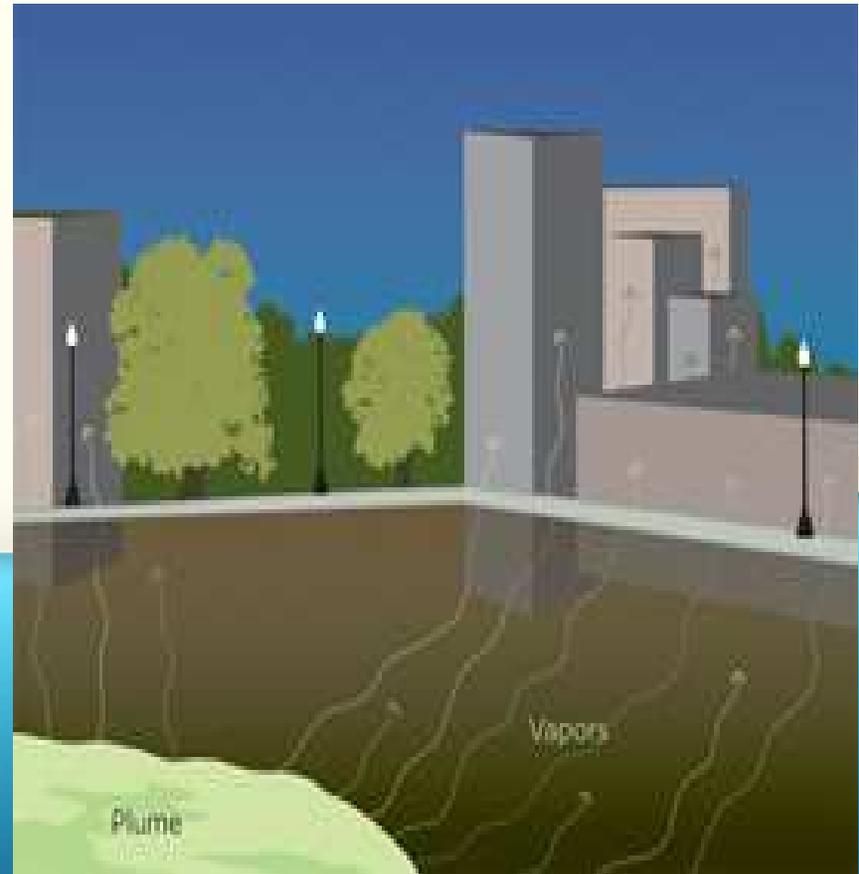


VAPOR INTRUSION & BROWNFIELDS

Petroleum Vapor
Intrusion Workshops

December 4 & 5, 2013



Carrie Geyer

*Chief, Brownfield Redevelopment Program
Remediation & Redevelopment Division*

Questions Regarding Vapor Intrusion

- Do I Have to Use the Guidance?
- Which Numbers Do I Use?
- Can I Use the OSHA Exemption?
- Aren't the Sampling Requirements Onerous?
- How Does it Impact My Redevelopment?
- How am I Going to Pay for It?

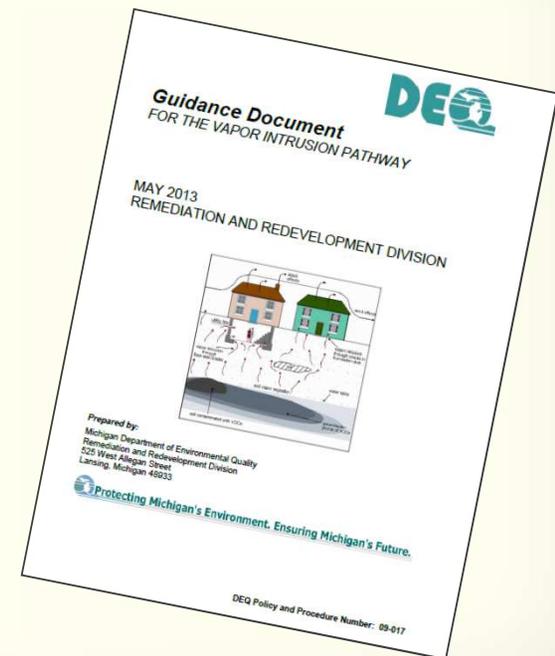


2013 VI Guidance

Do I Have to Use This?

NO!

- Alternate Approaches Can be Proposed
- Written from Closure Perspective
- Not even SOPs



What is the Deal with the Numbers?

Part 201 & 213

Generic Volatilization to Indoor Air Criteria

- Groundwater – GVIIC
- Soil – SVIIC

2013 VI Guidance Screening Levels

- Groundwater
- Soil Gas
- Soil



Can I Still Use GVIIC and SVIIC?

