



PROPOSED PLAN OF REMEDIAL ACTION

Christina River Bridge and Approaches Site

Wilmington, Delaware

DNREC Project No. DE-0334



September 2016

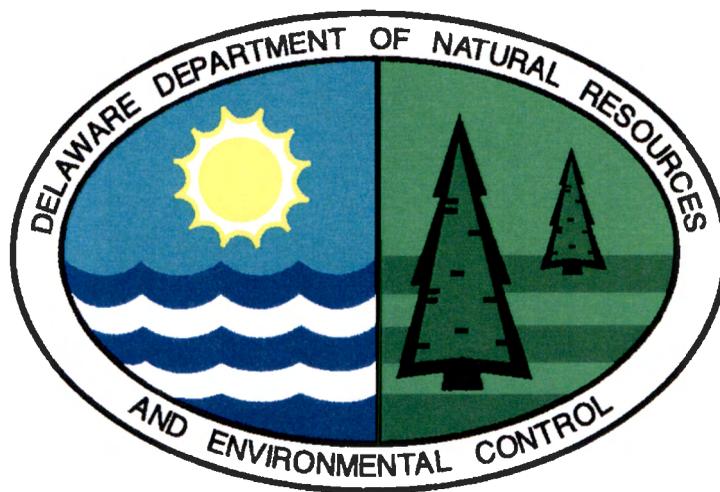
Delaware Department of Natural Resources and Environmental Control
Division of Waste and Hazardous Substances
Site Investigation & Restoration Section
391 Lukens Drive
New Castle, Delaware 19720

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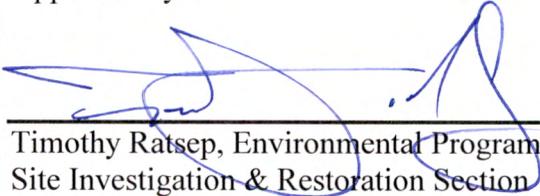
PROPOSED PLAN OF REMEDIAL ACTION

Christina River Bridge and Approaches Site
Wilmington, Delaware
DNREC Project No. DE-0334



Approval:

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

Approved by:

Timothy Ratsep, Environmental Program Administrator Site Investigation & Restoration Section
<u>September 22, 2016</u>
Date

Christina River Bridge and Approaches Site DE-0334



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 Site for public comment. A legal notice is published in 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 Christina River Bridge and Approaches (CRB) Site?

The Christina River Bridge and Approaches (CRB) Site is a Hazardous Substance Cleanup Act (HSCA) site. The Delaware Department of Transportation (DelDOT) is planning to build a new bridge crossing over the Christina River in South Wilmington (Figure 1). This bridge will serve to support the growing transportation needs that have occurred since 1996 in response to the extensive redevelopment of the Wilmington Riverfront area. As shown in Figure 2, the approach roads begin at Beech Street and continue south to the southern extent of the Shipyard Shops (west of the Christina River) where the bridge crosses over the River and the roads continue east through the 707 S. Market Street Jablow property (north of James Court) and connect to Market Street, Walnut Street, and Garasches Lane. The CRB Site is currently covered with paved roadways, parking lots, vegetation, portions of the Riverwalk, asphalt and former building slabs.

The CRB Site runs through and adjacent to several existing Hazardous Substance Cleanup Act (HSCA) sites. As shown in Figure 1, on the west side of the Christina River the Site includes portions of the Wilmington Coal Gas Site-South (DE-0114), the Stadium Site (DE-1004), the Riverfront Hotel Site (DE-1518), and the Dravo Shipyard Harbor Associates Site (DE-1096). On the east side of the Christina River, the Site includes the 707 S. Market Street Jablow Site (DE-1329) (north of James Court) before connecting to Market Street, Walnut Street, and Garasches Lane. The project runs adjacent to several existing HSCA sites along Market Street and Walnut Street including the International Petroleum Corporation Site (DE-1278), the Lamplugh Property Site (DE-1319), the American Tank Trailer Site (DE-1180), the Shuster Auto Salvage Site (DE-1178), the 733 South Market Street Site (DE-1502), the 800-810 South Market Street Site (DE-0368), the Don Wilson Auto Parts Site (DE-0368), the Hessler Property Site (DE-1169 & 1203), the 524 A&B South Walnut Street Site, (DE-1235), the M & N Property Site (DE-1496), and the Howard Street Property Site (DE-1401).

What happened at the CRB Site?

Historical research indicates the Site was historically maintained as undeveloped marsh land, commercial, and industrial properties. A portion of the Site located west of the Christina River

was previously part of the Dravo Shipyard and also used for the manufactured gas plant operations of Wilmington Coal Gas.

