Riddle Sand and Gravel Operation 4431 Sands Rd, Harwood, MD 20776

STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

In compliance with: General Permit No. 15MM9877 National Pollution Discharge Elimination System (NPDES)

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I. Introduction

a. SWPPP Purpose

This Storm Water Pollution Prevention Plan (SWPPP) has been developed as requirement of the National Pollution Discharge Elimination System (NPDES) program for regulating storm water discharge from mineral mines. Development, proper implementation, and dedicated monitoring of the SWPPP will allow the Riddle Sand and Gravel Mining Operation [herein known as the Riddle Site for the purposes of this report] to control pollutants and comply with all established regulations. The primary purpose of this SWPPP is to:

- 1) Identify potential sources of pollution that may reasonably be expected to affect the quality of storm water discharges from the site,
- 2) Describe the practices that will be used to reduce pollutants in storm water discharges to assure compliance with the conditions of the Permit, and
- 3) Establish an implementation schedule to ensure that the proposed plan is properly implemented while monitoring the plan's effectiveness in meeting the design goals.

b. SWPP Content

The following components are included in this SWPPP:

- Description of the facilities and existing conditions
- Description of potential storm water contaminations
- Description of measure to be taken and Best Management Practices (BMP's) to be implemented
- Description of the monitoring and inspection plan to be implemented
- Identification of a SWPPP coordinator, SWPPP team members and the responsibilities involved, and
- Description of the requirements for permit compliance.

II. Facility Description

a. Facility Location

The Riddle Site is located on the east side of Sands Road and the Moreland expansion is located on the west side of Sands Road in Harwood, Maryland and is within the Anne Arundel County boundaries. A general vicinity map illustrating thus location is included as **Figure 1**.

b. Site Description

The Riddle Site is located on the east side of Sands Rd and shares a driveway with and is bordered to the southeast by a Waste Management Corporation site. The northern and southern most portions of the property, along with a portion of the eastern boundaries are bordered by existing forest stands. The southwest corner of the site borders a residential area and Sands Rd borders the rest of the western portion of the site. The eastern border consists of a tree line boundary separating the site from the Waste Management site. Structures on-site include an office trailer, an equipment shed, separation/screening equipment, and a large generator and three small fulling stations located throughout the facility. The entire site is enclosed by a chain link fence and this is where equipment is parked. **Figure 2** is a facility sketch of existing conditions illustrating pertinent structures on-site, as well as existing zones and typical drainage patterns.

c. Site Activities

The Riddle Site is classified as a code 3273 under the 1987 Standard Industrial Classification (SIC) guild lines and as code 327320 under the 2012 North American Industry Classification System (NAICS). Normal operating hours are 6:00 a.m. to 4:00 p.m. and there is an average of six (6) full-time employees on schedule.

d. Existing Drainage and Discharge Conditions

The site can be divided into 3 core Drainage Zones. **Figure 2** includes approximate zone locations and patterns of storm water drainage. Additional detailed information about each drainage zone can be found in **Table 1**. Drainage from the site does not discharge as grading directs water to the wash plant ponds or the lowest point of the mining areas. A pump line system extends from the mining areas north of the wash plant ponds and is used for dewatering of the mining areas.

III. Potential Storm Water Contaminants

a. Material Inventory

Table 2 identifies materials that are used, stored, or produced on-site that may contribute to storm water pollution. A physical description and the probable storm water pollutants are included. This SWPPP is focused on limiting the pollution from these sources.

b. Spill and Leak History

There have been no spills or leaks of any material in this facility within the past three years.

c. Potential Areas for Storm Water Contamination

The following core areas with potential for storm water contamination were considered in the development of this SWPPP:

- <u>Truck Loading Area</u>: Contamination may occur through leaking trucks and equipment or spills from overloaded trucks.
- <u>Equipment Shed</u>: This area is used to store materials and equipment. Equipment repairs are conducted in this structure. Contamination may occur through fluid leaks from stored materials.
- <u>Fueling Station:</u> Contamination may occur in this area through improper fueling or leaking trucks and equipment.
- <u>Stockpile Materials</u>: Several mounds of stockpile material (sand, stone, etc.) are located around the wash plant. Contamination may occur in these areas through sediment runoff.

