|  | **Definition** | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Attribute** | **Proposed Data Format** | **Sustainable Groundwater Management Act (SGMA) Program** | **California Statewide Groundwater Elevation Monitoring (CASGEM) Program** | **State Water Resources Control Board (SWRCB) GeoTracker Data Management System** | **US Geologic Survey (USGS) National Water Information System (NWIS)** | **SAFER** | **Online System of Well Completion Reports (OSWCR)** |
| **Local Well Name** | **Local Well Name** – Name or number identifier given by the Monitoring Agency used to identify the well on a local basis. | **Local Well Name** – local well name used to identify the well | **Local or State Well Number** – Name or number identifier given to the well by the Monitoring Entity. | **Field Point Name** – field name or common name of the location where field measurement was collected | **Site/Station Name** – Site names generally include river and lake names. For wells it can be the local number | **Facility Name  Facility ID** | **Owner’s Assigned Well Number -** Owner assigned well number |
| **State Well Number** | **State Well Number** – State Well Number provided by the Department of Water Resources | **State Well Number** – State Well Number provided by the Department of Water Resources | **Local or State Well Number** – Name or number identifier given to the well by the Monitoring Entity. | Not reported | Not reported | **Department of Water Resources Site Code Identification Number  Water Rights ID** | **State Well Number/Site Number** |
| **Site Code** | **Site Code** – Unique identifier assigned to each well for a relevant program that the program uses to track individual wells within its system. | **Site Code** – Unique site code created for the well by the Monitoring Network Module or CASGEM. | **Master Site Code** – unique identifier assigned and used by the CASGEM system. | **Global ID** – unique identifier for a regulated facility or site | **Site Number/ID** – 15-digit number ID for wells (8-digit number ID is for surface water) | Not reported | **Site Code** |
| **Permit Number** | **Permit Number –** County permit number associated with well. | Not reported | Not reported | Not reported | Not reported | **Well Permit Number** | **Permit Number -** Well permit number |
| **Local Permit Agency** | **Local Permit Agency** - Agency who approved permit associated with well. | Not reported | Not reported | Not reported | Not reported | Not reported | **Local Permit Agency -** Local regulatory authority over well construction, alteration, and destruction |
| **Latitude** | **Latitude** – Latitude of the well location (Y Coordinate)  **Units**: decimal degrees  **Reporting Accuracy**: 5 decimal places (36-feet) | **Latitude** – Latitude of the well location, reported in decimal degrees to five decimal places, to a minimum accuracy of 30 feet, relative to NAD83 or another national standard that is convertible to NAD83 | **Latitude [N]** – positive value between 32 and 42.5 | **LATITUDE** – The latitude (Y coordinate) of the survey point, measured in decimal degrees, and reported to 7 decimal points | **Latitude** – The latitude in NAD83 for the Well Site | **Facility Latitude** | **Decimal Latitude -** Decimal latitude, converted from text to number |
| **Longitude** | **Longitude** - Longitude of the well location (X Coordinate)  **Units**: decimal degrees  **Reporting Accuracy**: 5 decimal places (36-feet) | **Longitude** - Longitude of the well location, reported in decimal degrees to five decimal places, to a minimum accuracy of 30 feet, relative to NAD83 or another national standard that is convertible to NAD83 | **Longitude [W]** - negative value between -124.5 and -114 | **LONGITUDE** - The longitude (X coordinate) of the survey point, measured in decimal degrees, and reported to 7 decimal points | **Longitude** - The longitude in NAD83 for the Well Site | **Facility Longitude** | **Decimal Longitude -** Decimal longitude, converted from text to number |
