



Gary Lagoons Investigation

Office of Land Quality – Federal Programs Section – Site Investigation Program

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Background Information:

- The Gary Lagoons Site (Site) is an approximately 44-acre high-quality dune and swale habitat located at 5622 and 5624-34 Industrial Highway across from the Gary/Chicago International Airport (GCIA). The Gary Lagoons property was first identified in 1980 as an illegal waste disposal site.
- In 1984, the Indiana State Board of Health referred the Site to the United States Environmental Protection Agency (U.S. EPA) for further Site assessment.
- The U.S. EPA inspected the Site in 1985 and found that the property contained two sludge lagoons, four piles of fly ash, and scrap/construction debris. Previous analytical results indicated the presence of polychlorinated biphenyls (PCBs), diesel oil, polycyclic aromatic hydrocarbons (PAHs), and heavy metals.
- In 1996, the U.S. Department of Interior's Bureau of Reclamation (BOR) conducted contaminant removal and reclamation activities at the Gary Lagoons property.
- Phase II of the 1996 removal action (excavation and disposal) included collection and off-site disposal of surface water; excavation and off-site disposal of contaminated soils, sediment, and PCB-contaminated oil; post-excavation confirmation soil sampling; and backfilling of all excavated areas.
- Final cleanup and reclamation occurred in 1997 and included removal and disposal of materials from the remaining temporary storage tank, completion of all backfilling, and cleanup of associated wetlands. The last phase of the Site remediation also included the reconstruction of two dune ridges and seeding the Site with a native plant mixture.
- In 2000, the Gary Lagoons property was conveyed to the Indiana Department of Natural Resources (DNR). The DNR property consists of two dune ridges, portions of sand prairie, black oak sand savanna, and marsh wetland natural communities. The property is adjacent to parcels owned by Gary/Chicago Airport Authority (GCAA) and P&M Partners LLC Properties; these parcels contain dune and swale environments and may be impacted by the release of contamination. The property is habitat for at least four state rare plant species and in June 2017 a state endangered male *Gallinula galeata* was spotted on the property during breeding season. The property lies approximately 0.5 miles southwest of the DNR's 300-acre Clark and Pine Nature Preserve which is home to over 50 rare plant and animal species and has one of the highest percentages of rare species per acre of any of the nature preserves in Indiana.
- Site contaminants that remained after the 1996 remediation and removal activities have migrated through and around the existing sand berms into the adjacent wetland. Visible petroleum sheens and staining have been documented in several of the swales by DNR employees beginning in 2008.
- In 2015, the Indiana Department of Environmental Management (IDEM) contacted the U.S. EPA regarding observations of oil sheening and staining on surface water and sediment around the North and South Lagoons. The U.S. EPA conducted two separate sampling events in 2015 to collect surface water, sediment, and oil samples for PCB, PAH, metals, semi-volatile organic compound (SVOC), and volatile organic compound (VOC) analyses. The U.S. EPA also collected sediment samples for the purpose of trying to identify the source of the oil.
- In 2016, the U.S. EPA conducted Site-assessment activities to delineate the source and extent of the contamination. Analytical results indicated the presence of elevated metals, PCBs, and PAHs in soil, groundwater, sediment, and pore water, with exceedances of U.S. EPA Ecological Screening Levels (ESLs) and Industrial Regional Screening Levels (RSLs) in all media throughout the Site.
- The U.S. EPA sampled again in 2018 to address data gaps and further delineate the source and extent of contamination, as well as explore the possibility of the contamination migrating from an off-site source; however, results did not indicate a significant off-site source.

- The contamination is primarily confined to the approximate limits of the former removal area and beneath the clay cap that had been placed during the previous removal activities. However, PCB and PAH/oil impacts were noted to possibly be affecting swales outside of the capped area. It appears that water levels and infiltration through the clay cap caused migration of contamination into the swales.
- Per the U.S. EPA's conclusions and based on the results from the most recent sampling events and review of previous observations and reports, there is potential for migration of the contamination into the Site swales during periods of high precipitation and flooding.

Health and Environmental Impacts:

- Exposure to PCBs can occur through ingestion of contaminated fish and/or water with elevated levels of PCBs.
- PCBs are taken up by small organisms and fish in water. They are also taken up by other animals that eat these aquatic animals as food. PCBs accumulate in fish and marine mammals, reaching levels that may be many thousand times higher than in water.
- PCBs are a probable human carcinogen.

IDEM's Role:

- IDEM is responsible for protecting human health and the environment while providing for safe industrial, agricultural, commercial, and governmental operations vital to a prosperous economy.
- In August 2021, IDEM's Site Investigation Program will collect sediment, surface soil, and surface water samples from the Gary Lagoons property and adjacent properties as part of an Expanded Site Inspection.

Additional Information:

- The public may direct questions and concerns regarding IDEM's environmental investigation at the Gary Lagoons Site, including information on sampling results to date, to Dan Chesterson, IDEM Project Manager, at 317-233-7528, toll free at 800-451-6027, or at dchester@idem.IN.gov.
- For a copy of ToxFAQs™ for PCBs, visit the Agency for Toxic Substances and Disease Registry's (ATSDR) website at www.atsdr.cdc.gov/substances/toxsubstance.asp?toxid=26.
- Questions and concerns about health-related impacts should be directed to ATSDR, Division of Toxicology and Human Health Sciences, at 1-800-232-4636.
- The news media may contact IDEM's media office at 317-232-8596; toll free at 800-451-6027, or at media@idem.IN.gov.
- For more information regarding the Indiana Fish Consumption Advisory, visit the Indiana Department of Health's website at www.in.gov/health/eph/fish-consumption-advisory/.