# Commonwealth of Massachusetts Executive Office of Environmental Affairs ■ MEPA Office



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Executive Office of	f Environmental Affairs
EOEA No.:	3216
EUEA NO.:	
MEPA Analys	CK ZAVOLAS
Phone: 617-626	1030

The information requested on this form must be completed to begin MEPA Review in accordance with the provisions of the Massachusetts Environmental Policy Act, 301 CMR 11.00.

Project Name: FMC-Wrentham, MA	(Former	Crosby Valve Si	ite)		
Street: Kendrick Street					
Municipality: Wrentham	·	Watershed: Ch	narles		
Universal Tranverse Mercator Coord	inates:	Latitude: 42°04	1'06"N		
Zone 19 42°04.114'N 71°20.037'W		Longitude: 71°20'02"W			
Estimated commencement date: 7/1	2/04	Estimated com	pletion date: 9/17/04		
Approximate cost: To be determined		Status of project	ct design: 100 %complete		
Proponent: FMC Corporation					
Street: 1735 Market Street					
Municipality: Philadelphia		State: PA	Zip Code: 19103		
Name of Contact Person From Who	m Copies	of this ENF May	y Be Obtained:		
Erin Rankin					
Firm/Agency: Blasland, Bouck & Lee	e, Inc.	Street: 6723 To	Street: 6723 Towpath Road		
Municipality: Syracuse		State: NY	Zip Code: 13214		
Phone: 315-446-9120	Fax: 31	5-445-9120	E-mail: ecr@bbl-inc.com		
Does this project meet or exceed a mandatory EIR threshold (see 301 CMR 11.03)?  ☐ Yes ☒No					
Has this project been filed with MEPA be ☐ Yes (EOEA No	efore?	) ⊠No			
Has any project on this site been filed with MEPA before?  Yes (EOEA No) \( \subseteq \text{No} \)					
Is this an Expanded ENF (see 301 CMR 11.05(7)) requesting: a Single EIR? (see 301 CMR 11.06(8))  a Special Review Procedure? (see 301 CMR 11.09) Yes No a Waiver of mandatory EIR? (see 301 CMR 11.11) Yes No a Phase I Waiver? (see 301 CMR 11.11)					
Identify any financial assistance or land transfer from an agency of the Commonwealth, including the agency name and the amount of funding or land area (in acres): N/A					
Are you requesting coordinated review with any other federal, state, regional, or local agency?  ☐Yes (Specify) ☒No					
List Local or Federal Permits and Approvals: <u>Order of Conditions, Water Quality Certification,</u> National Pollution Discharge Elimination System (NPDES) permit(s)					

Which ENF or EIR review threshold(s) does the project meet or exceed (see 301 CMR 11.03):					
☐ Land ☐ Water ☐ Energy ☐ ACEC	☐ Rare Speci ☐ Wastewate ☐ Air ☐ Regulation	r 🔲	Transportat Solid & Haz	ardous Waste Archaeological	
Summary of Project Size	Existing	Change	Total	State Permits &	
& Environmental Impacts				Approvals	
	LAND			Order of Conditions	
Total site acreage	6 acres	1		Superseding Order of Conditions	
New acres of land altered				☐ Chapter 91 License	
Acres of impervious area					
Square feet of new bordering vegetated wetlands alteration		14,723 s.f.		☐ MHD or MDC Access Permit	
Square feet of new other wetland alteration		41,100 s.f.		☐ Water Management Act Permit	
Acres of new non-water dependent use of tidelands or waterways				☐ New Source Approval	
STR Gross square footage	UCTURES			DEP or MWRA Sewer Connection/ Extension Permit Other Permits (including Legislative	
Number of housing units				Approvals) - Specify:	
Maximum height (in feet)					
TRANS	PORTATION				
Vehicle trips per day					
Parking spaces					
WAS	TEWATER				
Gallons/day (GPD) of water use					
GPD water withdrawal					
GPD wastewater generation/ treatment					
Length of water/sewer mains (in miles)					
CONSERVATION LAND: Will the prinatural resources to any purpose notYes (Specify	in accordance v ervation restricti	vith Article 97? ) [ on, preservation	⊠No	·	