The Jablow Property Site, which is located on the east side of the Christina River, was used as a beef slaughterhouse from the 1930s to the early 1960s and through 2004, the Site was used as an auto repair and auto salvage facility. DeIDOT has acquired the Jablow Property Site (DE-1329) and a portion of the Site will be used for construction of the bridge and approach roads; therefore, a portion of the Jablow Site is being included in this Proposed Plan of Remedial Action.

What is the environmental problem at the CRB Site?

The shallow soil (0-2 feet below ground surface) contains lead, arsenic, polychlorinated biphenyls (PCBs) and polynuclear aromatic hydrocarbons (PAHs) above the DNREC screening level criteria. The subsurface soil (more than 2 feet below ground surface) contains arsenic, lead, PCBs, benzene, toluene, ethylbenzene, xylenes (BTEX), cyanide, petroleum hydrocarbons, and PAHs above the DNREC screening criteria. Groundwater sampling results showed elevated concentrations of arsenic, lead, vanadium and methyl tertiary butyl ether (MTBE). Historic groundwater contaminants associated with the HSCA sites east of the River include: metals, volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs) and PCBs. Historic groundwater contaminants associated with the HSCA sites west of the River include BTEX, cyanide and PAHs.

What clean-up actions have been taken at the CRB Site?

A portion of the Jablow Property Site (DE-1329) is included in the CRB Site. Automobiles, automobile parts, solid waste, and oil-stained soils were observed on the Jablow Property near the northern boundary during a site inspection in 2004. In 2006, the buildings on a portion of the Jablow Property Site were demolished, three (3) underground storage tanks along with hazardous waste containers, several compressed gas cylinders, and contaminated soil were removed from the Site and disposed of properly offsite. In March 2009, a storm water control system and pre-cast concrete sediment trap was installed at the Site and asbestos pipes, tires and other solid waste materials were removed from the Site.

A portion of the Dravo Shipyard Harbor Associates (DE-1096) is included in the CRB Site. In 2001, a Final Plan of Remedial Action issued which chose management of contaminated soil and site capping as the remedy for this Site.

A portion of the Wilmington Coal Gas Site-South (DE-0114) is also included in the CRB Site. On December 22, 2010 an amended Final Plan of Remedial Action was which selected solidification, stabilization and excavation of coal tar impacted soil, and capping as the remedy for this Site. The remedy was implemented in 2013 and the Site requires semi-annual groundwater sampling and cap inspections.

The CRB Site is included within the City of Wilmington Groundwater Exclusion Zone (GEZ) therefore the use of groundwater is restricted.

What is planned for the CRB Site?

DelDOT, the Riverfront Development Corporation (RDC) and the City of Wilmington in cooperation with the Federal Highway Administration (FHWA) are planning a new bridge crossing over the Christina River in South Wilmington. This proposed bridge and associated approach roads would serve to support the growing transportation needs that have occurred since 1996 in response to the extensive redevelopment of the Wilmington Riverfront area.

What additional clean-up actions are needed at the CRB Site?

DNREC proposes the following remedial actions for the CRB Site, which needs to be completed before a Certificate of Completion of Remedy (COCR) can be issued:

1. The Site must be capped with at least one foot of clean fill or impervious material (e.g. buildings, asphalt, or concrete).
2. Submit to DNREC a CMMP within 60 days of the issuance of a Final Plan of Remedial Action. The CMMP will allow construction workers to safely handle any potential contaminated soil and groundwater at the Site.
3. Submit an Environmental Covenant to DNREC for approval within 60 days of the completion of the remedial actions required in this Proposed Plan.
4. Record an Environmental Covenant, consistent with Delaware's Uniform Environmental Covenants Act (Title 7, Del. Code Chapter 79, Subtitle II) (UECA), in the office of the Recorder of Deeds within 60 days of DNREC approving the Long Term Stewardship Plan. The Environmental Covenant will include the following:
 - [a.] Use Restriction. Use of the Property shall be restricted solely to those non-residential type uses permitted within Commercial, Manufacturing, or Industrial Districts;
 - [b.] Interference with Remedy. There shall be no digging, drilling, excavating, grading, constructing, earth moving, or any other land disturbing activities on the Property without the prior written approval of DNREC-SIRS;
 - [c.] Limitation of Groundwater Withdrawal. No groundwater wells shall be installed, and no groundwater shall be withdrawn from any well on the Property without the prior written approval of DNREC-SIRS and DNREC Division of Water;
5. A Long-Term Stewardship (LTS) Plan shall be submitted to DNREC for approval within 60 days of the completion of the remedial actions required in this Proposed Plan. The LTS plan will consist of an agreement between DelDOT and the City of Wilmington, notification to DNREC-SIRS, and following the CMMP if digging below the cap in order to ensure the long-term integrity of the remedy.
6. The LTS Plan must be implemented within 60 days of its approval by DNREC.

