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Office of Energy Infrastructure Safety

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RE: GIS Regulatory Language Public Comments

Introduction

Turlock Irrigation District (TID) appreciates the opportunity to provide comments to California's Underground Safety Board's draft regulatory language on the use of geographic information systems (GIS) in recording and mapping new subsurface installations. TID is a publicly owned utility (POU) serving nearly 240,000 electric customers and providing water to over 4,500 growers. Our service territory is over 662 square miles across Stanislaus, Merced, Tuolumne, and Mariposa counties. TID is also an established California Balancing Authority Area ("BAA"), responsible for managing the real-time balance between electricity supply and demand within our service territory. TID's mission is to provide reliable and affordable water and power to our customers while being good stewards of our resources. This objective is the reason for TID's comments on this rulemaking.

TID's comments focus on recommended changes and concerns with the draft regulatory language.

Definition of Geospatial Coordinates

The California Underground Safety Board in their draft language has indicated geospatial coordinates must have two significant figures after the decimal point.[1] TID finds this requirement problematic because two significant figures after the decimal point does not provide enough precision to meet the accuracy standard specified elsewhere in the regulation. Two decimal places in latitude and longitude represent an approximate positional accuracy of about 1.1 kilometers, which is far too coarse for applications requiring a horizontal accuracy of 100 millimeters (0.1 meters). To meet that level of accuracy, coordinates need to be recorded with at least six decimal places, which allows for positioning within approximately 10 centimeters.

[1] NOTICE OF DRAFT LANGUAGE FOR PUBLIC COMMENT PRIOR TO PROPOSED RULEMAKING GEOGRAPHIC INFORMATION SYSTEMS (GIS) pg. 2

Therefore, the two-decimal-point requirement directly conflicts with the regulation's intended precision and would need to be updated to ensure technical feasibility.

TID recommends the following definition change:

> "Geospatial coordinates are the latitude and longitude values in decimal degrees identifying a physical location, referenced to the current official horizontal datum of the National Spatial Reference System or its successor. Coordinates must be recorded in decimal degree format with a minimum precision of six decimal places, sufficient to support a horizontal positional accuracy of 100 millimeters."

Definition of New Subsurface Installation

The definition of "new subsurface installation" presently reads as follows:

> *New subsurface installation means an underground facility installed where one did not previously exist or installed as a replacement, relocation, rehabilitation, major modification, or major repair of an existing underground facility. A minor repair performed during routine inspection or routine maintenance is not a new subsurface installation.*[2]

For TID, subsurface installations include electrical underground conduit, underground fiber, irrigation conduits, and pipelines. These facilities are widespread and frequently accessed during new construction and routine operations. TID conducts routine maintenance and minor repairs multiple times per week, often as part of scheduled system inspections, leak checks, equipment lubrication or testing, and minor replacements. These activities are not capital-intensive and typically fall under operating budgets, not construction or capital projects.

TID is concerned the language of a new subsurface installation is too broad as presently written, leaving ambiguity about what triggers regulatory reporting or data collection obligations. For example, the draft risks pulling routine, low-impact work into costly compliance obligations simply because it involves excavation or is subject to a permit. The rule introduces a jurisdiction-dependent trigger, meaning whether an activity falls under the GIS mapping requirement could vary across counties or even cities. Some agencies may view this as an opportunity to expand permit revenue collection, compounding costs for utilities with no corresponding safety benefit. Utilities with service territories spanning multiple counties—like TID—would be forced to develop compliance systems tailored to each jurisdiction, undermining consistency.

This ambiguity exposes utilities to inconsistent enforcement and unnecessary delays in routine work. To address this, the definition should include clear, statewide thresholds that provide certainty. For example, a major repair could be defined as any repair that exceeds a defined cost threshold, involves permit work, excavation, or third-party coordination, or significantly modifies system design or function. Minor repairs, by contrast, should be defined as work costing below the threshold, performed during scheduled maintenance, and involving no

[2] NOTICE OF DRAFT LANGUAGE FOR PUBLIC COMMENT PRIOR TO PROPOSED RULEMAKING GEOGRAPHIC INFORMATION SYSTEMS (GIS) pg. 2

excavation or redesign. Providing clear cost and scope-based triggers for new GIS reporting recognizes the operational realities for utilities like TID that perform frequent minor underground work.

