

**MULTI-SEASON CONSTRUCTION
WET WEATHER PREPAREDNESS PLAN**

For

RMC Pacific Materials, L.L.C.

Facility Address:

700 Highway 1
Davenport, California

Waste Discharge Requirements Order No.:

R3-2018-0001

Prepared by:

Farallon Consulting, L.L.C.
101 Parkshore Drive
Folsom, California 95630

Farallon PN: 1839-001

March 30, 2018



TABLE OF CONTENTS

ACRONYMS AND ABBREVIATIONS.....	iii
1.0 WWPP REQUIREMENTS.....	1-1
1.1 INTRODUCTION	1-1
1.2 WWPP AVAILABILITY AND IMPLEMENTATION.....	1-1
1.3 AMENDMENTS	1-1
2.0 REPORTING REQUIREMENTS	2-1
3.0 PROJECT INFORMATION	3-1
3.1 PROJECT AND SITE DESCRIPTION.....	3-1
3.1.1 Site Description.....	3-1
3.1.2 Project Description.....	3-1
3.2 STORMWATER RUN-ON FROM OFF-SITE AREAS	3-2
3.3 CONSTRUCTION SCHEDULE.....	3-2
4.0 BEST MANAGEMENT PRACTICES.....	4-1
4.1 SCHEDULE FOR BEST MANAGEMENT PRACTICE IMPLEMENTATION.....	4-1
4.2 EROSION AND SEDIMENT CONTROL	4-1
4.2.1 Erosion Control.....	4-1
4.2.2 Sediment Control	4-2
5.0 BMP INSPECTION AND MAINTENANCE	5-1

TABLE

Table 1 *BMP Implementation Schedule*

APPENDICES

- Appendix A CASQA Stormwater BMP Fact Sheets
- Appendix B BMP Inspection Log
- Appendix C Completed Monitoring Forms



ACRONYMS

BMPs	best management practices
CEMEX	RMC Pacific Materials, L.L.C.
CKD	cement kiln dust
Construction General Permit	National Pollutant Discharge Elimination System General Permit for Storm Water Discharges Associated with Construction Activities
cy	cubic yards
Farallon	Farallon Consulting, L.L.C.
Final Closure Plan	<i>Final North CKD Area Closure Plan and Postclosure Monitoring and Maintenance Plan, RMC Pacific Materials, LLC, 700 Highway 1, Davenport, California</i> dated April 1, 2018, prepared by Adams Resource Consultants Company
Site	CEMEX Davenport Cement Plant Cement Kiln Dust Landfills at 700 Highway 1 in Davenport, California
SWPPP	Stormwater Pollution Prevention Plan
WB	State of California Regional Water Quality Control Board, Central Coast Region
WDR	waste discharge requirements
WWPP	Wet Weather Preparedness Plan



1.0 WWPP REQUIREMENTS

1.1 INTRODUCTION

Farallon Consulting, L.L.C. (Farallon) has prepared this Multi-Season Construction Wet Weather Preparedness Plan (WWPP) to comply with provision E.21.b of the State of California Regional Water Quality Control Board, Central Coast Region (WB) Waste Discharge Requirements (WDR) Order No. R3-2018-0001 dated February 8, 2018. Farallon has completed this WWPP under contract with Adams Resource Consultants Company for RMC Pacific Materials, L.L.C. (referred to herein as CEMEX) for the CEMEX Davenport Cement Plant Cement Kiln Dust (CKD) Landfills at 700 Highway 1 in Davenport, California (herein referred to as the Site).

This WWPP also satisfies WB requirements presented in the letter regarding Land Disposal Program: CEMEX Davenport Cement Plant Inactive North CKD Area – Conceptual Final Closure Plan and Post-Closure Monitoring and Maintenance Plan Conditional Approval dated August 24, 2017, from Mr. John M. Robertson of the WB to Ms. Kori J. Andrews of CEMEX.

This WWPP will be incorporated into the *Final North CKD Area Closure Plan and Postclosure Monitoring and Maintenance Plan, RMC Pacific Materials, LLC, 700 Highway 1, Davenport, California* dated April 1, 2018, prepared by Adams Resource Consultants Company (Final Closure Plan).