| **Coordinates Survey Date** | **Coordinate Survey Date** - Date that the XY coordinates of the well were surveyed.  **Date Format**: mm/dd/yyyy | Not reported | Not reported | **XY\_SURVEY\_DATE** - The date on which the latitude & longitude coordinates were measured | Not reported | Not reported | **Date Work Ended -** Date on which work on well ended, converted from text to date |
| **Coordinate Survey Time** | **Coordinate Survey Time** – Time that the XY coordinates of the well were surveyed. | Not reported | Not reported | Not reported | Not reported | Not reported | Not reported |
| **Coordinates Datum** | **Coordinates Datum** - Horizontal datum that the XY coordinates were measured.  **Format**: NAD83 (recommended)  **List of Options**: NAD83, NAD27, WGS84 | Not reported | Not reported | **XY\_DATUM** - The code representing the datum from which the latitude/longitude coordinates were determined | **Lat/Long Datum** - NAD27 or NAD83 | **Facility Lat/Long Datum** | **Horizontal Datum** - Datum of horizontal coordinates |
| **Coordinates Method** | **Coordinates Method** - Method used to determine latitude and longitude of the well.  **List of Options**: • Surveyed  • USGS quad  • GPS  • GPS with WAAS  • Digitized from aerial photo  • Unknown  • Other | **Coordinates Method** - **List of Options**:  • Surveyed,  • USGS quad  • GPS  • GPS with WAAS  • Digital aerial photo  • Unknown  • Other | **Coordinates Method**  **List of Options**:  • Surveyed  • USGS quad  • GPS  • GPS with WAAS  • Digital aerial photo  • Unknown  • Other | **XY\_METHOD** - The code representing the survey method by which the latitude/longitude measurements were collected | **Lat/Long Method** - code best describing the method used to determine latitude and longitude | Not reported | **Method of Determination LL -** Method used to determine horizontal coordinates |
| **Coordinates Accuracy** | **Coordinates Accuracy** - Accuracy of well location latitude and longitude measurements. | **Coordinates Accuracy**  **List of Options**:   * 0.1 ft. * 2.5 ft. * 5 ft. * 10 ft. * 20 ft. * 50 ft. * > 50 ft * Unknown | **Coordinates Accuracy**  **List of Options**:  • 1 ft,  • 10 ft.  • 30 ft.  • 75 ft.  • 150 ft.  • Unknown | **XY\_ACC\_VAL** - The accuracy range (+/-) of the latitude and longitude reported in centimeters at a 95% confidence interval | **Lat/Long Accuracy** - code that best describes the accuracy of the latitude and longitude | Not reported | **LL Accuracy -** Accuracy of horizontal coordinates |
| **Coordinates Surveyor** | **Coordinates Surveyor** – The full names of the organization and surveyor who collected the latitude/longitude coordinates | Not reported | Not reported | **XY\_SURVEY\_ORG** - The name of the organization who collected the latitude/longitude coordinates | Not reported | Not reported | Not reported |
| **Coordinates Equipment** | **Coordinates Equipment** - The name or type of GSP equipment and model number used to collect the latitude/longitude coordinates. | Not reported | Not reported | **GPS\_EQUIP\_TYPE** - The name of the GPS unit used to determine the latitude/longitude coordinates. Left blank if survey method did not involve GPS | Not reported | Not reported | Not reported |
| **Coordinates Survey Field Notes** | **Coordinates Survey Field Notes** - Any additional notes from the field during coordinates survey. | Not reported | Not reported | **XY\_SURVEY\_DESC** - General description information pertaining to the survey of latitude/longitude. May describe offset azimuth, distance, and slope | Not reported | Not reported | Not reported |
| **Reference Point Elevation (RPE)** | **Reference Point Elevation (RPE)** - Elevation of the reference point from which the groundwater level measurements are collected.  **Units**: feet NAVD88 (recommended)  **Reporting Accuracy**: tenth of a foot or greater accuracy | **Reference Point Elevation (feet)** - elevation of the well's reference point. Elevations shall be measured and reported in feet to an accuracy of at least 0.5 feet | **RP Elev** - Elevation of the reference point for water level measurements. Enter a numerical value in feet (NAVD88) | **ELEVATION** - Elevation of the survey point measured to top of well casing to a hundredth of a foot between well locations within the site | Not reported | Not reported | Not reported |