Table 1 includes site-specific information regarding storm water pollution potential from theseareas.

d. Emergency Contact Information

In the event of an emergency spill, the Maryland Department of the Environment 24 hr Emergency Spill Hotline (410-974-3551) and the National Response Center at (1-800-424-8802) will be contacted. In the event of a spill situation, a standard spill response procedure will be followed (**Appendix B**). This procedure and emergency contact information will be visible and readily available in the site office

IV. Best Management Practices [BMPs]

This section will detail existing Storm Water Management (SWM) control measures and proposed controls that will be implemented to comply with permit requirements. All Best Management Practices (BMPs) used as control measures in this project were selected to meet or exceed EPA and local requirements. **Table 3** contains specific information and a schedule for target implementation of these control measures. **Figure 2** is a facility sketch of proposed control measures depicting approximate locations of implementation.

a. Existing BMPs

The following is a list of effective control measures that are currently in place at the Riddle Site:

- <u>Wash Plant Ponds:</u> A large central pond is the primary collection area on site. Several smaller basins are located throughout the site to collect excess runoff. These ponds supply the sand and gravel wash plant with water.
- <u>Material Storage</u>: Any fluid canisters (truck oil, grease) housed in on-site sea containers or the equipment shed will be kept out of contact with storm water and will remain covered when not in use. There will be no open containers or bags or materials kept on site. Any partially used, bagged material will be transferred to a sealable container and properly labeled.
- <u>Fueling Stations</u>: The fueling stations have been inspected for potential leak hazards and no changes were necessary. A spill kit is installed near the front fueling area. Site personnel have been instructed on proper spill cleanup practices and contact information has been posted on-site.
- <u>Earthen Berms</u>: These are utilized throughout the site to direct water into the Wash Plant Ponds or into the mine pits. They contain any material within the appropriate boundary.
- <u>Equipment Inspections:</u> Equipment used on-site is routinely inspected for fluid leaks and any other potential pollutants to storm water. All equipment receives regular preventative maintenance to reduce the chance of fluid leakage. Any potential problems will be addressed as necessary.
- <u>Dewatering System</u>: The existing pump line system that runs from the mine pit to the Wash Plant Pond will be monitored and maintained to prevent system malfunction.

V. Chaney Enterprises Environmental Inspection Program [CEEIP]

a. Routine Inspections

Routine inspections will be conducted throughout the site to decrease the likelihood of a potential pollution situation. The holding ponds, stock pile areas, fueling station, storage areas, and all other pollution prevention implementations will be inspected for effectiveness. As directed by the SWPPP Coordinator, an Environmental Evaluation team has been assigned to

conduct visual observations no less than one time each month (in some months twice). Inspection forms will be completed, signed, and kept in the on-site file. A sample inspection form can be found in **Appendix A**.

b. SWPPP Updates and Amendments

Any changes to operating conditions of the Riddle Site that require modification of existing BMPs or implementation of new BMPs will be recorded in the on-site file for insertion into an updated SWPPP and submitted with the annual compliance assessment (discussed in Section VII. D). This SWPPP shall be amended to include any change in design, construction, operation, or maintenance of the facility that has a significant effect on the potential for the discharge of pollutants to surface waters and that has not been addressed in the normal implementation of the SWPPP. This SWPPP shall also be updated whenever it is found to be ineffective in meeting the requirements of the NPDES Permit and any other applicable regulatory guidelines. In the event that the Maryland Department of the Environment (MDE} notifies the SWPPP Coordinator that the SWPPP does not meet one or more of the provisions of the NPDES Permit or any other applicable regulatory guidelines, changes will be made within a timeframe approved by the MDE.

VI. SWPPP Implementation Task Force

a. SWPPP Coordinator

The SWPPP Coordinator for the Riddle Site is Victor Vilece and can be reached at 301-861-6094.

b. SWPPP Coordinator Responsibilities

The SWPPP Coordinator will be responsible for the following:

- Manage the SWPPP team in the implementation of the SWPPP plan
- Assign inspection duties
- Oversee employee training
- Ensure regulatory compliance of site activities
- Measure overall effectiveness of SWPP implementation
- Address any site operation changes with appropriate SWPPP modifications

c. SWPPP Implementation Task Force Team Members

The following team members will assist the SWPPP Coordinator in all aspects of the SWPPP implementation:

٠	Wayne Hardesty	Site Manager	410-804-4215
٠	Chris McCoy	Safety Director	240-299-7172

VII. Compliance Requirements

a. On-site Record Retention

Documents are kept in an online database. Access to all permits, records, inspections, and the most recently updated version of this SWPPP will be available in the onsite office via QR code.

b. Employee Training

An annual environmental education seminar will be incorporated into ongoing employee training protocol to educate employees about the pollution prevention issues relating to this SWPPP. Employees will be introduced to the requirements of the SWPPP and will be instructed on how to monitor the implemented BMPs for maximum effectiveness.

c. Implementation Schedule

A proposed schedule for the implementation of this SWPPP can be found in **Table 3**. An implementation schedule for E&S Controls and BMPs is shown in **Table 4**.

d. Annual SWPPP Compliance Assessment

A designated SWPPP team member will conduct an annual compliance assessment to ensure that the facility is complying with all requirements detailed in this SWPPP. All BMPs and E&S controls said to be in place will be inspected, adherence to the implementation schedule will be verified and a confirmation of an active employee training program will be made. An assessment report will be completed, and a copy of the assessment will be kept on record.

e. Corporate Certification

"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 gathered and evaluated 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."

