

Municipality/Organization: DDS Fernald Center

EPA NPDES Permit Number: MAR042028

MassDEP Transmittal Number: W-

Annual Report Number Year 11
& Reporting Period: April 1, 2013 – March 31, 2014

NPDES PII Small MS4 General Permit Annual Report (Due: May 1, 2013)

Part I. General Information

Contact Person: Paul Bermingham **Title:** Director of Campus Safety

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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 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.

Signature: Paul Bermingham

Printed Name: PAUL BERMINGHAM

Title: DIRECTOR OF CAMPUS SAFETY, FERNALD CENTER

Date: May 6, 2014

Part II. Self-Assessment

The previous self assessments completed by Jon Graves indicated that the Fernald Center is in compliance with all permit conditions. Programs have been ongoing with remaining staff. Fernald has been selected by DDS for closure and remains in active closure status during this period. Jon Graves left employment at Fernald in October, 2008. Paul Bermingham has assumed Jon Graves's duties. As of April 20, 2011 the Fernald census is at 16 developmentally disabled individuals living at Fernald. The Marquardt Nursing Center is also located on the Fernald campus and has a census of 29. The 200 acre campus is being shut down except for the Marquardt Nursing Center which is currently under renovation to be a stand alone building.

As of May 1, 2014, Fernald continues in active closure status. The Fernald census is at 6 developmentally disabled individuals living at Fernald. The Marquardt Nursing Center remains open with a census of 29. DDS still plans to operate the Marquardt Nursing Center after Fernald is shut down.

Fernald continues to work with other agencies on the Fernald shutdown. The Commonwealth Division of Capital Asset Management, (DCAM) and its contractors are working with the City Of Waltham on issues related to the connection to a new water line in Trapelo Road . This new water line will allow the Commonwealth to discontinue use of the current Water Tower and pumping system at the Fernald Power Plant, which is antiquated. Eventually, the Power Plant will be shut down and the oil tanks removed pursuant to Phase 1 of the Fernald Closure Plan.

Additionally, DCAM and its contractors are working to assess the Fernald water and sewage systems in order to determine if there are any issues that need to be addressed prior to connection to the City of Waltham's new water line in Trapelo Road.

On April 25, 2014, the Fernald Power Plant boiler failed to operate. State Power Plant staff and two vendors were unable to get the boiler to restart. On April 28, 2014, DCAM, EHS and DDS decided not to continue efforts to restart the Power Plant boiler. The Fernald residential buildings and the Marquardt Nursing center are not dependent on the Power Plant for heat and hot water. A temporary boiler will be brought in by DCAM to heat up the remaining #6 oil in the two underground storage tanks (UST) at the Power Plant. It is estimated that there are 36,000 gallons of #6 oil in the two UST's.

Part III. Summary of Minimum Control Measures

1. Public Education and Outreach

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities
Revised	Develop Information bulletin	Jon Graves	Information is distributed to all staff	None	Storm water issues will be incorporated into a facility bulletin for general distribution
Revised					
Revised					
Revised					
Revised					
Revised					

1a. Additions

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities
Revised	Develop Stormwater information update	Jon Graves	Information is presented to support services staff	None	Information update will be presented to all staff through a facility newsletter.
Revised	Support Staff Training	Jon Graves	Support Staff are trained in Storm Water issues		Support staff will be retrained and materials will be presented to all staff through facility newsletter.
Revised					
Revised					
Revised					
Revised					
Revised					

2a. Additions

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities
Revised	Grounds Department and Campus Police monitor Fernald for illicit dumping	Jon Graves Paul Birmingham	Grounds are monitored and patrolled 24/7/365	No hazardous dumping detected	Continue program and install gates to secure facility as it closes down.
Revised					
Revised					
Revised					
Revised					
Revised					

3a. Additions

4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities
Revised	Fernald has been selected for closure by DDS. No new construction is planned for this year.				
Revised					
Revised					
Revised					
Revised					
Revised					

