



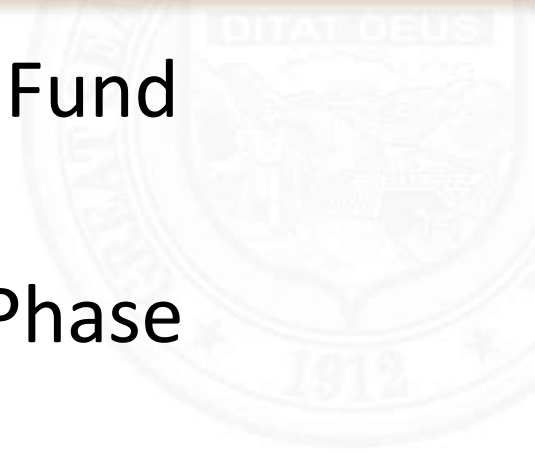
# East Central Phoenix - 48th Street & Indian School Road WQARF Site

Draft Remedial Investigation Report

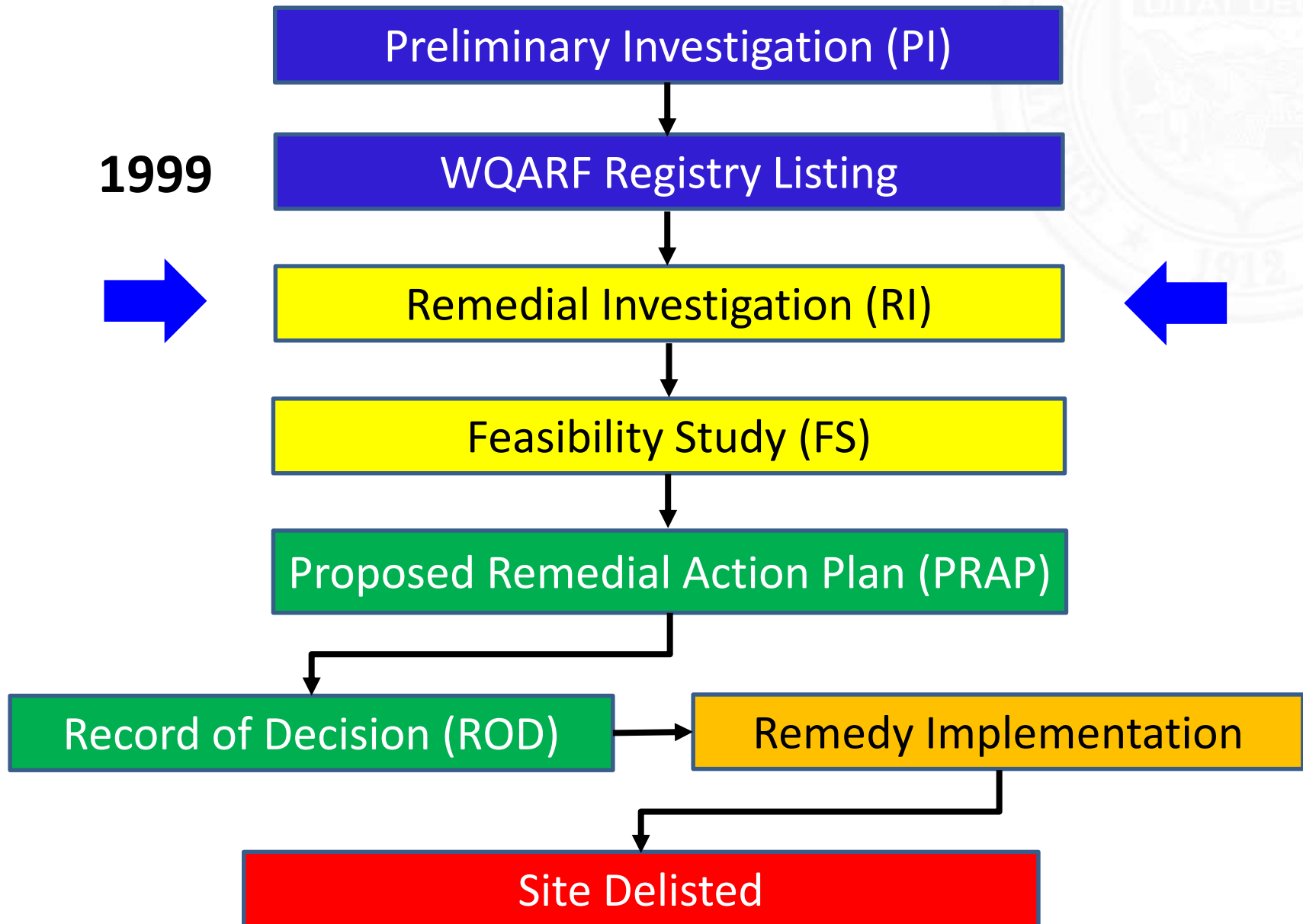
September 12, 2019



- Water Quality Assurance Revolving Fund (WQARF) Process
- Purpose of Remedial Investigation Phase
- Site Background Information
- Soil and Soil Vapor Results
- Groundwater Results
- Site Conceptual Model
- Conclusions

