



Lot 46 Valley Gardens TCE Superfund Site

Des Moines, Polk County, Iowa

Public Availability Session

June 20, 2023

Community Involvement

Engage with communities affected by Superfund sites

- ❑ Keep the public well-informed of activities.
- ❑ Encourage the public to get involved.
- ❑ Listen to what the public is saying.
- ❑ Consider whether a change to the planned actions are appropriate in response to public concerns.
- ❑ Coordinate technical assistance grants for an independent technical advisor to work with community groups and explain reports.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 7
11201 Renner Boulevard
Lenexa, Kansas 66219
FEB 05 2015

ACTION MEMORANDUM

SUBJECT: Request for Approval and Funding for a Removal Action and 12-Month Consistency Exemption for the PCE Southeast Contamination Site, York, York County, Nebraska

FROM: Susan Fisher, On-Scene Coordinator, Emergency Response and Removal North Branch

THRU: Kenneth S. Buchholz, Chief, Emergency Response and Removal North Branch

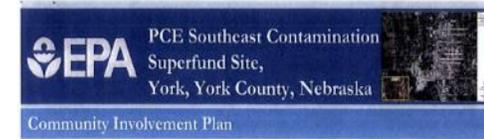
TO: Robert W. Jackson, Acting Director, Superfund Division

Site ID#: A7X7 00, RV002

I. PURPOSE

The purpose of this Action Memorandum is to request funding and document approval of a time-critical removal action and a 12-month consistency exemption for the PCE Southeast Contamination Site (Site), located in the southeast portion of the city of York, York County, Nebraska. The time-critical removal action will provide for the sampling of groundwater, soil, soil gas, indoor air, and sub-slab soil gas to ascertain whether subsurface contamination at, and emanating from, the Site is resulting in vapor intrusion impacts. The action will include the installation of vapor mitigation systems in homes, businesses, day care facilities and/or schools that have been impacted by vapor intrusion from soil and/or groundwater contamination from the Site. Installation of vapor mitigation systems will be driven by indoor air and/or sub-slab soil gas sample results that indicate the presence of contamination at levels that exceed the U.S. Environmental Protection Agency removal action levels (RALs) or screening levels for tetrachloroethylene (PCE) and/or trichloroethylene (TCE). Additionally, the action will include addressing any source areas discovered, which could include soil removal, soil remediation or source removal activities.

The time-critical removal action is necessary to protect the public health or welfare or the environment.



SECTION I Overview of the Community Involvement Plan

This **Community Involvement Plan** identifies issues of concern and interest to the community potentially affected by the Tetrachloroethylene (PCE) Southeast Contamination Superfund Site in York, York County, Nebraska. (Terms that are in **bold** text are defined in the Glossary in Appendix D and/or identified within the acronym list in Appendix E of this CIP.) This CIP contains information from the files of the U.S. Environmental Protection Agency Region 7 office, as well as information gathered by the EPA during community interviews and conversations with other interested parties and regulatory authorities.

EPA will use the information in this CIP to help identify and address current matters of concern, and to review past community involvement efforts as the cleanup project progresses. The CIP will also provide guidance to EPA staff and help to ensure that community needs are addressed throughout the **cleanup** process.

The CIP is intended to:

- Encourage community interest and participation throughout EPA's involvement at the site.
- Initiate and support two-way communication between EPA and the community.
- Help ensure that community members understand the **Superfund** process, and the opportunities it offers them to participate in the decision-making process regarding the site cleanup.

EPA Invites Your Comments	In This Plan
If you have comments on this community involvement plan, please contact: Tamara Freeman, Community Engagement	Section 1 - Overview of the Community Involvement Plan Section 2 - Community Involvement Plan

Public Meeting Moderator and Presenters

Amelia Holcomb



**Community Involvement
Coordinator**

Lauren Murphy



**Remedial Project
Manager**

Kumud Pyakuryal



**National Priorities List
Coordinator**

Ann Jacobs



**Human Health
Risk Assessor**

Vanessa Madden



**Ecological
Risk Assessor**

Key Takeaways

- ❑ **You can drink tap water**, use the park, and enjoy products from businesses within the site boundary as normal.
- ❑ The contamination poses **no immediate threat to human health or the environment**.
- ❑ EPA together with the Des Moines Water Works will continue to monitor the contamination, and if the situation changes, EPA has the authority **to act to immediately** to address it.
- ❑ Contaminated groundwater was discovered near a water supply source for the Des Moines Water Works.
- ❑ The site was referred to EPA by the Iowa Department of Natural Resources (IDNR) in 2020.
- ❑ Since then, EPA has continued to conduct investigations to **monitor** contaminant movement and concentrations, **assess** potential impacts to the municipal water supply, and **identify** the potential source or sources.
- ❑ EPA will propose this site to the **National Priorities List**. This process will **protect** the public water supply and **restore** the groundwater.