- **YES!** When Appropriate for Your Site Conditions
- When NOT Appropriate:
 - A Site Specific Approach is Needed
 - Not One “Right” Way to do This
 - “Can” Use VI Guidance Screening Levels as a Site Specific Approach



Can I Use the OSHA Exemption?

- Yes, IF:
 - Facility classified as Manufacturing (SIC code);
 - Complies with the MIOSHA; &
 - Air monitoring and hazard communication program account for all hazardous substances of concern



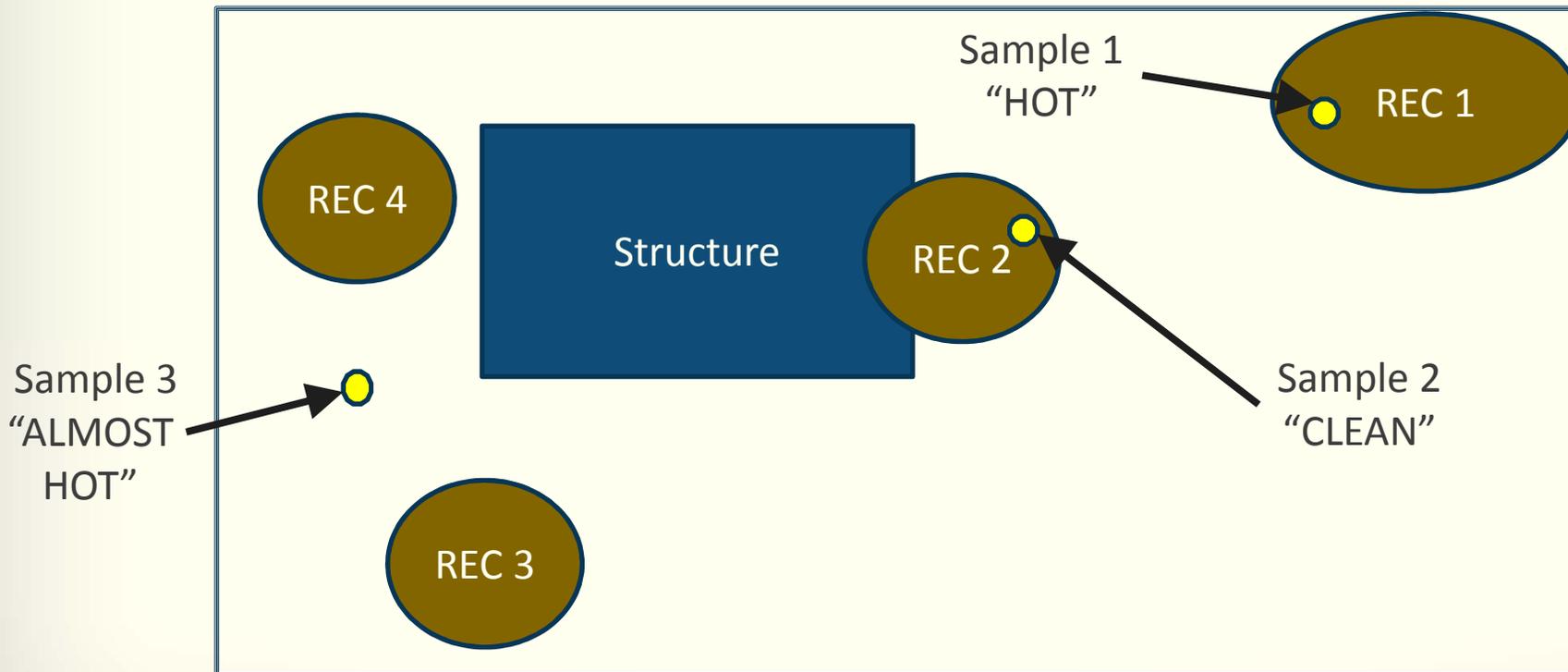
Do I Need Multiple Rounds of Sampling?