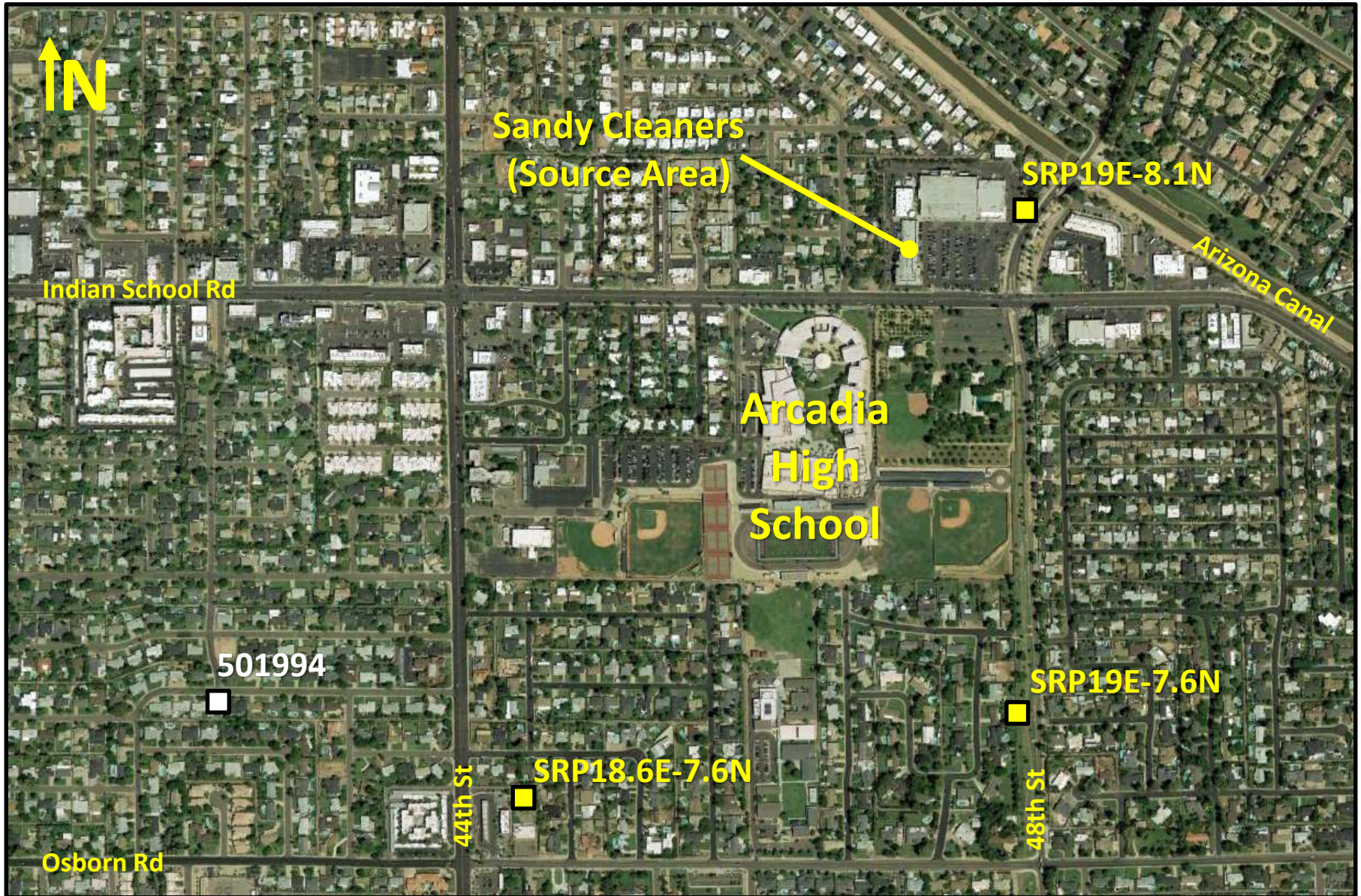


# WQARF Process



- Identify Source of Contamination
- Determine Nature & Extent of Contamination
- Identify Potential Impacts to Public Health & Environment
- Identify Current & Future Land & Water Use at the Site
- Obtain Data for Development of Site Clean-Up Actions

