



The Dow Chemical Company
Midland, Michigan 48667

Michigan Operations
October 27, 2003

Cheryl Howe
Waste and Hazardous Materials Division
Michigan Department of Environmental Quality
P.O. Box 30241
Lansing, MI 48909-7741

RE: Interim Response Activities for Inerman Park

Dear Ms Howe:

Based upon the information provided in the Michigan Department of Environmental Quality, Final Report, Phase II Tittabawassee/Saginaw River, Dioxin Flood Plan Sampling Study, June 2003 and several discussions with Saginaw County Park officials the attached Interim Response Activities were agreed to be implemented by park officials to reduce potential exposure of park visitors.

Some of these interim activities are underway with plans to complete all of them before Memorial Day 2004.

Please contact Ben Baker at 989-636-0787 if you have questions regarding this submittal.

Sincerely,

A handwritten signature in cursive script that reads "Susan Carrington".

Susan Carrington
Vice President and Director
Michigan Dioxin Initiative
The Dow Chemical Company
47 Building
Midland, MI 48667

W O R K P L A N

**INTERIM REMEDIAL ACTIVITIES
WORK PLAN**

IMERMAN PARK

*The Dow Chemical Company—Midland
Operations
MIDLAND, MICHIGAN*

For:

**The Dow Chemical Company
47 Building
Midland, Michigan 48667**

October 24, 2003

TABLE OF CONTENTS

1.0	Introduction	1
2.0	Site Location and Description.....	1
2.1	Physical Description	1
2.2	Recreational and Other Uses of Parks	2
3.0	Current Conditions in the Park	3
4.0	Description of Completed Interim Response Activities (Hand Wash Stations).....	3
5.0	Description of Planned IRA Measures	3
6.0	Report and Schedule.....	4
7.0	References	4

FIGURES

- Figure 1 Location of Imerman Park
Figure 2 Site Features – Imerman Park

1.0 Introduction

On June 12, 2003, The Dow Chemical Company’s Midland Plant (Dow) was issued a Resource Conservation and Recovery Act (RCRA) Operating License (the “License”) by the Michigan Department of Environmental Quality (MDEQ). The License governs Dow’s hazardous waste management activities at the Midland Plant, and also contains requirements for RCRA Corrective Action both onsite and offsite. The off-site provisions contained in Sections XI.B. and XI.G. of the License were the bases for this Work Plan. This Work Plan describes the Interim Remedial Activities (IRAs) that will be implemented in Imerman Memorial Park.

Imerman Memorial Park is located on the Tittabawassee River in Saginaw County (Figure 1). The results of recent studies by MDEQ, *FINAL REPORT, Phase II Tittabawassee/Saginaw River, Dioxin Flood Plain Sampling Study, June 2003* was the basis of MDEQ’s recommendation for the elimination of potential exposure in public areas in the floodplain such as may exist at parks and boat launches. As a result of these preliminary data, Dow has worked in consultation with park officials to develop this Work Plan to address potential exposure of park visitors to soils and sediment.

2.0 Site Location and Description

Imerman Memorial Park is located in Saginaw County (Figure 1). Table 1 below summarizes some of the key features including the size, facilities present, frequency of park use, potential for seasonal flooding, and several other characteristics. The following sections further describe the park.

TABLE 1
Summary of Park Features

	Size (acres)	Playgrounds	Ball fields	Other Ball Courts	Boat Launches	Fishing dock	Hiking Trails	Wooded areas	Restroom facilities	Portable Toilet
Park Name										
Imerman Memorial	96	Y	Y	Y	Y	Y	Y	Y	Y	N

2.1 Physical Description

This section includes a physical description of the park and other features. Figure 2, associated with the description, include a recent aerial photo with overlays that identify park features such as playgrounds, ball fields, facilities, roads, boat launch areas, etc.

Imerman Memorial Park encompasses 96 acres at 3495 Midland Road in Saginaw, Michigan. It is operated by the Saginaw County Parks and Recreation Department. According to the Saginaw County Parks and Recreation Commission literature, Imerman Memorial Park was originally part of a land grant given by President Jackson in 1835 to Andrew Ure. In 1955, the Saginaw Junior Chamber of Commerce (Jaycees) purchased a portion of Andrew Ure's farm to commemorate the life of Elliot Imerman, a prominent local citizen. In 1956 the Saginaw Jaycees deeded approximately 90 acres of property to Saginaw County for the development of Imerman Memorial Park. The Parks Commission began development of the park in 1970, the majority of which took place after 1973.

