Annapolis Ready Mix Concrete Facility 2015 Industrial Drive, Annapolis, MD 21041

STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

In compliance with:

General Permit No. 15MM9865

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 form industrial facilities. Development, proper implementation, and dedicated monitoring of the SWPPP will allow the Annapolis Ready Mix Concrete Facility [herein known as the Annapolis Facility for the purposes of this report, but commonly referred to as the Bestgate Facility] 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 Annapolis facility is located at 2015 Industrial Drive, Annapolis, Maryland and is within Anne Arundel County boundaries. **Figure 1** is a general vicinity map of the area.

b. Site Description

The Annapolis facility operates on a 7.35 acre parcel of land within an industrial section of the Annapolis area (herein referred to as the Facility). The multi-acre site is bordered by a forested area to the north and by a Southern Maryland Oil facility to the south. An off-site pond is located west of the Facility in a forest stand that separates the site from an adjacent business park. A tree line separates the site from a business park to the east.

On-site structures include offices, small storage sheds, batch plant and batch office, and a fueling area. **Figure 2** is a facility sketch of existing conditions, illustrating pertinent on-site structures

and includes approximate drainage zone locations, patterns of storm water drainage and locations of any discharge points.

c. Site Activities

The Facility 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 7am to 4pm and there is an average of fifteen full-time employees on schedule with approximately ten (10) to twelve (12) trucks operating out of this facility on a regular basis.

d. Existing Drainage and Discharge Conditions

The site can be divided to create two main drainage zones, DZ-1 and DZ-2. **Figure 2** is a facility sketch of existing conditions that includes zone locations, patterns of storm water drainage and locations of any discharge. These are approximate locations based on a review of site conditions and an evaluation of mapping and aerial photos. Site drainage is generally southwestward from DZ-1 and northwestward from DZ-2.

DZ-1 covers the northern section of the site and includes a fueling station, offices, batch plant, truck loading area, mixer drum washout basins, and tiered sediment basins. The northern most section of the property is bordered by precast blocks and earthen berms to prevent runoff into the adjacent forest stand. A fueling station and truck washout basins are situated between the offices and mixer drum wash basins. Flow is directed southwest towards the tiered sediment basins along the western property boundary. The upper washout basins are used for excess concrete disposal and drum cleaning. Excess concrete is removed from the basins and stored as rubble until it is hauled off-site for recycling. The upper basins flow across the driveway to the tiered sediment basins on the western property boundary in DZ-1 for pH treatment and additional settling prior to discharge at DP-1 (Discharge Point-1).

DZ-2 covers the southern end of the property and includes bulk material storage areas, a large earthen mound used for hopper access and the main driveway at the site entrance. The southernmost portion of the site is used for bulk material storage and is arranged in standard fashion with concrete blocks used as bin dividers. Access to the hopper for truck loading is by way of a large earthen mound that produces minimal runoff. Adjacent to this mound is a propane tank. Site elevations naturally direct drainage from DZ-2 to the strip drain on the western side of the property. The strip drain and grading of the paved areas directs the water to the tiered sediment basins for treatment.

Additional information about each drainage zone and discharge point can be found in Table 1.

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 are no records of any 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>: This includes a loading system (hopper, conveyor, and mixer) located in front of the facility office. Contamination may occur through leaking trucks and equipment or spills from overloaded trucks.
- <u>Truck Wash Down Area:</u> There are two washout stations on site. Contamination may
 occur in this area through an increase of pH in collected waters and potential for
 increased sediment build-up.
- <u>Fueling Station:</u> This area includes a fueling station adjacent to the former shop building. Contamination may occur in this area through improper fueling or leaking trucks and equipment.
- <u>Propane Tank:</u> Contamination may occur in this area through improper loading or leaking trucks and equipment.
- <u>Stockpile Materials:</u> Several mounds of stockpile material contained in bins (sand, stone, etc.) are in the southernmost area of the site. 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

Any chemical or oil spill will be recorded on standard inspection forms (**Appendix A**). 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**).

IV. Storm Water Management (SWM) Control Measures

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.

a. Site Evaluation of Existing Control Measures

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

- Washout Basin: Basins located in DZ-1, adjacent to the fuel station, are for mixer drum
 washout and truck exterior cleaning. Trucks release excess material in a designated area
 before washing drums with water. Collected sediment is removed from the basins via
 front end loader as need to maintain functionality.
- <u>Concrete Barriers:</u> Barriers in the northernmost portion of the property prevent discharge to the adjacent forest stand.
- <u>Tiered Sediment Basins:</u> A five tier sediment base located along the western portion of the property in DZ-1 is designed to collect excess process water from the Washout Basin and storm water sheet flow. pH is treated in tier five, the southernmost tier, by a Hydro Innovations Treatment Water System.
- Hydro Innovations Water Treatment System: This water treatment system monitors the
 pH level of collected water and utilizes Carbon Dioxide to maintain pH and filters to
 remove sediments from process water. Treated water can then be recycled into the
 batch plant, used for dust control, and washing vehicles.
- <u>Concrete Swales:</u> Concrete swales throughout the site direct drainage to the sediment basins area for treatment.

