



# **“Environmental Due Diligence for the Real Estate Attorney – Focus on the Soil Vapor Intrusion Problem”**

**2019 Real Estate Institute**

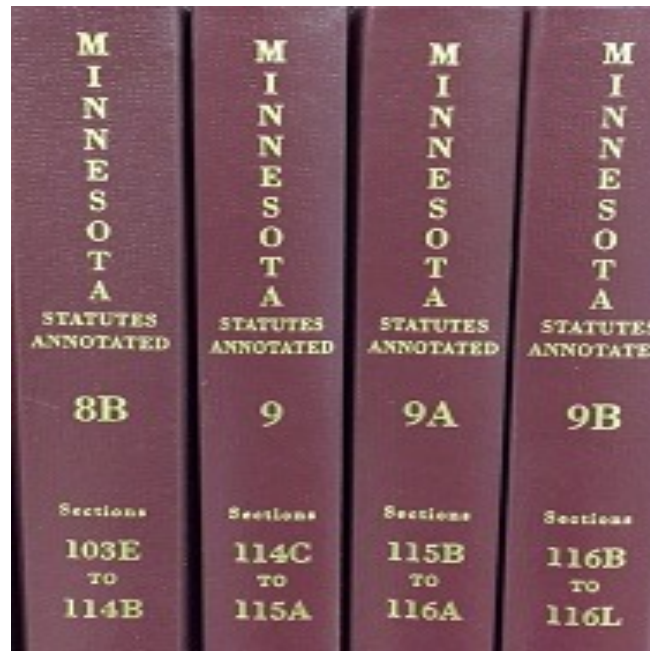
**October 31, 2019**

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**Hessian & McKasy, PA**

# Sources of Environmental Law

- Federal Statutes and Regulations
- State Statutes and Regulations
  - Local Ordinances



# Federal and State Superfund Liability CERCLA/MERLA

- Past and Current Owners and Operators
- Liable for Investigation and Clean-up Cost
- Retroactive, Joint and Several Liability



# Environmental Business Risk



- Investment Loss
  - Tort Liability
- Reputational Risk



# Protections/Defenses to CERCLA/MERLA Liability



- Innocent Landowner
- Contiguous Property Owner
- Bona Fide Prospective Purchaser

# Type of Project – Dictates Approach and Response

- Sale
- Acquisition
- Refinance
- Lease
- Redevelopment

# Phase I Environmental Site Assessment

- All Appropriate Inquiry
- ASTM Standard Practice E1527-13
- Purpose: Identify Recognized Environmental Conditions (RECs) and Business Environmental Risks (BERs)

# **Phase I Findings**

## **Recognized Environmental Condition (REC)**

“The presence or likely presence of any hazardous substances or petroleum products on the property under conditions that indicate an existing release, past release, or material threat of release.”



# **Additional Phase I Findings**

- Vapor Encroachment Condition (VEC)
- Controlled Recognized Environmental Condition (CREC)
- Historical Recognized Environmental Condition (HREC)

# **Additional Phase I Findings**

## **Business Environmental Risks (BERs)**



# Hiring an Environmental Consultant

- Experience and Background
- Contract, Scope of Work and Terms and Conditions
- Geographic Reach



# Phase I ESA Components

- Regulatory Review
- User Questionnaire
  - Interviews
- Current and Past Property Use
  - Title Review
- Site Visit: Looking at Subject Property and Neighboring Properties
- Recommendations - Situational

# Recognized Environmental Conditions

- Gas Stations
- Auto Repair Shops/  
Salvage Yards
- Refineries
- Railroad Yards
- Recycling Centers
- Brownfields  
Developments
- Landfills
- Junk Yards
- Petroleum Tank Farms
- Chemical Plants
- Public Works
- Military Installations



## **Recognized Environmental Condition**

### **Aboveground Storage Tanks**





## **Recognized Environmental Condition**

### **Electrical Equipment**



## **Recognized Environmental Condition**

### **Dry Well**

# **Phase II May Be Required**

Assess RECs

Determine Relative Extent and

Magnitude of Releases

Identify Possible Receptors

# Phase II Findings

- Soil
- Groundwater  
and/or
- Soil Vapor Impacts



# Are Reporting Requirements Triggered?

- Requires Technical and Legal Analysis –  
Minn. Stat. §115.061
- Underground Storage Tank Reporting
  - CERCLA Reportable Quantity –  
National Contingency Plan
  - Implications of Reporting

# Superfund Liability

Responsible Parties May be Asked to  
Complete Investigations as to  
Extent and Magnitude of Release On-Site and Off-Site

Who Pays?