Collecting Quality Data:

- Location of Samples Relative to Structure and RECs
- Use of Proper Sampling Techniques
- Use of a Conceptual Site Model (CSM)
- Understand what the Data Means or Hire Someone Who Does

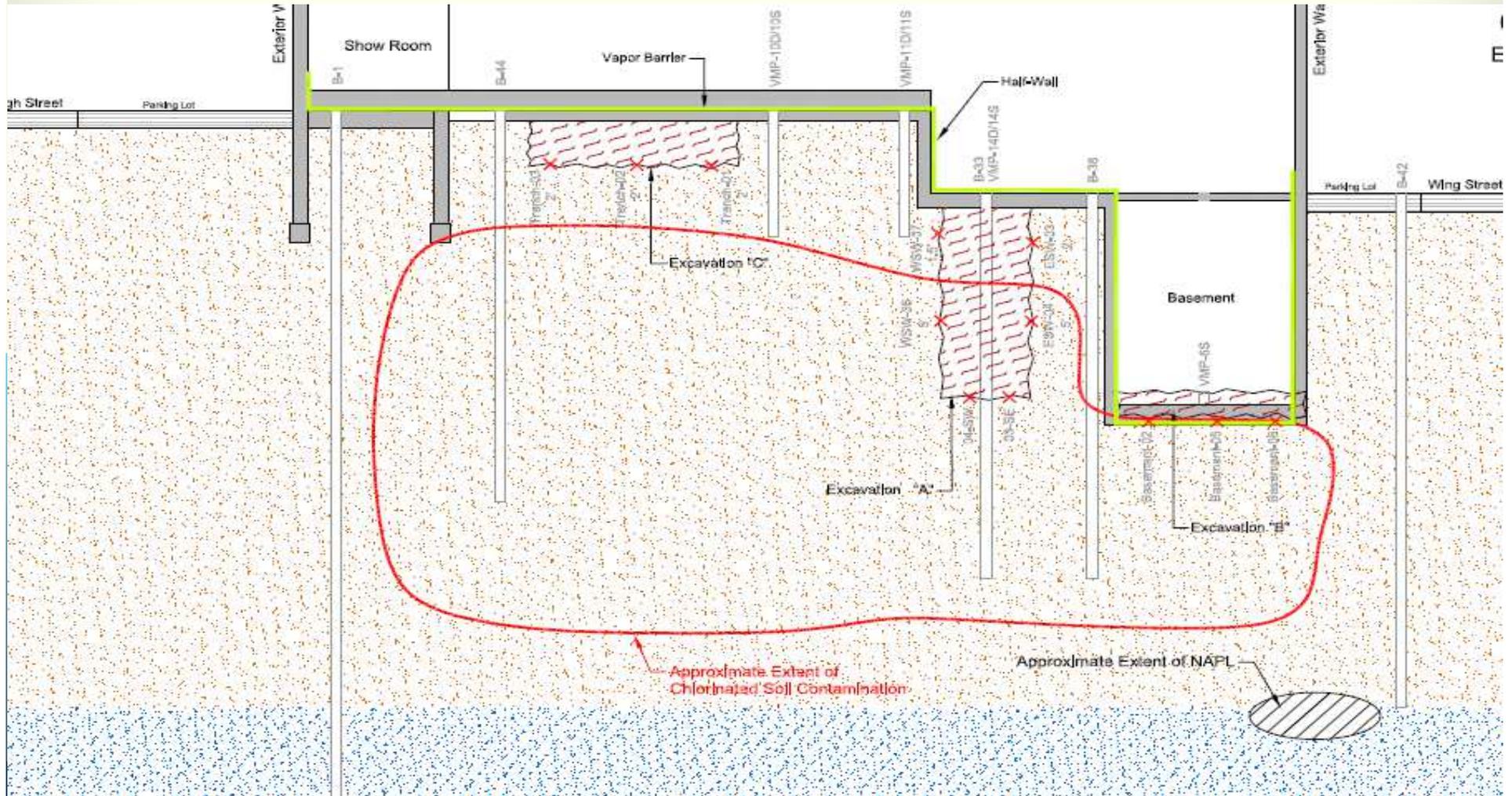


Characterize Your RECs



Can you assume no VI?

Use a CSM!



How Does All of This Impact My Redevelopment Plans?

- Need to Evaluate the Risk for VI
- Need Enough Data to Make the Evaluation
- Data is More About Quality than Quantity*



*Reliable data possible in as little as 1 event

Investigate vs. Presumptively Mitigate

Extra time & cost
required for
investigation

vs.

