminate any concerns of erosion occurring on the site. The ephemeral drainages will not be disturbed by mining.

On a typical operation of this type we may use up to 3 ac-ft of water per year. Most of the water used for dust control will be used on haul roads. Please refer to EXHIBITG-WATER for the discussion of how water will be used at the site and the source of said water.

8 (revised 10.31/19)

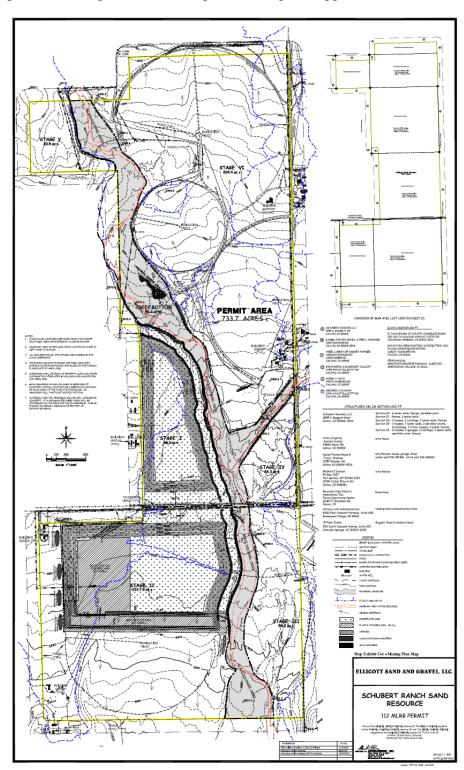


There are no ditches crossing the site and no surface or subsurface water will be impacted by the mining operation. All interior pit slopes will be maintained with a pit-ward attitude so that historic drainage patterns can be maintained. This same slope management plan will prevent any offsite slides or other disruptions. Isolation berms or ditches will be constructed around the active mining area to prevent off site stormwater from contacting the disturbed area. All stormwater contacting the disturbed area will be retained on site and allowed to evaporate or soak into the underlying sand. No stormwater will be retained in the mine area for more then 72 hours. No dewatering will take place as this is a dry mine. A CDPS and stormwater permit will be obtained if needed. No U.S. Army Corps of Engineers 404 permit is necessary, as there are no water bodies on the site nor are there any wetland areas that will be disturbed by mining or reclamation. No mining will take place within the ephemeral drains of Black Squirrel Creek or Big Springs Creek.

(From the approved Mined Land Reclamation Board Permit Application, Exhibit D.)



Revised Map C-1 Showing Bank Armoring, From Original Application Revision:





- 5) Phasing plan may require separate drawings indicating initial, interim, and final site phases for larger projects. Provide "living maps" that can be revised in the field as conditions dictate
 - a. Phased mining is permitted by the Mined Land Reclamation Board's regulations. However, phased mining and reclamation does not allow maps that can be revised in the field. They do allow permit revisions. However, revision must go through an agency review process and allow time for public comment. Therefore, we have not included "living maps" since such a process is not allowed by State regulation.
 - b. As presently planned, mining will begin in Stage One and then progress to Stage Two, and the other Stages in sequence. However, whether a Stage is mined depends on the grade and extent of the resource in a Stage. For example, we may find it operationally advantageous to by-pass a Stage and move to another Stage for immediate product needs.
- 6) Proposed sequence for major activities: Provide a construction schedule of anticipated starting and completion dates for each stage of land-disturbing activity depicting conservation measures anticipated, including the expected date on which the final stabilization will be completed
 - a. Anticipated start and completion date for each stage:
 - 1. The following table provides an estimate of the length of time a Stage will be mined. Given this is a mineral extraction operation and not a commercial or residential development, the start and start dates are dependent on market demand. It is not unusual for an operation to start and stop extraction activities during the annual construction season. Some operations run year-round while other operations may periodically start and stop mining. This operation will likely start operations at the beginning of the construction and may suspend operations at the end of the construction season.
 - 2. At the present time, we expect the start date for Stage One to be as soon as possible.



ESTIMATED MINING TIMETABLE

		ACRES ±				
Stage	ESTIMATED	TOTAL	TOTAL	MINED	MINED	
	YEARS	AREA	MINED	100%	SLOPES	
I	10-15	68.94	60.05	28.22	31.83	
II	15-20	214.00	181.14	129.68	51.46	
III	4-6	54.39	47.30	14.26	33.04	
IV	2-5	24.32	19.00	4.20	14.80	
V	2-4	20.81	17.46	3.32	14.15	
VI	20-30	268.60	236.70	159.64	77.07	
Drainage	LOM	82.81	0.00	0.00	0.00	
Totals	52-80	733.87	561.65	339.32	222.35	

b. Conservation measures:

1. Please see the attached Stormwater Management Plan, Sections 4, Table A, and Sections 5 - 6.

c. Final stabilization date:

- 1. The completion date for a Stage is dependent on market demand. Once mining is complete, based on the operator's notification to the DRMS, an operator has 5 years to complete reclamation. In this case, as Stage is completed. However, the MLRB Regulations allow an additional 5 years based on specific site conditions. The additional extension of time is dependent upon MLRB approval.
- 7) Estimates of the total site area and area to undergo disturbance; current area of disturbance must be updated on the SWMP as changes occur
 - a. Estimates of the total site area:
 - 1. The total MLRB area permitted is $733.7 \pm$ acres.
 - b. Area to undergo disturbance:
 - 1. The total MLRB area permitted to be affected is 561.7± acres.



- c. "current area of disturbance must be updated on the SWMP as changes occur":
 - 1. We understand this provision and will comply as appropriate.
- 8) Soil erosion potential and impacts on discharge that includes a summary of the data used to determine soil erosion potential
 - a. Soil erosion potential:
 - I. Wind erosion: Not listed as an item to address. Fugitive dust is addressed in other submittals to the County and mitigation measures have been approved by the State of CDPHE and the EPC, County Commissioners, SUP approval.

II. Runoff erosion:

- A. The Runoff erosion potential is based on the NRCS Websoil Survey Report, 3/27/2018 and Table 7-2, Chapter 7, Hydrologic Soil Groups, Part 630, National Engineering Handbook, Natural Resources Conservation Services, U. S. Dept. of Ag, (210-VI-NEH, May 2007)
- B. Table 7-2

Table 7–2 Criteria for assignment of hydrologic soil groups when any water impermeable layer exists at a depth greater than 100 centimeters [40 inches]

Soil property	Hydrologic soil group A	Hydrologic soil group B	Hydrologic soil group C	Hydrologic soil group D
Saturated hydraulic conductivity of the least transmissive layer	>10 µm/s (>1.42 in/h)	≤10.0 to >4.0 µm/s (≤1.42 to >57 in/h)	≤4.0 to >0.40 µm/s (≤0.57 to >0.06 in/h)	≤0.40 µm/s (≤0.06 in/h)
	and	and	and	and/or
Depth to water imper- meable layer	>100 cm [>40 in]	>100 cm [>40 in]	>100 cm [>40 in]	>100 cm [>40 in]
	and	and	and	and/or
Depth to high water table	>100 cm [>40 in]	>100 cm [>40 in]	>100 cm [>40 in]	>100 cm [>40 in]



B. Hydrologic Soils Group – Site Soils, In Place., Table 1.

Soil Unit	Hydrologic Soils Group	Runoff Class	Natural Drainage Class	Soil Erosion Potential (1), (2), (3)
5	A	Not Reported	Somewhat excessively drained	Given the <8% slope, soil texture, high infiltration rate, and grass cover, normally low SEP.
6	A	Not Reported	Somewhat excessively drained	Given the <3% slope, soil texture, high infiltration rate, and grass cover, normally low SEP.
28	A	Not Reported	Somewhat excessively drained	Given the <5% slope, soil texture, high infiltration rate, and grass cover, normally low SEP.
78	В	Low	Well Drained	Given the <3% slope, soil texture, high infiltration rate, and grass cover, normally low SEP.
95	A	Low	Well Drained	Given the <9% slope, soil texture, high infiltration rate, and grass cover, normally low to moderate SEP.
97	A	Low	Well Drained	Given the <9% slope, soil texture, high infiltration rate, and grass cover, normally low SEP.
101	A	Low	Well Drained	Given the <3% slope, soil texture, high infiltration rate, and grass cover, normally low – moderate SEP.
106	A	Low	Excessively Drained	Given the <8% slope, soil texture, high infiltration rate, and grass cover, normally low SEP.

^{1.} Soil Erosion Potential: ("soil erosion is a function of erosivity and erodibility") Erosivity is a function of rainfall and its energy. Erodibility is a function of soil physical characteristics and soil management. (Soil Conservation, Hudson, Cornell University Press, 1973.) Therefore, erosion potential may be significant for a soil, dependent upon the intensity and duration of the rain event. Given the soil texture is relatively fixed for any given rain event.



- 2. The intensity and duration of a rain (runoff event) plus the soil texture. "When the rate of rainfall exceeds the rate of infiltration, the depressions on the surface fill and overflow to cause runoff." (Erosion and Sediment Pollution Control, Beasley, Iowa State University Press, 1972.)
- 3. "Runoff and resulting downslope transport do not occur until the rainfall intensity exceeds the infiltration rate." (of the soil) (Applied Hydrology and Sedimentology for Disturbed Areas, Barfield, Warner, and Haan, Oklahoma Technical Press, 1981.)
 - b. Impacts on discharge:
 - 1. This will be a zero-discharge facility. All stormwater runoff will be interior to the facility and onto the pit floor, where it will infiltrate into the sandy/gravely, pit floor material.
 - 2. Given the low runoff potential, no toxic or hazardous materials will be on site in reportable quantities, and since it will be a zero-discharge operation, we do not expect a significant impact on receiving waters.
 - c. Summary of the data used to determine soil erosion potential:
 - 1. Drill logs:
 - 2. NRCS Websoil Survey Report Please see above table.
 - 9) A Description of existing vegetation at the site and percent ground cover and method used to determine ground cover
 - a. Existing Vegetation:
 - 1. The existing vegetation is sod grass in the areas of center pivot irrigation. The remaining area is grazing land. Therefore, the natural, ecological vegetation has been altered.
 - 2. According to the NRCS Ecological Site Descriptions, the reference vegetation varies by soil units. The following tables from the ES Description provides the typical plant species which are found on the reference areas.
 - 3. Sandy Bottom Land, Soils Unit 28, RO69XY031CO:



Table 6. Community 1.1 plant community composition

Group	Common Name	Symbol	Scientific Name	Annual Production (Lb/Acre)	Foliar Cover (%)
Tree		•		-	
1	Deciduous Tree			0-200	
	eastern cottonwood	PODE3	Populus deltoides	0-100	-
Grass	/Grasslike	•			
1				1120-1360	
	sand bluestem	ANHA	Andropogon hallii	320-480	-
	prairie sandreed	CALO	Calamovilfa longifolia	240-320	-
	switchgrass	PAVI2	Panicum virgatum	160-320	_
	Indiangrass	SONU2	Sorghastrum nutans	80–160	-
	needle and thread	HECOC8	Hesperostipa comata ssp. comata	80-110	-
	little bluestem	scsc	Schizachyrium scoparium	50-110	-
	blue grama	BOGR2	Bouteloua gracilis	50-110	-
	Grass, perennial	2GP	Grass, perennial	15–80	-
	Canada wildrye	ELCA4	Elymus canadensis	15–50	-
	blowout grass	REFL	Redfieldia flexuosa	15–50	-
	sideoats grama	BOCU	Bouteloua curtipendula	15–50	-
	sand dropseed	SPCR	Sporobolus cryptandrus	15–50	-
	western wheatgrass	PASM	Pascopyrum smithii	15–30	-
	Indian ricegrass	ACHY	Achnatherum hymenoides	15–30	-
	hairy grama	BOHI2	Bouteloua hirsuta	15–30	-
	sun sedge	CAINH2	Carex inops ssp. heliophila	15–30	-
	Schweinitz's flatsedge	CYSC3	Cyperus schweinitzii	0-30	-
	saltgrass	DISP	Distichlis spicata	0–15	-
	Fendler threeawn	ARPUL	Aristida purpurea var. longiseta	0–15	-
	squirreltail	ELELE	Elymus elymoides ssp. elymoides	0–15	_
	thickspike wheatgrass	ELLAL	Elymus lanceolatus ssp. lanceolatus	0–15	_
	prairie Junegrass	KOMA	Koeleria macrantha	0-15	_



	 		 	 	
	thin paspalum	PASE5	Paspalum setaceum	0–15	-
	sixweeks fescue	VUOC	Vulpia octoflora	0–15	-
Forb					
2				160-240	
	Forb, perennial	2FP	Forb, perennial	15–50	-
	annual buckwheat	ERAN4	Eriogonum annuum	15–30	-
	silky prairie clover	DAVI	Dalea villosa	15–30	-
	othake	PASP	Palafoxia sphacelata	0-30	-
	lemon scurfpea	PSLA3	Psoralidium lanceolatum	15–30	-
	upright prairie coneflower	RACO3	Ratibida columnifera	0-15	-
	white heath aster	SYERE	Symphyotrichum ericoides var. ericoides	0–15	-
	prairie spiderwort	TROC	Tradescantia occidentalis	0-15	-
	meadow deathcamas	ZIVE	Zigadenus venenosus	0–15	-
	gilia beardtongue	PEAM	Penstemon ambiguus	0–15	-
	broadbeard beardtongue	PEAN4	Penstemon angustifolius	0–15	-
	Carolina larkspur	DECAV2	Delphinium carolinianum ssp. virescens	0–15	-
	shaggy dwarf morning- glory	EVNU	Evolvulus nuttallianus	0–15	-
	stiff sunflower	HEPAP2	Helianthus pauciflorus ssp. pauciflorus	0–15	-
	hairy false goldenaster	HEVI4	Heterotheca villosa	0–15	-
	bush morning-glory	IPLE	Ipomoea leptophylla	0–15	-
	common starlily	LEMO4	Leucocrinum montanum	0–15	-
	dotted blazing star	LIPU	Liatris punctata	0–15	-
	tenpetal blazingstar	MEDE2	Mentzelia decapetala	0-15	-
	Colorado four o'clock	MIMU	Mirabilis multiflora	0–15	-
	whitest evening primrose	OEAL	Oenothera albicaulis	0–15	-
	prostrate pigweed	AMAL	Amaranthus albus	0-15	-
	Cuman ragweed	AMPS	Ambrosia psilostachya	0–15	-
	tarragon	ARDR4	Artemisia dracunculus	0-15	-
	white sagebrush	ARLU	Artemisia ludoviciana	0–15	-
	painted milkvetch	ASCEF	Astragalus ceramicus var. filifolius	0–15	-
	groundplum milkvetch	ASCR2	Astragalus crassicarpus	0-15	-
	Texas croton	CRTE4	Croton texensis	0–15	-
	white prairie clover	DACA7	Dalea candida	0–15	-
	nineanther prairie clover	DAEN	Dalea enneandra	0–15	-
	purple prairie clover	DAPUP	Dalea purpurea var. purpurea	0–15	_
Shrub	/Vine	•			
3				80-240	
	leadplant	AMCA6	Amorpha canescens	30-80	-
	sand sagebrush	ARFI2	Artemisia filifolia	15–80	-
	western sandcherry	PRPUB	Prunus pumila var. besseyi	30-80	-
	Shrub (>.5m)	2SHRUB	Shrub (>.5m)	15-50	_