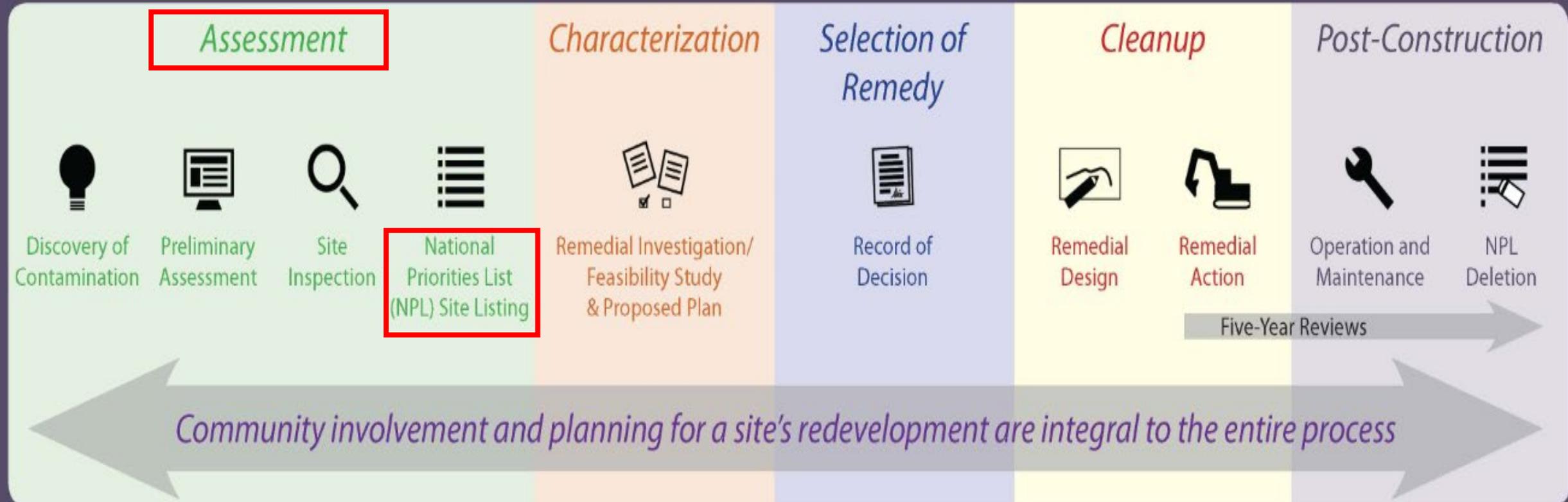
Discussion Topics

- Superfund and National Priorities List
- Site Location and Concern
- Timeline of Site History
- Current Site Conditions
- Potential Human and Ecological Risk Concerns
- Next Steps