# Site Location



- Contaminant of Concern = Tetrachloroethene (PCE)
- Impacted Media = Soil, Soil Vapor, & Groundwater
- Source of Contamination
  - Former One Hour Martinizing (1966 to 1987)
  - Sandy's Cleaners (1987 to now)

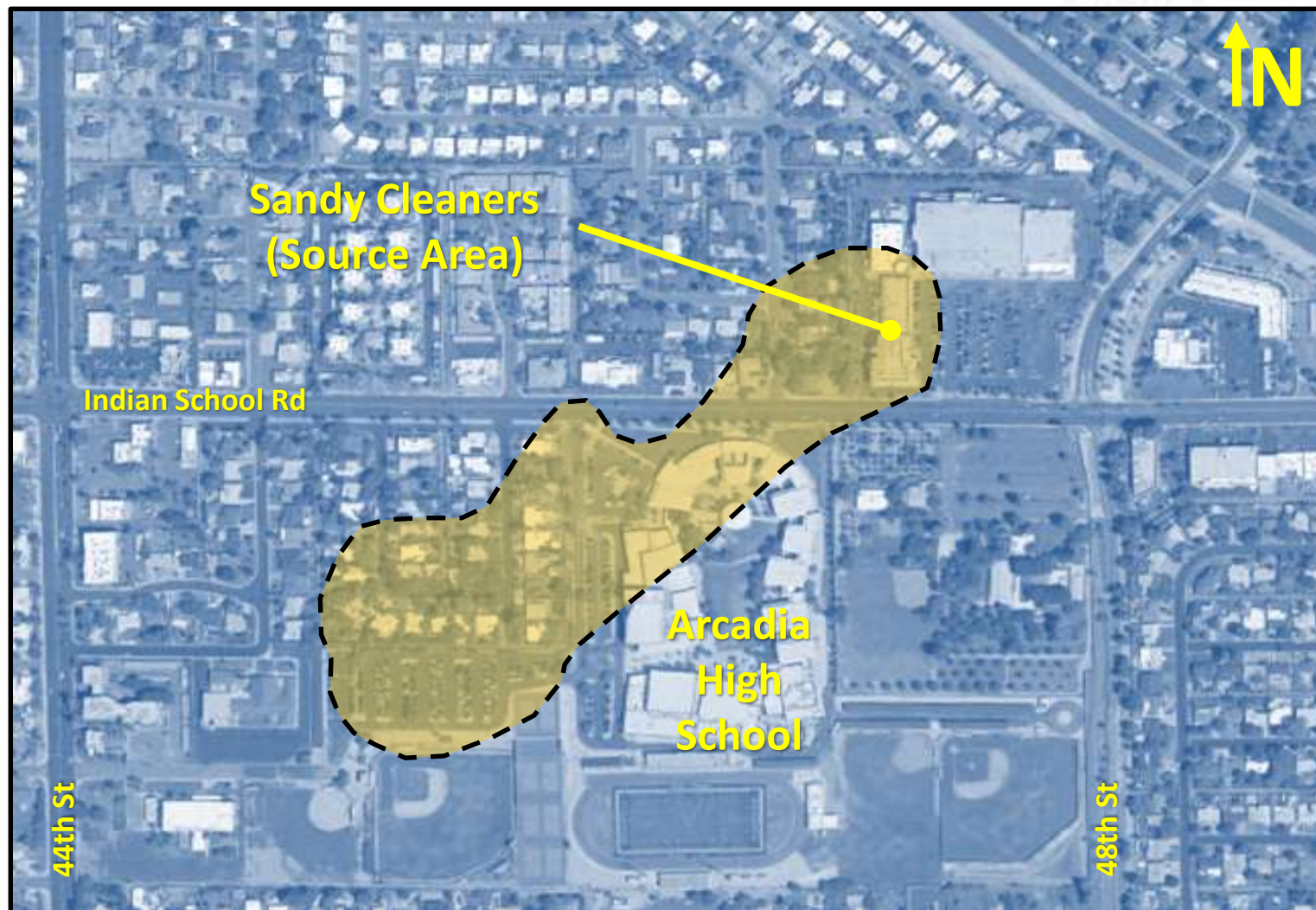
- Geology
  - Interbedded Gravel, Sand, and Silt
  - Depth to Bedrock (215 to 250 feet)
- Hydrogeology
  - Upper Alluvial Unit
  - Depth to Groundwater = 40 feet
  - Groundwater Flow Direction = Southwest