4. Soils Unit 5 and 6, Sandy Plains – RO67BY024CO:

Table 6. Community 1.1 plant community composition

Group	Common Name	Symbol	Scientific Name	Annual Production (Lb/Acre)	Foliar Cove
Grass	/Grasslike	•			
1	1			1155–1403	
	blue grama	BOGR2	Bouteloua gracilis	330-495	
	prairie sandreed	CALO	Calamovilfa longifolia	330-495	
	sand bluestem	ANHA	Andropogon hallii	83-248	
	switchgrass	PAVI2	Panicum virgatum	83-165	
	needle and thread	HECOC8	Hesperostipa comata ssp. comata	83-165	
	western wheatgrass	PASM	Pascopyrum smithii	17–116	
	thickspike wheatgrass	ELLAL	Elymus lanceolatus ssp. lanceolatus	0-83	
	sun sedge	CAINH2	Carex inops ssp. heliophila	17–83	
	little bluestem	scsc	Schizachyrium scoparium	17–83	
	Indiangrass	SONU2	Sorghastrum nutans	0-83	
	sideoats grama	BOCU	Bouteloua curtipendula	17-83	
	Grass, perennial	2GP	Grass, perennial	0-83	
	sand dropseed	SPCR	Sporobolus cryptandrus	17–50	
	prairie Junegrass	KOMA	Koeleria macrantha	17–50	
	Indian ricegrass	ACHY	Achnatherum hymenoides	17–33	
	buffalograss	BODA2	Bouteloua dactyloides	0–17	
	Fendler threeawn	ARPUL	Aristida purpurea var. longiseta	0–17	
	thin paspalum	PASE5	Paspalum setaceum	0–17	
Forb		•		-	
2	2			165-248	
	Forb, perennial	2FP	Forb, perennial	33–83	
	purple prairie clover	DAPUP	Dalea purpurea var. purpurea	17–33	
	manystem pea	LAPO2	Lathyrus polymorphus	17–33	
	dotted blazing star	LIPU	Liatris punctata	17–33	
	broadbeard beardtongue	PEAN4	Penstemon angustifolius	17–33	
	upright prairie coneflower	RACO3	Ratibida columnifera	17–33	
	scarlet globemallow	SPCO	Sphaeralcea coccinea	17–33	
	prairie spiderwort	TROC	Tradescantia occidentalis	17–33	
	American vetch	VIAM	Vicia americana	17–33	
	white heath aster	SYERE	Symphyotrichum ericoides var. ericoides	0–17	
	silverleaf Indian breadroot	PEAR6	Pediomelum argophyllum	0–17	
	slimflower scurfpea	PSTE5	Psoralidium tenuiflorum	0–17	
		13/111	I da a	0.47	



I	rush skeletonplant	LYJU	Lygodesmia juncea	0-17	_
	tenpetal blazingstar	MEDE2	Mentzelia decapetala	0-17	-
	crownleaf evening primrose	OECO2	Oenothera coronopifolia	0–17	-
	winged buckwheat	ERAL4	Eriogonum alatum	0–17	-
	shaggy dwarf morning- glory	EVNU	Evolvulus nuttallianus	0–17	-
	hairy false goldenaster	HEVI4	Heterotheca villosa	0-17	-
	Cuman ragweed	AMPS	Ambrosia psilostachya	0-17	_
	tarragon	ARDR4	Artemisia dracunculus	0-17	-
	white sagebrush	ARLU	Artemisia ludoviciana	0–17	-
	woolly locoweed	ASMO7	Astragalus mollissimus	0-17	-
	Texas croton	CRTE4	Croton texensis	0-17	-
Shru	b/Vine				
3	3			83–248	
	Shrub (>.5m)	2SHRUB	Shrub (>.5m)	17-83	-
	leadplant	AMCA6	Amorpha canescens	0-50	-
	western sandcherry	PRPUB	Prunus pumila var. besseyi	0-50	-
	fourwing saltbush	ATCA2	Atriplex canescens	0-33	-
	spreading buckwheat	EREF	Eriogonum effusum	17–33	-
	sand sagebrush	ARFI2	Artemisia filifolia	0-33	-
	prairie sagewort	ARFR4	Artemisia frigida	0-17	-
	spinystar	ESVIV	Escobaria vivipara var. vivipara	0-17	-
	broom snakeweed	GUSA2	Gutierrezia sarothrae	0–17	-
	plains pricklypear	OPPO	Opuntia polyacantha	0-17	-
	soapweed yucca	YUGL	Yucca glauca	0-17	_



5. Soils Unit 101, Overflow, RORO69XY037CO:

Table 6. Community 1.1 plant community composition

Group	Common Name	Symbol	Scientific Name	Annual Production (Lb/Acre)	Foliar Cover (%)		
Grass/0	Grass/Grasslike						
1				1050-1275			
	alkali sacaton	SPAI	Sporobolus airoides	450-525	-		
	western wheatgrass	PASM	Pascopyrum smithii	300-375	-		
	blue grama	BOGR2	Bouteloua gracilis	150-225	-		
	vine mesquite	PAOB	Panicum obtusum	105-180	-		
	switchgrass	PAVI2	Panicum virgatum	75-150	-		
	big bluestem	ANGE	Andropogon gerardii	0-75	-		
	buffalograss	BODA2	Bouteloua dactyloides	15-75	-		
	Grass, perennial	2GP	Grass, perennial	15-45	-		
	needle and thread	HECOC8	Hesperostipa comata ssp. comata	15-45	-		
	sun sedge	CAINH2	Carex inops ssp. heliophila	15-45	-		
	saltgrass	DISP	Distichlis spicata	15-45	-		
	James' galleta	PLJA	Pleuraphis jamesii	0-45	-		



	alkali cordgrass	SPGR	Spartina gracilis	15-30	-	
	little bluestem	SCSC	Schizachyrium scoparium	0-30	-	
	Canada wildrye	ELCA4	Elymus canadensis	0-30	-	
	squirreltail	ELELE	Elymus elymoides ssp. elymoides	0-15	-	
	scratchgrass	MUAS	Muhlenbergia asperifolia	0-15	-	
	ring muhly	MUT02	Muhlenbergia torreyi	0-15	-	
	silver beardgrass	BOLAT	Bothriochloa laguroides ssp. torreyana	0-15	-	
	sixweeks fescue	VUOC	Vulpia octoflora	0-15	-	
	sand dropseed	SPCR	Sporobolus cryptandrus	0-15	-	
	tumblegrass	SCPA	Schedonnardus paniculatus	0-15	-	
Forb						
2				75–150		
	American vetch	VIAM	Vicia americana	15-45	-	
	Forb, perennial	2FP	Forb, perennial	15-45	-	
	dotted blazing star	LIPU	Liatris punctata	0-30	-	
	leafy false goldenweed	OOFOF	Oonopsis foliosa var. foliosa	15-30	-	
	American licorice	GLLE3	Glycyrrhiza lepidota	15-30	-	



scarlet globemallow White heath aster SYER Symphyotrichum ericoides 0-30 - stiff greenthread THFI Thelesperma fillfolium 0-15 - hairy false goldenaster Povertyweed IVAX Iva axillaris 0-15 - purple locoweed OXLA3 Oxytropis lambertii 0-15 - White locoweed OXSE Oxytropis sericea 0-15 - New Mexico groundsel PANEM Packera neomexicana var. mutabilis broadbeard beardtongue PEAN4 Penstemon angustifolius 0-15 - slimflower scurfpea PSTE5 Psoralidium tenuiflorum 0-15 - upright prairie coneflower rush skeletonplant LYJU Lygodesmia juncea 0-15 - lacy tansyaster MAPIP4 Machaeranthera pinnatifida ssp. pinnatifida var. pinnatifida p-30 - 0-30 - 0-30 - 0-30 - 0-30 - 0-15 - 0-15 - 0-15 - 1- 1- 1- 1- 1- 1- 1- 1-	,				
stiff greenthread THFI Thelesperma filifolium 0-15 - hairy false goldenaster HEVI4 Heterotheca villosa 0-15 - povertyweed IVAX Iva axillaris 0-15 - purple locoweed OXLA3 Oxytropis lambertii 0-15 - white locoweed OXSE Oxytropis sericea 0-15 - New Mexico groundsel PANEM Packera neomexicana var. mutabilis broadbeard peardtongue PEAN4 Penstemon angustifolius 0-15 - woolly plantain PLPA2 Plantago patagonica 0-15 - slimflower scurfpea PSTE5 Psoralidium tenuiflorum 0-15 - upright prairie coneflower RACO3 Ratibida columnifera 0-15 - rush skeletonplant LYJU Lygodesmia juncea 0-15 - lacy tansyaster MAPIP4 Machaeranthera pinnatifida ssp. 0-15 -		SPCO	Sphaeralcea coccinea	0-30	-
hairy false goldenaster HEVI4 Heterotheca villosa Double False goldenaster Double False goldenaster HEVI4 Heterotheca villosa Double False goldenaster Double False gold	white heath aster	SYER	Symphyotrichum ericoides	0-30	-
povertyweed IVAX Iva axillaris 0-15 - purple locoweed OXLA3 Oxytropis lambertii 0-15 - white locoweed OXSE Oxytropis sericea 0-15 - New Mexico groundsel PANEM Packera neomexicana var. mutabilis broadbeard beardtongue PEAN4 Penstemon angustifolius 0-15 - woolly plantain PLPA2 Plantago patagonica 0-15 - slimflower scurfpea PSTE5 Psoralidium tenuiflorum 0-15 - upright prairie coneflower RACO3 Ratibida columnifera 0-15 - rush skeletonplant LYJU Lygodesmia juncea 0-15 - lacy tansyaster MAPIP4 Machaeranthera pinnatifida ssp. 0-15 -	stiff greenthread	THFI	Thelesperma filifolium	0-15	-
purple locoweed OXLA3 Oxytropis lambertii 0–15 – white locoweed OXSE Oxytropis sericea 0–15 – New Mexico groundsel PANEM Packera neomexicana var. mutabilis 0–15 – broadbeard beardtongue PEAN4 Penstemon angustifolius 0–15 – woolly plantain PLPA2 Plantago patagonica 0–15 – slimflower scurfpea PSTE5 Psoralidium tenuiflorum 0–15 – upright prairie coneflower RACO3 Ratibida columnifera 0–15 – rush skeletonplant LYJU Lygodesmia juncea 0–15 – lacy tansyaster MAPIP4 Machaeranthera pinnatifida ssp. 0–15 –		HEVI4	Heterotheca villosa	0-15	-
white locoweed OXSE Oxytropis sericea 0–15 – New Mexico groundsel PANEM Packera neomexicana var. mutabilis 0–15 – broadbeard beardtongue PEAN4 Penstemon angustifolius 0–15 – woolly plantain PLPA2 Plantago patagonica 0–15 – slimflower scurfpea PSTE5 Psoralidium tenuiflorum 0–15 – upright prairie coneflower RACO3 Ratibida columnifera 0–15 – rush skeletonplant LYJU Lygodesmia juncea 0–15 – lacy tansyaster MAPIP4 Machaeranthera pinnatifida ssp. 0–15 –	povertyweed	IVAX	Iva axillaris	0-15	-
New Mexico groundsel PANEM Packera neomexicana var. mutabilis 0-15 - broadbeard beardtongue PEAN4 Penstemon angustifolius 0-15 - woolly plantain PLPA2 Plantago patagonica 0-15 - slimflower scurfpea PSTE5 Psoralidium tenuiflorum 0-15 - upright prairie coneflower RACO3 Ratibida columnifera 0-15 - rush skeletonplant LYJU Lygodesmia juncea 0-15 - lacy tansyaster MAPIP4 Machaeranthera pinnatifida ssp. 0-15 -	purple locoweed	OXLA3	Oxytropis lambertii	0-15	-
broadbeard beardtongue PEAN4 Penstemon angustifolius output woolly plantain PLPA2 Plantago patagonica output slimflower scurfpea PSTE5 Psoralidium tenuiflorum output upright prairie coneflower RACO3 Ratibida columnifera output rush skeletonplant LYJU Lygodesmia juncea output lacy tansyaster MAPIP4 Machaeranthera pinnatifida ssp. output ou	white locoweed	OXSE	Oxytropis sericea	0-15	-
beardtongue woolly plantain PLPA2 Plantago patagonica 0-15 - slimflower scurfpea PSTE5 Psoralidium tenuiflorum 0-15 - upright prairie coneflower RACO3 Ratibida columnifera 0-15 - rush skeletonplant LYJU Lygodesmia juncea 0-15 - lacy tansyaster MAPIP4 Machaeranthera pinnatifida ssp. 0-15 -		PANEM		0-15	-
slimflower scurfpea PSTE5 <i>Psoralidium tenuiflorum</i> 0–15 – upright prairie coneflower RACO3 <i>Ratibida columnifera</i> 0–15 – rush skeletonplant LYJU <i>Lygodesmia juncea</i> 0–15 – lacy tansyaster MAPIP4 <i>Machaeranthera pinnatifida ssp.</i> 0–15 –		PEAN4	Penstemon angustifolius	0-15	-
upright prairie coneflower RACO3 Ratibida columnifera rush skeletonplant LYJU Lygodesmia juncea lacy tansyaster MAPIP4 Machaeranthera pinnatifida ssp. 0-15 -	woolly plantain	PLPA2	Plantago patagonica	0-15	-
rush skeletonplant LYJU <i>Lygodesmia juncea</i> 0–15 – lacy tansyaster MAPIP4 <i>Machaeranthera pinnatifida ssp.</i> 0–15 –	slimflower scurfpea	PSTE5	Psoralidium tenuiflorum	0-15	-
lacy tansyaster MAPIP4 <i>Machaeranthera pinnatifida ssp.</i> 0–15 –		RACO3	Ratibida columnifera	0-15	-
	rush skeletonplant	LYJU	Lygodesmia juncea	0-15	-
	lacy tansyaster	MAPIP4		0-15	-



