

State of Minnesota
Minnesota Pollution Control Agency

MINNESOTA DECISION DOCUMENT

Pursuant to the Minnesota Environmental Response and Liability Act (MERLA), Minn. Stat. § 115B.01 to 115B.24 (2026).

I. SITE DESCRIPTION

Hibbing Gas Manufacturing Plant Site
235 41st Street West
Hibbing, MN 55746

II. STATEMENT OF PURPOSE

This Minnesota Decision Document (MDD) presents the selected remedial action and cleanup levels for the Hibbing Gas Manufacturing Plant Site (Site) and summarizes the facts and determinations made by the Minnesota Pollution Control Agency (MPCA) staff in approving the recommended response action alternative.

The MPCA has determined that source area removal and institutional controls are necessary to protect human health and the environment.

The MPCA Commissioner or their delegate has determined that the response actions set forth in this MDD are reasonable and necessary to protect the public health and welfare and the environment from the release and threatened release of hazardous substances and/or pollutants and

III. DESCRIPTION OF PROBLEM

A. Site History

The Site (as shown on the figures in Attachments 1 and 2) is operated by the Hibbing Public Utilities Commission, a municipal utility established and operating under Minn. Stat. ch. 412 and certain Minnesota Laws (hereinafter the “Commission” or “HPUC”). It was operated as a coal gasification plant from 1918 to 1923, as a carbureted water gas plant from 1923 to 1946, and as a propane gas plant from 1946 to 1969. The onsite buildings and other above-ground infrastructure were demolished in approximately 1980, although many of the foundations remain. The area of the Site where the coal gas manufacturing occurred (Manufacturing Area) is approximately 4.5 acres in size and is presently used as an equipment and supply storage yard by HPUC. This area of the Site is zoned light industrial.

Coal tar and other process wastes from the gas plant were discharged to an adjacent 10-acre wetland (Wetland Discharge Area). Historic aerial photos show the wetland was filled after closure of the gas plant. Coal tar, coal ash, boiler slag, and impacted soil are present below the fill layer in an approximately 3-acre area of the Wetland Discharge Area. Data from soil borings conducted in this area indicate the fill cover overlying impacted soils is approximately 1.5 to 7 feet thick and is serving as a protective cover. Except for one residential parcel (139-0050-04696), the parcels located within Wetland Discharge Area are currently zoned light industrial. The majority of the Wetland Discharge Area is owned by HPUC. The far eastern extent of the Wetland Discharge Area, near the historical discharge location, is owned by Edwards Oil.

B. Remedial Investigation

i. Soil Analytical Data for Superfund Contaminants of Concern

Soils in the Manufacturing Area exceeding the MPCA's Industrial Soil Reference Values (SRVs) were identified within three former operating areas: the gas holder ring, the tar separator, and the tar and ammonia wells. Coal tar-impacted soil is generally found in these areas at depths ranging from 4 to 20 feet below ground surface (bgs).

Contaminants of Concern (COCs) identified in the Manufacturing Area soils exceeding Industrial SRVs include benzene, benzo(a)pyrene, cyanide, ethylbenzene, 2-methylnaphthalene, naphthalene, toluene, and xylenes. The estimated volume of coal tar-impacted soil in the Manufacturing Area is approximately 3,700 cubic yards.

Soils impacted by waste discharges (including coal tar) from the historical operation of the gas plant have been delineated within the central and eastern portion of the Wetland Discharge Area (As depicted in the map in Attachment 2). The COCs identified in soil in the Wetland Discharge Area include benzene, benzo(a)pyrene, ethylbenzene, 2-methylnaphthalene, and naphthalene at concentrations generally one to two orders of magnitude less than those found in the Manufacturing Area. Coal tar and impacted soil in the Wetland Discharge Area are present below a layer of fill that is serving as a protective cover.

ii. Groundwater Analytical Data.

