

Lake County General Health District
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An Update From the Diamond Shamrock Community Relations Team

The Diamond Shamrock Community Relations Team (DSCRT) was established in October 1995 to inform the public about the Diamond Shamrock Painesville Works Site. The team, made up of representatives from Ohio EPA, Lake County General Health District, Lake County Utilities, the Painesville PRP Group, Hemisphere Corporation, public officials from the City of Painesville, Painesville Township and Fairport Harbor, and citizens from each of those communities, meets on a quarterly basis.

Public Hearing Scheduled for OUI9: Updates for: Operable Units OUI North-Lake, OU3, OUI10, and OUI9

The Feasibility Study Reports are nearing approval for Operable Unit (OU) INorth-Lake, OU3, OUI10 and OUI9. OUIIN-Lake is a groundwater operable unit located on the northeastern portion of the Site. The operable unit includes land-based operable units OU3, OUI10, OUI18 and the Dartron Site, which is under separate order with Ohio EPA. OU3 and OUI10 consist of the One Acre Site, a closed landfill formerly used for the disposal of chemical wastes, and the property which surrounds the One Acre Site. OUI9 is located on the southern portion of the Diamond Shamrock Painesville Works Site, off of Elm Street.

Once the Feasibility Study Reports are approved, Ohio EPA will be issuing preferred plans for OU3, OUI10 and OUI9. Information from the Feasibility Study report for OUIIN-Lake will be incorporated into the preferred plans for the individual land-based operable units (i.e., OU3, OUI10, OUI18 and the Dartron Site). Once the preferred plans are issued, the public will have a

minimum of 30-days to comment on the documents. In addition, a public hearing will be held to accept public comments verbally. The public comment period and public hearing date will be published in the News Herald and Lake County edition of the Plain Dealer.

The public hearing for OUI9 has been scheduled for December 5, 2006, at 6:30 P.M. The meeting will be held at Painesville City Council Chamber/Courtroom #1. The public hearings for OU3 and OUI10 will likely be held in January 2007.

Copies of the preferred plans, as well as the dates for the public hearing, will be posted on the DSCRT web site, www.dscrt.com. Questions may be directed to Teri Heer, Ohio EPA's Site Coordinator. She can be reached at either 330/963-1168 or teri.heer@epa.state.oh.us.

The Diamond Shamrock COMMUNITY RELATIONS TEAM

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The Diamond Shamrock Community Relations Team is a responsive community team dedicated to communicating information and addressing public concerns regarding the investigation of the Diamond Shamrock Painesville Works Site.

Painesville Site Lake Erie Shoreline Protection Project

Throughout the almost 60 year course of the former Diamond Shamrock Painesville Works operations, many different methods were employed to control erosion along the Lake Erie shoreline.

These methods included installation of gabions (large, wire mesh boxes of rock), piling large concrete and rock debris walls, installing a row of sheetpile cells containing rock, and even installing a row of old railroad cars full

of cement along the water's edge. The railroad cars were removed in 2005, but portions of most of the other structures are still visible today.

As part of the site redevelopment, an engineered shoreline erosion protection system will replace all the previous structures along the entire Site Lake Erie coastline. Permits covering this work are required from both the US Army Corps of Engineers and the State of Ohio

Department of Natural Resources, with Ohio EPA review. Permits have been obtained covering the two coastline sections now being addressed, the far East end of the Site (Area G), and the vicinity of the former pump house (Area B). All the remaining permit applications have been filed, and are expected to be granted in time to complete the work in 2007. The existing One Acre Site shoreline erosion protection barrier will be tied into the new system.

Lakeview Bluffs Winery

Testing performed during the Phase I and Phase II remedial investigations revealed that the soil within OUI14 does not pose a threat to human health. However, since the soils are predominantly made up of limestone and salt fines from the soda ash process at Diamond Shamrock, much of the area is not strong enough to support houses or commercial buildings.

This being the case, Hemisphere Development has come up with a positive reuse for a significant portion of the OU...a vineyard!

In 2001, Hemisphere and The Ohio State University Agricultural Research and Development Center began plans for a small test vineyard on OUI14, located on the south side of the Grand River. Soils were collected from OUI14 and used to grow grapes in the laboratory, alongside

grapes of the same variety grown in "natural" soil. OSU found that the grapes grown in the Diamond Shamrock soils thrived and analytical testing revealed that there was no chemical difference between juice from the Diamond Shamrock grapes and juice from the grapes grown in "natural" soil – indicating that the grapes were safe for human consumption.

Based on their success in the laboratory, in 2002, OSU installed a ½ acre test vineyard on the southeastern portion of OUI14. Four varieties of wine grapes were planted – Cabernet Franc, Riesling, Chambourcin and Traminette. Tests have shown that the soils in OUI14 are similar to the limestone-rich vineyard areas of France. Several different types of roots are being tested that are tolerant to limey soils and cold winters.

