

POLICY FACT SHEET: LA COUNTY WATER DATA INFRASTRUCTURE

There is no central agency in charge of gathering, managing, disseminating and overseeing information related to water limiting the accuracy and availability of California water data.

The lack of **accurate, available and clean data** leads to important information gaps regarding water quality and supply, water use patterns, and utility service areas. More integrated management structures require more unified datasets, which span across water agencies and include standardized, publicly accessible and regularly collected data. **Nearly 100 different water-delivering entities exist in LA County alone**, including public, private and non-profit organizations that operate at different scales. Decision-making structures and governance are extremely difficult to understand. Greater transparency and long term organizational reforms, including possible utility consolidations and streamlined reporting, will improve this complex system. Resilient operations in the face of drought require better data and more systemic reporting to measure conservation efficiency needs and regions experiencing extreme water scarcity and yet public water utilities only began reporting monthly water consumption to the State Water Board in 2014. Better reporting can link water use and conservation trends with sociodemographic and environmental characteristics to improve system operations.

We found highly uneven geospatial water management data across entities and service areas, with limited coordination or data sharing. Further, regulatory agencies should **promote improved Spatial Data Infrastructure (SDI) for water management**, which includes standardized and comparable identifiers and data fields.

Gaps in the urban Los Angeles SDI include:

- **Inconsistent nomenclature for attribute data** across entities' geospatial data sets. At the most basic level, if the same spatial feature has different names, then organizations and the public fail to share the same understanding about that water management feature.
- **Lack of universal numeric identifiers that persist with data updates**, which reduces analysis capabilities over time and the lineage of spatial data.
- **Limited positional accuracy may differ between water management data sets.** Positional accuracy is what makes geospatial data unique: that features on the earth's surface are tied to a particular coordinate or reference point as precisely as possible.

In 2000, the state of California began developing a spatial data infrastructure (SDI), which has led to the current California Geoportal, an online resource that enables data sharing and management options across public and private entities and at different governmental scales. While this system has enabled important gains in geospatial data access and interoperability, the lack of mandatory updates, standardization and greater oversight of geospatial data still leaves gaps in knowledge

FINDINGS

- 1) Although a statewide spatial data infrastructure exists for water data, water management entities in LA County **continue to maintain their own data collection processes, standards, and data sharing protocols. Agencies coordinate data sharing only through voluntary participation** rather than required procedures. This leads to redundancy in spatial data production and reduces the accuracy of information for government staff and the public. Even naming conventions used differ between agencies.
- 2) Water management agencies **do not require a standard numeric ID system to identify potable water suppliers independent of spatial and non-spatial data sets and databases.**
- 3) **Data sharing within and between organizations also remains limited.**
- 4) The **nomenclature for attribute data in unique data sets was inconsistent.** Unique identifiers for water suppliers are necessary to trace water use and boundary information over time and between regulatory agencies.

RECOMMENDATIONS

As a first step to building further integrated water management spatial data infrastructure, we recommend **the creation of a universal ID system that assigns standardized numeric identifiers to California's water entities.** Federal Information Processing Standard (FIPS) code equivalents should be mandatory for all state water management agencies. These codes would create a unique spatial identifier that would be linked to U.S. census designated geographies. The FIPS code field would allow for different data, in different formats or platforms, to be linked, and could be used to “join” or “relate” spatial and non-spatial water use data information. This information could also be transferrable into other databases that use FIPS codes, and their fixed IDs would be traceable across platforms.