<b>RAKE SPECIES</b> : Does the project site include Estimated Habit	at o	f Rare Species, Vernal Pools, Priority
Sites of Rare Species, or Exemplary Natural Communities?		•
☐Yes (Specify	)	⊠No
HISTORICAL /ARCHAEOLOGICAL RESOURCES: Does the p	oroje	ect site include any structure, site or district
listed in the State Register of Historic Place or the inventory of	Histo	oric and Archaeological Assets of the
Commonwealth?		
☐Yes (Specify)	,	⊠No
If yes, does the project involve any demolition or destruction of		<b>—</b>
archaeological resources?	arry	isted of inventoried historic of
· · · · · · · · · · · · · · · · · · ·		
☐Yes (Specify	_)	⊠No
ADEAC OF COITICAL ENVIRONMENTAL CONCEDURAL		
AREAS OF CRITICAL ENVIRONMENTAL CONCERN: Is the	proje	ect in or adjacent to an Area of Critical
Environmental Concern?		_
Yes (Specify	_)	⊠No
<b>PROJECT DESCRIPTION:</b> The project description sh	ould	include (a) a description of the
project site, (b) a description of both onsite and offsite al	tern	natives and the impacts accordated
with each alternative and (a) notantial analts and affairs.	:41	
with each alternative, and (c) potential onsite and offsite r	mitié	gation measures for each alternative
(You may attach one additional page, if necessary.)		

## (a) Project Site

Environmental remediation will be conducted within two stormwater retention basins (known as the Settling Pond and the Mudhole Pond) at the Former Crosby Valve site located in Wrentham, MA (Attachment 1). These remediation activities are being conducted in accordance with the Massachusetts Contingency Plan (MCP) (310 CMR 40.0000) to address the presence of MCP-defined oil and/or hazardous materials (OHM) in sediments and soil. The planned environmental remediation activities constitute a "limited project" based on the guidance presented in 310 CMR 10.53(3)(q), which identifies remediation of OHM in accordance with 310 CMR 40.0000 as a limited project.

Two underground discharge pipes (an 8-inch and a 15-inch pipe) intermittently discharge stormwater from the Town of Wrentham and non-contact cooling water from the Anderson-Greenwood-Crosby Plant to an inlet channel (the "Settling Pond Inlet") approximately 110 feet long that drains into the Settling Pond (see Attachment 2). Once the Settling Pond reaches its capacity, water flows over a weir and enters an approximately 50-foot-long inlet channel (the "Mudhole Pond Inlet") that drains into the Mudhole Pond. Current conditions are a result of a 1968 release of fuel oil, which was conveyed to and entered the Settling Pond through the stormwater discharge pipes. Actions were immediately taken (in 1968) to recover fuel oil from the Settling Pond; however, recent investigations identified that some fuel oil residues remained in the sediment and certain underlying soils in the ponds.

Proposed remediation activities involve excavation and offsite disposal of approximately 3,100 cubic yards (estimated) of sediments and underlying soil containing petroleum hydrocarbons and metals from within the Settling Pond, the Mudhole Pond, and associated inlet channels. Activities include: upgrading access paths; temporary bypass pumping of influent flows; removing impacted material; staging, dewatering, and offsite transport of the impacted material; and containing and treating potentially impacted waters generated via the environmental remediation activities (e.g., waters derived from the dewatering process).

## (b) Alternatives and Impacts

#### **Alternatives**

The MCP requires a comprehensive assessment of feasible remedial action alternatives. This assessment is documented in the Massachusetts Contingency Plan Phase II Comprehensive Site Assessment Report and Phase III Remedial Action Plan (Phase III/Phase III) (February 2003). Based on the evaluation of

conditions documented in the *Phase III/Phase III*, excavation and offsite disposal of sediments and underlying soil was chosen as the most practical/effective alternative to address the elevated constituent concentrations in impacted sediments and soils. The selected remediation is expected to achieve conditions that support a Class A Response Action Outcome (RAO) (Permanent Solution) consistent with MCP criteria identified in 310 CMR 40.1000.