The test vineyard has flourished and grapes have been harvested for the past two years. Juice from the grapes collected during the first year of harvesting was tested and results were similar to the original laboratory tests – juice from grapes grown at Diamond Shamrock is chemically similar to juice from the same kind of grapes grown elsewhere in Lake County. Juice was also collected during this year's harvest and analytical results should be received in the near future.

Plans are being made for the construction of a winery and restaurant on OU 4, located to the west of OUI14. Grapes would then be planted on the western portion of OUI14. OSU has agreed to assist Hemisphere Corporation with the planting and initial management of the vineyards.

INSIDE THIS ISSUE...

- Lakeview Bluffs Golf Course
- Updates on Operable Unit Sites
- More info!

Get involved and learn more!

Visit www.dscrt.com for more information.

Specific Questions about the DSCRT can be emailed to LKUNS@LCGHD.ORG

DSCRT meetings are held quarterly at either the Lake County General Health District Offices or the Painesville Township Hall at 2:00 p.m. Meeting scheduled

for 2007 thus far are:
- January 18th (2007)

Work to begin on Lakeview Bluffs Golf Course

This fall, work will begin on the main portion of the Lakeview Bluffs/IMG golf course, which will be located on top of the capped portion of the former chromate plant and disposal areas (OU16), located on the south side of Fairport Nursery Road. Ohio EPA anticipates that the work plan will be approved within the next several weeks.

In 1976, Diamond Shamrock installed an engineered cap over the former chromate plant and its associated disposal areas. The cap consisted of a layer of fly ash, to prevent upward wicking of the chromate materials, covered with clay and then topsoil. The topsoil was then seeded to prevent erosion. The cap was designed to drain rainwater away from the top of the landfill into ditches that run alongside the capped area. By preventing infiltration of rainwater into the chromate materials, Diamond Shamrock significantly reduced the amount of chromium entering the Grand River.

Although the cap has been successful in reducing the amount of chromium entering the Grand River, exceedences of the State of Ohio Water Quality Standard for hexavalent chromium periodically occur in the Grand River. The Painesville PRP Group will be addressing this issue in the Feasibility Studies for Operable Units OUIIN-River and OU20.

In addition, Tierra Solutions, Inc. and Hemisphere Corporation have proposed re-grading work for the cap, which will serve two purposes: (1) the surface of the cap will be improved, leading to less infiltration through its surface; and (2) the landfill

surface can be used for a productive purpose (golf course), rather than being maintained as idle industrial land.

The design for re-grading and golf course construction are based on investigations conducted under the RI/FS Orders with Ohio EPA, as well as additional engineering investigations performed by Tierra Solutions, Inc. Grass will be "scalped" off of the surface of the cap. Equipment will be used to re-grade the surface of the landfill in order to even out the clay layer installed under the 1976 Order. Re-grading will only occur in areas where the original clay layer is at least 5' thick. The final thickness of the original clay layer will be at least 2 feet, following re-grading. An additional 18" to 24" of clay material will be installed across the surface of the landfill to provide relief. A drainage system will be placed on top of this second layer of clay and catch basins will be installed into the clay in order to prevent rainwater (and water used for golf course maintenance) from infiltrating into the waste below the cap. The drainage system will direct water off of the cap itself and into the storm sewer system for the property. A minimum of 54" of material will exist between the surface of the golf course and the fly ash which covers the chromate wastes.

Golf course construction will be completed by the end of next summer, and the new facility will open in the summer of 2008.

One Acre Site Improvements

The One Acre Site (OAS) is a former landfill on the Painesville Diamond Shamrock Site near Lake Erie, about one acre in size. Closed in 1970, it contains mainly wastes from the former Diamond Shamrock Research Center.

The OAS has been subject to strict monitoring and environmental controls. The landfill was used to dispose of a variety of chemical wastes, including, but not limited to, acids, caustics, organic compounds, metal-organic catalysts, and fungicides.

Reviews of the testing and control at this location has so far shown

remediation efforts to be effective.

Starting in 1987, an underground barrier wall was installed from the surface to bedrock. An engineered shoreline erosion protection system was installed along the Lake Erie shoreline.

All this work was completed by 1988. The extraction wells are operating, and the monitoring wells are sampled regularly.

Regular monitoring and testing has failed to ever show any type of contamination beyond the barrier wall toward Lake Erie or into the

surrounding property.

In 2006, the cap was improved by adding compacted soil cover and contouring to improve its appearance. In addition, the groundwater extraction well discharges were centralized for ease of operation, and the groundwater monitoring wells were raised, if needed, to match the new surface.

As part of the Lake Erie shoreline engineered erosion protection work underway, the OAS shoreline erosion protection barrier will be tied into similar barriers on each side of the OAS by 2007.

Recently Asked Questions

QUESTION: What happened to all the buildings that were at the Diamond Shamrock site?

