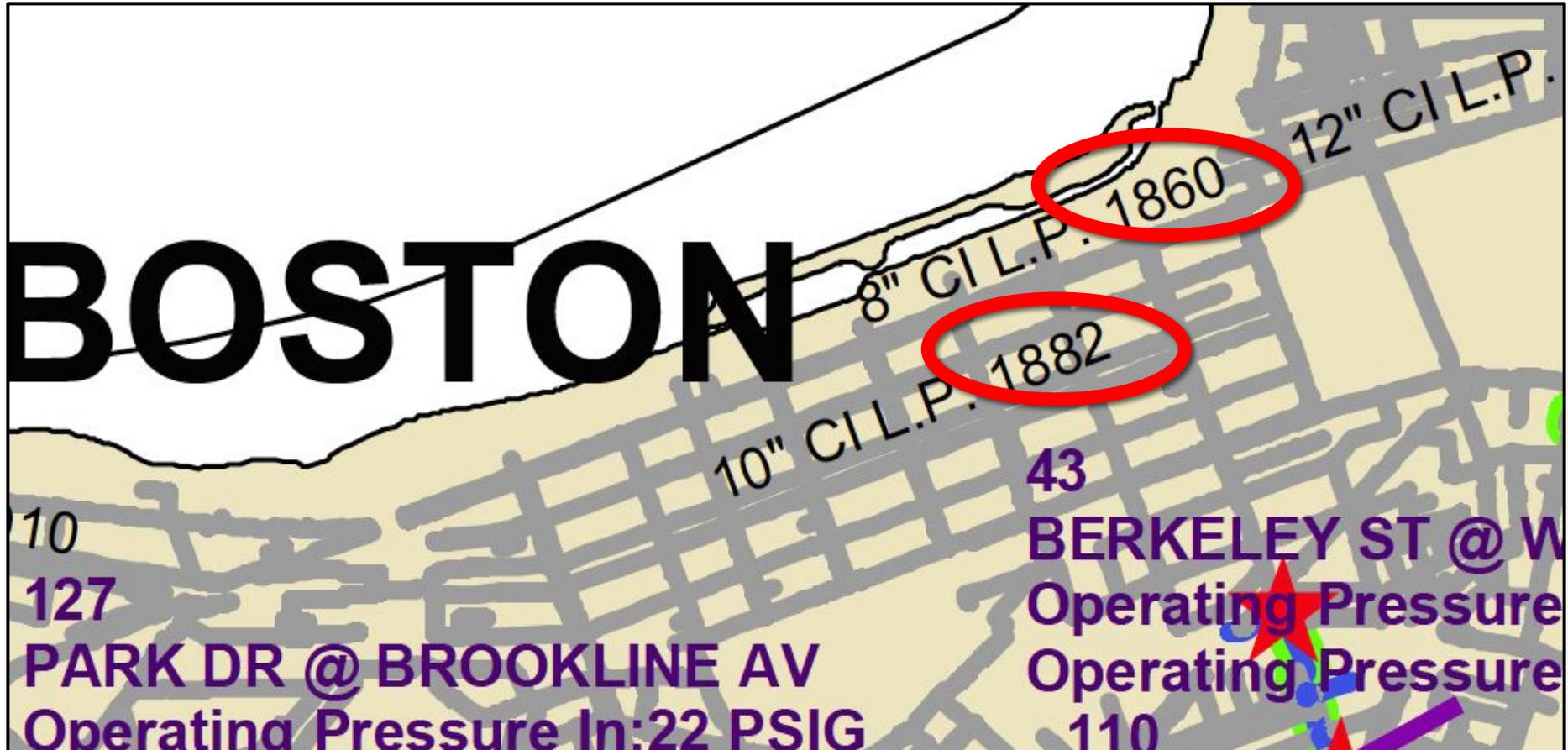


Fix the Worst First

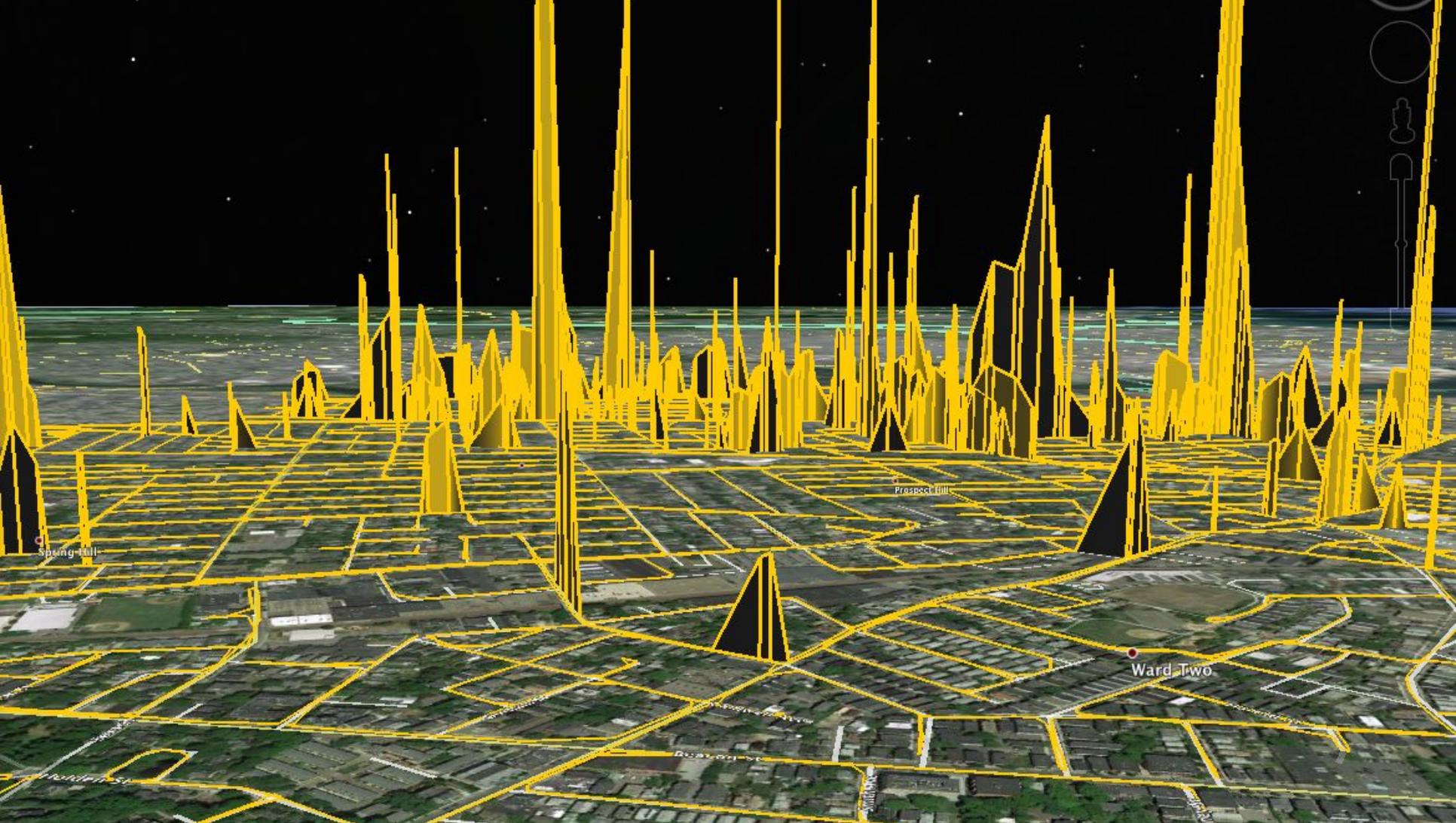
Repairing Gas Infrastructure

Old infrastructure



Mapping the leaks



