

### **Remediation Division Guidance Updates**



Michael Ginsbach | Hydrogeologist

November 19, 2024

### **MPCA** Remediation Division

- The Remediation Division oversees the investigation of contaminated sites and evaluates risks from identified contamination, with the goal of protecting human health and the environment.
- In general, the Remediation Division implements a risk-based approach, based on current and anticipated future land use, for managing contamination at sites.
- The primary focus is on identifying human health risks from exposure to contaminated environmental media. When contamination is found above health-based guidance values with a completed exposure pathway, action is taken to resolve the contamination exposure.

# **MPCA** Remediation Division

- Remediation Division consists of four sections
  - Petroleum Section
  - Brownfields Section
  - Superfund Remedial Section
  - Superfund Site Assessment Section
  - Closed Landfills and Data Support Section

- Implements multiple programs
  - Petroleum Remediation
  - Petroleum Brownfields
  - Brownfields Voluntary Investigation and Cleanup
  - Site Assessment
  - Superfund
  - Closed Landfill Program
  - RCRA Remediation
  - East Metro
  - St. Louis River Area of Concern
  - Natural Resource Damage Assessment
  - Harmful Substance Compensation Program

### Guidance updates

- Updates took place throughout 2023 and 2024
- Scope included review and update of over 100 guidance documents across all MPCA Remediation programs
- Project resulted in
  - Over 400 pages of new or updated guidance
  - New website
  - New guidance search tool
  - Standard operating procedure for consistent
  - No more draft 1997 guidance!

# Website updates



#### Remediation and redevelopment

LAND	
Land quality	
Remediation and redev	elopment
Minnesota Superfund	sites
Petroleum remediatio	n

Minnesota laws authorize the MPCA to oversee spilled, leaked, or otherwise released petroleum and hazardous substances, pollutants, or contaminants. These releases can contaminate soils, surface water, sediment, and groundwater. Certain types of chemical releases can also produce vapors that can migrate to nearby homes and business and potentially create a health risk to building occupants. Other types of contamination, such as agricultural chemicals and nuclear waste, are addressed by other state agencies.

Remediation Division programs and initiatives oversee the identification, investigation, cleanup, and redevelopment of sites where contamination exists or may exist with the goal of protecting human health and the environment.

- High-level program summaries for general public
- Overview of general processes
- Links to additional resources
  - Technical documents
  - Spatial tools

### Website updates

**Remediation guidance** 

Guidance search tool

MERLA guidance

guidance

Petroleum remediation

#### Remediation guidance and resources





Remediation programs at the MPCA protect human health and the environment by overseeing the investigation and response to releases of petroleum and hazardous substances, pollutants or contaminants. These programs follow a process outlined in the <u>Remediation Programs General Policy</u>.

. . . .

### • Provides links to program and topic specific guidance

### • Provides link to guidance search tool

11/18/2024

#### https://www.pca.state.mn.us/business-with-us/remediation-guidance-and-resources

Brownfield redevelopment guidance Vapor intrusion guidance PFAS remediation guidance Funding for contaminated sites Contractor and

subcontractor resources

# Divisional guidance updates

\* - Updated 2024 + - Updated 2023

### **Divisional guidance**

- <u>Remediation Division General Policy (c-rem2-03)</u>\*
- Spatial data collection at Remediation Division sites (c-rem1-28) \*
- Surface water and sediment evaluation at remediation sites (c-rem3-31) \*
- <u>Remediation Division methane guidance (c-rem3-32)</u> \*
- Green and sustainable remediation (c-rem3-30) \*
- <u>Remediation Division institutional control guidance (c-rem3-37)</u> \*
- Best management practices for the offsite reuse of unregulated fill (c-rem1-01) \*
- Granular activated carbon filters (c-s1-05) +
- Vapor intrusion guidance
- PFAS remediation guidance \*
- <u>Remediation Division institutional control guidance (c-rem3-37)</u> \*

# **MPCA's remediation process**

### Sites may have to circle back or be able to skip forward one or more phases.

#### Pre-investigation activities

- Could include desktop review or Phase I ESA.
- Complete or continue any necessary immediate and expedited actions.
  - Sample high risk receptors.
- Identify receptors
- Complete preliminary conceptual site model (CSM) and identify data gaps.
  - May include some preliminary sampling.

#### Site investigation

- Also known as: remedial investigation, Phase II ESA.
- Define extent and magnitude of contamination.
- Perform risk assessment for all media.
- Fill in data gaps and complete a CSM sufficient for making a site decision.

