| **Attribute** | **Definition** | **Programs that Required Reporting** | **Required/Optional1** | **Recommended Reporting Accuracy2** | **Unit/Format** | **Data Type** | **List of Options** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Local Well Name** | Name or number identifier given by the Monitoring Agency used to identify the well on a local basis. | * SGMA * CASGEM * GeoTracker | Optional | N/A | N/A | text | N/A |
| **State Well Number** | State Well Number provided by the Department of Water Resources. |  | At least one well identifier must be entered for each submittal | N/A | N/A | text | N/A |
| **Site Code** | Unique identifier assigned to each well for a relevant program that the program uses to track individual wells within the program’s system. | * SGMA * CASGEM * GeoTracker | At least one well identifier must be entered for each submittal | N/A | N/A | text | N/A |
| **Permit Number** | Permitting agency permit number associated with well. |  | Optional | N/A | N/A | text | N/A |
| **Local Permit Agency** | Agency who approved permit associated with well. |  | Optional | N/A | N/A | text | N/A |
| **Latitude** | Latitude of the well location (Y Coordinate). | * SGMA * CASGEM * GeoTracker | Required | 5 decimal places (36-feet) | Decimal degrees | numeric | N/A |
| **Longitude** | Longitude of the well location (X Coordinate). | * SGMA * CASGEM * GeoTracker | Required | 5 decimal places (36-feet) | Decimal degrees | numeric | N/A |
| **Coordinates Survey Date** | Date that the XY coordinates of the well were surveyed. | * GeoTracker | Optional | N/A | mm/dd/yyyy | date | N/A |
| **Coordinates Survey Time** | Time that the XY coordinates of the well were surveyed. |  | Optional, default is 12:00:00 | N/A | hh:mm:ss (PST 24-hour) | time | N/A |
| **Coordinates Datum** | Horizontal datum associated with Latitude and Longitude measurement. | * GeoTracker | Optional | N/A | NAD83 (recommended) | text (selected from list of options) | * NAD83 * NAD27 * WGS84 |
| **Coordinates Method** | Method used to determine latitude and longitude of well location. | * SGMA * CASGEM * GeoTracker | Required | N/A | Description of method used | text (selected from list of options) | * Surveyed * USGS quad * GPS * GPS with WAAS * Digitized from aerial photograph * Unknown * Other |
| **Coordinates Accuracy** | Accuracy of well location latitude and longitude measurements. | * SGMA * CASGEM | Optional | N/A | feet | numeric | N/A |
| **Coordinates Surveyor** | The full names of the organization and surveyor who collected the latitude/longitude coordinates. |  | Optional | N/A | N/A | text | N/A |
| **Coordinates Equipment** | The name or type of GPS equipment and model number used to collect the latitude/longitude coordinates. |  | Optional | N/A | N/A | text | N/A |
| **Coordinates Survey Field Notes** | Any additional notes from the field during coordinates survey. |  | Optional | N/A | N/A | text | N/A |
| **Reference Point Elevation (RPE)** | Elevation of the reference point from which depth to water measurements are collected. | * SGMA * CASGEM * GeoTracker | Required | tenth of a foot or greater accuracy | feet | numeric | N/A |
| **Ground Surface Elevation (GSE)** | Elevation of the ground surface associated with the location of the well. | * SGMA * CASGEM | Optional | tenth of a foot or greater accuracy | feet | numeric | N/A |
| **Elevation Survey Date** | Date that the reference point elevation and/or ground surface elevation was surveyed. | * GeoTracker | Optional | N/A | mm/dd/yyyy | date | N/A |
| **Elevation Survey Time** | Time that the reference point elevation and/or ground surface elevation was surveyed. |  | Optional, default is 12:00:00 | N/A | hh:mm:ss (PST 24-hour) | time | N/A |
| **Elevation Measurement Method** | Method used to survey elevations. | * SGMA * CASGEM * GeoTracker | Optional | N/A | Description of method used | text (selected from 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 Vertical Datum** | Vertical datum associated with elevation measurements. | * GeoTracker | Required | N/A | NAVD88 (recommended) | text (selected from list of options) | * WGS84 * NAVD88 * NGVD29 |
| **Elevation Accuracy** | Accuracy of elevation measurements. | * GeoTracker | Optional | tenth of a foot or greater accuracy | feet | text (selected from list of options) | * 0.1 feet * 0.01 feet * 0.001 feet * 1 foot * Unknown |