| **Ground Surface Elevation (GSE)** | **Ground Surface Elevation (GSE)** - Elevation of the ground surface associated with the location of the well  **Units**: feet NAVD88 (recommended)  **Reporting Accuracy**: tenth of a foot or greater accuracy | **Ground Surface Elevation (feet)** - elevation of the ground surface at the well. Elevations shall be measured and reported in feet to an accuracy of 0.1 feet (NAVD88) | **GS Elev** - elevation of the ground surface at the well. Enter a numerical value in feet (NAVD88) | Not reported | **Altitude** - land surface elevation above NAVD88 | Not reported | **Ground Surface Elevation** - Ground surface elevation |
| **Elevation Survey Date** | **Elevation Survey Date** - Date that the reference point elevation and/or ground surface elevation was surveyed  **Date Format**: mm/dd/yyyy | Not reported | Not reported | **ELEV\_SURVEY\_DATE** - date on which the elevation was measured | **Date** - date of measurement (MM-DD-YYYY)  **Time** - 00:00 24-hour format, provide standard time zone code as well as if it is in daylight savings time | Not reported | Not Reported |
| **Elevation Survey Time** | **Elevation Survey Time** - Time that the reference point elevation and/or ground surface elevation was surveyed. | Not reported | Not reported | Not reported | Not reported | Not reported | Not reported |
| **Elevation Measurement Method** | **Elevation Measurement Method** - Method used to survey elevations.  **List of Options:**  **•** Altimeter  • Differentially corrected Global Positioning System  • Survey-grade GPSF  • Interferometric Synthetic Aperture Radar, airplane  • Light Detection And Ranging, airplane  • Level or other surveyed method  • Interpolated from topographic map  • Interpolated from Digital Elevation Model  • Reported method of determination  • GNSS1 - Level 1 Quality Survey Grade Global Navigation Satellite System  • GNSS2 - Level 2 Quality Survey Grade Global Navigation Satellite System  • GNSS3 - Level 3 Quality Survey Grade Global Navigation Satellite System  • GNSS4 - Level 4 Quality Survey Grade Global Navigation Satellite System | **Elevation Method** - method used to define ground surface and reference point elevation | Not reported | **ELEV\_METHOD** - code representing the method by which the elevation measurement was collected  **List of Options**:  **•DIG** - Conventional differential leveling, digital or non-digital, (Federal Geodetic Control Subcommittee, Third Order) based on minimum of 2 geodetic control points.  • **TRIG** - Trigonometric leveling using total stations (Federal Geodetic Control Subcommittee, Third Order) based on minimum of 2 geodetic control. (May not achieve 0.1 foot accuracy; may not be compliant with AB2886. Results will vary with length of line and accuracy of equipment utilized.)  • **CGPS** - Conventional elevation survey technique (Federal Geodetic Control Subcommittee Third Order) based on minimum of 2 GPS-derived control points (RTK, static, & rapid/fast-static) established from HPGN or HPGN-Densification geodetic control points. | **Altitude Method** - code that best describes method used to determine altitude  **List of Options**:  • A Altimeter.  • D Differentially corrected Global Positioning System.  • F Survey-grade GPSF  • I Interferometric Synthetic Aperture Radar, airplane  • J Light Detection And Ranging, airplane  • L Level or other surveyed method.  • M Interpolated from topographic map.  • N Interpolated from Digital Elevation Model  • R Reported method of determination.  • W GNSS1 - Level 1 Quality Survey Grade Global Navigation Satellite System  • X GNSS2 - Level 2 Quality Survey Grade Global Navigation Satellite System  • Y GNSS3 - Level 3 Quality Survey Grade Global Navigation Satellite System  • Z GNSS4 - Level 4 Quality Survey Grade Global Navigation Satellite System | Not reported | **Elevation Determination Method** - Method used to determine elevation |