#### Site management decision

:5

- Use CSM to determine next steps:
  - Response, OR
- Additional investigation or monitoring, OR
  Site closure.
- If a response is needed, set response goals and choose a response to meet them.
- May include a feasibility study to evaluate potential responses.

#### Response implementation

...

- Design and implementation response.
- Conduct postimplementation activities, such as monitoring and/or response verification.
- Operate and maintain long-term responses.
- Response is complete when response goals are met and no additional response is required based on current conditions.

#### Site closure and stewardship

- Also known as: No action, no further action.
- Site remains in closure unless changing conditions (such as a change in land use or risk information, or new site data) necessitate re-opening the site.
- Some sites may have institutional controls and/ or ongoing operation and maintenance requirements even after closure.



## Resource guidance

#### **Vapor intrusion guidance**

• <u>https://www.pca.state.mn.us/business-with-us/vapor-intrusion-guidance</u>

#### **MPCA contractor and subcontractor resources**

 <u>https://www.pca.state.mn.us/business-with-us/mpca-contractor-and-subcontractor-res</u> ources

### **Funding for contaminated sites resources**

<u>https://www.pca.state.mn.us/business-with-us/funding-for-contaminated-sites-resource</u>
<u>s</u>

# Programmatic guidance

### Programmatic guidance is divided broadly into

• Petroleum Contamination

Minn. Stat. Ch. 115C Petroleum tank release cleanup act (Petrofund)

- Petroleum Remediation Program (PRP)
- Petroleum Brownfields

 Hazardous Substances, Pollutants and Contaminants

Minn. Stat. Ch. 115B Minnesota Environmental Response and Liability Act (MERLA)

 Brownfields - Voluntary Investigation and Cleanup (VIC)

- Site Assessment
- Superfund
- Closed Landfill Program (CLP)
- RCRA

# Programmatic guidance

#### **Petroleum remediation guidance**

• <u>https://www.pca.state.mn.us/business-with-us/petroleum-remediation-guidance</u>

#### **Brownfield redevelopment guidance**

• <u>https://www.pca.state.mn.us/business-with-us/brownfield-redevelopment-guidance</u>

#### Hazardous substances, pollutants and contaminants (MERLA) guidance

- <u>https://www.pca.state.mn.us/business-with-us/hazardous-substances-pollutants-and-contaminants-me</u> <u>rla-guidance</u>
  - MERLA remediation process and risk-based site evaluation guidance (c-rem3-33)
  - <u>Superfund vs. Voluntary Investigation and Cleanup (VIC) Programs (c-rem1-29)</u>
  - <u>Natural attenuation of chlorinated solvents in groundwater guidance (c-s4-05)</u>
  - Surface water and sediment evaluation at remediation sites (c-rem3-31)

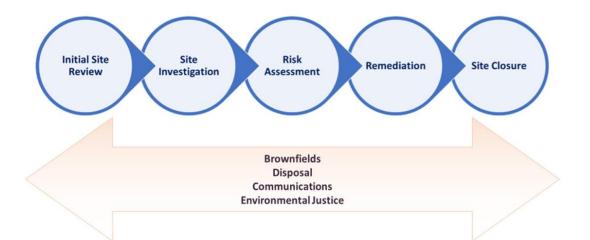
# **PFAS remediation guidance**

#### Life cycle stages

- Initial site review (c-rem3-28b)
- Site investigation (c-rem3-28c)
- Risk assessment (c-rem3-28d)
- Remediation (c-rem3-28e)
- Site closure and institutional controls (c-rem3-28f)

#### **Cross-cutting areas**

- Brownfields program considerations for PFAS (c-rem3-28g)
- Disposal of PFAS contaminated materials (c-rem3-28h)
- Communications (c-rem3-28i)
- Environmental justice (c-rem3-28j)
- Remediation PFAS guidance glossary of terms (c-rem3-28a)



### Guidance search tool

# **Remediation guidance documents**

The MPCA has developed guidance on a number of topics to assist real estate developers, environmental engineers, remediation consultants, and others in addressing brownfields and contaminated sites. Use the document filter tools on this page to filter your document search, or search using the keyword search.

Title keyword search	Contaminant type		
		- Any -	~
Program		Media	
- Any -	~	- Any -	~

### Guidance updates – live demo

https://www.pca.state.mn.us/business-with-us/remediation-guidance-and-resources

# Thank you!

### Michael Ginsbach

michael.ginsbach@state.mn.us

651-757-2329

#### MINNESOTA POLLUTION CONTROL AGENCY

11/18/2024