Federal or State or Private Parties

Potential for Cost Recovery



# Contaminant of Concern - TCE

- Trichloroethylene (TCE)
- Solvent Used in Variety of Industrial Operations
- Removes Grease and Oil from Machinery and Parts

**HERE IS SOMETHING TO HELP YOU FACE  
INCREASED PRODUCTION SCHEDULES**



Time and costs can be cut considerably by adopting the ICI degreasing process: and at the same time better results, with more certainty, will follow.

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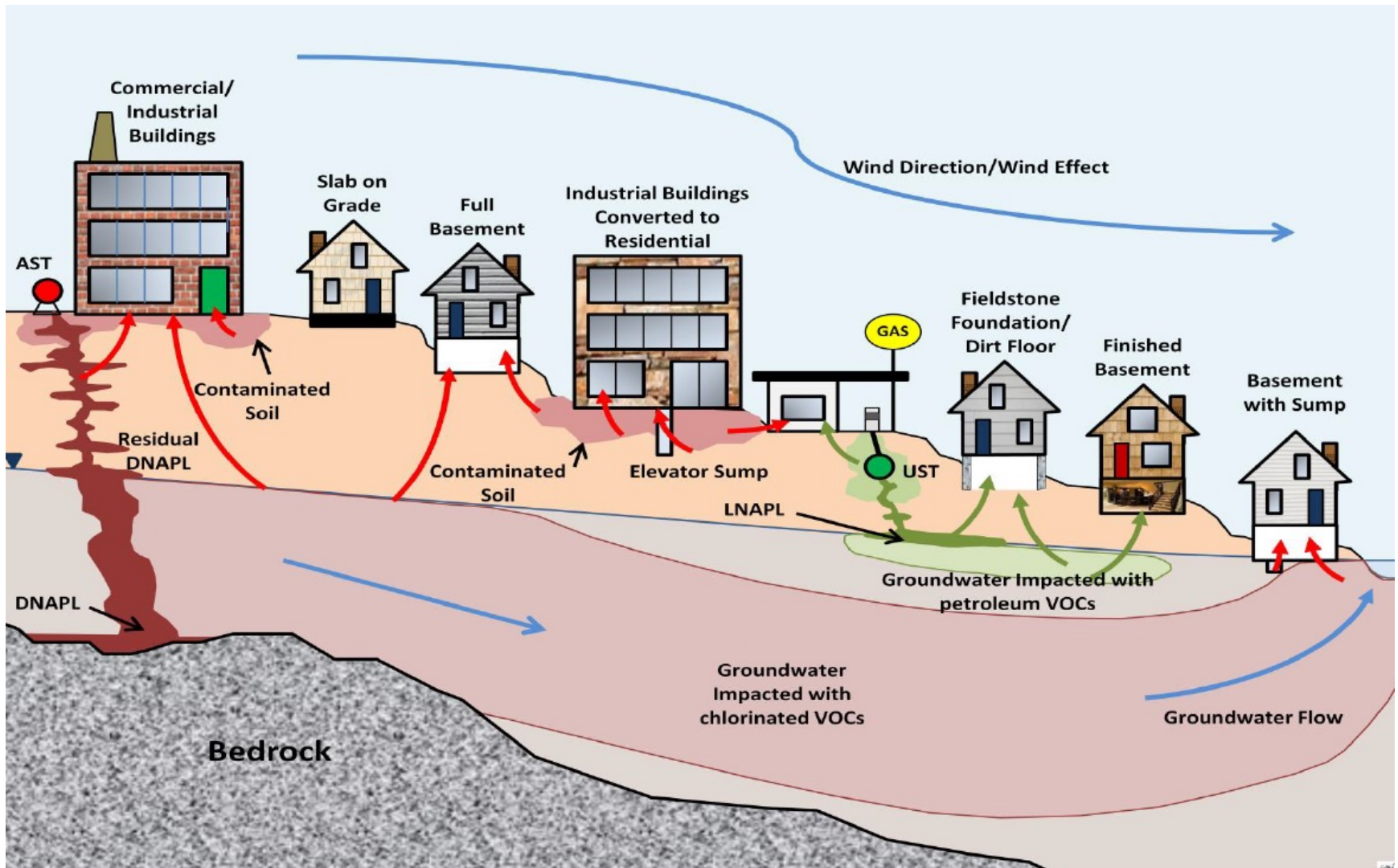
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# Contaminant of Concern - PCE