| **Elevation Vertical Datum** | **Elevation Vertical Datum** - Vertical datum associated with elevation measurements.  **Format**: NAVD88 (recommended)  **Reporting Accuracy**: tenth of a foot or greater accuracy | NAVD88 | NAVD88 | **ELEV\_DATUM** - Code representing datum from which elevation was determined.  NAVD88 preferred. | **Altitude Datum** - NGVD29 or NAVD88 | Not reported | **Vertical Datum** - Datum of vertical coordinate/elevation |
| **Elevation Accuracy** | **Elevation Accuracy** - Accuracy of elevation measurements.  **List of Options**:  • 0.1 feet  • 0.01 feet  • 0.001 feet  • 1 foot  • Unknown | **Elevation Accuracy** - accuracy of the elevation method used to define ground surface and reference point elevation | Not reported | **ELEV\_ACC\_VAL** - accuracy range of the absolute elevation measurement report in centimeters at the 95% confidence interval | **Altitude Accuracy** - code that best describes accuracy of altitude in terms of possible error, in feet. | Not reported | **Elevation Accuracy -** Accuracy of elevation |
| **Elevation Surveyor Name** | **Elevation Surveyor Name** - The name of the organization collecting the elevation measurements. | Not reported | Not reported | **ELEV\_SURVEY\_ORG** - The name of the organization collecting the elevation measurement | Not reported | Not reported | Not reported |
| **Elevation Survey Field Notes** | **Elevation Survey Field Notes** - Any additional notes from the field during elevation survey | Not reported | Not reported | **ELEV\_DESC** - General description information pertaining to the survey | Not reported | Not reported | Not reported |
| **Well Riser Height (RHT)** | **Well Riser Height (RHT)** - Measured distance from ground surface to top of well casing.  **Calculated as**: RHT = RPE - GSE  **Reporting Accuracy**: tenth of a foot or greater accuracy | Automatically Calculated (Not reported) | Automatically Calculated (Not reported) | **RISER\_HT** - measured distance from ground surface to top of well casing reported as a positive or negative value to a hundredth of a foot | Not reported | Not reported | Not reported |
| **Total Well Depth** | **Total Well Depth** - Depth to the bottom of the well below ground surface.  **Units**: feet below GSE  **Reporting Accuracy**: tenth of a foot or greater accuracy | **Well Depth** - a well's total casing depth or open borehole depth below ground surface in feet | Not reported | **TOT\_DEPTH** - depth of well measured in the field during the sampling event from top of well casing to "bottom" of well reported to hundredth of a foot | **Well Depth** - depth of well in feet below land surface  **Hole Depth** - Total depth to which the hole is drilled in feet below land surface | **Well Depth** - feet from surface | |  | | --- | | **Total Drill Depth -** Total drill depth | | **Total Completed Depth -** Depth to which well was completed, converted from text to number | |
| **Type of Opening** | **Type of Opening** - How water enters the well from the aquifer. Most drilling methods use a well screen while cable tooled wells may use an open hole.  **List of Options:**  • Fractured Rock  • Louvered or shutter-type  • Mesh screen  • Perforated, porous, slotted  • Wire-wound screen  • Screen, type unknown  • Sand point screen  • Walled or shored  • Open hole  • Other | Not reported | Not reported | Not reported | **Type of Opening –** Enter the code that best describes the type of openings in an open interval  **List of Options**:  • Fractured Rock  • Louvered or shutter-type  • Mesh screen  • Perforated, porous, slotted  • Wire-wound screen  • Screen, type unknown  • Sand point screen  • Walled or shored  • Open hole  • Other | **Not reported** | **Casing Type** |