	,				
	crownleaf evening primrose	OECO2	Oenothera coronopifolia	0-15	-
	Cuman ragweed	AMPS	Ambrosia psilostachya	0-15	-
	twogrooved milkvetch	ASBI2	Astragalus bisulcatus	0-15	-
	purple prairie clover	DAPU5	Dalea purpurea	0-15	-
Shrub/\	Vine				
3				150-300	
	fourwing saltbush	ATCA2	Atriplex canescens	75-225	-
	Shrub (>.5m)	2SHRUB	Shrub (>.5m)	15-45	-
	greasewood	SAVE4	Sarcobatus vermiculatus	0-30	-
	prairie sagewort	ARFR4	Artemisia frigida	0-15	-
	tree cholla	CYIMI	Cylindropuntia imbricata var. imbricata	0-15	-
	rubber rabbitbrush	ERNAG	Ericameria nauseosa ssp. nauseosa var. glabrata	0-15	-
	broom snakeweed	GUSA2	Gutierrezia sarothrae	0-15	-
	plains pricklypear	OPPO	Opuntia polyacantha	0-15	-

6. No Ecological Site Descriptions were found for the other soils units. The soils units where the Ecological Site Descriptions are listed we believe adequately protray what the undisturbed vegetation would be, if the site had not have been affected by sod farming and grazing..

b. Percent Ground Cover:

- 1. The natural, ecological vegetative ground cover has been altered by the agricultural uses, an irrigated sod farm and grazing land.
- 2. The Colorado Mined Land Reclamation Act for Construction Materials requires the post mine vegetative cover equal ground cover of the surrounding, adjacent areas. However, in our approved Mined Land Reclamation Board permit application, we committed to at least 28% ground cover. (Exhibit H, Wildlife, approved Mined Land Reclamation Board permit application.)



- c. Method Used to Determine Ground Cover:
 - 1. The site is impacted by present operations, i.e., sod farm and grazing, therefore, ground cover was not evaluated.
 - 2. By State Regulation, once mining and reclamation are complete, the post mining cover must be equal to the surrounding vegetative cover, based on ocular measurements. As stated above, we are committed to at least 28% ground cover.
- 10) Location and description of all potential pollution sources including but not limited to: disturbed and stored soils; vehicle tracking; management of contaminated soils; loading and unloading operations; outdoor storage of materials; vehicle and equipment maintenance and fueling; significant dust generating process; routine maintenance activities involving fertilizers, pesticides, herbicides, detergents, fuels, solvents, oils, etc.; on-site waste management, concrete truck/equipment washing; dedicated asphalt, concrete batch plants and masonry mixing stations; non-industrial waste such as trash and portable toilets
 - a. Please see Section 4, Facility Inventory and Assessment of Pollutant Sources of the attached Stormwater Management Plan for Schubert Ranch Sand Resource, COG-502203.
 - b. Of the above listed items, the following will not occur on the mine site:
 - 1) To the best of our knowledge, there are no contaminated soils on the proposed mine site.
 - 2) No significant vehicle or equipment maintenance will occur on-site. No fuel will be stored on the mine site. We may have need of a fuel and lube truck to visit the site, and a truck to change a tire on a piece of earth moving equipment.
 - 3) No pesticides, detergents, or solvents in reportable quantities will be on-site.
 - 4) All on-site generated waste materials will be disposed offsite, at an approved waste disposal facility.
 - 5) There will be no concrete truck/equipment washing, dedicated asphalt plants, concrete batch plants, or masonry mixing stations on-site
 - 6) Non-industrial waste, other than in minor amounts will occur. All such waste will also be disposed offsite at an approved waste disposal site.



- 7) Human waste disposal will be via portable toilets which will be serviced by a commercial provider.
- 11) Material handling to include spill prevention and response plan and procedures
 - Our Spill Prevention and Response Plan may be found in Section 6, subsection 6c of our attached Stormwater Management Plan for the Schubert Ranch Sand Resource, COG-502203.
- 12) Spill prevention and pollution controls for dedicated batch plants
 - 1. No dedicated batch plant is currently planned for the Schubert Ranch Sand Pit.
- 13) Other SW pollutant control measures to include waste disposal and off-site soil tracking
 - 1. As stated above, all waste disposal (human and non-human) will be collected in approved containers and disposed offsite, at an approved facility.
 - 2. We do not anticipate significant tracking offsite. The material extracted and on which operations will occur is sand and gravel. In addition, the County Road is sand and gravel.
- 14) Location and description of any anticipated allowable non-stormwater discharge (ground water springs, irrigation, discharge covered by CDPHE Low Risk Guidance, etc.)
 - 1. We do not anticipate non-stormwater discharges. We are to stay at least 10 feet above the prevailing ground water table. Stormwater will infiltrate into the ground water system due to the high infiltration rate of the substrate.
 - 2. We do not have a CDPHE Low Risk Guidance discharge.
- 15) Names(s) of ultimate receiving water; size, type and location of stormwater outfall of storm sewer system discharge
 - 1. The two ephemeral drainages are Black Squirrel and Big Spring Creeks. Big Springs discharges into Black Springs Creek, Black Springs Creek discharges in Chico Creek, and Chico Creek discharges into the Arkansas River.
- 16) Description of all stream crossings located within the project area or statement that no streams cross the project



- 1. Currently, the proposed mining operation will not require a stream crossings for Stage One.
- 2. At some point, Stage V may need to cross the Big Squirrel Creek drainage. Where a stream crossing is required, we will submit the design to the DRMS for approval.
- 3. The proposed mineral extraction operations will occur on either side of Black Squirrel and Big Springs Creeks. Presently, the only stream crossing is Sanborn Road, an EPC County Road.

17) SWMP Map to include:

17a construction site boundaries

17b flow arrows to depict stormwater flow directions

17c all areas of disturbance

17d areas of cut and fill

17e areas used for storage of building materials, soils (stockpiles) or wastes

17f location of any dedicated asphalt / concrete batch plants

17 g location of all structural control measures

17h location of all non-structural control measures

17i springs, streams, wetlands and other surface water, including areas that require maintenance of pre-existing vegetation within 50 feet of a receiving water

- 1. The map found in the attached Stormwater Management Plan is an example of what will occur in the various Stages.
- 18) Description all structural control measures to be used. Modifications to EPC standard control measures must meet or exceed County-approved details
 - 1. Structural controls include riprap placed along the ephemeral drainages (Black Squirrel and Big Springs Creeks. There will also be riprap placed along the pit slope side of where the two creeks are adjacent to the various stages of mining.
 - 2. Other structural controls include isolation berms and ditches to direct storm water runoff around the affected areas.



- 3. We are required to construct safety berms along internal haul roads by the Mine Safety and Health Administration. These structures by their nature will redirect storm water runoff which will be internal to the mining operations.
- 4. The approved MLRB permit application includes the plans for the riprapped sections. The erosion control riprap feature was reviewed by the MLRD as part of the permit review process.
- 5. Following are the State approved plans.



BANK PROTECTION PLAN

This bank protection plan is presented to explain the bank armoring on both side of the Black Squirrel Creek and the tops of the excavated slope that run parallel to the channel. This armoring is being proposed to keep the Black Squirrel Creek within in the historic banks so the excavated area will not capture if a epic flood event were to occur after reclamation is complete. The minimum width of the top of the armored banks will be 150 feet.

We have followed the 2013 Urban Drainage and Flood Control District (UDFCD) Publication guideline document for planning and design of the armoring on the mining side bank and the bank armoring on the creek channel side. Ellicott Sand & Gravel LLC has no way or predict is or when a storm event could occur that would cause flooding outside the historic channel. The armor is intended to define the channel and protect the banks should a 100 year event occur after an area has been mined. All armoring done in or along the dry channel will be done outside the Ordinary Highwater Line (OHW) to avoid needing a U.S. Army Corps of Engineers permit. The existing OHW is shown on all map exhibits in the permit packet as an orange line. If this changes a mining advances around the permit area the armoring locations will change to meet the conditions at that time. The armoring will be covered with a 6 inch layer of growth medium and seeded with the approved seed mix

We have no information on the flow velocities or volume of flows for a 100 year event in this stretch of Black Squirrel Creek. Black Squirrel Creek is a true ephemeral drainage where the only water that travels down the drainage is during isolated storm events that create mini floods. In most cases the OHW is 10 feet or less across. The 100-year Floodplain information provided by El Paso County has been added to all of the Map Exhibits in the Reclamation Packet and is shown as a blue line.

There are general items that will be common to both armoring areas. In general, all armoring material will be recycled concrete fragments with surface rebar removed that meets the definition of Inert Materials, there will be no exposed rebar in the concrete and it will be sized 12 to 24 inches with a few larger pieces and fines mixed in to fill voids. The toe of the armoring will be a minimum of 3 feet below the existing creek channel thalweg as described below. ESG will keep enough material stored on the mine to complete armoring needed on an area as it is mined and ready for armoring. At a minimum, 850 cubic yards will be stockpiled on the mine for use in armoring. This is enough to armor a minimum of 500 feet of excavation bank. The stockpile of armoring material will be placed parallel to the water flow so it will not interfere with flows in the flood plain



Ellicott Sand & Gravel LLC Bank Armoring Plan

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(Revised Oct 31, 2019)

if flooding occurs and within the 150 foot setback so it is close to the area where it will be placed.

The attached Figure 1 shows the cross sections of the areas discussed below and details of the armoring to protect the banks along Black Squirrel Creek and Big Spring Creek. Map Exhibit F - Reclamation Plan Map has been revised to show the location of the areas to be armored in the mine.

Channel Bank Armoring.

Along the banks of Black Squirrel Creek and Big Springs Creek banks armoring will be placed wherever mining will take place within 400 feet of the bank. The armoring will be done as mining advances in each stage so that if mining ended along the channels before mining reached the 400 foot line no armoring would need to be done. As mining approaches the 400 foot limit the channel adjacent to mining area will be armored following the UDFCD Guidelines.

Bank armoring will be done, using the concrete recycle material described above. The armored face of the bank will extend to 5 feet below the thalweg of the dry channel to the top of the existing bank and will be a minimum of 2 feet thick. This will leave an armored face along the surface that is 29 feet wide. On average this will require 2.77 cu-yds per linear foot. The armoring will not take place in the OHW but rather along the historic bank of the creeks. The face of the armoring will be sloped 2.5h to 1v per the guidelines.

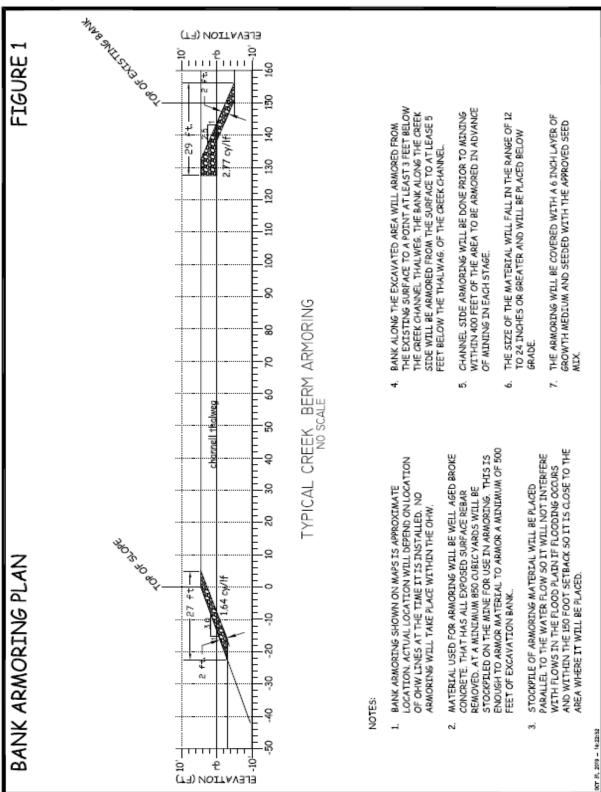
Excavation Bank Armoring.

