

Section 1. SITEFILE Components

The SITEFILE stores location and general information about a site for all disciplines. The primary key (PK) uniquely identifies each individual site in the database. The secondary keys (SK) facilitate retrieving data on the most commonly used fields.

Sub-Section	Attribute Name	Description Table = SITEFILE_##
1.1	agency_cd	Source agency code (C4)
1.2	site_no	Site identification number (C1)
1.3	site_cn	Person creating record (C61)
1.4	site_cr	Date created (C303)
1.5	site_mn	Person updating record (C62)
1.6	site_md	Date of last update (C40)
1.7	project_no	Project number (C5)
1.8	station_nm	Station name (C900/C12)
1.9	station_type_cd	Station-type codes (20 values) (C802)
1.10	district_cd	District code (C6)
1.11	country_cd	Country code (C41)
1.12	state_cd	State code (C7)
1.13	county_cd	County code (C8)
1.14	lat_va	Latitude (C9)
1.15	long_va	Longitude (C10)
1.16	dec_lat_va	Latitude NAD83 (decimal degrees) (C909)
1.17	dec_long_va	Longitude NAD83 (decimal degrees) (C910)
1.18	coord_acy_cd	Lat/long accuracy (C11)
1.19	coord_meth_cd	Lat/long method (C35)
1.20	coord_datum_cd	Lat/long datum (C36)
1.21	alt_va	Altitude of land surface (C16)
1.22	alt_acy_va	Altitude accuracy code (C18)
1.23	alt_meth_cd	Method altitude determined (C17)
1.24	alt_datum_cd	Altitude datum (C22)
1.25	land_net_ds	Land-net location (C13)
1.26	topo_cd	Topographic setting code (C19)
1.27	huc_cd	Hydrologic unit code (C20)
1.28	basin_cd	Drainage basin code (C801)
1.29	tz_cd	Standard time zone code (C813)
1.30	local_time_fg	Local standard time flag (C814)
1.31	map_nm	Name of location map (C14)
1.32	map_scale_fc	Scale of location map (C15)
1.33	agency_use_cd	Agency use of site code (C803)
1.34	nat_water_use_cd	National water-use code (C39)
1.35	data_types_cd	Flags-type of data collected (30 values) (C804)
1.36	instruments_cd	Flags-instruments at site (30 values) (C805)
1.37	inventory_dt	Date site established/inventoried (C711)
1.38	site_rmks_cd	Remarks (C806)

Sub-Section	Attribute Name	Description Table = SITEFILE_##
1.39	gw_type_cd	Type of ground-water site (C2)
1.40	site_web_cd	Record ready for Web (C32)
1.41	reliability_cd	Data Reliability code (C3)
1.42	construction_dt	Date of first construction (C21)
1.43	site_use_1_cd	Primary use of site (C23)
1.44	site_use_2_cd	Secondary use of site (C301)
1.45	site_use_3_cd	Tertiary use of site (C302)
1.46	water_use_1_cd	Primary use of water (C24)
1.47	water_use_2_cd	Secondary use of water (C25)
1.48	water_use_3_cd	Tertiary use of water (C26)
1.49	aqfr_type_cd	Aquifer-type code (C713)
1.50	aqfr_cd	Primary aquifer code (C714)
1.51	hole_depth_va	Hole depth (C27)
1.52	well_depth_va	Well depth (C28)
1.53	depth_src_cd	Source-of-depth data (C29)
1.54	drain_area_va	Drainage area (C808)
1.55	contrib_drain_area_va	Contributing drainage area (C809)
1.56	gw_file_cd	Other types of ground-water data (C712)

1.1 Source Agency Code

(SAGNCY/C4 - MANDATORY PRIMARY-KEY CHAR X(5) -- agency_cd):

The agency that is the source of the data. Enter, left-justified, the appropriate code. The **SOURCE AGENCY CODE** is mandatory and a part of the primary key. Data for a site will not be stored if this field is blank.

1.2 Site Identification Number

(SID/C1 - MANDATORY PRIMARY-KEY CHAR X(15) -- site_no):

Site Identification (Site ID) numbers are assigned according to criteria that differs with the type of site that is being entered. These are described below.

Ground Water and Spring Sites

For ground-water sites, the Site ID is a 15-digit identification number assigned to the site, and contains no blanks or alphabetic characters. Although the site identification number is formed initially from the latitude and longitude of a point believed to represent the location of the site followed by a 2-digit sequence number, the Site ID is an *identifier* and not a *locator*. The site identification number is a mandatory entry. Data will not be stored for the site if the identification number is missing or invalid.

It cannot be too strongly emphasized that the Ground-Water site identification number, once assigned, is used as a pure number and *has no locational significance* beyond representing the best location available at the time the Site ID was assigned. The latitude and longitude fields should be used for location.

The site identification number is assigned as follows: use a method (map, Global Positioning System (GPS), Geographic Information System (GIS), etc.) that will provide the most precise location for a point representing the site.

IF THE SITE IS:	USE:
a tunnel	a point at the mouth of the tunnel
a drain	the discharge point of the drain
a pond or multiple well field	a point at the center of the pond or well field

Determine the latitude and longitude of the point to the nearest 100th of a second.

The first six digits of the Site ID are the value of latitude, the 7th through 13th digits are the value of longitude, and the 14th and 15th digits are sequence numbers used to distinguish between sites at the same location.

Use leading zeros if the value of latitude is less than 10 degrees, the value of longitude is less than 100 degrees, or the sequence number is less than 10.

Surface Water Sites

For surface-water sites where records are systematically collected, an 8 to 14-digit downstream order number is usually used for the Site ID. Examples of sites that meet these criteria are:

- Continuous surface-water stations
- Partial record (surface-water and water-quality) stations
- Water-quality sites
- Spring stations where discharge measurements are routine

Downstream order numbers also may be assigned to Spring, Outfall, and Surface-Water Diversion sites where water-use data are collected.

When downstream order is used, the first 8 to 14 positions of the field must contain digits. The remaining positions are blank.

A Site ID containing a latitude-longitude and sequence number may be assigned to sites where there is difficulty in assigning a meaningful downstream order number, or where data are obtained intermittently. In this case, positions 1-6 are coded with latitude, 7-13 are coded with longitude, and 14-15 are coded with a sequence number. Examples of surface-water sites that meet these criteria are:

- Water-quality grab sample sites
- Surface-water sites at which miscellaneous measurements are made
- Sites within large open-water areas (lakes, reservoirs, bays)

Water-Use Sites

For aggregate ground water, aggregate surface water, and place of use sites, use a 10 to 15-digit number. The Site ID should begin with the number '9', followed by the state numeric FIPS code, plus 7 to 12 digits that constitute a unique ID. Each office can assign the 7 to 12 digits any way they want, such as assigning them sequentially or basing them on a partial latitude and longitude.

The use of the state numeric FIPS code shall allow the Site ID to be unique nationally. Make sure that you use the same state code that is entered for component SSTATE/C007.

Aggregate ground-water and aggregate surface-water sites typically do not have latitudes and longitudes, since the entry of a single latitude and longitude to represent the aggregates location is not appropriate. Place of use sites typically do not have latitude and longitude since the specific location of the site is frequently unknown. The site identifier is used to determine if latitude and longitude and associated mandatory parameters are mandatory for the entered site. Latitude (C009 and C909), longitude (C010 and C910), method (C035), accuracy (C011), and datum (C036) are *not mandatory* for any site that has a Site ID that begins with the digit '9'. There is one exception to this rule: Site Identifiers with 13 – 15 characters that begin with '900000' require a latitude and longitude, since the value '900000' is a valid latitude.

