

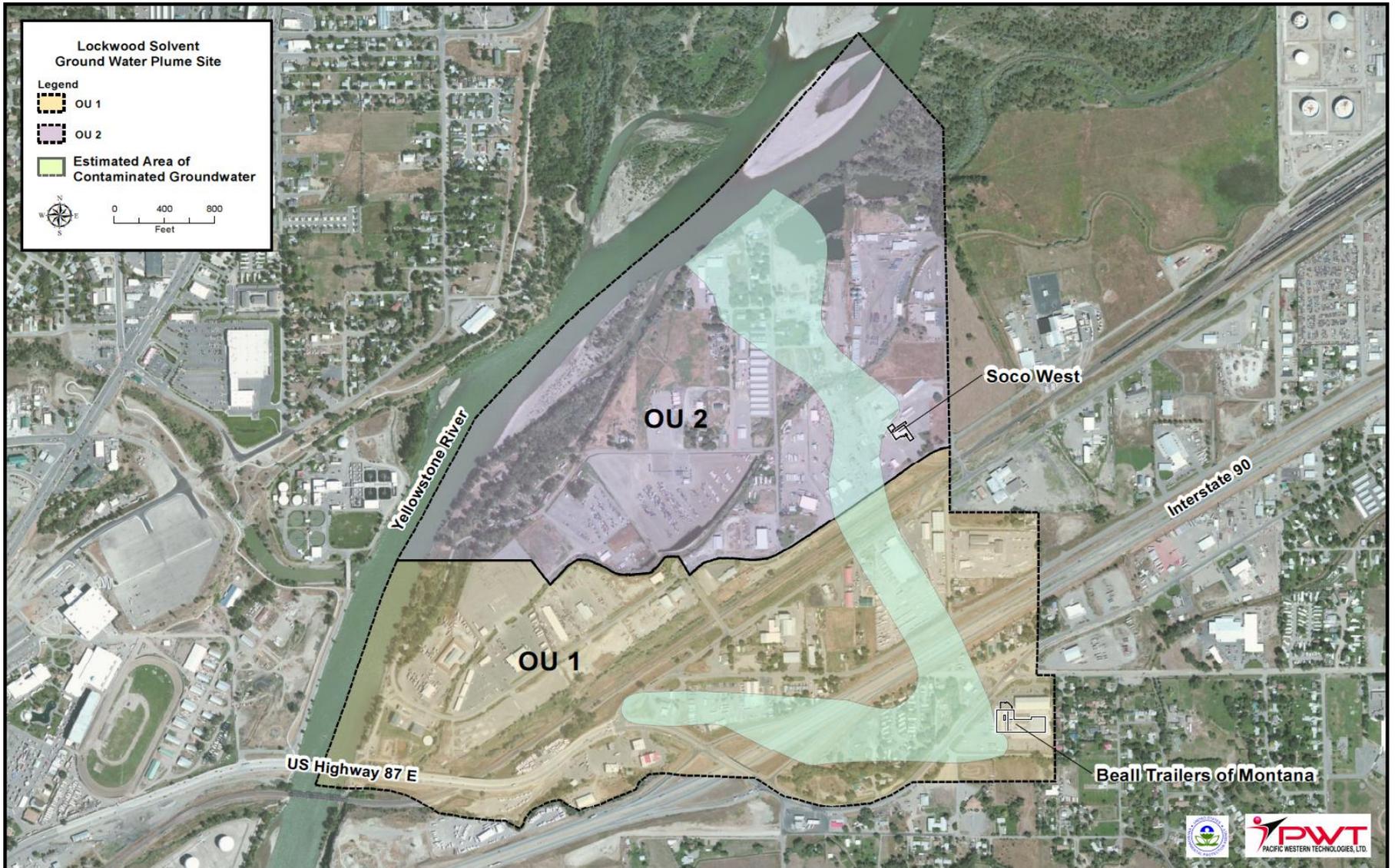
**LOCKWOOD  
SOLVENT  
GROUND WATER  
PLUME SITE**

Open House  
April 24, 2012

# PEOPLE RESPONSIBLE FOR THE PROJECT

- ◉ Roger Hoogerheide - EPA Project Manager
- ◉ John Podolinsky - DEQ Project Officer
- ◉ Andrew Schmidt- EPA Hydrogeologist
- ◉ David Berry - EPA Toxicologist
- ◉ James Sullivan - ATC Associates (Soco representative)
- ◉ Catherine LeCours - PWT, Ltd. (EPA contractor)