On the inside of the mined area adjacent to the creek channels the armoring will be placed from the existing elevation so the toe of the armoring will be a minimum of 3 feet below the creek thalweg and will be 2 feet or more thick. This is approximately 1.64 cyd/lft along the excavation bank slopes. The armoring will cover the bank slopes from the original ground surface to a depth of 3 feet below the channel thalweg and parallel to the channel. Once sloping begins the armoring will be installed on 500 foot sections until completed. This will leave an armored face along the surface that is 27 feet wide.

Supplied supporting documents

Figure 1 - Bank Protection Plan cross section (Revised 10-30-19)





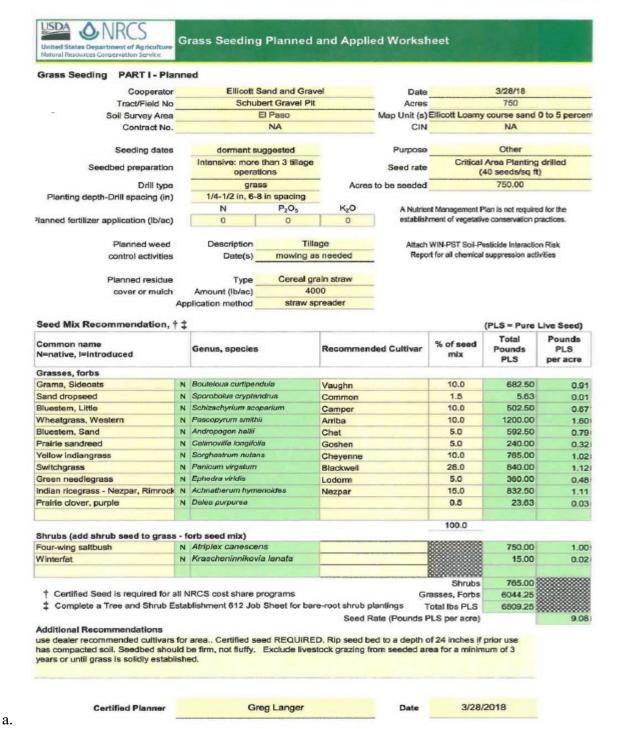


- 19) Description of all non-structural control measures to be used including seeding, mulching, protection of existing vegetation, site watering, sod placement, etc.
 - 1. None of the following are planned:
 - a. Protection of existing vegetations: -Those areas to be affected by mineral extraction activity will require topsoil or the upper most layer of soil be removed and stored for site reclamation
 - b. No irrigation is planned. The post mine land use will be dryland, rangeland, and wildlife habitat. The approved plant species for seeding will be plant species adapted to the anticipated climatic site condition.
 - c. No sod is planned since it requires supplemental irrigation.
 - 2. The site will be seeded to the approved seed mix and mulched, according to the approved reclamation plan.
 - 3. "As mining progresses the slopes along the working face of the mining area will be temporally graded 2:1 to stabilize them until it is time for resumption of mining or they are final graded for final reclamation. By creating the temporary slopes as mining progresses, we are reducing the amount of work necessary to reclaim the site if mining stopped prematurely. The exterior slope will be graded 3h to 1v, resoiled and seeded as soon as practical after they are mined." (Page 11, Exhibit E, original Mined Land Reclamation Board permit application.)

Provide a detail for mulching on GEC Plan.



CO-ECS-05 - 1





The site is currently pasture areas covered with grasses, forbs and weeds or has been used as irrigated sod grass fields or hay production. Which is basically a sandy sparsely covered grass and weedy drainage basin. There is little or no topsoil on the sod farm areas and very little on the sandy Black Squirrel Creek/ Big Spring Creek banks. The NRCS recommended using 2 tons per acre of wheat straw mulch and no fertilizer so no supplemental additive will be used. Planting as explained, will take place in the first year after the seed bed is ready. Under normal conditions this gives 3 plus years after planting to establish vegetation on the revegetated area that is capable of matching surrounding areas as a stage is reclaimed. In some cast all but the final 20 acres in a stage will have been seed many years before mining ended in that stage. During this time remedial seeding and weed control will be done to improve the chances of successful and all livestock will be kept off of the seeded areas until it has been successfully revegetated.

(From: Adequacy Response 01, Page 5, Correspondence from Environment, Inc., Sept 9, 2019, to Mr. Tim Cazier, Division of Reclamation, Mining and Safety.)

- 20) Technical drawing details for all control measure installation and maintenance, custom or other jurisdiction's details used must meet or exceed EPC standards
 - 1. Please see the above Figure 1, Bank Armoring Plan.
- 21) Procedure describing how the SWMP is to be revised
 - 1. Please see Section 9, Corrective Action Documentation, Corrective Action Example Tracking Form.
- 22) Description of Final Stabilization and Long-term Stormwater Quality (describe nonstructural and structural measures to control SW pollutants after construction operations have been completed, including detention, water quality control measures etc.)
 - 1. Final Stabilization will be according to the approved Mined Land Reclamation Board permit application which includes the approved method of material extraction and final site reclamation.
 - a. Most of the site will drain to a mine pit at the completion of the project. The reclaimed mine pits are structural measures that will protect surface water quality.
 - 2. Once the operator is released from reclamation liability, the care and maintenance of the site reverts to the landowner.



County criteria does not contradict the State's criteria for natural vegetation. And County criteria also does not require irrigation, soil amendments, or fertilizer. But the site does have to be finally stabilized to 70% of pre-disturbance plant density. You could argue that that is only required for areas outside of the mine pit because there is no risk of offsite discharge of sediment within that area if it remains unvegetated. So maybe make that distinction here.

- 23) Specification that final vegetative cover density is to be 70% of pre-disturbed levels
 - 1. The County standard, we believe, is not appropriate in this instance. The site is an irrigated sod farm and grazing land. The post mining land use will be rangeland/wildlife habitat.
 - 2. According to the implementing regulations for the Mined Land Reclamation Act, "In those areas where revegetation is part of the Reclamation Plan, land shall be revegetated in such a way to establish a diverse, effective, and long-lasting vegetative cover that is capable of self-regeneration without continued dependence on irrigation, soil amendments, or fertilizer, and is at least in extent of cover to the <u>natural</u> (emphasis added) vegetation of the surrounding area."
 - 3. We believe the State standard has precedence over the County standard. It is a superior standard to what the County standard requires for the following reasons:
 - a. The existing site's cover is degraded, and
 - b. The site will not be irrigated or otherwise be treated once the approved reclamation plant species become established.
 - c. Plant cover, "...is at least in extent of cover to the <u>natural</u> (emphasis added) vegetation of the surrounding area."
 - d. Is to, "...establish a diverse, effective, and long-lasting vegetative cover that is capable of self-regeneration without continued dependence on irrigation, soil amendments, or fertilizer..."
- 24) Outline of permit holder inspection procedures to install, maintain, and effectively operate control measures to manage erosion and sediment
 - 1. Please see Section 8 Monitoring Procedures and Documentation of the attached Stormwater Management Plan.
 - 2. This Section includes an example of a Visual Monitoring Form.
- 25) Record keeping procedures identified to include signature on inspection logs and location of SWMP records on-site



- 1. Please see Section 8 referenced above.
- 2. It includes a provision for the inspector's signature.
- 3. The Stormwater Management Plan for the Schubert Ranch Sand Resource will be maintained at the Scale House, the only on-site structure.
- 26) If this project relies on control measures owned or operated by another entity, a documented agreement must be included in the SWMP that identifies location, installation and design specifications, and maintenance requirements and responsibility of this control measures(s)
 - 1. This project does not rely on control measures owned or operated by another entity during its period of permitted operation.

PLEASE NOTE: all items above must be addressed. If not applicable, explain why, simply identifying "not applicable" will not satisfy CDPHE requirement of explanation.

2. ADDITIONAL REPORTS/PERMITS/DOCUMENTS

- a Grading and Erosion Control Plan (signed)
 - 1. The Mined Land Reclamation Division, by issuance of the Permit Document, approved the proposed grading and erosion control plan, Permit attached as Attachment II.
- b Erosion and Stormwater Quality Control Permit (ESQCP) (signed):
 - 1. Please see Attachment III.



Attachment I

Stormwater Management Plan

STORMWATER

MANAGEMENT PLAN

for

SCHUBERT RANCH SAND RESOURCE

COG-502203

Prepared by: ELLICOTT SAND & GRAVEL LLC 235 South Franceville Coal Mine Road. Colorado Springs CO 80929 (602) 558-0846

November 2021



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SECTION 1:

SWMP ADMINISTRATOR



SECTION 1: SWMP ADMINISTRATION

Team Member/Title/Phone No.	Responsibilities		
Name: Perry Hastings	- assisted in filling out the plan		
Title: Manager	 advice Land Management of changes facility inspections 		
Phone No.: 602-558-0846			
BY: Jeny Beati	(D)		
Name: Perry Hastings	Review and certify plan, inspections,		
Title: Manager	and annual reports		
Phone No.: 602-558-0846			
Name: Perry Hastings	- complete plan and maps		
Title: Manager	 update plans as informed of changes summarize inspections and submit, 		
Phone No.: 602-558-0846	annual reports to CDH		



SECTION 2:
FACILITY DESCRIPTION



SECTION 2: FACILITY DESCRIPTION

The activities checked below are activities that are presently performed on-site or are expected to be present in the future.

STRIPPING

The overburden is removed and the material is either sold, hauled away or stockpiled. Stockpiles may be in the form of berms along mine perimeter or placed in the bottom of the mine for use when reclamation begins.

STOCKPILING

Topsoil

Stockpiles will be placed along the excavated area in the form of earthen berms. These will be within the disturbed area of the mine.

Backfill Material:

Inert fill with be imported for use as bank armoring. It is classified as inert material consisting of large pieces of well aged tear out concrete.

PROCESSING

The sand mined from this area will be processed by screening and washing. It will be stockpiled on the mine floor for later sales.

RECLAMATION

Reclamation is an ongoing activity throughout the life of the mine once enough are has been opened to facilitate sloping and resoiling. It takes place in a contemporaneous fashion as is practicable. Reclamation involves proper sloping, seeding, erosion control and protection from off-site impacts.

Reclamation is covered under Rule 6 of MLRB regulations and by an approved MLRB Permit (M-2018-063).



SECTION 3: FACILITY MAP

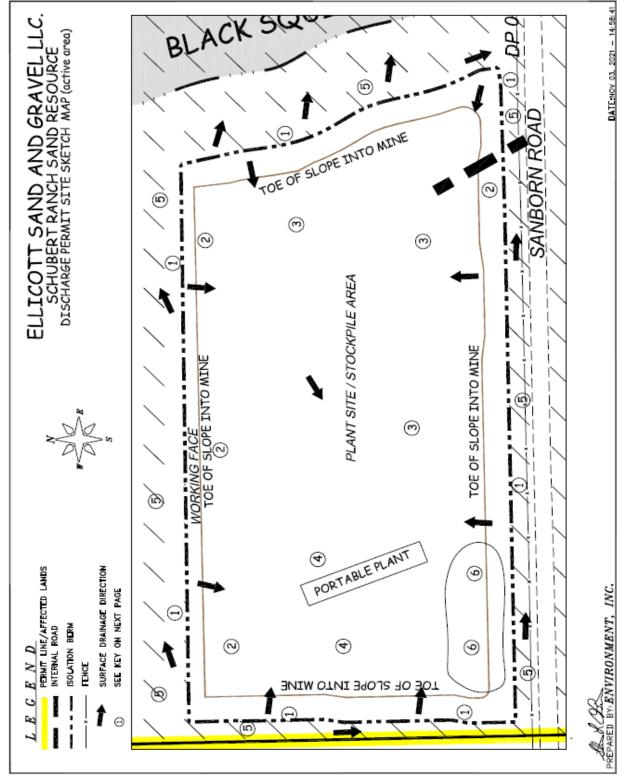


SECTION 3: SITE MAP

The following numbers are used as a key for the map on the next page. This map show how we believe the area will look after the first year. It will be updated as needed yearly.

1 = Perimeter Control	2 = Excavated or Graded Areas
3 = Material storage	4 = Plant Site Area
5 = Undisturbed	6 = Topsoil Stockpile Area
7 = Revegetated Areas	8 = Bank Armoring
9 = Other	







SECTION 4:

FACILITY INVENTORY AND ASSESS-MENT OF POLLUTANT SOURCES

Also includes:

ACTIVITIES AND EQUIPMENT, MATERIALS INVENTORY AND RISK IDENTIFICATION AND ASSESSMENT



SECTION 4: DESCRIPTION OF POTENTIAL POLLUTANT SOURCES, MATERIALS INVENTORY, AND RISK IDENTIFICATION AND ASSESSMENT,

RISK IDENTIFICATION AND ASSESSMENT

Because of the nature of the activities within our industry, the potential for contributing pollutants is minimal.

