

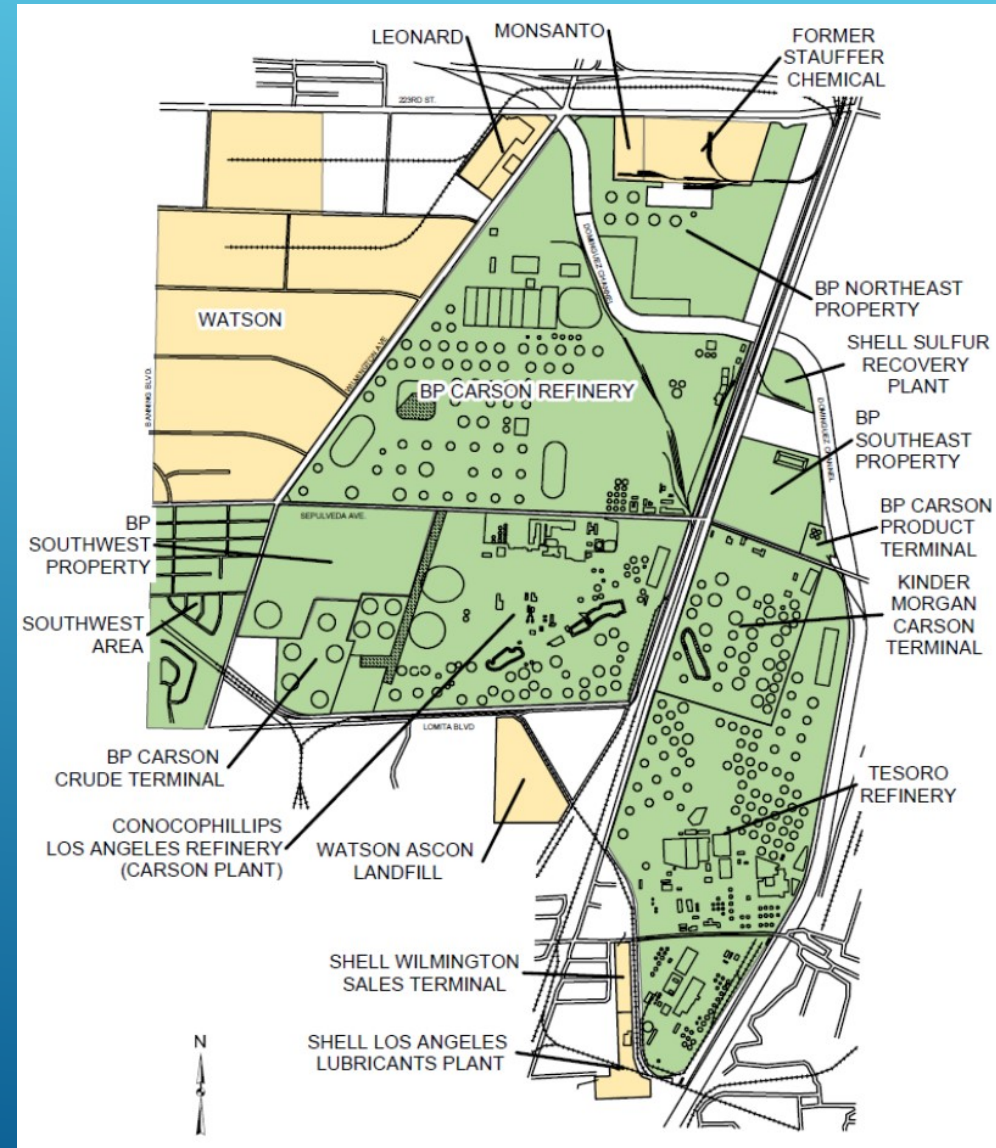
THE SITE CLEANUP PROGRAM- ADDRESSING GROUNDWATER QUALITY AND CLEANUP IN THE REGION

Cary Wicker, PG
October 11, 2018

PRESENTATION OUTLINE

- ▶ Common polluted sites
- ▶ How pollution spreads
- ▶ Public Participation
- ▶ Our five step cleanup process
- ▶ Our cleanup programs
- ▶ Program challenges
- ▶ Interagency collaboration

COMMON POLLUTED SITES



Oil refineries and tank farms

Image from CRGG



Aerospace industry

Image from Huntington-USC Institute on CA and the West



Commercial and industrial

Image from Smiths Plastics (PTY) Ltd

HOW DOES POLLUTION SPREAD AT A SITE?