- Urban Setting = Low Quality Habitat for Native Species
- Seven Listed Endangered Species within Maricopa County
  - Six Fish Species
  - Four Flower Species
- Habitat at Site & Site Vicinity Not Suitable for these Species

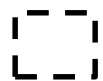
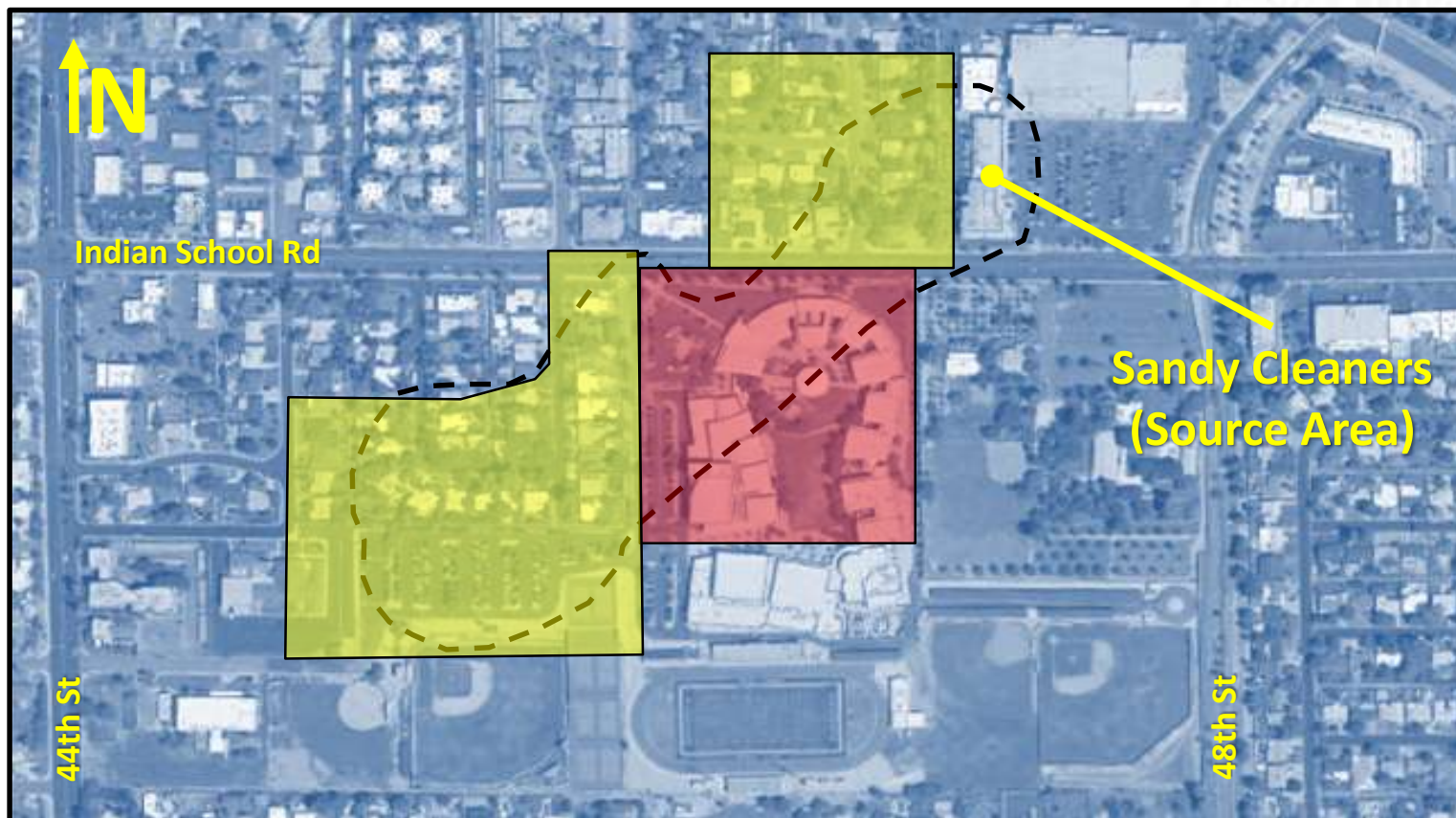


- Soil Vapor Extraction System at Source Area
- Operated from 2006 to 2011
- Removed about 320 Pounds of PCE from Vadose Zone