# SITE LAYOUT



# CHEMICALS OF CONCERN

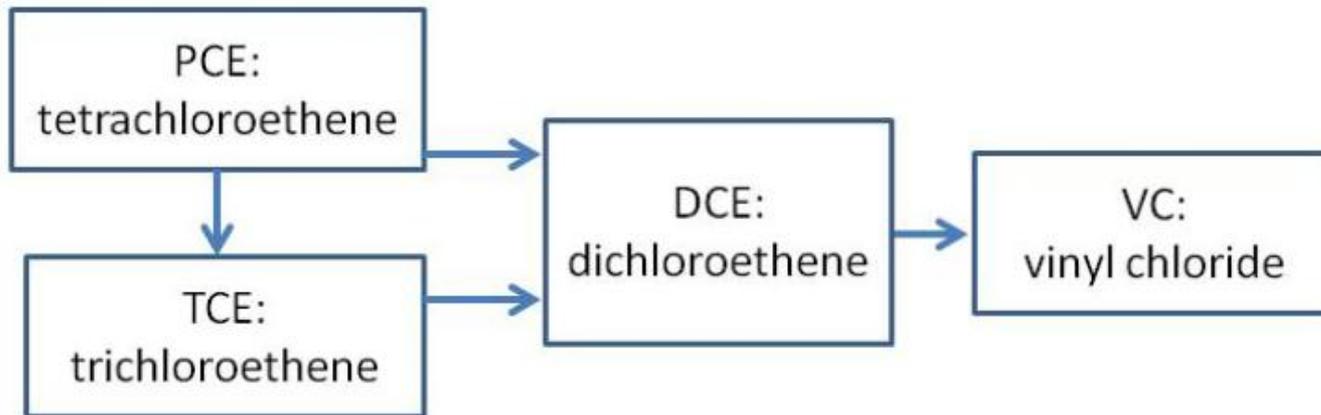
- There are four chemicals of concern at the Lockwood Site:
  - Tetrachloroethene (PCE)
  - Trichloroethene (TCE)
  - Dichloroethene (DCE)
  - Vinyl Chloride (VC)

# CHEMICALS OF CONCERN

- PCE spilled into soil during the process of being re-packaged and shipped from the Soco property
- TCE moved into soil from the septic system after years of being used to clean trucks at the Beall property
- DCE and VC are new chemicals that form when PCE and TCE break down in soil and ground water
- All four chemicals can cause serious health risks

# CHEMICALS OF CONCERN

- PCE and TCE are more likely to stay in soil than DCE and VC
- The breakdown chemicals, DCE and VC, are less likely to “stick” to soil than PCE and TCE, meaning they are more likely to get into ground water



This shows the breakdown over time of PCE and TCE into DCE and VC

# OPERABLE UNIT 1 - BEALL

- ◉ Main contaminant- trichloroethene (TCE)
- ◉ Used in cleaning tanker trailers
- ◉ Contaminated soil near steam clean bay and former drain field
- ◉ Contaminated ground water traveling north and west of property
- ◉ The EPA and their contractor are sampling to guide cleanup plan
- ◉ Small-scale tests later this year will help to develop full-scale cleanup plan

# OPERABLE UNIT 1- BEALL



# OPERABLE UNIT 2 - SOCO

- ◉ Main contaminant- tetrachloroethene (PCE) and its breakdown products TCE, DCE and VC
- ◉ Property historically used as chemical re-packaging and distribution center
- ◉ Contaminated soil in former tank farm and northwest corner of property
- ◉ Contaminated ground water traveling north to the Yellowstone River
- ◉ Soco and their contractor performing additional investigation sampling
- ◉ The remedy will be implemented in phases determined by small-scale tests performed later this year