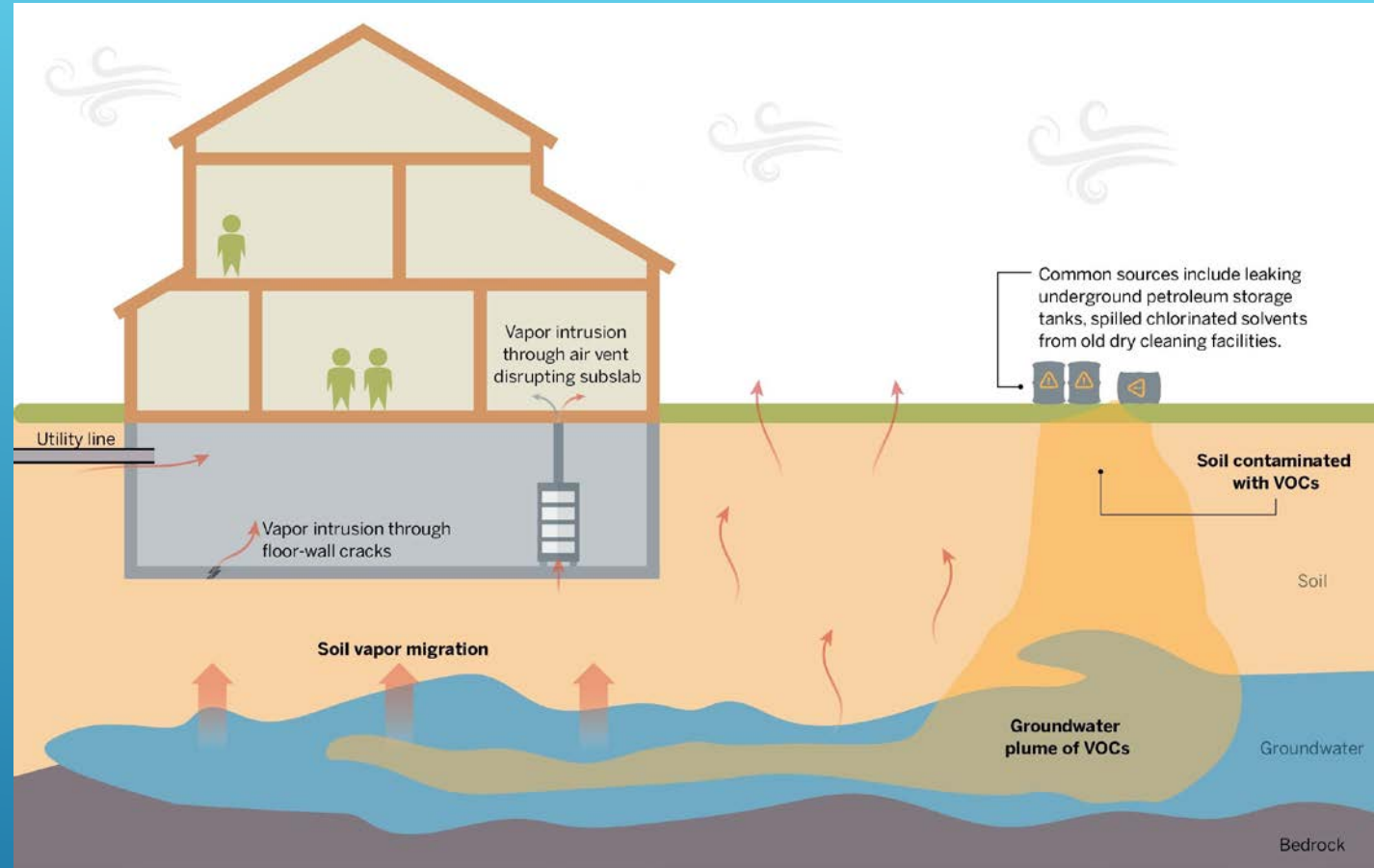