# Soil Vapor Plume



Residential PCE Soil Vapor Screening Level (367 ug/m3)



Residential PCE Soil Vapor Screening Level (367 ug/m<sup>3</sup>)



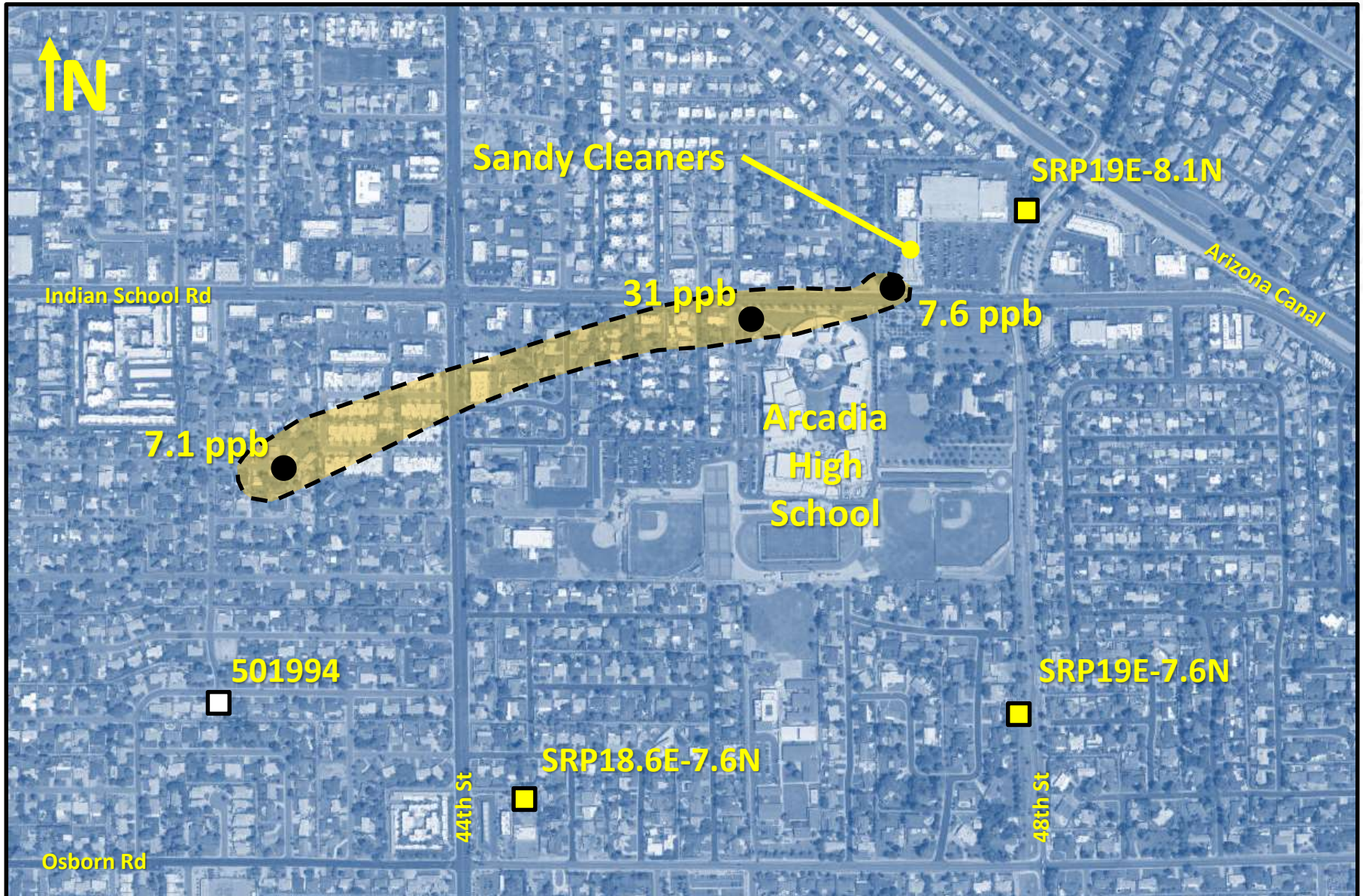
All 16 Samples Below Residential Indoor Air Screening Level (11 ug/m<sup>3</sup>)



