

FINAL PLAN OF REMEDIAL ACTION



Trails & Pathways-C&D Canal Site #7

*Trails & Pathways-C&D Canal Site #7
Bear , Delaware*

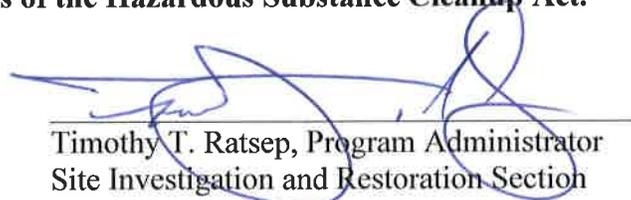
*June 2014
DNREC Project No. DE-1548*

This Final Plan of Remedial Action (Final Plan) presents clean-up actions required by the Department of Natural Resources and Environmental Control (DNREC) to address environmental contamination at the Trails & Pathways-C&D Canal Site #7.

DNREC issued public notice of the Proposed Plan of Remedial Action (Proposed Plan) for the Site on June 1, 2014 and opened a 20-day public comment period. The Proposed Plan is attached. There were no comments from the public; therefore, the Proposed Plan is adopted as the Final Plan.

Approval:

This Final Plan meets the requirements of the Hazardous Substance Cleanup Act.



Timothy T. Ratsep, Program Administrator
Site Investigation and Restoration Section

June 26, 2014

Date



PROPOSED PLAN OF REMEDIAL ACTION

Trails & Pathways-C&D Canal Site #7
Bear, Delaware
DNREC Project No. DE-1548



June 2014

Delaware Department of Natural Resources and Environmental Control
Division of Waste and Hazardous Substances
Site Investigation & Restoration Section
391 Lukens Drive
New Castle, Delaware 19720

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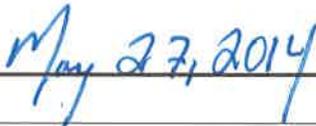
PROPOSED PLAN OF REMEDIAL ACTION

Trails & Pathways-C&D Canal Site #7
Bear, Delaware
DNREC Project No. DE-1548



Approval:

This Proposed Plan meets the requirements of the Hazardous Substance Cleanup Act.

Approved by:	
	
Timothy Ratsep, Environmental Program Administrator Site Investigation & Restoration Section	
Date	

Trails & Pathways-C&D Canal
Site #7
Bear, DE



What is the Proposed Plan of Remedial Action?

The Proposed Plan of Remedial Action (Proposed Plan) summarizes the clean-up (remedial) actions that are being proposed to address contamination found at the Trails & Pathways-C&D Canal Site #7 for public comment. A legal notice is published in local the newspaper for a 20-day comment period. DNREC considers and addresses all public comments received and publishes a Final Plan of Remedial Action (Final Plan) for the Site.

What is the Trails & Pathways-C&D Canal Site #7 Site?

The Trails & Pathways-C&D Canal Site #7 is located in Bear, New Castle County, Delaware (Figure 1). A 3.1 acre portion of a United States Army Corps of Engineers (USACE) dredge disposal site is the planned location of the Lums Pond South trailhead (Figure 2) associated with the Michael Castle Trail. The dredge disposal site occupies approximately 28 acres of land north of the canal, near Old Summit Road and Red Lion Road. DNREC only assessed the portion of the 28 acre disposal site that will be used for the trailhead (Figure 3). This portion of the Site is approximately 100 feet wide and 800 feet long and adjacent to a canal access road.

What happened at the Trails & Pathways-C&D Canal Site #7 Site?

The USACE began to widen and deepen the C&D Canal in 1921 after it was bought by the Federal government in 1919. In the period between 1920 to the early 1970s, approximately 100 million cubic yards of dredged material was deposited along the banks of the canal, creating artificial landforms. In the 1980s, the USACE Philadelphia District issued a license to the City of Baltimore and a contractor (Envirogro Technologies, Inc.) to amend the soils at selected locations with digested municipal sewage sludge in order to improve the soils and establish permanent vegetative cover.

What is the environmental problem at the Trails & Pathways-C&D Canal Site #7 Site?