Park amenities include ball fields, open space, hiking trails, pet exercise area, tennis, volleyball and basketball courts, children's play areas, shuffleboard, horseshoe pits, picnic pavilions, canoe rentals, fishing dock and boat launch (Figure 2). The park contains a large forest dominated by beech and maple trees. The "Flood Plain Forest Trail" passes through the forest and over several walkways to allow seasonal water flow to pass through the park.

Land elevation rises relatively quickly over this short distance (about 50 yards). The riverbank is steep and heavily vegetated, although a concrete boat launch and fishing dock allow visitors river access. Most of the park, including the nature trail, is located within the estimated 100-year flood plain. However, a small portion of the park, including the children's play area, is adjacent to highway M-47 and is outside of the flood plain. The United States Department of Agriculture (USDA) Soil Conservation Service (USDA 1994) has identified soils within the park as Sloan-Ceresco complex. These soils are located on nearly level areas of alluvial planes and are very poorly drained and periodically flooded.

An examination of historical aerial photos collected from Michigan State University (MSU) Remote Sensing and Geographic Information Science (RSGIS) did not identify significant construction activities or other soil disturbances from 1937 to 1980. In general, the property at Imerman Memorial Park was farmed and wooded in 1937 and, with the exception of the removal of small farming structures and the addition of roads, the land remains largely unchanged over time. The main agricultural fields have been converted to the grassy parkland that now contains parking, ball fields and a dog play area. Currently surrounding property is low density residential. Homes occupy property directly across the street from Imerman Memorial Park. Adjacent property also contains private residences.

2.2 Recreational and Other Uses of Parks

This section describes the typical users of the park and the primary activities that occur. The information collection process is ongoing and includes a search for relevant maps, drawings, flood patterns and depositional areas, any flood mitigation activities implemented (i.e., levees, channelizing drainage, etc.), relationship of seasonally flooded areas to park facilities, typical facility uses, visitor frequency, seasonal variations, boat launching, park worker maintenance activities, mitigation actions already implemented, dredging history, historic property use in general, any planned future park modifications or improvements, construction details on playgrounds and other sandbox-type areas, and any historical dredging and flood control records.

A playground and ball fields are located in the park. The park is available for use year-round by hikers, birdwatchers and dog owners. A large sandbox is also present near the play structures. In addition, the play structures are surrounded by sand and a small digging device (mock backhoe) is provided for children to dig in the sand.

3.0 Current Conditions in the Park

During the MDEQ study, soil samples were collected at 14 sample locations and are reported in MDEQ Phase II Report (MDEQ 2003).

4.0 Description of Completed Interim Response Activities (Hand Wash Stations)

Dow has already consulted with park management to evaluate the number and location for the installation and use of portable hand washing stations in Freedom Festival Park as a means of reducing the potential for exposure to contaminated soils and sediments. Dow has contracted, procured and had three hand washing stations installed at locations suggested and approved by park officials.

Servicing of Hand Washing Stations:

Wash stations were contracted through Johnnie-On-The-Spot of Freeland and Saginaw. All hand washing stations are being serviced by Johnnie-On-The-Spot once per week. The wash stations are filled with fresh water sourced from the City of Saginaw water supply and carted to the stations by Johnnie-On-The-Spot. Gray water is removed and discarded at the Saginaw County water treatment facility. Based on suggestions from park managers, the hand washing stations will be removed from the parks in November and reinstalled in April.

Wash Station Signage

The signs at each wash station explaining the use of the station will be revised to read as follows:

*For hand washing only
Not for drinking
Not for fish cleaning
Hand washing is recommended to remove soil and sediment*

5.0 Description of Planned IRA Measures

Following discussions with Saginaw County officials responsible for Imerman Memorial Park, the following IRAs were identified for implementation in the park to reduce potential exposure to soil and sediment:

- The portion of the riverbank near the pavilion and floating dock will be stabilized to prevent further erosion of the bank near the base of the pavilion.
- Walking trails will continue to be covered with wood chips where there is bare soil, as needed.
- Any Dredge materials from the river in the park will be properly transported and disposed at an approved off-site location.
- The entrance to the “Bark Park” will have vegetation established where there are areas of bare soil.
- The area along the sides of the boat launch will be covered with stone to minimize contact with soil and sediments.
- Fertilizer will be applied on the grassy areas in the lower areas of the park (e.g., ball fields, bark park) to promote good grass growth in the spring.

Park officials have agreed to have these items completed as soon as possible and before the park usage increases around Memorial Day 2004. Dow will reimburse Saginaw County for costs incurred as a result of implementing these IRAs.

6.0 Report and Schedule

A brief report summarizing these IRAs will be submitted to MDEQ once they are completed. Implementation of these IRAs will commence in 2003 and be completed in the spring of 2004 when use of the park will increase for the summer season. The schedule is subject to change based on flooding or other conditions that may directly affect implementation of the planned IRAs.

