

**Bridgetown Sand and Gravel Operation
15890 Oakland Road, Henderson, MD**

STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

In compliance with:

General Permit No. 10MM499783

National Pollution Discharge Elimination System (NPDES)

Prepared By:

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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 Bridgetown Sand and Gravel Operation [herein known as the Bridgetown 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 Bridgetown Site is located at 15890 Oakland Road, Henderson, Maryland and is within the Caroline County boundaries. A general vicinity map illustrating this location is included as **Figure 1**.

b. Site Description

The Bridgetown Site is located off a major roadway and borders the Mason Branch tax ditch to the west, residential properties to the south, existing forest stand to the north and Oakland road to the east. Structures on-site include a foundation based office, multiple storage buildings, batch buildings, a scale/weigh station, multiple fueling stations/tanks and a large separation and filtering plant. **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 Bridgetown Site is classified as a code 3273 under the 1987 Standard Industrial Classification (SIC) guild lines and as code 327320 under the 2002 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 ten full-time employees on schedule.

d. *Existing Drainage and Discharge Conditions*

The site can be divided into three 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**. There are two large holding ponds located on-site, one on the far east side and one on the west side. The majority of storm water drainage travels directly into these two holding ponds. A pump line system extends from the west side pond to a small, partially-vegetated sediment trap just north of the on-site ponds before leaving the property through a large concrete catch drain located in the western most portion of the property.

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*

October 9th, 2015: Failed to implement and maintain sediment and erosion control devices thus resulting in a turbid discharge to the Mason Branch.

August 17th, 2015: Approximately 195 gallons of diesel fuel was released during a delivery to the facilities 10,000 gallon diesel aboveground storage tank (AST).

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:

- Truck Loading Area: This area includes wash plant equipment such as a hopper, conveyor, and heavy equipment. Contamination may occur through leaking trucks and equipment or spills from overloaded trucks.
- Fueling Station: Contamination may occur in this area through improper fueling or leaking trucks and equipment.
- Storage Trailers/Garages: There are multiple storage trailers and garages throughout the site which are used for general site materials. Contamination may occur through leaking materials or improper storage techniques.
- Office Building: This building serves as the main site office. This area includes a large parking lot for site personnel's personal vehicles. Contamination may occur through fluid leaks from poorly maintained vehicles.

- Stockpile Materials: Several mounds of stockpile material (sand, stone, etc.) are located throughout the site. Contamination may occur in these areas through sediment runoff.
- Fines Drying Area: This area is set aside for drying sediment removed from the western holding pond that the wash plant discharges into. Contamination may occur in these areas through sediment runoff.

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

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 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 Loveville Site:

- Holding Ponds: Two large ponds are the primary collection areas on-site. Several smaller basins are located throughout the site to collect excess runoff and direct it to the holding ponds.
- Fueling Stations: The fueling stations (2) have been inspected for potential leak hazards and no changes were necessary. Site personnel have been instructed on proper spill clean-up practices and contact information is posted on-site.
- Material Storage: Any fluid canisters (truck oil, grease) housed in on-site box trailers 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. Items such as brooms, dust pans, plastic gloves, kitty litter, sawdust, and extra sealable containers are available on-site.
- Earthen Berms: These are utilized throughout the site to direct water to the holding ponds or mine pit and contain any material within appropriate boundary.
- Equipment Inspections: Equipment used on-site are routinely inspected for fluid leaks and any other potential pollutants to storm water. All equipment will receive regular preventative maintenance to reduce the chance of fluid leakage. Any potential problems will be addressed as necessary.
- Dewatering System: The existing pumpline system that runs from the western holding pond to the partially vegetated sediment trap will be monitored and maintained to prevent system malfunction. The site also utilizes channels to direct water from the

wash plant to the western holding pond allowing sediment to settle before reaching the pond and the outfall. Flocculent is used to help settle solids and a dredge is used periodically to maintain pond depth. The channel is mucked out once a week or as needed depending on wash plant production. Fines from the channel are stored on-site for drying and then used as fill in the mining areas.