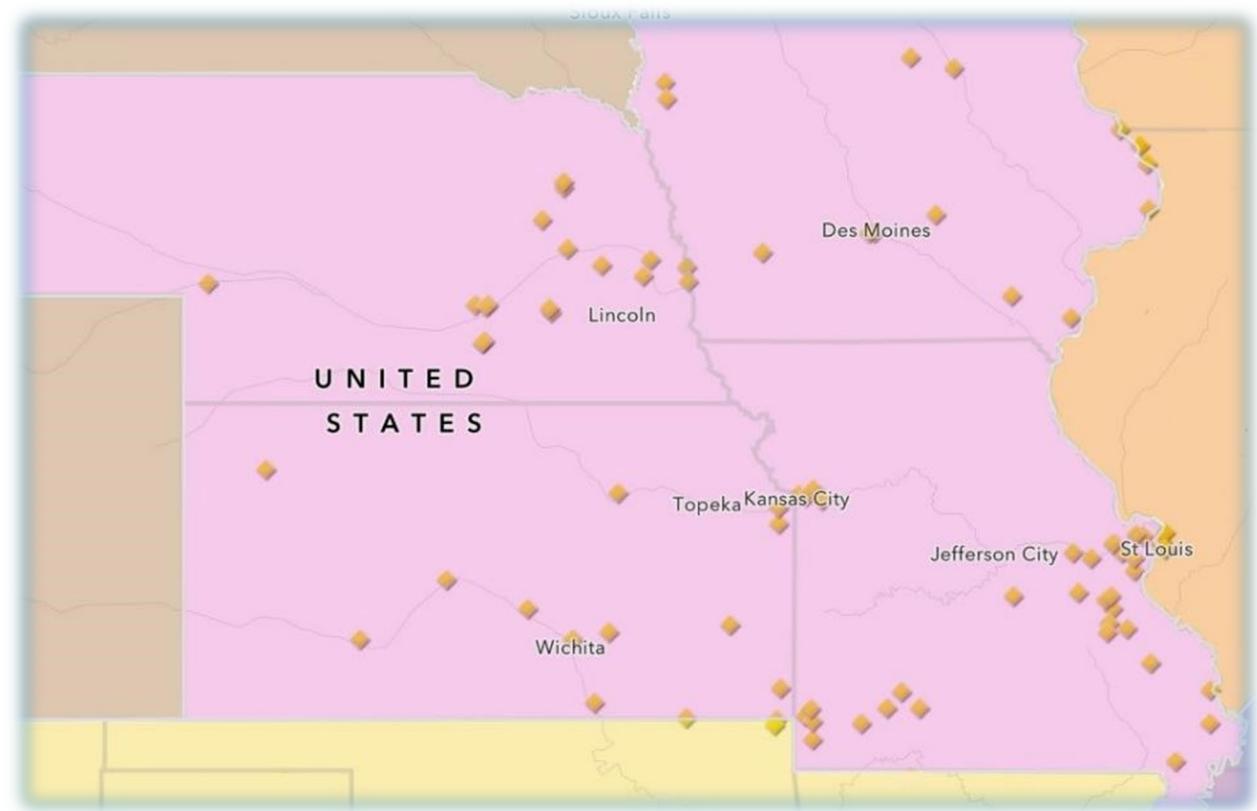
Des Moines Skyline

THE SUPERFUND REMEDIAL PROCESS



National Priorities List (NPL)

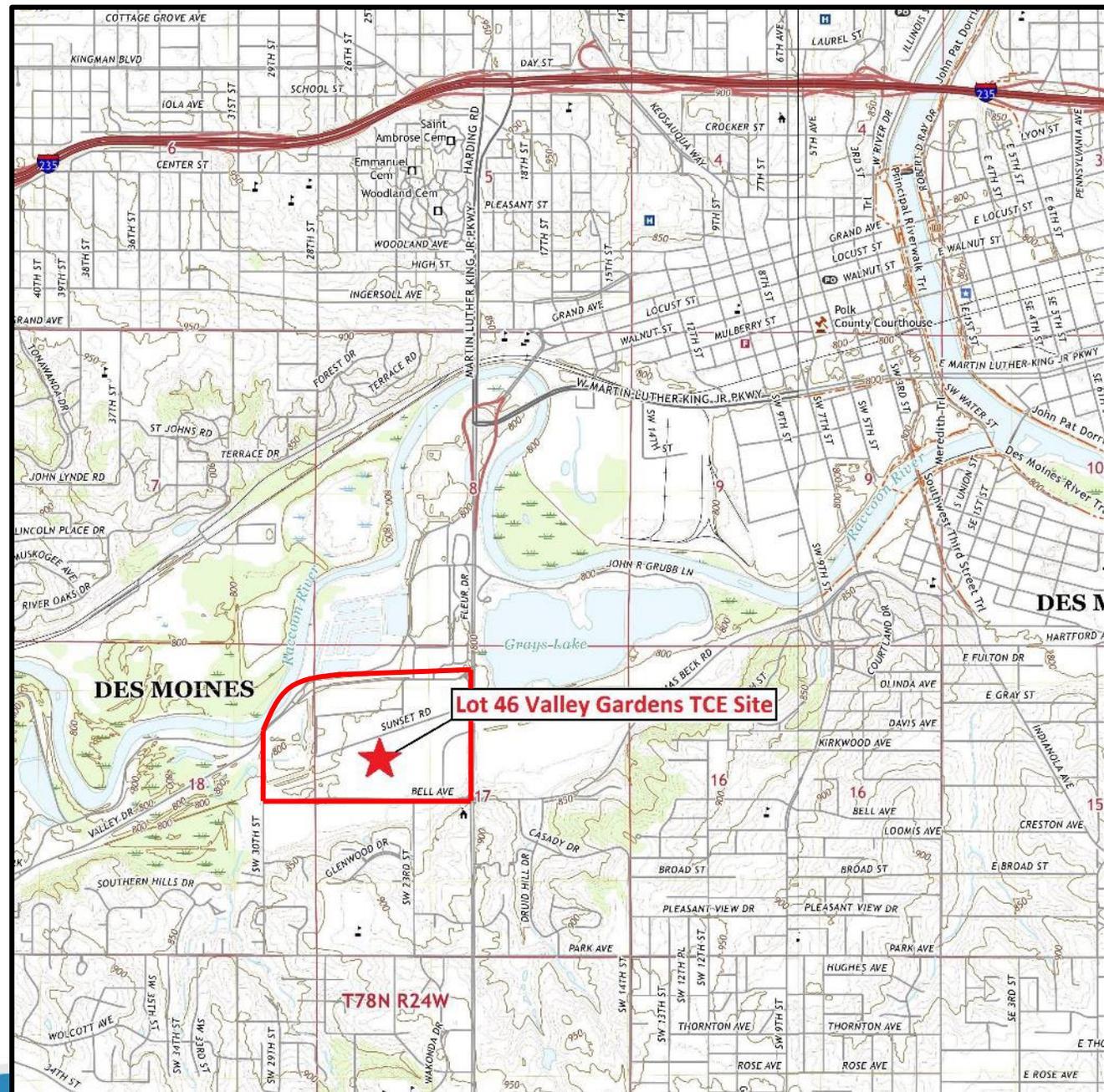
- ❑ The NPL is a list of national priorities among the known releases or threatened releases of hazardous substances, pollutants or contaminants throughout the United States.
- ❑ Hazard Ranking System (HRS)
 - Numerical scoring system used to assess the threat associated with actual or potential releases of hazardous substances at a site.
 - Evaluates four pathways: soil and vapor intrusion, groundwater, surface water, and air.