- Tetrachloroethylene or Perchloroethylene, (PERC or PCE)
- Used at Tens of Thousands of Dry Cleaning Locations as a Degreaser
- Releases Cause Soil, Groundwater and Soil Vapor Impacts



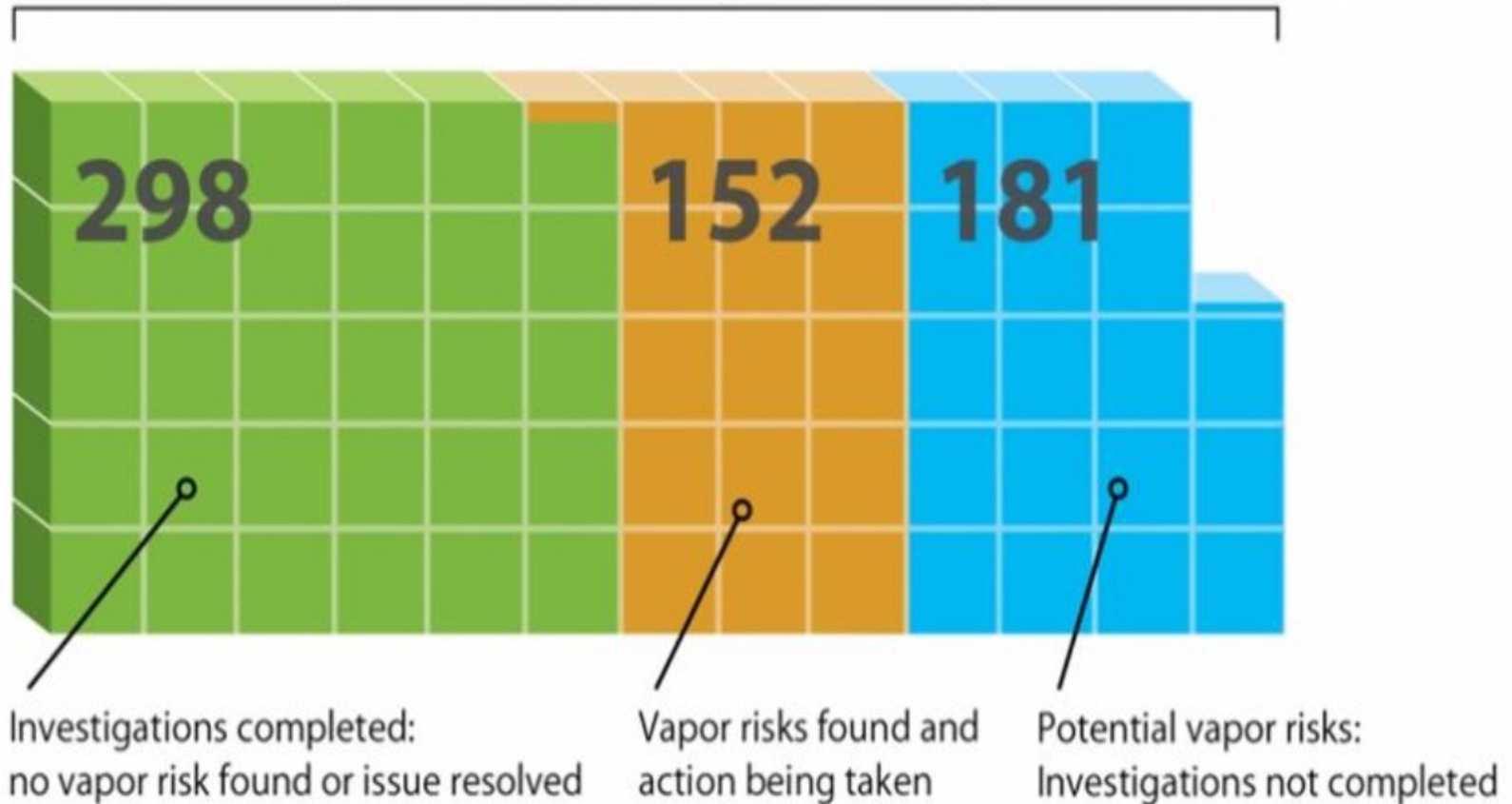
# Soil Vapor Intrusion





# MPCA Assessment of Existing Sites for Soil Vapor Impacts

Sites identified as potential vapor risks (as of Jan. 2017)