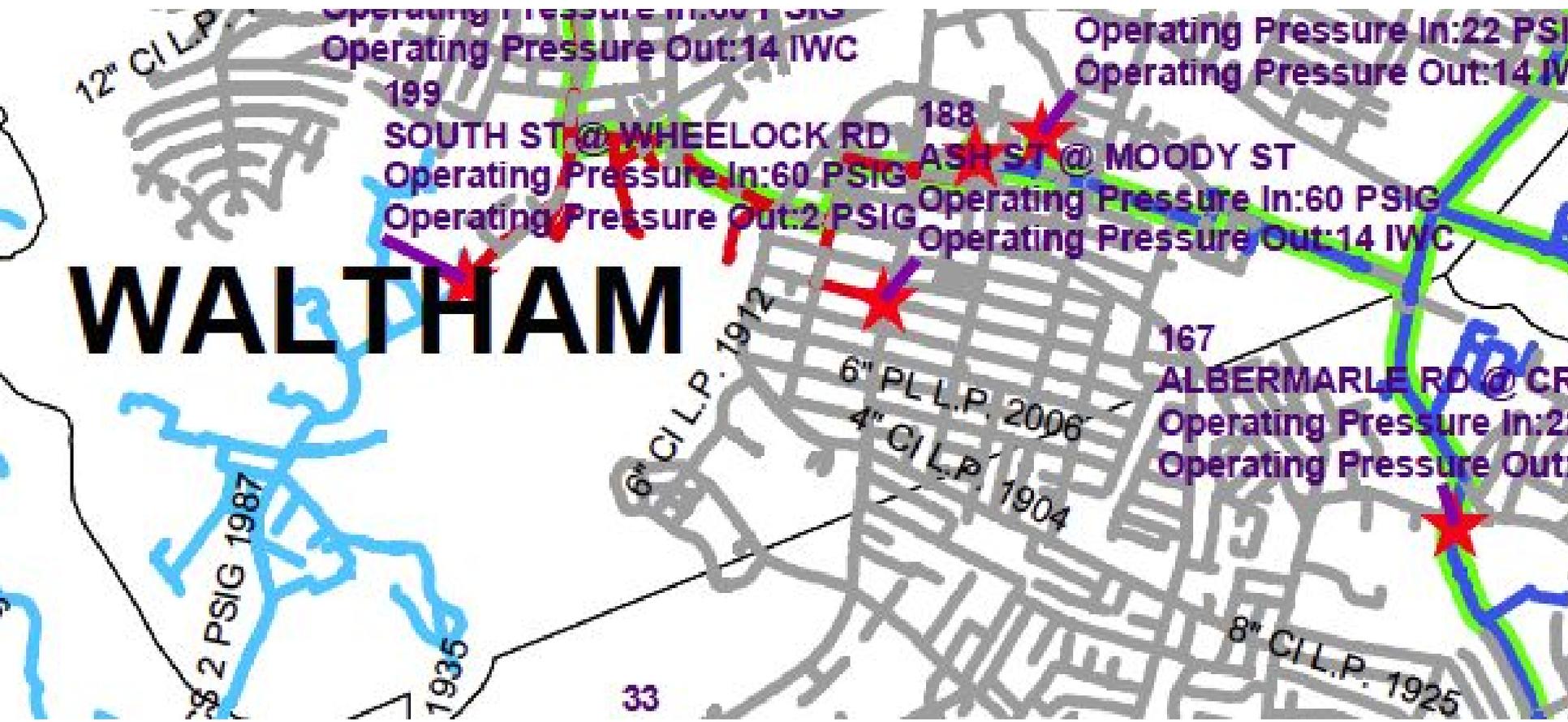


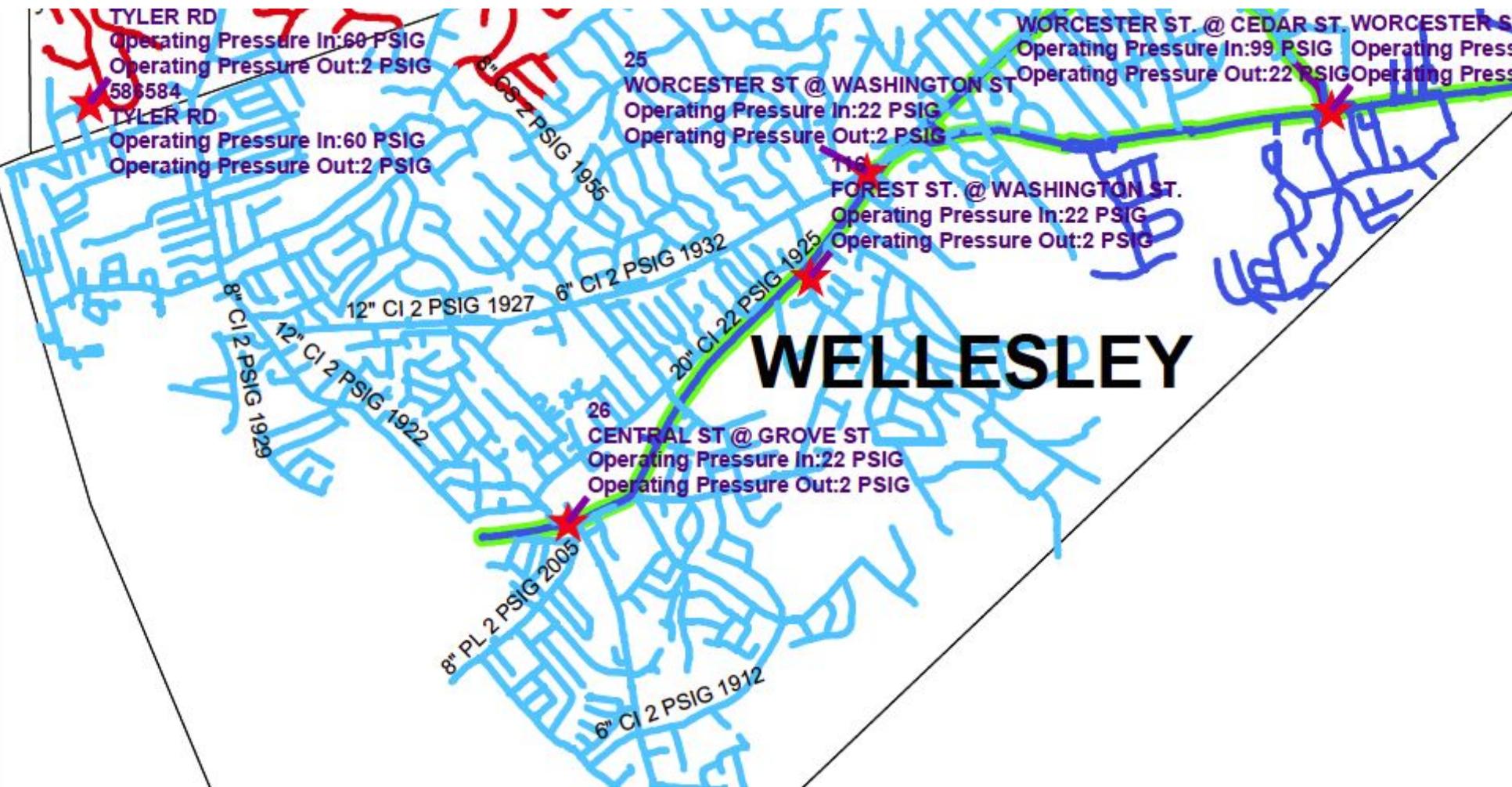
Spring Hill

Prospect Hill

Ward Two

WALTHAM





Fixing Our Pipes: Coordinating Natural Gas Main Replacement