Map of active NPL sites in EPA Region 7

Site Location

- ❑ **Location:** Des Moines, Polk County, Iowa
- ❑ **Population:** 212,000 (2022)
- ❑ **Surrounding Community/Land Use:**
 - Properties near the site are zoned commercial.
 - Land use at the site is mixed light industrial and heavy commercial, as well as park and recreational.



Site Timeline

2004-2005
Site Identification

- Site discovered during groundwater investigation for nearby work.

2006
IDNR site work

- IDNR completes an initial site screening, a Quality Assurance Project Plan, and obtains an Environmental License issued by the City of Des Moines.

2007-2019
IDNR lead agency

- IDNR characterizes the extent and nature of groundwater contamination,
- Identifies a source location and a Potentially Responsible Party (PRP), and
- Pursues a remedy with a PRP at the site.

2020
Site referred to EPA

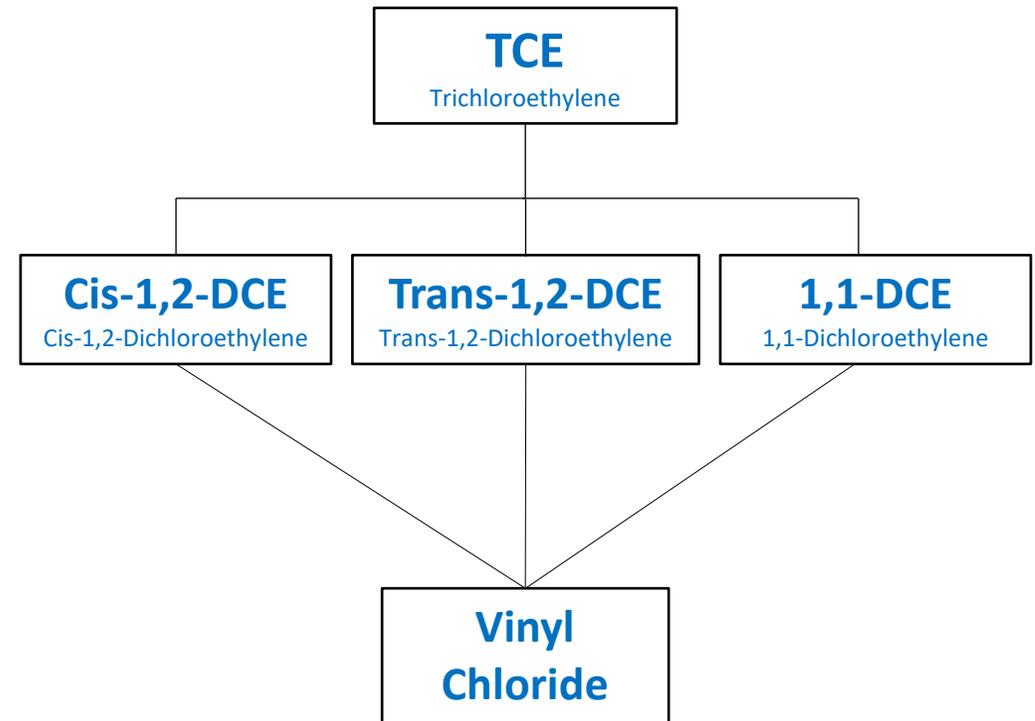
- IDNR refers the site to EPA for federal action.

2020-Present
EPA lead agency

- EPA conducts additional sampling, collects data to support the site's listing to the NPL, and assesses whether immediate actions are necessary to protect human health.
- EPA continues to gather information about PRP or PRPs and is in contact with property owners regarding historical uses and operations at properties in the area of contamination.