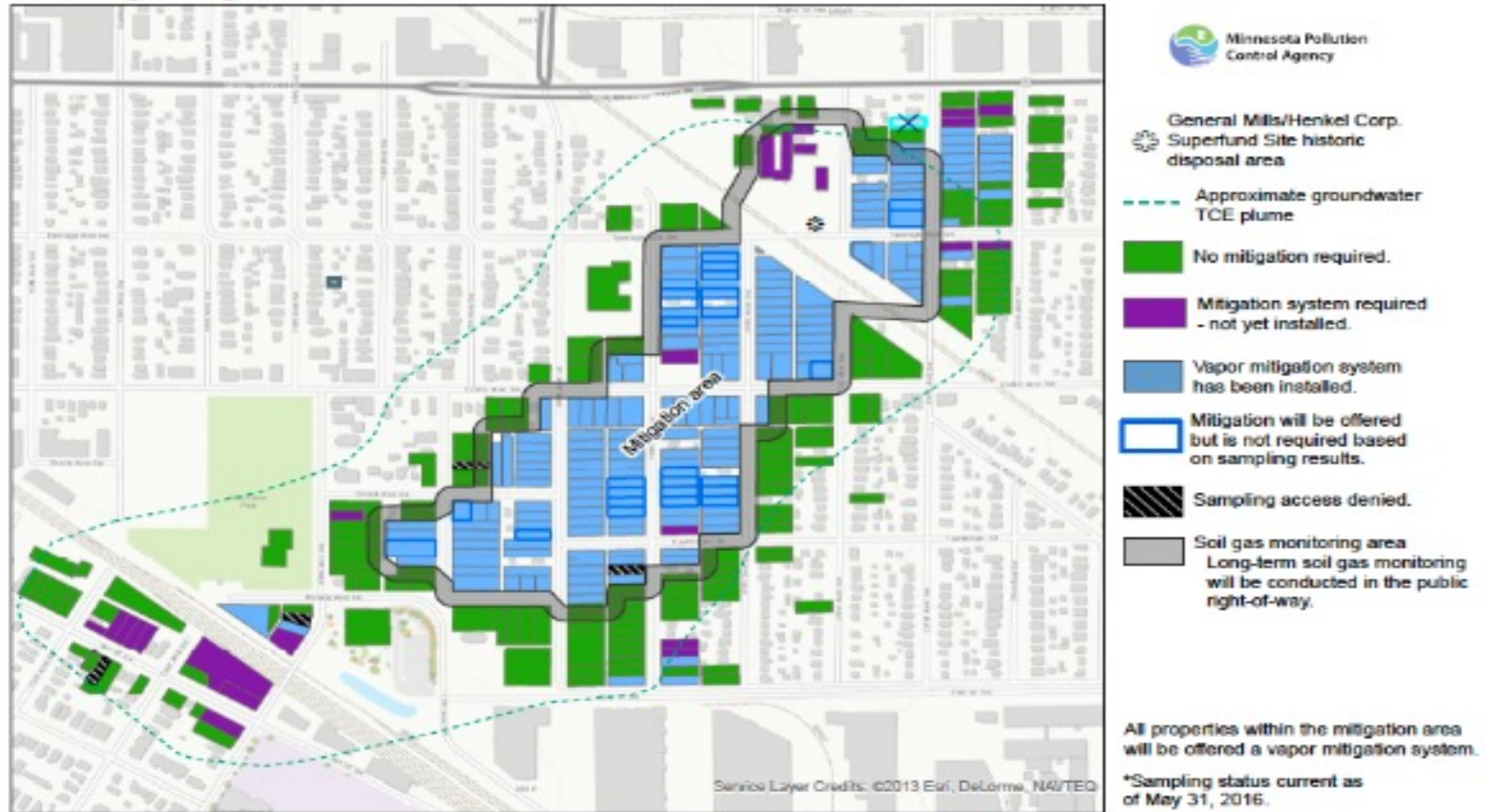


# Vapor Intrusion Testing

- Sub-Slab
- Indoor Air
- MPCA Guidance
- Intrusion Screening Values (ISVs) and Expedited ISVs
  - >33X ISVs Require Mitigation
  - Testing – Seasonal Paired Sampling
- >33X Expedited ISVs Requires Actions Within 30 Days

