

Public Supply Well Locations Layer

Created by the Community Water Center

Based on data shared with CWC – May 28, 2019

Metadata: PublicSupplyWell_locations.shp

| | |
|-------------------------------|----------------------------------|
| Data Type: | Shapefile Feature Class |
| Shapefile: | PublicSupplyWell_locations.shp |
| Geometry Type: | Polygon |
| Coordinates have Z values: | No |
| Coordinates have measures: | No |
| Projected Coordinate System: | NAD_1983_California_Teale_Albers |
| Projection: | Albers |
| False_Easting: | 0.00000000 |
| False_Northing: | -4000000.00000000 |
| Central_Meridian: | -120.00000000 |
| Standard_Parallel_1: | 34.00000000 |
| Standard_Parallel_2: | 40.50000000 |
| Latitude_Of_Origin: | 0.00000000 |
| Linear Unit: | Meter |
| Geographic Coordinate System: | GCS_North_American_1983 |
| Datum: | D_North_American_1983 |
| Prime Meridian: | Greenwich |
| Angular Unit: | Degree |

If downloading or using for analysis or reporting, please attribute and cite this datasets as:

Gailey, R. (2019) Public Supply Well Locations. CWC Drinking Water Tool.

Methodology

This shapefile contains a feature class with points that represent the locations for all municipal or public supply wells from the Department of Water Resources' Online System for Well Completion Reports (OSWCR). This shapefile contains a feature class with point data for 7,158 public supply wells with spatial reference, selected from the OSWCR system by Dr. Rob Gailey, based on a downloaded .csv file of well completion reports (WCRs) (Nov. 16, 2018)¹. WCRs referencing municipal or public supply wells were included. Latitude and longitude supplied in the .csv file were used to plot WCR as points typically at the center or centroid of a Public Land Survey Section. In some instances, a point represents more than one municipal or public supply well within the section. This layer was made available for use in the Drinking Water Tool as a standalone layer. It also supports the *California Supply Well Impact Analysis for Drinking Water Vulnerability Webtool* analysis for water systems in the Central Valley (see [Gailey 2020](#)).

OSWCR is a publically available dataset containing records for over 900,000 wells drilled in California since 1927. There are several known issues with this dataset including: missing and duplicate records; missing values (either missing on original Well Completion Report (WCR), or not key entered into database); incorrect values (e.g. incorrect Latitude, Longitude, Record Type, Planned Use, Total Completed Depth); limited spatial resolution as the majority of well completion reports have been spatially registered to the center of the 1x1 mile Public Land Survey System (PLSS) section that the well is located in.

Attributes:

| Column heading | Type | Description |
|----------------|-----------------------------------|--|
| FID | Numeric/Long Integer/Precision 10 | GIS system generated field |
| Shape | Geometry | Stored geometry type: Point |
| OBJECTID | Numeric/Long Integer/Precision 10 | GIS generated field |
| MTRS | String Length 254 | Meridian (M), Township (T), Range (R), Section (S). |
| Num_MunPub | Double/ Precision 0/Scale 0 | Count of Municipal / Public Supply wells per section |

Data Sources:

1. OSWCR: <https://dwr.maps.arcgis.com/apps/webappviewer/index.html?id=181078580a214c0986e2da28f8623b37>. Accessed November 16, 2018.
2. PLSS Section Grid: <https://catalog.data.gov/dataset/blm-national-public-land-survey-system-polygons>.