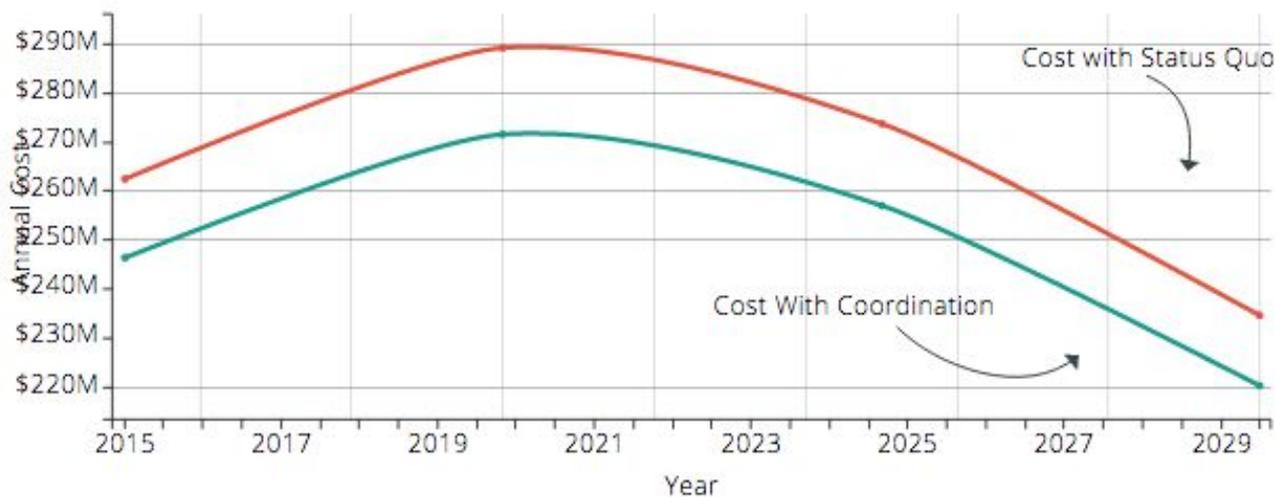
Between Local Governments and Gas Companies

[READ THE REPORT](#)

[BEST PRACTICES](#)

The Cost of Not Coordinating

Replacing gas mains is expensive, about \$1 million per mile. That's over \$5.4 billion to replace all leak-prone pipe. Through coordination, we can avoid much of that cost.



Total Saved:
\$245,000,000
Over 20-25 Years.