7. A Remedial Action Completion Report must be submitted to DNREC within 60 days of the completion of the remedial actions required in this Proposed Plan.
8. A request for a Certification of Completion of Remedy (COCR) must be submitted to DNREC within 60 days of approval of the Remedial Action Completion Report.

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

The Site is planned to be used for a bridge and approach roads to the bridge across the Christina River. DNREC plans to issue a COCR for the Site after the completion of clean-up, and the redevelopment of the property.

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

The complete file on the Site including the Site Specific Assessment Report and the various reports are 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 September 25, 2016 and ends at close of business (4:30 pm) on October 17, 2016. Please send written comments to the DNREC office at 391 Lukens Drive, New Castle, DE 19720 to Robert C. Asreen, Jr., Project Officer.

Figure 1: Site Location / Topographic Map

Figure 2: Site Location / Topographic Map

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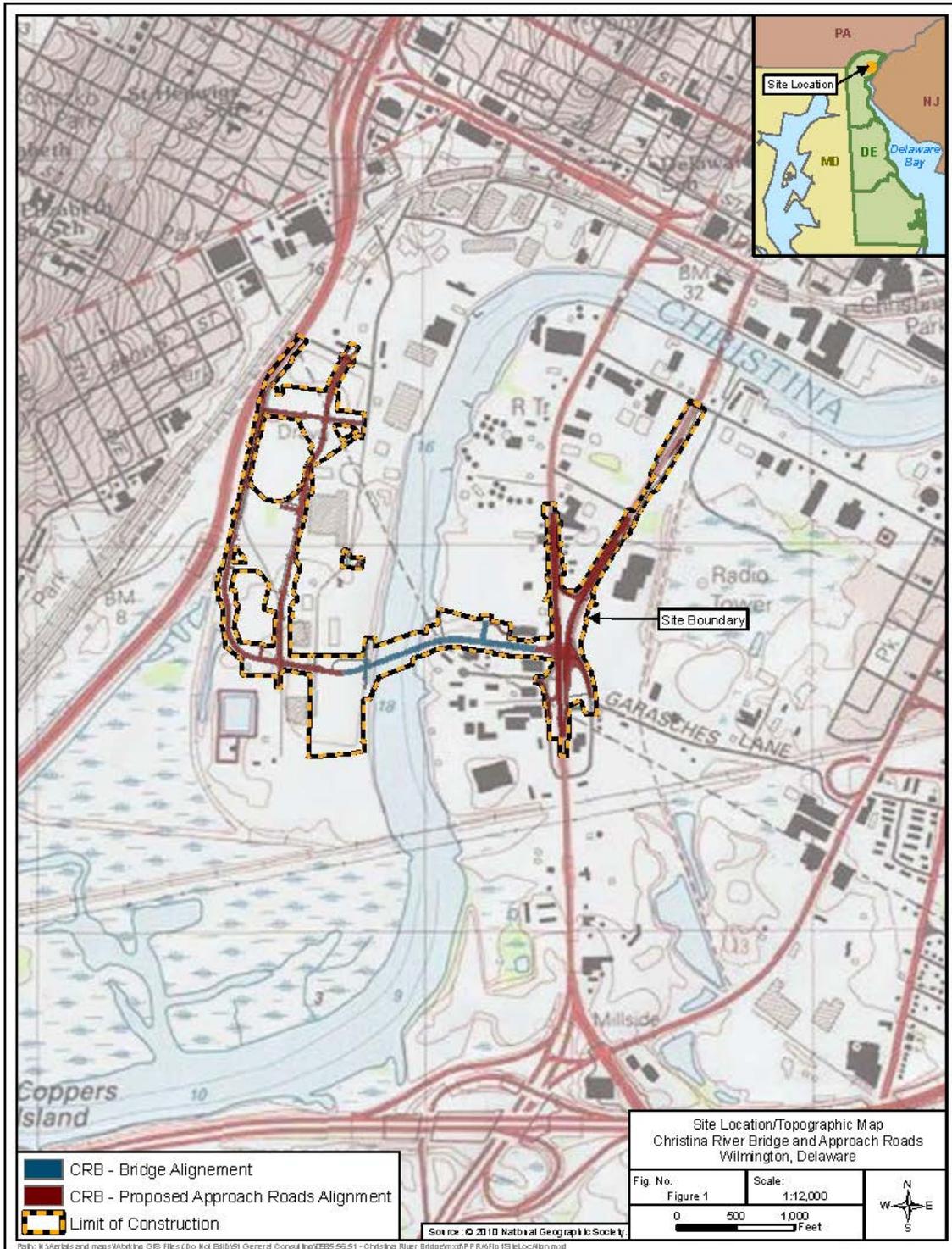