| **Depth to Top of Screen (1)…(10)** | **Depth to Top of Screen (1)…(10)** - Depth to the top of a screened interval below ground surface. Can include up to 10 different screened intervals.  **Units**: feet below GSE  **Reporting Accuracy**: tenth of a foot or greater | **Top Perforation** - depth below ground surface to the top of a perforation interval measured in feet | **Screen Interval Top** - top screen interval | Not reported | **Depth to Top of Interval** - Enter the depth, in feet below land surface, of  the point where the interval of hole begins, or open interval begins.   **Depth to Top of Casing** - Enter the depth, in feet below land surface, to the point where the section of the casing begins. | **Well Screen Depth to Top** - feet below ground surface  **Well Screen Depth to Top Date Measured** | **Top Of Perforated Interval -** Top of perforated interval (depth) |
| **Depth to Bottom of Screen (1)…(10)** | **Depth to Bottom of Screen (1)…(10)** - Depth to the bottom of a screened interval below ground surface. Can include up to 10 different screened intervals.  **Units**: feet below RPE or GSE  **Reporting Accuracy**: tenth of a foot or greater | **Bottom Perforation** - depth below ground surface to the bottom of a perforation interval measured in feet | **Screen Interval Bottom** - bottom screen interval | Not reported | **Depth to Bottom of Interval** - Enter the depth, in feet below land surface, of the point where the interval of hole ends or open interval ends.  **Depth to Bottom of Casing** - Enter the depth, in feet below land surface, to the point where the section of the casing ends. | **Well Screen Depth to Bottom** - feet below ground surface  **Well Screen Depth to Bottom Date Measured** | **Bottom of Perforated Interval** - Bottom of perforated interval (depth) |
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| **Well Casing Material** | **Well Casing Material** - Material that the well casing is made from.  **List of Options**:  • ABS Plastic  • Brick  • Concrete  • Copper  • PTFE Plastic  • Fiberglass  • Galvanized Iron  • Fiberglass Plastic  • Wrought Iron  • Fiberglas Epoxy  • PVC Plastic (threaded)  • Glass  • Other Metal  • PVC Plastic (glued)  • PVC Plastic  • FEP Plastic  • Rock or Stone  • Uncoated Steel  • Tile  • Coated Steel  • Stainless Steel  • Wood  • Carbon Steel  • Other  • Stainless Steel 304 | Not reported | Not reported | Not reported | **Casing Material** - Enter the code that best indicates the material from which the casing is made  **List of Options**:  • A (abs)  • B (brick)  • C (concrete)  • D (copper)  • E (PTFE)  • F (fiberglass)  • G (galv. iron)  • H (fiberglass plastic)  • I (wrought iron)  • J (fiberglass epoxy)  • K (PVC threaded)  • L (glass)  • M (other metal)  • N (PVC glued)  • P (PVC or plastic)  • Q (FEP)  • R (rock or stone)  • S (steel)  • T (tile)  • U (coated steel)  • V (stainless steel)  • W (wood)  • X (steel carbon)  • Y (steel galvanized)  • Z (other mat.)  • 4 (stainless 304)  • 6 (stainless 316) | **Well Casing Material** | **Casing Material Type** |
| **Well Casing Diameter** | **Well Casing Diameter** - Inside diameter of the well casing.  **Units**: inches | Not reported | Not reported | Not reported | **Diameter of Casing** - nominal diameter in inches of the section of casing | **Well Casing Size** - inches | **Casing Diameter -** Diameter of the well casing |
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| **Well Slot Size** | Size of well screen individual perforations, or slots, or the mesh size of the screen.  **Units**: inches  **Reporting Accuracy**: thousandth of an inch | Not reported | Not reported | Not reported | **Width of Opening** – The short dimension, in inches, of the individual perforations or slots, or the mesh size of screens | **Well Slot Size** - inches | **Slot Size** |
| **Well Status** | **Well Status** - Status of the well.  **List of Options**:   * Planned   • Active  • Inactive  • Abandoned  • No Access  • Destroyed  • Other | **Well Status** – select description of well’s status from the dropdown menu | **Well Status** | **Status** – well current status: **List of Options**:  • ACT  • INACT  • DRY  • NOACC  • AB  • DEST | Not reported | Not reported | Not reported |
