

United States Environmental Protection Agency
Region V
POLLUTION REPORT

Date: Friday, December 16, 2005

From: Sam Borries/ Josie Clark

Subject: POLREP # 7

Ruddiman Creek and Pond Remediation
2204 Wickham Street, Muskegon, MI
Latitude: 43.2142000
Longitude: -86.2831000

POLREP No.:	7	Site #:	GLNPO
Reporting Period:	11/28/05 - 12/15/05	D.O. #:	
Start Date:	8/8/2005	Response Authority:	
Mob Date:	8/8/2005	Response Type:	
Demob Date:		NPL Status:	Non NPL
Completion Date:		Incident Category:	Removal Action
CERCLIS ID #:	N/A	Contract #	
RCRIS ID #:	N/A		

Site Description

Refer to POLREP #1 (initial)

Current Activities

During this reporting period dredging activities continued in Area 3 of Ruddiman Pond. Area 5 had two re-dredging events. The first event, to remove additional sediment from sections 20, 21, and 22 where confirmatory sampling discussed in the last POLREP revealed exceedances of the criteria for cadmium. This re-dredge event was completed on December 7. Confirmatory samples of the re-dredging were collected on December 7 and the results showed exceedances of the clean up criteria in section 21 quadrants B and D. During the Dec. 13, 2005 conference call, participants decided to conduct additional re-dredging of the area rather than wait for an ordered confirmatory analysis. The second re-dredge was begun on December 14 and was completed on December 16. Dredging was resumed in Area 3 on December 16. Also in the Pond Area, the third sectional material barge was removed on December 10 due to non-use.

The water treatment plant system was also enclosed during this period, with framing, hay bales for insulation, walls and a roof composed of roof tarp, and a vent pipe.

Area F was set up for dewatering by setting a 6-inch pump and creating a pumping sump from culvert pipe and gravel. During the excavation of Area F, sidewall failure occurred, re-filling the excavation. The OSC monitored the excavation to insure that total depth objectives were met. Dredging was then completed in Area F and then sampled. Sample results were below clean up criteria so backfilling was begun on Dec.15. J&M also worked on clearing and grubbing for a riffle structure in area F.

Swamp mats and a roadway were created in Area E1 and dredging commenced. Dredging in Area E1 was completed on December 14. J&M worked on clearing and grubbing a pathway for a road from Area E1 back to Area D. However, concerns were raised regarding the competency of the road so road engineers were consulted to gather samples and determine the best approach.

In the Pond Area during the period of 11/28/05-12/11/05, 200 trucks were filled and sent to landfills resulting in 9379.75 tons of disposed dredging material. In the Creek Area during this period, 37 trucks were sent to landfills resulting in 1759.11 tons of disposed dredging material. In addition, 33 tons of lime fines and 2358.91 tons of Calciment were delivered.

Planned Removal Actions

EQM will build a bypass pump pipeline from Area D to Area B. The staging pad will also be repaired with a new Geoweb layer and rock. GLDM will place approximately 1200 yds³ of sand and 1200 yds³ of 3 in. rock over Area 5. The coffer dam at the pond outfall will be pulled to let the water level drop to dry out the creek floodplain. Jackson & Merky will finish backfilling Area F and begin the construction of a riffle structure in Area F. The road to Area F will then be removed. A riffle structure will be built at Area

E.

Key Issues

On December 14, turbidity in pond meter #3, the meter closest to dredging operations, exceeded criteria beginning at 1 pm. By 3 pm, the exceedance had not subsided and dredging operations were slowed. No portable turbidity meter was available on that day for an independent check. An inspection of the area showed that broken ice flows outside of the silt curtain, in the 2 ft. deep water near the meter, were heaving due to wave action attributable to the dredging approximately 30 feet away. This seemed to be causing the turbidity near the meter rather than any failure of the silt curtain. The exceedance continued until 7 pm when dredging ceased. No exceedences were observed in either meters #2 or #1 on that day. On December 15, dredging commenced at 7 am. No exceedences occurred again until 10 am when a small tugboat broke up ice in the pond not far from meter #3. This exceedence lasted until at 3:30 pm, when it dropped below the action level. At that time, a hand-held turbidity meter, acquired that morning, was used to check the values of meter #3. The handheld meter closely matched the value of meter #3, showing a value below the action level. Except for a spike above the action level at 4 pm, the rest of the day's readings were below action levels. Dredging ceased at 4:30 pm that day. On December 16, there were no exceedences of meter #3 during dredging by mid-day. Meter #3 should continue to be closely watched as well as any increase in meters #2 and #1.

response.epa.gov/RuddimanCreek