Impacts

Location/Identification	Area Affected by Remediation	Review Threshold (requiring ENF)	Review Threshold Exceeded?	
Bordering Vegetated Wetland The Settling Pond Inlet The Mudhole Pond Inlet The Settling Pond perimeter The Mudhole Pond perimeter	14,723 sq. ft.	Alteration of 5,000 or more s.f. of bordering vegetated wetland (301 CMR 11.03 (3)(b)1d)	Yes	
Freshwater Wetland The Mudhole Pond	41,100 sq.ft. (0.94 acres)	Alteration of one half or more acres of any other wetland (301 CMR 11.03 (3)(b)1f)	Yes	
Bank The Settling Pond	440 ft.	Alteration of 500 or more linear feet of bank along a fish run or inland bank	No	

## (c) Mitigation, and Restoration Measures

The planned remediation activities require the unavoidable temporary disturbance of regulated resources. However, there will be no permanent loss of resources or net discharge of fill in resource areas and the ponds and adjacent areas will be restored to similar conditions following remediation. Further, upon completion of remediation activities, storage capacity will be retained or enhanced in the two stormwater retention ponds.

The remainder of this section describes the planned mitigation and restoration measures developed to mitigate and restore disturbances.

# **Mitigation Measures/Operational Controls**

Although temporary disturbances to resource areas cannot be avoided because the remediation is driven by the need to remove impacted material, the design has been developed to minimize remediation-related disturbances and to promote safe work conditions as described below.

- Necessary permits will be obtained prior to commencement of work, including, for example, an
  Order of Conditions (OOC; scheduled to be issued on May 13, 2004) and applicable National
  Pollutant Discharge Elimination System (NPDES) permit(s).
- Unauthorized access to the work areas and equipment will be minimized by installation of temporary fences.
- Access to impacted material was designed to avoid resource disturbances, if possible, and minimize disturbances to resources if disturbances are unavoidable.
- Existing access paths will be used whenever possible where established, avoiding resource areas
  when possible. Access paths avoid the Wrentham bylaw 50-foot buffer zone when possible, and
  use the portion of the Wetland Protection Act 100-foot buffer zone beyond the 50-foot buffer
  zone where no other options exist.
- Erosion controls are anticipated to consist of properly installed siltation fences and/or staked hay bales at the water discharge location; between work areas and wetland boundaries; around areas where extensive grading and/or vehicular traffic occur (e.g., staging area); and around any areas in which excavated material is handled and/or staged.

- Excavated material will be stockpiled and dewatered within the excavation areas, adjacent to the banks, whenever possible. Materials staged/dewatered within the staging area will be treated properly (i.e., measures, such as lining and covering the piles, will be taken to control the release of solid or liquid materials).
- Water that is potentially impacted by site constituents will be pumped to influent tanks
  associated with temporary onsite water treatment system anticipated to include, at minimum,
  initial settlement and/or filtration followed by carbon adsorption.
- The water discharge location will be lined with rip-rap, hay bales, and/or other erosion control to dissipate flow velocity and prevent erosion.
- Residual material generated during the water treatment process (e.g., solids from the settling tanks, spent carbon, etc.) and other residual wastes (e.g., disposable equipment, personal protective equipment, cleaning residuals, water treatment residuals, etc.) will be disposed in conjunction with the excavated materials in accordance with applicable federal, state, and/or local requirements.
- Perimeter particulate monitoring will be performed when a stabilization agent is added (if any) to the excavated material, and perimeter air monitoring for volatile constituents will be performed continually throughout the project using a photoionization detector (PID). In the event that monitoring action levels are exceeded, control measures may include modification of work procedures, suspension of certain work activities, use of foam sprays, or other measures.

## **Restoration Measures**

Disturbed resources will be restored to conditions that maintain or enhance their primary function in the environment. The following subsections describe restoration plans within each part of the project.