4a. Additions

5. Post-Construction Stormwater Management in New Development and Redevelopment

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities
	N/A				
Revised					
Revised					
Revised					
Revised					
Revised					
Revised					

5a. Additions

6. Pollution Prevention and Good Housekeeping in Municipal Operations

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities
Revised	Storm Drain Cleaning and Maintenance	Paul Bermingham	Storm drains are cleaned and repaired	None	Storm drains were cleaned and will be monitored by Grounds staff.
Revised	Street Sweeping	Paul Bermingham	Streets are swept on an annual basis	Streets were swept this spring	Program will continue
Revised	Secondary Containment for all hazardous Materials is in place	Paul Bermingham	All diesel and heating oil tanks have 110% secondary containment	All tanks are inspected weekly as part of Fernald's preventive maintenance program.	Program will continue
Revised	Florescent lamp an ballast recycling program	Paul Bermingham	All lamps and ballast are collected and recycled.	Lamps are properly stored and removed by a licensed vendor.	Program will continue
Revised	Landscaping and lawn care	Paul Bermingham	All landscaping is chemical free	No pesticides or fertilizers are used at Fernald	Program will continue
Revised	Road Salt Storage	Paul Bermingham	All Storage is covered by a roofed building	Stock is stored under a roofed building and is not left out in the weather.	Program will continue

6a. Additions

	DCAM has installed a new front gate	DCAM	completed	New fencing will be required to intersect with the new front gate	Continue working with DCAM and DDS on Fernald closure and fencing.

7. BMPs for Meeting Total Maximum Daily Load (TMDL) Waste Load Allocations (WLA) <<if applicable>>

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities
Revised					
Revised					
Revised					
Revised					
Revised					
Revised					

7a. Additions

7b. WLA Assessment

Part IV. Summary of Information Collected and Analyzed

No sampling done

Part V. Program Outputs & Accomplishments (OPTIONAL)

(Since beginning of permit coverage unless specified otherwise by a **, which indicates response is for period covering April 1, 2010 through March 31, 2011)

Programmatic

		Response
Stormwater management position created/staffed	(y/n)	
Annual program budget/expenditures **	(Preferred \$ Units)	
Total program expenditures since beginning of permit coverage	(\$)	
Funding mechanism(s) (General Fund, Enterprise, Utility, etc)		

Education, Involvement, and Training

Estimated number of property owners reached by education program(s)	(# or %)	
Stormwater management committee established	(y/n)	
Stream teams established or supported	(# or y/n)	
Shoreline clean-up participation or quantity of shoreline miles cleaned **	(y/n or mi.)	
Shoreline cleaned since beginning of permit coverage	(mi.)	
Household Hazardous Waste Collection Days		
▪ days sponsored **	(#)	
▪ community participation **	(# or %)	
▪ material collected **	(tons or gal)	
School curricula implemented	(y/n)	

Legal/Regulatory

	In Place Prior to Phase II	Reviewing Existing Authorities	Drafted	Draft Review	Adopted
Regulatory Mechanism Status (indicate with “X”)					
▪ Illicit Discharge Detection & Elimination					
▪ Erosion & Sediment Control					
▪ Post-Development Stormwater Management					
Accompanying Regulation Status (indicate with “X”)					
▪ Illicit Discharge Detection & Elimination					
▪ Erosion & Sediment Control					
▪ Post-Development Stormwater Management					

Mapping and Illicit Discharges

	Response
Outfall mapping complete	(%)
Estimated or actual number of outfalls	(Preferred Units) (#)
System-Wide mapping complete (complete storm sewer infrastructure)	(%)
Mapping method(s)	
▪ Paper/Mylar	(%)
▪ CADD	(%)
▪ GIS	(%)
Outfalls inspected/screened **	(# or %)
Outfalls inspected/screened (Since beginning of permit coverage)	(# or %)
Illicit discharges identified **	(#)
Illicit discharges identified (Since beginning of permit coverage)	(#)
Illicit connections removed **	(#); and (est. gpd)
Illicit connections removed (Since beginning of permit coverage)	(#); and (est. gpd)
% of population on sewer	(%)
% of population on septic systems	(%)

