Figure 1-2. PVI strategy flowchart

From ITRC Petroleum Vapor Intrusion (PVI) Technical and Regulatory Guidance Web-Based Document (PVI-1, 2014) at www.itrcweb.org/PetroleumVI-Guidance
Figure 3-2. Flowchart for PVI screening application

Step 1: Develop CSM (Section 3.1)
- **Site Type:** identify the site as either Petroleum UST/AST (e.g., gas station) or Petroleum Industrial (e.g., terminal, refinery)
- **Petroleum Vapor Source:** determine the type of petroleum vapor source (dissolved-phase or LNAPL) underlying each building of interest
- **Extent of Source:** determine the location and lateral and vertical extent of the petroleum vapor source in soil or groundwater
- **Precluding Factors:** determine the presence of precluding factors, including:
  - Preferential pathways - natural (e.g., karst or fractured geology) or anthropogenic (e.g., sanitary sewers, piping corridors)
  - Expanding/advancing plume
  - Certain fuel types (e.g., lead scavengers or > 10% vol/vol ethanol)
  - Certain soil types (e.g., peat or excessively dry soils between the source and building)
- **Lateral Inclusion Zone:** determine zone as 30 feet from the edge of the petroleum vapor source (in soil or groundwater)
- **Vertical Separation Distance:** determine the distance between the bottom of the building foundation and the top of the petroleum vapor source

Step 2: Evaluate Building for Precluding Factors and Lateral Inclusion (Section 3.2)
- **Precluding Factors:** Are factors present?
- **Lateral Inclusion Zone:** Is any portion of the current or future building foundation within the lateral inclusion zone?

Step 3: Conduct Screening with Vertical Separation Distance (Section 3.3)

**LNAPL Sources:**
Vertical separation distance between top of LNAPL source (in soil or at water table) and bottom of building foundation is > 15 ft (petroleum UST/AST sites) or > 18 ft (petroleum industrial sites)

**Dissolved-Phase Sources:**
Vertical separation distance between water table and bottom of building foundation is > 5 ft

From ITRC Petroleum Vapor Intrusion (PVI) Technical and Regulatory Guidance Web-Based Document (PVI-1, 2014) at www.itrcweb.org/PetroleumVI-Guidance
Figure 4-1. Site investigation approach flow chart

From ITRC Petroleum Vapor Intrusion (PVI) Technical and Regulatory Guidance Web-Based Document (PVI-1, 2014) at www.itrcweb.org/PetroleumVI-Guidance