



MICHIGAN DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENT

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REMEDIATION DIVISION

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INFORMATION BULLETIN #4

CENTRAL CITY PARK, Westland, Wayne County, Michigan December 2010

INTRODUCTION

This is the fourth in a series of information bulletins provided by the Remediation Division (RD) of the Department of Natural Resources and Environment (DNRE). The focus of this bulletin is to keep area residents informed of recent developments and future actions planned for Central City Park (Park).

SITE OVERVIEW

The Park is owned by Wayne County. The County used the land to dispose of catch basin cleanings and street sweepings between the 1930s and 1970s; the city of Westland also used portions of the property for land filling activities in the 1950s. These materials, along with additional fill material deposited in the area from an unidentified source, are contaminated primarily with lead. Photographs taken in 1971 documented extensive illegal landfilling practices and the presence of numerous 55-gallon drums. Since the mid-1970s, the property has been leased by the city of Westland operating as a public park.

The DNRE-RD first learned of the lead contamination at the Park on December 23, 2002, when a Remedial Action Plan (RAP) was submitted to the DNRE by Wayne County. In the RAP, the county proposed to excavate the lead contaminated soil, consolidate it, and place a cap of clean soil over the area. The RAP was insufficient – it incorrectly identified 1,500 parts per million (ppm) as the acceptable direct contact criterion for lead and did not reveal the full extent of lead contamination; the RAP was denied by the DNRE on May 7, 2003. The current Michigan generic residential direct contact criterion for lead in soil is 400 ppm. The generic residential direct contact criteria identifies a soil concentration that is protective against adverse health effects due to long-term ingestion of and dermal (skin) exposure to contaminated soil for residential land uses.

The DNRE has continued to work with Wayne County and city of Westland officials to bring about appropriate interim response activities to address the conditions at the Park. The DNRE reviewed several work plans and provided sampling guidance to Wayne County and city of Westland officials. The Park was closed and fenced by the city of Westland in December 2006 to restrict access to the Park.

Note: Wayne County is responsible for the remediation of the property, both as owner and as a party that caused the contamination. The city of Westland has responsibility for the remediation of the property through its historical disposal activities and, as an operator of the property, is obligated by state environmental law to protect the public from harmful exposures on the property ("Due Care" obligations).

CURRENT STATUS

To facilitate progress, assist in addressing contamination at the Park, and to determine if the wastes portrayed in the 1971 photographs remain buried at the Park, the DNRE conducted extensive geophysical evaluations and soil and groundwater investigations from April 24 through May 4, 2007. Specifically, 56 soil borings were installed at the Park to a depth where groundwater was encountered (typically eight feet below ground surface). Soil samples (94) and water samples (56) were selected for laboratory analysis for the following contaminants: volatile organic compounds (VOC), semi-volatile organic compounds (SVOC), polyaromatic hydrocarbons (PAH), base neutral acids (BNA), polychlorinated biphenyls (PCB), metals, and pesticides. Analytical results indicate:

- **Drinking water:** Some soil and groundwater contamination is present above residential drinking water criteria and groundwater surface water interface (GSI) criteria (GSI criteria are protective for human health and aquatic organisms in the surface water). Risks to city of Westland drinking water are low since the area is supplied with municipal water from a safe drinking water source, and private residential drinking water wells are not utilized in this

area. Soil and Groundwater contamination above the GSI criteria however, will need to be addressed in the future.

- **Pesticides/BNA in Soil:** Soils are not impacted above the generic residential direct contact criteria for pesticides and BNAs in soil.

- **Arsenic in Soil:** Eight samples exceeded the generic residential direct contact criteria for arsenic in soil of 7.6 ppm, but all were below naturally occurring arsenic levels typically encountered in Wayne County. Results ranged from 7.7 ppm to 13 ppm.

- **Lead in Soil:** Lead was detected in 66% of the 94 soil samples analyzed above generic residential direct contact criteria for lead in soil of 400 ppm. Lead was detected throughout the park at levels ranging from 400 ppm to 9,100 ppm.

Note: The direct contact criterion for lead at industrial or commercial properties is 900 ppm. However, the current (and most protective) 400 ppm residential direct contact criterion for lead in Michigan will be used at the Park for delineating the extent of lead contamination and in determining final remedial activities for lead at this site).

- **PAH in Soil:** Seven borings exceeded the generic residential direct contact criteria for PAHs in soil. These borings are within the area of the park impacted by lead.

- **PCB in Soil:** PCBs in soils were detected above the generic residential direct contact criteria of 4 ppm in 3 borings ranging from 5 ppm to 6.8 ppm. In two of the three borings, PCBs are present at a depth of three feet or lower below ground surface; in the other soil boring, taken on the south side of the Park adjacent to the woods, PCBs are present at a depth of one foot below ground surface.

- **Mercury in Soil:** At one soil boring location taken at a depth of 2½ feet below the ground surface, mercury in soils was detected at 50 ppm, exceeding the generic residential groundwater contact protection criteria of 47 ppm and the soil volatilization to indoor air criteria of 48 ppm. Generic residential groundwater contact protection criteria for soils addresses contamination in soils leaching to groundwater that would contaminate groundwater at levels that would represent a hazard to utility workers working in the groundwater. Soil volatilization to indoor air criteria addresses the migration of chemicals from soil into air within a structure. This boring is not located near any structures and therefore does not present a current risk.

- **Pesticides, PAH, PCB, VOC, and SVOC in Ground-water:** Exceedances for groundwater contact protection criteria were limited to one boring for pesticides, SVOCs, and VOCs. Exceedances for PAHs for groundwater contact protection criteria were limited to five borings in various locations. Exceedances for PCBs for groundwater contact protection criteria were limited to two borings in various locations.

- **Methane in Soil Gas:** Methane is a common byproduct of the decomposition of wastes at landfills; therefore, methane field screening was conducted in all borings and was detected at levels ranging from 1% to 81% in soil gas. The city of Westland and Wayne County installed perimeter methane monitoring points to assess the potential for off-site migration of methane. Some off-site migration was detected north of the Park, onto City property, which will need to be addressed in subsequent interim response activities at the Park.

- **Drums:** The wastes encountered in the borings were landfill materials; no evidence of the 55-gallon drums pictured in the 1971 Park photograph was found.

RECENT DEVELOPMENTS

In November, 2009, the City of Westland and Wayne County submitted an "Interim Response Plan" (Plan) to address the soil direct contact hazards from lead in the soils and to control the migration of methane in soil gas from the Park. The Plan proposed redevelopment of the east side of the park into soccer fields by covering park soils with a geotextile covered by a minimum of 12 inches of soil. The west side of the park will be fenced off until additional funding becomes available. Both sides of the park will have increased operations and maintenance actions implemented to ensure the interim response actions remain protective. The Plan was approved by the Department of Natural Resources and Environment (DNRE) in January, 2010 for these specific interim response actions that address lead and methane in soils only.

FUTURE ACTIONS

Wayne County awarded a contract to conduct the interim response activities for the soil direct contact hazards from lead in the soils and to control the migration of methane in soil gas from the Park in October 2010. Work began at the Park in November 2010 and will be conducted throughout 2011.

Additional actions to address other environmental concerns at the park, such as groundwater and

other contaminants in the soils, will be addressed in subsequent proposals. When a final remedial action/final response action is proposed that addresses all media and environmental pathways at the Park, the DNRE will conduct public noticing and hold a public meeting as required under Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended.

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