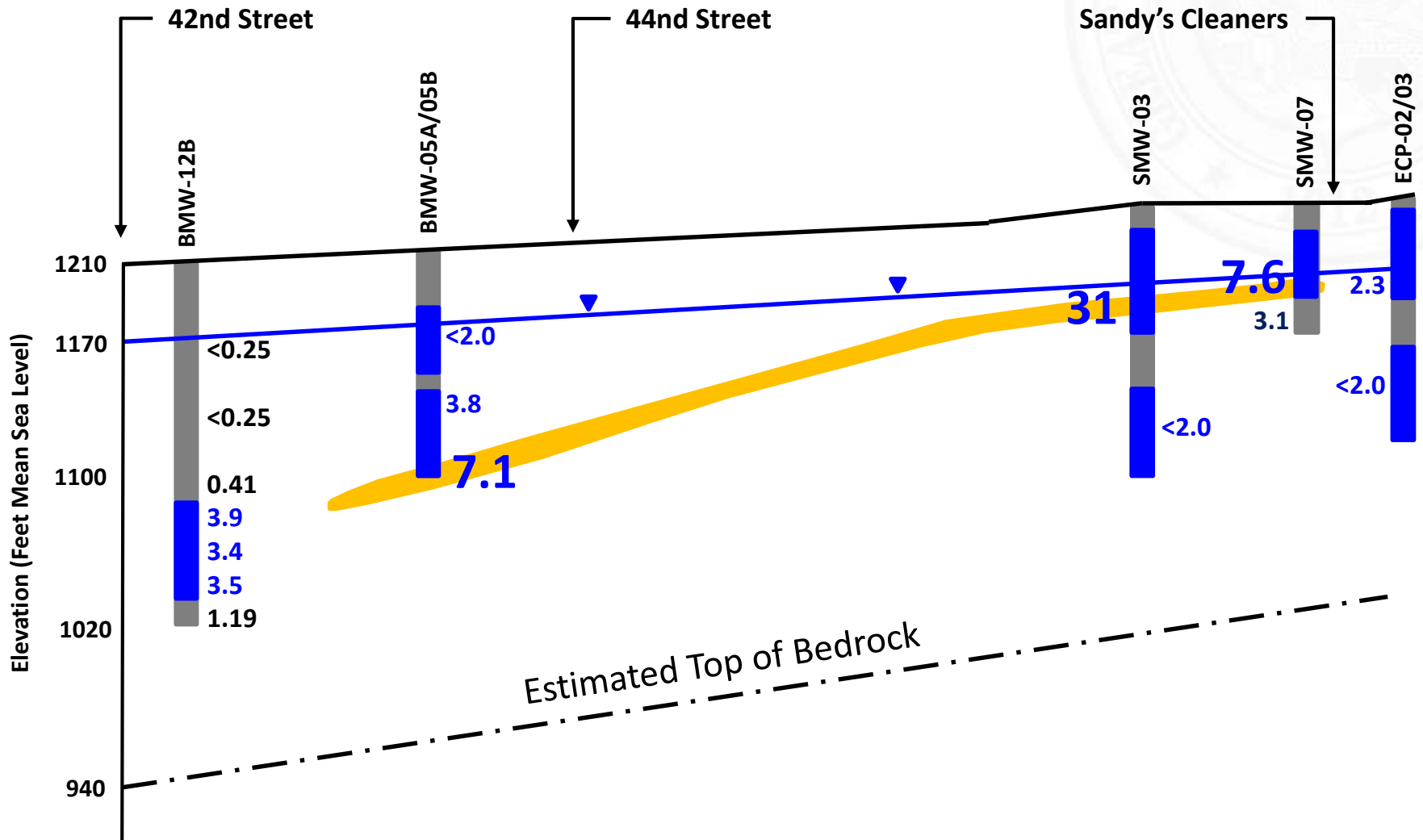
38 Samples Below Residential Indoor Air Screening Level (11 ug/m<sup>3</sup>)  
6 Samples Below Commercial Indoor Air Screening Level (47 ug/m<sup>3</sup>)

- Soil = Concentrations Below Regulatory Levels
- Soil Vapor
  - Concentrations Above Health-Based Screening Levels
  - Indoor Air Concentrations Below Health-Based Screening Levels
  - No Vapor Intrusion Risk to Residences and Arcadia High School
  - No Vapor Intrusion Risk to Workers at Sandy's Cleaners or Workers at Arcadia Towne Center.