b. Implementation of Proposed SWM Control Measures

The following is a list of appropriate control measures that will be implement at the Annapolis Facility:

- <u>Fueling Station:</u> The fueling station and propane tank will be inspected for potential leak hazards and any changes will be implemented immediately. All trucks that use the fueling station are equipped with spill kits in the event of a spill.
- Washout/Collection Basins: The existing washout and collection basins will be inspected
 for potential problems and appropriate measures will be taken to ensure they are
 functioning as designed.
- Hydro Innovations Water Treatment System: Components of the system will be inspected on a regular basis and replacement parts, or system modifications will be made accordingly. Inspections and maintenance will be done by a third-party contactor.
- <u>Material Storage</u>: Any fluid canisters (truck oil, grease) housed on-site will be kept of out contact with storm water and will remain covered when not in use. 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 and extra sealable containers are maintained on-site.
- <u>Stockpiles:</u> All stockpiles remain consolidated, and employees will ensure that there is no sediment, sand/or aggregate leaving the appropriate holding areas.
- <u>Equipment Inspections:</u> Vehicles and equipment will be inspected for fluid leaks and any other potential pollutants to storm water. All vehicles and equipment will receive regular preventative maintenance to reduce the chance of fluid leakage.
- <u>General Housekeeping:</u> General good housekeeping measures will be implemented into a routine schedule to promote site compliance.
- <u>Air Pollution</u>: Dust suppression methods will aid in minimizing air pollution that could originate from the site.

V. Facility Monitoring Plan

a. Routine Inspections

Best management practices and housekeeping will be routinely evaluated for their 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. CEEIP inspection forms will be completed electronically. Inspection documents can be accessed through the company website or be provided upon request. A sample inspection form can be found in **Appendix A**.

b. Hydro Innovations Water Treatment System Monitoring

The Hydro Innovations Water Treatment System that is located on site will be inspected daily by facility staff. The Plant manager or approved on-site personnel will ensure that the unit is turned on and is functioning correctly. Carbon Dioxide refills are on a weekly delivery schedule but can change based on demand. All maintenance will be performed by a third-party contractor.

c. SWPPP Updates and Amendments

Any changes to operating conditions of the Facility that require modification of existing BMPs or implementation of new BMPs will be recorded in **Appendix C**. 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. If 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 Annapolis Facility is the Environmental Manager for Chaney Enterprises 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 SWPPP 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:

Lamont Hopkins Regional Concrete Ops Manager 301-399-2224
 Judith Musee Plant Manager 410-224-3692
 Gus Buttar EHS Manager 240-299-7172

VII. Compliance Requirements

a. On-site Record Retention

A copy of the most recently updated version of this SWPPP and completed inspection forms will be retained electronically in SharePoint and accessible by computer or mobile device at the Facility. Additionally, all employee training records shall be made readily available upon request.

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, trained on proper spill response procedure, and job site chute rise out procedure. Training will be done through the Chaney University online portal, and employee completion of the program will be recorded in the portal.

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.

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."

<u>Victor Vilece</u>	_6/21/24
Name	Date
Environmental Manager Title	
Signature	

FIGURE 1

GENERAL VICINTY MAP



FIGURE 2

FACILITY SKETCH OF EXISTING CONDITIONS



Table 1

<u>EXISITING STORM WATER DRAINAGE AND DISCHARGE POINTS</u>

DRAINAGE ZONE/	STORM WATER DRAINAGE	POTENTIAL	POTENTIAL PROBLEMS
DISCHARGE POINTS	DESCRIPTION	POLLUTION	
DZ-1	Drainage is directed through a series of basins where it is treated by a Hydro Innovations Water Treatment System prior to discharge. Natural topography and a concrete swale	Gasoline, Diesel Fuel, Hydraulic Oil/Fluids, Sediment	Diesel fuel/fluids may leak from trucks and equipment. High pH water may be discharged without being treated. Improper loading may result in sediment discharge.
	direct runoff through the area.		Overflow from collection basin may result.
DZ-2	Drainage is directed to the sediment basins area via natural topography and a strip drain.	Gasoline, Diesel Fuel, Hydraulic Oil/Fluids, Propane, Sediment, High pH Water	Diesel fuel/fluid may leak from trucks and equipment along the entrance way and near the site office. Improper loading may result in sediment discharge. Runoff from bulk material areas may result in excess sediment buildup.
DP-1	The lone discharge point is adjacent to the site entrance. After water is filtered in the sediment basins and treated by the Hydro Innovations Water Treatment System, it is discharged into a storm inlet on Industrial Drive.	Gasoline, Diesel Fuel, Hydraulic Oil/Fluids, Propane, Sediment, High pH Water	Discharge water with high pH is the main concern in this area. Overflow from the loading area may cause release of excess sediment. Trucks release washout water that could potentially be discharged before being treated.