This cost-savings analysis assumes a certain percentage of roads can be coordinated. To change this assumption, select from the options below:

- 30% 40% 50% 100%

of roads were coordinated.

Best Practices

1 SET FOUNDATION**2** SHARE & STRATEGIZE**3** GENERATE & CAPTURE SAVINGS**4** FIND EFFICIENCIES**RESOURCES**

Set Foundation

To effectively coordinate, both gas companies and municipalities must have the appropriate structures in place to build upon and utilize. Feedback from municipalities shows that gas company staffing and communication issues are a source of municipal frustration and an impediment to coordination. Municipalities also need to improve communication to ensure that departments like Water and Sewer, which might be separate from Public Works, are effectively included in the coordination process with the gas company. Additionally, municipalities need to develop their own multi-year infrastructure plans and track completed work; without this information, gas companies have extremely limited ability to align their infrastructure plans with municipal work. Finally, municipalities could position themselves to more effectively use their own plan data and shared data from the gas company by leveraging existing technologies.

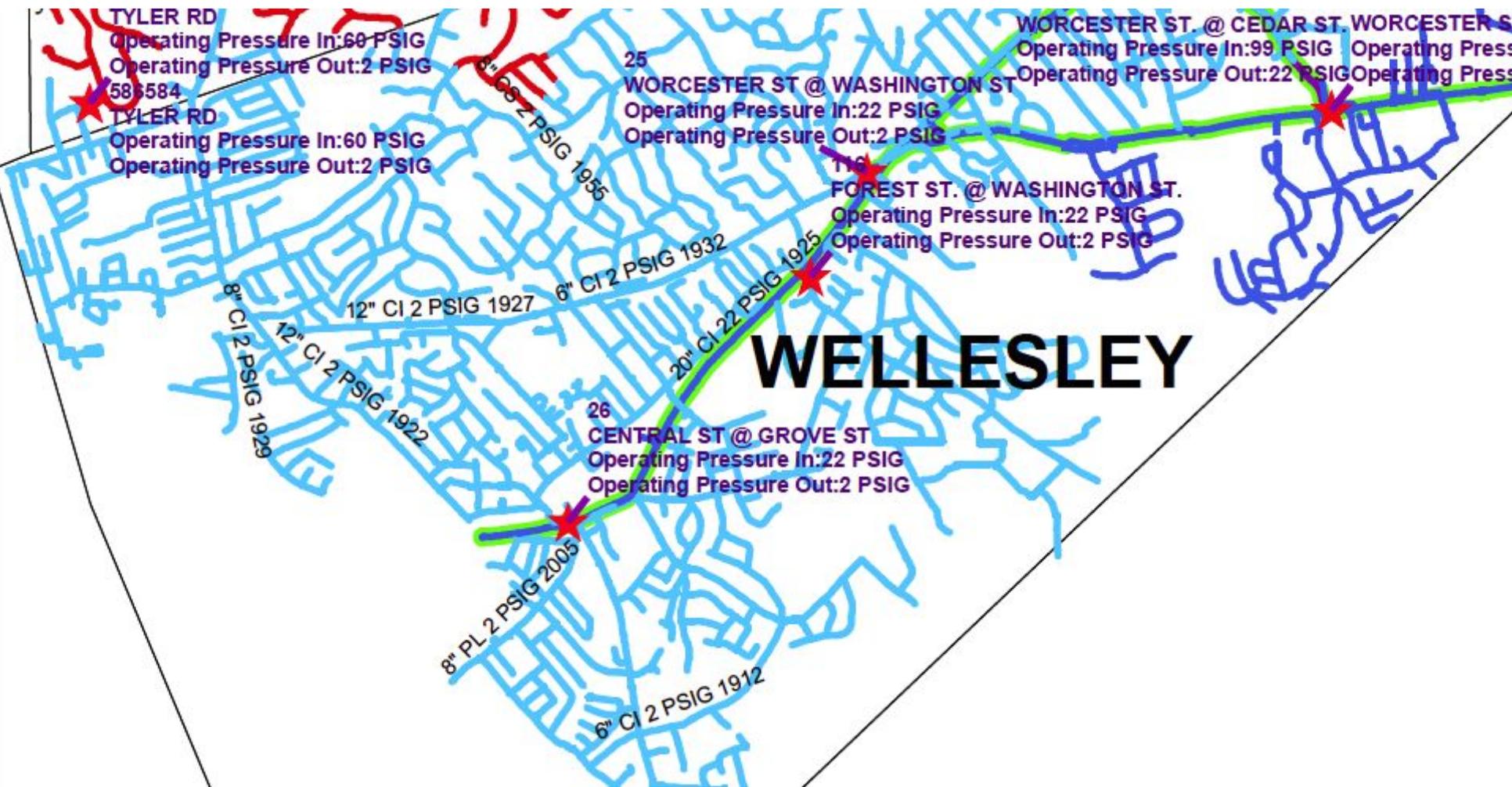
STAFFING & COMMUNICATION