# General Mills – Henkel Superfund Site Soil Vapor Intrusion

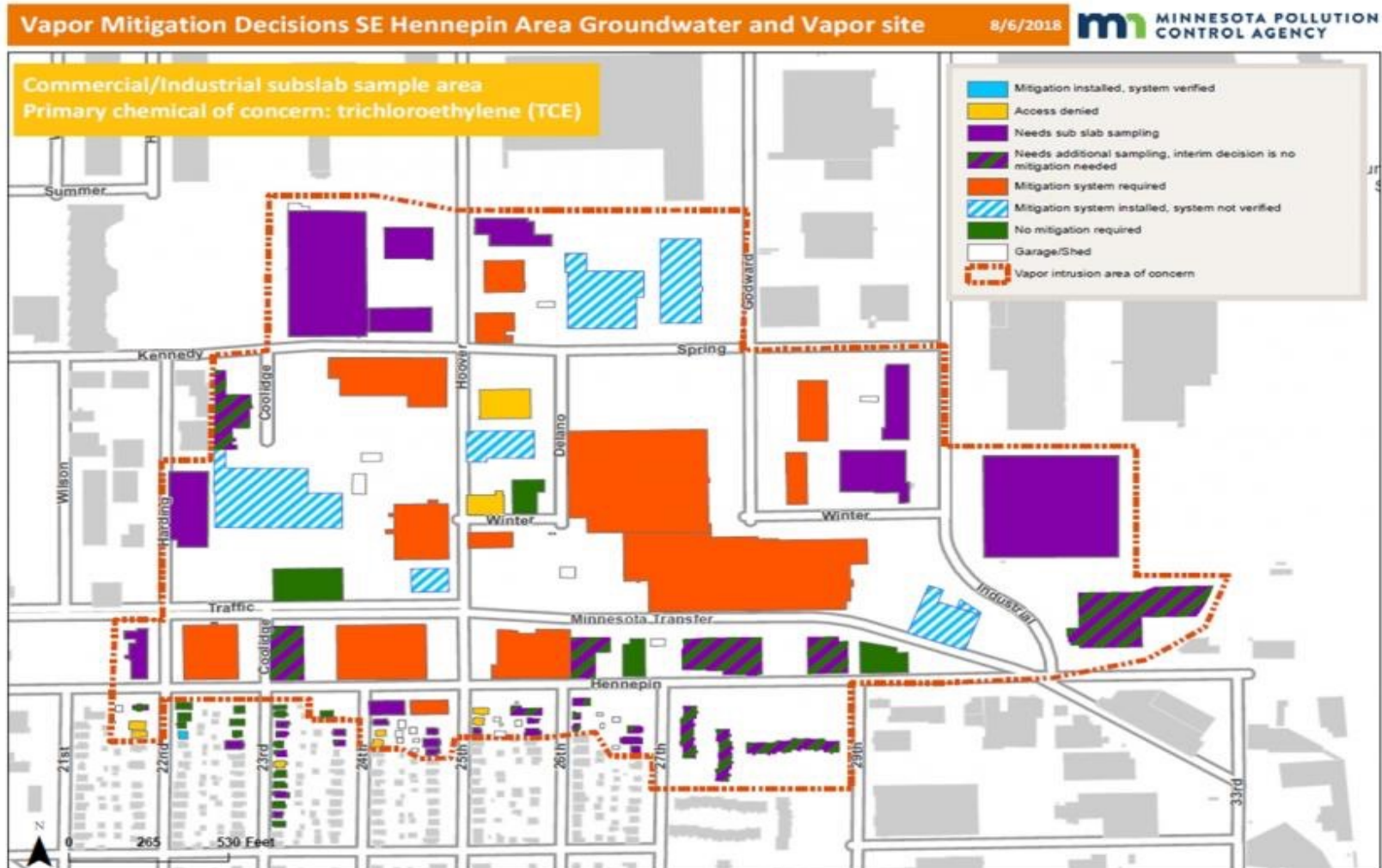
## Soil Vapor: Como Neighborhood – Minneapolis Building Mitigation Status