1.2 WWPP AVAILABILITY AND IMPLEMENTATION

The WWPP will be available at the Site during working hours while construction is occurring, and will be made available upon request by a state or municipal inspector.

The WWPP will be implemented concurrently with construction activities. Wet weather preparedness activities must be completed by October 1 of each year to prevent discharges of waste, sediment, or other construction materials to surface water or groundwater during the impending rainy season.

1.3 AMENDMENTS

Amendment to the WWPP will be made when:

- Best management practices (BMPs) do not meet the objectives of reducing or eliminating erosion and the discharge of sediment;
- BMPs do not meet the objective of preventing exposure to waste materials;
- There is a change in construction or operations that may affect runoff, diversion, and erosion prevention measures; or
- CEMEX receives notification from the WB to amend this WWPP.



This WWPP will be incorporated into a stormwater pollution prevention plan (SWPPP) prepared in accordance with the National Pollutant Discharge Elimination System General Permit for Storm Water Discharges Associated with Construction Activities (Construction General Permit).



2.0 REPORTING REQUIREMENTS

The WDR requires an Annual Wet Weather Preparedness Report to be submitted no later than October 1 of each year. The annual reports will contain the following wet weather season preparedness information, as required by provisions E.5, E.6, and E.27 of the WDR:

- A summary of runoff, drainage, diversion, and erosion prevention BMPs installed at the Site;
- A summary of seeding and vegetated areas;
- Identification of preparedness actions taken to ensure discharges of waste to surface water or groundwater do not occur during the impending rainy season; and
- A final cover survey topographical map.



3.0 PROJECT INFORMATION

3.1 PROJECT AND SITE DESCRIPTION

3.1.1 Site Description

The CEMEX Davenport Cement Plant North CKD Area Landfill project consists of the following three activity areas:

- Farm CKD area;
- Plant “old” CKD area; and
- Plant CKD pile.

Additional activities that will occur outside the landfill footprint including the installation of a bypass pipeline to route water flowing into the North Pond up-gradient from the landfill and remediation of the retention pond and coal storage area, will add sediment and soil to the landfill prior to construction of the landfill cap.

Site maps for the activity areas are included in Attachment 3 of the Final Closure Plan.

3.1.2 Project Description

The Site contains valley fill composed mainly of CKD currently estimated to be equal to approximately 848,000 cubic yards (cy), much of it in a cemented, very dense “caked” condition. The CKD was placed in an existing canyon and has reached the elevation of the canyon rim such that the area of the pile is either flat or rises above the surrounding land elevation. Until the plant shut-down in 2010, some of the upper CKD pile was recycled and hauled off the Site. Based on the chemistry of the CKD and market demand, CEMEX has determined that no additional CKD can be feasibly recycled from the project area for road stabilization, soil amendment, or other uses.

The North CKD Area is subdivided into three adjacent work areas, as shown on Sheet C3 in Attachment 3 of the Final Closure Plan. The proposed project is to complete the final closure of the North CKD Area Landfill by:

- Installing a new 42-inch stormwater bypass pipe;
- Removing sediment from the retention pond for placement in the landfill;
- Removing coal residuals from the ground surface at the former coal storage area and placing the material in the landfill;
- Placing material from iron ore, sand, clay, and clinker stockpiles into the landfill;
- Filling and grading CKD landfill areas to final design elevation;
- Upgrading perimeter ditches and downstream conveyance and installing French drains to capture or divert stormwater and near surface groundwater run-on;



- Installing a low permeability cap; and
- Constructing a steel-reinforced soil nail wall and shotcrete cover at the southwestern face of the North CKD Area.

Project details are shown on the Site maps in Attachment 3 of the Final Closure Plan.

3.2 STORMWATER RUN-ON FROM OFF-SITE AREAS

Stormwater run-on is expected to occur mainly from north of the Site. Perimeter ditches, drop structures, and conveyance pipes will be implemented to direct run-on around disturbed soil areas.