Latitude-longitude sequence number Site IDs are assigned to the following site types:

- Specific source
- Meteorological
- Land application

For these Site IDs, positions 1-6 are coded with latitude, 7-13 are coded with longitude, and 14-15 are coded with a sequence number. For land application, use a point at the center of the land application area to determine the latitude and longitude.

1.3 Person Creating Record (SCRUID/C61 - CHAR X(8) -- site_cn):

This field contains the user identification of the person creating the record. The user ID is entered automatically by the NWIS software.

1.4 Date Created (SCRDAT/C303 - CHAR X(14) -- site_cr)

This field contains the date on which the specified site was initially stored in the Sitefile. This field is produced by the Sitefile entry program, and the value will never change once established.

1.5 Person Updating Record (SUPUID/C62 - CHAR X(8) -- site_mn)

This field contains the user identification of the person who last updated the record. The user ID is entered automatically by the NWIS software.

1.6 Date of Last Update (SUPDAT/C40 - CHAR X(14) -- site_md)

This field contains the date that the last valid transaction of add, modify, or delete occurred for any item of the specified site. The field is populated by the Sitefile update program.

1.7 Project Number (SPRNO/C5 - SECONDARY-KEY CHAR X(12) -- project_no):

This optional field is a retrieval key by means of which all the data collected for a particular project can be retrieved conveniently as a group. If the field is used, enter the 12-character WRD project number associated with data collection at the site. Where no single project number is applicable, leave the field blank.

1.8 Local Number Or Station Name Ground-water site (SNAME/C12 - MANDATORY SECONDARY-KEY CHAR X(24); Surface-water site (SNAME/C900 -MANDATORY SECONDARY-KEY CHAR X(50) -- station_nm):

For ground-water sites, if a District well-numbering system is used, enter the system's number for the site here. The local number should be entered as it is to be printed; include all edit characters to be used in printing the local number. This is a text field.

For surface-water stations, enter the station name and location or local identifier. This field contains 50 characters including spaces and punctuation. It should take a form similar to:

PENDLETON HILL BK NR LITTLETON FALLS, PA

Meaningful and approved abbreviations may be used if necessary (but avoided if possible). Local Number or Station Name must be unique.

1.9 Station Type (STYPE/C802 - MANDATORY 20-POSITION ARRAY CHAR X(1) station_type_cd):

Code in the proper location within the array as follows:

Enter **Y** for *Yes* Leave **Blank** for *No entry*

For example, a ‘Y’ in position 1 (STYPE(1)) designates the station type as a “stream” A ‘Y’ in position 5 designates the station type as a “spring.” Data will not be stored for the station if this field is blank.

Column on screen	Position in Array	Type of Site (code)	General Use
1	STYPE(1)	Stream	SW
2	STYPE(2)	Lake or reservoir	SW
3	STYPE(3)	Estuary	SW
4	STYPE(4)	Specific Source	
5	STYPE(5)	Spring	GW
6	STYPE(6)	Ground water other than spring	GW
7	STYPE(7)	Meteorological	
8	STYPE(8)	Outfall	WU
9	STYPE(9)	Diversion	WU
0	STYPE(10)	Land application	WU
A	STYPE(11)	Aggregate ground water	WU
B	STYPE(12)	Aggregate surface water	WU
C	STYPE(13)	Water use/Place of use	WU
D	STYPE(14)	Coastal	WU
---	STYPE(15)-(20)	Unassigned	WU

Station Types 1-3 generally apply to Surface-water sites.

Station Types 5-6 generally apply to Ground-water sites.

Station Type 4 applies to sites that are not described by other Station Types.

Specific Source (Station Type 4) is provided to allow the entry of a site when none of the other Station Type codes apply. In general, the ‘SS’ site code should be used only when absolutely necessary.

Station Type 7: Meteorological Site: A site established to measure the physical, chemical, and dynamic properties and processes of the lower atmosphere. Properties and processes may include air temperature, humidity, precipitation, wind speed and direction, solar radiation, albedo, barometric pressure, and deposition rate, among others.

Station Types 8-13 generally apply to Type of Water Use (WU) sites, but may be used by other disciplines where it is appropriate.

Station Type 14 generally applies to Water Quality sites, but may be used by other disciplines where it is appropriate.

8. Outfall - A site where water or wastewater is returned to a surface-water body, e.g. the point where wastewater is returned to a stream.
9. Diversion - A site where water is withdrawn or diverted from a surface-water body (e.g. the point where the upstream end of a canal intersects a stream, or point where water is withdrawn from a reservoir).
10. Land application - site where the disposal of waste on land occurs.
11. Aggregate GW - A site that is defined by a geographic area where ground-water is withdrawn or returned. An aggregate ground-water site type is selected when it is not possible or practical to describe the site as a spring or gw other than spring (well, well field, gallery/collector, or pond/recharge basin).
12. Aggregate SW - A site that is defined by a geographic area where surface water is withdrawn or returned. An aggregate surface-water site type is selected when it is not possible or practical to describe the site as a diversion, outfall, spring, or land application.
13. Place of Use - an entity or facility that uses/reuses, recycles, treats, distributes, collects, receives, or transfers water. Place-of-use sites can also be an aggregate source or return of water. Examples include: establishments (commercial or industrial facilities), hydroelectric power plants, and livestock operations.
14. Coastal – A site that is located off-shore but within the Coastal Shore Zone defined by The Submerged Lands Act, which establishes the seaward boundary of a state’s coastal zone as three nautical miles from shore or to the international boundary with Canada in the Great Lakes or any other body of water traversed by such boundaries.

Many of the Station Type codes may be combined with other Station Type codes; however, there are many exceptions. Specific Source cannot be combined with any of the other Station Types. NWIS software will display warnings when Station Type combinations are not allowed. The following table shows the valid combinations:

Station Type Code Array	Station Type Characteristics
NNNNNNYNNNNNNYNNNNNN	coastal+outfall+meteorological
NNNNNNYNNNNNNYNNNNNN	coastal+diversion+meteorological
YNNNNNNNNNNNNNNNNNNNN	stream
YNNNNNNYNNNNNNNNNNNN	stream+meteorological
YNNNNNNYNNNNNNNNNNNN	stream+meteorological+outfall
YNNNNNNYNNNNNNNNNNNN	stream+meteorological+diversion
YNNNNNNYNNNNNNNNNNNN	stream+outfall
YNNNNNNYNNNNNNNNNNNN	stream+diversion
NYNNNNNNNNNNNNNNNNNN	lake/reservoir
NYNNNNYNNNNNNNNNNNN	lake/reservoir+meteorological
NYNNNNYNNNNNNNNNNNN	lake/reservoir+meteorological+outfall
NYNNNNYNNNNNNNNNNNN	lake/reservoir+meteorological+diversion
NYNNNNYNNNNNNNNNNNN	lake/reservoir+outfall
NYNNNNYNNNNNNNNNNNN	lake/reservoir+diversion
NNYNNNNNNNNNNNNNNNN	estuary
NNYNNNNYNNNNNNNNNN	estuary+meteorological
NNYNNNNYNNNNNNNNNN	estuary+meteorological+outfall
NNYNNNNYNNNNNNNNNN	estuary+meteorological+diversion
NNYNNNNYNNNNNNNNNN	estuary+outfall