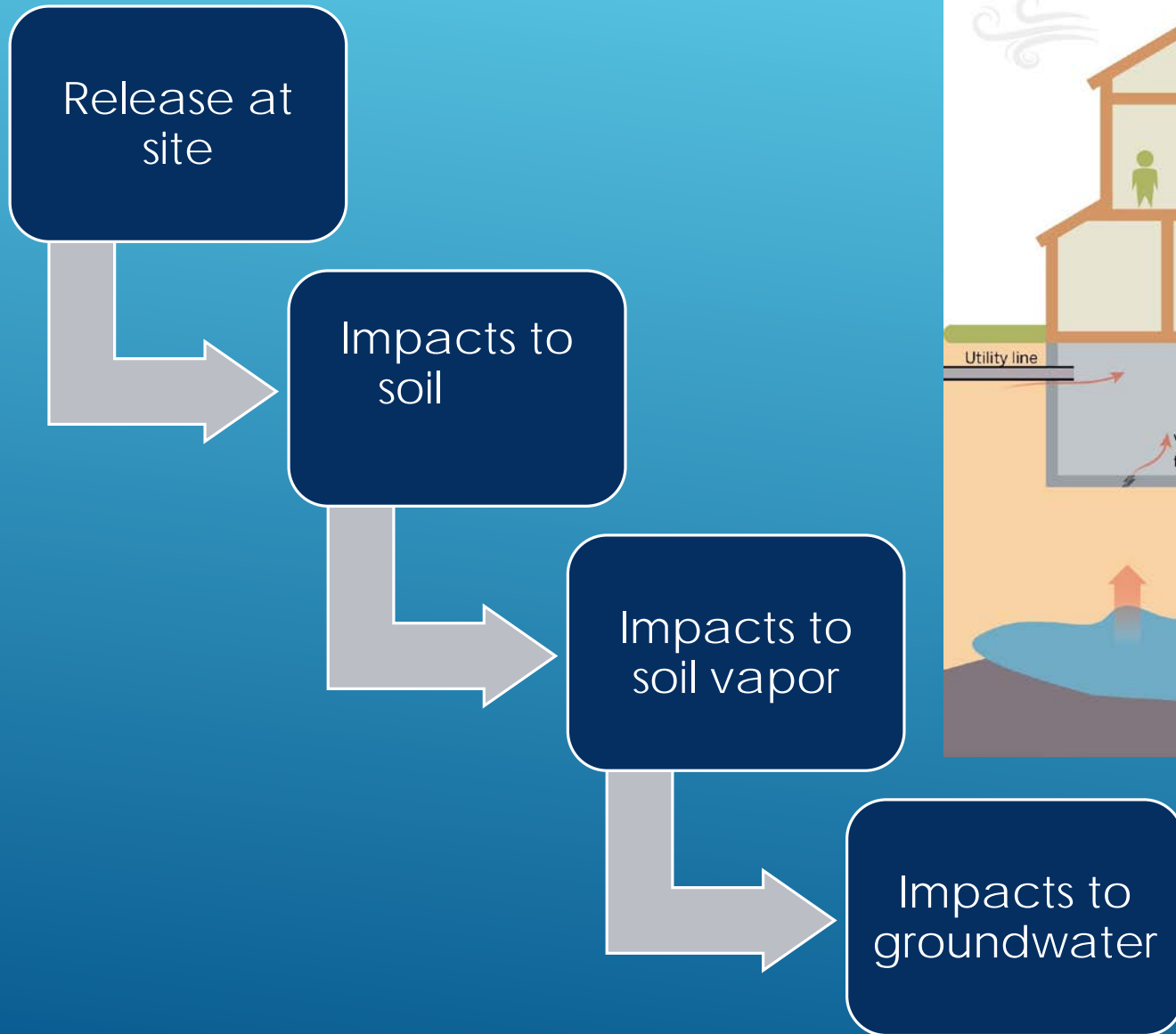