Table 2

MATERIAL INVENTORY

TRADE NAME MATERIAL	PHYSICAL DESCRIPTION	STORM WATER POLLUTANTS		
Cleaning Solvents	Colorless, blue, or yellow-green liquid	Perchloroethylene, methylene, chloride, trichloroethylene, petroleum distillates		
Waste Water	Clear or gray	Oil, grease, concrete		
Concrete	White or gray solids	Limestone, sand		
Sand, Gravel	Solid particles	Silicon, suspended solids, turbidity, sediment		
Hydraulic oil/fluids	Brown oily petroleum hydrocarbon	Mineral oil		
Gasoline	Colorless, plae brown pr pink petroleum hydrocarbon	Benzene, ethyl benzene, toluene, xylene, MTBE		
Diesel Fuel	Clear, blue-green to yellow liquid	Petroleum distillate, oil & grease, naphthalene, xylenes		
Kerosene	Pale yellow liquid petroleum hydrocarbon	Coal oil, petroleum distillates		
Antifreeze/coolant	Clear green/yellow liquid	Ethylene glycol, propylene glycol, heavy metals (copper, lead, zinc)		
Polarset	Light green, clear liquid	Calcium Bromide, Calcium Nitrate, Diethyle Gycol, Methyldiethanolamine, Calcium Nitrite		
Daracel		Naphthalenesulfonic acid, polymer with formaldehyde		
All Safety Data Sheets can be viewed on the Chaney website:				

https://www.chaneyenterprises.com/resources/safety-data-sheets

Storm Water Pollution Prevention Plan Annapolis Ready Mix Concrete Facility

TABLE 3

SWPPP IMPLEMENTATION SCHEDULE

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

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	Daily
	Inspect fuel/propane tanks and containment areas for cracks & leaks.	Daily
Recycling/Reclaim Basins	Inspect basins for effectiveness & make any necessary changes.	Monthly
Collection Basins	Inspect concrete basin at DP-1 for effectiveness. Clean out if needed.	Monthly
Hydro Innovations Water Treatment System	Inspect that system is functioning properly.	Daily
	Check CO2 levels	Weekly
Equipment Inspections	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
General Housekeeping	Enforcement of good housekeeping measures and BMP maintenance will be implemented.	Daily



Appendix A

I. General Informa	tion							CEEIP Inspection Form
Facility:						Permit #:		-
Date:	Т	ime:			Weather:		Phone:	
Facility	•		•			Site		•
Address:						Manager:		
Inspector:								
II. Site Conditions		SV	VPPP Or	n Site: Y	es 🗆 No 🗆	DMR's On	Site: Yes	No 🗆
		Conditio	n Range	į		Comme	ents/Correc	tions Needed
	Great	Good	Fair	Poor				
E & S Control								
On-Site Storage								
Equipment/								
Vehicles								
Roadways								
Air Pollution								
Discharge	Dischar	ging: Y	/ N					
Monitoring	pH:							
Additional Comments on Site Conditions:								
III. pH Treatment	System							
Questions Answer Site Corrections					Site Corrections:			
Washout/Settlin	σ		sins/ponds been cleaned recently?					Site corrections.
Ponds	whati	What is the pH in the settling area w/handheld probe? What is the pH on the pH System display?						
1 01103		•	· ·		display?			
pH System		s the Hi lir						
General		What is the Lo limit reading?						
		How much CO2/Sodium bisulfate is in the tank?						
pH Probe		Is probe covered in residue and dirty?					Due Date:	
		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		e piping f						Sign:
1- 0	Is disch	Is discharge piping functional?					Jigii	
Comments on pH System Conditions:								
Inspector								
Name:			Si	gnature	e:			Date:
		POL	IRING	OUR H	FART & SO	UL INTO EVE	RY.IOR	

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

Gus Buttar (240) 299-7172

4. CONTACT THESE AGENCIES

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

NATIONAL SPILL RESPONSE CENTER (800) 424-8802

APPENDIX C

SWPPP MODIFICATIONS

Date	Comments	Signature
4/7/23	EHS manager updated in Appendix B. Various revision to language of SWPPP.	VJV
6/21/24	Plant Manager updated in Section VI. Part c. Fortrans Treatment System replaced with Hydro Innovations System	VJV
10/23/24	Site area added to Section II. Part b.	VJV

APPENDIX D

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?		
Name:		
Signature:		
Title:	·····	-