# Soil Vapor Intrusion

## SE Hennepin Area Groundwater and Vapor Site

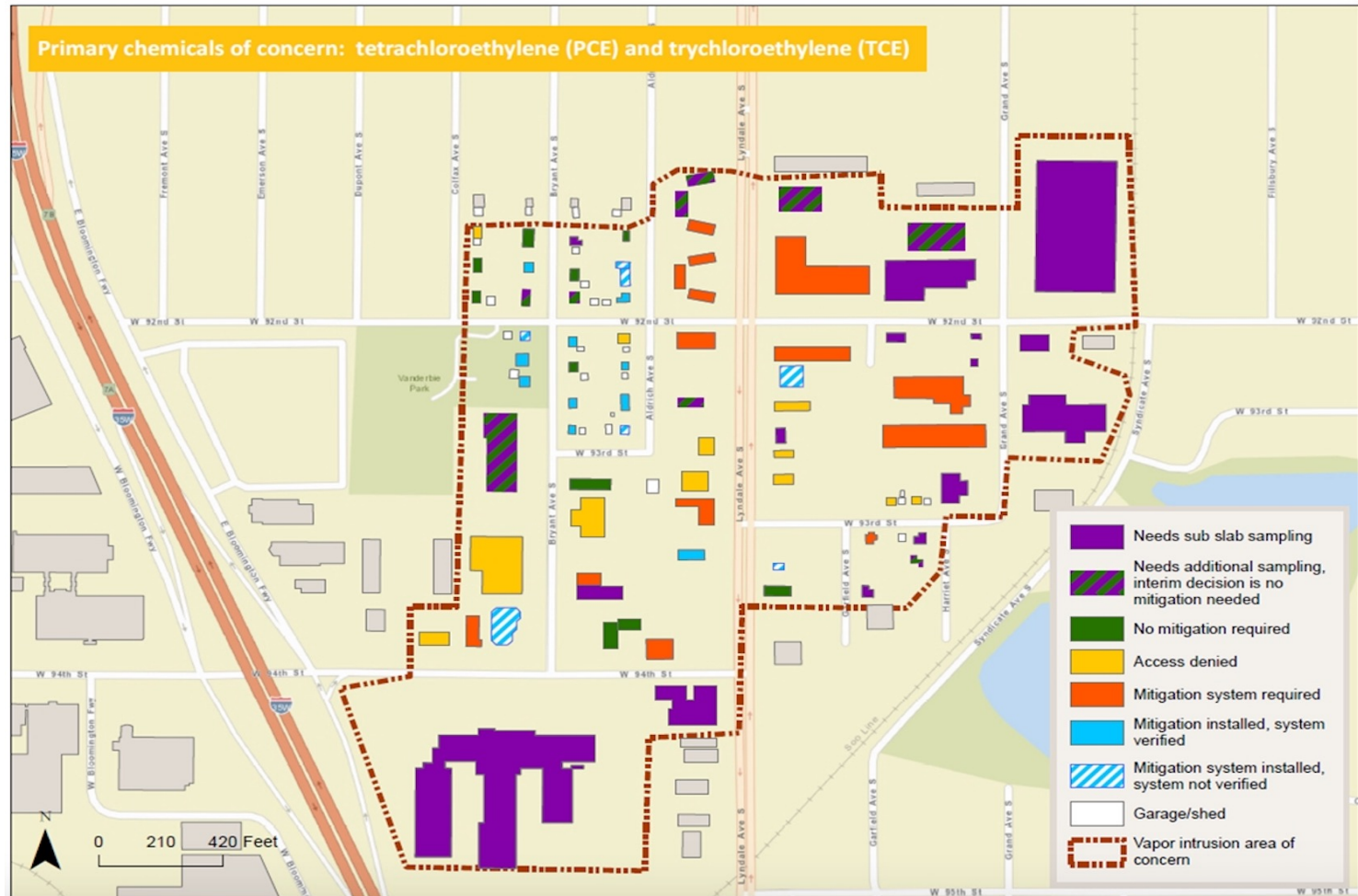


# Soil Vapor Intrusion

## Lyndale Avenue Corridor - Bloomington

Mitigation Decisions: Lyndale Avenue Corridor - Bloomington - SR1402/SA243

11/28/2018



# Vapor Intrusion Risk

- When soil vapor levels exceed industrial/residential standards, mitigation is required
- Designed Mitigation – Sub-Slab Depressurization
  - Sumps
  - Risers
  - Blowers
  - Verification Testing
- Operation and Maintenance

# Vapor Intrusion Risk



# Vapor Intrusion Risk

- Designed Mitigation – New Construction Vapor Mitigation System
  - Bedded Horizontal Runs
  - Spray Applied or Sheet Membrane
    - Risers
    - Blower
  - Verification Testing
- Operations and Maintenance
  - Environmental Covenant



# Vapor Intrusion Risk





# Environmental Covenants

- Uniform Environmental Covenants Act (UECA)
- MPCA Environmental Covenant Template
  - Notice to State and Local Government
    - System Remains Operational
    - Operation and Maintenance Plan

# Emerging Contaminant of Concern - PFCs

- PFAS Short for Perfluoroalkyl Substances and Related Substances, PFAO, PFOS, also Collectively Known as PFCs
  - Used in Array of Industrial and Metal Finishing Operations