## The Settling Pond Inlet

The anticipated horizontal limits of sediment excavation in the inlet are defined by the toe of the slope on either side of the inlet. The removal of 18 inches of material from the inlet bottom will be restored by replacing the removed material with soil and a pea gravel cover. The pea gravel will be more stable than the existing fine material and will be less likely to erode. Vegetation that is disturbed during excavation will be restored by reseeding, using the wetland seed mix and seeding specifications described for the Mudhole Pond (as described below). After seeding, the area will be covered with a biodegradable blanket to prevent erosion and/or washing away seeds during a high flow event.

## The Settling Pond

Disturbances to the Settling Pond will consist of removing impacted material from below the ordinary high water mark (OHWM) to an estimated average depth of approximately 18 inches across the pond bottom. Excavations on the bank will parallel the existing bank grade to maintain the existing bank grades and leave the natural soil horizons intact.

Following removal of impacted material from the pond bottom (to a target depth of 18 inches), 6 inches of primarily silt and clay material will be replaced on the pond bottom. Placement of 6 inches of material following excavation of 18 inches will maintain the low permeability of the pond bottom, provide an additional foot of flood storage capacity in the pond, and maintain the bottom elevation above the water table. The physical characteristics of the replacement material will be similar to the material removed. Bank and bordering vegetated wetland vegetation surrounding the Settling Pond that is disturbed will be restored by reseeding, using the wetland seed mix and seeding specifications described for the Mudhole Pond (as described below).

## The Mudhole Pond Inlet

A portion of the inlet between the Settling Pond and the Mudhole Pond appears to be concrete-lined. In the concrete-lined areas, removing accumulated material above the lining will have minimal effect on adjacent resources in the concrete-lined areas and no restoration activities will be performed in the concrete channel. In portions of the inlet that are not lined, resources within the inlet will be temporarily

affected by environmental remediation activities by removing up to 18 inches of impacted material from between the toe of the slopes.

In portions of the inlet that are not lined, the inlet channel bottom will be restored by replacing the removed material with soil and a pea gravel cover. The pea gravel will be more stable than the existing fine material and will be less likely to erode. Vegetation that is disturbed during excavation will be restored by reseeding, using the wetland seed mix and seeding specifications described for the Mudhole Pond, as described below. After seeding, the area will be covered with a biodegradable blanket to prevent erosion and/or washing away seeds during a high flow event.

#### The Mudhole Pond

Disturbances to the Mudhole Pond will consist of removing impacted sediments from below the OHWM to an underlying peat layer, to an average estimated depth of approximately 16 inches. Excavations at the perimeter of the Mudhole Pond will parallel the existing grade and leave the soil horizons intact. Removing impacted material will require temporary clearing of vegetation within the Mudhole Pond below the OHWM.

Following removal to an average estimated depth of approximately 16 inches of material (the average depth at which the underlying peat layer exists), 6 inches of clean material from an offsite source will be replaced on the excavation bottom. This will provide approximately one foot of additional flood storage capacity, will maintain the bottom elevation above the water table to maintain the periodically flooded hydrology, and will provide a suitable substrate for establishing a vegetated wetland habitat. The physical characteristics of the replacement material will be similar to the material removed. Once the bottom material has been replaced, emergent wetland vegetation will be placed in the Mudhole Pond and the surrounding disturbed bordering vegetated wetland resource areas, as described below.

In areas that are dry/saturated to the surface at the time of planting, vegetation will be established by seeding the area with commercially available seeds for the mix of native wetland plant species observed in the Mudhole Pond at an application rate of 17 pounds per acre (consistent with supplier's recommended application rate). If seeds are not available for all identified plant species, seeds of other native plant species with the same wetland indicator status will be substituted. The wetland seed mix will be used to reestablish the native wetland vegetation, and to protect disturbed areas from erosion and invasion by invasive weed species. Seeds will be broadcast evenly and lightly raked into the surface. Seeded areas will be initially watered at an approximate rate of 25,000 gallons per acre, and repeated after the second and fourth week if natural rainfall is not adequate. Seeding is proposed to be performed between April 1 and July 30, or between October 1 and the onset of frozen ground conditions. Seeding will not be performed when windy, when heavy precipitation may wash seeds away, or when ambient temperatures are below 35 degrees F or above 90 degrees F.