Depth to groundwater at the Site ranges from approximately 30 feet bgs in the Manufacturing Area to 24 feet bgs in the Wetland Discharge Area; however, the Wetland Discharge Area contains wetlands with intermittent surface water and areas of perched groundwater from 1 to 12 feet bgs. Groundwater COCs include benzene, cyanide, ethylbenzene, and naphthalene (See Table 1). An area of groundwater contamination originates in the Manufacturing Area and extends to portions of the Wetland Discharge Area to the west and northwest. Groundwater COC concentrations above the Minnesota Department of Health's Health Risk Limits (as shown on the figure in Attachment 2) do not appear to be a risk to any identified receptors.

Table 1: Summary of Groundwater Analytical Results

Contaminant of Concern	Maximum Concentration (µg/L)	Health Risk Limit (µg/L)
Cyanide	554	100
Benzene	1,290	2.0
Ethylbenzene	146	40
Naphthalene	359	70

iii. Surface Water and Sediment Analytical Data

Impacts to surface water are limited to a small stream that is present along the east side of the Wetland Discharge Area. The stream discharges to an intermittent tributary of the East Swan River. Seasonal sampling of this stream was conducted over six events. During the first three events, anthracene was identified in one stream water sample at concentrations slightly exceeding Minnesota Surface Water Quality Standards (MSWQS) Class 2B screening criteria for ecological and recreational users, COCs were not identified downstream in surface water outside the Wetland Discharge Area.

One sediment sample located within the Wetland Discharge Area showed sediment contaminated with several polycyclic aromatic hydrocarbons (PAHs), including anthracene, exceeding the MPCA’s Level II sediment quality targets (SQTs). A subsequent sediment sample collected downstream of the impacted area showed no SQT exceedances and appears to delineate the area of impacted sediment within the Wetland Discharge Area boundary.

iv. Vapor Intrusion Assessment

Soil gas samples were collected at eight locations during the heating and non-heating seasons to determine the potential risk for vapor intrusion at the Site. One location within the Wetland Discharge Area exceeded the 33x Commercial/Industrial Vapor Intrusion Screening Value (ISV) for benzene; however, the stability and extent of the groundwater plume as well as the lack of receptors suggest that vapor intrusion risks are low at the Site.

IV. DOCUMENTS REVIEWED

The MPCA based its remedial action decision on the files, records and proceedings of the MPCA including, but not limited to, the following formal reports:

Date	Description	Conducted by
1986	Preliminary Assessment	USEPA
1991	Screening Site Inspection	USEPA
1995	Site Inspection Prioritization	MPCA
1998	Phase II Investigation Report	HPUC
2001	Investigation Report and Phased Conceptual Response Action Plan	HPUC
2002	Preliminary Feasibility Study	HPUC
2018	Summary Report	MPCA
2021	Focused Remedial Investigation Report	MPCA
2022	TarGOST Summary Report	MPCA
2023	Annual Monitoring Report	MPCA
2023	Focused Feasibility Study	MPCA
2024	Excavation Detailed Corrective Action Design Report	MPCA

V. DESCRIPTION OF RESPONSE ACTIONS ALREADY COMPLETED

Following closure of the gas plant, clean fill soils were placed as a protective cover in the Wetland Discharge Area.

VI. EVALUATION OF RESPONSE ACTION ALTERNATIVES

A Focused Feasibility Study (FFS) was completed in May 2023. The FFS evaluated eight remedial alternatives for the Manufacturing Area and seven remedial alternatives for the Wetland Discharge Area. The alternatives evaluated were:

1. No Action (Alternative 1)
2. Thermal Desorption (Alternatives 2A and 2B)
3. Excavation (Alternatives 3A and 3B)
4. Institutional and Engineering Controls (Alternative 4)
5. Chemical Oxidation (Alternative 5)
6. Thermal Conduction Heating (Alternative 6, Manufacturing Area only)