Sources contributing pollutants to storm water discharges were covered in detail in:

Materials, methods, and management practices, Section 4 - Table A.

History of significant spills and leaks, Section 4 - Table B.

KEY FOR SECTION 3 - TABLE A

Significant materials that have been treated, stored, or disposed of in a manner to allow exposure to storm water:

A = Significant material located on site

Methods of on-site storage or disposal:

B = Stockpiling

C = Enclosed containers

D = Containment areas

E = Treatment plants

F = Other methods (fill in on chart)

Material management practices employed to minimize contact of the materials with storm water runoff:

G = Enclosed areas

H = Stored on impervious surfaces

I = Graded excavations

J = Stock pile revegetation

K = Detention/Retention Area

L = Berms

M = Other practices (fill in on chart)

(Extra blanks are provided for additional significant materials not included on Table 3A)



SECTION 4 - TABLE A: SIGNIFICANT MATERIALS, STORAGE METHODS & MANAGEMENT PRACTICES

DESCRIPTION OF SIGNIFICANT MATERIAL	ON- SITE			STO	ORAG	GE METHODS			MA	ANAG	ЕМЕ	NT P	RACTICES
	Α	В	С	D	Е	F	G	Н	- 1	J	K	L	М
Topsoil stock piles	Х	Х							Х	X		х	
Gravel & sand piles	X	Х							Х			X	stored in excavated area below grade

DESCRIBE MATERIAL LOADING AND ACCESS AREA

Loading are is in and around the plant site that is located below grade in the bottom of the mine. The floor will be a sand or gravel base an

to allow any stormwater to soak into the ground. No stormwater can leave this area. The access road will be domed and ditches will be

install on side to direct runoff back into the the mine area or will be retained on site inthe ditches until it can soak into the ground.



SECTION 4 - TABLE B: LIST SIGNIFICANT SPILLS & LEAKS OF TOXIC OR HAZARDOUS SUBSTANCES

Date	Spill or Leak
	None reported

Additional sheets may be attached if needed

SECTION 4 - TABLE C: STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITIES

X	Industrial Activity	Direction of Flow	Potential Pollutants Present
X	Topsoil stockpiling	To interior of excavated area	total suspended solids
Х	Sand and gravel piles	n	total suspended solids
	Other (list below)		



SECTION 4 - TABLE D

SUMMARIZE ANY <u>EXISTING</u> DISCHARGE SAMPLING DATA DESCRIBING POLLUTANTS IN STORM WATER DISCHARGES

None collected to date	

SECTION 4 - TABLE E

DESCRIBE EACH PROPOSED SAMPLING POINT, SHOULD MONITORING BE REQUIRED

Sampling point	Description of Location
001	Out side the disturbed area at the low point in the mining stage
	in SE corner near Black Squirrel Creek.



SECTION 5:

CONTROL MEASURES / BEST MANAGEMENT PRACTICES



SECTION 5: CONTROL MEASURES / BEST MANAGEMENT PRACTICES

The following practices are representative of measures employed within the Sand & Gravel Industry for limiting pollution associated with runoff. The specific practices listed below should not be construed as practices that are mandatory or that there is any need on the part of an operator to justify non-use of a particular practice. Obviously, the intent of BMP's is to effect a measure of control over the water quality of stormwater discharges. The practices selected by an operator to achieve this end may evolve with time.

PRACTICE EMPLOYED	AREA WHERE PRACTICE IS EMPLOYED	DATE OF IMPLEMENTATION
VEGETATION MANAGEMENT:		
Buffer Strips	Around perimeter and on undisturbed areas	at mine startup
Temporary Seeding	Topsoil stockpiles	as needed
Revegetate as Practicable	graded and resoiled areas	as needed
Other:		
WATER MANAGEMENT: (INTERI	M MEASURES)	
Isolation Berms	around active mining areas	at mine startup
Isolation ditches	around active mining areas	at mine startup
detention ponds	central part of mining area on floor.	at mine startup
Other:		
WATER MANAGEMENT (PERMA	NENT STRUCTURAL CONTROLS):	<u> </u>
Site Grading	Entire site	at mine startup
Upstream Flow Diversion		
Channel Improvements		
Overland Flow Routing		
On site Flow Diversion		
Flow Storage/Detention		
Berming	Along active mining area and outer edges of permit area.	at mine startup
Earth Dike		
Check Dams		
Pipe Slope Drain		
Sediment Trap Area		
Flow Attenuation Area		
Infiltration Area	Mine floor	at mine startup
Water Bars		
Other (Describe)	Roadside ditches	at mine startup



SECTION 6:

ADDITIONAL CONTROL MEASURES

Also includes:

GOOD HOUSEKEEPING, PREVENTATIVE MAINTE-NANCE, SPILL PREVENTION & RESPONSE, EM-PLOYEE TRAINING, AND TESTING FOR NON-STORM WATER DISCHARGES, CONTROL OF NON-STORM WATER DISCHARGES



SECTION 6: ADDITIONAL CONTROL MEASURES

6a GOOD HOUSEKEEPING

Good housekeeping measures are an integral part of the materials management practices detailed in Section 4 and Section 5 of this document.

6b PREVENTATIVE MAINTENANCE

DESCRIPTION	INSPECTION FREQ.	CLEANING FREQ.
Reclaimed areas	Quarterly	as needed
Stormwater Catch Basins	monthly	as needed
Roadways & Loading Areas	monthly	as needed
Containment Devices (berms, ditches, etc.)	quarterly	as needed
Perimeter Erosion	monthly	as needed
Other		

^{*} Schedules above are operative during active months only.



6c SPILL PREVENTION, CONTROL AND COUNTERMEASURE

A SPILL PREVENTION A CONTROL AND COUNTERMEASURES PLAN IS NOT NEEDED FOR THIS FACILITY. NO HAZARDOUS MATERIALS SUCH AS MOTOR FUELS, OILS OR ANTI-FREEZE WILL BE STORED AT THE SITE.

6d: EMPLOYEE TRAINING

Training which explores the goals and basic components of the SWMP will be conducted for upper level management (superintendents and foremen) on an annual basis. Such training will include:

Spill Prevention Spill Response Good Housekeeping Techniques Materials Management Sediment & Erosion Prevention

While operations are conducted on site it will be the responsibility of the superintendent or foreman in charge to train appropriate on-site personnel so that the goals of the SWMP are achieved. Yearly training will be done during the annual miner refresher training.



STORM WATER PERMITS SWMP Training Program

Outline:

- I. Introduction to NPDES Storm Water Permits
 - A. Background information
 - B. Status of the permit
- II. Pertinent components of the permit
 - A. SWMP
 - 1. Spill response and clean-up procedures

 - Good housekeeping procedures
 Best Management Practices
 What they are and where they apply
 - b) Implementation
 - c) Maintenance
 - 4. Inspections
 - B. Monitoring and sampling (not required)
- III. Reporting and Record keeping
- IV. Enforcement

ELLICOTT SAND AND GRAVEL LLC.	SCHUBE	RT RANCH SAND RESOURCE
Employee	Title	Location



6e: TESTING FOR NON-STORM WATER DISCHARGES, CONTROL OF NON-STORM WATER DISCHARGES

SECTION 6 - FORM A DETAIL OF NON-STORM WATER DISCHARGE NOTE: DISCHARGE MEANS WATER THAT RUNS OFF THE PROPERTY UNPERMITTED NO PERMITTED CONTROL TYPES OF DISCHARGE DISCHARGE MEASURES Process Water Discharges: Topsoil stockpiles Х directed to excavated area Gravel & sand storage directed to Х excavated area Dust Control (Roads) Х Ditches directed back into mined area Other OTHER INDUSTRIAL PROCESS DISCHARGE Describe Source(s): SANITARY WASTE DISCHARGE: NONE Exempt Discharges: IDENTIFIED ON SITE COMMENTS Imigation Return Flows Other Agricultural Discharges Fire Fighting Discharges Foundation Draining (SUMP) Other_ ADDITIONAL COMMENTS: __



SECTION 6 - FORM B STORM WATER QUALITY CONTROL TESTING FOR UNPERMITTED NON-STORM WATER DISCHARGES (DO NOT INCLUDE EXEMPT DISCHARGES)

Testing does not refer to water quality sampling and analysis. Testing is the visual observation of non-storm water discharges. The intent of this portion of the SWMP is to detail any discharge sources which might contaminate your storm water discharges. Detail the observation for the presence of unpermitted storm water discharges. Prepare this page for each unpermitted discharge source.

I	Date of testing:
-	
Ι	Describe method of testing:
	Description of non-permitted discharge and source of water (i.e well water for dust control):
-	On-site drainage points observed during the test:
I	Detail any pollution control measures for this source:
t d be	When your facility does not have access to an outfall, i.e manhole or other of access, to the conveyance which receives the unpermitted discharge, you may able to preform the testing or observation required. If this is the case, n why it is not feasible for you to provide the above information:
-	
-	

THIS FORM SHOULD BE FILLED OUT FOR ANY NEW DISCHARGES OBSERVED



SECTION 7: COMPREHENSIVE INSPECTION



PRACTICE EMPLOYED AREA WHERE PRACTICE IS EMPLOYED DATE OF IMPLEMENTATION					
Vegetation Management:					
Buffer Strips	Around mine perimeter and along Black Squirrel drainage	at mine startup			
Temporary Seeding	Topsoil piles	as needed			
Constructed Wetlands					
Revegetate as Practicable	Where resoiling is complete	as needed			
Other (Describe)					
Water Management: (Interim Me	asures)				
Straw Bales					
Silt Fences					
Detention Ponds	on mine floor	at mine startup			
Rip Rapping					
Other (Describe)					
Water Management (Permanent S	tructural Controls):				
Site Grading	On disturbed areas	at mine startup			
Upstream Flow Diversion	around property lines	at mine startup			
Channel Improvements					
Overland Flow Routing					
On site Flow Diversion	around active disturbed areas	at mine startup			
Flow Storage/Detention					
Berming	along outer edges of active mining area	at mine startup			
Earth Dike					
Check Dams					
Pipe Slope Drain					
Sediment Trap Area					
Flow Attenuation Area					
Infiltration Area	Mine floor	at mine startup			
Water Bars					
Other (Describe)					



SWMP COMPREHENSIVE FACILITY INSPECTION REPORT

OWNER: Ellicott Sand & Gravel LLC FACILITY: Schubert Ranch Sand Resource PERMIT NUMBER: COG 502203 PERMIT CONTACT: Perry Hastings Inspector: _____ Signature: ____ Date of Inspection: Type of Inspection: Normal Incidental event (Circle one) Weather:___ NOTES: DEFICIENCIES: ACTION TAKEN TO CORRECT: Table A AREA INSPECTED & PROCEDURES TO BRING POTENTIAL POLLUT-PREVENTION CONTROL INSPECTED ACCEPTABLE INTO COMPLIANCE ANTS MEASURES YES YES NO NO Berm around site Detention areas isolation ditches Roads Topsoil Piles Sand and Gravel Piles General area Other (list below)



SECTION 8:

MONITORING PROCEDURES AND DOCUMENTATION



STORMWATER MONITORING

PERMIT NUMBER	RESULTS	INTERPRETATIONS



Visual Monitoring Example Tracking Form

ELLICOTT SAND AND GRAVEL, LLC Schubert Ranch Gravel Resource

Visual Monitoring (One Sample per Form)					
Ye	ar:	Quarter	(circle one): 1 2 3 4	Date:	
	-		ach quarter for the entire permit term. The		
		utfall (or a s	ubstantially identical outfall) and conduct a	visual assessment of each	
	guired Documentation:				
	quired becameritation.	Print			
	rsonnel collecting the	_			
	nple and performing vi- al assessment:	Title:			
Suc	at assessment;				
		Provide			
_	1.1. 0	Signatu	e:		
	mple location:				
	Sample collection date and time:				
Visual assessment date and time:					
	ture of the discharge (i.e.,	runoff			
	snowmelt): sults of observations of the	s storm-			
	water discharge:				
	bable sources of any obse	rved			
	stormwater contamination:				
	If applicable, why it was not possible				
to take samples within the first 30					
minutes:					
The visual assessment must be made of a sample in a clean, clear glass, or plastic container, and examined in a well-lit					
area. The permittee must visually inspect the sample for the presence of the following water quality characteristics, and document the visual assessment results:					
*	Color	ient results.			
*	Odor				
÷	Clarity				
÷	Floating Solids				
÷	Settled Solids				
÷	Suspended Solids				
*	Foam				
*	OIL SHEEN				
*	Other obvious indica-				
	tors of stormwater				
	pollution				
Re	quired Documentation Re	garding Co	rrective Action:		

If the visual monitoring indicates the control measures are inadequate or are not being properly operated and maintained, the permittee must conduct corrective actions.

****Use the Corrective Action Summary Sheet to provide a summary and schedule of implementation of any corrective action(s) that has or will be taken based on this visual monitoring.



