BROWNFIELD CLEANUP PROGRAM
DECISION DOCUMENT

Former A.C. Dutton Lumber Yard Site
Operable Unit No. 01 - On-Site
City and Town of Poughkeepsie, Dutchess County, New York
Site No. C3-14-081

Statement of Purpose and Basis

This Brownfield Cleanup Program (BCP) Decision Document presents the remedy identified by the Department of Environmental Conservation (Department) for Operable Unit 01 of the Former A.C. Dutton Lumber Yard site. Operable Unit 01 consists of the on-site area as defined by the Brownfield Cleanup Agreement. The remedial program was chosen in accordance with Article 27 Title 14 of the New York State Environmental Conservation Law and the 6 NYCRR 375 regulations relative to the BCP.

Description of the Site

Operable Unit (OU) 01 of the Former A.C .Dutton Lumber Yard site consists of approximately 15 acres located in the City and Town of Poughkeepsie on the east shore of the Hudson River. Approximately 11 acres of the site are located in the City and the remainder is located in the Town. See Figure 1.

The site is currently occupied by seven failing metal, wood and brick structures related to the former lumber yard and wood treatment facility. The two buildings that were the primary process buildings are referred to as the pressure treatment buildings. Several petroleum and chemical storage tanks associated with the former pressure treatment facility are present at the site.

Nearby properties consist predominantly of commercial and industrial properties; however, there are two residential properties located to the southeast of the site. The site is bounded on the south by Dutchess Avenue, the west by the Hudson River, and to the north by property owned by Vassar College. Marist College owns property to the north of the Vassar property. There is a railroad line and a wastewater treatment plant a short distance to the east of the site. To the south of Dutchess Avenue is a property owned by Cental Hudson Gas & Electric (CHG&E), which was formerly a manufactured gas plant and is now used as a natural gas storage and distribution facility. The CHG&E property is the subject of a separate, ongoing BCP project.

Assessment of the Site

Contamination was identified by the Remedial Investigation (RI) of the site that represents a significant threat to the environment, requiring a remedial program to address that contamination as detailed below:

Nature of contamination: The primary contaminants of concern at the site are arsenic, chromium and copper associated with the former pressure treating operation that utilized chromated copper arsenate to pressure treat lumber. Residuals and wastes of the pressure treating process are a listed hazardous waste under Federal and State regulations.

Other metals detected above soil cleanup objectives include mercury, lead and barium. Prior to usage as a lumber yard and pressure treating facility, the site was the location of a glass works plant and an iron works, which may have also contributed to site contamination. Large amounts of coal were stored on-site in association with the iron works. Solidified kiln ash from the glass works was reportedly used as fill on-site. Petroleum contamination was also noted in several areas of the site. Groundwater impacts were limited to a few locations. Data does not suggest that contaminants have had a major impact to groundwater across the site.

Extent of contamination:

Source Areas/Waste Disposal - The areas surrounding the two pressure treatment buildings were the most highly impacted by metals contamination. Previous investigations showed impacts to deposits/soil in the interior collection drains of one of the pressure treatment buildings as high as 138,000 parts per million (ppm) of arsenic. Chromium and copper were detected in that same sample at 98,600 ppm and 8,290 ppm, respectively. That was the maximum concentration of chromium detected at the site. The highest concentration of copper detected at the site was 30,700 ppm.

Surface soil - The entire site is impacted by arsenic, likely the result of storage of treated lumber in exposed areas. Concentrations of arsenic in surface soil identified during the RI ranged from non-detect to 811 ppm.

Subsurface soil - Subsurface soil is impacted by arsenic across the site. Concentrations tend to decrease with increasing depth and most impacts are limited to 1 foot below the ground's surface with areas of deeper impacts to 3 feet. The soils in the vicinity of the chemical storage tanks in the pressure treating buildings are impacted by arsenic and chromium to greater depths (8 feet or more). There are four areas of petroleum impacted soils. Areas of petroleum impact were noted by visible impacts and/or strong odors. Soil samples from these areas showed very limited impacts by volatile organic compounds or semi-volatile organic compounds.

Groundwater - Limited impacts to groundwater by metals were identified during the RI. Impacts were limited to isolated locations near the pressure treatment buildings. Contaminants associated

with petroleum products (*i.e.*, volatile organic compounds and semi-volatile organic compounds) were not detected during the RI in groundwater samples collected from the vicinity of the petroleum impacted areas.