Figure 1: Site Location / Topographic Map

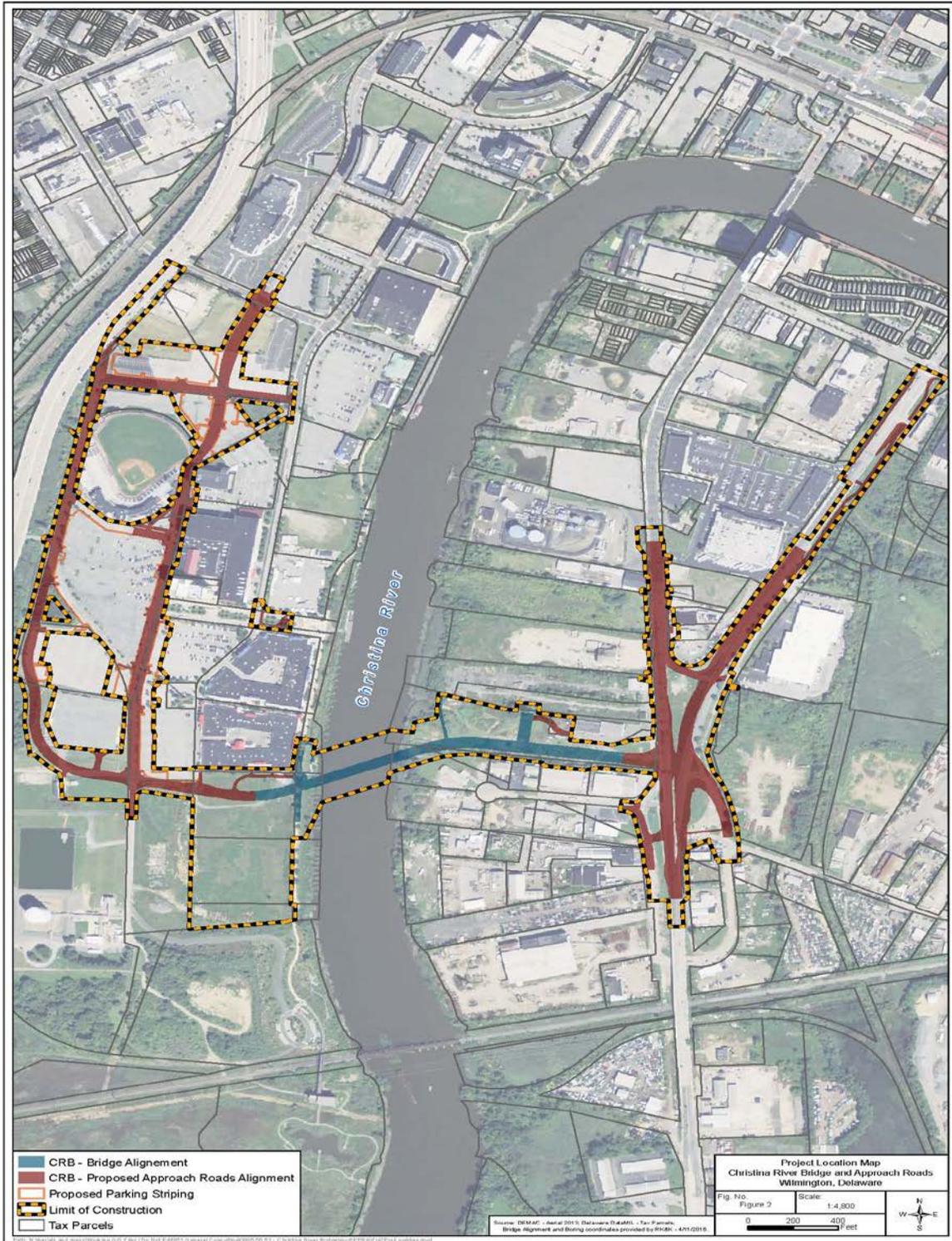


Figure 2: Site Location / Topographic Map

Glossary of Terms Used in this Proposed Plan

Certification of Completion of Remedy (COCR)	A formal determination by the Secretary of DNREC that remedial activities required by the Final Plan of Remedial Action have been completed.
Contaminated Materials Management Plan	A written plan specifying how potentially contaminated material at a Site will be sampled, evaluated, staged, transported and disposed of properly.
Final Plan of Remedial Action	DNREC's adopted plan for cleaning up a hazardous site.
Groundwater Exclusion Zone (GEZ)	A geographical area where DNREC restricts drilling for ground water because it is contaminated
Hazardous Substance Cleanup Act (HSCA)	Delaware Code Title 7, Chapter 91. The law that enables DNREC to identify parties responsible for hazardous substances releases and requires cleanup with oversight of the Department.
Poly chlorinated 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.
Restricted Use	Commercial or Industrial setting
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
US EPA	United States Environmental Protection Agency