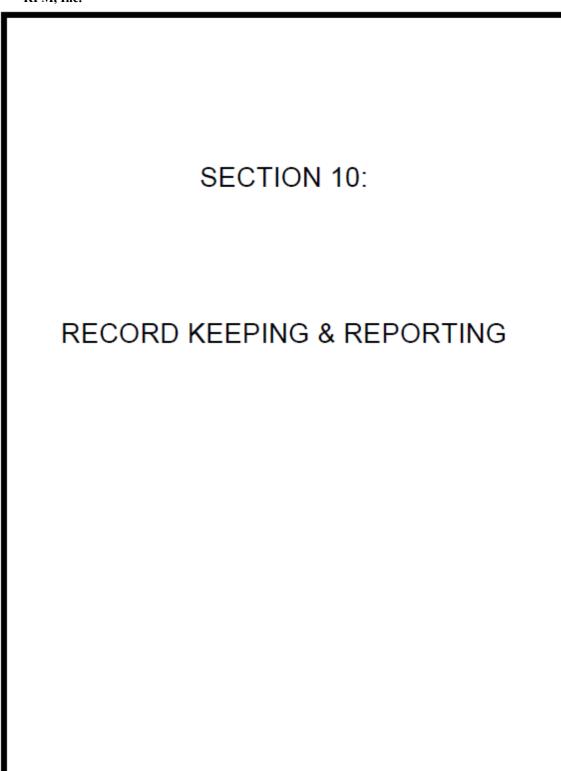
SECTION 9: **CORRECTIVE ACTION DOCUMENTATION**



Corrective Action Example Tracking Form

Corrective Action Example Tracking Form										
Note: Modification of any control measure as part of the corrective action required by Parts I.K.1 and I.K.2 of the permit must be performed consistent with Part I.C										
(Control Measures) of the permit.										
Provide the	Required 5-day documentation									
Permit Ref-										
erence:	Date the	Description	The condition triggering	Summary of correc-	Are SWMP mod-	Date cor-	Date cor-			
(Example:	problem	of the prob-	the need for corrective	tive action taken or to	ifications are	rective	rective ac-			
I.K.1.a)	was identi-	lem identi-	action review (i.e., How	be taken (or, for	required as a	action ini-	tion com-			
	fied	fied (i.e.,	was this discovered? Ex-	"triggering events"	result of this	tiated	pleted or			
		What's	ample, through visual	where the permittee determines that cor-	discovery or		expected to			
		wrong?)	inspection, Benchmark sampling)	rective action is not	corrective ac- tion? (Yes/No)		be com- pleted			
			Sampung)	necessary, the basis	tion: (res/No)		pieted			
				for this determina-						
				tion)						







Record Keeping:

The sand and gravel mining and processing permit (Part I.N.3 [Page 41] of the permit) requires you to keep records of any activities at your site related to your compliance with the permit. As you conduct inspections, monitoring, corrective actions, and other permit implementation activities, you will generate additional records, such as inspection reports and monitoring reports. These additional documents must be kept on-site with your SWMP. Ensure these records are accessible, complete, and up-to-date.



INCIDENT REPORT

OWNER: Ellicott Sand & Gravel LLC FACILITY: Schubert Ranch Gravel Resource PERMIT NUMBER: COG- 502203 PERMIT CONTACT: Perry Hastings (602) 558-0846 Inspector: _____ Signature: _____ DATE OF INCIDENT: DETAIL ANY SIGNIFICANT SPILL OR OTHER REPORTABLE DISCHARGE: DETAIL QUALITY & QUANTITY OF STORMWATER WHICH CAME INTO CONTACT WITH POLLUTANT FROM SPILL: DETAIL CORRECTIVE ACTIONS TAKEN:



SWMP PROPOSED CHANGES

OWNER: Ellicott Sand & Gravel LLC						
FACILITY: Schubert Ranch Gravel Resource						
PERMIT NUMBER: COG-502203						
PERMIT CONTACT: Perry Hastings (602) 558-0846						
DATE						
PROPOSED CHANGES						



SECTION 11: ANNUAL REPORT





Dedicated to protecting and improving the health and environment of the people of Colorado

COG500000 Annual Report Form Sand and Gravel Mining and Processing Applicable to Stormwater-only discharges

FOR INTERNAL USE ONLY			
Reviewer:			
Further Review:	Yes	No	

Applicable to Storill Mater only discharges								_
Part A: Permit Identification	Part B: Repo	rting Per	iod Ja	n 1 throu	gh Dec 3	1		
General Permit Number: COG500000	(Check one. Re	port due l	y Febr	uary 28 of	the follow	ing year.	.)	
Facility Certification Number COG50 2203	2021	2022	!	2023		2024		
Part C: Permittee Information					•			
Organization:						_		
Mailing Address:								
						_		
City: State:		Z	ip:			_		
Part D: Facility Information								
Facility Name:								
,						-		
Facility Address: —						-		
						_		
City:						_		
Facility Contact Name:						_		
Title:						_		
Telephone No:						_		
Email Address:						_		
Part E: Permittee-conducted Inspections								
Check the box for which inspection frequency applie	es to the permit	ted facili	tv. Par	t I.J.:				
Active Site - 4 inspections annually Inactive Site w/ No			-	w/ Exposure	e - 6		\neg	
(Quarterly) inspections annual	y (Spring/Fall)	insp	ections a	nnually (Eve	ry 2 months)	1		
Provide the date(s) the inspections were conducted,	as required by	Part I.J o	f the p	ermit:			_	
								٦
			+-					\forall
If an inspection(s) was not conducted in accordance with	the required fre	quency, at	tach ar	n explanati	ion of why	/ .		┙

4300 Cherry Creek Drive S., Denver, CO 80246-1530 P 303-692-2000 www.colorado.gov/cdphe





Part F: Required Monitoring (Indicate if the following monitoring permitted facility. Refer to the facility's permit certification for required monitoring.)	YES	NO				
Visual Monitoring (Part I.I.1) (If any of the characteristics in Part I.I.1.b are observed, attach a summary)						
- Benchmark Monitoring (Part I.I.2)						
- Water Quality Standards Monitoring (Part I.I.3)						
- Additional Monitoring Required by Division (Part I.I.4)						
Part G: Corrective Actions (Indicate whether any of the followin occurred at the permitted facility.)	g conditions	YES	NO			
 An unauthorized release or discharge observed (e.g., spill, leanon-stormwater not authorized under COG500000 or another 						
 Facility control measures are not stringent enough for the disc applicable water quality standards; 	charge to meet					
 Modifications to the facility control measures are necessary to based effluent limits in this permit; 	meet the practice-					
 The permittee finds in a facility inspection, that facility control measures are not properly selected, designed, installed, operated or maintained. 						
 Construction or a change in design, operation, or maintenance at the facility significantly changes the nature of pollutants discharged in stormwater from the facility, or significantly increases the quantity of pollutants discharged; 						
 The average of quarterly sampling results as described in Part I.I.2.e of this permit exceeds an applicable benchmark. 						
If the answer to any of the above is "YES," provide a description of the conditions that met the criterion/criteria and describe the corrective action(s) taken (attach additional pages as needed):						
Part H: Required Certification Signature [Reg 61.4(1)(h)] "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." Name:						
Name:						
Signature:						

TEMPORARY COVID19 SUBMISSION, digitally signed documents may be emailed to: cdphe.wqrecordscenter@state.co.us

11/2021



APPENDIX

FACILITY FORMS INSTRUCTIONS FOR USE



SECTION 5: BEST MANAGEMENT PRACTICES

DIRECTIONS FOR PREPARING SECTION 5:

GENERAL PERMIT REQUIREMENTS

- 4f. <u>Best Management Practices</u>. The plan shall contain a narrative description of the appropriate stormwater management practices for the permittee's facility. Based on an assessment of the potential of various sources at the plant to contribute pollutants to stormwater discharges associated with industrial activity, the plan shall provide estimated dates of compliance for when the measures determined to be reasonable and appropriate shall be implemented and maintained. Any existing controls should also be discussed. The description of the BMPs shall include:
 - Stormwater diversion: Describe how and where stormwater will be diverted away from industrial areas to prevent stormwater contamination.
 - Materials handling and spill prevention: Where materials can impact stormwater runoff, existing practices that reduce the potential for contamination shall be described. For example, materials should be stored and handled in covered areas to prevent contact with stormwater, and chemicals should be stored within berms or secondary containment devices to prevent leaks and spills from entering stormwater runoff.
 - Sediment and erosion prevention: The plan shall identify areas which, due to topography, activities, or other factors, have a high potential for significant soil erosion, and identify measures taken to limit erosion.
 - Other pollution prevention measures: The plan shall identify any other structural and non-structural measures for stormwater quality control on site.
- Copy the following form and fill in the information appropriate for your site. Insert the completed form in Section 9 of your Storm Water Management Plan.



DIRECTIONS FOR PREPARING SECTION 5 (continued):

In this portion of the SWMP you will detail practices that you utilize on site to effect drainage and water quality control. It is important that you only list those practices which you are actually going to implement and maintain. Items denoted in this section of the SWMP will be utilized for enforcement by the Water Quality Control Division. For instance, if you say that you will utilize straw bales in a particular area you may be cited for a violation of the SWMP if you neglect to implement that portion of your plan. Also if at some later date you decide to utilize a silt fence instead of straw bales be sure to make a notation of this change on the forms provided in Section 9

In filling out the forms in Section 9 you will need to denote where you are employing a particular practice on site. Perhaps the simplest method to do this is to label areas on your site map which correspond with your management practices. For instance: You have a 100' undisturbed strip between the River and your operation. You might label this area on your site map as "A". Then in Section 9 of the SWMP you will place an "A" in the column labeled "Area where practice is employed" associated with BUFFER STRIPS. If you utilize this method you should make a notation somewhere on the Section 9 Forms that your site map provides the key to your reference codes.

Another way of approaching this Section of the SWMP is to provide a written key. An example of such a key that you might want to modify for your own purposes is as follows:

AREAS TARGETED FOR CONTROL

1 = Perimeter Control 2 = Excavated or Graded Areas 3 = Crushing Area 4 = Aggregate Washing Area 5 = Asphalt Production Area 6 = Concrete Production Area 7 = Asphalt Storage Area 8 = Concrete Storage Area 9 = Product Loadout Area 10 = Topsoil Stockpile Area 11 = Overburden Stockpile Area 12 = Aggregate Stockpile Area 13 = Petroleum Product Storage 14 = Lime Storage Area 16 = Concrete Additive Storage 15 = Asphalt Additive Storage 17 = Equipment Maintenance Area 18 = Equipment Wash-out Area 20 = Other 19 = Parking Areas

If you choose to utilize this key approach, you can simply fill in the appropriate number in the column labeled "Area where practice is employed" for those practices which are implemented. For instance if you utilize a silt fence to effect perimeter control you would place a "1" in the column labels "area where practice is employed" corresponding to SILT FENCES. (Recommendation: If you choose to utilize this key approach, we suggest that you list only those critical areas that occur on your site. For instance: If you do not produce asphalt, do not include items such as 5, 7, & 15 on your list.:)

(Note: Be aware that only the most common practices are listed on the forms provided in Section 9. There will be other practical and effective techniques not listed on the forms provided. When utilizing a technique not listed simply use the extra space provided on the forms to detail your own innovative control techniques.)



SECTION 5: BEST MANAGEMENT PRACTICES

The following practices are representative of measures employed within the Sand & Gravel Industry for limiting pollution associated with runoff. The specific practices listed below should not be construed as practices that are mandatory or that there is any need on the part of an operator to justify non-use of a particular practice. Obviously, the intent of BMP's is to effect a measure of control over the water quality of stormwater discharges. The practices selected by an operator to achieve this end may evolve with time.



SECTION 6d: EMPLOYEE TRAINING

GENERAL PERMIT REQUIREMENTS

4g. <u>Employee Training</u>: Employee training programs shall inform personnel at all levels of responsibility of the components and goals of the SWMP. Training should address topics such as spill response, good housekeeping and material management practices. The SWMP shall identify periodic dates for such training. Contractor or temporary personnel shall be informed of plant operation and design features in

Prepare a statement which details your employee training for purposes of implementing your Storm water Management Plan. Insert your statement in Section 10 of your Storm Water Management Plan.

A sample statement is included on the following page.

SECTION 6d: EMPLOYEE TRAINING

Training which explores the goals and basic components of the SWMP will be conducted for upper level management (superintendents and foremen) on an annual basis. Such training will include:

Spill Prevention
Spill Response
Good Housekeeping Techniques
Materials Management
Sediment & Erosion Prevention

While operations are conducted on site it will be the responsibility of the superintendent or foreman in charge to train appropriate on-site personnel so that the goals of the SWMP are achieved.



SECTION 6e: TESTING & CONTROL FOR NON-STORMWATER DISCHARGES

GENERAL PERMIT REQUIREMENTS

- 4h. <u>Testing for Non-Stormwater Discharges.</u> The Stormwater Quality Control section of the SWMP shall include a certification that the discharges have been tested or evaluated for the presence of non-stormwater discharges. The certification shall include a description of the results of any test for the presence of non-stormwater discharges, the method used, the date of any testing, and the on-site drainage points that were directly observed during the test.
- Allowable Non-Stormwater Discharges. Except for flows from fire fighting activities, sources of non-stormwater listed in Part I.C.5.b of this permit [COR - 010000, Page 10] that are combined with stormwater discharges associated with industrial activity must be identified in the plan. The plan shall identify and ensure the implementation of appropriate pollution prevention measures for the non-stormwater component(s) of the discharge.

DIRECTIONS FOR PREPARING SECTION 6e:

 Copy the following forms and fill in the information appropriate for your site. Insert the completed forms in Section 6 of your Storm Water Management Plan.

This portion of the SWMP is designed to give information about all discharges associated with your site. The purpose of these forms is to help you determine the non-storm water discharges associated with your operation. We have attempted to note the most common types associated with the permits noted in the introduction. Some of these may not apply, and your particular facility may have discharges in addition to the ones we have noted. Please use due diligence when preparing this form so as to note any other possible discharges from your facility.

