

# GIS Standards – California Underground Safety Board

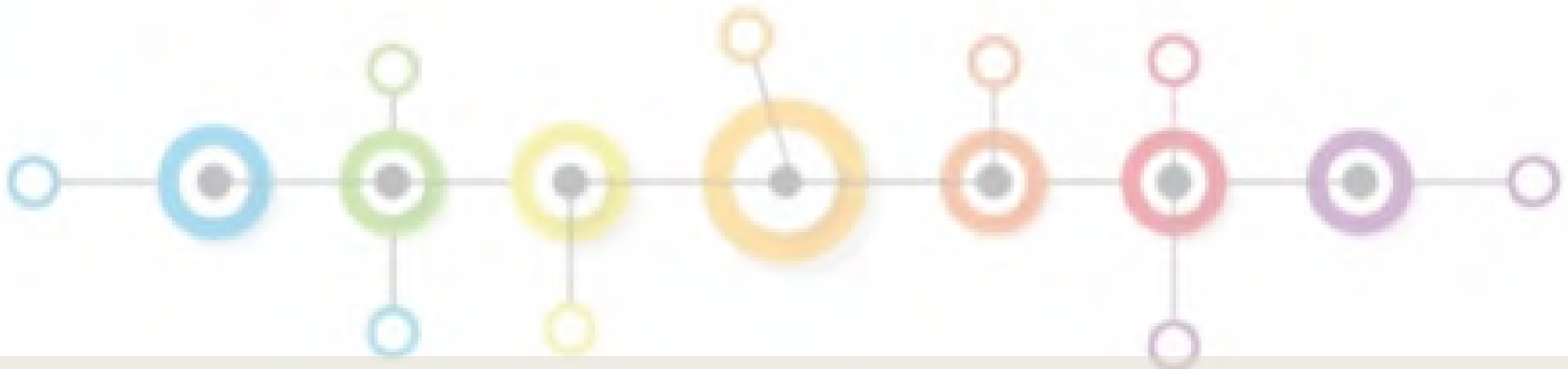
4216.3(a)(5) requires all new subsurface installations be mapped using GIS starting Jan 1, 2023

4216.3 (s) “Subsurface installation” means any underground pipeline, conduit, duct, wire, or other structure, except nonpressurized sewerlines, nonpressurized storm drains, or other nonpressurized drain lines.

Draft standards released in 2025

# Timeline

- Draft regulatory language released July 2025
- Underground Safety Board meeting July 14-15, 2025
  - SacSewer made comments at meeting seeking balanced approach, concerns about 100mm accuracy
- Comments submitted on draft regulatory language September 2025
- Formal rulemaking was anticipated early 2026 but has not yet started – will bring additional opportunities for engagement



# Why are standards being proposed?

- Statute does not specify the level of accuracy required or how data should be collected
- Without regulatory guidance, operators may use low-accuracy methods to gather location data
- California Regional Common Ground Alliance (CARCGA) has called for minimum accuracy standards
- Staff focusing on 3 areas for potential regulation
  - Horizontal positional accuracy
  - Inclusion of specific components and attributes
  - Storage of metadata



# When would the proposed standards apply?



- New installations – where one did not previously exist
- Replacement – a new installation replaces what was installed in that location previously
- Relocation – moved and installed elsewhere
- **Rehabilitation – the operator is rebuilding or replacing key components. Example: pipe-relining project**
- Major modification – capital improvement projects that alter an existing facility's functionality, design, or structural integrity
- Major repair – capital improvement projects that restore or replace key components