3.3 CONSTRUCTION SCHEDULE

Construction is expected to occur over two construction seasons. Modification or extension of the schedule (i.e., start and end dates) may be needed depending on weather conditions, contractor availability, and agency approval. The estimated schedule for the planned construction is as follows:

- May/June 2019: Mobilize, Staging, Access Preparation;
- May/June 2019: Construction Start;
- May/June through September 2019: Full Construction Activities;
- August through September 2019: Wet Weather Preparedness Start/Finish;
- October 2019 through March 2020: Wet Weather BMP Inspections/Maintenance, Limited Construction Activities Depending on Weather;
- April 2020: Resume Full Construction Activities;
- April through September 2020: Finish Construction;
- August through September 2020: Final Stabilization; and
- October 2020; Commence Post-Closure Monitoring

Some internal schedule changes may occur, and construction will be limited during periods of wet weather.



4.0 BEST MANAGEMENT PRACTICES

4.1 SCHEDULE FOR BEST MANAGEMENT PRACTICE IMPLEMENTATION

The schedule for implementing the relevant BMPs is presented in Table 1. Effective erosion and sediment control BMPs must be in place prior to October 1 of each year and must be documented in an annual Wet Weather Preparedness Report as described in Section 2.0, Reporting Requirements.

4.2 EROSION AND SEDIMENT CONTROL

Erosion and sediment controls are required to provide effective reduction or elimination of sediment-related pollutants in stormwater discharges from the Site during the wet weather season. Applicable BMPs are identified in this section for erosion control, sediment control, tracking control, and wind erosion control.

The locations of some specific erosion and sediment control BMPs are included on Sheets E1 and E2 in Attachment 3 of the Final Closure Plan. BMPs also will be installed in areas not shown on Sheets E1 and E2, as necessary and as required by the Construction Manager.

4.2.1 Erosion Control

Erosion control, also referred to as soil stabilization, consists of source control measures designed to prevent soil particles from detaching and becoming transported in stormwater runoff. Erosion control BMPs protect the soil surface by covering and/or binding soil particles. This construction project will implement the following practices to provide effective temporary and final erosion control during the wet weather season:

- Control the area of soil-disturbing operations such that the Contractor is able to implement erosion control BMPs quickly and effectively;
- Divert stormwater run-on with perimeter ditches and stormwater bypass pipe system;
- Control erosion in concentrated flow paths by applying erosion control blankets, check dams, and erosion control seeding; and
- Apply erosion control BMPs to areas of disturbed soil prior to the start of the wet weather season.

Sufficient erosion control materials will be maintained on the Site to allow implementation in conformance with this WWPP. The BMP implementation schedule table (Table 1) identifies the options for BMPs that will be implemented to control erosion on the Site. California Stormwater Quality Association fact sheets for temporary erosion control BMPs are provided in Appendix A. Not all of the BMPs listed in Table 1 and described below must be used, but are presented so that the most effective BMP can be selected for each situation.



Applicable temporary erosion control BMPs will be implemented in general conformance with the following guidelines and as outlined in the BMP fact sheets provided in Appendix A. If there is a conflict between documents, the Site map will prevail over the narrative in the body of the WWPP or guidance in the BMP fact sheets. Site-specific details in the Site map prevail over standard details included in the Site map. The narrative in the body of the WWPP prevails over guidance in the BMP fact sheets.

Scheduling: BMP Fact Sheet EC-1

Limit construction during storm events and during the rainy season (i.e., October 1 through April 15 of each year). Wet weather BMPs will be installed before October 1 of each year.

Hydraulic Mulch/Hydroseed/Straw Mulch/Geotextiles and Mats: BMP Fact Sheets EC-3, EC-4, EC-6, and EC-7

Hydraulic mulch, hydroseed, straw mulch, and/or erosion control blankets will be applied to protect exposed soil as part of the wet weather preparedness.

Temporary stabilization may be provided through the use of mulch, geotextiles, or mats in areas that will be inactive for 14 days or more.

The final cover of the landfill and other disturbed areas will be permanently stabilized with hydroseed at the completion of the landfill construction.

Soil Binders: BMP Fact Sheet EC-5

Soil binders, such as EarthGuard by LSC Environmental Products, LLC, may be used as a temporary stabilization measure for disturbed soil areas.

Velocity Dissipation Devices: BMP Fact Sheet EC-10

Velocity dissipation devices will be constructed to protect outfalls from perimeter ditches and/or the stormwater bypass pipe from scour erosion.