Victor Vilece

Name

12/9/2022 Date

Chaney Enterprises Company

Signature

Figure 1 <u>General Vicinity Map</u>



ins por DZ-4 No longer part of Riddle site. Agg Wash Plant

Figure 2 Facility Sketch of Existing Conditions

Table 1EXISITING STORM WATER DRAINAGE AND DISCHARGE POINTS

DRAINAGE ZONE/	STORM WATER DRAINAGE	POTENTIAL	POTENTIAL PROBLEMS
DISCHARGE POINTS	DESCRIPTION	POLLUTION	
	Drainage flows to the center of this	Diesel Fuel,	Diesel fuel/fluids may leak from trucks
	area due to grading. Here a series of	Hydraulic	and equipment. Improper loading may
DZ-1	large holding ponds collect the flow	Oil/Fluids,	result in sediment discharge. Runoff
	where it is used to supply the aggregate	Sediment	from bulk material areas may result in
	wash plant.		excess sediment buildup.
	Located between Sands Rd and the	Diesel Fuel,	Diesel fuel/fluid may leak from trucks
	scale house, just north of DZ-1,	Hydraulic	and equipment. Improper loading may
	drainage flows to the center of the	Oil/Fluids,	result in sediment discharge. Runoff
DZ-2	mining area in this zone due to grading.	Sediment	from bulk material areas may result in
	From there it is pumped to the ponds in		excess sediment buildup.
	DZ-1 for use in the Aggregate wash		
	plant.		
	All drainage flows into a pond in the	Diesel Fuel,	Diesel fuel/fluid may leak from trucks
	eastern portion of this zone. Located	Hydraulic	and equipment. Improper loading may
DZ-3	across the site entrance from Zones 2	Oil/Fluids,	result in sediment discharge. Runoff
	and 3.	Sediment	from bulk material areas may result in
			excess sediment buildup.

Table 2 <u>MATERIAL INVENTORY</u>

TRADE NAME MATERIAL	PHYSICAL DESCRIPTION	STORM WATER POLLUTANTS		
Sand, Gravel	Solid particles	Silicon, suspended solids, turbidity, sediment		
Hydraulic oil/fluids	Brown oily petroleum hydrocarbon	Mineral oil		
Diesel Fuel	Clear, blue-green to yellow liquid	Petroleum distillate, oil & grease, naphthalene, xylenes		
Antifreeze/coolant	Clear green/yellow liquid	Ethylene glycol, propylene glycol, heavy metals (copper, lead, zinc)		

TABLE 3SWPPP IMPLEMENTATION SCHEDULE

SWPPP FEATURE	TARGET IMPLEMENTATION DATE
Monthly facility inspections	Ongoing
Implementation of SWM Control Measure	See TABLE 4
Employee Training Program	Date of environmental seminar: Winter/Annually General employee instruction: Ongoing
Compliance Assessment	Annually

TABLE 4 SWM CONTROL MEASURES IMPLEMENTATION SCHEDULE

FACILITY SITUATION	SWM CONTROL MEASURE	TARGET IMPLEMENTATION DATE
Fueling Station	Check for complete spill kit at fueling station	Checked during monthly inspection
	Inspect fuel/propane tanks and containment areas for cracks & leaks.	Checked during monthly inspection
Equipment Inspections	On-site vehicles and equipment will be thoroughly inspected for fluid leaks and other potential pollutants.	Checked on a daily basis.
	Preventative maintenance will be performed on a regular schedule.	Maintenance is performed on a monthly basis or as needed.
Holding Ponds	Water level is checked	Checked during monthly inspection
General Housekeeping	Aggressive enforcement of good housekeeping measures will be implemented.	Enforced on a daily basis.