# Data Accuracy

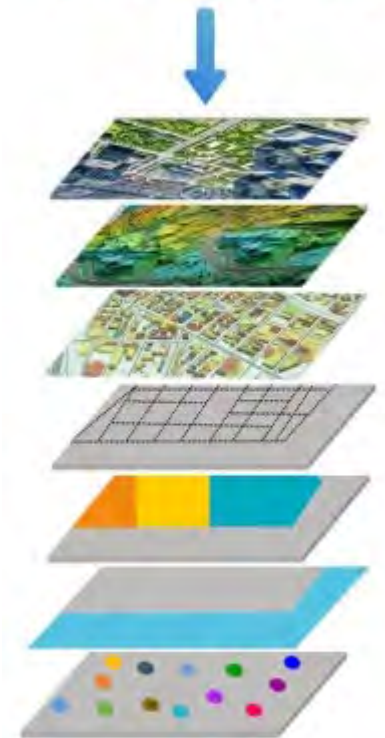
- Board to consider setting a minimum horizontal positional accuracy requirement
  - One approach suggested accurate within 100mm (~4 inches)
  - Concept would apply to individual components within installation like pipeline segments rather than entire installation
- Considerations
  - Operators would be required to collect data while installation is visible or using trenchless methods
  - GIS Committee suggested each coordinate be recorded in decimal degrees with 6 decimal places
  - Data could be stored as an attribute of component or as metadata



# Data Content

- Proposed that operators maintain records of components if present
  - Tracer wire or tracer tape, include location of above-ground access points
  - Marker balls
  - RFID devices along with frequencies
  - Protruding stubs and fittings
  - Pipe wraps, warning tapes, coatings or insulation
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  - Pressurized sewage pipelines – required to indicate in records if qualifies as “high priority subsurface installation”. Also applies to:
    - High-pressure gas pipelines
    - Petroleum
    - High-voltage electric lines
    - Haz-mat pipelines

## GIS Layers



# Metadata Storage

- Proposed that operators maintain metadata to ensure that GIS records are both accurate and transparent, providing users with necessary context to assess their reliability and fitness for use
  - Reference frame, coordinate system and epoch
  - Equipment used to capture the data
  - Date of data collection
  - Name of person attesting to the accuracy of the data



# Comments Submitted

- Informal comment period late 2025
- Comments submitted by: SacSewer, CVCWA, Central San
- Key areas of comment
  - Clear implementation instructions for construction projects underway
  - Infeasibility of 100mm accuracy standard, especially in trenchless methods. Request risk-based flexible approach
  - Batch metadata rather than per measurement
  - Definitions of rehabilitation



CASEY WICHERT – Chair, City of Brentwood  
MINDY BOELE – Secretary, City of Vacaville

KATHERINE WILLIS – Vice-Chair, City of Yuba City  
HEATHER GROVE – Treasurer, City of Manteca

September 3, 2025

[Via Email Only](#)

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RE: Comment Letter – GIS Regulatory Language Public Comments



September 3, 2025

Submitted electronically [dishboard@energysafety.ca.gov](mailto:dishboard@energysafety.ca.gov)

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RE: Comment Letter – GIS Regulatory Language Public Comments

To Members and Staff of the Underground Safety Board:

The Sacramento Area Sewer District (SacSewer) appreciates the opportunity to provide input on the proposed Geographic Information System (GIS) accuracy standards under consideration. As the operator of the second largest sewage utility in California and the second largest water resource recovery facility of its kind in the nation, SacSewer recognizes the importance of accurate spatial data for effective infrastructure management, emergency response, and regulatory compliance. At the same time, we are mindful of the significant operational, technical, and financial implications that new GIS standards may have for public agencies managing extensive legacy systems, including our own extensive network of over 5,000 miles of sewer pipelines across a 387 square mile service area. Our comments aim to support the development of practical, implementable standards that reflect real-world conditions, acknowledge existing investments in asset management, and promote a balanced approach to improving data accuracy while maintaining service reliability and fiscal responsibility.

SacSewer takes seriously our responsibility to manage infrastructure at this scale while continuing to improve data quality, safety, transparency, and accessibility in support of sound regulatory decision-making. The comments provided herein reflect SacSewer's commitment to protecting public health, ensuring environmental stewardship, and partnering with regulators to advance practical approaches to infrastructure safety and management. We respectfully urge regulators to consider a more flexible, risk-based approach that balances the value of improved GIS accuracy with the realities of construction practices, field safety, and fiscal responsibility.