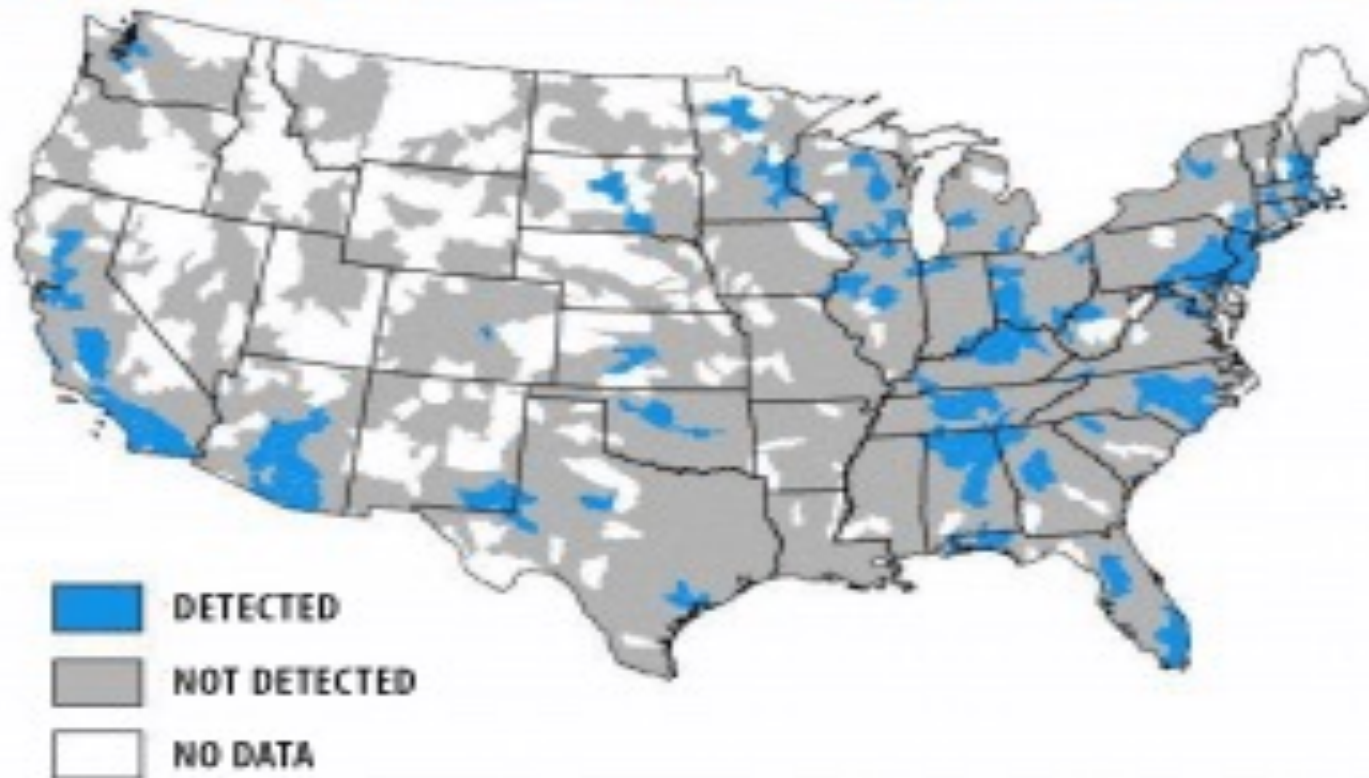


# Emerging Contaminant of Concern - PFCs

- Component of consumer goods and products, including non-stick cookware, stain repellants, firefighting foam, and food-packaging materials
- Extremely persistent, known as the “forever chemicals”
- Major concern is with disposal, release through products and impacts to public drinking water supplies and groundwater