Sediment - Arsenic, chromium, copper and several other metals were identified in Hudson River sediments at levels exceeding sediment criteria in near-shore sediments. The full extent of Hudson River sediment impacts has not been determined at this time. As this is an off-site issue it will not be addressed by the Volunteer for this BCP project. The remedy for the on-site contamination will mitigate the potential for further off-site migration of site-related contaminants. The sediment contamination will be addressed by a separate remedial program (Operable Unit 02), either by a potentially responsible party or, if none is identified, by the Department as the site has been determined to be a significant threat.

Description of Selected Remedy

Based on the results of the Alternatives Analysis and the criteria identified for evaluation of alternatives, a Track 4, restricted residential remedy is selected for this BCP site. Per 6 NYCRR 375-3.11(b), remedy selection and implementation of remedial actions under Department-approved work plans are not subject to the State environmental quality review act provided that design and implementation of the remedy do not commit the Department or any other agency to specific future uses or actions or prevent evaluation of a reasonable range of alternative future uses of or actions on the remedial site. The components of the remedy set forth in the Remedial Work Plan, and shown on the attached Figure 2 are as follows:

1. A remedial design program will be implemented to provide the details necessary for the construction, operation, maintenance, and monitoring of the remedial program.

2. Existing buildings will be decontaminated as necessary and demolished/deconstructed. Process tanks and other storage tanks identified at the site will be excavated if necessary, emptied, cleaned and disposed of off-site. Any storage tanks(s) subject to regulation under 6 NYCRR Parts 596 through 599 or 612 through 614 discovered and found not to be registered will be addressed as put forth in 6 NYCRR 375-1.12(e)(2).

3. Soils/materials in the footprint of the two pressure treating buildings will be excavated and disposed of off-site. Excavations will proceed until endpoint samples show arsenic levels below 32 ppm or to bedrock, whichever is shallower. Excavations within the footprint of the pressure treating buildings will also proceed until all grossly contaminated material is removed. Grossly contaminated material includes materials meeting the description of grossly contaminated soils as defined by 6 NYCRR 375-1.2(u) and material otherwise obviously impacted by site contaminants (*e.g.*, obviously stained yellow, green or blue).

4. Asphalt paving across the site will be removed and disposed off-site or reused on-site

below the cover system.

5. Areas of petroleum contaminated soils meeting the definition of grossly contaminated soils as defined in 6 NYCRR 375-1.2(u) will be excavated and disposed of off-site.

6. Soils/materials contaminated with arsenic from areas outside of the pressure treatment buildings will be excavated and disposed of off-site. This will include areas depicted on Figure 2 and includes: areas surrounding the northern pressure treatment building; the area to the east and northwest of the southern pressure treatment building; the areas along the rail spurs on the western side of the site; and an area near a former loading dock on the eastern side of the site. The depths will be based on the limits shown on Figure 2 and on the results of documentation sampling performed at the excavation limits. Excavations will be extended beyond the limits shown on Figure 2 for areas of the excavations where documentation samples show significant concentrations of contaminants in multiple (*i.e.*, 2-3) documentation samples.

7. A soil cover will be constructed over all vegetated areas to prevent exposure to contaminated soils. The two-foot thick cover will consist of clean soil underlain by an indicator such as orange plastic snow fence to demarcate the cover soil from the subsurface soil. The top six inches of soil will be of sufficient quality to support vegetation. Clean soil will constitute soil that meets the Division of Environmental Remediation's criteria for soil covers and backfill. Non-vegetated areas (buildings, roadways, parking lots, etc.) will be covered by a newly installed paving system or concrete at least 6 inches thick.

8. The shoreline will be stabilized sufficiently to ensure the protection of the cover system and limit the erosion of site soils by replacing and/or reinforcing the existing stabilization.

9. Imposition of an institutional control in the form of an environmental easement that will require (a) limiting the use and development of the property to restricted residential use, which will also permit commercial or industrial uses; (b) compliance with the approved site management plan; (c) restricting the use of groundwater and/or surface water as a source of potable or process water, without necessary water quality treatment as determined by Dutchess County Department of Health; and (d) the property owner to complete and submit to the Department a periodic certification of institutional and engineering controls.

10. Development of a site management plan which will include the following institutional and engineering controls: (a) management of the final cover system to restrict excavation below the soil cover's demarcation layer, pavement, or buildings. Excavated soil will be tested, properly handled to protect the health and safety of workers and the nearby community, and will be properly managed in a manner acceptable to the Department; (b) continued evaluation of the potential for vapor intrusion for any buildings developed on

the site, including provision for mitigation of any impacts identified; (c) monitoring of groundwater; and (d) identification of any use restrictions on the site.