Station Type Code Array	Station Type Characteristics
NNYNNNNNNYNNNNNNNNNNNN	estuary+diversion
NNNYNNNNNNNNNNNNNNNNNN	specific source
NNNNYNNNNNNNNNNNNNNNN	spring
NNNNYNYNNNNNNNNNNNNNN	spring+meteorological
NNNNNYNNNNNNNNNNNNNN	ground-water other than spring
NNNNNYNYNNNNNNNNNNNN	ground-water+meteorological
NNNNNNYNNNNNNNNNNNNNN	meteorological
NNNNNNNYNNNNNNNNNNNN	outfall
NNNNNNYNYNNNNNNNNNNNN	outfall+meteorological
NNNNNNNNYNNNNNNNNNNNN	diversion
NNNNNNYNYNNNNNNNNNNNN	diversion+meteorological
NNNNNNNNNYNNNNNNNNNN	land application
NNNNNNYNYNYNNNNNNNNNN	land application+meteorological
NNNNNNNNNNNYNNNNNNNN	aggregate ground water
NNNNNNNNNNNYNNNNNNNN	aggregate surface water
NNNNNNNNNNNNNYNNNNNN	place of use
NNNNNNYNNNNNNYNNNNNN	place of use+meteorological
NNNNNNNNNNNNNNNYNNNN	coastal
NNNNNNYNNNNNNYNNNNNN	coastal+outfall
NNNNNNYNNNNNNYNNNNNN	coastal+meteorological
NNNNNNNNYNNNNYNNNNNN	coastal+diversion
NNNNNNYNYNNNNYNNNNNN	coastal+outfall+meteorological
NNNNNNYNYNNNNYNNNNNN	coastal+diversion+meteorological

1.10 District Code

(SDIST/C6 - MANDATORY CHAR X(3) -- district_cd):

In the first two positions of the field, enter the USGS District code that identifies the source of the data. If data are collected by a Subdistrict office, a one-character code assigned by the Water Science Center (WSC) may be entered in the third position to identify the Subdistrict office. The two-character district code is mandatory; data will not be stored for the site if this field is blank.

1.11 Country Code

(SCNTRY/C41 - MANDATORY SECONDARY-KEY CHAR X(2) -- country_cd):

Enter the Federal Information Processing Standards (FIPS) alpha code for the Country in which the site is located. Country code is a mandatory entry (combined with SSTATE and SCNTY for secondary key).

Code	Description
US	United States
CN	Canada
ES	El Salvadore
FM	Federated States of Micronesia
GT	Guatemala

Code	Description
HO	Honduras
MX	Mexico
NU	Nicaragua
PM	Panama
PS	Palau
RM	Marshal Islands

1.12 State Code

(SSTATE/C7 - MANDATORY SECONDARY-KEY CHAR X(2) -- state_cd):

Enter the Federal Information Processing Standards (FIPS) numeric code for the State in which the site is located. These codes are found in FIPS PUB5-2. State code is a mandatory entry (combined with SCNTRY and SCNTY for secondary key). Include leading zero if appropriate; data will not be stored for the site if this field is blank. The State codes are found in the query support files software.

1.13 County Code

(SCNTY/C8 - MANDATORY SECONDARY-KEY CHAR X(3) county_cd):

Enter the FIPS numeric code for the county or county equivalent in which the site is located. These codes are found in FIPS PUB6-4. County code is a mandatory entry (combined with SCNTRY and SSTATE for secondary key). Include leading and trailing zeros if appropriate; data will not be stored if this field is blank.

1.14 Latitude

(SLAT/C9 - MANDATORY SECONDARY-KEY CHAR X(7) .XX-- lat_va):

Enter the best available value for the latitude of the site in degrees, minutes, and seconds. Seconds may be entered to 100ths of a second. Use leading zeros if needed. The value of latitude should be updated as more precise information becomes available. Six digits must be coded. If latitude of the site is south of the equator, precede the numbers with a minus sign (-). (The first position of the field is reserved for this sign, if required.) There are special rules about entry of latitude for water-use sites. Please refer to section 1.2, Site Identification Number.

1.15 Longitude

(SLONG/C10 - MANDATORY SECONDARY-KEY CHAR X(8) .XX -- long_va):

The world standard for polarity of longitudes assigns negative signs to longitudes in the western hemisphere and positive signs to longitudes in the eastern hemisphere. In order to preserve the traditional entry of longitudes in the U.S., this convention will not be followed for data entry of longitude (C010) in National Water Information System (NWIS) databases. However, the appropriate sign is automatically assigned for decimal longitudes (C910).

Enter the best available value for the longitude of the site, in degrees, minutes, and seconds. Seconds may be entered to 100ths of a second. Use leading zeros for values <100. The value of longitude should be updated as more precise information becomes available. Seven digits must be coded. If longitude of the site is east of the Greenwich Meridian, precede the numbers with a minus sign (-). (The first position of the field is reserved for this sign, if required.)

The location should be entered as precisely as it is known, and the accuracy of the location should be indicated by a suitable entry in the lat/long accuracy (see *Lat/Long Accuracy Method*). There are special rules about entry of longitude for water-use sites. Please refer to section 1.2, Site Identification Number.

1.16 Latitude NAD83 (decimal degrees)

(SLATD/C909 - CHAR X(13) -- dec_lat_va):

This field contains the calculated value of latitude in decimal degrees in terms of NAD83 datum. Latitude is calculated from degrees-minutes-seconds latitude (C009) and is converted, if necessary, to NAD83 datum. If conversion is not possible, this field is blank. A modification to the conversion program was enacted in NWIS 4.4 to prevent any truncation of decimal places upon calculation of decimal-degree latitude in NAD83.

1.17 Longitude NAD83 (decimal degrees)

(SLONGD/C910 - CHAR X(14) -- dec_long_va):

This field contains the calculated value of longitude in decimal degrees in terms of NAD83 datum. Longitude is calculated from degrees-minutes-seconds longitude (C010) and is converted, if necessary, to NAD83 datum. If conversion is not possible, this field is blank. A modification to the conversion program was enacted in NWIS 4.4 to prevent any truncation of decimal places upon calculation of decimal-degree longitude in NAD83.