Consistency with Other Regulatory Frameworks

The GIS regulation must also remain consistent with existing environmental permitting frameworks, such as the State Water Board's Clean Water Act Section 401 Water Quality Certification and Waste Discharge Requirements (General Order). Under those rules, only activities that exceed certain thresholds—like disturbing more than 0.5 acre of soil near waters of the state or requiring fill material in sensitive areas—trigger a permit.[3] Minor activities, such as pole replacements outside a stream zone or inspections not involving soil disturbance, are explicitly excluded from permitting.

By contrast, the GIS draft language could compel full GIS reporting even for trivial underground work that would not rise to the level of a "discharge" or permit requirement under water law. This inconsistency means utilities might be required to document and map work that environmental regulators themselves consider too minor to warrant review. To maintain regulatory coherence, the Board should adopt a principle of proportionality: if an activity is so minor it does not require a permit under Waters of the State standards, then it should also be exempt from GIS reporting requirements. This harmonization would prevent duplicative regulation and maintain coherence across state permitting frameworks.

Accuracy of Geospatial Coordinates and Professional Responsibility

TID supports the state's goal of improving underground infrastructure mapping and reducing subsurface strikes. However, the requirement that all new subsurface installations meet a 100 mm accuracy threshold raises major feasibility and liability issues. Under Business and Professions Code §8726, only licensed land surveyors may certify positional accuracy. This raises liability and scope-of-practice concerns. If all GIS submissions must meet survey-grade standards, utilities may be forced to rely on licensed surveyors for every installation. This is not only costly, but also practically infeasible for smaller POUs and irrigation districts without survey staff. Large utilities may employ surveyors, but many small entities do not. A small irrigation district without survey staff cannot be reasonably expected to procure survey services for every new conduit or pipeline segment. This would disproportionately impact smaller operators.

A more workable framework is to establish tiered accuracy requirements, with one-to-two-meter accuracy acceptable for routine, low-risk facilities, and survey-grade accuracy reserved for high-risk infrastructure such as high-voltage cables, gas pipelines, and SCADA-critical fiber. This would balance safety with cost-effectiveness and align with existing workflows. The Common Ground Alliance (CGA) already feeds excavation data into the Dig Safe Board, which informs

[3] DRAFT GENERAL CLEAN WATER ACT SECTION 401 WATER QUALITY CERTIFICATION AND WASTE DISCHARGE REQUIREMENTS FOR UTILITY WILDFIRE AND SIMILAR OPERATIONS AND MAINTENANCE ACTIVITIES pg. 10.

this regulation. However, CGA data is collected at varying accuracy levels depending on the equipment used. To impose a blanket 100 mm requirement without clarifying acceptable equipment types or tolerances is technically infeasible. If GPS handhelds, GIS-enabled tablets, or contractor-supplied as-builts are permitted for one-to-two-meter accuracy work, utilities can realistically integrate compliance.

Every utility already maintains processes for filing Notices of Determination (NODs) that identify individuals responsible for survey and mapping activities. The Board should leverage these existing processes rather than assume every utility can or should designate a licensed land surveyor for all work.

Conclusion

TID urges the Board to adopt modifications that clarify that routine, low-cost, or jurisdictionally variable work should not automatically trigger GIS reporting obligations, ensure the regulation remains consistent with existing state permitting frameworks, and establish a tiered accuracy approach that accounts for professional responsibility, organizational capacity, and cost impacts.

TID appreciates the opportunity to provide feedback before the formal GIS rulemaking process begins. We invite the Board to discuss the regulation further and will continue to provide feedback as we collectively seek to improve underground infrastructure mapping while balancing feasibility, cost, and public safety.

Respectfully,

Austin Avery
Regulatory Analyst