11. The property owner will provide a periodic certification of institutional and engineering controls, prepared and submitted by a professional engineer or such other expert acceptable to the Department, until the Department notifies the property owner in writing that this certification is no longer needed. This submittal will: (a) contain certification that the institutional controls and engineering controls put in place are still in place and are either unchanged from the previous certification or are compliant with Department-approved modifications; (b) allow the Department access to the site; and (c) state that nothing has occurred that will impair the ability of the control to protect public health or the environment, or constitute a violation or failure to comply with the site management plan unless otherwise approved by the Department.

Declaration

The selected remedy is protective of human health and the environment, complies with State and Federal requirements that are legally applicable or relevant and appropriate to the remedial action and will allow for the identified use of the site. This remedy utilizes permanent solutions and alternative treatment to the maximum extent practicable, and satisfies the preference for remedies that reduce, remove or otherwise treat or contain sources of contamination and protection of groundwater.

JANUARY 26, 2009
Date

Director
Remedial Bureau C
Division of Environmental Remediation

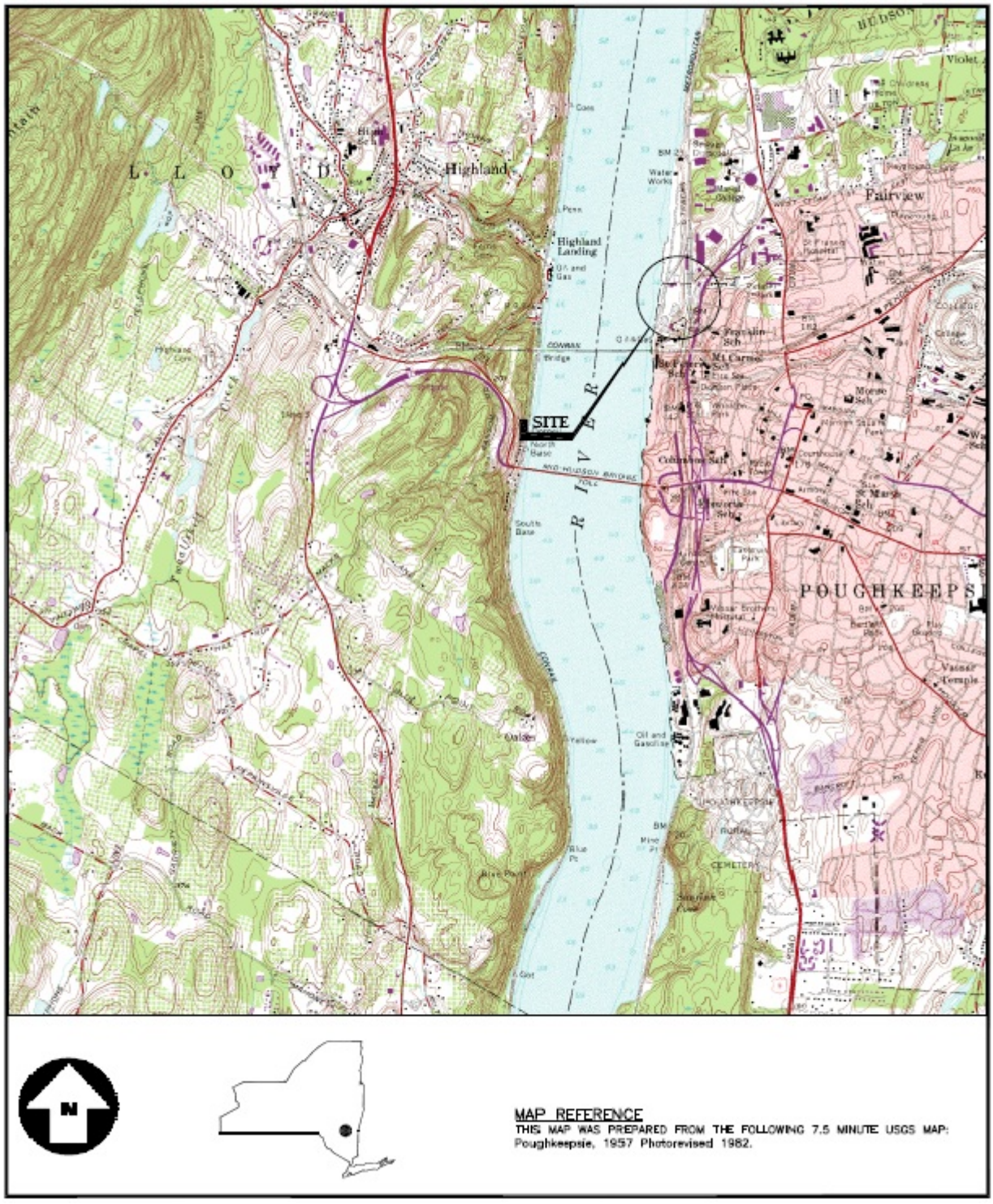
L L O Y D
Highland
Highland Landing
Fairview
SITE
R I V E R
POUGHKEEPSI
MAP REFERENCE
THIS MAP WAS PREPARED FROM THE FOLLOWING 7.5 MINUTE USGS MAP:
Poughkeepsie, 1957 Photorevised 1982.