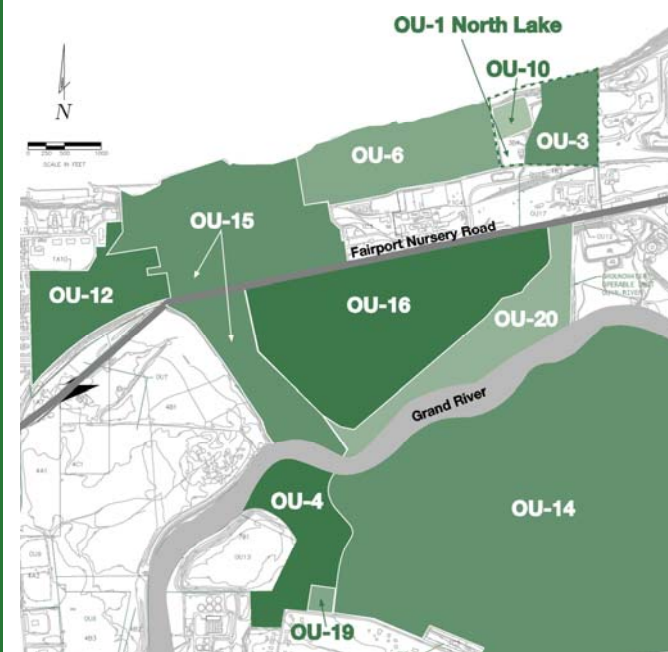
ANSWER: The PRP group and Hemisphere contracted with companies to demolish the structures on site and properly dispose of the demolition materials. The Lake County General Health District monitored the demolition of the structures both above and below grade in terms of asbestos management and removal of demolition and solid waste on site. The Air Pollution Control Division of the Health District regulated compliance with the National Emission Standards for Hazardous Air Pollutants (NESHAPS) as it related to asbestos. The Air Pollution Control Division also regulates dust control on site. The Health District Division of Liquid & Solid Waste monitored the demolition activities to ensure that all demolition debris and solid waste on site was transported to a proper disposal facility. The solid waste on site consisted of tires, metal, plastic, glass, office items and other materials. The demolition debris

consisted of the actual buildings, and below grade tanks and pipes encountered during demolition. Any material to be recycled such as concrete or metal was tested to ensure that it was not contaminated with hazardous materials that would render it as a hazardous waste. The Health District staff monitored and carefully documented these activities throughout the demolition projects.

QUESTION: There have been many trucks hauling dirt around the site lately. What was it and where did it go?

ANSWER: Soil on the site was sampled and analyzed as part of the remedial investigation feasibility study. Contaminated soils were identified and sample analysis determined whether the soil should be disposed of at a hazardous waste facility or a solid waste facility. Clean soil was hauled in and placed on site in accordance with the approved preferred plan.

Info on these site locations in this issue...



Coke Plant Cleanup Update

Diamond Shamrock operated the former coke plant from about 1924 until it was sold in 1976, and then others continued operation until 1982 when the plant finally closed. This area is now being prepared for reuse through demolition and cleanup. The former coke plant owners and operators are required to restore the site to meet industrial standards, and the State of Ohio has provided a grant to help with the additional cleanup required for the redevelopment plans.

Coke was made by roasting coal in the absence of air, which drives off the lighter components such as coal gas (mainly hydrogen and methane), ammonia, and coal tar. The former Diamond Shamrock operations recovered these byproducts for sale and use onsite, while the high grade coke was used in the soda ash manufacturing process and sold to foundries.

Starting in 1997, coke plant soil and water sampling was conducted under Ohio EPA supervision as part of the Remedial Investigation/Feasibility study. Materials of concern remaining

onsite were related to the former coke manufacturing operations, including coal and coke debris. Environmental concerns related to these materials centered on polynuclear aromatic hydrocarbons (PAHs), which are naturally occurring in original coal.

In addition to the coal and coke debris, hazardous materials including coal tar and a few miscellaneous 55-gallon drums were also found. All hazardous materials were removed from the facility in 2002 as part of a cleanup required by US EPA of the past owners and operators. In addition to coal tar, transformers containing PCB oils were also removed and disposed.

Beginning in late 2005, demolition started on the remaining former manufacturing buildings. This process was completed in 2006, and only some miscellaneous building slab demolition remains to be completed. A contractor is now being selected to complete the cleanup, which will include extensive capping with clean soil and re-grading.

Public Meeting Scheduled

The water quality impact of the proposed quarry stone breakwater, recreational beach and boat mooring area at 1897 Fairport Nursery Road in Painesville will be the subject of a November 20 Ohio EPA public meeting. The information session and public hearing is being held to accept comments concerning the application submitted by Tierra Solutions, Inc. If the project is approved, it would result in up to 21,093 cubic yards of fill being placed along 1,550 linear feet of Lake Erie Shoreline. Water quality certification from the Ohio EPA is required before discharging dredged or fill materials into waters to ensure water quality standards are met. Ohio EPA will consider the technical, economic, social and environmental aspects of the project before deciding to issue or deny a water quality certification. The meeting will be held November 20, 2006 at 6:30 p.m. at the Painesville Township Hall, 55 Nye Road.