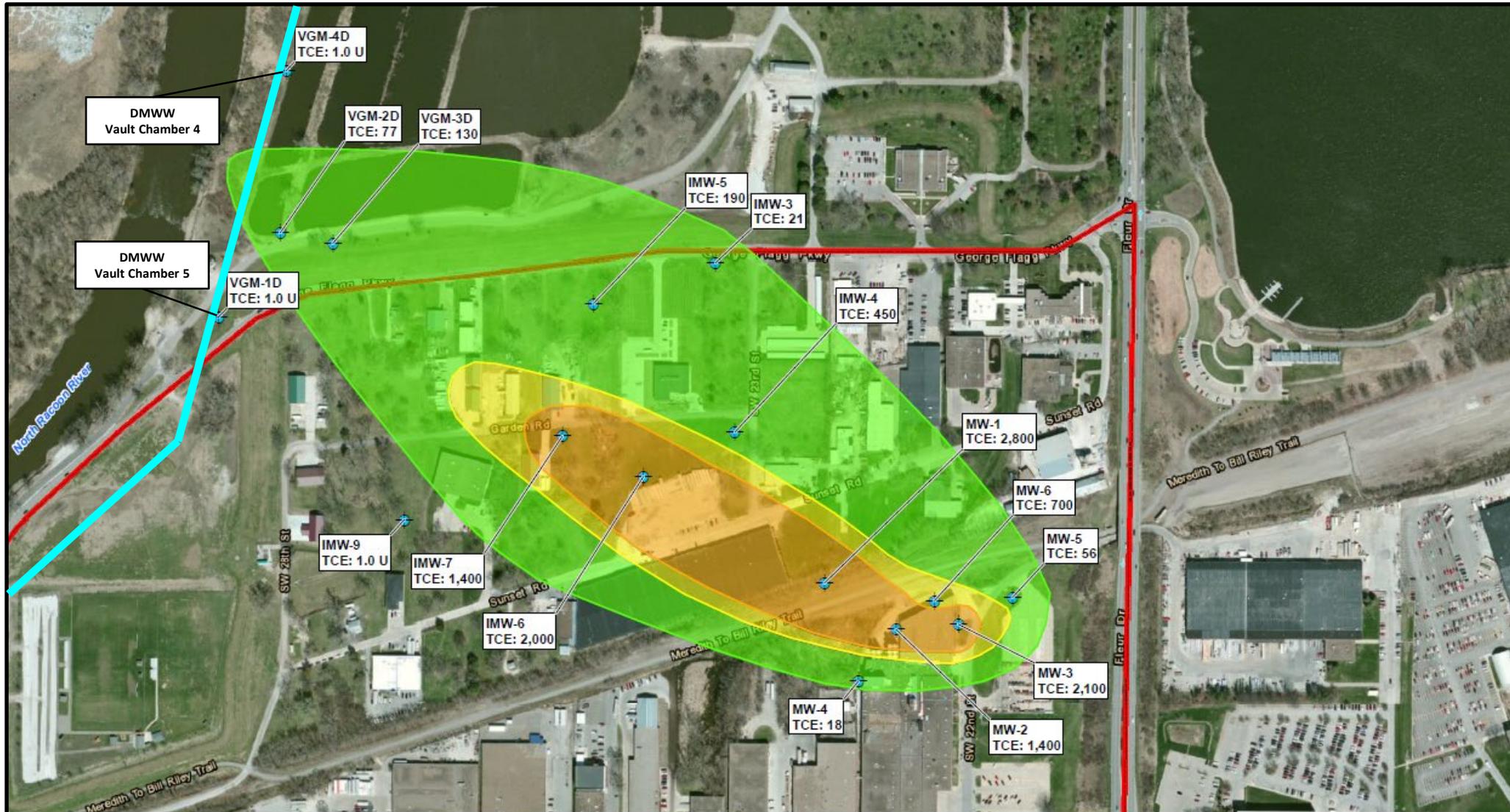
Site Concern

- ❑ The Lot 46 Site has a contaminated groundwater plume approximately 0.5 miles long and 0.25 miles wide that extends northwest from south of the Bill Riley Trail toward the Des Moines Water Works infiltration gallery system.
- ❑ The primary contaminant associated with the site is Trichloroethylene (TCE) and its degradation products: 1,1-Dichloroethylene (DCE); cis-1,2-DCE; trans-1,2-DCE; and vinyl chloride.



Breakdown of TCE into daughter products

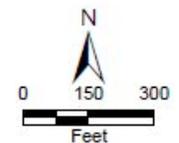
Extent of TCE Contamination



Legend

-  Monitoring well sample location
-  Approximate site boundary
-  2022 TCE groundwater isoconcentration 5-499 µg/L
-  500-999 µg/L
-  1,000-2999 µg/L