Image from Livingston County Health Department

STEP 1: INITIAL SITE INVESTIGATION

Historical Records
Review + Chemical
Use Questionnaire

If pollution
suspected

Perform soil,
soil vapor,
and
groundwater
sampling

If no
pollution
suspected

End investigation

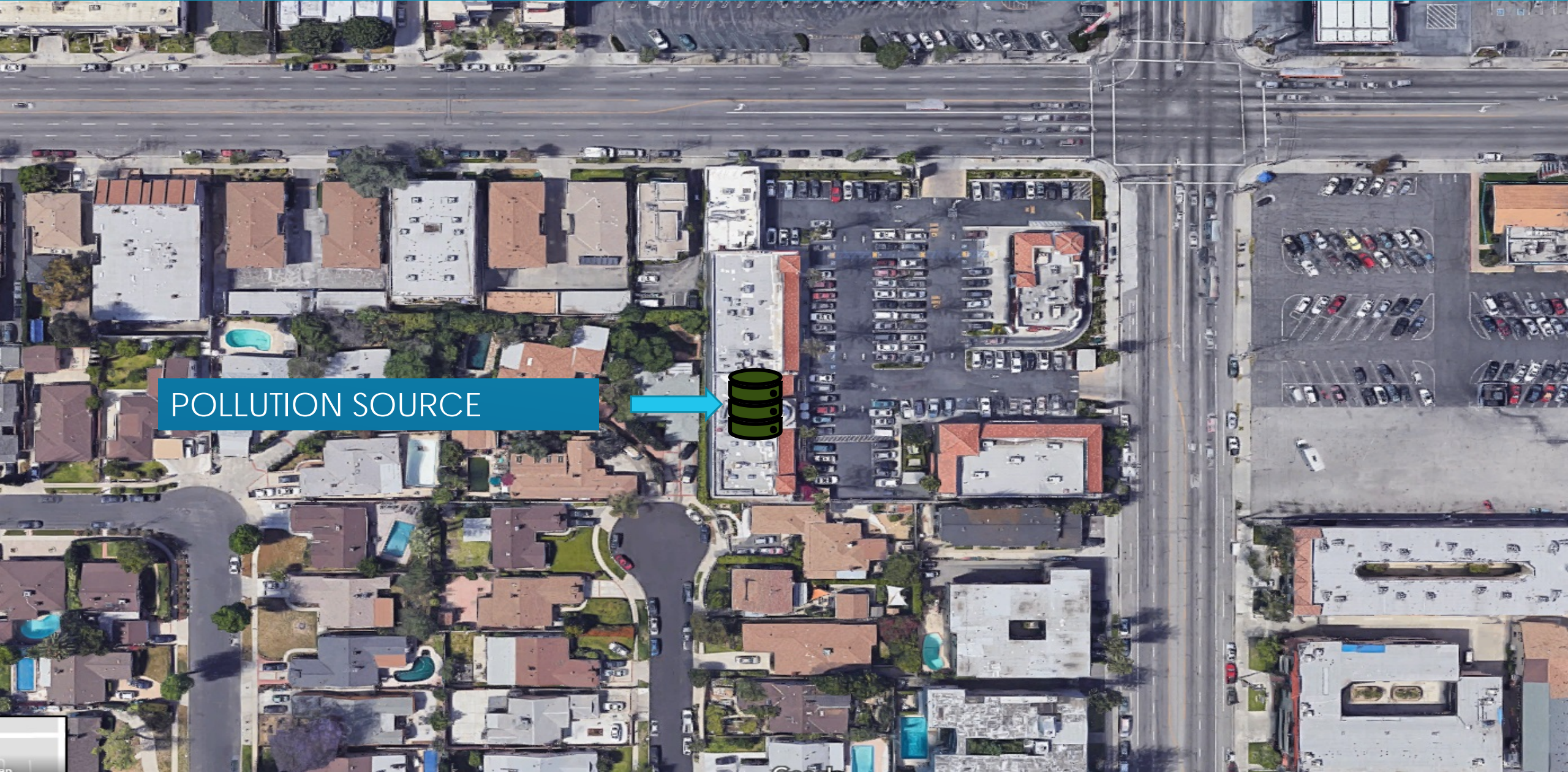


Image from Environmental Sampling, Inc.