1.18 Lat-Long Coordinate Accuracy

(SCORAC/C11 - MANDATORY CHAR X(1) -- coord_acy_cd):

Enter the appropriate code on the schedule to indicate the accuracy of the latitude-longitude values. The codes and their descriptions are:

Code	Description
H	Accurate to +/- .01 second (differentially corrected GPS)
1	Accurate to +/- .1 second (differentially corrected GPS)
5	Accurate to +/- .5 second (Precise Positioning Service (PLGR/PPS GPS))
S	Accurate to +/- 1 second
R	Accurate to +/- 3 seconds (Standard Positioning Service (SPS GPS))
F	Accurate to +/- 5 seconds
T	Accurate to +/- 10 seconds
M	Accurate to +/- 1 minute
U	Unknown

1.19 Lat/Long Method

(SCORMT/C35 - MANDATORY CHAR X(1) -- coord_meth_cd):

Select the method used to determine latitude-longitude values from the following list:

Code	Description
C	Calculated from land net
D	Differentially corrected Global Positioning System (GPS)
G	Global positioning system, uncorrected (Standard Positioning Service (SPS) and Precise Positioning Service (PPS))
L	Long-range navigation system
M	Interpolated from map
N	Interpolated from Digital Map
R	Reported
S	Transit, theodolite, or other surveying method
U	Unknown

1.20 Lat/Long Datum

(SCORDM/C36 - MANDATORY CHAR X(10) -- coord_datum_cd):

Enter the horizontal datum code for the latitude/longitude coordinate datum:

Datum	Description
NAD27	North American Datum of 1927
NAD83	North American Datum of 1983
OLDAK	Old Alaska (Mainland) and Aleutian Islands Datum
OLDHI	Old Hawaii
OLDPR	Old Puerto Rico and Virgin Islands Datum
OLDSAMOA	Old American Samoa Datum
OLDGUAM	Old Guam Datum

If new datums need to be added to this reference list, please refer to the Database Administrator’s Manual, section 6.3.1. **Note: No conversions to alternate datums will be provided for the new datums.**

1.21 Altitude of Land Surface

(SDATUM/C16 - CHAR X(8) -- alt_va):

For ground-water sites, enter the altitude, in feet above mean sea level, of the land surface at the site. For surface-water sites, enter the altitude of the floor of the gage house or the point of zero flow in the stream channel, in feet. Precision to two decimal places can be coded, if available. Altitudes below mean sea level should be preceded by a minus sign (-). **Note: An entry of Altitude also requires the entry of C17 (Method Altitude Determined), C28 (Altitude Accuracy), and C22 (Altitude Datum).**

1.22 Altitude Accuracy

(SALTAC/C18 - CHAR X(3) -- alt_acy_va):

Altitude accuracy is *mandatory* when altitude is entered. Enter the accuracy of the altitude in terms of the possible error in feet. An accuracy of +/- 0.1 foot would be entered as “.1”. Many altitudes are interpolated from the contours on topographic maps; accuracies determined in this way are generally entered as one-half of the contour interval.

1.23 Method Altitude Determined

(SALTMTC17 - CHAR(1)-- alt_meth_cd):

Enter the appropriate code for the method used to determine the altitude. When Altitude is entered, the code is *mandatory*. The codes and their descriptions are:

Code	Description
A	Altimeter
D	Differential Global Positioning System (GPS)
G	Global Positioning System
L	Level or other surveying method
M	Interpolated from topographic map
N	Interpolated from digital elevation model (DEM)
R	Reported
U	Unknown

1.24 Altitude Datum

(SALTDMC22 - CHAR X(10) -- alt_datum_cd):

Altitude datum is *mandatory* when altitude is entered. Enter the vertical datum code for altitude:

Datum	Description
NGVD29	National Geodetic Vertical Datum of 1929
NAVD88	North American Vertical Datum of 1988
OLDAK	Old Alaska (Mainland) and Aleutian Island Datum
OLDPR	Old Puerto Rico and Virgin Island Datum
HILOCAL	Local Hawaiian Datum
ASLOCAL	Local American Samoa Datum
GULOCAL	Local Guam Datum
COE1912	COE Datum 1912

If new datums need to be added to this reference list, please refer to the Database Administrator’s Manual, section 7.3.1. **Note: No conversions to alternate datums will be provided for the new datums.**

1.25 Land-Net Location
(SLNDNT/C13 - CHAR X(23) -- land_net_ds):

Enter the legal description of the 10-acre tract in which the site is located, if applicable. The abbreviations NE, NW, SE, and SW are used for the quarter, quarter-quarter, and quarter-quarter-quarter. The smallest subdivision is listed first. Enter the appropriate code in the space. For "meridian," 5th principal meridian = 5, Boise meridian = B.

The format for the Land-Net Location is generally determined by the reference list */usr/opt/nwis/support/edit.tables/slndnt.ovr*. Below is an example of land net for two Montana sites:

SWSWSWS31 T09S R47E
 NESENES36 T09S R40E

1.26 Topographic-Setting Code
(STOPO/C19 - CHAR X(1) -- topo_cd):

Enter the code that best describes the topographic setting in which the site is located. Topographic setting refers to the geomorphic features in the vicinity of the site. Allowable codes are:

Code	Description
A	Alluvial fan
B	Playa
C	Stream channel
D	Local depression
E	Dunes
F	Flat surface
G	Flood plain
H	Hilltop
K	Sinkhole
L	Lake, swamp, or marsh
M	Mangrove swamp
O	Offshore (estuary)
P	Pediment
S	Hillside (slope)
T	Alluvial or marine terrace
U	Undulating
V	Valley flat (valleys of all sizes)
W	Upland draw

The figure below is a diagrammatic sketch of the topographic features.