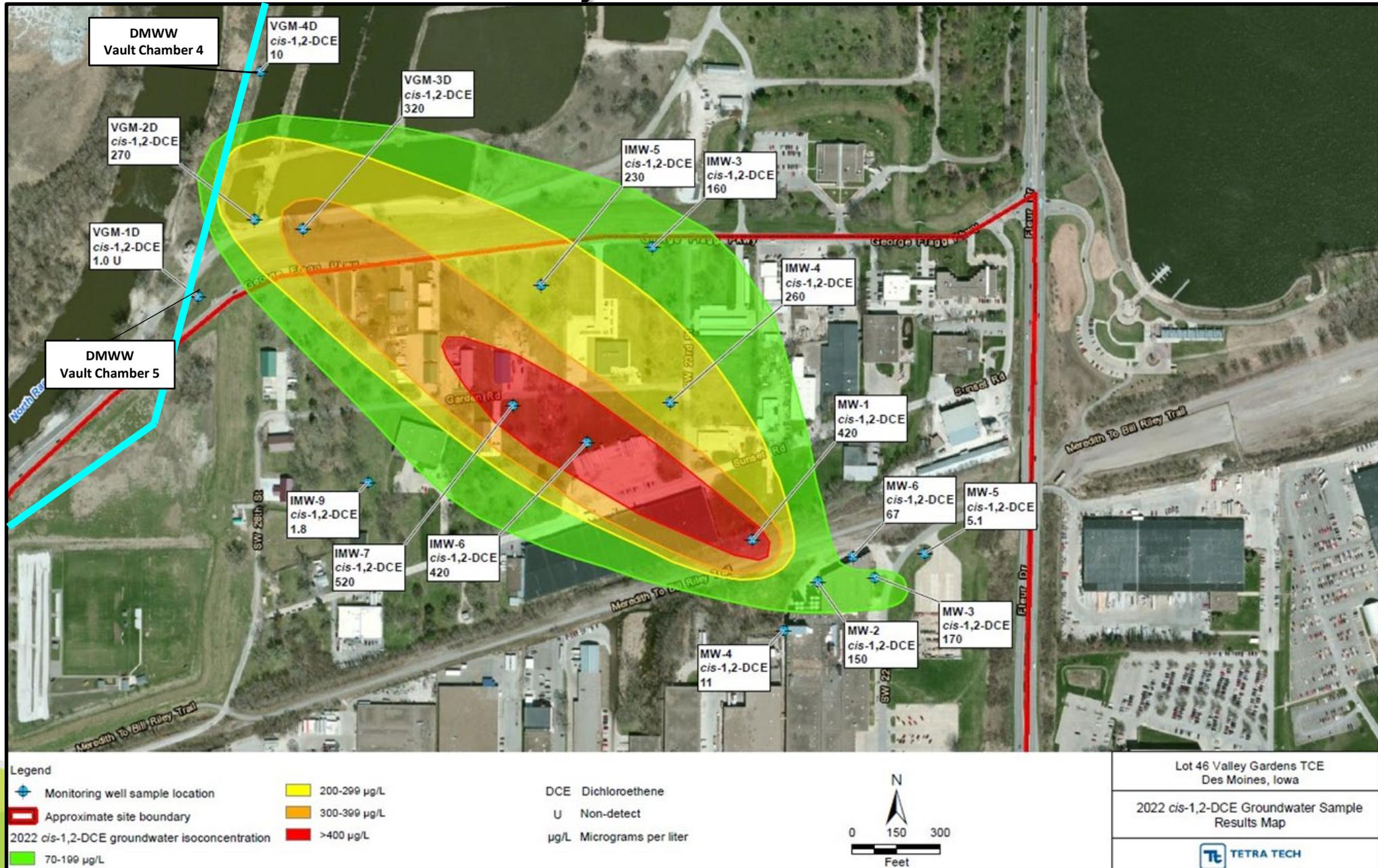
TCE Trichloroethene
 U Non-detect
 µg/L Micrograms per liter



Lot 46 Valley Gardens TCE
 Des Moines, Iowa
 2022 TCE Groundwater Sample
 Results Map