VII. ESTABLISHMENT OF RESPONSE ACTION OBJECTIVES

Response action objectives were developed by the MPCA to minimize human exposure risk through Applicable or Relevant and Appropriate Requirements (ARARs) and are based on soil, soil vapor, groundwater, surface water, and sediment analytical data collected during site investigations. A full list of ARARs for the Site can be found in the Focused Feasibility Study. The primary ARARs considered by the MPCA in selecting a remedy for the Site are:

1. MPCA Soil Reference Values (SRVs)
2. MPCA Soil Vapor Intrusion Screening Values (ISVs)
3. MPCA Sediment Quality Targets (SQTs)
4. Minn. R. ch. 7050 Surface Water Criteria
5. Minnesota Department of Health's Health Risk Limits

The objectives for response actions at the Site are to:

1. Eliminate or significantly reduce human health risk exposure to Site COCs in soil.
2. Reduce Site contaminants in groundwater through source area removal of coal tar and coal tar-impacted soil.
3. Reduce potential exposure to surface water and sediment contamination in the Wetland Discharge Area.
4. Remove free-phase coal tar and coal tar-saturated soils to the maximum extent practicable.

VIII. DESCRIPTION OF SELECTED RESPONSE ACTIONS

The MPCA has selected Alternative 3A/3B (Excavation and Disposal of Coal Tar-Impacted Soil) for the Manufacturing Area, and Alternative 4 (Institutional and Engineering Controls) for the Wetland Discharge Area. The selected response actions meet the site response action objectives and are protective of human health and the environment.

Institutional and Engineering controls will be implemented in the Wetland Discharge Area to restrict access. An environmental covenant will be filed at the St. Louis County Recorder's Office to restrict parcels to commercial or industrial use, restrict soil disturbance, prohibit groundwater extraction, and require an annual inspection to verify the proposed restrictions remain effective at limiting site access and exposure. This includes parcel #139-0050-04696, which the City of Hibbing has committed to rezone because it is currently zoned for residential use. The environmental covenant will not exclude future owners from redevelopment of any parcel provided they join the MPCA's VIC Program and develop a cleanup plan to eliminate any potential future exposure pathways prior to development of the Wetland Discharge Area property.

Excavation with off-site disposal in the Manufacturing Area will remove free-phase coal tar, contaminated soil above risk criteria, and below ground infrastructure. The Manufacturing Area is the primary source of coal tar-impacted soil at the Site. Contaminated soil will be removed to depths up to 20 feet bgs within and near the gas holder foundation, tar separator, and tar and ammonia wells. Where possible, below ground piping in the Manufacturing Area will be excavated and removed from the Site. Clean soil will be imported to backfill the excavated area and restore the Site to pre-construction elevations.

IX. RESPONSIVENESS SUMMARY

Pursuant to Minn. Stat. § 115B.17, subd. 2b (2026), the MPCA issued a public notice regarding the proposed response action. The notice was published in the Mesabi Tribune newspaper on June 9, 2026, and comments were accepted until July 9, 2026.

X. STATUTORY DETERMINATIONS

The selected response actions are consistent with the Minnesota Environmental Response and Liability Act, Minn. Stat. § 115B.01 to 115B.24 (MERLA) and are not inconsistent with the Federal Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S. Code § 9601(5) et seq (CERCLA) and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 CFR, pt. 300.