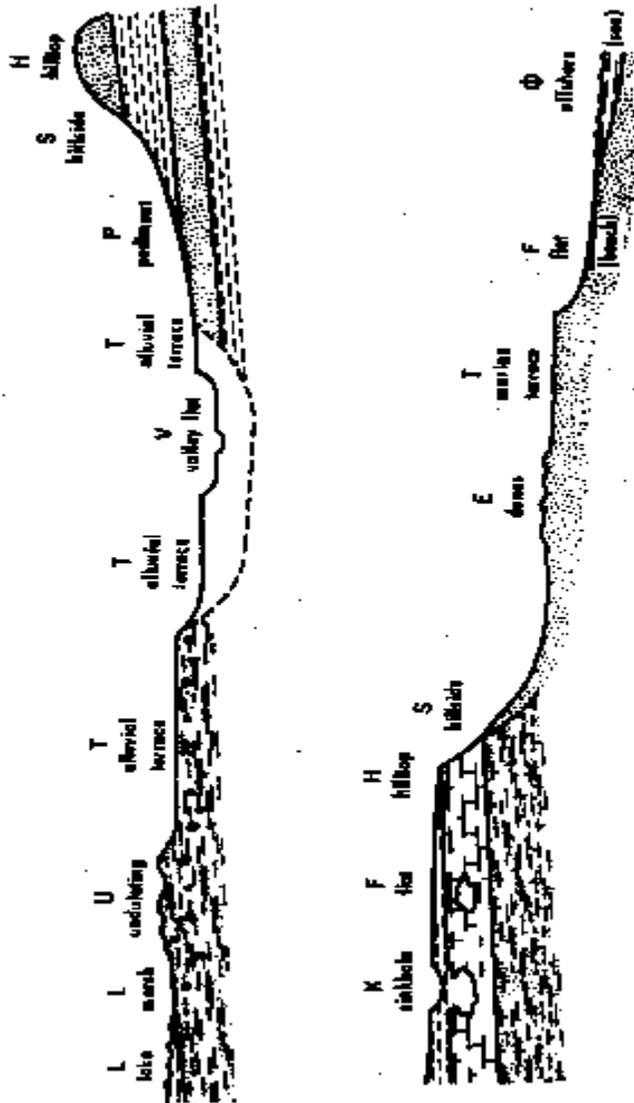


Figure 1. Topographic features

- (A) Alluvial fan refers to a low, outspread, relatively flat to gently sloping mass of loose rock material shaped like an open fan or a segment of a cone. It is deposited by a stream at a place where it issues from a narrow mountain valley upon a plain or broad valley.
- (B) Playa refers to a dried-up, vegetation-free, flat-floored area composed of thin, evenly stratified sheets of fine clay, silt or sand, and represents the bottom part of a shallow, completely closed or undrained desert lake basin in which water accumulates and is quickly evaporated, usually leaving deposits of soluble salts.
- (C) Stream refers to the bed in which a natural stream of water runs. It is the trench or depression washed or cut into the surface of the earth by the moving water that it periodically or continuously contains. This term includes washes, arroyos, and coulees.
- (D) A local depression is an area that has no external surface drainage. Some depressions, such as those in the High Plains, are only a few acres in extent, but others may cover a square mile. Do not use this designation for small "interdune depressions" or those on an undulating surface of glacial drift (use undulating). Do not use for large, closed basins, such as those on the Basin and Range province.
- (E) Dunes refer to mounds and ridges of windblown, or eolian sand. This term should not be used for an isolated mound unless it has a rather extensive area and is of hydrologic significance to the site.
- (F) A flat surface may be part of a larger feature, such as an upland flat, mesa or plateau, coastal plain, lake plain, or pediment terrace and valley flat, which are special varieties of flat surfaces, and are classified separately.
- (G) Flood plain refers to the surface or strip of relatively smooth land adjacent to a river channel, constructed by the present river in its existing regimen and covered with water when the river overflows its banks at times of high water.
- (H) A hilltop is the upper part of a hill or ridge above a well-defined break in slope. A site on the crest of an escarpment or top of a cuesta slope (see fig. 1) should be in this category. Use this category for hills of significant height (such as drumlins) above a generally flat area, but not for small "swells" a few feet high on an undulating surface such as a till plain or valley flat.
- (K) A sinkhole is a special type of depression that results from the dissolving of soluble rocks (salt, gypsum, limestone) and the subsequent collapse of the earth into the solution cavity. As such, it has special significance to the understanding of the hydrology in the vicinity of the site.
- (L) Lake refers to a body of inland water. However, this code also may be used for swampy or marshy areas where the ground may be saturated, or water may stand above the land surface for a significant period of time.

- (M) Mangrove swamp refers to a tropical or subtropical marine swamp characterized by abundant mangrove trees.
- (O) Offshore refers to a site along a coast or estuary that is continuously submerged.
- (P) Pediment refers to a plain of combined erosion and deposition that forms at the foot of a mountain range.
- (S) A hillside is the sloping side of a hill--that is, the area between a hilltop and valley flat. The important factor is the general aspect of the site. The steepness of the slope or height of the hill is not significant.
- (T) An alluvial or marine terrace is generally a flat surface usually parallel to, but elevated above, a stream, valley or coastline. Characteristically, steep slopes or escarpments separate the terrace from an adjacent upland on one side, and a lowland (coast or valley) on the other. Due to the effects of erosion, the terrace surface may not be as smooth as a valley flat, and within the general terrace area there may be undulating areas of dune sand or hill slopes.
- (U) Undulating topography is characteristic of areas which have many small depressions and low mounds. An undulating surface is primarily a depositional feature, not an erosional one. The term should not be misused for areas that have slightly irregular surfaces resulting from erosion.
- (V) A valley flat is a low flat area between valley walls and bordering a stream channel. It includes the flood plain, and generally is the flattest area in the valley. The surface may have a slight slope toward the main stream, toward the valley walls, or may be marked by valleys or smaller streams. Generally, the valley flat is separated from alluvial terraces, or from the upland, by a pronounced break in slope. Sometimes, however, the erosion of adjacent upland and the deposition of colluvium may make the outer edge of the alluvial flat. Use this code for sites in small valleys on a plain, if the site taps alluvium or the valley situation has hydrologic significance.
- (W) An upland draw is a small natural drainageway or depression, usually dry, on a hillside or upland.

1.27 Hydrologic-Unit Code

(SHUC/C20 - SECONDARY-KEY CHAR X(16) -- huc_cd):

Enter the hydrologic-unit code for the cataloging unit in which the site is located. This eight-digit code consists of four parts:

- 1) Hydrographic region code
- 2) Subregion code designated by the Water Resources Council
- 3) Accounting unit within the National Water Data Network
- 4) Cataloging unit of the USGS's "Catalog of Information on Water Data"

State Hydrologic Unit maps delineating the hydrographic boundaries of these units are available from the following address:

**USGS Map Sales
Federal Center, Box 25286
Denver, Colorado 80225.**

If the site does not lie within a currently designated hydrologic unit (e.g., offshore wells), the eight-digit code 99999999 may be entered in this field.

1.28 Drainage-Basin Code

(SBASIN/C801 - SECONDARY-KEY CHAR X(2) -- basin_cd):

Enter a two-digit code that further subdivides the hydrologic-unit code (C20). This two-digit code is defined by the WSC.

1.29 Time Zone Code

(SMGTOF/C813 - MANDATORY CHAR X(6) -- tz_cd):

Enter the appropriate 2-5 character time zone code for the site location. This is a mandatory field; data will not be stored for this site if this field is blank. This field is validated by a reference list located at: /usr/opt/nwis/support/reflists/tz. A published version of this reference list is available in [Appendix J](#) of the QWDATA User Documentation.

1.30 Local Standard Time Flag

(SLSTFL/C814 - MANDATORY CHAR X(1) -- local_tm_fg):

Enter a 'Y' for yes or an 'N' for no to indicate whether the site is in an area that switches to Local Standard Time (Daylight Savings Time) for a part of the year. This is a mandatory field; data will not be stored for this site if this field is blank.

1.31 Location Map

(SMAP/C14 - CHAR X(20) -- map_nm):

Enter the name of the best available map on which the site can be located, preferably a USGS topographic quadrangle. If no topographic map is available for the area, a county highway map or similar map may be used. The map names table can be accessed by using an sql statement. For example logged on as NWIS type:

```
tsql <databasename> "select distinct (map_nm) from sitefile_01" >> output filename
```

1.32 Map Scale

(SMSCAL/C15 - CHAR X(7) map_scale_fc):

Enter the scale of the map identified in the previous entry as follows: If the map scale is given as a ratio (1:24,000 1:62,500, and so forth) omit figure "1" and the colon, and enter

the remaining number without the comma. If the scale is given in miles per inch, as on many county highway maps, convert the scale to a ratio (multiply miles per inch by 63,360) and enter the remaining number without the comma. A 7 1/2-minute quadrangle (1:24,000 scale) would be entered as 24000; a county or other map of 2 inches to the mile would be entered as 31680.

1.33 Agency Use of Site

(SUSE/C803 - SECONDARY-KEY CHAR X(1) -- agency_use_cd):

Enter a code for the agency (SAGNCY) use of site. Allowable codes are:

- A - Active data-collection site
- I - Inactive or discontinued data-collection site
- O - Inventory data site only

1.34 National Water-Use Code

(SNWUSE/C39 - CHAR X(2) -- nat_water_use_cd):

Select the national water-use code from the following list:

Code	Description
WS	Water supply
DO	Domestic
CO	Commercial
IN	Industrial
IR	Irrigation
MI	Mining
LV	Livestock
PH	Hydroelectric power generation
ST	Wastewater treatment
RM	Remediation
TE	Thermoelectric power water use
AQ	Aquaculture

- (WS) Water supply refers to water withdrawn by public and private water suppliers and delivered to various users. Water suppliers can be public suppliers (public or private water systems that provide water to at least 25 people or a minimum of 15 connections), or irrigation suppliers such as irrigation companies or irrigation districts.
- (DO) Domestic refers to water for household purposes, such as drinking, food preparation, bathing, washing clothes and dishes, flushing toilets, and watering lawns and gardens. This is also called residential water use.