Figure 1

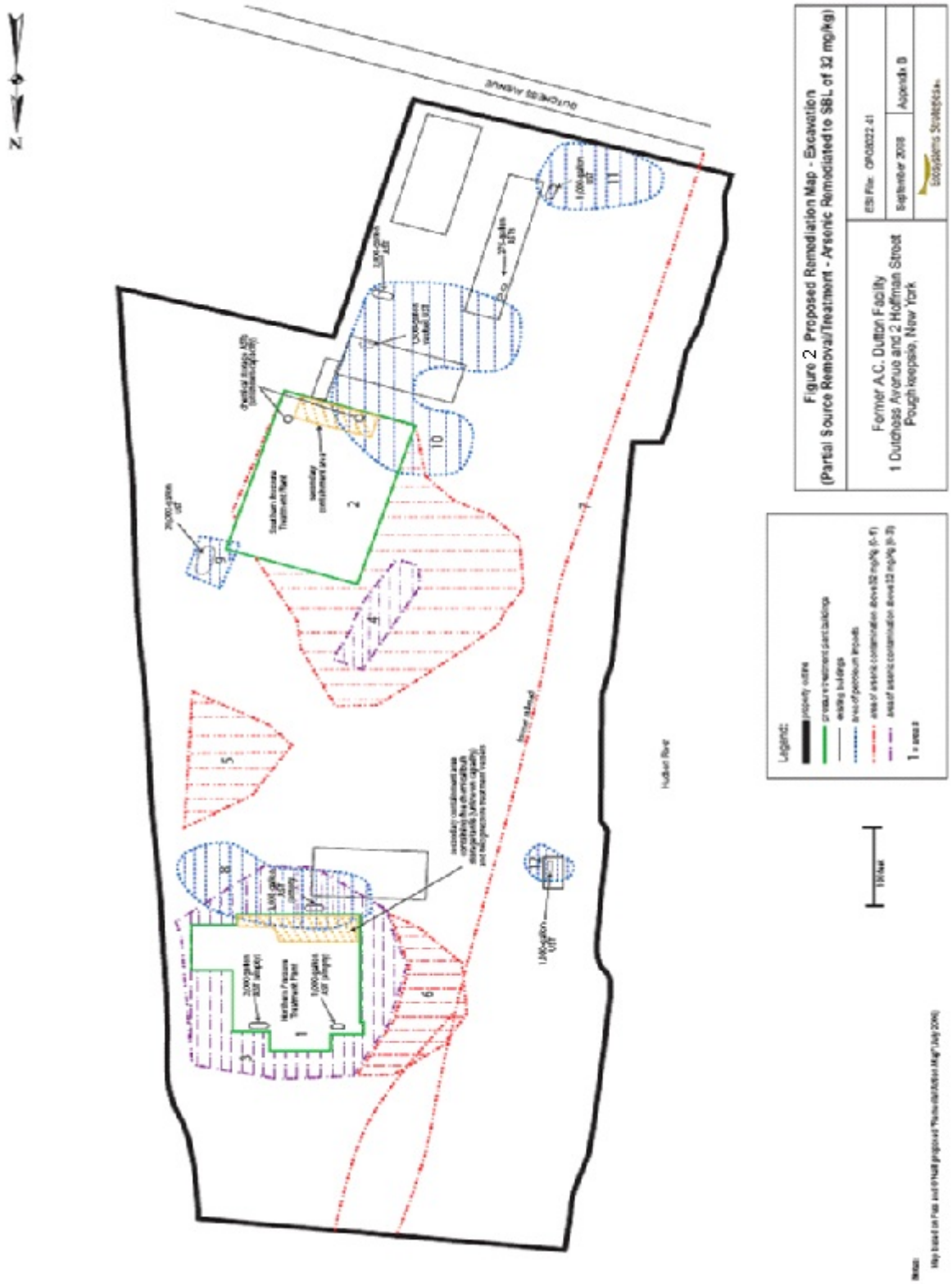
Figure 2 Proposed Remediation Map - Excavation
(Partial Source Removal/Treatment - Arsenic Remediated to SBL of 32 mg/kg)
Former A.C. Dutton Facility
1 Dutchess Avenue and 2 Hoffman Street
Poughkeepsie, New York
Appendix B
September 2008
Legend:
Hudson River