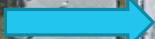


Image from SMR Resources, LLC

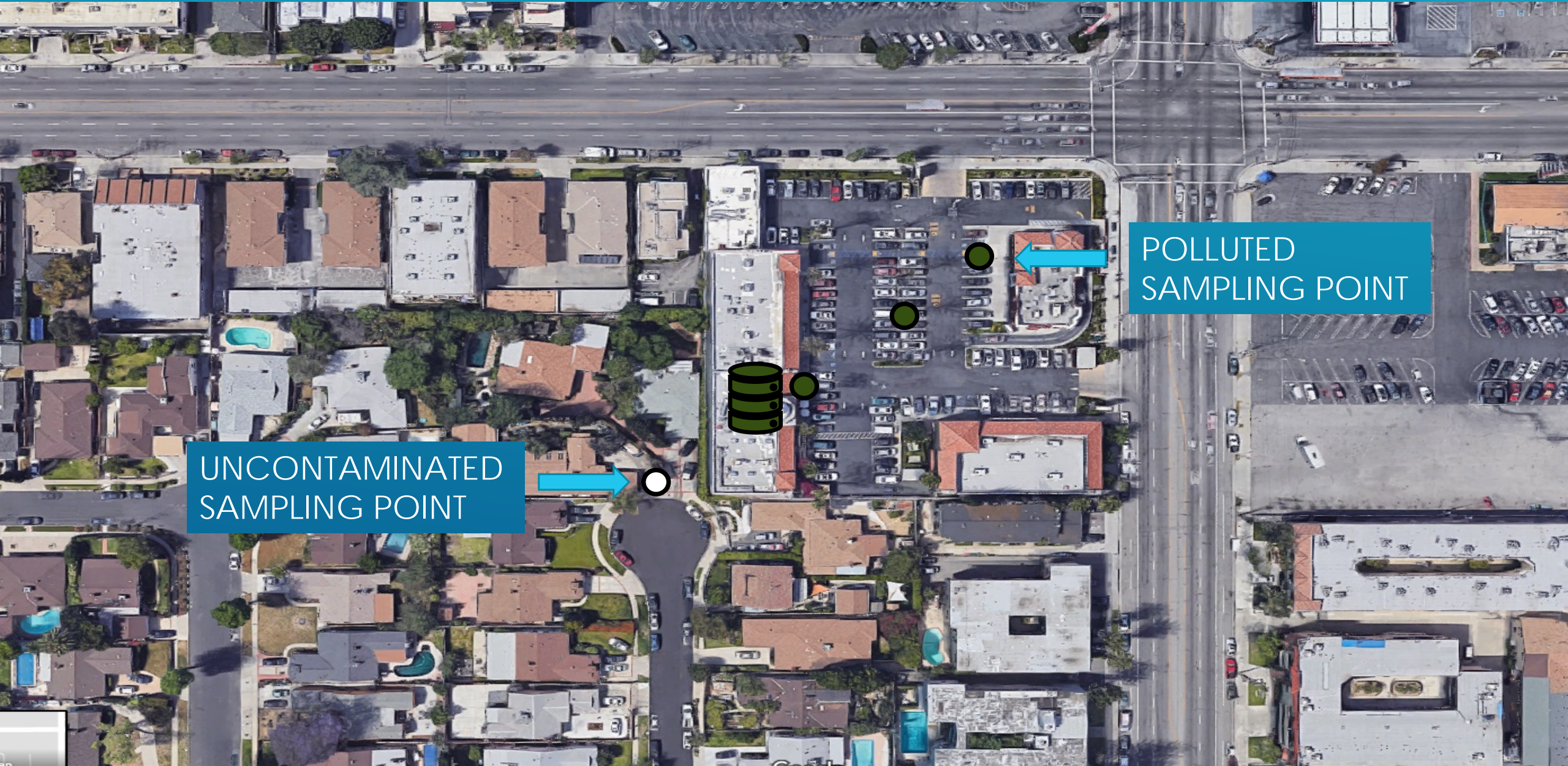
STEP 2: COMPLETE ASSESSMENT



POLLUTION SOURCE



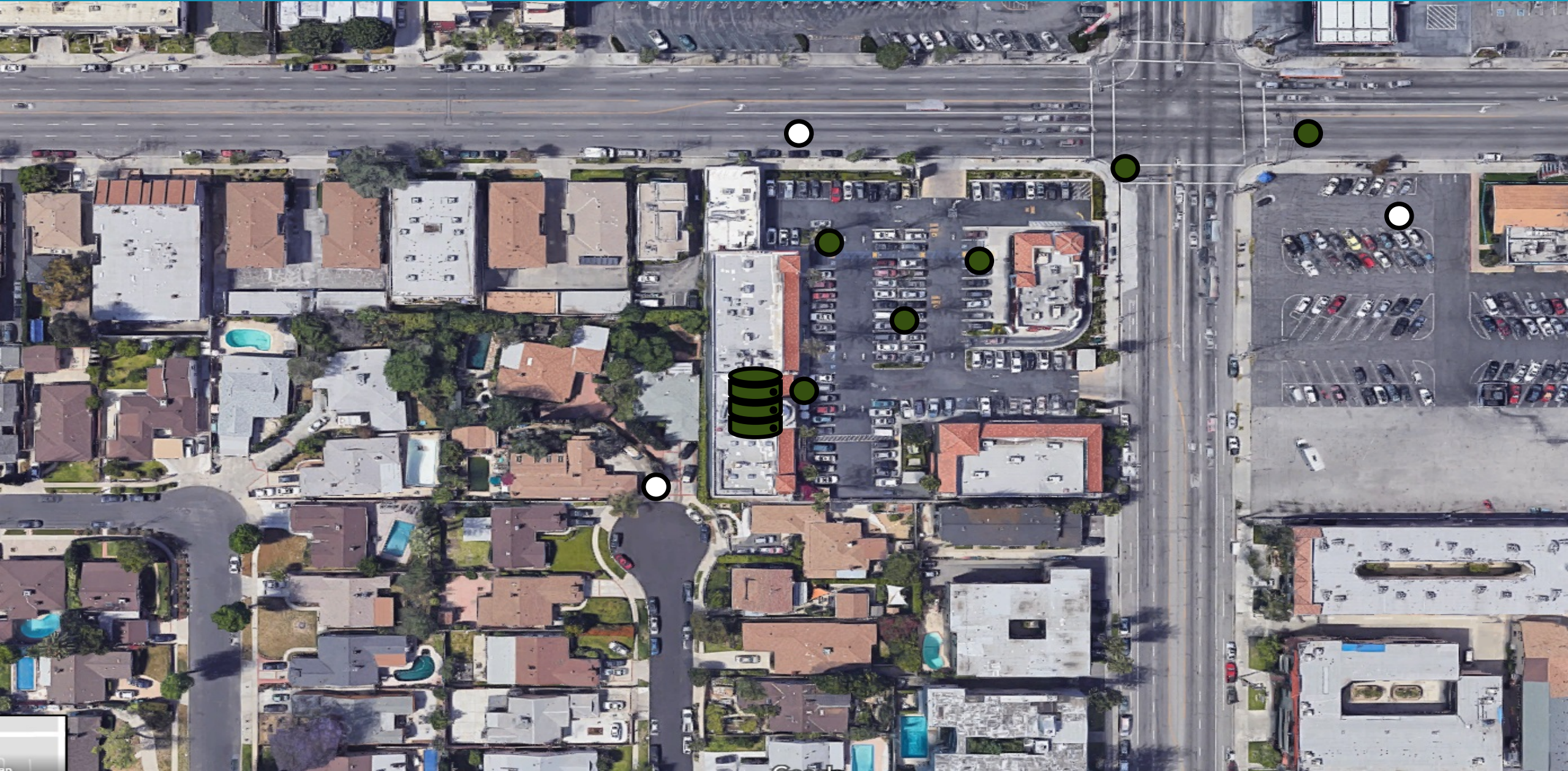
STEP 2: COMPLETE ASSESSMENT



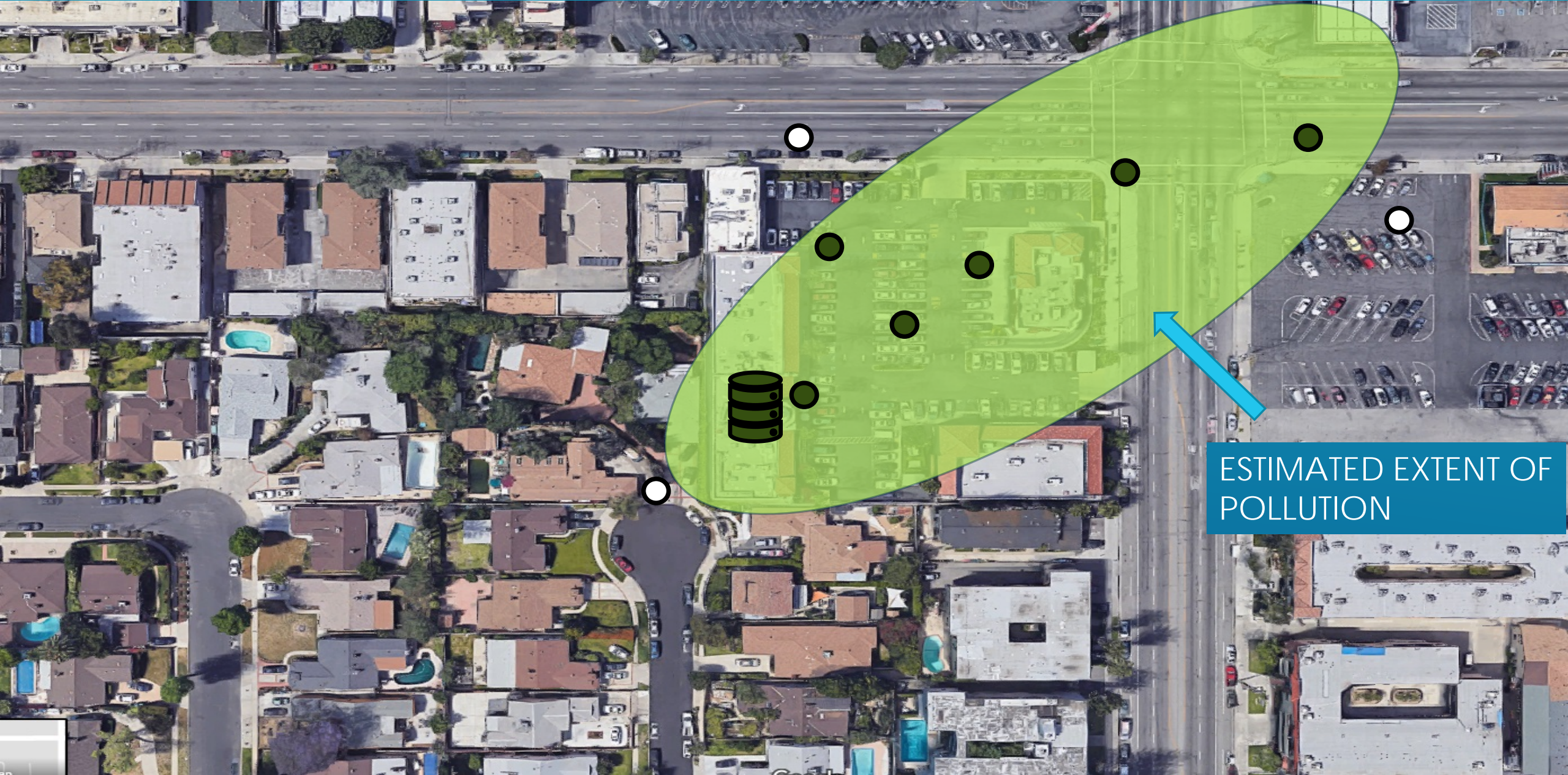