- (CO) Commercial refers to water used by commercial facilities such as hotels, restaurants, office buildings, educational institutions, prisons, government and military facilities, and retail sales stores. For military bases and prisons, if domestic use cannot be determined, all withdrawals should go in the commercial category.
- (IN) Industrial water use includes water for such purposes as processing, washing, and cooling in facilities that manufacture products. Electric power generation, mining, and the extraction of crude petroleum and gases are included in other water use categories.
- (IR) Irrigation refers to artificial application of water on lands to assist in the growing of crops and pastures or to maintain vegetative growth in recreational lands such as parks and golf courses.
- (MI) Mining refers to water use for extracting minerals occurring naturally, including solids such as coal and ores, liquids such as crude petroleum, and gases such as natural gas. Mining also includes uses associated with quarrying, well operations, milling, and other preparations customarily done at the mine site or as part of a mining activity. Mining does not include uses in processing, such as smelting, refining petroleum, or slurry pipeline operations.
- (LV) Livestock water use is water used for livestock watering, feed lots, dairy operations, and other on-farm needs. Livestock includes all animals other than fish.
- (PH) Hydroelectric power generation refers to the use of water to generate electricity at plants where the turbine generators are driven by falling water.
- (ST) Wastewater treatment refers to the amount of water treated and released by facilities engaged primarily in the collection, treatment, and disposal of wastewater conveyed through a sewer system.
- (RM) Remediation water use is water that is either (1) pumped from a contaminated area to control the flow direction of contaminants in ground-water or (2) pumped, treated, and either used or returned to ground-water or surface-water.
- (TE) Thermoelectric power water use is water used in the process of generating thermoelectric power using fossil fuel, nuclear, or geothermal fuel sources. Thermoelectric power generation replaces the codes for fossil fuel thermoelectric generation (PF), nuclear thermoelectric power generation (PN), and geothermal thermoelectric power generation (PG).
- (AQ) Aquaculture water use is water used for fish hatcheries and fish farms. Aquaculture replaces the code used for animal specialties (AS).

1.35 Type of Data Collected

(SDATA/C804 - 30-POSITION ARRAY CHAR X -- data_types_cd):

Code in the proper location or locations in the array, one (or more) of the following codes:

- A- Active data collection site
- I - Inactive or discontinued data collection site
- O - Inventory data site only

The following codes act as flags for the types of data collected:

Column on Screen	SDATA(30) 30*1	Types of data collected:
1	SDATA(1)	Stage or water levels--continuous
2	SDATA(2)	Stage or water levels--intermittent
3	SDATA(3)	Water quality--continuous
4	SDATA(4)	Water quality--intermittent
5	SDATA(5)	Precipitation--continuous
6	SDATA(6)	Precipitation--intermittent
7	SDATA(7)	Evaporation--continuous
8	SDATA(8)	Evaporation--intermittent
9	SDATA(9)	Wind velocity
0	SDATA(10)	Tide--continuous
A	SDATA(11)	Tide--intermittent
B	SDATA(12)	Sediment concentration
C	SDATA(13)	Sediment particle size
D	SDATA(14)	Peak flows
E	SDATA(15)	Low flows
F	SDATA(16)	Water Use
--	SDATA(17)-(30)	Unassigned

1.36 Instruments at Site

(SINST/C805 - 30-POSITION ARRAY CHAR(1) -- instruments_cd):

Enter a 'Y' for yes, leave blank for no instrument at site; multiple instruments can be identified for a site. For example: a 'Y' in position 1 designates the site has a digital recorder, and a 'Y' in position 14 shows that a tipping-bucket rain gage is also operating at the site.

Columns on Screen	SINST(30) 30*1	Flags-instrumentation installed at this site (code):
1	SINST(1)	Digital recorder
2	SINST(2)	Graphic recorder
3	SINST(3)	Telemetry--land line
4	SINST(4)	Telemetry--radio
5	SINST(5)	Telemetry--satellite relay
6	SINST(6)	AHDAS
7	SINST(7)	Crest-stage gage
8	SINST(8)	Tide gage

Columns on Screen	SINST(30) 30*1	Flags-instrumentation installed at this site (code):
9	SINST(9)	Deflection meter
0	SINST(10)	Bubble gage
A	SINST(11)	Stilling well
B	SINST(12)	CR-type recorder
C	SINST(13)	Weighing rain gage
D	SINST(14)	Tipping-bucket rain gage
E	SINST(15)	Acoustic velocity meter
F	SINST(16)	Electromagnetic flow meter
G	SINST(17)	Pressure Transducer
---	SINST(18)-(30)	Unassigned

1.37 Date Site Established or Inventoried
(SINVDT/C711 - CHAR X(8) -- inventory_dt):

Enter the date that the site was established or inventoried in the following format: MMDDYYYY (12011984). If the month or day is not known, enter blanks in the spaces. Use leading zeros for month or day values less than 10.

1.38 Remarks
(SREMRK/C806 - CHAR X(50) -- site_rmks_tx):

This field is designed for a significant remark about the site. If multiple remarks need storing, use the remarks record in the Miscellaneous File (See [Miscellaneous File Components – Chapter 2.5.](#))

1.39 Type of Ground-Water Site
(SGWTYPE/C2 - MANDATORY FOR GW SITES CHAR(1) -- gw_type_cd):

Enter the code indicating the type of site to which these data apply. Data will not be stored for the site if this field is blank. The codes and their descriptions are:

Code	Description
C	Collector or Ranney type well
D	Drain dug to intercept the water table or potentiometric surface to either lower the ground-water level or serve as a water supply
E	Excavation
H	Sinkhole

Code	Description
I	Interconnected wells, also called connector or drainage wells; that is, a well interconnected via an underground lateral
M	Multiple wells; use only for well field consisting of a group of wells that are pumped through a single header and for which little or no data about the individual wells are available
O	Outcrop
P	Pond dug to intercept the water table or potentiometric surface and serve as a water supply
R	River Pump (A pump installed in a surface water source such as a river, lake, pond, canal, or drainage ditch from which water is pumped for use.)
S	Spring (used only on spring schedule)
T	Tunnel, shaft, or mine from which ground-water is obtained
W	Well, for single wells other than wells of the collector or Ranney type.
X	Test hole not completed as a well.

Note: R=River Pump is available to surface water station types. This field is NOT mandatory for surface water station types.

1.40 Record Ready for Web

(SIWBF/C32 - CHAR(1)—site_web_cd)

This field contains the status and availability of a record for display on the World Wide Web. Only records flagged with a ‘Y’ are made available on the Web. Codes Y and N are set by the NWIS software. **Note: The web ready code cannot be deleted from the database because it is automatically populated by the GWSI software.**

Code	Description
Y	Record has been checked and is ready for Web display.
C	Record has not been checked. No Web display.
N	Record has failed one or more data verification checks. No Web display.
P	Record is proprietary. No Web display.
L	Local use only. No Web display.