# OPERABLE UNIT 2- SOCO



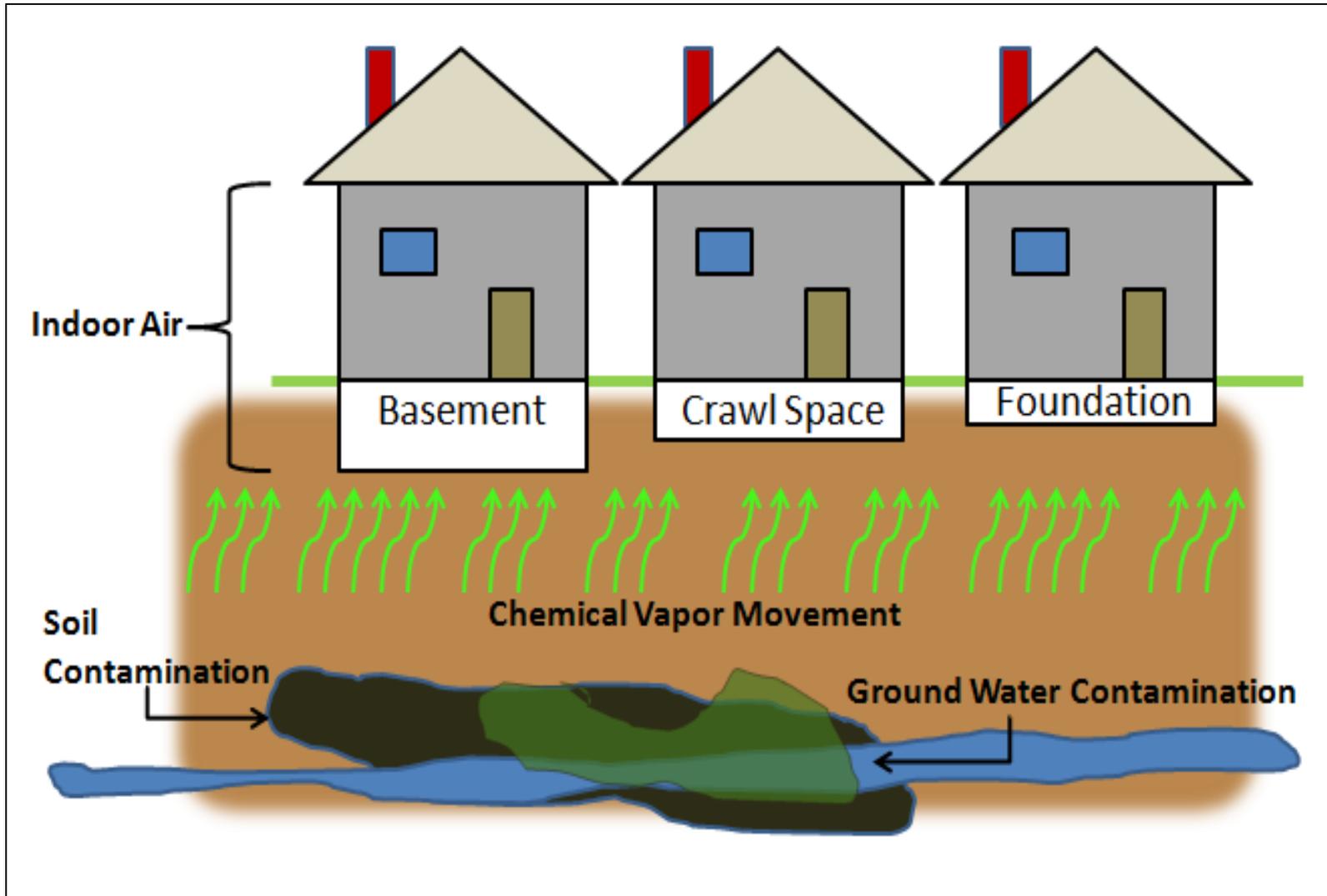
# HEALTH EFFECTS ASSESSMENT

- The EPA has new information about the health effects of tetrachloroethene (PCE) and trichloroethene (TCE)
- The EPA will evaluate the Lockwood site and remedy based on this new information

# VAPOR INTRUSION: WHAT IS IT?

- Vapor intrusion happens when liquid chemicals in the ground give off gases that can travel through soil as vapors
- These vapors may seep into buildings through cracks in foundations, basement walls, sewer lines or other openings
- If vapors move up through soil and into buildings, they can contaminate indoor air
- Vapor Intrusion of PCE, TCE, and VC can sometimes have serious human health risks
- Understanding how much of the vapors are actually entering a building is the best way to prevent health risks

