DIKE 14

Environmental Study Fact Sheet

What is Dike 14?

- 88-acre Confined Disposal Facility (CDF) on Cleveland's eastside along Lake Erie.
- Constructed by the U.S. Army Corps of Engineers to contain sediments dredged from Cleveland Harbor and the Cuyahoga River from 1979 to 1999. A portion of Dike 14 was a former solid waste landfill. When Dike 14 was filled to capacity, the site was secured with a gated fence.
- Dike 14 is currently managed by the Cleveland-Cuyahoga County Port Authority.

How will Dike 14 be used in the future?

- Nature preserve.
- Through natural processes, vegetation began to grow and migratory birds and other wildlife began to inhabit and migrate through Dike 14. Today, Dike 14 supports a wide variety of trees, shrubs and other vegetation and migratory birds, butterflies and wildlife regularly visit the site.

Are there environmental concerns at Dike 14?

- In 2007, soil and water samples were collected to determine if pollutants were present.
- Exposures to pollutants were evaluated for humans (adults and children) and wildlife.
- Overall, the data collected show Dike 14 can be used safely as a nature preserve. Much of the 88-acre property will require no cleanup.
- A 5-acre portion of the Dike has pollutants which include Polynuclear Aromatic Hydrocarbons "PAHs", Polychlorinated Biphenyls "PCBs", and lead. These pollutants are present at levels above standards established by the Ohio Environmental Protection Agency (Ohio EPA) for residential land use.

Comparison of Soils to Natural Background Soil Levels

- Further testing was conducted to determine how the soils at Dike 14 compared to the natural occurrences of some metals in the Cleveland Eastern Lakefront area.
- Overall, results showed that the metals present at Dike 14 are generally higher than background levels but below Ohio EPA Standards.

What's next?

- Remedial action will be needed for the 5-acre portion of Dike 14, which has pollutants above the Ohio EPA standards. Remediation is expected to include placing a 4-foot cap of clean soil on top of this area to reduce exposure to people and wildlife.
- Approximately 28,500 cubic yards of soil would be needed to cover the area.
- The potential remedial actions will be consistent with the planned use of the site as a low impact nature preserve with walking paths and viewing areas to observe wildlife, provide community access to the lakefront, and create educational opportunities.

Funding for this project was provided to the Cuyahoga Soil and Water Conservation District by the USEPA and by the Cuyahoga County Board of Commissioners
Prepared by Partners Environmental Consulting, Inc.

Potential Remedial Option for Dike 14

Health risks at Dike 14 were identified for potential recreational visitors and construction/ excavation workers in the identified 5-acre area. The exposure pathway driving risk is direct contact primarily through possible soil ingestion. Ecological risks also exist for wildlife, primarily from PCBs and lead.

Remedial action will be needed for the 5-acre portion of Dike 14, which has pollutants above the Ohio EPA standards. Remediation is expected to include placing a 4-foot cap of clean soil or dredge material over this area. It is estimated that approximately 28,500 cubic yards of soil would be needed to cover the area.

Grants and funding for clean-up activities at Dike 14 may be available through State and Federal sources, however, an organization willing to manage the Dike 14 Nature Preserve will be needed. This would be necessary also as following placement of the soil covering a thorough re-planting and seeding of the area may eliminate the presence of invasive plant species in this area of Dike 14.

Discussions with the USEPA and Ohio EPA indicate that a soil acceptance criteria for the cap may be the 95% Upper Confidence Level of the mean concentrations of the chemicals of concern present in Exposure Unit 1 (the clean area of Dike 14) and the background soil levels for some of the chromium and lead, as presented in the Site Specific Acceptance Criteria Table.