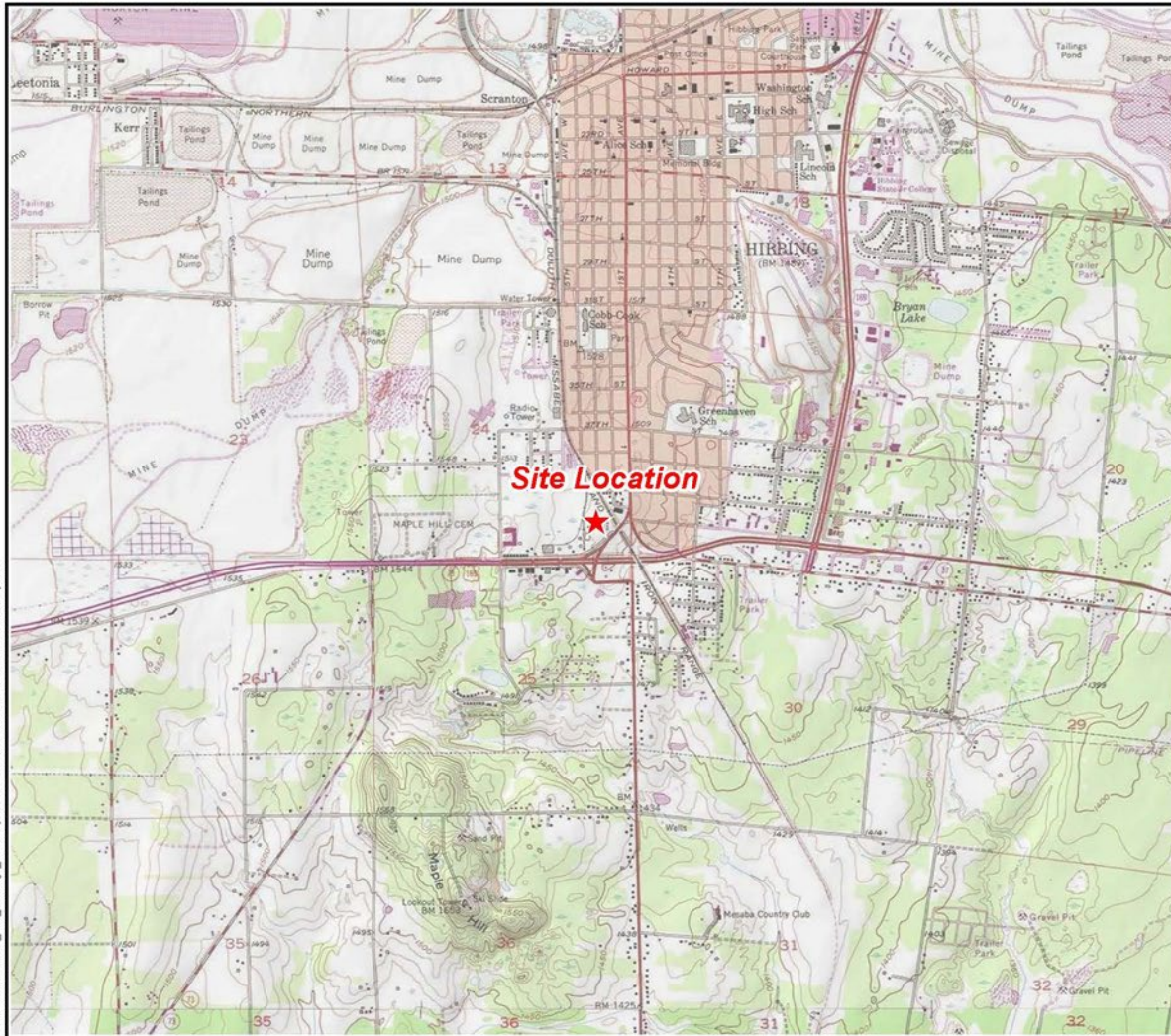
By typing/signing my name below I have determined the selected response actions are protective of public health and welfare and the environment.

Director, Remediation Division

Signature: _____
(This document has been electronically signed.)

Date: _____

ATTACHMENT 1



Y:\Clients\MPC\ASR_397_L_Hibbing_GasMap\Docs\2004\04\2004\10 FIG 1 Site Location Map.mxd

Attachment 1 Site Location Map

Former Hibbing
Gas Manufacturing Plant

Hibbing, MN



Map Projection: NAD 1983 UTM Zone 15 N, Meters
Basemap: National Geographic Society, i-cubed



1 inch = 2,000 feet

★ Site Location



Drawn By: N.J. Date Drawn/Revised: 3/1/2021 Project No: J200410

ATTACHMENT 2 Site Map