V. Chaney Enterprises Environmental Inspection Program [CEEIP]

a. Routine Inspections

The Mason Branch will be checked daily for sediment coming from the Bridgetown Site, visual inspections will be made from DP-1. The holding ponds, stock pile areas, fines drying area, fueling station, storage areas, site perimeter, 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 a complete environmental site inspection no less than one time each month (in some months twice). Inspection forms will be completed 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 Bridgetown 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 Bridgetown Site is Victor Vilece and can be reached by phone, 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:

- | | | |
|----------------|---------------------------|--------------|
| • Dallas Walls | Site Manager | 443-262-5819 |
| • Kyle Murray | Land Project Manager | 301-932-5335 |
| • Allen Chaney | Assistant Project Manager | 301-932-5000 |

VII. Compliance Requirements

a. *On-site Record Retention*

A copy of the most recently updated version of this SWPPP will be retained in the onsite office. Copies of completed inspection forms will also be kept on-site for reference purposes. Additionally, all employee training records and certifications shall be made readily available.

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. A site walk through will be conducted to illustrate proper good-housekeeping measures in action and to identify what employees should look for to reduce pollution potential. Hands-on demonstrations will be used as a training tool to inform employees of procedures to follow when responding to a spill situation. **Appendix D** contains a copy of the sign-in sheet that will be used at the seminar to record attendees. Prior to the seminar, the SWPPP Coordinator (or designated SWPPP team member) will evaluate the environmental education program to verify its effectiveness, implement any appropriate changes and complete an evaluation form. A sample evaluation form can be found in **Appendix E**.

c. *Implementation Schedule*

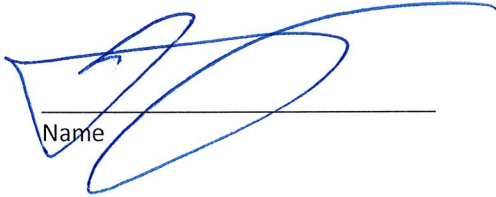
A proposed schedule for the implementation of this SWPPP can be found in **Table 3**. An implementation schedule for E&S Controls and BMPs is shown in **Table 4**. These schedules will be modified if there is any change to the sequence or expected completion dates and updated schedules will be inserted into the SWPPP file.

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. A sample assessment form can be found in **Appendix E**.

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."