Appendix A

I. General Inforn	nation	ENTE	ERPR	CEEIP Inspection Form		
Facility:				Permit #:		
Date:	Time:		Weather:		Phone:	
Facility				Site		
Address:				Manager:		
Inspector:						

IL Site Conditions

SWPPP On Site: Yes			n Site: Yes	⊔ No⊔	DMR's On Site: Yes 🗀 No 🗀	
Condition Range		9		Comments/Corrections Needed		
Great	Good	Fair	Poor			
Dischar pH:	ging: Y	/ N				
	Great	Conditio Great Good	Condition Range Great Good Fair Image: Condition Range Image: Condition Range Image: Condition Range Image: Condition Range Image: Condition Range Image: Condition Range Image: Condition Range Image: Condition Range Image: Condition Range Image: Condition Range Image: Condition Range Image: Condition Range Image: Condition Range Image: Condition Range Image: Condition Range Image: Condition Range Image: Condition Range Image: Condition Range Image: Condition Range Image: Condition Range Image: Condition Range Image: Condition Range Image: Condition Range Image: Condition Range Image: Condition Range Image: Condition Range Image: Condition Range Image: Condition Range Image: Condition Range Image: Condition Range Image: Condition Range Image: Condition Range Image: Condition Range Image: Condition Range Image: Condition Range Image: Condition Range Image: Condition Range Image: Condition Range Image: Condition Range Image: Condition Range Image: Condition Range Image: Condititititititititititititititititititit	Condition RangeGreatGoodFairPoorImage: Stress of the stress of th	Great Good Fair Poor Image: Second state	Condition Range Comments/Corrections Needed Great Good Fair Poor Image: Image: Image: Point I

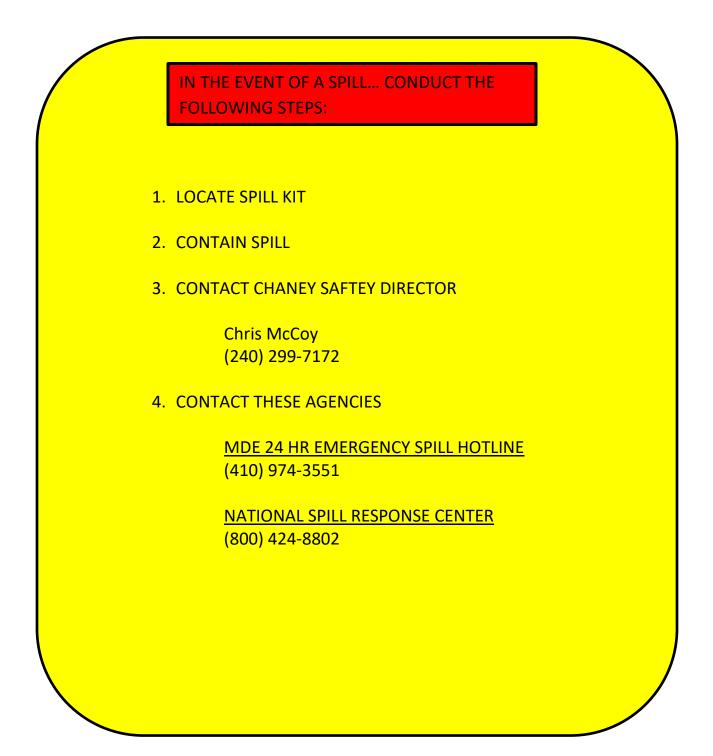
Additional Comments on Site Conditions:

III. pH Treatment System

	Questions	Answer	Site Corrections:			
Washout/Settling	Have washout basins/ponds been cleaned recently?					
Ponds	What is the pH in the settling area w/handheld probe?					
	What is the pH reading upon arrival?					
pH Controller	What is the Hi limit reading?					
	What is the Lo limit reading?					
	How much CO2/Sodium bisulfate is in the tank?					
Mixing	Does additional chemical need to be added/ tank filled?					
	Were site personal informed?					
	Is probe covered in residue and dirty?		Due Date:			
pH Probe	Was probe cleaned with cleaning solution?	Days 1wk 2wk 3wk				
	What are readings before/after calibration with solution 7.0?					
	What are readings before/after calibration with solution 10.0?					
Piping	Is intake piping functional?					
	Is discharge piping functional?		Sign:			
Comments on pH S	ystem Conditions:					
Inspector						
Name:	Signature:		Date:			
	POURING OUR HEART & SOUL INTO EVER					

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APPENDIX B EMERGENCY CONTACT INFORMATION



APPENDIX C SWPPP COMPLIANCE ASSESSMENT

SWPPP Feature	Y/N	Comments
Have monthly inspections been		
conducted and have form been		
completed and filed?		
Have daily pH readings been		
taken and have logs been		
completed and submitted to the		
Environmental Manager?		
Have BMP's been implemented		
and has the implementation		
schedule been adhered to?		
Has employee training been		
implemented?		
Has the Environmental Education		
Program been evaluated and forms filed?		
forms med?		
Have all changes to site function		
been addressed in the SWPPP?		
Name:		Date:
Nume		Date
Signature:		
Title:		