Extent of cis-1,2-DCE Contamination



Current Site Conditions

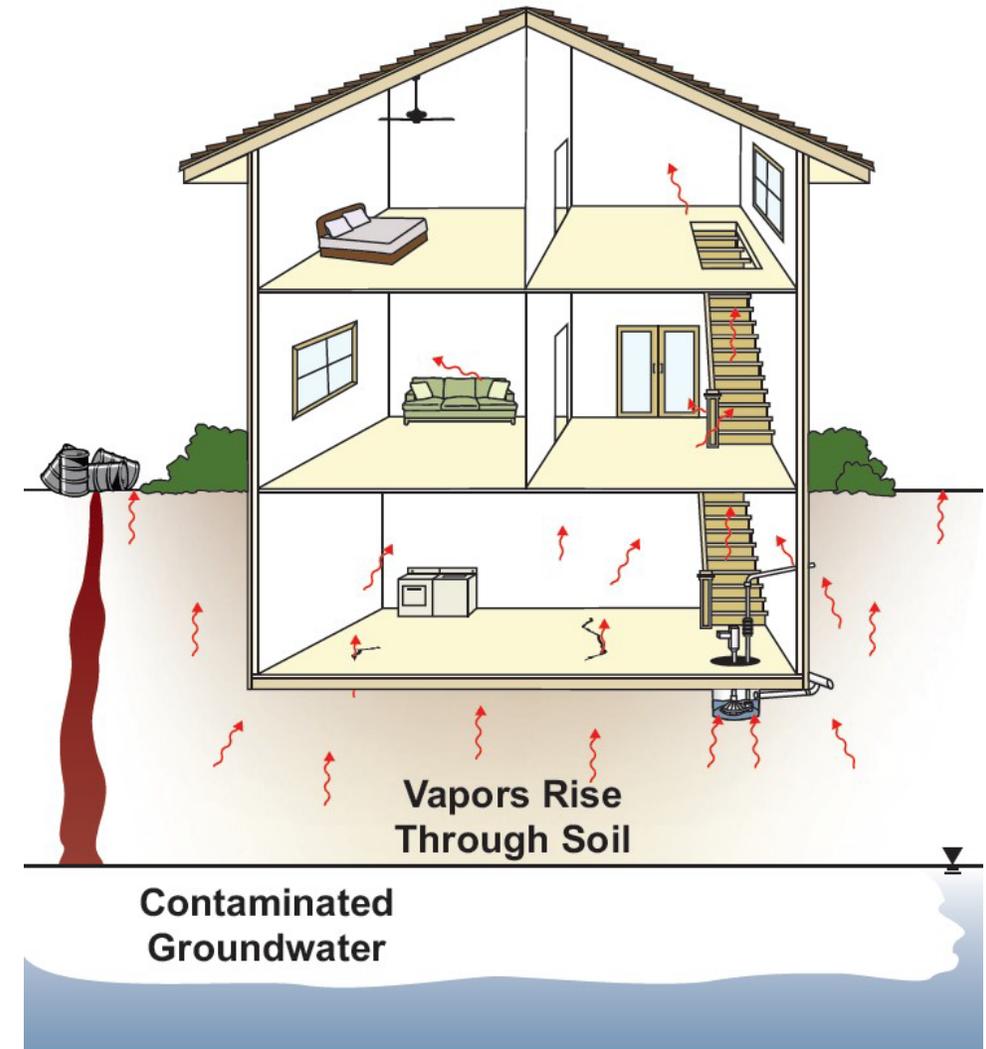
- TCE and cis-1,2-DCE have been detected in samples collected from the Des Moines Water Works intake gallery along the Raccoon River. Both contaminants have been detected at levels **well below** their respective Maximum Contaminant Levels (MCLs) for drinking water.
- Trace amounts of cis-1,2-DCE have been detected in finished product water (**well below MCL**) from the DMWW Fleur Treatment Plant.

DMWW INFILTRATION GALLERY RESULTS		
Contaminants of Concern	Maximum Contaminant Level (µg/L)	June 2023 Results (µg/L)
Trichloroethene (TCE)	5	Not Detected
<i>cis</i> -1,2-Dichloroethene (<i>cis</i> -1,2-DCE)	70	1.0
<i>trans</i> -1,2-Dichloroethene (<i>trans</i> -1,2-DCE)	100	Not Detected
1,1-Dichloroethene (1,1-DCE)	7	Not Detected
Vinyl Chloride (VC)	5	Not Detected

DMWW FINISHED WATER RESULTS		
Contaminants of Concern	Maximum Contaminant Level (µg/L)	June 2023 Results (µg/L)
Trichloroethene (TCE)	5	Not Detected
<i>cis</i> -1,2-Dichloroethene (<i>cis</i> -1,2-DCE)	70	0.5
<i>trans</i> -1,2-Dichloroethene (<i>trans</i> -1,2-DCE)	100	Not Detected
1,1-Dichloroethene (1,1-DCE)	7	Not Detected
Vinyl Chloride (VC)	5	Not Detected