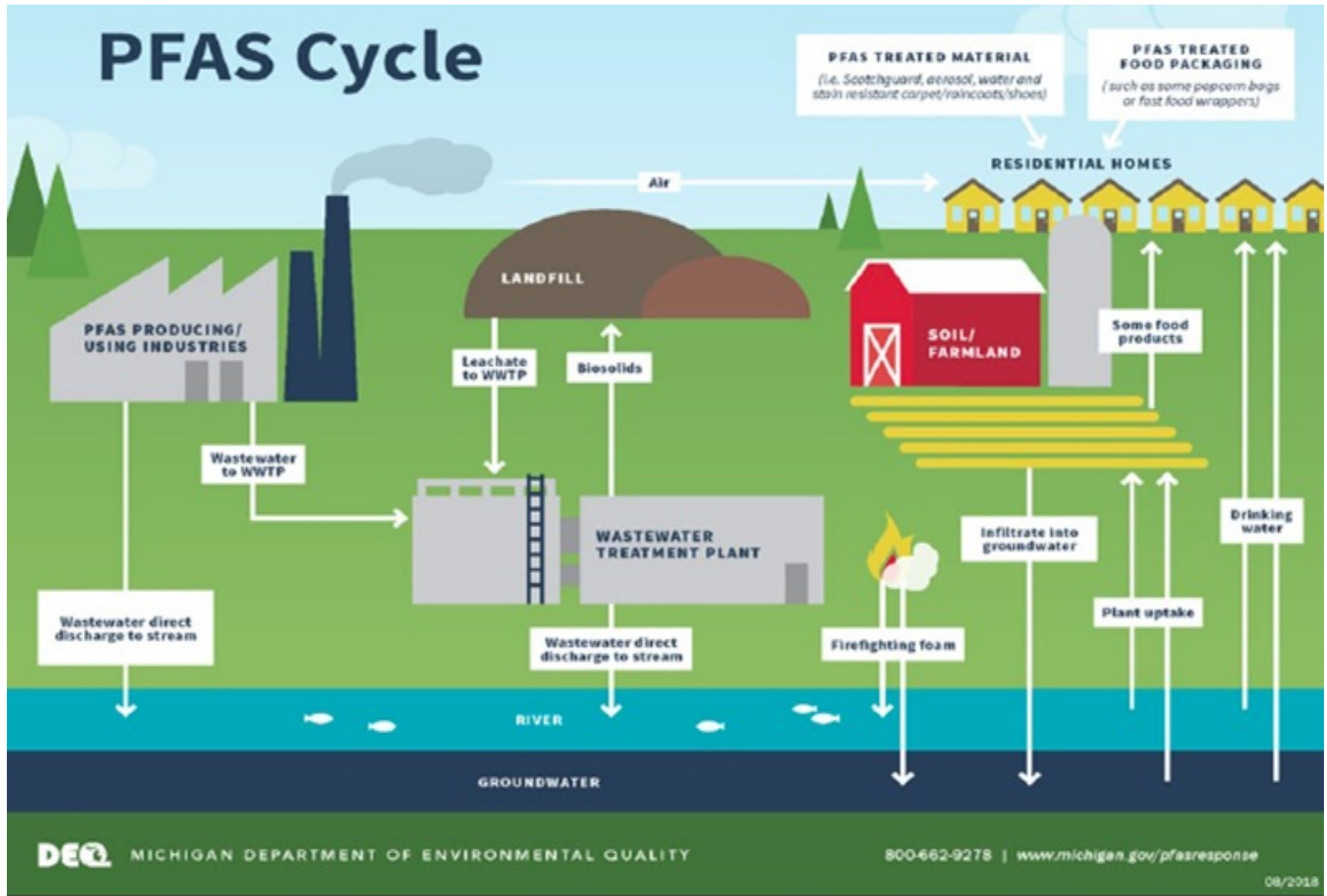
# Contaminant of Concern - PFCs

## Hydrological Units With Detectable PFAS



*Source: Environmental Science & Technology Letters*

# PFAS Cycle



# **Role of Minnesota Voluntary Programs**

## **Voluntary Investigation and Cleanup/ Brownfields Program - Non-Petroleum**

- No Association Determination
  - No Further Action Letter
  - Certificate of Completion
- Off-site Source Determination
- Approval of Vapor Response Actions
  - Approval of Vapor Assessment
- Approval of Response Action Plans and Implementation

# **Role of Minnesota Voluntary Programs Petroleum Brownfields Program**

- Tank and Non-Tank Closure
  - General Liability Letter
  - Tank Removal Verification
- Approval of Development Response Action Plans and Implementation



# **Role of Minnesota Voluntary Cleanup Programs**

Should Your Client  
Seek Assurances or Not?

# Handling Environmental Concerns That Arise During Due Diligence

- Budget Opinion – Cost to Cure
  - Post-Closing Obligations
    - Purchase Agreement
    - Lender Undertaking
- Escrow Funds to Address Ongoing Issues
  - Indemnification Trigger

# Handling Environmental Concerns That Arise During Due Diligence

- Warranties and Representations
- Establishes Baseline of Knowledge to Compare Against Future Findings
- Exceptions Listed in Exhibit

# Handling Environmental Concerns That Arise During Due Diligence

- Insurance
- Representation and Warranty
  - Pollution Liability
- Provide Due Diligence for Review

# Questions?

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