

2025-04-14 GIS Staff Report

Tuesday, April 8, 2025

8:44 AM

- Agenda 28, info item - Staff Report on GIS Implementation: Regulatory Considerations
- 2024 Strategic activity - determine what new facilities need to be incorporated into utility operator GIS
- 4216.3(a)(5) requires all new subsurface installations be mapped using GIS starting 1/1/23
 - Statute does not specify the level of accuracy required or how it should be collected
 - Without regulatory guidance operators may use low-accuracy methods to gather location data
 - CARCGA has called for minimum accuracy standards
 - Staff focusing on 3 areas for potential regulation
 - **Horizontal positional accuracy of geospatial data**
 - **Inclusion of specific components and attributes in GIS records**
 - **Storage of metadata for geospatial records**
- **Data accuracy**
 - GIS not stored as maps but as digital files including long, lat, depth in decimal degrees within an assigned coordinate system. Map accuracy will be discussions about the accuracy of the underlying geospatial data
 - Board may want to consider setting a minimum horizontal positional accuracy requirement
 - One approach may require data be accurate within 100mm (~4")
 - Concept would apply to individual components within installation like pipeline segments rather than to entire installation
 - Considerations
 - **Operators would be required to collect data while the installation is visible or while using trenchless methods**
 - **GIS committee suggested that each coordinate be recorded in decimal degrees with 6 decimal places**
 - **Operators could store this either as an attribute of component or as metadata**
- **Data content**
 - Proposed that operators maintain geospatial records of components if present
 - **Tracer wire or tracer tape, include the location of above-ground access points**
 - **Marker balls**
 - **RFID devices along with frequencies**
 - **Protruding stubs and fittings**
 - **Pipe wraps, warning tapes, coatings or insulation**
 - **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**
- **Metadata storage**
 - Proposal that operator must maintain metadata for geospatial records 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**