| **Elevation Surveyor Name** | The name of the organization collecting the elevation measurements. | * GeoTracker | Optional | N/A | N/A | text | N/A |
| **Elevation Survey Field Notes** | Any additional notes from the field during elevation survey. |  | Optional | N/A | N/A | text | N/A |
| **Well Riser Height (RHT)** | Measured distance from ground surface to top of well casing.  **Calculated as**:  RHT = RPE - GSE |  | Optional | tenth of a foot | feet | numeric | N/A |
| **Total Well Depth** | Depth to the bottom of the well below ground surface. | * SGMA * CASGEM | Required | tenth of a foot | feet below GSE | numeric | N/A |
| **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. |  | Optional | N/A | N/A | text (selected from list of options) | * e * Walled or shored * Open hole * Other |
| **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. |  | Required | tenth of a foot or greater accuracy | feet below GSE | numeric | N/A |
| **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 |  | Required | tenth of a foot or greater accuracy | feet below GSE | numeric | N/A |
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| **Well Casing Material** | Material that the well casing is made from. |  | Optional | N/A | N/A | text (selected 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 |
| **Well Casing Diameter** | Inside diameter of the well casing. |  | Optional | half of an inch | inches | numeric | N/A |
| **Well Slot Size** | Size of well screen individual perforations, or slots, or the mesh size of the screen. |  | Optional | thousandth of an inch | inches | numeric | N/A |
| **Well Status** | Status of the well. | * SGMA * CASGEM * GeoTracker | Optional | N/A | N/A | text (selected from list of options) | * Planned * Active * Inactive * No Access * Destroyed * Other |
| **Well Use Type** | Primary use of the well. | * SGMA * CASGEM | Optional | N/A | N/A | text (selected from list of options) | * Municipal * Agricultural * Domestic * Monitoring * Industrial * Stockwatering * Public Supply * Unknown, * Other |
| **Well Completion Structure** | Description of well completion structure. | * SGMA * CASGEM | Optional | N/A | N/A | text (selected from list of options) | * Single Well * Part of a Multi-Completion Well |
| **Well Completion Report Number** | The Department of Water Resources Well Completion Report Number (OSWCR Legacy Log Number). |  | Optional | N/A | N/A | text | N/A |
| **Well Completion Date** | Date that the well was completed. |  | Optional | N/A | mm/dd/yyyy | date | N/A |
| **Well Location Description** | Description of the location of the well and any other notes used to identify the well's location. | * SGMA | Optional | N/A | N/A | text | N/A |
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| **SGMA Monitoring Network** | The monitoring network that the well is associated with under a Groundwater Sustainability Plan. | * SGMA | Optional | N/A | N/A | text (selected from list of options) | * Monitoring Well * Representative Monitoring Well * Other |
| **Additional Comments** | Any additional comments concerning well characteristics. |  | Optional | N/A | N/A | text | N/A |
| 1Attributes designated as optional may be required depending on program specific reporting compliance. Fields designated as required are deemed to be the most important attributes for reporting. However, if required data is missing, the user may still upload the attributes that are available. Required fields that are not submitted will cause the data to be flagged for quality control purposes. Additional evaluation of the SAFER program’s level of requirements is still needed to highlight program reporting requirements.  2The Recommended Reporting Accuracy does not preclude data outside of the recommended accuracy from being submitted. Data with Unknown or Other Accuracy may be flagged as potentially inaccurate data.  **Acronyms**:  N/A = not applicable NAVD88 = North American Vertical Datum of 1988 RPE = reference point elevation GSE = ground surface elevation  RHT = well riser height OSWCR = Online System of Well Completion Reports | | | | | | | |
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