1.41 Data Reliability

(SCLASS/C3 - MANDATORY CHAR(1) -- reliability_cd):

Enter the code indicating the reliability of the data available for the site. Data will not be stored for the site if this field is blank. The codes and their descriptions are:

Code	Description
C	Data have been field checked by the reporting agency.
L	Location not correct.
M	Minimal data.
U	Data have not been field checked by the reporting agency, but the reporting agency considers the data reliable.

Enter the code that best represents the reliability of the site's inventory data according to the reporting agency. When in doubt, always select the code that portrays the lesser confidence. (Note: The codes are listed in order of decreasing confidence.)

1.42 Date of First Construction

(SCONDT/C21 - CHAR X(8) -- construction_dt):

Enter the earliest date for which data are available for the site or the date when construction began, whichever is earlier. The date stored is checked against dates for data entered afterwards, and no data will be accepted if associated with an earlier date than that stored. If the month or day are not known, enter blanks in the spaces, and use leading zeros for month or day values less than 10. Enter four digits for the year.

1.43 Primary Use of Site

(SUSE1/C23 - MANDATORY (GROUND WATER) except Springs CHAR(1) -- site_use_1_cd):

Enter the code indicating the principal use of the site or the purpose for which the site was constructed (the former always holds precedence over the latter). If the site is used for more than one purpose, enter the principal use here and enter the subordinate uses in the following two fields (secondary and tertiary). Data will not be stored for the site if this field is blank. The codes and their descriptions are:

Code	Description
A	Anode
C	Standby emergency supply
D	Drain
E	Geothermal
G	Seismic
H	Heat reservoir
M	Mine
O	Observation
P	Oil or gas well
R	Recharge
S	Repressurize

Code	Description
T	Test hole
U	Unused site
V	Withdrawal/Return
W	Withdrawal of water
X	Waste disposal
Z	Destroyed

- (A) Anode is a hole used as an electrical anode. Include in this category wells used solely to ground pipelines or electronic relays and other installations.
- (C) Standby emergency supply refers to a water-supply source that is used only when the principal supply of water is unavailable.
- (D) Drain refers to the drainage of surface-water to the subsurface.
- (E) Geothermal well is a hole drilled for geothermal energy development. Use this category for "dry" geothermal wells or wells into which water is injected for heating. For "wet" geothermal wells, through which water is withdrawn, use "**W** - withdrawal of water" for the use of site, and "**E** - power generation" for the primary use of water.
- (G) Seismic hole is one drilled for seismic exploration. If it has been converted to water supply, it should be listed as "**W**-Withdrawal." A seismic hole used as an observation well should be coded as "**O**-Observation well."
- (H) Heat reservoir refers to a well in which a fluid is circulated in a closed system. Water is neither added to, nor removed from, the aquifer.
- (M) Mine includes any tunnel, shaft, or other excavation constructed for the extraction of minerals.
- (O) Observation well is a cased test-hole or well, drilled for either water-level or water-quality observations. Do not use this category for an oil-test hole, or water-supply well used only incidentally as an observation well.
- (P) Oil or gas well is any well or hole drilled in search of, or for production of, petroleum or gas. It includes any oil or gas production well, dry hole, core hole, injection well drilled for secondary recovery of oil, etc. An oil-test hole converted to a water-supply well should be classified as "withdrawal (**W**)."
- (R) Recharge site is a site constructed or converted for use in replenishing the aquifer. Use this category for wells that are used to return water to the aquifer after use, such as those for returning air-conditioning water.
- (S) Repressurize refers to pumping water into an aquifer in order to increase the pressure in the aquifer for a specific purpose, for example, water flood purposes in oil fields.
- (T) Test hole is an uncased hole (or one cased only temporarily) that was drilled for water, or for geologic or hydrogeologic testing. It may be equipped temporarily with a pump in order to make a pumping test, but if the well is destroyed after testing is completed, it is still a test hole. A core hole drilled as a part of mining or quarrying exploration work should be in this class.
- (U) An unused site is an abandoned water-supply site or one for which no use is contemplated. At an abandoned farmstead, a well originally used for domestic purposes

may be classed as unused, even though it is equipped with a pump. Similarly, a stock well with a pump may become unused when a pasture or corral is put into cultivation. An irrigation well that is not equipped with a pump, nor used because the yield is too low or the water is too mineralized, belongs in this class.

- (V) Ground-water sites that are used to both withdraw water from and inject water to a well, such as an irrigation well used to return water to the aquifer during nonpumping periods. The use of this site is to withdraw water, not for drainage or recharge.
- (W) Withdrawal of water refers to a site that supplies water for one of the purposes shown under use of water. It includes a dewatering well, if the dewatering is accomplished by pumping ground water.
- (X) A waste-disposal site is one used to convey industrial waste, domestic sewage, oil-field brine, mine drainage, radioactive waste, or other waste fluid into an underground zone. An oil-test or deep water well converted to waste disposal should be in this category.
- (Z) A destroyed site is one that is no longer in existence. The casing of most destroyed wells will be pulled, but some may be plugged or filled. Do not use this category for an abandoned site that merely is not in use.

1.44 Secondary Site Use

(SUSE2/C301 - CHAR X(1) -- site_use_2_cd):

If the site is used for more than one purpose, show the secondary use here. Enter an appropriate code from the above list.

1.45 Tertiary Site Use

(SUSE3/C302 - CHAR X(1) -- site_use_3_cd):

If needed, a third use of the site can be shown here. Enter an appropriate code from the above list.

1.46 Primary Use of Water

(SWUSE1/C24 - SECONDARY-KEY CHAR X(1) -- water_use_1_cd):

Enter the code indicating the principal use of water from the site. If water from the site is used for more than one purpose, enter the principal use here and enter the subordinate uses in the following two fields. The codes and their descriptions are:

Code	Description
A	Air conditioning
B	Bottling
C	Commercial
D	Dewate
E	Power generation
F	Fire protection
H	Domestic
I	Irrigation
J	Industrial (cooling)

Code	Description
K	Mining
M	Medicinal
N	Industrial
P	Public supply
Q	Aquaculture (in remarks)
R	Recreation
S	Stock supply
T	Institutional
U	Unused
Y	Desalination
Z	Other (explain)

- (A) Air-conditioning refers to water supply used solely or principally for heating or cooling a building. Water used to cool industrial machinery belongs in the industrial category, not in the air-conditioning category.
- (B) Bottling refers to water that is bottled for potable purposes (see Medicinal).
- (C) Commercial use refers to use by a business establishment that does not fabricate or produce a product. Filling stations and motels are examples of commercial establishments. If some product is manufactured, assembled, remodeled, or otherwise fabricated, use of water for that plant should be considered industrial, even though the water is not used directly in the product or in the manufacturing of the product.
- (D) Dewatering refers to water pumped for dewatering a construction or mining site, or to lower the water table for agricultural purposes. In this respect, it differs from a drainage well that is used to drain surface water underground. If the main purpose for which the water is withdrawn is to provide drainage, dewatering should be indicated even though the water may be discharged into an irrigation ditch and subsequently used to irrigate land.
- (E) Power generation refers to use of water for generation of any type of power. Water for cooling and boiler make-up water are included.
- (F) Fire protection refers to the principal use of the water and should be indicated if the site was constructed principally for this purpose, even though the water may be used at times to supplement an industrial or public supply, to irrigate a golf course, fill a swimming pool, or for other use.
- (H) Domestic use is water used to supply household needs, principally for drinking, cooking, washing, and sanitary purposes, but including watering a lawn and caring for a few pets. Most domestic wells will be at suburban or farm homes, but wells supplying small quantities of water for domestic purposes for one-classroom schools, turnpike gates, and similar installations should be in the domestic category.
- (I) Irrigation refers to the use of water to irrigate cultivated plants. Most irrigation sites will supply water for farm crops, but the category should include wells used to water the grounds of schools, industrial plants, or cemeteries, if more than a small amount of water is pumped and that is the sole use of the water. Water used to irrigate golf courses or park lands is also coded as Irrigation.
- (J) Industrial cooling refers to a water supply used solely for cooling industrial machines.