| **Well Use Type** | **Well Use Type** – Primary use of the well.  **List of Options**: • Municipal  • Agricultural  • Domestic  • Monitoring  • Industrial  • Stockwatering  • Public Supply  • Unknown  • Other | **Well Use Type** - select the description of the well's use from the dropdown menu | **Well Use** | Not reported | **Use of Water** - Enter the code that best describes the primary use of water from the site | Not reported | **Planned Use/Former Use -** Planned well use, or former well use |
| **Well Completion Structure** | **Well Completion** Structure- Description of well completion structure.  **List of Options**: •   * e   • Nested/Multi-completion well | **Well Completion Type –** Identifies the installation of a well  **List of Options:**  • Single Well  • Part of a nested/multi-completion well | **Well Completion Type –** Identifies the installation of a well  **List of Options:**  • Single Well  • Part of a nested/multi-completion well | Not reported | Not reported | Not reported | **Casing Number** |
| **Well Completion Report Number** | **Well Completion Report Number** - The Department of Water Resources Well Completion Report Number (OSWCR Legacy Log Number) | **Well Completion Report Number** - The Department of Water Resources Well Completion Report Number (OSWCR Legacy Log Number) | **Well Completion Report #** | Not reported | Not reported | **Well Completion Report Number** | **WCR Number -** Well Completion Report Number assigned by Online System for Well Completion Reports (OSWCR) |
| **Well Completion Date** | **Well Completion Date** - Date that the well was completed.  **Date Format**: mm/dd/yyyy | Not reported | Not reported | Not reported | **Date of First Construction** - enter date on which construction began at the site. MM-DD-YYYY  **Date of Completed Construction** - Enter the date on which all work at the site was completed. MM-DD-YYYY | **Well Construction Date** - MM/DD/YYYY | **Date Work Ended -** Date on which work on well ended, converted from text to date |
| **Well Location Description** | **Well Location Description** - Description of the location of the well and any other notes used to identify the well's location. | **Well Location Description** - Description of the location of the well and any other notes used to identify the well's location | **Well Location Desc** | Not reported | Not reported | Not reported | **Well Location** - Address where the well is located |
| **Groundwater Basin** | **Groundwater Basin Name** - Name of groundwater basin the well is located within. | **Principal Aquifer** - Local identification of the principal aquifer that the well monitors | Associated Basin | Not reported | **Primary Aquifer** - eight-character code that best identifies the primary aquifer unit from which the water is obtained | Not reported | Not reported |
| **County** | **County Name** - Name of the County the well is located within. | **County** - county the well is located within | **County** | Not reported | **County** - County Name, State of where the site is located | Not reported | **County Name -** County where the well is located |
| **SGMA Monitoring Network** | **SGMA Monitoring Network** - The monitoring network that the well is associated with under a Groundwater Sustainability Plan.  **List of Options**:   * Monitoring well   • Representative monitoring well  • Other | **Monitoring Network Type** - Specify whether the well is a part of the groundwater sustainability plan's monitoring network or representative monitoring network | Data submittals for this can be chosen from a list:  • CASGEM  • Voluntary | Not reported | Not reported | Not reported | Not reported |
| **Additional Comments** | **Additional Comments** - Any additional comments concerning the well characteristics | **Additional Comments** - Provide either any additional comments concerning the well or required comments if 'other' was selected from any of the dropdown menus | **Additional Comments** | Not reported | Not reported | Not reported | **Other Observations** - Other Observations noted on Well Completion Report |
| Notes:  Text shown in bold font indicates the program specific attribute field name. | | | | | | |  | |