Due to the placement of municipal sewage sludge at the Site, there was concern that Polychlorinated Biphenyls (PCBs) and other contaminants associated with sewage sludge were present at the Site. Although historic monitoring for vegetative growth was performed at the Site, monitoring for chemical contaminants was not done at the time. DNREC's investigation of soil and surface waters at the Site in September 2013 determined that arsenic in the soil and iron,

aluminum, and PCBs in the surface water were contaminants of potential concern (COPCs), due to their exceedence of residential risk based standards.

What does the owner want to do at the Trails & Pathways-C&D Canal Site #7 Site?

The Site is the planned location for the Lums Pond South trailhead associated with the Michael Castle Trail. The Michael Castle trail, named after the former governor and U.S. congressman, is a 9 mile scenic route along the north shore of the C&D Canal in northern Delaware. The Delaware Department of Transportation (DelDOT) and the DNREC Division of Parks and Recreation are leading the trails and pathways initiative, working in conjunction with counties and municipalities, metropolitan planning organizations and other State agencies. The trails and pathways initiative will connect walkways and bikeways to popular destinations such as schools and businesses to provide safe, convenient, and cost-effective travel.

What additional clean-up actions are needed at the Trails & Pathways-C&D Canal Site #7 Site?

No further action is necessary at the Site. A risk assessment determined that there is no human health risk associated with the arsenic in soils at the Site and no human health or ecological risk is associated with iron, aluminum or PCBs in the surface water at the Site.

What are the long term plans for the Site after the cleanup?

The Trails & Pathways-C&D Canal Site #7 will provide a trailhead access for public use. The trailhead will be part of the Michael Castle Trail that begins just outside Fort Dupont State Park and heads west to Lums Pond State Park and then to the State of Delaware border.

How can I find additional information or comment on the Proposed Plan?

The complete file on the Site, including the Remedial Investigation Report is available at the DNREC office, 391 Lukens Drive in New Castle, 19720. Most documents are also found on: <http://www.nav.dnrec.delaware.gov/DEN3/>

The 20-day public comment period begins on June 1, 2014 and ends at close of business (4:30 pm) on June 23, 2014. Please send written comments to the DNREC office at 391 Lukens Drive, New Castle, DE 19720 to John Cargill, Project Officer or Robert Newsome, Public Information Officer.

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Figure 1- Site Location in Delaware



 <p>SITE</p> <p>0 450 900 1,350 1,800 2,250 Feet</p> <p>1 inch = 1,167 feet</p>		<p>C&D Canal Site #7 DE-1548</p> <p><small>This map is provided by the DNREC-SIRS solely for display and reference purposes and is subject to change without notice. DNREC-SIRS will not be held responsible for the assumed accuracy contained in the map or for use other than it's intended purpose. January 2014</small></p>
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Figure 2- Specific Site Location



 <p>SITE</p> <p>0 130 260 390 520 650 Feet</p> <p>1 inch = 346 feet</p>		<p>C&D Canal Site #7 DE-1548</p> <p><small>This map is provided by the DNREC-SIRS solely for display and reference purposes and is subject to change without notice. DNREC-SIRS will not be held responsible for the assumed accuracy contained in the map or for use other than it's intended purpose. October 2012</small></p>
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Figure 3. Proposed Lums Pond South Trailhead



Glossary of Terms Used in this Proposed Plan

Arsenic	A naturally occurring metal and widely present in Delaware soils. In addition to occurring naturally, arsenic in soils can come from historic uses at tanneries and at various industries, such as foundries; from pesticides before synthetic organic pesticides were available; from fertilizer and potting soils; from arsenic treated wood and from chicken litter.
Contaminant of Potential Concern (COPC)	Potentially harmful substances at concentrations above acceptable levels.
Final Plan of Remedial Action	DNREC's adopted plan for cleaning up a hazardous site.
Risk	Likelihood or probability of injury, disease, or death.
SIRS	Site Investigation Restoration Section of DNREC, which oversees cleanup of sites that were contaminated as a result of past use, from dry cleaners to chemical companies
Human Health Risk Assessment (HHRA)	An assessment done to characterize the potential human health risk associated with exposure* to site related chemicals.
Polychlorinated biphenyls (PCBs)	A synthetic, carcinogenic chemical formerly used in a wide variety of industrial applications but banned from most uses by the US EPA in 1979.
Trails and Pathways	A project between DNREC and DelDOT to establish an interconnected network of shared use pathways and trails that will support non-motorized travel and recreational trails opportunities within the state.