The first part of Section 11 - Form A lists various typical process water discharges associated with sand and gravel operations, processing sites and mobile plants. On this form you will indicate the discharges that are present or may be present in the future at your site. If you have a permit covering process water discharges indicate that these discharges are PERMITTED by checking the relevant box on the form. If an activity (or discharge associated with the activity) does not take place on the site and you expect that it will not take place in the future you will check the appropriate NO DISCHARGE box. (Example: You operate a dry mining site. You do not anticipate intercepting ground water at any time during the life of the mine. You will place an "X" in the NO DISCHARGE column next to GRAVEL PIT DEWATERING.)



DIRECTIONS FOR PREPARING SECTION 6 (continued):

The second part of Form A addresses "other industrial process discharges". Detail any other industrial discharges (which is not listed in the process water discharges section) which enters your site and may co-mingle (mix) with your stormwater or process water discharges. An example of this would be an upgradient property which has an industrial discharge that enters your property and may mix with your discharges.

In the third part of Form A you will list information about any sanitary waste discharges that are generated by your activities on the site.

The final portion of Form A requires information about exempt discharges (discharges that do not require permitting). If any of the activities listed in this section take place on the site mark and "X" in the appropriate box and make any comments that may apply. If these types of discharges are not present on the site place "NA" (not applicable) in the appropriate box. If there are discharges associated with your site that are not listed use the OTHER box to detail your unique situation. If more room is needed additional information can be added to separate sheets and attached to this form.

When filling out Section 6 - Form A use past observations to document historic discharges.

NOTE:

A "discharge" is any water which enters "water of the state". A "discharge" is not restricted to water which leaves your property and enters other water. Be aware that the term "waters of the state" includes almost all water ways including irrigation ditches, dry gullies, borrow ditches, most woodlands, ponds, streams and rivers. Relevant exceptions to "waters of the state" are woodlands which are specifically designed for storm water management and control, wastewater treatment facilities, settling ponds and water which is withdrawn for beneficial use (specifically in exercising water right). So be aware you may be discharging to "waters of the state" even if your discharge never leaves your property.



SECTION 7: COMPREHENSIVE INSPECTION DIRECTIONS FOR PREPARING SECTION 7:

Most facilities are required to conduct a comprehensive inspection at least twice per year. It is recommended that you conduct your initial inspection when you are preparing your SWMP. Fill out the forms contained in this section to document your inspections and file them with your internal records. The comprehensive inspections will become the basis for the information submitted with your annual report. Additionally, your records of your inspections will need to be produced upon demand by the Colorado Department of Health, Water Quality Control Division.

GENERAL PERMIT REQUIREMENTS: SAND & GRAVEL PERMIT

- Facility Inspection. Qualified personnel identified by the operator shall make a
 comprehensive inspection of their stormwater management system, at least twice per
 year (in the spring and fall), except as provided n paragraphs d and e, below. These
 comprehensive inspections must be documented and summarized in the annual
 report.
 - a. Material handling areas, disturbed areas, areas used for material storage that are exposed to precipitation, and other potential sources of pollution identified in the SWMP in accordance with Part I.C.2 of this permit shall be inspected for evidence of, or the potential for, pollutants entering the drainage system. Structural stormwater management measures, sediment and control measures, and other structural pollution prevention measures identified in the plan shall be observed to ensure that they are operating correctly. A visual inspection of equipment needed to implement the plan, such as spill response equipment, shall be made.
 - b. Based on the results of the inspection, the description of potential pollutant sources and pollution prevention measures identified in the plan shall be revised as appropriate within two weeks of such inspection. Such revisions shall provide for implementation of any changes to the plan in a timely manner, but in no case more than 60 days after the inspection.
 - c. A report summarizing the scope of the inspection, personnel making the inspection, the date(s) of the inspection, major observations relating to the implementation of the SWMP, and actions taken in accordance with paragraph (b), above, shall be made and retained as part of the SWMP for at least three years. The report shall be signed in accordance with Part I.D.10 of this permit
 - d. Where semi-annual site inspections are shown in the plan to be impractical for sites where an employee is not stationed or does not routinely visit the site, inspections as required in this part shall be conducted at appropriate intervals specified in the plan, but never less than once in two years.
 - e. Where semi-annual site inspections are shown in the plan to be impractical for inactive sites (sites where industrial activity is no longer conducted), site inspections required by this part shall be conducted at appropriate intervals specified in the plan, but, in no case less than once in three years. At least one site inspection required under this part shall be conducted prior to October 1, 1994 or the date two years after such site becomes inactive, whichever is earlier.



SECTION 7: COMPREHENSIVE INSPECTION

GENERAL PERMIT REQUIREMENTS: LIGHT INDUSTRIAL PERMIT

5. <u>Comprehensive Inspection.</u> The SWMP shall identify qualified personnel that shall inspect designated equipment and plant areas. The procedures and intervals of the comprehensive inspection shall also be specified in the plan and shall be consistent with Part I.C.7. Except as provided in paragraph (d) and (e) of that part, comprehensive inspections shall in no case be completed less than twice a year (in the spring and fall). The operator shall keep a record of such inspections. This record shall be made available to Division upon request and summarized in the annual report.

The SWMP may also identify routine (e.g., day-to-day, or weekly) inspection. Records on these inspections are not required to be kept under this permit.

DIRECTIONS FOR SECTION 7 - FORM A

List of possible areas to be inspected:

- Hot Plant Site
- Concrete Plant Site
- Crusher Site
- Wash Plant Site
- Overburden and Topsoil Stockpiles
- Brush Barriers
- Silt Fence
- Straw and bale Barriers
- Culvert
- Sediment Trap
- 11. Berms & Dikes
- Erosion & Sediment Control

In the left column on Form A make a list of the critical areas on your site. If there is difficulty with any area be sure you denote any corrective actions that you will take. If new practices will be employed or old practices discontinued, be sure to make a note in your Storm Water Management Plan (document).



SECTION 10: RECORD KEEPING & REPORTING

DIRECTIONS FOR SECTION 10:

These forms are designed to be used for routine site inspections (when you are not performing a comprehensive inspection). When a routine site inspection reveals that you may need to make changes to your Storm Water Management Plan, document the changes to be implemented as well as any elements of the existing plan which will be discontinued. Any physical changes to your Storm Water

GENERAL PERMIT REQUIREMENTS

 Recordkeeping & Reporting. Incidents such as spills or other discharges, along with other information describing the quality and quantity of stormwater discharges, shall be included in the records. Inspections and maintenance activities shall be documented and recorded. The SWMP shall identify procedures for record keeping and internal reporting.

Management Plan MUST be documented and filed with your SWMP on site in order to avoid future compliance problems.



SECTION 11: ANNUAL REPORT

GENERAL PERMIT REQUIREMENTS

4a. Annual Report - SWMP

The permittee will be required to submit an annual report, covering January 1 through December 31 of each year, on the overall compliance with the SWMP. The annual report will contain at a minimum:

- Name of permittee, address, phone number, the permit certification number.
- A report on the facility's overall compliance with the SWMP.
- A summary of each comprehensive stormwater facility inspection made, including date, findings, and action taken.
- Results and interpretations of any stormwater monitoring performed.

The annual report will be due on or before February 15, after the first full year of coverage under the permit. The exact date for the first annual report will be listed on the permit certification. In no case will an annual report be due before February 15, 1994, unless specifically directed by the Division. The Division reserves the right to require additional information in the report on a case-bycase basis, as needed.

All reports required for submittal shall be signed and certified for accuracy by the permittee (see Part I.D.10).

A signed copy of the above report forms shall be submitted to the following address:

Colorado Department of Health Water Quality Control Division WQCD-PE-B2 4300 Cherry Creek Drive South Denver, Colorado 80222-1530

Attention: Permits and Enforcement Section



Attachment II Permit Application Approval Document





1313 Sherman St. Room 215 Denver, CO 80203

November 9, 2021

Perry Hastings Ellicott Sand & Gravel LLC 235 Franceville Coal Mine Road Colorado Springs, CO 80929

Re: Schubert Ranch Sand Resource (Permit No. M-2018-063)
Permit Issuance

Construction Material Operation

Dear Mr. Hastings:

On November 9, 2021 the Division of Reclamation, Mining and Safety (Division) found Ellicott Sand & Gravel LLC to have satisfied the applicable requirements of C.R.S. 34-32.5-101 et seq. for obtaining a mining and reclamation permit. Two signed originals of the permit have been executed. We have kept one copy for our files and are enclosing one copy for your use. It is your responsibility to comply with all of the terms of the permit.

- All of the original application materials, as amended and supplemented, are an integral part of
 your permit and are incorporated into the permit by reference. We presume that you have a copy
 of all of these materials; therefore, none have been enclosed with this mailing. We suggest that
 you keep a copy of the permit and the permit application at the mining operation as a reference
 for operating personnel to help ensure compliance with the terms of the permit.
- Changes in the mining and reclamation operations that differ from those described in the permit may require a modification to the permit. We suggest consulting Rule 1 of the Construction Materials Rules and Regulations and/or contacting us to determine if a revision to the permit is necessary.
- 3. On your permit anniversary date each year, November 9, you must submit an annual fee and an annual report to the Division. The annual fee for this permit is \$791.00. Please consult the Act, Rules and Regulations, and your permit for specific annual report requirements applicable to your mine. Annual reports, maps, and fees must be filed electronically using the Division's ePermitting portal. If you have not done so already, you will need to sign up for electronic filing of your annual report, map, and fee by visiting the Division's web site (https://colorado.gov/drms) clicking on "ePermitting" on the home page, and then clicking on the "Sign up for Minerals Annual Report Electronic Filing" link.





If you have any questions, please contact the Division.

Sincerely,

Virginia Brannon Division Director

Enclosure

cc: Tim Cazier, DRMS

Certified Mail No.: 7018 2290 0001 8923 4206





1313 Sherman St. Room 215 Denver, CO 80203

MINING AND RECLAMATION PERMIT CONSTRUCTION MATERIAL MINING OPERATIONS

Permit Number:

M-2018-063

Type of Permit:

112c

Permit Date:

November 9, 2021

(Anniversary date for annual report and fees purposes)

THIS PERMIT is issued by the Mined Land Reclamation Board, Department of Natural Resources, State of Colorado.

RECITALS

- A. The Permittee, Ellicott Sand & Gravel LLC, desires to conduct a mining operation known as Schubert Ranch Sand Resource, for the purpose of extracting Aggregate. Unless this permit is modified or a separate permit is issued to cover the mining and/or recovery of other minerals or extractive products, the Permittee will not mine or recover any other commodities at this site.
- B. On November 6, 2019 the Mined Land Reclamation Board (Board) approved the Permittee's application for this permit, fixed the amount of the financial warranty and directed that this permit be issued upon the filing with the Division of Reclamation, Mining and Safety (Division) of performance warranty and financial warranty (or warranties) in the amount so fixed in form and substance approved by the Division. Said warranties have been filed with the Division.
- C. If the Permittee desires to extract materials other than those listed in (A), a separate permit or a permit modification may be required.
- D. On November 6, 2019 the Board made the following findings:
 - The application for this permit complies with the requirements of the Colorado Mined Land Reclamation Act for the Extraction of Construction Materials, C.R.S. 34-32.5-101 et seq., as amended, and with all applicable local, state and federal laws;
 - The operation will not adversely affect the stability of any significant, valuable, and permanent man-made structure located within two hundred feet of the Affected Land, except where there is an agreement between the Operator and the persons having an interest in the structure that damage





to the structure is to be compensated for by the Permittee or if such an agreement cannot be reached, an engineering analysis establishes no damage will occur to the structure to the satisfaction of the Division; and;

- The proposed mining and reclamation operations can be carried out in conformance with the requirements of the Act, and the Construction Material Rules and Regulations.
- E. The Permittee has made a showing satisfactory to the Board that:
 - It will employ, during and after its underground mining and/or surface operations, procedures designed to minimize environmental disturbance from such operation
 - It will provide for reclamation of the Affected Lands appropriate to the subsequent beneficial use of such lands; and
 - In the event of the failure of its proposed reclamation plan, it will take whatever measures may be necessary to assure the success of reclamation of the lands affected by such operations in accordance with the Act.
- F. A copy of the Permittee's application, as amended and supplemented, has been approved by the Board and is, by this reference, incorporated herein.
- G. The issuance of this permit does not relieve the Permittee from having to comply with all applicable Federal, State and County statutes, including State water law.

GRANTS, CONDITIONS AND AGREEMENTS

The Board, in reliance upon the representations and promises made in the permit application, as amended and supplemented, and the performance warranty, hereby issues a life of the mine permit to the Permittee, to engage in the operations described in the application on certain lands lying in the County of El Paso, State of Colorado. These lands are described in the permit application, as amended and supplemented, and are referred to herein as the "Affected Lands".

This permit is issued subject to the following conditions and agreements:

- The Permittee will be bound by all applicable requirements of the Act, and all applicable rules and regulations of the Board, as amended from time to time, the terms of the permit application, the terms of the performance warranty, and the terms of the financial warranty filed with the Division.
- The Permittee will file with the Division its annual report and fees on each anniversary date of this permit.
- 3) If analyses of the mining and reclamation operation and the data collected through monitoring and experimentation by the Permittee or monitoring by the Division indicate that the operation will not be able to comply with the requirements of the Act and applicable rules and regulations of the Board, the Permittee hereby agrees to exercise its best efforts, after consulting with the Division, to modify the plans to correct such deficiencies in the future. Such modifications may require technical revisions or amendments to the permit.