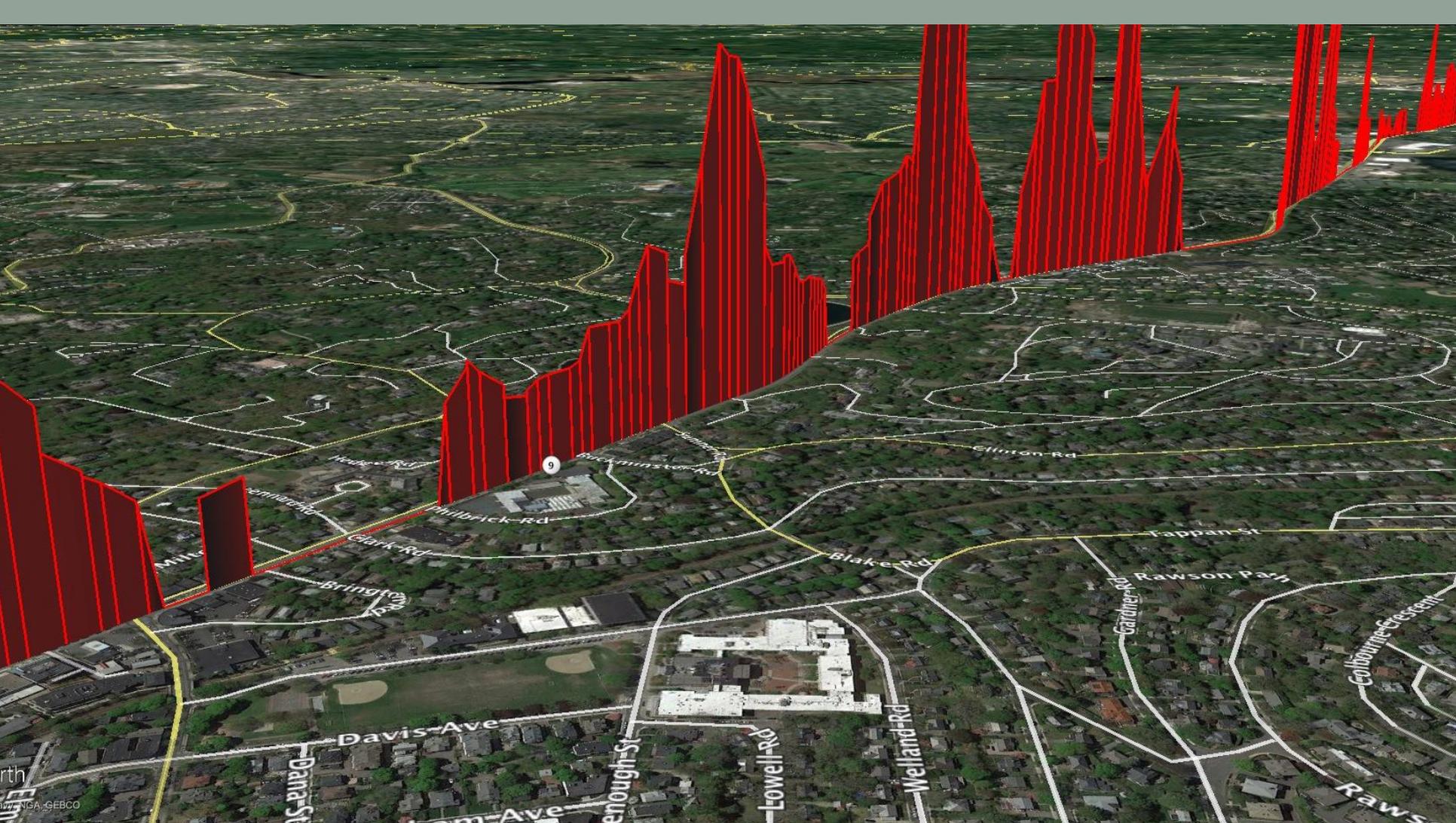
INFRASTRUCTURE PLANS

DATA MANAGEMENT

Municipality & Gas Company

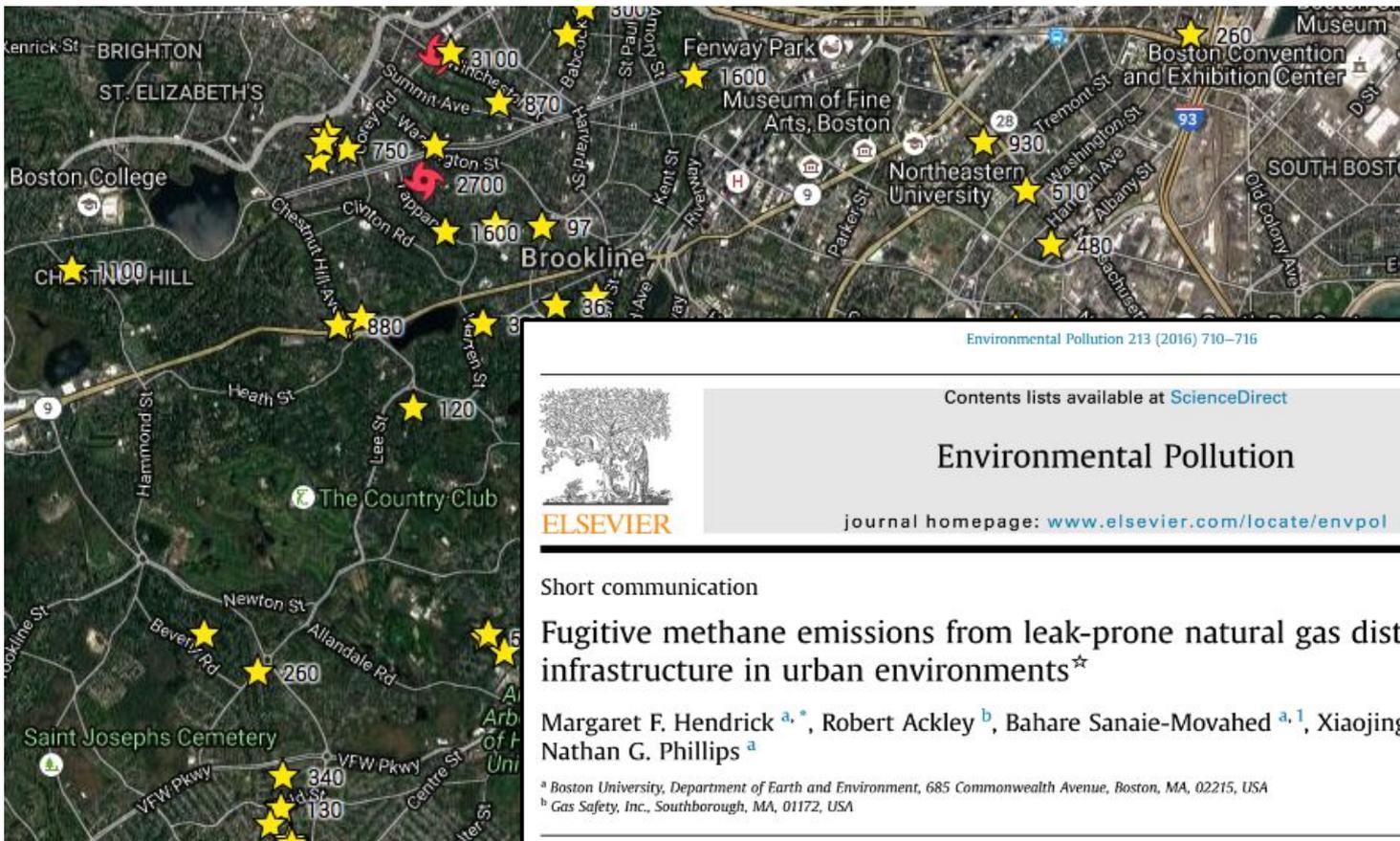
1. Hold pre-construction season meeting ▶





9

Super-emitters



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journal homepage: www.elsevier.com/locate/envpol



Short communication

Fugitive methane emissions from leak-prone natural gas distribution infrastructure in urban environments[☆]

Margaret F. Hendrick ^{a,*}, Robert Ackley ^b, Bahare Sanaie-Movahed ^{a,1}, Xiaojing Tang ^a, Nathan G. Phillips ^a

^a Boston University, Department of Earth and Environment, 685 Commonwealth Avenue, Boston, MA, 02215, USA