Name

5/16/16
Date

Chammy Enterprises LP
Company

Land Project Manager
Title

FIGURE 1
GENERAL VICINITY MAP

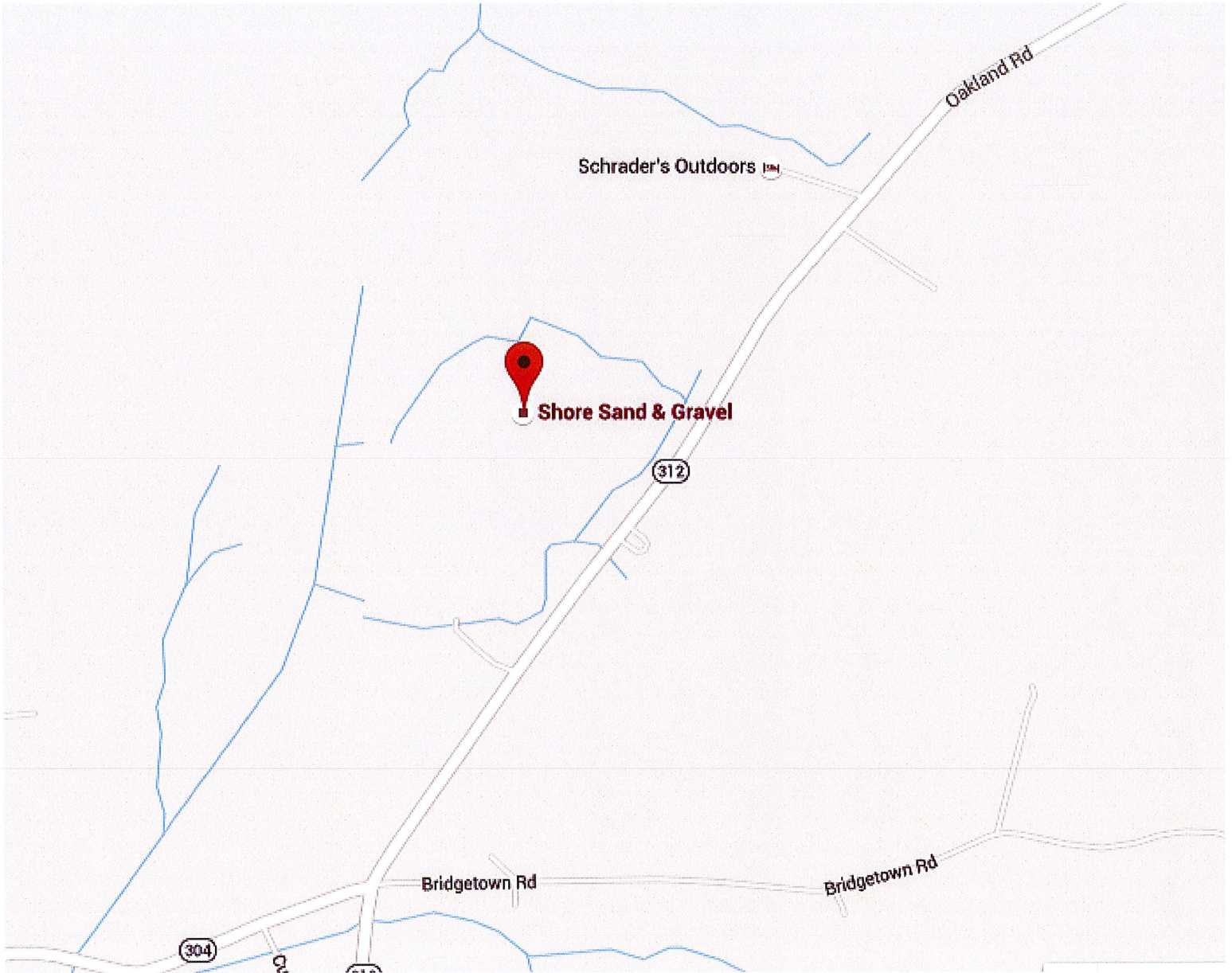


FIGURE 2
FACILITY SKTECH OF EXISTING CONDITIONS



Table 1
EXISTING STORM WATER DRAINAGE AND DISCHARGE POINTS

DRAINAGE ZONE/ DISCHARGE POINTS	STORM WATER DRAINAGE DESCRIPTION	POTENTIAL POLLUTION	POTENTIAL PROBLEMS
<i>DZ-1</i>	Drainage flows generally south and west through this section of the property. Natural elevations direct water to a large holding pond in the western region of the site.	Diesel Fuel, Hydraulic Oil/Fluids, Sediment	Diesel fuel/fluids may leak from trucks and equipment. Improper loading may result in sediment discharge. Run off from bulk materials areas may result in excess sediment buildup.
<i>DZ-2</i>	Drainage flows generally north and east through this section of the property. Natural elevations direct water to a large holding pond in the eastern region of the site.	Diesel Fuel, Hydraulic Oil/Fluids, Sediment	Diesel fuel/fluids may leak from trucks and equipment. Improper loading may result in sediment discharge. Run off from bulk materials areas may result in excess sediment buildup.
<i>DZ-3</i>	Drainage flows generally to the center of this area due to natural elevations.	Diesel Fuel, Hydraulic Oil/Fluids, Sediment	Diesel fuel/fluids may leak from trucks and equipment. Improper loading may result in sediment discharge. Run off from bulk materials areas may result in excess sediment buildup.
<i>DP-1</i>	The discharge point is located in DZ-1.	Diesel Fuel, Hydraulic Oil/Fluids, Sediment	Excess sediment from wash plant operations is the main concern.

Table 2
MATERIAL INVENTORY

TRADE NAME MATERIAL	PHYSICAL DESCRIPTION	STORM WATER POLLUTANTS
<i>Cleaning Solvents</i>	Colorless, blue, or yellow-green liquid	Perchloroethylene, methylene, chloride, trichloroethylene, petroleum distillates
<i>Sand, Gravel</i>	Solid particles	Silicon, suspended solids, turbidity, sediment
<i>Hydraulic oil/fluids</i>	Brown oily petroleum hydrocarbon	Mineral oil
<i>Diesel Fuel</i>	Clear, blue-green to yellow liquid	Petroleum distillate, oil & grease, naphthalene, xylenes
<i>Antifreeze/coolant</i>	Clear green/yellow liquid	Ethylene glycol, propylene glycol, heavy metals (copper, lead, zinc)
All Safety Data Sheets can be viewed on the Chaney website: https://www.chaneyenterprises.com/resources/safety-data-sheets		