UNCONTAMINATED
SAMPLING POINT

POLLUTED
SAMPLING POINT

STEP 2: COMPLETE ASSESSMENT



STEP 2: COMPLETE ASSESSMENT



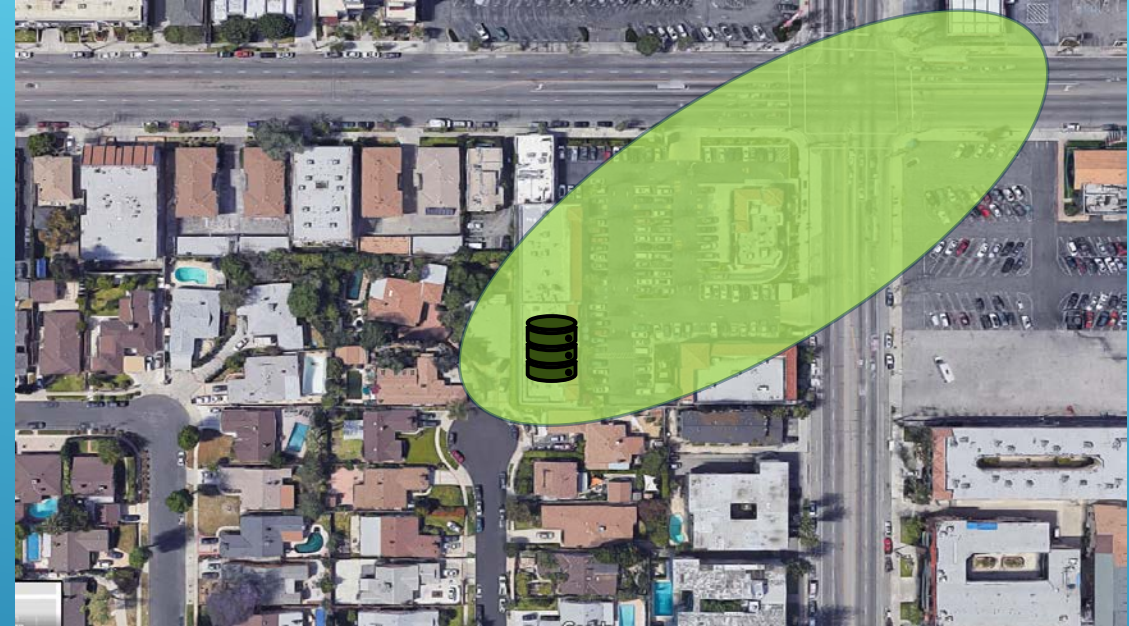
ESTIMATED EXTENT OF POLLUTION

STEP 3: ASSESS IMPACTS OF POLLUTION

Assess soil, soil vapor,
groundwater pollution

Assess impacts to human
health and the environment

Engage in community
outreach



STEP 4: CLEANUP

1

- Establish Cleanup Goals

2

- Submit Feasibility Report, Determine Cleanup Options

3

- Submit Remedial Action Plan (RAP)