7.0 References

Michigan Department of Environmental Quality. 2003. Phase II Tittabawassee/Saginaw River Dioxin Flood Plain Sampling Study, June 2003.

United States Department of Agriculture Soil Conservation Service. 1994. Soil Survey of Saginaw County, Michigan.

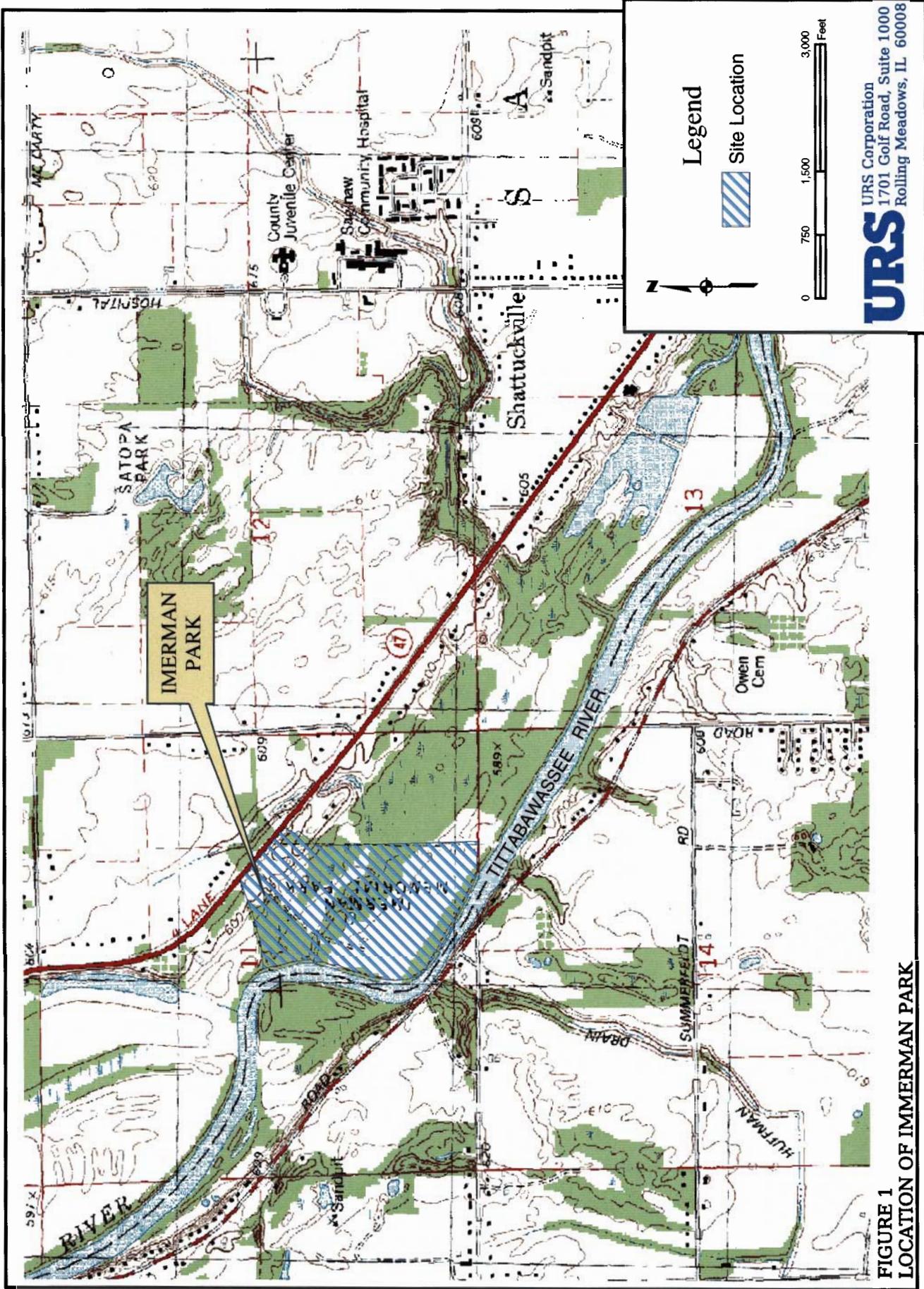


FIGURE 1
LOCATION OF IMMERMAN PARK

URS
 URS Corporation
 1701 Golf Road, Suite 1000
 Rolling Meadows, IL 60008



Legend

0 260 520 1,040 Feet

URS
URS Corporation
1701 Golf Road, Suite 1000
Rolling Meadows, IL 60008

FIGURE 2
FEATURES AT IMERMAN PARK