^b Gas Safety, Inc., Southborough, MA, 01172, USA



1-11-8

V=14l

Subsurface Gas Reads=>50%



Study:

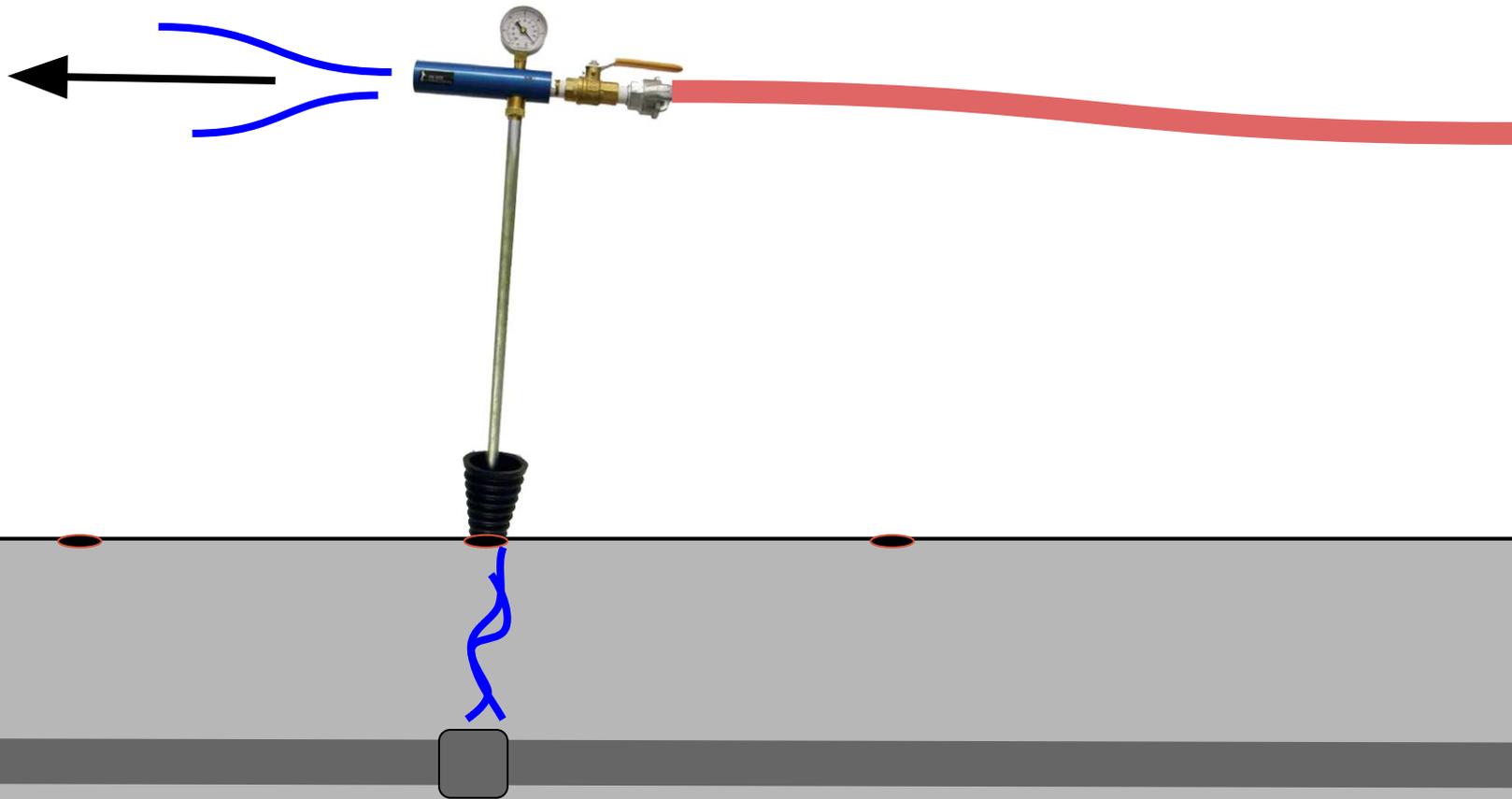
- Utilities find high-volume leaks using 50% or higher subsurface gas read
- Researchers study leaks & measure emissions
- Utilities re-measure emissions during repair
- Researchers analyze data, learn if leaks are high-volume

Study:

- HEET, Prof. Phillips, Gas Safety, MAPC, Mothers Out Front, Sierra Club Mass.
- Columbia Gas, Eversource, National Grid
- Barr Foundation



Learning Method



Learning Method