4

- Public Comment

5

- Regional Board Review/Comment on RAP

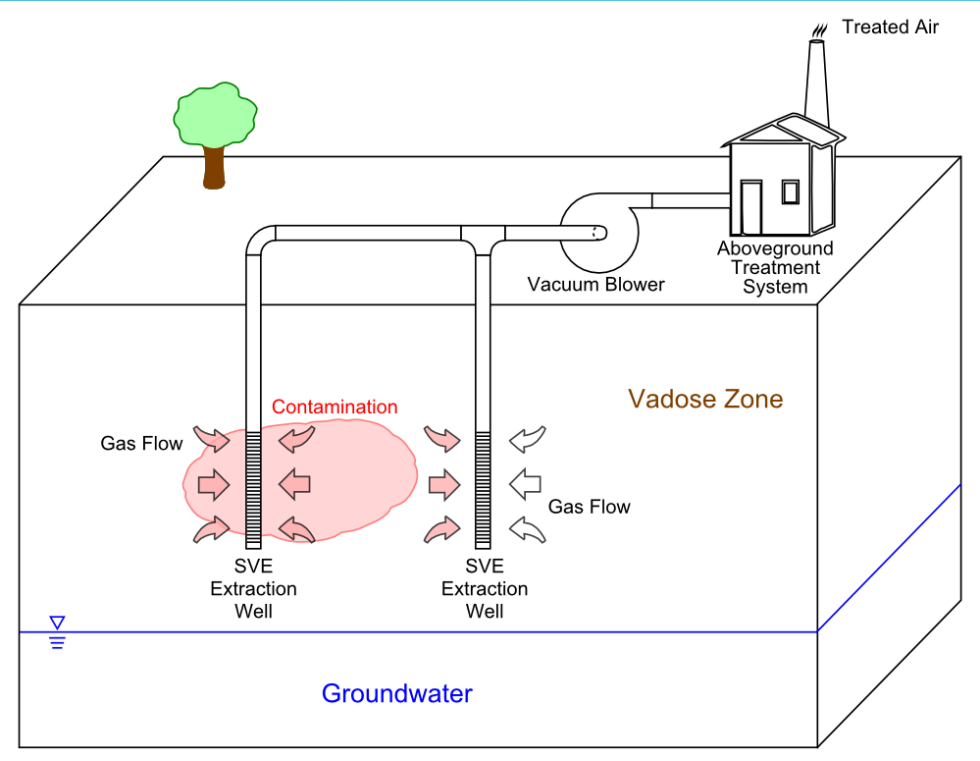
6

- Implement RAP

STEP 4: CLEANUP



Soil Excavation
Image from Gannet Fleming



Soil vapor extraction
Image from Gwremed

STEP 5: SITE CLOSURE

Post Remediation
Monitoring,
Confirmation
Sampling,
Risk Assessment

Above
cleanup goals

Monitoring and/
or continued
remediation

Below
cleanup
goals

Site Closure

LA REGIONAL BOARD CLEANUP PROGRAMS

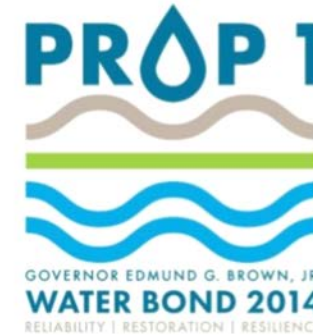
Cost Recovery

SB445

Prop 1

Interagency Memorandum of Understandings (MOUs)

PROPOSITION 1 GROUNDWATER GRANT PROGRAM GUIDELINES



Adopted by the State Water Board May 18, 2016

*Amended by the Deputy Director on May 24, 2016 and
October 24, 2016*

Amended by the State Water Board on December 19, 2017



PROGRAM CHALLENGES

- PFASs and emerging contaminants of concern
- Identifying pollution sources
- Potential Responsible Party searches
- Backlogged sites
- Orphan sites/financial hardship sites

REGIONAL BOARD INTERAGENCY COLLABORATION

- ▶ Water Replenishment District (WRD)
- ▶ San Gabriel Basin Water Quality Authority (WQA)
- ▶ Los Angeles Department of Water and Power (LADWP)
- ▶ United States Environmental Protection Agency (USEPA)
- ▶ Division of Drinking Water (DDW)
- ▶ State Board Division of Financial Assistance (DFA)
- ▶ Department of Toxic Substances Control (DTSC)
- ▶ Los Angeles County