Cost to
presumptively
mitigate the site



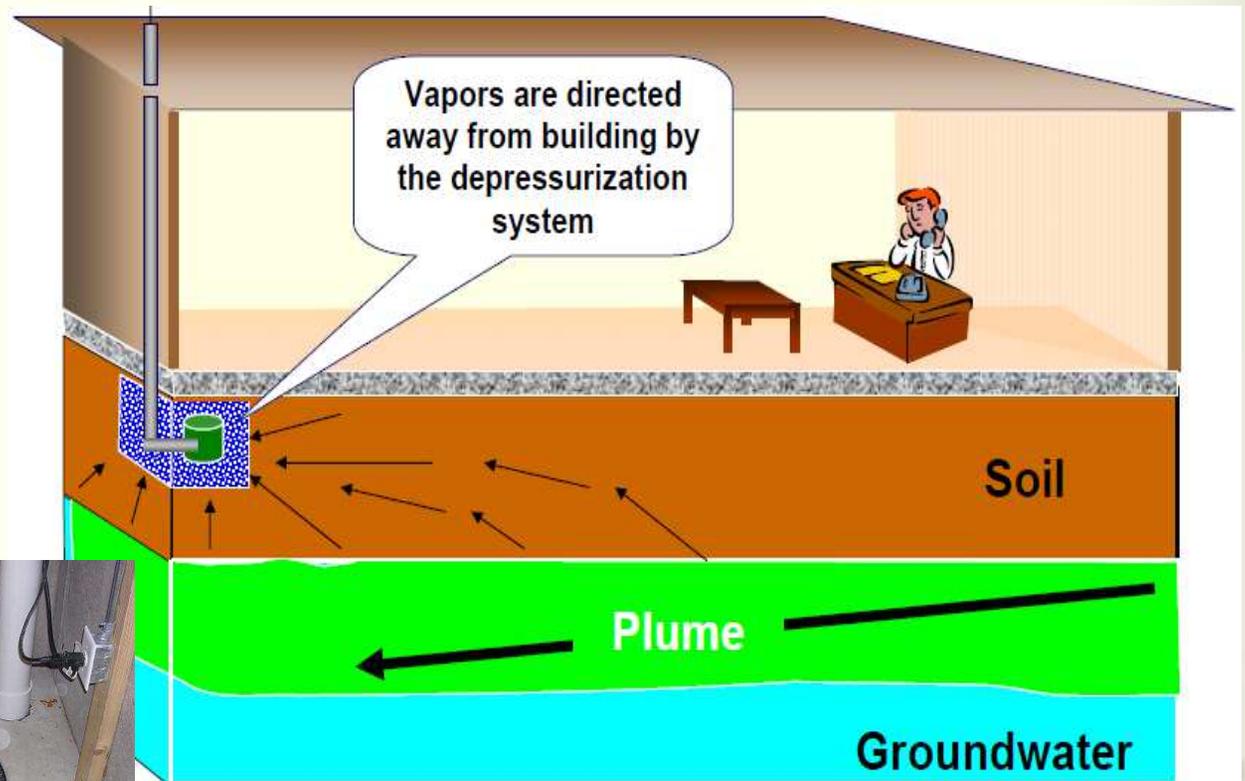
Typical Presumptive Remedy

Liner and Passive Ventilation



Typical Presumptive Remedy

Active/ Sub Slab Depressurization System



VI and Brownfield Redevelopment Not Mutually Exclusive!



The Garage - Northville



VI and Brownfield Redevelopment Not Mutually Exclusive!



FC Mason - St. Johns



VI and Brownfield Redevelopment Not Mutually Exclusive!



St Anne - East Lansing



VI and Brownfield Redevelopment Not Mutually Exclusive!



Four Corners CVS - Traverse City



VI and Brownfield Redevelopment Not Mutually Exclusive!



Arbor Hills Crossing - Ann Arbor



VI and Brownfield Redevelopment Not Mutually Exclusive!



Abercrombie Construction - Southgate



Available DEQ Brownfield Funding

Grants

Loans

Brownfield TIF



Available DEQ Brownfield Funding

What is Eligible?

ENVIRONMENTAL ACTIVITIES!

- Investigations
- Mitigation Systems
- Etc.



Available DEQ Brownfield Funding

**How Do I
Qualify?**



Brownfield Funding Considerations



- Applicant a LUG
- Contaminated Property
- Redevelopment
- Liability Issues
- Environmental!!!

Brownfield Funding - Grants



Up to \$1 Million



Brownfield Funding - Loans



- Up to \$1 Million
- 15-Year Term
- First 5-Years Payment/Interest Free
- 1.5% Interest Rate



Brownfield Funding – Act 381 TIF



TIF = Tax Increment Financing

Act 381 Established Ability to use TIF to reimburse developer for eligible Brownfield Activities

Brownfield Funding – Act 381 TIF

The Increment: How TIF Works

Pre-Development

Base Taxable Value of Property Established

Base
Taxable
Value
\$



Brownfield Funding – Act 381 TIF

The Increment: How TIF Works

**Developer Makes
Improvements**

Value of Property Increases

**Base
Taxable
Value
\$**

**New
Taxable
Value
\$\$\$**



Brownfield Funding – Act 381 TIF

The Increment: How TIF Works

Increment =
(New – Base)

Incremental
Increase in
Taxable
Value
\$\$

Base
Taxable
Value
\$

New
Taxable
Value
\$\$\$

Brownfield Funding – Act 381 TIF

The Increment: How TIF Works

- Taxes on Increment Captured
- Paid to Developer
- Often Used with DEQ Loans



Takeaways - Brownfields and VI



Property transactions ARE
possible with VI!