Construction

		Response
Number of construction starts (>1-acre) **	(#)	
Estimated percentage of construction starts adequately regulated for erosion and sediment control **	(Preferred Units)	
Site inspections completed **	(# or %)	
Tickets/Stop work orders issued **	(# or %)	
Fines collected **	(# and \$)	
Complaints/concerns received from public **	(#)	

Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	
Site inspections (for proper BMP installation & operation) completed **	(# or %)	
BMP maintenance required through covenants, escrow, deed restrictions, etc.	(y/n)	
Low-impact development (LID) practices permitted and encouraged	(y/n)	

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets) **	(times/yr)	
Average frequency of catch basin cleaning (commercial/arterial or other critical streets) **	(times/yr)	
Qty of structures cleaned **	(#)	
Qty. of storm drain cleaned **	(%, LF or mi.)	
Qty. of screenings/debris removed from storm sewer infrastructure **	(lbs. or tons)	
Disposal or use of screenings (landfill, POTW, compost, beneficial use, etc.) **	(location)	

Basin Cleaning Costs		
• Annual budget/expenditure (labor & equipment)**	(\$)	
• Hourly or per basin contract rate **	(\$/hr or \$ per basin)	
• Disposal cost**	(\$)	
Cleaning Equipment		
• Clam shell truck(s) owned/leased	(#)	
• Vacuum truck(s) owned/leased	(#)	
• Vacuum trucks specified in contracts	(y/n)	
• % Structures cleaned with clam shells **	(%)	
• % Structures cleaned with vacuor **	(%)	

Response

Average frequency of street sweeping (non-commercial/non-arterial streets) **	(times/yr)	
Average frequency of street sweeping (commercial/arterial or other critical streets) **	(Preferred Units)	
Qty. of sand/debris collected by sweeping **	(lbs. or tons)	
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.) **	(location)	
Annual Sweeping Costs		
• Annual budget/expenditure (labor & equipment)**	(\$)	
• Hourly or lane mile contract rate **	(\$/hr. or ln mi.)	
• Disposal cost**	(\$)	
Sweeping Equipment		
• Rotary brush street sweepers owned/leased	(#)	
• Vacuum street sweepers owned/leased	(#)	
• Vacuum street sweepers specified in contracts	(y/n)	
• % Roads swept with rotary brush sweepers **	%	
• % Roads swept with vacuum sweepers **	%	

Reduction (since beginning of permit coverage) in application on public land of:
 (“N/A” = never used; “100%” = elimination)

▪ Fertilizers	(lbs. or %)	
▪ Herbicides	(lbs. or %)	
▪ Pesticides	(lbs. or %)	
Integrated Pest Management (IPM) Practices Implemented	(y/n)	

		Response
Average Ratio of Anti-/De-Icing products used ** (also identify chemicals and ratios used in specific areas, e.g., water supply protection areas)	(Preferred Units) % NaCl % CaCl ₂ % MgCl ₂ % CMA % Kac % KCl % Sand	
Pre-wetting techniques utilized **	(y/n or %)	
Manual control spreaders used **	(y/n or %)	
Zero-velocity spreaders used **	(y/n or %)	
Estimated net reduction or increase in typical year salt/chemical application rate	(±lbs/lb mi. or %)	
Estimated net reduction or increase in typical year sand application rate **	(±lbs/lb mi. or %)	
% of salt/chemical pile(s) covered in storage shed(s)	(%)	
Storage shed(s) in design or under construction	(y/n or #)	
100% of salt/chemical pile(s) covered in storage shed(s) by May 2008	(y/n)	

Water Supply Protection

Storm water outfalls to public water supplies eliminated or relocated	# or y/n	
Installed or planned treatment BMPs for public drinking water supplies and their protection areas	# or y/n	

• Treatment units induce infiltration within 500-feet of a wellhead protection area	# or y/n	
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