# Groundwater Plume – Dec 2018

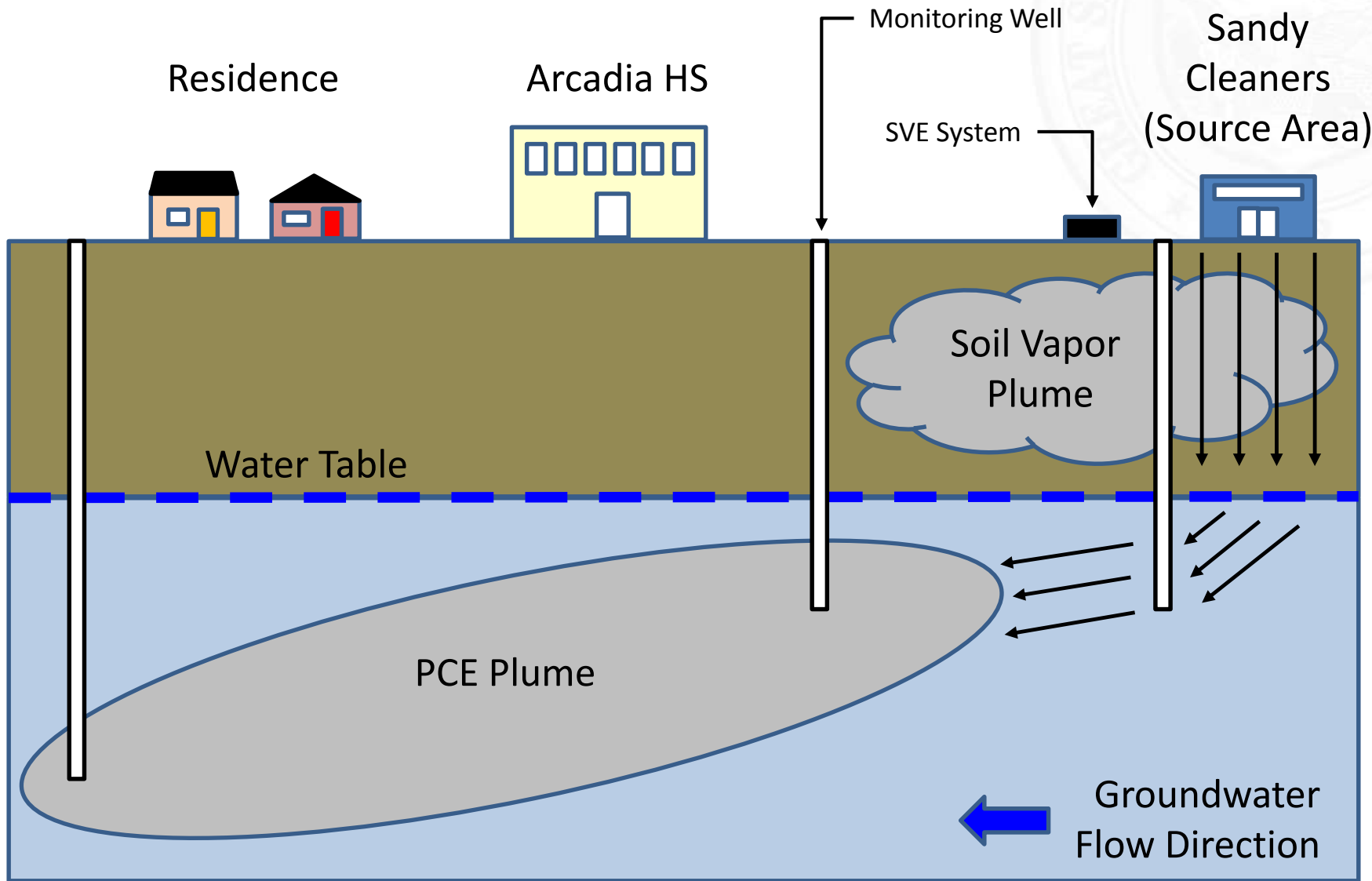


# Groundwater Plume Cross-Section



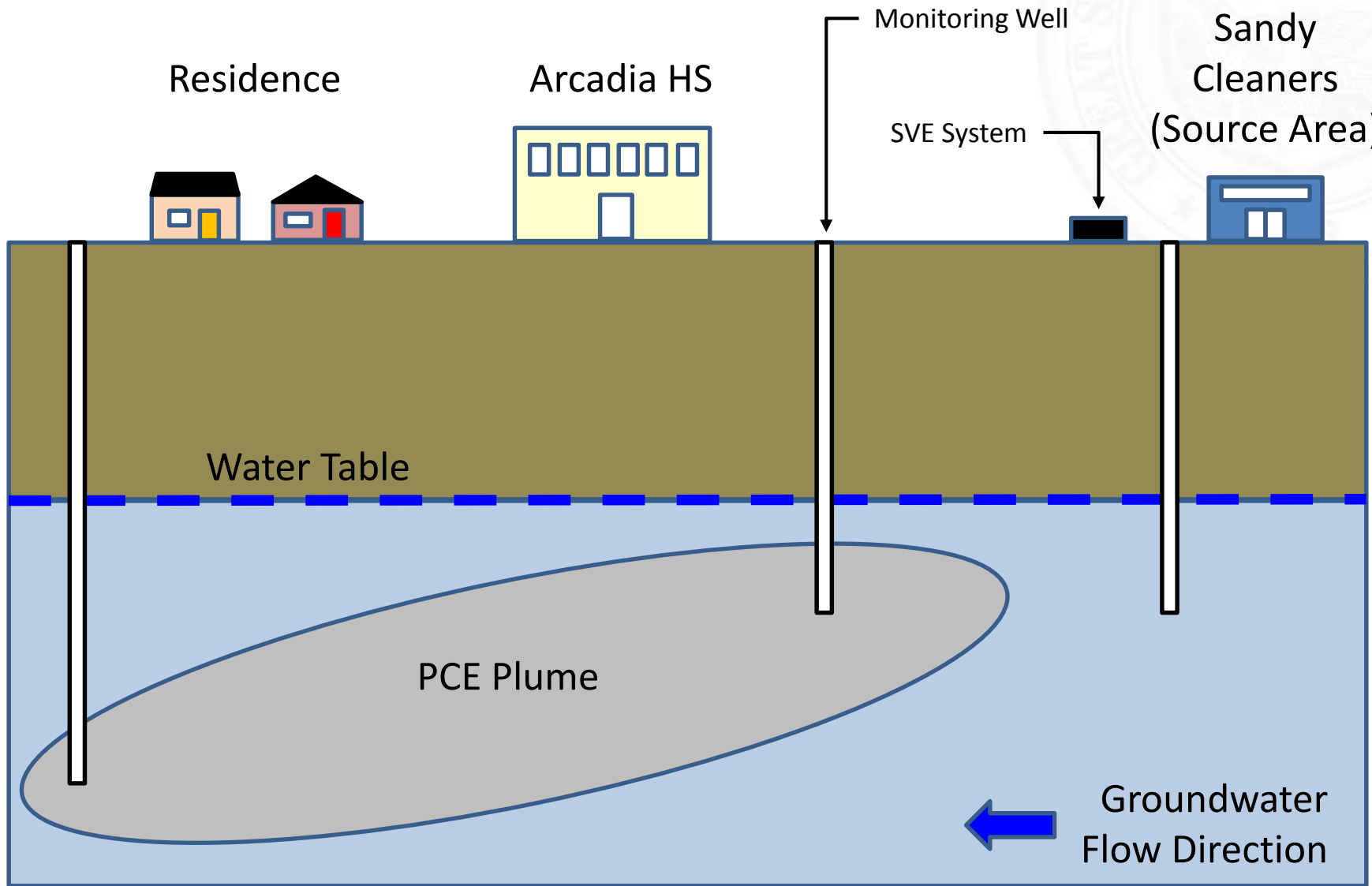
- Groundwater Impacted with PCE at Concentrations above the Aquifer Water Quality Standard (5 ppb)
- PCE Concentrations in December 2018 = 7.6 to 31 ppb
- Extent of Groundwater Contamination Laterally & Vertically Defined

# Conceptual Site Model – Pre SVE

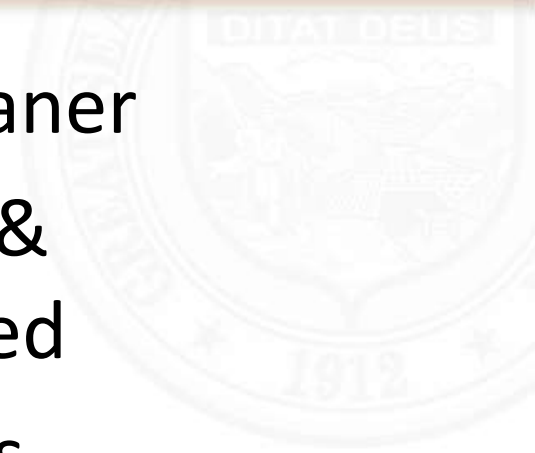




# Conceptual Site Model – Post SVE



- Source of Contamination is Dry Cleaner
- Nature & Extent of Soil, Soil Vapor, & Groundwater Contamination Defined
- No Current Health Risk to Receptors
- No Data Gaps



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Note: Public Comment Period for Draft Remedial Investigation Ends on **September 16, 2019**