Potential Risks to Human Health

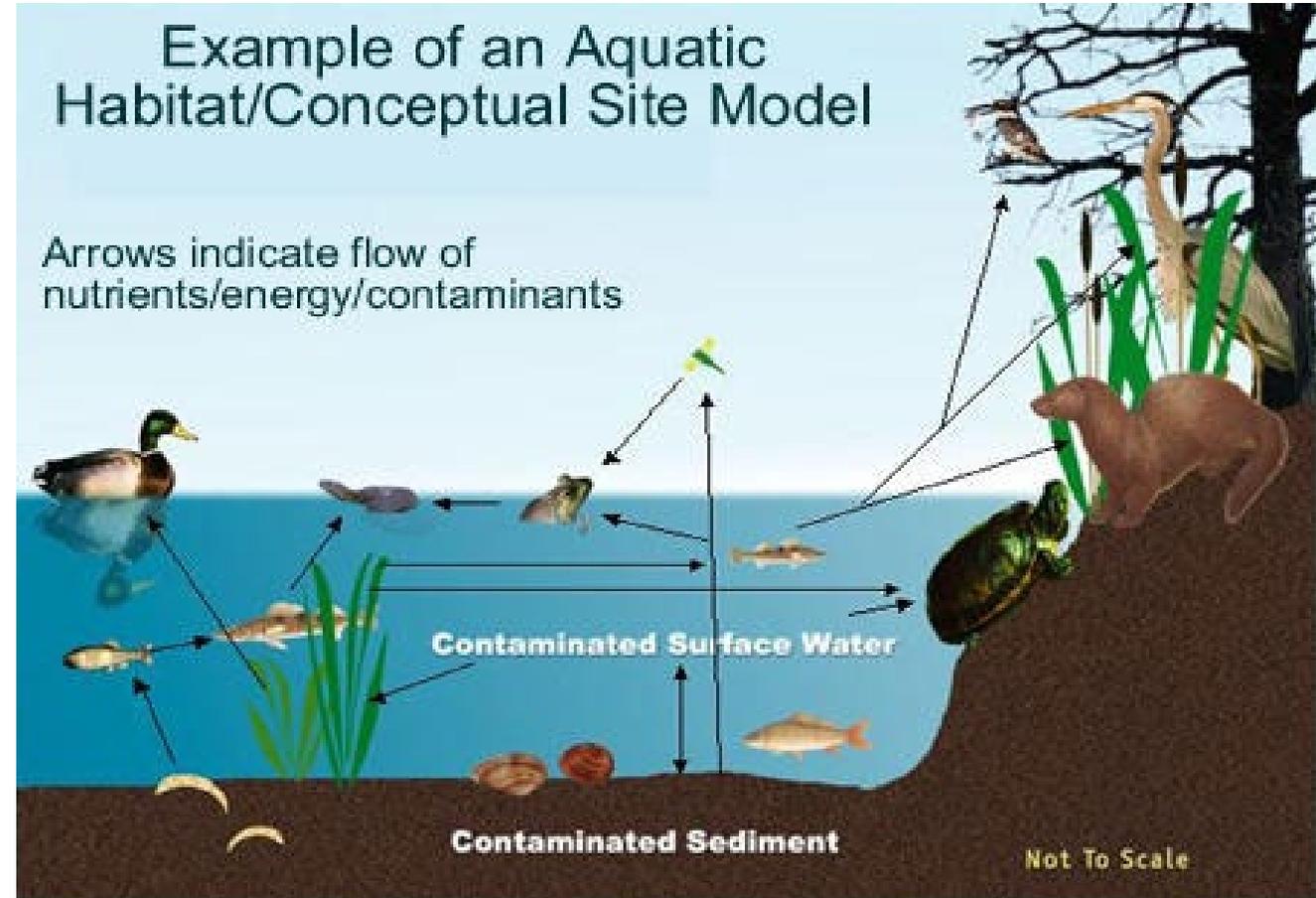
- ❑ **EPA considers how people may be exposed:**
 - ❑ Consuming contaminated water. The drinking water is safe and it's EPA's goal to ensure it remains safe.
 - ❑ Breathing vapors that enter buildings through a process called vapor intrusion. Future site assessment will include a vapor intrusion study for buildings over the most contaminated portion of the plume.



Vapor intrusion into a home.

Potential Ecological Concerns

- At this site, ecological risk becomes a concern when contaminated groundwater enters surface water in streams, rivers, wetlands, ponds, or lakes. Future data collection efforts for ecological risk will focus on the water bodies potentially impacted by the groundwater plume.



Next Steps

- ❑ A **contaminated groundwater** plume is migrating toward and threatening the Des Moines municipal water supply. The contaminated groundwater and any potential source areas need to be adequately remediated.
- ❑ Can be addressed by following the **Superfund** process and placing the site on the **National Priorities List**.
- ❑ EPA and Des Moines Water Works will continue conducting **regular monitoring** of the groundwater plume and infiltration gallery.
- ❑ EPA has the authority to perform an **immediate** response action at any time should monitoring well data indicate an increased risk to the drinking water supply.
- ❑ EPA plans to hold an additional **public meeting** in conjunction with the site's proposal to the NPL sometime this **September**. During this meeting, members of the community will be able to submit comments in person, as part of the official 60-day comment period. (Date, time and location to be determined.)

Key Takeaways

- ❑ **You can drink tap water**, use the park, and enjoy products from businesses within the site boundary as normal.
- ❑ The contamination poses **no immediate threat to human health or the environment**.
- ❑ EPA will continue to monitor the contamination, and if the situation changes, is **prepared to act to immediately** address it.
- ❑ Contaminated groundwater was discovered near a water supply source for the Des Moines Water Works.
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Questions?

After the Public Meeting

For more information, please visit:

response.epa.gov/Lot46ValleyGardensTCE

To submit additional questions after the presentation, please send them to:

Amelia Holcomb

U.S. EPA Region 7 (ORA/OPA)

11201 Renner Blvd.

Lenexa, KS 66219

Email: holcomb.amelia@epa.gov

913-551-7952

Toll-free: 1-800-223-0425

Site Contacts

Amelia Holcomb

Community Involvement Coordinator

U.S. EPA Region 7 (ORA/OPA)

11201 Renner Boulevard

Lenexa, KS 66219

913-551-7952

1-800-223-0425

Holcomb.Amelia@epa.gov

Lauren Murphy

Remedial Project Manager

U.S. EPA Region 7 (SEMD/REMB/SRWS)

11201 Renner Boulevard

Lenexa, KS 66219

913-551-7266

1-800-223-0425

Murphy.Lauren@epa.gov

Thank You