- (K) Mining refers to a water supply used solely for mining purposes.
- (M) Medicinal refers to water purported to have therapeutic value. Water may be used for bathing and/or drinking. If use of water is mainly because of its claimed therapeutic value, use this category even though the water is bottled.
- (N) Industrial use is within a plant that manufactures or fabricates a product. The water may or may not be incorporated into the product being manufactured. Industrial water may be used to cool machinery, to provide sanitary facilities for employees, to air-condition the plant, and to irrigate the ground at the plant.
- (P) Public Supply use is water that is pumped and distributed to several homes. Such supplies may be owned by a municipality or community, a water district, or a private concern. In most states, public supplies are regulated by departments of health which enforce minimum safety and sanitary requirements. If the system supplies five or more homes, it should be considered a public supply, as four or less classify use as domestic. Water supplies for trailer or summer camps with five or more living units should be in this category, but motels and hotels are classified as commercial. Most public supply systems also furnish water for a variety of other uses, such as industrial, institutional, and commercial.
- (Q) Aquaculture refers to a water supply used solely for aquaculture, such as fish farms.
- (R) Recreation refers to water discharged into pools (or channels which are dammed downstream to form pools), for swimming, boating, fishing, ice rinks, and other recreational uses. Water used to irrigate golf courses is coded as "I-Irrigation."
- (S) Stock Supply refers to the watering of livestock.
- (T) Institutional refers to water used in the maintenance and operation of institutions such as large schools, universities, hospitals, rest homes, or similar installations. Owners of institutions may be individuals, corporations, churches, or governmental units.
- (U) Unused means water is not being removed from the site for one of the purposes described above. A test hole, oil or gas well, recharge, drainage, observation, or waste-disposal well will be in this category.

Do not use this classification for an irrigation, domestic, stock, or other well during "off season" or temporary periods of nonuse. The use of water from a newly constructed site should be considered as the use for which it is intended even though it may not yet be in use when inventoried.
- (Y) Desalination refers to water used in a desalting process whereby dissolved solids are removed to make water potable or suitable for other uses. Enter the type of use of the desalinated water in the next column, "Secondary Water Use."
- (Z) Other refers to miscellaneous uses not included in the listed categories.

1.47 Secondary Use of Water

(SWUSE2/C25 - CHAR X(1) -- water_use_2_cd):

If water from the site is used for more than one purpose, show the secondary use here. Enter an appropriate code from the list above.

1.48 Tertiary Use of Water

(SWUSE3/C26 - CHAR X(1) -- water_use_3_cd):

If needed, a third use of water from the site can be shown here. Enter an appropriate code from the list above.

1.49 Aquifer Type Code

(SAQTYP/C713 - CHAR X(1) -- aqfr_type_cd):

Enter the appropriate code to describe the type of aquifer(s) penetrated by the well.

Code	Aquifer Type
U	Unconfined single aquifer
N	Unconfined multiple aquifers
C	Confined single aquifer
M	Confined multiple aquifer
X	Mixed (confined and unconfined multiple aquifers)

1.50 Primary Aquifer

(SAQFR/C714 - SECONDARY-KEY CHAR X(8) -- aqfr_cd):

Enter the eight-character code identifying the primary aquifer unit from which the water is obtained. Aquifer codes are given in the "Catalog of Aquifer Names and Geologic Unit Codes used by the Water Resources Division." Codes are also available in the online file:

/usr/opt/nwis/support/aageol.all.states.

1.51 Hole Depth

(SHDEPT/C27 - CHAR X(8) -- hole_depth_va):

Enter the total depth to which the hole was drilled, in feet below the land-surface datum, even though it may have been plugged back in completing the well. For collector or Ranney type wells, enter the depth of the central shaft. For multiple-well fields, interconnected wells, ponds, tunnels, or drains, leave the space blank.

1.52 Well Depth

(SWDEPT/C28 - CHAR X(8) -- well_depth_va):

Enter the depth of the finished well, in feet below land-surface datum. The depth of the well is the greatest depth to which the well can be sounded; if measurement is not practical, enter the reported depth at which the well was finished.

This field should be completed for wells whenever possible. If the hole depth is given, all other depths entered on the schedule will be compared with it for validity; well depth cannot exceed hole depth. Precision may be carried to two decimal places.

1.53 Source of Depth Data

(SWDSRC/C29 - CHAR X(1) -- depth_src_cd):

Enter an appropriate code to indicate how the information about the depth of the well was obtained. The codes and their descriptions are:

Code	Description
A	Reported by another government agency. Do not use A if the reporting agency is the owner of the well--use O .
D	From driller's log or report.
G	Private geologist-consultant or university associate.
L	Depth interpreted from geophysical logs by personnel of source agency.
M	Memory (owner, operator, driller): less reliable than O – reported by owner.
O	Reported by the owner of the well.
R	Reported by person other than the owner, driller, or another government agency.
S	Measured by personnel of reporting agency.
Z	Other source (explain in remarks).

1.54 Drainage Area

(SAREA/C808 - CHAR X(8) -- drain_area_va):

Enter the total drainage area of the drainage basin for a surface-water site (in square miles). If the value contains a fractional part of a square mile, the decimal point must be entered.

1.55 Contributing Drainage Area

(SCNTRB/C809 - CHAR X(8) -- contrib_drain_area_va):

Enter the contributing drainage area at a surface-water site (in square miles). This item should be entered only if the contributing area is different from the total drainage area. This situation can occur when part of the drainage area consists of very porous soil or depressions that either allow all runoff to enter the ground-water, or traps the water in ponds so that rainfall does not contribute to runoff. A transbasin diversion can also affect the total drainage area.

1.56 Other Ground-Water Data Files

(SGWFLE/C712 - MANDATORY FOR GROUND-WATER 30-POSITION
ARRAY CHAR X -- gw_file_cd):

This field is automatically set by the EDIT/UPDATE program and reflects the availability of other ground-water data. This component appears in dump format output but may not be meaningful. The contents of this field should be used with great caution:

Y -- Yes, file exists.

N -- No, file does not exist.

SGWFLE(20) 20*1 Data in other ground-water files:

SGWFLE(1) Construction (GW.CONNS) data for site

SGWFLE(2) Miscellaneous (GW.MISC) data for site

SGWFLE(3) Discharge (GW.DISC) data for site

SGWFLE(4) Geohydrologic (GW.GEOH) data for site

SGWFLE(5) Hydraulic (GW.HYDR) data for site

SGWFLE(6) Water-level (GW.LEV) data for site

SGWFLE(7) Observation-heading (GW.OBS) data for site

SGWFLE(8)-(20) Unassigned