- 4) The Board or its authorized representative may enter upon the lands of the permitted operation at all reasonable times for the purpose of inspection to determine whether the provisions of the Act, Rules and Regulations, and permit have been complied with pursuant to C.R.S. 34-32.5-121.
- This permit may be revoked or suspended for non-compliance with the Act or applicable rules or regulations promulgated by the Board, the permit, or by violation of a Board Order.
- a) Pursuant to 34-32.5-118(5) of the Act, the Board has a right of entry to reclaim the lands affected by the operation or to respond to an emergency as defined by C.R.S. 34-32.5-121(2).
 - b) The Board will enter the lands to perform reclamation only if the Board has determined that:
 - Reclamation required the permit, statute, or regulations to be performed upon such lands has not been performed, or
 - Financial warranty forfeiture proceedings described in the Act or similar provisions of subsequent laws, if any, have been initiated.
 - c) The Division, acting for the Board, will enter lands to respond to an emergency only where the Division determines that any of the conditions of Construction Material Rule 8.4.2 exist.
- 7) The additional conditions set forth in the attached rider, if any, are incorporated herein by reference.

/ /

a) Rider is attached.

/XX/

b) No rider is attached.

MINED LAND RECLAMATION BOARD COLORADO DEPARTMENT OF NATURAL RESOURCES

Virginia Brannon Division Director



Attachment III

EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP) EL PASO COUNTY APPLICATION AND PERMIT

APPLICANT INFORMATION

PERMIT NUMBER

ALL EIGHT III OKMATION	7 ERMIT HOMBER
Owner Information	
Property Owner	Schubert Ranches, Inc., George H.
Applicant Name (Permit Holder)	Christine Wilson
Company/Agency	Ellicott Sand & Gravel LLC
Position of Applicant	Manager
Address (physical address, not PO Box)	1555 S. Baggett Rd. , 1550 S. Baggett Rd.
City	Calhan, Calhan
State	Colorado Colorado
Zip Code	80808, 80808
Mailing address, if different from above	Same as above
Telephone	NA
FAX number	719-683-3860
Email Address	ellicottsandgravel@gmail.com
Cellular Phone number	719-568-3164
Contractor/Operator Information	
Name (person of responsibility)	Christine Wilson
Company	Ellicott Sand & Gravel, LLC
Address (physical address, not PO Box)	235 Franceville Coal Mine Road
City	Colorado Springs
State	Colorado
Zip Code	80929
Mailing address, if different from above	NA
Telephone	NA
FAX number	719-683-3860
Email Address	ellicottsandgravel@gmail.com
Cellular Phone number	719-568-3164
Erosion Control Supervisor (ECS)*	Christine Wilson
ECS Phone number*	719-568-3164
ECS Cellular Phone number*	719-568-3164

^{*}Required for all applicants. May be provided at later date pending securing a contract when applicable.



PROJECT INFORMATION

Project Information	
Project Name	Ellicott Sand and Gravel - Schubert Ranch Sand Resource
Legal Description	Part of the S1/2N1/2SE1/4, S1/2SE1/4, and SE1/4SW1/4 of Section 20, and the E1/2E1/2 and NW1/4NE1/4 and parts of the SW1/4NE1/4, SW1/4SE1/4, and NW1/4SE1/4 of Section 29, and the E1/2NE1/4, SW1/4NE1/4, and SE1/4NW1/4 and parts of the NW1/4NE1/4 and NE1/4NW1/4 Section 32, Township 14 South, Range 62 West, 6th P.M., El Paso County, Colorado, containing +-733.7 acres.
Address (or nearest major cross streets)	Just east of the intersection of East Ellicott Road South and Sanborn Road. Ranch addres: 1555 S. Baggett Rd
Acreage (total and disturbed)	Total: acres +- 7337.7 Disturbed: acres +-513.5
Schedule	Start of Construction: Upon approval of required permits. Completion of Construction: 53 yrs to 80 yrs. dependent upon market Final Stabilization: As each stage is completed, stabilization will begin
Project Purpose	The operation will extract sand and gravel with on-site processing to wash and size into products for sale into El Paso County and surrounding markets.
Description of Project	A dry mining operation, using front end loaders, scrapers and trucks to remove raw material to the washing and screening plant. Products will be placed into stockpiles for loading into highway haul trucks.
Tax Schedule Number	2400000276 & 2400000275

FOR OFFICE USE ONLY

The following signature from the ECM Administrator signifies the approval of this ESQCP. All work shall be performed in accordance with the permit, the El Paso County Engineering Criteria Manual (ECM) Standards, City of Colorado Springs Drainage Criteria Manual, Volume 2 (DCM2) as adopted by the El Paso County Addendum, approved plans, and any attached conditions. The approved plans are an enforceable part of the ESQCP. Construction activity, except for the installation of initial construction BMPs, is not permitted until issuance of a Construction Permit and Notice to Proceed.



1.1 REQUIRED SUBMISSIONS

In addition to this completed and signed application, the following items must be submitted to obtain an ESQCP:

- Permit fees:
- Stormwater Management Plan (SWMP) meeting the requirements of DCM2 and ECM either as part of the plan set or as a separate document;
- · Operation and Maintenance Plan for any proposed permanent stormwater control measures; and
- Signed Private Detention Basin/Stormwater Quality Best Management Practice Maintenance Agreement and Easement, if any permanent stormwater control measures are to be constructed.

1.2 RESPONSIBILITY FOR DAMAGE

The County and its officers and employees, including but not limited to the ECM Administrator, shall not be answerable or accountable in any manner for damage to property or for injury to or death of any person, including but not limited to a permit holder, persons employed by the permit holder, or persons acting in behalf of the permit holder, from any cause. The permit holder shall be responsible for any liability imposed by law and for damage to property or injuries to or death of any person, including but not limited to the permit holder, persons employed by the permit holder, persons acting in behalf of the permit holder, arising out of work or other activity permitted and done under a permit, or arising out of the failure to perform the obligations under any permit with respect to maintenance or any other obligations, or resulting from defects or obstructions, or from any cause whatsoever during the progress of the work or other activity, or at any subsequent time work or other activity is being performed under the obligations provided by and contemplated by the permit.

The permit holder shall indemnify, save, and hold harmless the County and its officers and employees, including but not limited to the BOCC and ECM Administrator, from all claims, suits or actions of every name, kind and description brought for or on account of damage to property or injuries to or death of any person, including but not limited to the permit holder, persons employed by the permit holder, persons acting in behalf of the permit holder and the public, resulting from the performance of work or other activity under the permit, or arising out of the failure to perform obligations under any permit with respect to maintenance or any other obligations, or resulting from defects or obstructions, or from any cause whatsoever during the progress of the work or other activity, or at any subsequent time work or other activity is being performed under the obligations provided by and contemplated by the permit, except as otherwise provided by state law. The permit holder waives any and all rights to any type of expressed or implied indemnity against the County, its officers or employees. It is the intent of the parties that the permit holder will indemnify, save, and hold harmless the County, its officers and employees from any and all claims, suits or actions as set forth above regardless of the existence or degree of fault of or negligence, whether active or passive, primary or secondary, on the part of the County, the permit holder, persons employed by the permit holder, or persons acting in behalf of the permit holder.



1.3 APPLICATION CERTIFICATION

We, as the Applicants or the representative of the Applicants, hereby certify that this application is correct and complete as per the requirements presented in this application, the El Paso County Engineering Criteria Manual, and Drainage Criteria Manual, Volume 2 and El Paso County Addendum.

We, as the Applicants or the representatives of the Applicants, have read and will comply with all of the requirements of the specified Stormwater Management Plan and any other documents specifying stormwater best management practices to be used on the site, including permit conditions that may be required by the ECM Administrator. We understand that the stormwater control measures are to be maintained on the site and revised as necessary to protect stormwater quality as the project progresses. We further understand that a Construction Permit must be obtained and all necessary stormwater quality control measures are to be installed in accordance with the SWMP, the El Paso County Engineering Criteria Manual, Drainage Criteria Manual, Volume 2 and El Paso County Addendum before land disturbance begins and that failure to comply will result in a Stop Work Order and may result in other penalties as allowed by law. We further understand and agree to indemnify, save, and hold harmless the County and its officers and employees, including but not limited to the BOCC and ECM Administrator, from all claims, suits or actions of every name, kind and description as outlined in Section 1.2 Responsibility for Damage.

Christ	D Klu	elsa	Date:	10/17/2022
Signature of Owner	or Representative			
Christine Wilson				
Print Name of Owne				
O hrestu	RWIL	2n-	Date:_	10/17/2022
Signature of Operator				
Christine Wilson	1			
Print Name of Opera	ator or Representa	tive		
Permit Fee	S			
Surcharge	\$			
Financial Surety	\$	Type of Surety		
Total	\$	Financial Suret		ith the Mined Land

ESQCP Permit (rev.7.2019)



Attachment IV Stormwater Permits



COLORADO

Department of Public Health & Environment

Dedicated to protecting and improving the health and environment of the people of Colorado

CERTIFICATION TO DISCHARGE UNDER CDPS GENERAL PERMIT COG500000
DISCHARGES ASSOCIATED WITH SAND & GRAVEL MINING AND PROCESSING
(and other Nonmetallic Minerals except fuel)

Certification Number: COG502203

This Certification to Discharge specifically authorizes:

Ellicott Sand & Gravel LLC to discharge from the facility identified as

Schubert Ranch Sand Resource to: Upper Black Squirrel Creek - Arkansas River

Escility Located at:	1/4 mile west of S Baggett Rd on Sanborn Rd, Ellicott, El Paso County, CO 80808 Center Point Latitude 38.801070. Longitude -104.355350
Facility Located at:	Center Point Latitude 38,801070, Longitude -104,355350

Defined Discharge Outfall(s) to Surface Water	Outfall(s) Lat, Long	Discharge Outfall(s) Description	Receiving Stream
Outfall Number	38.795440,	Stormwater discharge from stage 1 from	Upper Black Squirrel
001-A	-104.354875	outslopes of isolation ditches and berms	Creek

All discharges must comply with the lawful requirements of federal agencies, municipalities, counties, drainage districts and other local agencies regarding any discharges to storm drain systems, conveyances, or other water courses under their jurisdiction.

Stormwater Monitoring Requirements

Permit Limitations and/or Monitoring Requirements apply to outfall 001A as outlined in the Permit in Part I.C.2 and Parts I.G through I.Q.

On the effective date of this certification, the Schubert Ranch Sand Resource is subject to the monitoring requirements identified below at each discharge point of stormwater from the facility.

A. Visual monitoring, Part I.I.1

Per Part I.I.1 of the permit, the permittee must collect a stormwater sample from each outfall (or a substantially identical outfall pursuant to Part I.H.1 of the permit) and conduct a visual assessment of each of these samples once each quarter for the entire permit term.

B. WQBEL/Water Quality Standards, Part 1.1.3

Discharges authorized under this permit must be controlled as necessary to meet applicable water quality standards.

Page 1 of 2

4300 Cherry Creek Drive S., Denver, CO 80246-1530 P 303-692-2000 www.colorado.gov/cdphe/wqc





Stormwater Reporting Requirements

ICIS Code	Description	Due date	Frequency
00308	The permittee shall submit an annual report to the division for the reporting period January 1 through December 31.	February 28	Annual(10)

Certification issued: 1/5/2022 Effective: 1/5/2022

The general permit COG500000 expired 12/31/2021 and is administratively continued. This certification is also administratively continued. It will remain in effect until the general permit is renewed or other actions are taken.

This certification under the permit requires that specific actions be performed at designated times. The certification holder is legally obligated to comply with all terms and conditions of the permit.

Approved by Kathleen Rosow - Work Group Lead Industrial & Natural Resource Extraction Permitting Unit Permits Section Water Quality Control Division







Note: The full permit will be provided if requested:



STATE OF COLORADO

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT Water Quality Control Division

CDPS GENERAL PERMIT COG500000

FOR DISCHARGES FROM SAND AND GRAVEL MINING AND PROCESSING (AND OTHER NONMETALLIC MINERALS EXCEPT FUEL)

AUTHORIZATION TO DISCHARGE UNDER COLORADO DISCHARGE PERMIT SYSTEM

In compliance with the provisions of the Colorado Water Quality Control Act, (25-8-101 et seq., CRS, 1973 as amended) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq.; the "Act"), sand and gravel mining and processing operations, and facilities that mine and process other nonmetallic minerals except fuel, are authorized to discharge from authorized locations throughout the State of Colorado to specified surface waters of the State. Such discharges shall be in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts I, II, and III hereof.

This permit specifically authorizes the entity identified in the certification of this permit to discharge process water and stormwater at the location(s) described in the certification of this permit, to waters of the state as identified in the certification of this permit.

The applicant may demand an adjudicatory hearing within thirty (30) days of the date of issuance of the final permit determination, per the Colorado Discharge Permit System Regulations, 61.7(1). Should the applicant choose to contest any of the effluent limitations, monitoring requirements or other conditions contained herein, the applicant must comply with Section 24-4-104 CRS and the Colorado Discharge Permit System Regulations. Failure to contest any such effluent limitation, monitoring requirement, or other condition, constitutes consent to the condition by the Applicant.

The authorization to discharge under this permit is in effect from the date of the certification of this permit until the expiration date identified below.

This permit shall expire at midnight December 31, 2021

Issued and Signed this 13th day of October 2016

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

Janet S Digitally signed by Janet S. Kieler DN declocal, do-dphe, ou-Divisions, ou-WOC, Called Control of the C

Janet Kieler, Permits Section Manager Water Quality Control Division

ISSUED AND SIGNED: October 13, 2016

Administratively continued 1/1/2022

EFFECTIVE DATE OF PERMIT: January 1, 2017