Soil Investigation Underway at City Parks

River Rouge, Michigan — August 2023

At the request of the City of River Rouge, the U.S. Environmental Protection Agency, or EPA, and the Michigan Department of Environment, Great Lakes, and Energy, or EGLE, recently completed soil sampling at Belanger Park, the Great Lakes Athletic Field, and John Jakubowski Park. EPA defines a soil lead hazard as bare soil on residential real property or on the property of a child-occupied facility that contains total lead equal to or exceeding 400 parts per million (ppm).

At Belanger Park, certain grassy areas of the park showed soil sampling results with lead and cadmium above EPA's residential direct contact criteria. Until a cleanup is performed, the city has closed those areas with temporary orange fencing.

At the Great Lakes Athletic Field, soil sampling results were below EPA's residential direct contact criteria in the top six inches of soil; although in deeper than six inches, lead and cadmium levels were found at higher levels.

At John Jakubowski Park, soil sampling results were below EPA's residential direct contact criteria in the top six inches of soil; although in much deeper than six inches, lead levels were found at higher levels.

Lead and cadmium

Due to hundreds of years of human activity and industry, lead and other heavy metals (which also occur naturally) can be found in soil, especially surrounding urban areas. Some metals, such as lead, do not breakdown over time, so lead deposited in the past can still be a problem today. Higher levels of heavy metals are found in soil:

- Near roadways, as a result of air emissions from vehicles that used leaded gasoline;
- Near the perimeter of buildings that used lead paint that deteriorated as chips and dusts, or from past renovation activities;
- Near waste sites and other areas close to industrial sites that release lead into the environment; and
- Where fill soils that contained heavy metals were placed during development.

Health concerns

Heavy metals can impact different areas and organs of the body. Lead primarily impacts the nervous system, which is the main target for lead poisoning in both children and adults. Long-term exposure to cadmium in air, food, or water may lead to the heavy metal building up in the kidneys, potentially causing kidney disease.

For more information

For questions, comments, or for more information, please contact:

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For questions or concerns about heavy metals and health, please contact:

MDHHS Environmental Health Hotline
517-648-6942

You can reduce your family's risk of exposure by:

- Washing hands and faces after encountering dirt and soil.
- Not allowing children to chew or "mouth" surfaces of items, especially things that may have touched the ground.
- Using a doormat to wipe feet before entering a home.
- Cleaning the house regularly to remove dust and tracked-in dirt.
- Maintaining proper pet hygiene for pets that spend time outdoors.
- Avoiding smoking in enclosed spaces (such as homes or cars) to limit people's exposure to smoke, as cadmium is found in cigarettes.

Figure 1 shows an EPA contractor grabbing a soil sample to test it for heavy metals such as lead and cadmium.

Next steps

EPA is currently working on making funds available to remediate Belanger Park, while the City of River Rouge is working with EGLE and the Michigan Department of Health and Human Services, or MDHHS, to evaluate human health risks at the Great Lakes Athletic Field and John Jakubowski Park. As some sample results were above EPA's criteria and some were below, cleanup plans will be complex. More information will be provided to the community as things progress.

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