Takeaways - Brownfields and VI

Many sites with VI related activities qualify for Brownfield Incentives



Takeaways - Brownfields and VI



Need to **Understand** the Site!

- Quality of Data
- CSM

Takeaways - Brownfields and VI

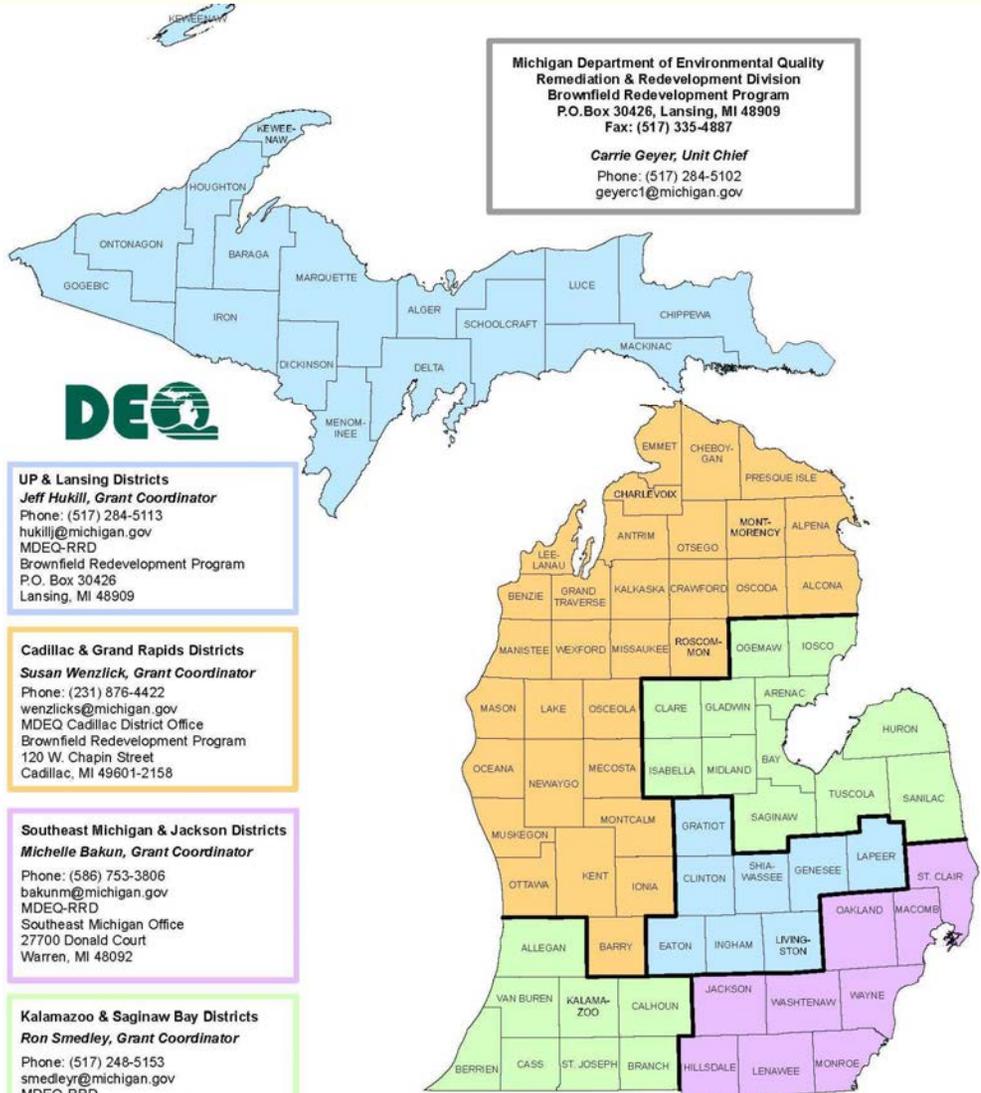
There are Many
Paths...

DEQ VI Guidance is just
one of them!

It is NOT Required!!!



DEQ Brownfield Contacts



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 Rick Snyder, Governor • Dan Wyant, Director

For pollution emergencies only: 1-800-292-4706
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July 2013





QUESTIONS?

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