TABLE 3
SWPPP IMPLEMENTATION SCHEDULE

SWPPP FEATURE	TARGET IMPLEMENTATION DATE
<i>Facility inspections</i>	Monthly
<i>Implementation of SWM Control Measure</i>	See TABLE 4
<i>Employee Training Program</i>	Annually December
<i>Environmental Education Program Evaluation</i>	Annually December
<i>Annual Compliance Assessment</i>	Annually December

TABLE 4**SWM CONTROL MEASURES IMPLEMENTATION SCHEDULE**

FACILITY SITUATION	SWM CONTROL MEASURE	TARGET IMPLEMENTATION DATE
<i>Fueling Station</i>	Check for complete spill kit at fueling station.	Daily
	Inspect fuel tanks and containment areas for cracks & leaks.	Daily
<i>Perimeter</i>	Check for water from holding ponds leaving the site and entering the Mason Branch outside of DP-1.	Daily
<i>Mason Branch</i>	Check for sediments entering the Mason Branch at DP-1 and along site Perimeter	Daily
<i>Wash Plant Channel</i>	Check for sediment build up in channel, channel must be cleaned regularly to keep sediments out of holding pond.	Weekly
<i>Material Storage</i>	Check for sediment run off into holding ponds.	Daily
<i>Equipment Inspections</i>	On-site vehicles and equipment will be thoroughly inspected for fluid leaks and other potential pollutants.	Daily
	Preventative maintenance will be performed on a regular schedule.	Monthly/As Needed
<i>Earthen Berms</i>	Direct water into holding ponds.	Monthly
<i>General Housekeeping</i>	Aggressive enforcement of good housekeeping measures will be implemented.	Daily

CHANNEY

ENTERPRISES

Appendix A

I. General Information

CEEIP Inspection Form

Facility:		Permit #:	
Date:	Time:	Weather:	Phone:
Facility Address:	Site Manager:		
Inspector:			

II. Site Conditions

SWPPP On Site: Yes No

DMR's On Site: Yes No

	Condition Range				Comments/Corrections Needed
	Great	Good	Fair	Poor	
E & S Control					
On-Site Storage					
Equipment/ Vehicles					
Roadways					
Air Pollution					
Discharge Monitoring	Discharging: Y / N pH:				

Additional Comments on Site Conditions:

III. pH Treatment System

	Questions	Answer	
Washout/Settling Ponds	Have washout basins/ponds been cleaned recently?		Site Corrections: Due Date: Days 1wk 2wk 3wk <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Sign: _____
	What is the pH in the settling area w/handheld probe?		
pH Controller	What is the pH reading upon arrival?		
	What is the Hi limit reading?		
	What is the Lo limit reading?		
Mixing	How much CO2/Sodium bisulfate is in the tank?		
	Does additional chemical need to be added/ tank filled?		
	Were site personal informed?		
pH Probe	Is probe covered in residue and dirty?		
	Was probe cleaned with cleaning solution?		
	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?		

Comments on pH System Conditions:

Inspector

Name: _____ Signature: _____ Date: _____

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APPENDIX B

EMERGENCY CONTACT INFORMATION

IN THE EVENT OF A SPILL... CONDUCT THE FOLLOWING STEPS:

1. LOCATE SPILL KIT
2. CONTAIN SPILL
3. CONTACT CHANEY SAFTEY DIRECTOR

Chris McCoy
(240) 299-7172

4. CONTACT THESE AGENCIES

MDE 24 HR EMERGENCY SPILL HOTLINE
(410) 974-3551

NATIONAL SPILL RESPONSE CENTER
(800) 424-8802

APPENDIX D

ENVIRONMENTAL EDUCATION SEMINAR EVALUATION FORM

Program Feature	Applicable? (Y/N)	Comments
Has a date been established for the annual seminar?		
Will all state and federal regulations be addressed?		
Will employees be informed of any changes to the SWPPP?		
Will there be any outside sources involved in the training program?		
Did the facility staff appear more informed after last year's program?		
Have there been any employee comments/suggestions?		
<div style="display: flex; justify-content: space-between;"> Name: _____ Date: _____ </div> <div style="margin-top: 10px;"> Signature: _____ </div> <div style="margin-top: 10px;"> Title: _____ </div>		

APPENDIX E

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?		
Have all changes to site function been addressed in the SWPPP?		
<div style="display: flex; justify-content: space-between;"> Name: _____ Date: _____ </div> <div style="margin-top: 10px;"> Signature: _____ </div> <div style="margin-top: 10px;"> Title: _____ </div>		