# VAPOR INTRUSION



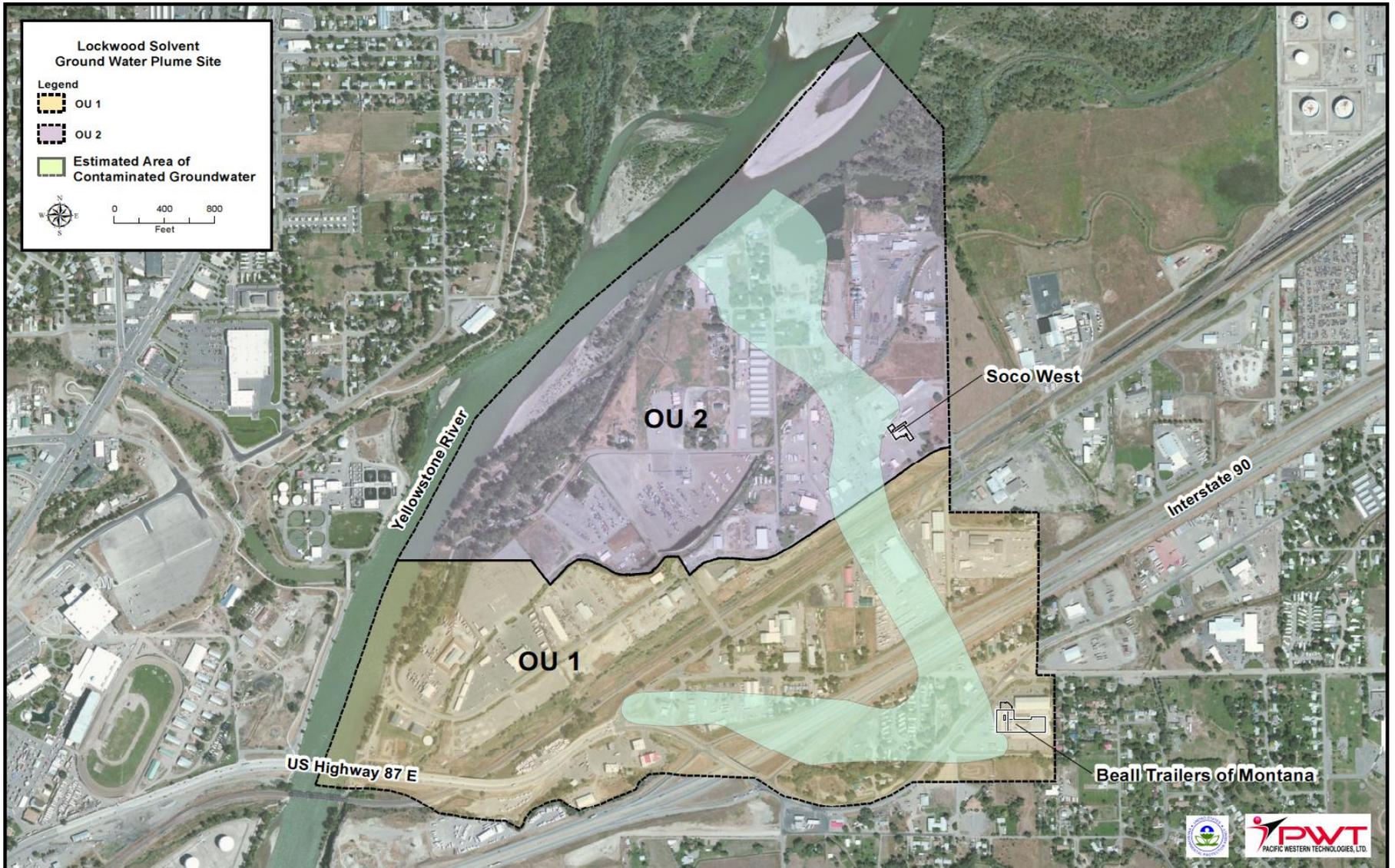
# VAPOR INTRUSION STUDIES

- The Agencies are directing Soco's sampling efforts inside homes to see if the chemical vapors are present, and if so, how much are present
- Soco will also sample air from the soil underneath these homes to see if there are chemical vapors present
- Please see the map at the Vapor Intrusion table that shows residences that will be sampled

# INSTITUTIONAL CONTROLS (IC)

- ICs are steps taken to ensure that the cleanup remains effective and continues to protect human health and the environment
- The Agencies are creating a “Controlled Groundwater Area” as one type of IC
- Other ICs may also include deed notices, education, permits, and zoning ordinances
- The IC options will be evaluated during the cleanup and chosen based on effective future protection

# SITE LAYOUT



# WE'RE HERE TO HELP YOU GET MORE INFORMATION

- ◉ Visit information tables around the room
- ◉ Talk with EPA and State representatives
- ◉ Ask questions of your local health department
- ◉ Read the recent fact sheet
- ◉ Visit the EPA's website for Lockwood
- ◉ Review the handouts and brochures available this evening
- ◉ **ASK QUESTIONS- WE ARE HERE TO GET YOU ANSWERS**