Wind Erosion Control: BMP Fact Sheet WE-1

Stockpiles and other bare soil will be protected from wind erosion during the wet weather season by covering or stabilizing the features. Dust control water may be used and will be applied at a rate and volume so as not to create runoff.

Stockpile Management: BMP Fact Sheet WM-3

Stockpiles will be protected from wet weather season by covering or stabilizing the features. Fiber rolls will be placed on the downstream edges of stockpiles.

4.2.2 Sediment Control

The BMP implementation schedule table (Table 1) identifies BMPs that will be selected to control sediment on the Site. Not all of the BMPs listed in Table 1 and described below must be used, but are presented so that the most effective BMP can be selected for each situation. Fact sheets for temporary sediment control BMPs are provided in Appendix A.



Check Dams: BMP Fact Sheet SE-4

Check dams will be constructed in perimeter ditches to reduce flow velocity and limit the transport of sediment.

Linear Sediment Controls – Silt Fence/Fiber Rolls/Manufactured Linear Sediment Controls/Compost Socks: BMP Fact Sheets SE-1, SE-5, SE-12, and SE-13

Linear sediment controls (i.e., fiber rolls or equivalent) will be applied along the toe of any slope, face of any slope, and at the grade breaks of exposed slopes to comply with the sheet flow lengths shown below, as required by the Construction General Permit.

Slope Percentage	Sheet Flow Length Not to Exceed
0 – 25	20 feet
25 – 50	15 feet
Over 50	10 feet

Biodegradable fiber rolls or compost socks can be left in place and do not have to be removed. Plastic mesh-wrapped fiber rolls are prohibited from being used.

Storm Drain Inlet Protection: BMP Fact Sheet SE-10

Storm drain inlet protection devices will be installed to protect inlets and stormwater bypass pipes from clogging or transporting sediments downstream.

Stabilized Construction Entrance and Exit: BMP Fact Sheet TC-1

The construction entrance and exit will be stabilized with rock, or equivalent procedures will be implemented in order to prevent tracking.



5.0 BMP INSPECTION AND MAINTENANCE

The WDR requires routine inspections of BMPs, and prompt repair of drainage control facilities or covering of damage that threatens waste containment, cover integrity, or percolation of water into waste. A BMP inspection checklist must be filled out for inspections and maintained with the WWPP on the Site. A blank BMP inspection log is provided in Appendix B. Completed logs will be stored in Appendix C. BMPs will be maintained regularly to ensure proper and effective functionality. Inspections will occur on working days weekly and before, during, and after any qualifying storm event. A qualifying storm event is defined as 0.5 inch of rainfall with 48 hours or more with no rain between events. If necessary, corrective actions or repairs will be implemented within 72 hours of identified deficiencies.

Specific details for installation, maintenance, inspection, and repair of construction area BMPs are provided in the BMP fact sheets in Appendix A.

Implementation of equivalent inspection forms and record keeping for the construction SWPPP, in accordance with the Construction General Permit, can be conducted in lieu of the inspection forms and record keeping referred to for Appendices B and C.

TABLE

**MULTI-SEASON CONSTRUCTION
WET WEATHER PREPAREDNESS PLAN
CEMEX Davenport Cement Plant
700 Highway 1
Davenport, California**

Farallon PN: 1839-001

APPENDIX A
CASQA STORMWATER BMP FACT SHEETS

MULTI-SEASON CONSTRUCTION
WET WEATHER PREPAREDNESS PLAN
CEMEX Davenport Cement Plant
700 Highway 1
Davenport, California

Farallon PN: 1839-001

**APPENDIX B
BMP INSPECTION LOG**

MULTI-SEASON CONSTRUCTION
WET WEATHER PREPAREDNESS PLAN
CEMEX Davenport Cement Plant
700 Highway 1
Davenport, California

Farallon PN: 1839-001

APPENDIX C
COMPLETED MONITORING FORMS

MULTI-SEASON CONSTRUCTION
WET WEATHER PREPAREDNESS PLAN
CEMEX Davenport Cement Plant
700 Highway 1
Davenport, California

Farallon PN: 1839-001

BMP and visual observation records are stored in the WWPP binder at the Site and will be included in the Construction Quality Assurance report for the project.