If the Mudhole Pond bottom, or a portion of the bottom, is inundated at the time of planting, individual plants will be planted at 3-foot on center (resulting in a plant density of 4,800/acre) in the inundated areas. This density should provide the 75% cover within 2 years as required by the *Massachusetts Inland Wetland Replication Guidelines* (Guidance number BRP/DWM/WetG02-2, MDEP, March 2002). Plants will be randomly planted in groups of the same species, as would grow in a natural system.

## **Buffer Zones**

As shown on Attachment 3, certain project components must be located within buffer zones. Locations were selected to avoid or minimize disturbing the 100-foot buffer zone and resource areas, yet provide efficient access, a safe turning radius for transport vehicles, and a sufficient size staging area for support services. While the proposed staging area and access paths have been developed in consideration of these objectives, the final location and dimensions of the staging area are subject to modification by the

<sup>&</sup>lt;sup>1</sup> Invasive species will not be replanted within the project area.

remediation contractor in consideration of field conditions, the nature/extent of necessary support items, and the objective of minimizing disturbances to mature trees. In the event that additional staging and support areas are needed, the remediation contractor will expand into upland (i.e., nonwetland, nonbuffer zone) areas (located south of the currently proposed staging area) to the extent possible.

The portions of any proposed access paths that are located within the 100-ft buffer zone (as well as the limited areas of wetland and bordering vegetated wetland), will be restored by removing those pathways installed to facilitate remediation activities, restoring original grades, uncompacting the surface soil by discing (or other appropriate methodology), and seeding with an upland seed mix within buffer zones or with the native wetland seed mix described for the Mudhole Pond within resource areas. Seeding will rapidly restore vegetation, protect the ground from erosion, and minimize the opportunity for the invasion of undesirable weeds. Commercially available seeds for the upland mix of the identified native plant species observed in the buffer zone surrounding the Settling Pond will be applied to disturbed areas at an application rate of 35 pounds per acre. The mix will also include a variety of grass seeds to expedite the revegetation process and stabilize the disturbed surfaces.

## Monitoring

Restored resource areas will be monitored annually for a minimum of two years (as required by the Massachusetts Inland Wetland Replication Guidelines [Guidance number BRP/DWM/WetG02-2, MDEP, March 2002]), following completion of the site restoration efforts. Monitoring efforts consi

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ist of spring and summer (mid-growing season) observations.	forming entores will
ID SECTION – all proponents must fill out this section	
<ul> <li>I. Thresholds / Permits</li> <li>A. Does the project meet or exceed any review thresholds related to land (see : Yes X No; if yes, specify each threshold:</li> </ul>	301 CMR 11.03(1)
II. Impacts and Permits  A. Describe, in acres, the current and proposed character of the project site, as     Footprint of buildings	follows: <u>Total</u> 0  0  0  6
<ul> <li>B. Has any part of the project site been in active agricultural use in the last three Yes X No; if yes, how many acres of land in agricultural use (with agricultural use)</li> <li>C. Is any part of the project site currently or proposed to be in active forestry use</li> </ul>	tural soils) will be
Yes X No; if yes, please describe current and proposed forestry activitie whether any part of the site is the subject of a DEM-approved forest managemer  D. Does any part of the project involve conversion of land held for natural resour accordance with Article 97 of the Amendments to the Constitution of the Commo	nt plan:
purpose not in accordance with Article 97? YesX_ No; if yes, describe:  E. Is any part of the project site currently subject to a conservation restriction, prorestriction, agricultural preservation restriction or watershed preservation restriction if yes, does the project involve the release or modification of such restriction?yes, describe:	on? Vec V No.
F. Does the project require approval of a new urban redevelopment project or a fin an existing urban redevelopment project under M.G.L.c.121A?YesX_	fundamental change No; if yes, describe: