GWIS DATABASE DATA DICTIONARY
VERSION 1.7 – JULY 2021 updated

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
WATERSHED MONITORING PROGRAM

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Table T_STATION

Contains information collected on sampled stations belonging to the different networks.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
PK_STATION	NOT NULL	NUMBER		Primary Key	Float	1, 3, 930	Any unique station identifier.	None legal - field must be filled.	This identifier will not be changed or duplicated. Only one id allowed, even if station is sampled by more than one agency. Generated by sequence SEQ_STATION_ID.
STATION_ID		VARCHAR2	20	FDEP Unique sampling station.	20 alphanumeric characters	303001082153401, 260041080493101	Any unique station identifier.	Blank	Historic primary identifier used for Background, VISA and HRS monitoring networks. Became outdated in the year 2000 with the conversion of the database to Oracle. Previously named DER_WELLID in Well Database, modified 1997.
STATION_NAME	NOT NULL	VARCHAR2	100	A 100-character alphanumeric code identifying the station.	100 alphanumeric characters	Power Plant #4, Harry Edwards Park	Any descriptive alphanumeric name up to 100 characters long	None legal – field must be filled.	
STATION_ALIAS		VARCHAR2	100	Alias given to station which may provide more information	100 alphanumeric characters	A-12, Joe North's Well, McInnes Arm	Any character string.	Blank	May refer to a specific project conducted by the sampling agency.
STORET_IDENTIFIER		VARCHAR2	15	An alphanumeric code identifying the unique EPA Florida STORET identifier for the station.	15 alphanumeric characters	46059	Any unique alphanumeric identifier up to 15 characters long	Blank	This must uniquely identify site throughout the reporting agency and cannot be changed. Added 1997. Although nulls are allowed in the table, they are not allowed for Status and Trend Network stations.
DEP_WELL_IDENTIFIER		VARCHAR2	16	Historic identifier for well used in the Ground Water Monitoring Program	16 alphanumeric characters	280916081042101	Any unique alphanumeric identifier up to 16 characters long.	Blank	Antiquated with the migration of the ground water database into Oracle and the incorporation of surface water data at that time. Field will be dropped from this table.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
FLORIDA_UNIQUE_WELL_ IDENTIFIER		VARCHAR2	7	Florida Unique Well Identification tag number. Tag is affixed to well and uniquely identifies the well with a number that does not contain any imbedded information and does not link the well to any particular agency.	7 alphanumeric characters	AAA0311, AAD5321, AAE1303	Any unique alphanumeric identifier up to 16 7 characters long.	Blank	Allan Porostovsky (WRM) prints the labels and maintains a database containing a list of the FLUWID tag numbers that have been distributed, and which agency they were distributed to. Allan is also the contact for reprinting labels for older FLUWIDs for wells where the tag has become damaged.
PROPERTY_OWNER		VARCHAR2	10	The name of the individual to whom all correspondence about the well or surface water site should be addressed. The owner of the property where the well or site is located. May also be the owner of the well.	50 alphanumeric characters	John Q. Smith, City Manager, City of Tampa	Any character string	Blank	This is the name or position title of the person associated with the ownership of the property and/or well.
OWNER		VARCHAR2	50	Physical owner (a person or organization) of the well or waterbody	50 alphanumeric characters	John Q. Smith, City of Tallahassee, Buckeye Cellulose	Any character string	Blank	This is the actual owner of the well or surface water site, not agency monitoring well or local lesser/renter
OWNER_MAILING_ADDRESS		VARCHAR2	100	Mailing address of owner of property on which well of surface water site is located.	100 alphanumeric characters for the street address or post office box.	1324 Orange Ave, PO Box 555	Any real address	Blank	
OWNER_CITY		VARCHAR2	50	City component of mailing address of owner of property on which well of surface water site is located.	20 alphanumeric characters for city	Tallahassee, Miami, Hot Springs	Any real city	Blank	
OWNER_STATE		VARCHAR2	2	US Postal Service abbreviation for state code of owner of property on which well of surface water site is located.	2 alphabetic characters for state abbreviation	FL, SD	Any state code	Blank	Use standard US Postal Service abbreviations for states.
OWNER_ZIP		VARCHAR2	10	Mailing zip code of owner of property on which well of surface water site is located.	10 alphanumeric characters	32302, 12121-3454	Any US zip code	Blank	
OWNER_TELEPHONE		VARCHAR2	10	Phone number of owner of property on which well of surface water site is located.	10 numeric characters	9045551212, 4076211313	Any real phone number	Blank	Include current area code; Do not include dashes or parentheses. Although field allows characters, only numbers should be entered.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
OWNER_SECONDARY_TELEPHONE		VARCHAR2	10	Secondary phone number of owner of property on which well of surface water site is located.	10 numeric characters	9045551212, 4076211313	Any real phone number	Blank	Include current area code; Do not include dashes or parentheses. Although field allows characters, only numbers should be entered. Added March 3, 2011.
OWNER_EMAIL		VARCHAR2	99	Valid email address for owner of property.	99 alphanumeric characters	JoeSmoe99@gmail.com	Any real email address	Blank	Added March 3, 2011
CONTACT_AGENCY		VARCHAR2	30	Agency designated by property owner to receive data and/or correspondence regarding well or surface water site.	30 alphanumeric characters	U.S. Geological Survey, Disney World, South Florida WMD	Any real agency or business	Blank	Agency for which the individual listed in the CONTACT_NAME field works or volunteers.
CONTACT_NAME		VARCHAR2	50	Person or position at Contact Agency designated by property owner to receive data and/or correspondence regarding well or surface water site.	50 alphanumeric characters	John Q. Smith, City Manager, Environmental Officer	Any character string	Blank	May be either a name or position title.
CONTACT_ADDRESS		VARCHAR2	100	Mailing address of the person or agency, designated by the property owner, to receive data and/or correspondence regarding this well or surface water site.	100 alphanumeric characters for the street address or post office box.	1324 Orange Ave, PO Box 555	Any real address	Blank	
CONTACT_CITY		VARCHAR2	50	City component in the mailing address of the person or agency, designated by the property owner, to receive data and/or correspondence regarding this well or surface water site.	50 alphanumeric characters	Tallahassee, Miami, Hot Springs	Any real city	Blank	
CONTACT_ZIP		VARCHAR2	10	Zip code of the person or agency, designated by the property owner, to receive data and/or correspondence regarding this well or surface water site.	10 alphanumeric characters for the zip code	32302, 12121-1453	Any real zip code	Blank	
CONTACT_STATE		VARCHAR2	2	US Postal Service abbreviations for state code of the person or agency, designated by the property owner, to receive data and/or correspondence regarding this well or surface water site	2 alphabetic characters for state abbreviation	FL, SD	Any state code	Blank	Use standard US Postal Service abbreviations for states.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
CONTACT_TELEPHONE		VARCHAR2	10	Phone number of the person or agency, designated by the property owner, to receive data and/or correspondence regarding this well or surface water site.	10 numeric characters	9045551212, 4076211313	Any real phone number	Blank	Include current area code; Do not include dashes or parentheses. Although field allows characters, only numbers should be entered.
CONTACT_SECONDARY_TELEPHONE		VARCHAR2	10	Secondary phone number of the person or agency, designated by the property owner, to receive data and/or correspondence regarding this well or surface water site	10 numeric characters	9045551212, 4076211313	Any real phone number	Blank	Include current area code; Do not include dashes or parentheses. Although field allows characters, only numbers should be entered. Added March 3, 2011.
CONTACT_EMAIL		VARCHAR2	99	Valid email address for the contact person for this well or surface water site.	99 alphanumeric characters	JoeSmoe99@gmail.com	Any real email address	Blank	This is the email for the person, designated by the property owner, who should receive data and/or correspondence regarding this well or surface water site. Added March 3, 2011.
NOTIFICATION_LETTER		VARCHAR2	1	A code field describing who, if anyone, should receive the 'Owner's Notification Letter'.	One alphabetic character	O, C	O, C	Blank	C = Contact person, O = Owner, null = no letter to be sent. Added November 1998.
LATITUDE		VARCHAR2	10	Latitude location of station to the nearest thousandth of a second (or best available information).	DDMMSS.THM	243625, 243625.298	In Florida, latitude ranges from approximately 240000 to 320000	Blank	Depending on method of location determination, the value may be expressed to the nearest second, or the nearest tenth, hundredth, of thousandth of a second. The value should be left-justified, and carried out to the appropriate number of significant figures. Given the current technology three characters to the right of decimal point gives the greatest accuracy possible. Due to GWIS Database Utilities programming this field can be NULL. However, if it is not populated the Oracle Spatial procedure will not update GIS information for the record.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
LONGITUDE		VARCHAR2	10	Longitude location of station to the nearest thousandth of a second (or best available information).	DDMMSS.THM	820653, 820653.358	In Florida, longitude ranges from approximately 800000 to 880000	Blank	Depending on method of location determination, the value may be expressed to the nearest second, or the nearest tenth, hundredth, of thousandth of a second. The value should be left-justified, and carried out to the appropriate number of significant figures. Given the current technology three characters to the right of decimal point gives the greatest accuracy possible. Due to GWIS Database Utilities programming this field can be NULL. However, if it is not populated the Oracle Spatial procedure will not update GIS information for the record.
COUNTY_CODE		NUMBER		Numeric code referencing county_name in MT_COUNTY	Numeric	1,2,3…	Any number 1 through 67	Blank	Field is automatically populated by an Oracle Spatial procedure that is triggered any time a station is added to or updated in T_STATION. Technically, this field can be null but is required to be filled for any stations that will be loaded to STORET.
COUNTY_NAME		VARCHAR2	20	Legal name of Florida county where station is located	20 alphabetic characters	Leon, Sarasota, Broward	Any legal Florida county name	Blank	Field is automatically populated by an Oracle Spatial procedure that is triggered any time a station is added to or updated in T_STATION. Technically, this field can be null but is required to be filled for any stations that will be loaded to STORET. Oracle Spatial will not provide if the site falls outside of Florida and therefore the field will remain null for any stations falling outside of Florida.
WATER_MANGEMENT_DISTRICT		VARCHAR2	60	Water Management District name in which station is located, regardless of actual sampling agency.	60 alphabetic characters	SOUTHWEST FLORIDA WMD, ST. JOHNS RIVER WMD, etc.	Any legal Florida water management district name		Field is automatically populated by an Oracle Spatial procedure that is triggered any time a station is added to or updated in T_STATION. Technically, this field can be null but is required to be filled if a value exists. Oracle Spatial will not provide if the site falls outside of Florida and therefore the field will remain null for any stations falling outside of Florida.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
DEP_DISTRICT		VARCHAR2	50	Name identifying the DEP District in which station is located, regardless of actual sampling agency	50 alphabetic characters	CENTRAL DISTRICT	Any of the six DEP Districts	Blank	Field is automatically populated by an Oracle Spatial procedure that is triggered any time a station is added to or updated in T_STATION. Technically, this field can be null but is required to be filled for if a value exists. Oracle Spatial will not provide if the site falls outside of Florida and therefore the field will remain null for any stations falling outside of Florida. Added 1994
REPORTING_UNIT_NAME		VARCHAR2	25	One of the six geographic zones used for data analysis.	25 alphanumeric characters	ZONE 1	The reporting unit names of the 6 zones used in the current cycle (of the Status Network; and the reporting unit names of the 29 TDML basins for cycle two of the status network (2004-2008), and the reporting unit names for the 20 reporting units used for the status network in cycle one.	Blank	Zones correspond to WMD boundaries, except for South Florida which is split into an east and west subunits. For cycle two of the status network see TMDL_BASIN database field name. Technically, this field can be null but is required to be filled if a value exists. This field is manually populated when a new Trend station is created or when Status randomly selected sites are loaded.
TMDL_BASIN		VARCHAR2	50	One of the 29 TMDL reporting units. Each consists of one or more major river basins, *i.e.*, one or more hydrologic unit codes.	50 alphanumeric characters	APALACHICOLA – CHIPOLA	Any of the 29 TMDL Reporting Units	Blank	Field is automatically populated by an Oracle Spatial procedure that is triggered any time a station is added to or updated in T_STATION. Technically, this field can be null but is required to be filled if a value exists. Added 2004 for cycle two of status network.
HYDROLOGIC_UNIT_CODE		VARCHAR2	8	USGS numerical designator of major surface water basin in which station is located. This can be determined from USGS Hydrologic Unit Map/State of Florida, 1974, Florida Bureau of Geology Map series No. 72.	8 numeric characters in 03nnnnnn, where 03 is state code (same statewide) and nnnnnn is basin code	03110102, 03100103	Appendix D	Blank	Field is automatically populated by an Oracle Spatial procedure that is triggered any time a station is added to or updated in T_STATION. Technically, this field can be null but is required to be if a value exists. These are surface water basin boundaries.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
HYDROLOGIC_UNIT_NAME		VARCHAR2	30	Corresponding name for Hydrologic Unit Code	30 alphanumeric characters	WITHLACOOCHEE RIVER, TAYLOR CREEK	Appendix D	Blank	Field is automatically populated by an Oracle Spatial procedure that is triggered any time a station is added to or updated in T_STATION. Technically, this field can be null but is required to be if a value exists. These are surface water basin boundaries.
FIPS_COUNTY_CODE		NUMBER	3	Federal Information Processing Standard (FIPS) County Code. A three-digit numerical code identifying county. Only odd numbers - no even numbered codes.	3 digit numerical - no decimal point, no decimal digits.	001, 027, 133	001 to 133 – no even values. Appendix C	Blank	Field is automatically populated by an Oracle Spatial procedure that is triggered any time a station is added to or updated in T_STATION. Technically, this field can be null but is required to be filled for any stations that will be loaded to STORET. Oracle Spatial will not provide if the site falls outside of Florida and therefore the field will remain null for any stations falling outside of Florida.
BIS_DISTRICT_ID		VARCHAR2	4	Up to 4 characters that correspond to the DEP District in which the station is located	4 alphabetic characters	CD, NWD	CD, NED, NWD, SD, SED, SWD	Blank	Field is automatically populated by an Oracle Spatial procedure that is triggered any time a station is added to or updated in T_STATION. Technically, this field can be null but is required to be filled if a value exists. Oracle Spatial will not provide if the site falls outside of Florida and therefore the field will remain null for any stations falling outside of Florida. Added 2002.
WBID		VARCHAR2	6	Water Body Identification (ID) Subunit of USGS hydrologic unit code (HUC) derived from USGS 16-unit extended HUC code. Used for assessing water quality in the Impaired Waters Rule (IWR)	6 alphanumeric characters	1724, 1538A	Any valid WBID assigned by the Water Quality Assessment Section	Blank	Field is automatically populated by an Oracle Spatial procedure that is triggered any time a station is added to or updated in T_STATION. Technically, this field can be null but is required to be filled if a value exists. Oracle Spatial will not provide if the site falls outside of Florida and therefore the field will remain null for any stations falling outside of Florida. Added 2005.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
PLANNING_UNIT		VARCHAR2	60	Planning units are smaller areas in a basin that provide a more detailed geographic basis for evaluating water quality improvement activities. May consist of a HUC or groups of WBID.	60 alphanumeric characters	ESCAMBIA RIVER, YELLOW RIVER	Any legal planning unit	Blank	Field is automatically populated by an Oracle Spatial procedure that is triggered any time a station is added to or updated in T_STATION. Technically, this field can be null but is required to be filled if a value exists. Oracle Spatial will not provide if the site falls outside of Florida and therefore the field will remain null for any stations falling outside of Florida. Added 2005.
WATERBODY_TYPE		VARCHAR2	30	The name identifying the type of the water body on which the station is located. The designation "stream" includes rivers and sloughs. The designation “lake” includes some marshes. Dictates which Impaired Water Rule (IWR) assessment procedure to use.	30 alphabetic characters	LAKE, STREAM	AQUIFER, CANAL, ESTUARY, LAKE, STREAM, SPRING	Blank	This field is manually populated when a new Trend station is created or when Status randomly selected sites are loaded. Added 1997.
WATER_RESOURCE		VARCHAR2	30	Describes types of water bodies sampled for Status and Trend Networks	30 alphabetic characters	CANAL, LARGE LAKE, UNCONFINED AQUIFER	UNCONFINED AQUIFER CONFINED AQUIFER LARGE LAKE SMALL LAKE LARGE RIVER SMALL STREAM ESTUARY SPRING_VENT SPRING_BOIL SPRING_RUN SPRING_CONDUIT SPRING_CONDUIT_WELL SPRING_CONDUIT_TUBING SPRING_SEEP SPRING_VENT_TUBING CANAL SPRING_DRAIN SPRING_RISE SPRING_UPSTREAM KARST_WINDOW SPRING_GENERAL	Blank	This field is manually populated when a new Trend station is created or when Status randomly selected sites are loaded. Any of names found in MT_W_RESOURCE.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
WATERBODY_NAME		VARCHAR 2	100	A 100-alphabetic character name identifying legal or map name of the water body on which the station resides.	100 alphabetic characters	St. Marks River, Floridian Aquifer, Lake Okeechobee	Any waterbody name recognized by USGS Board on Geographic Names (https://geonames.usgs.gov/) and incorporated into the NHD GIS Layer.	Blank	This field is manually populated when a new Trend station is created or when Status randomly selected sites are loaded. Added 1997.
SUBAQUIFER		VARCHAR 2	60	Descriptive name for stratigraphic unit from which water is being taken.	60 alphanumeric characters	LAKE FLIRT MARL, NONARTESIAN SAND AQUIFER	Appendix G	Blank	Applies only to WATERBODY_TYPE = AQUIFER. Names are found in MT_SUBAQ.
TOP_OF_AQUIFER		NUMBER		Elevation of top of aquifer tapped in feet, relative to National Geodetic Vertical Datum-1929 ("mean sea level").	(+) nnnn where n is a number (note optional +/- sign).	-234, -1010, -5	Any value between -9999 and +9999, inclusively	Blank	Applies only to WATERBODY_TYPE = AQUIFER
BOTTOM_OF_AQUIFER		NUMBER		Elevation of bottom of aquifer tapped in feet, relative to National Geodetic Vertical Datum-1929 ("mean sea level").	(+) nnnn where n is a number (note optional +/- sign).	-234, -1010, -5	Any value between -9999 and +9999, inclusively	Blank	Applies only to WATERBODY_TYPE = AQUIFER
WELL_GEOLOGIC_LOG		VARCHAR 2	3	A yes or no flag telling whether a geophysical log of any sort is available on this well.	1 alphabetic character	Y or N	Y, N	Blank	Type of log(s) and location should be included in comments. Applies only to WATERBODY_TYPE = AQUIFER
WELL_LITHOLOGIC_LOG		VARCHAR 2	3	A yes or no flag telling whether a lithologic log is available on this well.	1 alphabetic character	Y or N	Y, N	Blank	Type of log(s) and location should be included in comments. Applies only to WATERBODY_TYPE = AQUIFER
WELL_DRILLER_LOG		VARCHAR 2	3	A yes or no flag telling whether a well driller's log is available on this well.	1 alphabetic character	Y or N	Y, N	Blank	Type of log(s) and location should be included in comments. Applies only to WATERBODY_TYPE = AQUIFER
WELL_HYDROLOGIC_DATA		VARCHAR 2	3	A yes or no flag telling whether hydrologic data (permeability, transmissivity, pump tests, etc.) are available for this well.	1 alphabetic character	Y or N	Y, N	Blank	Type of data and location should be included as a comment. Applies only to WATERBODY_TYPE = AQUIFER
CONFINED		VARCHAR 2	3	A one-character code designating if a confining layer is present.	1 alphabetic character	Y or N	Y = yes, aquifer has a confining layer at the station's location; N = no, aquifer does not have a confining layer at the station's location.	Blank	Applies only to WATERBODY_TYPE = AQUIFER. Added 1996
SURFACE_WATER_CLASS		VARCHAR 2	10	As defined in FAC 62-302.400	10 alphabetic characters	Class I, Class III	Class I, Class I – Treated, Class II, Class III, Class III – Limited, Class IV, Class V	Blank	

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
WELL_DRILL_DATE		DATE		Month, day and year well drilling was completed	MM/DD/YYYY	6/20/1985	Any real date where MM = Month, DD = Day, and YYYY equals year.	Blank	This is initial drilling date; if the well was drilled deeper more recently, then note this in comments field. Applies only to WATERBODY_TYPE = AQUIFER.
WELL_STATUS		VARCHAR2	70	Description of physical status of well.	70 alphabetic characters	FLOWING, ACTIVE NOT FREE FLOWING DESTROYED	• DESTROYED • DESTROYED AND NO LONGER USEABLE • FLOWING,ABANDONED, FREE FLOWING • FLOWING,ABANDONED, NOT FREE FLOW • FLOWING,ACTIVE,FREE FLOWING • FLOWING,ACTIVE,NOT FREE FLOWNG • NON-FLOWING,ABANDONDED • NON-FLOWING,ACTIVELY PUMPED • NON-FLOWING,NO PUMP • PLUGGED • UNKNOWN	Blank	Codes provided by other agencies during listframe development must be converted to one of the legal values using the agencies data dictionary. Applies only to WATERBODY_TYPE = AQUIFER. Legal values found in MT_WELLSTAT.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
WELL_TYPE		VARCHAR 2	70	Description of current use of well.	70 alphabetic characters	IRRIGATION WELL, GROUND WATER MONITORING WELL	• AGRICULTURAL SUPPLY WELL • DOMESTIC • DRAINAGE WELL • GROUND WATER LEVEL OBSERVATION WELL • GROUND WATER OBSERVATION WELL • GROUND WATER QUALITY MONITORING WELL • GROUND WATER QUALITY OBSERVATION WELL • GROUNDWATER MONITORING WELL • INDUSTRIAL SUPPLY WELL • IRRIGATION WELL • MONITORING • NOT YET DETERMINED • OPEN HOLE • OTHER WELL • PRIVATE DRINKING WATER WELL • PUBLIC DRINKING WATER WELL	Blank	This is the primary use of the well. Applies only to WATERBODY_TYPE = AQUIFER. Legal values found in MT_WELLTYPE.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
WELL_CONSTRUCTION_METHOD		VARCHAR2	35	Description of well construction method	35 alphabetic character	HYDRAULIC ROTARY, JETTED, UNKNOWN	• AIR PERCUSSION • AIR ROTARY • BORED OR AUGERED • CABLE TOOL • DRIVEN • HAND DUG • HYDRAULIC ROTARY • JETTED • NOT YET DETERMINED • OTHER • OTHER/COMBINATION(DESCRIBE COMB.IN COMMENT) • REVERSE ROTARY • ROTARY • UNKNOWN	Blank	If more than one method of construction is used, list methods in comment field. Applies only to WATERBODY_TYPE = AQUIFER. Legal values found in MT_CONSMETH.
WELL_LIFT_TYPE		VARCHAR2	25	Description of type of lift permanently installed in well.	25 alphabetic character	AIRLIFT, PERISTALTIC PUMP, TURBINE PUMP	• AIRLIFT • BUCKET/BAILER • CENTRIFUGAL PUMP • HAND OR PITCHER PUMP • JET PUMP • NONE • NOT YET DETERMINED • OTHER • PERISTALTIC PUMP • PISTON PUMP • ROTARY PUMP • SUBMERSIBLE PUMP • TURBINE PUMP • UNKNOWN	Blank	This is the type of lift permanently installed in well. It is not the method of sample collection or purging method. Applies only to WATERBODY_TYPE = AQUIFER. Legal values found in MT_LIFTTYPE.
WELL_TOTAL_DEPTH		NUMBER		Total depth (in feet) to current bottom of well from land surface rounded to nearest foot.	Numeric	1000, 235, 10	Any whole number between 1 and 99999, inclusively.	Blank	Total depth for springs should be best estimate of actual depth of spring. Applies only to WATERBODY_TYPE = AQUIFER or SPRING.
WELL_CASING_DEPTH		NUMBER		Total depth (in feet) to current bottom of well casing from land surface rounded to nearest foot	Numeric	1000, 235, 10	Any whole number between 1 and 99999, inclusively.	Blank	Casing depth of wells without casing and springs is 0. Applies only to WATERBODY_TYPE = AQUIFER or SPRING.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
WELL_FINISH		VARCHAR 2	60	Description of method of well finish.	60 alphabetic characters	GRAVEL-PACK,PERFORATED CASING, PERFORATED OR SLOTTED CASING	• PVC, BOND UNKNOWN • ANY OTHER METHOD • GRAVEL-PACK, WITH SCREEN • GRAVEL-PACK,PERFORATED CASING • NOT YET DETERMINED • NOT YET DETERMINED, OTHER MATERIALS • OPEN HOLE • PERFORATED OR SLOTTED CASING • SAND POINT • SCREEN • SCREEN, PVC, BOND UNKNOWN • SCREEN, PVC, NON-SOLVENT BOND • UNKNOWN • WALLED	Blank	Applies only to WATERBODY_TYPE = AQUIFER. Legal values found in MT_FINISH.
WELL_SCREEN_BEGIN_DEPTH		NUMBER		Depth to top of screened or open hole interval measured in feet From land surface, rounded to nearest foot.	Numeric	123, 142, 10	Any value between 1 and 99999 inclusively, with the WELL_SCREEN_BEGIN_DEPTH being less than or equal to WELL_SCREEN_END_DEPTH (screen or open hole beginning at or higher than screen or open hole end).	Blank	If there is no screen or open hole, then open hole begins and ends at depth of casing. If there is no casing, then open hole begins at 0. If site is a spring, then open hole begins at 0 and continues to estimated actual depth of spring. Applies only to WATERBODY_TYPE = AQUIFER or SPRING.
WELL_SCREEN_END_DEPTH		NUMBER		Depth to bottom of screened or open hole interval measured in feet from land surface, rounded to nearest foot.	Numeric	123, 142, 10	Any value between 1 and 99999 inclusively, with the WELL_SCREEN_END_DEPTH being greater than or equal to WELL_SCREEN_BEGIN_DEPTH (screen or open hole beginning at or higher than screen or open hole end).	Blank	If there is no screen or open hole, then open hole begins and ends at depth of casing. If there is no casing, then open hole begins at 0. If site is a spring, then open hole begins at 0 and continues to estimated actual depth of spring. Applies only to WATERBODY_TYPE = AQUIFER or SPRING.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
WELL_SCREEN_MATERIAL		VARCHAR2	40	Description of material of which screen is made	40 alphabetic character	GALVANIZED IRON OR GALVANIZED STEEL, STAINLESS STEEL	• BLACK IRON OR BLACK STEEL • BRASS OR BRONZE • GALVANIZED IRON OR GALVANIZED STEEL • NOT APPLICABLE • OTHER METALS • OTHER MATERIALS • OTHER PLASTICS • PVC • PVC, BOND UNKNOWN • PVC, NON-SOLVENT BOND • PVC, NON-SOLVENT BOND (INCLUDES THREADED • PVC, SOLVENT BOND • STAINLESS STEEL • STEEL • UNKNOWN • WROUGHT IRON	Blank	Unscreened wells are left blank. Applies only to WATERBODY_TYPE = AQUIFER. Legal values found in MT_SCR_MAT.
WELL_SCREEN_DIAMETER		NUMBER		Diameter of screen in inches and hundredth of an inch	nn.nn where n is a number (note two digits after decimal point.)	2.00, 10.25, 4.50	Any value between 00.01 and 99.99, inclusively.	Blank	Applies only to WATERBODY_TYPE = AQUIFER

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
WELL_CASING_MATERIAL		VARCHAR2	70	Description of material of which casing is made	70 alphabetic character	ABS PLASTIC, CONCRETE, FIBERGLASS	• ABS PLASTIC • BLACK IRON OR BLACK STEEL • BLACK STEEL • BRICK • CONCRETE • FIBERGLASS • GALVANIZED IRON OR GALVANIZED STEEL • IRON • NONE • OTHER MATERIALS • OTHER METALS • OTHER PLASTIC • PVC • PVC - UNKNOWN BOND • PVC OR PLASTIC • PVC, BOND UNKNOWN • PVC, NON-SOLVENT BOND • PVC, NON-SOLVENT BOND (INCLUDES THREADED PVC USING NO GLUE) • PVC, SOLVENT BOND • PVC, THREADED • PVC, UNKNOWN BOND • ROCK OR STONE • STAINLESS STEEL • STEEL • UNKNOWN • WROUGHT IRON	Blank	Uncased wells and springs are left blank
WELL_CASING_DIAMETER		NUMBER		Diameter of casing in inches and hundredth of an inch.	nn.nn where n is a number (note two digits after decimal point.)	2.00, 10.25, 4.50	Any value between 00.01 and 99.99, inclusively.	Blank	Required for WATERBODY_TYPE = AQUIFER or SPRING where a casing is present.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
LAND_SURFACE_ELEVATION		VARCHAR2	7	Elevation of land surface, in feet, around casing relative to National Geodetic Vertical Datum-1929 ("mean sea level") or North American Vertical Datum of 1988.	7 alphanumeric characters in the format (+)/(-)nnn.nn. (+) is implied if not entered.	-2.00, 10.25,+124.54	Any value between -999.99 and +999.99, inclusively.	Blank	Required field to determine water level for WATERBODY_TYPE = AQUIFER. If LSE_DATUM_ID is not populated, value is assumed to be NGVD29.
WELL_MEASURING_PT_ELEVATION		VARCHAR2	7	Elevation of water level measuring point, in feet, relative to National Geodetic Vertical Datum-1929 ("mean sea level").	7 alphanumeric characters in the format (+)/(-)nnn.nn. (+) is implied if not entered.	-2.00, 10.25,+124.54	Any value between -999.99 and +999.99, inclusively.	Blank	Required field to determine water level for WATERBODY_TYPE = AQUIFER. If value is provided in NAVD88 datum, it should be converted to NVGD29.
WELL_WATER_LEVEL_RECORDER		VARCHAR2	5	Was this well sampled as a water level recording station with a water level recorder?	5 alphabetic characters	A, I, N, U	A, I, N, U	Blank	Should be marked 'A' if well is currently a water level monitor well; or 'I' if the well, at one time, had a water level recorder installed, but is not currently being used for continuous water level recording. An 'N' is used for those wells known to have never been used as a continuous water level recorder well. A 'U' is used use to identify wells for which it is unknown if they had water level recorders on them. Added 1993
WELL_LEAD_WEIGHT		VARCHAR2	10	Was a lead weight used in this well on a water level recording device? Or, is there a lead weight in the well.	10 alphabetic characters	Y, N, U	Y, N, U	Blank	This must be verified by a site visit, not assumed from lead values coming from the well.
WELL_GRID_CELL		NUMBER		Number depicting the four-township grid cell where the well is located.	5 digit numeric, zero decimal places.	32333	Any existing 5-digit number supplied for a grid cell.	Blank	Antiquated in 2000 when Background Network sampling stopped.
DATA_SOURCE		VARCHAR2	8	An eight-character field giving the name of the database or agency from which the data was extracted or received	8 alphanumeric characters	SJRWM17, USGS2012	Any existing contractor's stations database name or the name and year of the agency providing the data if the database name is not known.	Blank	Historic well submittals used the database name (e.g. WACS, WAFR, SRWSTNS, SFWSTNS), but current procedure as of 2016 is to use an agency abbreviation, such as SJRWMD with the two-digit year in which the data was received. Added November 1998

AGENCY_MAINTAINING_STATION_INF		VARCHAR2	60	Name of the lead agency maintaining data on physical station parameters.	60 alphabetic characters	POLK CO., SOUTH FLORIDA WMD	• ALACHUA CO. • BROWARD CO. • COLLIER CO. • DADE CO. • DEP AMBIENT WATER QUALITY MONITORING • DEP CENTRAL DISTRICT • DEP CENTRAL ROC • DEP FLORIDA GEOLOGICAL SURVEY • DEP GW PROTECTION SECTION • DEP NORTHEAST DISTRICT • DEP NORTHEAST ROC • DEP NORTHWEST DISTRICT • DEP NORTHWEST ROC • DEP SOUTH DISTRICT • DEP SOUTH ROC • DEP SOUTHEAST DISTRICT • DEP SOUTHEAST ROC • DEP SOUTHWEST DISTRICT • DEP SOUTHWEST ROC • DEP WATERSHED ASSESSMENT • DEPT. HEALTH AND REHABILITATIVE SERVICES • NORTHWEST FLORIDA WMD • PALM BEACH CO. • POLK CO. • SFWMD W.P.B • SOUTH FLORIDA WMD • SOUTHWEST FLORIDA WMD • ST. JOHNS RIVER WMD • SUWANNEE RIVER WMD • U.S. GEOLOGICAL SURVEY	Blank	This is identifying agency reporting data to DEP. Legal values found in MT_AGENCY.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
							• USGS ALTAMONTE SPRINGS • USGS FT MYERS • USGS TALLAHASSEE		
SAMPLED_BACKGROUND_WELL		VARCHAR2	3	Was this well sampled as a background well at least once? Coding indicates Active or Inactive for the present year	1 alphabetic character	A, I, N	A, I, N	Blank	Should be marked 'I' if well has EVER been sampled through WQMS as a background well (historical, "doughnut", or other discrete, non-TV sampling) but is not currently a background well, ‘N’ if well has NEVER been sampled as a background well, or 'A' if the well currently is a background well. Applies only to WATERBODY_TYPE = AQUIFER
SAMPLED_VISA_WELL		VARCHAR2	3	Was this well sampled as a VISA well at least once?	1 alphabetic character	A, I, N	A, I, N	Blank	Should be marked 'I' if well has EVER been sampled through WQMS as a VISA well but is not currently a VISA well, ‘N’ if well have NEVER been sampled as a VISA well, or 'A' if the well is currently a VISA well. Applies only to WATERBODY_TYPE = AQUIFER
SAMPLED_HRSPWS_WELL		VARCHAR2	3	Was this well sampled as an HRS private well Survey well at least once?	1 alphabetic character	A, I, N	A, I, N	Blank	Should be marked 'I' if well has EVER been sampled through HRS PWS but is not currently an HRS PWS well, ‘N’ if well has NEVER been an HRS PWS well, or 'A' if the well is currently an HRS PWS well. Applies only to WATERBODY_TYPE = AQUIFER
SAMPLED_TV_STATIONS		VARCHAR2	3	Was this well or site sampled as a TV station at least once?	1 alphabetic character	A, I, N	A, I, N	Blank	Should be marked 'I' if well/site has EVER been sampled through WQMS as a quarterly TV well/site but is not currently a quarterly TV well/site, ‘N’ if well/site has NEVER been sampled as a TV well or site or 'A' if the well/site is currently a quarterly TV well/site.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
SAMPLED_STATUS_NETWORK_STATION		VARCHAR2	3	Was this well or site sampled as a STATUS well / site at least once?	1 alphabetic character	A, I, N	A, I, N	Blank	Should be marked 'I' if well/site has EVER been sampled through WQMS as a STATUS NETWORK well/site but is not currently a STATUS NETWROK well/site, 'N' if well/site has NEVER been sampled as a STATUS NETWORK well or site or 'A' if the well/site is currently a STATUS NETWORK well/site.
SAMPLED_WQAS_STATION		VARCHAR2	3	Denotes whether the station is actively sampled by the Watershed Assessment Section.	1 alphabetic character	A, I, N	A, I, N	Blank	This field is no longer used. Should be marked 'I' if well/site has EVER been sampled through WAS, 'N' if well/site has NEVER been sampled through WAS or 'A' if the well/site is currently a WAS well/site.
COMMENTS		VARCHAR2	2000	A 2000-character field for miscellaneous comments concerning the station.	2000 alphanumeric characters.	Free text	Free text	Blank	See other T_STATION field descriptions for scenarios that require comments.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
FK_RANDOM_SAMPLE_LOCATION		VARCHAR2	100	Value representing primary key for table T_RANDOM_SAMPLE_LOCATION	The letter 'Z' for Zone, followed by the number representing the Zone (aka Reporting Unit) where the station is located (1,2,3,4,5,6) followed by a dash ('-'), follow by a two-letter code representing the water resource (SL, LL, LR, SS, CN, UA, CA), followed by a dash ('-') followed by the one or two-digit number representing the reporting cycle, followed by a three-digit sequential number that is unique to the particular reporting Zone, Cycle and Resource.	Z1-UA-11001, Z2-SL-10004.	See table T_RANDOM_SAMPLE_LOCATION	Blank	Field will be blank if station has not been sampled as a STATUS NETWORK station. Added 2000. For wells, this field will be updated for each cycle where the well is sampled for the STATUS NETWORK.
LAT_DD	NOT NULL	NUMBER	2	The degrees portion of the angular distance on a meridian north of the equator.	2 digits	29, 31	+23 through +31 (for Florida landmass and surrounding waters)	None legal – field must be filled.	Added 2002
LAT_MM	NOT NULL	NUMBER	2	The minutes portion of the angular distance on a meridian north of the equator	2 digits	00, 59	00 through +59	None legal – field must be filled.	Added 2002

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
LAT_SS	NOT NULL	NUMBER	6,4	The seconds portion to four significant digits of the angular distance on a meridian north of the equator.	6 digits to 4 decimal places	2.0193, 0.8976	+0.0000 through +59.9999	None legal – field must be filled.	Added 2002
LONG_DD	NOT NULL	NUMBER	2	The degrees portion of the angular distance on a meridian west of the prime meridian. Although measurements west of the prime meridian are by convention regarded as negative, the standard provides for the storage of positive values to conform to current practice	2 digits	79, 83	+79 through +87 (for Florida landmass and surrounding waters)	None legal – field must be filled.	Added 2002
LONG_MM	NOT NULL	NUMBER	2	The minutes portion of the angular distance on a meridian west of the prime meridian	2 digits	00, 59	00 through +59	None legal – field must be filled.	Added 2002
LONG_SS	NOT NULL	NUMBER	6,4	The seconds portion to four significant digits of the angular distance on a meridian west of the prime meridian.	6 digits to 4 decimal places	2.0193, 0.8976	+0.0000 through +59.9999	None legal – field must be filled.	Added 2002

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
CMCD_COORDINATE_METHOD_ID		VARCHAR2	4	The method or mechanism used to derive the locational measurements	4 alphabetic characters	ADDM, DGPS	• ADDM – Address Matching • AGPS – Autonomous GPS • CALC – Calculated by GIS Software • CSUR – Cadastral Survey • DGPS – Differentially Corrected GPS • DMAP – Digital Map Interpolation • DPHO – Digital Aerial Photography With Ground Control • GGPS – Geodetic Quality GPS • LORN – LORAN-C Navigational Device • MMAP – Manual Map Interpolation • PMHO – Manual Aerial Photography With Ground Control • OTHR – A Method Not Listed • SATI – Satellite Imagery With Ground Control • WGPS – GPS with Wide-Area Augmentation Service Correction • UNKN – Unknown Method • ZIP2 – Zip Code + 2 Segment Centroid • ZIP4 – Zip Code + 4 Segment Centroid • ZIPC – Zip Code Centroid	Blank	Added 2002. Although technically allowed to be null, if value is not known, use UNKN. Legal values found in MT_LOC_METH.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
DCD_DATUM_ID	NOT NULL	VARCHAR 2	10	The horizontal reference for measuring locations on the earth's surface.	10 alphanumeric characters	WGS84, NAD83	• HARN – High Accuracy Reference Network • HPGN – High Precision GIS Network / High Precision Geodetic Reference • NAD27 - North American Datum of 1927 • NAD83 – North American Datum of 1983 • WGS84 – World Geodetic Survey of 1984	None legal – field must be filled.	Legal values found in MT_LOC_DAT. Added 2002
GIS_ALBX		NUMBER	10,2	The number of meters east of the origin of the FDEP Albers projection.	10 digits to 2 decimal places	305200.75, 251775.2	+0.00 through +900,000.00	Blank	Added 2005
GIS_ALBY		NUMBER	10,2	The number of meters east of the origin of the FDEP Albers projection.	10 digits to 2 decimal places	701052.62, 504688.67	+0.00 through +800,000.00	Blank	Added 2005
CREATE_DATE		DATE		Date Station record was created in Oracle.	Date	Any legal date time.	Any legal date time.	Blank	Added 2000. A null value should only exist if a station was manually inserted into GWIS.
CREATE_USER		VARCHAR 2	100	Name of user who created Station record in Oracle.	100 alphabetic characters	TRIMBLE, GWIS_ADMIN	Any valid username		Added in 2000. A null value should only exist if a station was manually inserted into GWIS. Stations loaded from STATUS Trimble files will have CREATE_USER = TRIMBLE. Stations created in GWIS Database Utilities will have CREATE_USER = GWIS_ADMIN.
LAST_UPDATE		DATE		Date station information was last updated	Date	Any legal date time.	Any legal date time.	Blank	Added 2014. This is an automatic timestamp any time the locational information for a station is changed. Trigger STA_BF updates the associated GIS information based on any change to the locational information. A null value means the station has not been updated since it was created.
MODIFY_USER_NAME		VARCHAR 2	30	Username indicating which user last made updates to the record.	30 alphabetic characters	GWIS_WEB, GWIS_ADMIN, Miller_L	Any valid username	Blank	Updates made using GWIS packages and procedures set this field = GWIS_ADMIN. Updates made using SQL script should set username = the DEP network log in username. Added March 3, 2011.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
LSE_COORDINATE_METHOD_ID		VARCHAR2	10	Method used to collect the land surface elevation value	10 alphanumeric characters		• ALT – Altimetry • SURVEY – Classical Survey Techniques • GPS-KIN – GPS Carrier Phase Kinematic Relative Postion • GPS-STAT – GPS Carrier Phase Static Relative Positiom • GPS-DIFF – GPS Code (Pseudo Range) Differential • GPS-PREC - GPS Code (Pseudo Range) Precise Position • GPS-STDOFF - GPS Code (Pseudo Range) Standard Position (SA Off) • GPS-STDON - GPS Code (Pseudo Range) Standard Position (SA On) • LEV-NBMCP – Leveling-Non Bench Mark Control Points • OTHER – Other Method Not Listed or Unknown • PHOTOGRAM - Photogrammetric • LEV-PREC – Precise Leveling-Bench Mark • TOPOMAPINT – Topographic Map Interpolation • TRIGLEV – Trigonometric Leveling	Blank	If field is empty, OTHER is assumed since this information is unknown for stations added/updated prior to the addition of this field to T_STATION in June 2017.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
LSE_DATUM_ID		VARCHAR 2	10	Reference datum from which elevation measurements are made.	10 alphanumeric characters	NVGD29, NAVD88, SEALV	• LTD – Local Tidal Datum • NAVD88 – North American Vertical Datum of 1988 • NGVD29 – National Geodetic Vertical Datum of 1929 • OTHER – Other Datum Not Listed • SEALV – Elevation from Mean Sea-Level • UNKNOWN – Datum Unknown	Blank	If field is empty, NVGD29 is assumed since that was the Data Dictionary definition for land_surface_elevation prior to the addition of this field to T_STATION in June 2017

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
MPE_COLLECTION_METHOD_ID		VARCHAR2	50	Method used to collect the well measuring point elevation value	50 alphanumeric characters		• ALT – Altimetry • SURVEY – Classical Survey Techniques • GPS-KIN – GPS Carrier Phase Kinematic Relative Postion • GPS-STAT – GPS Carrier Phase Static Relative Positiom • GPS-DIFF – GPS Code (Pseudo Range) Differential • GPS-PREC - GPS Code (Pseudo Range) Precise Position • GPS-STDOFF - GPS Code (Pseudo Range) Standard Position (SA Off) • GPS-STDON - GPS Code (Pseudo Range) Standard Position (SA On) • LEV-NBMCP – Leveling-Non Bench Mark Control Points • OTHER – Other Method Not Listed or Unknown • PHOTOGRAM - Photogrammetric • LEV-PREC – Precise Leveling-Bench Mark • TOPOMAPINT – Topographic Map Interpolation • TRIGLEV – Trigonometric Leveling	Blank	
MPE_LOCATION		VARCHAR2	250	Location of well measuring point used to measure well depth to water	250 alphanumeric characters	Top of casing, Land surface, Mark on casing	Free text	Blank	

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
MPE_DATUM_ID		VARCHAR 2	50	Reference datum from which elevation measurements are made	50 alphanumeric characters	NVGD29, NAVD88, SEALV	• LTD – Local Tidal Datum • NAVD88 – North American Vertical Datum of 1988 • NGVD29 – National Geodetic Vertical Datum of 1929 • OTHER – Other Datum Not Listed • SEALV – Elevation from Mean Sea-Level • UNKNOWN – Datum Unknown	Blank	
NUTRIENT_WATERSHED_REGION		VARCHAR 2	50	Numeric Nutrient Region of Florida in which site is located. Determines what numeric nutrient criteria apply to surface water stations (62-302 and 62-303 F.A.C.).	50 alphabetic characters	NORTH CENTRAL, PANHANDLE EAST, PANHANDLE WEST, PENINSULAR, SOUTH, WEST CENTRAL	• NORTH CENTRAL • PANHANDLE EAST • PANHANDLE WEST • PENINSULAR • SOUTH • WEST CENTRAL	Blank	Field is automatically populated by an Oracle Spatial procedure that is triggered any time a station is added to or updated in T_STATION. Technically, this field can be null but is required to be filled if a value exists. Oracle Spatial will not provide if the site falls outside of Florida and therefore the field will remain null for any stations falling outside of Florida. Due to the manner in which the layer was created, sites that fall near a state line or near the coast may not have a value populated when a value is applicable.
SCI_DO_BIOREGION_2012		VARCHAR 2	50	Stream Condition Index Bioregion of Florida in which site is located with respect to macroinvertebrate communities. Determines which dissolved oxygen criterion applies to surface water stations (62-302 and 62-303 F.A.C.).	50 alphabetic characters	BIG BEND, EVERGLADES, NORTHEAST, PANHANDLE, PENINSULA	• BIG BEND • EVERGLADES • NORTHEAST • PANHANDLE • PENINSULA	Blank	Field is automatically populated by an Oracle Spatial procedure that is triggered any time a station is added to or updated in T_STATION. Technically, this field can be null but is required to be filled if a value exists. Oracle Spatial will not provide if the site falls outside of Florida and therefore the field will remain null for any stations falling outside of Florida. Due to the manner in which the layer was created, sites that fall near a state line or near the coast may not have a value populated when a value is applicable.

Table T_PROJECT

This table contains information pertaining to projects belonging to the different monitoring networks.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
PK_PROJECT	NOT NULL	VARCHAR 2	10	Primary key Project primary keys consist of three acronyms: Zone Name, Project Type, and Date in YYMM format.	10 alphanumeric characters	Z1GT1701 – Zone 1 January 2017 Ground Water Trend Current Project Types (calendar year 2018): GT - Ground Water Trend ST - Surface Water Trend UA - Status Unconfined Aquifer CA - Status Confined Aquifer SS – Status Small Stream LR – Status Large River SL - Status Small Lake LL - Status Large Lake CN – Status Canal SP - Special Projects Other Project Types Stored in GWIS SPRG – Springs Quaterly in the format SPRGYYMM SPRS – Groundwater Protection Section Special Projects in the format SPRSYY## where YY stands for the year and ## is a two-digit number assigned by the GW Protection Section. Historic Project Types: B - Background M - Ground Water Temporal Variability, Monthly/Quarterly T - Surface water Temporal Variability, Monthly V - VISA (Very Intense Study Areas for ground water protection) LS - Status Low Order Stream HS - Status High Order Stream	Any valid project name that fits the formats described in Typical Values	None legal – field must be filled	This identifier will not be changed or duplicated. Only one id allowed.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
FK_SUPER_PROJECT		VARCHAR2	30	Represents the monitoring network or program for which data collected	30 alphabetic characters	GW-TREND, SW-TREND, STATUS	GW-TREND SW-TREND STATUS SPRINGS SPECIAL TMDL Historic Values: BACKGROUND GW-MONITOR HRSPWS VISA	Blank	Although there is no NOT NULL constraint on this field, it should be filled when a project is created in T_PROJECT. Historically, this field represented the primary key of a table called T_SUPER_PROJECT which no longer exists.
FK_CUSTOMER		VARCHAR2	30	Represents the agency or program for which data is collected.	30 alphabetic characters	AMBIENT, WAS, WTRSHD-MGT	Use customer code under which LIMS requests are scheduled. All Status and Trend Monitoring Network projects should have AMBIENT in this field.	Blank	Although there is no NOT NULL constraint on this field, it should be filled when a project is created in T_PROJECT. Historically, this field represented the primary key of a table called T_CUSTOMER which no longer exists.
FK_PROJECT_TYPE		VARCHAR2	15	Represents the monitoring network or program for which data is collected.	15 alphabetic characters	GW-TREND, SW-TREND, STATUS	GW-TREND SW-TREND STATUS SPECIAL SURVEY TMDL OTHER Historic Values: BACKGROUND HRSPWS VISA	Blank	Although there is no NOT NULL constraint on this field, it should be filled when a project is created in T_PROJECT. Historically, this field represented the primary key of a table called T_PROJECT_TYPE which no longer exists.
PROJECT_NAME		VARCHAR2	30	A descriptive name given to the project.	30 alphanumeric characters	Z2GT1701 GW-TREND, SPRINGS TF JAN 2017	Any legal project name. Project names consist of three acronyms: Region/Zone, project type, and date in YYMM format (e.g., Z2GT0901 is Zone 2 Ground Water Trend sampling conducted in January 2009).	Blank	Although there is no NOT NULL constraint on this field, it should be filled when a project is created in T_PROJECT.
PRIMARY_SAMPLING_AGENCY		VARCHAR2	30	Agency conducting or in charge of sampling	30 alphabetic characters	DEP SOUTHWEST ROC, NWFWMD	Any valid agency name from MT_AGENCY	Blank	
PROJECT_COMMENT		VARCHAR2	2000	Any helpful comment about project	2000 alphanumeric characters		Any text string	Blank	

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
START_DATE		DATE		Date when work on project starts.	MM/DD/YYYY	8/31/2017	Any real date	Blank	This date is assigned when the project is created based on the index period of the resource being sampled.
STOP_DATE		DATE		Date by which sampling for project is complete and project paperwork is delivered to Project Manager.	MM/DD/YYYY	10/30/2017	Any real date	Blank	This date is assigned when the project is created and is generally 30 days after the end of the sampling period for the network/resource being sampled.
NUMBER_STATIONS		VARCHAR2	5	Number of stations to be sampled	5 numeric characters	15, 20	Any whole number	Blank	
NUMBER_WQ_SAMPLES		VARCHAR2	5	Number of water quality samples to be collected including any duplicates	5 numeric characters	15, 20	Any whole number	Blank	
NUMBER_BLANKS		VARCHAR2	5	Number of blanks to be collected	5 numeric characters	2, 3	Any whole number	Blank	
NUMBER_DUPES		VARCHAR2	5	Number of duplicate samples to be collected	5 numeric characters	2, 3	Any whole number	Blank	
NUMBER_TOTAL_SAMPLES		VARCHAR2	5	Total number water quality samples to be collected including all duplicates and blanks	5 numeric characters	17, 23	Any whole number	Blank	
DATE_RQ_PRINTED		DATE		Date RQ submitted to lab	MM/DD/YYYY HH:MI:SS AM/PM	11/21/2008 3:34:15 PM	Any real date	Blank	This field is no longer populated.
DATE_BC_PRINTED		DATE		Date barcode id printed	MM/DD/YYYY HH:MI:SS AM/PM	11/21/2008 3:34:15 PM	Any real date	Blank	This field is no longer populated.
DATE_STATION_LIST_UPL		DATE		Date station list uploaded into t_pending	MM/DD/YYYY HH:MI:SS AM/PM	11/21/2008 3:34:15 PM	Any real date	Blank	This field is no longer populated.
DATE_LOG_PRINTED		DATE		Not needed-Antiquated	MM/DD/YYYY HH:MI:SS AM/PM	11/21/2008 3:34:15 PM	Any real date	Blank	This field is no longer populated.
STATIONS_MATCH		VARCHAR2	1	Not needed-Antiquated	1 alphabetic character	Y, X	Y, X	Blank	This field is no longer populated.
LIMS_MATCH		VARCHAR2	1	Not needed-Antiquated	1 alphabetic character	Y, X	Y, X	Blank	This field is no longer populated.
DATE_DEP_DATA		DATE		Date all Lab data transferred for a project.	MM/DD/YYYY HH:MI:SS AM/PM	11/21/2008 3:34:15 PM	Any real date	Blank	Date is populated by PKG_PROCESS_DATA.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
DATE_COMPLETED		DATE		Not needed-Antiquated	MM/DD/YYYY HH:MI:SS AM/PM	11/21/2008 3:34:15 PM	Any real date	Blank	This field is no longer populated.
DATE_TARGET		DATE		Date set as a target for having data processed, released and loaded to STORET/WIN.	MM/DD/YYYY	3/31/2018	Any real date	Blank	This date is assigned when the project is created and is typically the start date plus eight months.
DATE_FIELD_DATA		DATE		Date field data is loaded into database	MM/DD/YYYY HH:MI:SS AM/PM	11/21/2008 3:34:15 PM	Any real date	Blank	This data is automatically set for Trend data loaded from Access. This date must be manually set when loading field data from SSF files via PKG_TRIMBLEDATA_LOAD or when loading fixed format files from SJRWMD.
DATE_VALIDATED		DATE		Date Run Checks is performed in Automated Data Management (ADM) application	MM/DD/YYYY HH:MI:SS AM/PM	11/21/2008 3:34:15 PM	Any real date	Blank	Date set by PKG_ADM_DATA when Project Manager runs data checks.
DATE_LETTERS		DATE		Date letter(s) issued to owner/contact	MM/DD/YYYY HH:MI:SS AM/PM	11/21/2008 3:34:15 PM	Any real date	Blank	Project Manager enters date into ADM and PKG_ADM_DATA sets date in T_PROJECT. If multiple letters are required for a project, this field is not populated until the final letter is sent.
DATE_PROVISIONAL		DATE		Date project lab and field data made provisional (i.e. merged) and available for review	MM/DD/YYYY HH:MI:SS AM/PM	11/21/2008 3:34:15 PM	Any real date	Blank	Date set by PKG_CREATE_PROVIS_DATA, procedure SAMPLES_AND_RESULTS_INSERT after field and lab data have been merged.
RELEASE_DATE		DATE		Date record is released to the public	MM/DD/YYYY HH:MI:SS AM/PM	11/21/2008 3:34:15 PM	Any real date	Blank	Project Manager enters date into ADM and PKG_ADM_DATA sets date in T_PROJECT.
UPLOAD_DATE		DATE		Date complete project data is loaded into Oracle	MM/DD/YYYY HH:MI:SS AM/PM	11/21/2008 3:34:15 PM	Any real date	Blank	Date set by PKG_CREATE_PROVIS_DATA, procedure SAMPLES_AND_RESULTS_INSERT after field and lab data have been merged and is typically the same date as DATE_PROVISIONAL.
DATE_STORET_UPLOAD		DATE		Date project data uploaded into FDEP STORET or the Watershed Information Network (WIN).	MM/DD/YYYY HH:MI:SS AM/PM	11/21/2008 3:34:15 PM	Any real date	Blank	Date set manually by Data Manager. Effective July 2017, data is being loaded to WIN, not STORET.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
DATE_DOH_LETTER		DATE		Date letter sent to DOH (Exceedence report) for ground water wells.	MM/DD/YYYY HH:MI:SS AM/PM	11/21/2008 3:34:15 PM	Any real date	Blank	Date set manually by Data Manager.
DATE_PESTICIDE_MEMO		DATE		Date letter sent to DACS	MM/DD/YYYY	12/18/2000	Any real date	Blank	No longer being populated.

Table T_PARAMETER

This table contains all analytes collected by the various monitoring networks over the years.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
PK_PARAM_CODE	NOT NULL	NUMBER	5	Numeric primary key for table.	Numeric	34423, 99935	Any whole number up to 5 digits	None legal – field must be filled	Unique constraint
PARAMETER		VARCHAR2	45	A 45-character alphanumeric name for the chemical or physical parameter being reported.	45 alphanumeric characters	Atrazine, Depth of Sample, Water Temperature	Any legal parameter name	Blank	Although there is no NOT NULL constraint, parameter should be filled in for ADM reports to work properly
MATRIX		VARCHAR2	12	Medium in which parameter is analyzed for	12 alphabetic characters	SW, GW, SED	SW, GW, SW/GW, SED	Blank	
UNITS		VARCHAR2	20	Units of measurement reported for the analyte	20 alphanumeric characters	Degrees, ug/L, ng/L	Any valid combination of units	Blank	Must match the units the Lab is reporting for the parameter otherwise, data interpretation errors will occur.
CAS_NUMBER		VARCHAR2	10	Chemical Abstract Service Number for this analyte.	10 alphanumeric characters	C006, 124389	Any legal CAS number	Blank	
ZERO_OK		CHAR	1	Indicates if a zero result is valid	1 alphabetic character	Y, N	Y (0 is acceptable as a result) N (0 is not acceptable as a result)	Blank	
MOL_FACTOR		NUMBER	15,6	Antiquated field for molarity of compound. Moles of solute per liter of solution at a standard temperature.	Up to 15 digits with 6 decimals places	1, -.019983	Any valid number	Blank	Decimal digits are always carried with each value
MEQ_FACTOR		NUMBER	15,6	Charge Balance Factor. Numeric constant to convert analytical value into mill equivalents for charge balance determination.	Up to 15 digits with 6 decimals places	1, -.019983	Any valid number	Blank	Decimal digits are always carried with each value. A value of 0.000000 is included only for non-ionic parameters
TDS_FACTOR		NUMBER	15,6	Total Dissolved Solid Factor. Estimated lowest concentration determinable for this parameter in milligrams/liter of dissolves constituents	Up to 15 digits with 6 decimals places	1, -.019983	Any valid number	Blank	Decimal digits are always carried with each value. A value of 0.000000 is included only for non-contributing parameters
PRIMARY		NUMBER	11,4	Primary Drinking Water Standard Maximum allowable level (MCL) under Florida Primary Drinking Water Standard	Up to 11 digits with 4 decimal places	1, .0199	Any valid number	Blank	Decimal digits are always carried with each value. A Value of 9999999 is included for parameters which have no standard set.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
SECONDARY_HIGH		NUMBER	11,4	Upper Secondary Drinking Water Standard Maximum allowable level under Florida Drinking Water Standard.	Up to 11 digits with 4 decimal places	1, .0199	Any valid number	Blank	Decimal digits are always carried with each value. A value of 0.000000 is included only for non-contributing parameters. A value of 9999999 is included for parameters which have no standard set.
SECONDARY_LOW		NUMBER	11,4	Lower Secondary Drinking Water Standard Minimum allowable level under Florida Drinking Water Standard	Up to 11 digits with 4 decimal places	1, .0199	Any valid number	Blank	Decimal digits are always carried with each value. A value of 0.000000 is included only for non-contributing parameters. A Value of 0 is included for parameters which have no standard set
GUIDANCE_LIMIT		NUMBER	11,4	Guidance Limit is determined from “Florida Ground Water Guidance Concentration”, FDEP, 1994	Up to 11 digits with 4 decimal places	8., 15.0199	Any valid number	Blank	Decimal digits are always carried with each value. A value of 0.000000 is included only for non-contributing parameters. A Value of 999999999 is included for parameters which have no standard set
OTHER_RISK		NUMBER	11,4	Risk Indicators are the percent of wells over a reference value and are used in the absence of an MCL or when an MCL cannot be directly related to the data.	Up to 11 digits with 4 decimal places	5, 100, 4200	Any valid number	Blank	
OTHER_SRA		NUMBER	11,4	SRA Indicators are the percent of wells that exceed established surface water criteria or thresholds important for supporting aquatic life.	Up to 11 digits with 4 decimal places	0.0077, 0.45, 235	Any valid number	Blank	
CLASS3_STANDARD		NUMBER	11,4	As defined by rule FAC 62-302.400	Up to 11 digits with 4 decimal places	0.001, 1.5	Any valid number	Blank	

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
PARAMETER_GROUP		VARCHAR2	12	Larger "Type" description of analyte	12 alphanumeric characters	METAL, ORGANIC, RADIOMETRIC	• ACTINIDE – Radioactive metals • BIOLOGICAL – Biological measurements • ECOLOGICAL – Habitat Assessment, Stream Condition Index • FIELD – Field Parameters • MAJOR – Major Ions • METAL – Major and Trace Metals • NUTRIENT – Primary Nutrients • ORGANIC – All Organic Parameters • OTHER – Bromine, Cyanide, Iodin, Silicon, Tellurium • PESTICIDE – Herbicides, Insecticides, Fungicides • PHARMACY - Pharmaceuticals • PHYSICAL – Physical Attributes of a Site • QPCR – Microbial Source Tracking • RADIOMETRIC – Radiologic/Radiometric • RARE EARTH – Chemically Similar Metals that Co-occur • TRACER – Artificial Sweetners, Food Additives/Preservatives Used as Wastewater Tracers	Blank	This descriptor is used to speed retrievals for large classes of parameters
GENERIC_NAME		VARCHAR2	30	Generic description of analyte	30 alphanumeric characters	Iron, Chlorophyll, Herbicide	Any valid generic name	Blank	Generic name is used to speed retrievals of a certain parameters. Instead of having to enter all possible STORET codes for Iron, just enter GENERIC NAME is IRON.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
COMMENTS		LONG		Helpful comments related to the analyte	2000 alphanumeric characters		Any text string	Blank	
LAB_NAME		VARCHAR2	40	Parameter name used by the Lab which submitted the data. For the DEP lab it appears in AMBIENT_DATA as PARAMETER_NAME.	40 alphanumeric characters	Selenium, Silvex, Turbidity	Any valid lab analyte name	Blank	This aids in translating from lab provided AMBIENT_DATA.PARAMETER_CODE to correct T_PARAMETER.PK_PARAM_CODE to assure units are correct.
STORET_NAME		VARCHAR2	60	Legacy U.S. Environmental Protection Agency (EPA) national water quality database for Storage and Retrieval (STORET) parameter name.	60 alphanumeric characters	Selenium, Silvex, Turbidity	Any valid STORET parameter name	Blank	Field no longer used. Data now being uploaded to WIN instead of STORET.
SAMPLE_FRACTION		VARCHAR2	15	When results are obtained from a physically partitioned sample, this field is used to select the portion of the sample that was associated with the results.	15 alphabetic characters	Total, Dissolved	Composite, Total, Dissolved, Suspended	Blank	
STORET_UOM		VARCHAR2	20	Legacy STORET unit of measurement for parameter	20 alphanumeric characters	ug/L, m, pCi/L	Any valid STORET unit of measure	Blank	Field no longer used. Data now being uploaded to WIN instead of STORET.
ADAPT_ANALYTE		VARCHAR2	50	A 50-alphanumeric code assigned as the ADAPT_ANALYTE_ID in WIN upload files.	50 alphanumeric characters	563586, WIN-030, FL-MOLBIO-002	Refer to the WIN Standard Values Lists for ‘Analyte Primary Codes’ or ‘Analyte Synonym Codes’. Use field ADAPT_ANALYTE_ID	Blank	This value is required for results loaded to WIN.
WIN_NAME		VARCHAR2	150	A 150-alphanumeric code assigned as the LONG_NAME (i.e. analyte name) in WIN.	150 alphanumeric characters	a-BHC, Endosulfan Sulfate, Chlorophyll a- corrected	Refer to the WIN Standard Values Lists for ‘Analyte Primary Codes’ or ‘Analyte Synonym Codes’. Use field LONG_NAME.	Blank	This value is required for results loaded to WIN.

Table T_SAMPLE

This table contains sample information from the different monitoring networks.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
PK_SAMPLE	NOT NULL	VARCHAR2	15	UNIQUE IDENTIFIER for a particular station/date/depth	PROJECT-## where PROJECT = T_PROJECT.PK_PROJECT and ## is a sequential number appended after a '-'	Z1ST1701-11, Z3GT1801-32	Any valid project concatenated with a dash and number	None legal – field must be filled	Value is assigned by PKG_CREATE_PROVIS_DATA.
FK_STATION	NOT NULL	NUMBER		Foreign key from T_STATION.	Numeric	3559, 51278	Any valid PK_STATION from T_STATION	None legal – field must be filled	
FK_PROJECT		VARCHAR2	10	Foreign key from T_Project	10 alphanumeric characters	Z1ST1701, Z3GT1801	Any valid PK_PROJECT from T_PROJECT	Blank	The value of this field should equal the characters to the left of the '-' in PK_SAMPLE. Although this field can be null, it should be populated to facilitate proper data management.
COLLECTION_AGENCY		VARCHAR2	50	Agency collecting samples	50 alphabetic characters	DEP TALLAHASSEE ROC, ST. JOHNS RIVER WMD	Any valid agency name from MT_AGENCY	Blank	
SAMPLER_NAME		VARCHAR2	250	Name of sampler(s)	30 alphabetic characters	Any sampler name from the sampling agencies	Any valid name	Blank	Names should be spelled out and multiple names separated by punctuation.
COLLECTION_DATE		DATE		Month, day, year and time sample was collected	MM/DD/YYYY HH:MI:SS AM/PM	1/17/2017 11:45:00 AM	Any valid date and time	Blank	Although this field can be null, it should be populated to facilitate proper data management. Notes: Duplicate samples will be addressed by sample sequence number. No modifications to the sample **date** will be used to differentiate between duplicate samples.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
COLLECTION_TIME		VARCHAR2	4	Hour and minute sample was taken relative to Eastern Standard Time	Numeric characters in HHMM form Where: HH is hour in military 24-hour format MM is minute	0930, 1356	Any real time	Blank	Although this field can be null, it should be populated to facilitate proper data management. Note that time is in 24-hour format where 2 PM is 1400. Consecutive duplicate samples should be given different sample times, while simultaneous "split" samples should indicate the same sample time. All Central Standard times are converted to Eastern Standard Time.
SAMPLE_TYPE		VARCHAR2	12	Classification given to each sample based on depth and type of sample	25 alphabetic characters	DUPLICATE, PRIMARY, BOTTOM	• MIDDLE • RESAMPLE • BLANK • FIELD BLANK • EQUIPMENT BLANK • DUPLICATE • BOTTOM • PRIMARY • UNKNOWN • OTHER	Blank	Aids in determining expected parameters
SAMPLE_DEPTH		NUMBER		Depth at which samples collected	Numeric	0.3, 0.5, 3.5	Any valid number	Blank	Sample depth not required for blanks, ground water or biological samples
NUMBER_OF_RESULTS		NUMBER		Number of results associated with a PK_SAMPLE	Numeric	8, 12, 23	Any whole number	Blank	
COLLECTION_METHOD		VARCHAR2	30	Indicates whether the sample was collected as a grab or a composite	30 alphabetic characters	GRAB, COMPOSITE	GRAB, COMPOSITE	Blank	
MATRIX		VARCHAR2	10	Medium from which sample taken	10 alphabetic characters	WATER, SEDIMENT	BIOLOGICAL, SEDIMENT, WATER	Blank	
COMMENTS		VARCHAR2	2000	Any comments regarding the sample collection, analysis, loss of sample, etc. that provide additional information useful to the interpretation of results.	2000 alphanumeric characters	Any valid comment	Any valid comment	Blank	
REPORTING_UNIT_NAME		VARCHAR2	25	One of the six geographic zones used for data analysis.	25 alphanumeric characters	NWFWMD-B, ZONE 1	Any valid reporting unit	Blank	Same as T_STATION.REPORTING_UNIT_NAME. See notes on that field. Legal values found in MT_REP_UNIT. This field is not populated for TREND data.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
FK_RANDOM_SAMPLE_LOCATION		VARCHAR2	100	Foreign Key to T_RANDOM_SAMPLE_LOCATION. PK_RANDOM_SAMPLE_LOCTION	100 alphanumeric characters	Z1-SL-11001, Z2-UA-11002	See table T_RANDOM_SAMPLE_LOCATION	Blank	Field will only be filled if sample is from STATUS station.
MODIFY_USER_NAME		VARCHAR2	30	Username indicating which user last made updates to the record.	30 alphanumeric characters	GWIS_ADMIN, Miller_L	Any valid username	Blank	Updates made using GWIS packages and procedures set this field = GWIS_ADMIN. Updates made using SQL script should set username = the DEP network log in username. Added March 3, 2011.
MODIFY_TS		DATE		Date the last update was made to the record.	MM/DD/YYYY HH:MI:SS AM/PM	1/12/2015 11:12:43 AM	Any valid date	Blank	Added 2014
EQUIPMENT_TYPE		VARCHAR2	50	Equipment used to collect water quality, sediment or biological samples or field measurements.	50 alphanumeric characters	Sample Bottle, Field Testing Meter, Van Dorn Beta Bottle	• D-frame Dipnet • Ekman Grab • Field Testing Meter • In-Place Plumbing • Petite Ponar Grab • Pump/Peristaltic • Pump/Submersible • Sample Bottle • Van Dorn Beta Bottle	Blank	
EQUIPMENT_NAME		VARCHAR2	50	Name samplers use to distinguish a piece of equipment from other equipment of the same type.	50 alphanumeric characters	Van Dorn #1, PM01, Rediflo II #2	Any valid equipment name	Blank	For certain equipment types, such as Sample Bottle there is no equipment ID. In that case, N/A is used. This field is called EQUIPMENT_ID in T_FIELD_DATA.

Table T_RESULT

This table contains information on recorded measurements.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
PK_RESULT	NOT NULL	NUMBER		UNIQUE ID assigned to each result for a given sample.	Numeric	4889657, 5229669	Any unique result identifier	None legal – field must be filled	Generated by sequence PK_RESULT_SEQ
FK_SAMPLE	NOT NULL	VARCHAR2	15	Foreign key from T_SAMPLE	PROJECT-FPK## where PROJECT = T_PROJECT.PK_PROJECT and ## is a sequential number appended after a '- '	Z1ST1701-1, Z2SL1609-1	Any valid PK_SAMPLE from T_SAMPLE	None legal – field must be filled	
FK_PARAM_CODE	NOT NULL	NUMBER	5	Foreign key from T_PARAMETER	Numeric	10, 94, 99993	Any valid PK_PARAM_CODE from T_PARAMETER	None legal – field must be filled	
VALUE		NUMBER		Numeric value from lab result or field measurement	Numeric	0.23, 1.21, 571	Any valid number	Blank	If both value and value_text are null, the result should have an 'O' qualifier assigned and a comment explaining the missing value.
VALUE_TEXT		VARCHAR2	50	Character value for lab result or field measurement	20 alphanumeric characters	0.23, 1.21, ORGANIC MUCK	Any valid number that is equal to VALUE or any valid word result.	Blank	If both value and value_text are null, the result should have an 'O' qualifier assigned and a comment explaining the missing value.
VALUE_QUALIFIER		VARCHAR2	5	Set of codes used to qualify sample measurements	5 alphanumeric characters	A, U, AJ	Refer to 2018 QA Rule 62-160.700 Table 1 (Data Qualifier Codes)	Blank	
MDL		NUMBER		Method Detection Limit is the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the true value is greater than zero.	Numeric	0.004, 0.01, 1.0	Any valid number	Blank	Some methods do not have an MDL. If populated, this value should equal the MDL reported by the laboratory for the result.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
PQL		NUMBER		Practical Quantitation Limit is the lowest level that can be reliably achieved within the specified limits of precision and accuracy during routine laboratory conditions.	Numeric	0.01, 0.1, 10	Any valid number	Blank	Some methods do not have a PQL. If populated, this value should equal the PQL reported by the laboratory for the result.
ANALYZING_AGENCY		VARCHAR2	50	Agency performing analysis or measurement	50 alphabetic characters	DEP CENTRAL LAB, DEP TALLAHASSEE ROC, ALACHUA CO.	Any valid laboratory or sampling agency name	Blank	In the case of field measurements, the ANALYZING_AGENCY is equal to T_SAMPLE.COLLECTION_AGENCY. Although this field is allowed to be null, it should be populated to facilitate proper data management.
JOB_NAME		VARCHAR2	20	Unique value assigned by DEP Lab to a group of samples belonging to a specific sampling event. A job typically contains multiple sites collected for the same project being analyzed for analytes in one analytical group.	20 alphanumeric characters	TLH-2017-05-20-01	Any valid job_name from LIMS	Blank	Field measurements will not have a JOB_NAME.
LAB_SAMPLE_ID		VARCHAR2	20	Unique identifier assigned to a sample (defined as a site/date/analysis) by lab.	20 alphanumeric characters	189325, 190266	Any valid sample id from LIMS	Blank	Field measurements will not have a LAB_SAMPLE_ID.
PREPARATION_METHOD		VARCHAR2	234	Method used to prepare sample for analysis	234 alphanumeric characters	EPA 360.1, SOP-BB29	Any valid preparation method from LIMS	Blank	Not all analyses have a PREPARATION_METHOD, and field measurements will not have a PREPARATION_METHOD.
PREPARATION_DATE		DATE		Date sample preparation occurred.	MM/DD/YYYY HH:MI:SS AM/PM	3/31/2017 4:15:00 PM	Any valid date/time	Blank	Not all analyses have a PREPARATION_DATE, and field measurements will not have a PREPARATION_DATE.
ANALYSIS_METHOD		VARCHAR2	80	Method used to analyze sample or take field measurement.	80 alphanumeric characters	EPA 360.1, EPA 150.1	Any valid analysis method from LIMS or MT_PARAMETER_ANALYSIS_METHOD.	Blank	Not all field measurements have an associated ANALYSIS_METHOD.
ANALYSIS_DATE		DATE		Date sample was analyzed by lab or field measurement was taken.	MM/DD/YYYY HH:MI:SS AM/PM	3/31/2017 4:15:00 PM	Any valid date/time	Blank	For field measurements, ANALYSIS_DATE = T_SAMPLE.COLLECTION_DATE.
QC_BATCH		VARCHAR2	12	Ties a collection of samples analyzed together that share the same set of QC.	12 alphanumeric characters	P318711	Any valid QC_BATCH from LIMS	Blank	Field measurements will not have a QC_BATCH.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
RESULT_COMMENT		VARCHAR2	500	Useful comments on lab or field results	500 alphanumeric characters	Secchi Visible on Bottom, Precision is unavailable due to an error in the analysis.	Any valid comment	Blank	Certain VALUE_QUALIFIERS, such as ‘J’, require a result comment.
ANALYSIS_TIME		VARCHAR2	4	Time analysis was performed	4 numeric characters using 24-hour clock	0930, 1145, 1605	Any valid time using 24-hour clock	Blank	For field measurements, ANALYSIS_TIME = T_SAMPLE.COLLECTION_TIME.

VALUE_QUALIFIER_HISTORIC		VARCHAR2	5	Legacy set of codes used to qualify sample measurements	5 alphanumeric characters	TW, !	U Indicates that the compound was analyzed for but not detected. The reported value shall be the method detection limit. A Value reported is the average of two or more determinations. B Colony counts were outside acceptable range. The value reported is an estimated count (This code applies to microbiological tests and specifically to membrane filter colony counts.) I reported value is between the laboratory method detection limit and the laboratory practical quantification limit. T Value reported is less than the laboratory method detection limit. K The actual value is less than the value given. N Presumptive evidence of presence of material, component tentatively identified based on mass spectral library search. O Sampled but analysis lost or not performed. Q Sample held beyond the accepted holding time. L Actual value is known to be greater than reported value. J Estimated Value. The reported value failed to meet the established laboratory quality control criteria for either precision or accuracy; OR the sample matrix interfered with the ability to make an accurate lab determination; OR The value is questionable because of improper laboratory protocols. *F The reported value failed to meet the established field quality control criteria for either precision or accuracy; OR the sample matrix interfered with the ability to make an accurate field*	Blank	This field is helpful for interpretation of legacy data but is not currently being populated since all value qualifiers in use at this time adhere to the QA Rule.

							determination; OR the value is questionable because of improper field sampling protocols. V Indicates that the analyte was detected in both the sample and any of the associated blanks, at similar concentrations. *W Aspects of the well construction may significantly influence the representativeness of this value.* Y The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate. Z Colonies were too numerous to count (TNTC). *! Indicates that the reported value deviates from historic spatially established concentration ranges.* *? Indicates that the reported value deviates from historic temporally established concentration ranges.* note: italicized descriptions deviate from EPA and/or DEP QAS descriptions. Missing Values: blank Notes: The W qualifier is to be used in the following ways. 1) If turbidity is greater than 100 NTU, all analytes coming from that well will be qualified with a W. 2) If the well currently has, or historically had, a water level recording device employing a lead weight, all lead values coming from that well will be qualified with a W. 3) All VOC's will be qualified for each glued PVC well. 4) The following detections of analytes coming from galvanized steel wells will be qualified with a W: iron, manganese, zinc, cadmium. 5) The following		

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
							detections of analytes coming from stainless steel wells will be qualified with a W: nickel, chromium. 6) All detections of trace metals coming from any type of iron well will be qualified with a W.		
MODIFY_USER_NAME		VARCHAR2	30	Username indicating which user last made updates to the record.	30 alphabetic characters	GWIS_WEB, GWIS_ADMIN, Miller_L	Any valid username	Blank	Updates made using GWIS packages and procedures set this field = GWIS_ADMIN. Updates made using SQL script should set username = the DEP network log in username. Added March 3, 2011.
MODIFY_TS		DATE		Date the last update was made to the record.	MM/DD/YYYY HH:MI:SS AM/PM	3/31/2017 11:05:00 AM	Any valid date	Blank	Added 2014.
DILUTION_FACTOR		VARCHAR2	10	The factor by which the sample aliquot was diluted prior to analysis by the Laboratory.	10 alphanumeric characters	1, 1.5, 4.75	Any valid number reported by the laboratory	Blank	Although this field can be null, the value is required for any laboratory reported values due to WIN requirements. Dilution factor does not apply to field measurements.

Table T_RECEIPT

Contains information tracing lab samples from the sample date to the date the lab results were made available. This table is populated by a chronological job using GWIS.PKG_PROCESS_DATA.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
JOB_NAME		VARCHAR2	20	Unique value assigned by DEP Lab to a group of samples belonging to a specific sampling event. A job typically contains multiple sites collected for the same project being analyzed for analytes in one analytical group.	TLH-YYYY-MM-DD-## where YYYY is the four-digit year in which samples were received, MM is the two-digit month in which samples were received, DD is the two-digit day on which samples were received, and ## is a sequential number.	TLH-2017-3-20-34, TLH-2017-04-18-65	Any valid job name from LIMS	Blank	

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
JOB_DESCRIPTION		VARCHAR2	234	This is the Sampling Event Description entered into LIMS Scheduler when RQ's are scheduled.	For WMS Trend, this description follows the format PK_PROJECT + PRIMARY SAMPLING AGENCY + NETWORK (GW-TREND or SW-TREND) + MONTH + NUMBER OF BLANKS. For WMS Status, this description follows the format PK_PROJECT + PRIMARY SAMPLING AGENCY + WEEK OF SAMPLING + RESOURCE + NUMBER OF BLANKS.	Z3ST1704 SJRWMD SW-TREND Apr + 5 blanks, Z2CA1701 TLH-ROC Week 2 Status Confined Aquifers + 2 blanks	Any valid description	Blank	
LAB_SAMPLE_ID		VARCHAR2	10	Unique sequential id assigned to a sample by lab. A sample is defined as a bottle, which represents one site/date/analytical group.	10 numeric characters	489435, 488108	Any valid sample ID from LIMS	Blank	

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
FIELD_ID		VARCHAR2	80	Unique descriptor within a LIMS job for the site sampled.	80 alphanumeric characters	HILLSCAN, GW EQUIPMENT BLANK 1	Any valid field id	Blank	For WMS, this value comes from the field T_PENDING.FK_STATION_NAME, which is printed on the sample labels that are placed on the custody sheets for submittal to the laboratory. In the event a label is not used; the Lab Receiving Staff determine what to put into this field based on how the custody sheet is filled out.
BARCODE_ID		VARCHAR2	80	Either the PK_STATION for Trend Sites or the PK_RANDOM_SAMPLE_LOCATION for Status sites.	80 alphanumeric characters	3566, Z1-CA-1701	Any valid pk_station or pk_random_sample_location or free text	Blank	For WMS, this value comes from T_PENDING.BARCODE_ID and is encoded in the barcode on the pre-printed labels that are placed on the custody sheets for submittal to the laboratory. In the event a label is not used, the Lab Receiving Staff determine what to put into this field based on how the custody sheet is filled out.
SAMPLED_DATE		DATE		Date sample was collected.	MM/DD/YYYY HH:MI:SS AM/PM	10/25/2016 4:20:00 PM	Any valid date	Blank	This value comes from the collection date written by samples on the custody sheets submitted to the laboratory.
RECEIVED_DATE		DATE		Date and time sample was received by the laboratory	MM/DD/YYYY HH:MI:SS AM/PM	10/25/2016 4:20:00 PM	Any valid date	Blank	
LIMS_CUSTOMER_CODE		VARCHAR2	10	Name of agency, program, etc. that submitted the sample to the laboratory	10 alphanumeric characters	AMBIENT	Any valid LIMS customer	Blank	Customer codes are maintained by LIMS Database Manager. Any changes should be requested via Laboratories.
LIMS_PROJECT_CODE		VARCHAR2	10	Code describing the network, program, etc. for which sample was collected	10 alphabetic characters	SW-TREND, STATUS	Any valid LIMS project	Blank	Project codes are maintained by LIMS Database Manager. Any changes should be requested via Laboratories.
AGENCY_CODE		VARCHAR2	4	This is the Agency code as listed in MT_AGENCY which corresponds to the agency collecting the sample	4 alphanumeric characters	8026, 8081	Appendix B	Blank	If this field is not filled in on the custody sheet, Labs Receiving will make their best judgement as to the collection agency.
SAMPLE_COLLECTION_AGENCY		VARCHAR2	40	This is the agency as listed in MT_AGENCY which corresponds to the agency collecting the sample	40 alphanumeric characters	ALACHUA CO., DEP TALLAHASSEE ROC	Appendix B	Blank	If this field is not filled in on the custody sheet, Labs Receiving will make their best judgement as to the collection agency.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
TESTS		VARCHAR2	2000	Analyte(s) tested for	2000 alphanumeric characters	TCOLI-MF, W-ICP, ALKALINITY	Any valid analysis from LIMS	Blank	
FK_PROJECT		VARCHAR2	10	Foreign key equal to T_PROJECT.PK_PROJECT	10 alphanumeric characters	Z1ST1701, Z2CN1702	See table T_PROJECT	Blank	
COMPLETED		VARCHAR2	1	Denotes if lab sample analysis is complete and data has been transferred to GWIS.	1 alphabetic character	Y, C	Y, C	Blank	This field will be automatically set to 'Y' by PKG_PROCESS_DATA when all results have been received for a sample. On occasion, a sample may be cancelled by the lab and this field will remain null in GWIS. In that case, the field should manually be set to 'C' for cancelled.
SHIP_TIME_DAYS		INTEGER		Sample shipping to lab duration(days)	Numeric				Field no longer used
DATE_LIMS_OUTPUT		DATE		Date sample was logged in to LIMS	MM/DD/YYYY HH:MI:SS AM/PM	3/31/2017 12:36:29 PM	Any valid date	Blank	
DATE_DATA_RECEIVED		DATE		Date lab data loaded into VGSM.AMBIENT_DATA@LIMS	MM/DD/YYYY HH:MI:SS AM/PM	3/31/2017 12:36:29 PM	Any valid date	Blank	This date is also used to populate AMBIENT_DATA.DATE_DATA_TRANSFERRED
TURNAROUND_TIME_DAYS		NUMBER		Date_data_received minus sampled_date	Numeric	36.2165625, 33.8465625	Any valid number	Blank	
QA_SAMPLE		VARCHAR2	1	Denotes if sample was a QA sample (i.e. Blank, Duplicate)	1 alphabetic character	Y	Y	Blank	

Table T_RQ_LIST

Contains information on sampling material requests submitted to the lab.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
PK_RQ	NOT NULL	VARCHAR2	18	Primary key equal to the request (RQ) number from LIMS	18 alphanumeric characters	RQ-2017-05-01-05	Any valid RQ from LIMS	None legal – field must be filled	Value is pulled from VGSM.RQ_VIEW@LIMS.REQUEST_ID
FK_PROJECT	NOT NULL	VARCHAR2	10	Foreign key from table T_PROJECT	10 alphanumeric characters	Z1ST1701, Z2CN1702	See table T_PROJECT	None legal – field must be filled	Value is pulled from a portion of VGSM.RQ_VIEW@LIMS.BROWSE_DESCRIPTION
FK_CUSTOMER		VARCHAR2	30	Name of agency, program, etc. that submitted the sample to the laboratory	30 alphanumeric characters	AMBIENT	Any valid LIMS customer	Blank	Although this field can be null, it should be populated to facilitate proper data management. Customer codes are maintained by LIMS Database Manager. Any changes should be requested via Laboratories.
FK_PROJECT_TYPE		VARCHAR2	15	Code describing the network, program, etc. for which sample is to be collected	15 alphanumeric characters	GW-TREND, SW-TREND, STATUS	Any valid LIMS project	Blank	Although this field can be null, it should be populated to facilitate proper data management. Project codes are maintained by LIMS Database Manager. Any changes should be requested via Laboratories.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
PROJECT_NAME		VARCHAR2	30	This is the Sampling Event Description entered into LIMS Scheduler when RQ's are scheduled	For WMS Trend, this description follows the format PK_PROJECT + PRIMARY SAMPLING AGENCY + NETWORK (GW-TREND or SW-TREND) + MONTH + NUMBER OF BLANKS. For WMS Status, this description follows the format PK_PROJECT + PRIMARY SAMPLING AGENCY + WEEK OF SAMPLING + RESOURCE + NUMBER OF BLANKS.	Z3ST1704 SJRWMD SW-TREND Apr + 5 blanks, Z2CA1701 TLH-ROC Week 2 Status Confined Aquifers + 2 blanks	Any valid description	Blank	
STATUS		VARCHAR2	3	This is the status of the request, i.e., approved, ready to ship, cooler shipped, samples received, etc.	1 alphabetic character	R, S, P	Any valid status from LIMS	Blank	This is the status of the RQ at the time the information is transferred from LIMS to GWIS and remains static in T_RQ_LIST. It will not update as the LIMS RQ Status updates (e.g. from S – shipped to R- received when the samples are received).
DATE_TO_SHIP		DATE		Date empty bottles and coolers are to be shipped to samplers	MM/DD/YYYY	5/22/2017	Any valid date	Blank	
DATE_SHIPPED		DATE		Date empty bottles and coolers are shipped.	MM/DD/YYYY	5/22/2017	Any valid date	Blank	This field will usually be null since RQ's are loaded to GWIS from LIMS before the kits are shipped.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
NUM_OF_SMPLS		NUMBER	2	Number of samples scheduled to be collected, including all QA/QC samples	Numeric	12	Any whole number	Blank	

Table T_FIELD_DATA

Serves as a holding table for data transferred from the field data entry application and from the individual field spreadsheets generated by field data entry software.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
DATE_DATA_TRANSFERRED		DATE		Date field data imported or inserted into T_FIELD_DATA	MM/DD/YYYY HH:MI:SS AM/PM	1/31/2017 10:30:00 AM	Any valid date and time	Blank	This date is populated by several different processes depending on what type of project and the data source.
CUSTOMER_ID		VARCHAR2	10	Represents agency or program for which data is collected.	10 alphanumeric characters	AMBIENT, WTRSHD-MGT	Any valid agency or program name	Blank	
PROJECT_ID		VARCHAR2	10	Foreign key to T_PROJECT.PK_PROJECT.	10 alphanumeric characters	Z1ST1701, Z4CN1702	Any valid PK_PROJECT from T_PROJECT	Blank	
SITE_ID		VARCHAR2	80	Description of site where field data was collected. For Trend Network, this will normally be the T_STATION.PK_STATION for the established station. For Status Network, this will normally be the T_RANDOM_SAMPLE_LOCATION.PK_RANDOM_SAMPLE_LOCATION. Other values may be used.	80 alphanumeric characters	3566, Z1-UA-10014	Any alphanumeric string	Blank	Although T_FIELD_DATA.SITE_ID is not required, it is useful for the data merge process in GWIS.
FIELD_ID		VARCHAR2	80	Description of site where field data was collected. For Trend Network, this will normally be the T_STATION.STATION_NAME for the established station. For Status Network, this will normally be the T_RANDOM_SAMPLE_LOCATION.PK_RANDOM_SAMPLE_LOCATION. Other values may be used.	80 alphanumeric characters	FLO 50 230 0, SUW100, Z1-UA-10014	Any alphanumeric string	Blank	
SAMP_COLLECTOR		VARCHAR2	50	Agency or program that collected the sample.	50 alphanumeric characters	8024, NWFWMD	Any valid agency or program or the code associated with that agency/program from MT_AGENCY	Blank	
SAMPLED_DATE		DATE		Date sample collected	MM/DD/YYYY HH:MI:SS AM/PM	11/16/2016 4:10:00 PM	Any valid date	Blank	It is important that this date match AMBIENT_DATA.SAMPLED_DATE for data to properly merge.
PREP_METHOD		VARCHAR2	234	Method used to prepare sample for measurement.	234 alphanumeric characters			Blank	Currently field parameters measured and recorded in GWIS do not have a preparation step before measurement is taken.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
ANALYSIS_ID		VARCHAR2	10	Code designating the measurement being performed.	10 alphanumeric characters			Blank	Currently there are no analysis ID's assigned for field parameters in GWIS.
ANALYSIS_METHOD		VARCHAR2	80	Method used to take field measurement.	80 alphanumeric characters	EPA 120.1, DEP-SOP-001/01 FT 1400	See MT_PARAMETER_ANALYSIS_METHOD	Blank	
PREP_DATE		DATE		Date/time sample prepared for measurement.	MM/DD/YYYY HH:MI:SS AM/PM		Any valid date	Blank	Currently field parameters measured and recorded in GWIS do not have a preparation step before measurement is taken.
ANALYSIS_DATE		DATE		Date/time field measurement taken.	MM/DD/YYYY HH:MI:SS AM/PM	3/7/2017 3:06:00 PM	Any valid date	Blank	Because there is no true analysis being performed for field measurements, the ANALYSIS_DATE is equal to the SAMPLED_DATE (i.e. the date the measurement was taken).
MDL		VARCHAR2	10	Method Detection Limit is the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the true value is greater than zero.	10 numeric characters		Any valid number	Blank	Currently no field measurements recorded in GWIS have an MDL.
PQL		VARCHAR2	10	Practical Quantitation LIMS is the lowest level that can be reliably achieved within the specified limits of precision and accuracy during routine laboratory conditions	10 numeric characters		Any valid number	Blank	Field measurements do not typically have Currently no field measurements recorded in GWIS have a PQL.
PARAMETER_NAME		VARCHAR2	40	Name of chemical or physical parameter being measured.	40 alphanumeric characters	Specific Conductance, Ph	Any valid parameter from T_PARAMETER	Blank	
PARAMETER_CODE		VARCHAR2	10	Numeric code assigned to chemical or physical parameter being measured	10 numeric characters	10, 299	Any valid PK_PARAM_CODE from T_PARAMETER	Blank	
VALUE		VARCHAR2	234	Measured value of the parameter in question	234 alphanumeric characters	25.2, 399, CLAY/SILT	Any valid number or any valid word from the Trimble Data Dictionary for STATUS field measurements	Blank	
UNITS		VARCHAR2	10	The unit of measure of the parameter being measured	10 alphanumeric characters	%, meters, degrees C	The units from T_PARAMETER that corresponds to the parameter being measured		
QUALIFIER		VARCHAR2	10	Set of codes used to qualify sample measurements	10 alphanumeric characters	J, S	Refer to 2018 QA Rule 62-160.700 Table 1 (Data Qualifier Codes)	Blank	

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
SAMPLE_COMMENT		VARCHAR2	500	Comments pertaining to the sampling event that may be helpful to the interpretation of results	500 alphanumeric characters	Extreme flood conditions,	Any text string	Blank	This comment will be combined with any AMBIENT_DATA.SAMPLE_COMMENT when data is merged.
TEST_COMMENT		VARCHAR2	2000	Comments pertaining to the measurement. Any measurements that have a QUALIFIER applied should have a TEST_COMMENT.	2000 alphanumeric characters	Secchi Visible on Bottom	Any text string	Blank	This comment will be combined with AMBIENT_DATA.TEST_COMMENT and the combined comment becomes the T_RESULT.RESULT_COMMENT when data is merged.
QC_BATCH		VARCHAR2	20	Ties a collection of measurements together that share the same set of QC	20 alphanumeric characters		Any text string	Blank	Field parameters are not currently batched.
SOURCE		VARCHAR2	30	Indicates where the field data was retrieved from to import into GWIS.	30 alphanumeric characters	TRIMBLE, INTERNET, Z3LR1705f.xls	Any text string; Trend field data entered into the Ambient Field Data Entry Application will have SOURCE automatically set to INTERNET. Status field data imported using an SSF File will have SOURCE automatically set to TRIMBLE. SJRWMD field data imported from fixed format files will have SOURCE set to the name of the file provided.	Blank	
SAMPLER		VARCHAR2	30	Name(s) of field staff taking measurements	30 alphabetic characters	NGargasz/JLynn, Paul Blair	Any text string	Blank	
SAMPLED_TIME		VARCHAR2	4	Time measurement taken	4 numeric characters using 24-hour clock	1145, 1425	Any real time	Blank	Consecutive duplicate samples should be given different sample times, while simultaneous "split" samples should indicate the same sample time. All Central Standard times are converted to Eastern Standard Time.
ANALYSIS_TIME		VARCHAR2	4	Time measurement taken	4 numeric characters using 24-hour clock	1145, 1425	Any real time	Blank	For field measurements this is the same time as SAMPLED_TIME. The value is stored as two different fields to aid in data merging with laboratory data.
VALUE_TEXT		VARCHAR2	50	Character value field measurement	50 alphanumeric characters	1.4, 399, CLAY/SILT	Any valid number or any valid word from the Trimble Data Dictionary for STATUS field measurements	Blank	

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
SAMPLE_TYPE		VARCHAR2	25	Classification given to each sample based on depth and type of sample	12 alphabetic characters	PRIMARY, BOTTOM	PRIMARY, BOTTOM, BLANK, DUPLICATE, FIELD BLANK, EQUIPMENT BLANK	Blank	Aids in determining expected parameters
FK_STATION		NUMBER	7	Foreign key to T_STATION.PK_STATION	Numeric	3556, 50069	Any PK_STATION from T_STATION	Blank	
SAMPLER_NAME		VARCHAR2	250	Name(s) of person(s) who collected sample.	30 alphabetic characters	Paul Blair, Matt Bearden	Any valid sampler's name	Blank	
EQUIPMENT_TYPE		VARCHAR2	50	Equipment used to collect water quality samples or field measurements	50 alphabetic characters	Sample Bottle, Field Testing Meter, Van Dorn Beta Bottle	• Field Testing Meter • In-Place Plumbing • Pump/Peristaltic • Pump/Submersible • Sample Bottle • Van Dorn Beta Bottle	Blank	If water quality samples were collected with field data, this equipment type should be the equipment that was used to collect the water samples. If only field measurements were taken, equipment type should be Field Testing Meter. The value Field Testing Meter is assigned to all field data in subsequent data processing steps.
EQUIPMENT_ID		VARCHAR2	50	Name samplers use to distinguish a piece of equipment from other equipment of the same type	50 alphanumeric characters	Van Dorn #1, PM01, Rediflo II #2	Any valid equipment name	Blank	For certain equipment types, such as Sample Bottle there is no equipment ID. In that case, N/A is used. This field is called EQUIPMENT_NAME in T_SAMPLE.

Table AMBIENT_DATA

Serves as a holding table for lab generated data. This table is populated by a chronological job using GWIS.PKG_PROCESS_DATA.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
DATE_DATA_TRANSFERRED		DATE		Date and time laboratory data transferred into VGSM.AMBIENT_DATA@LIMS	MM/DD/YYYY HH:MI:SS AM/PM	1/31/2017 10:30:00 AM	Any valid date and time	Blank	
CUSTOMER_ID		VARCHAR2	10	Name of agency, program, etc. that submitted the sample to the laboratory	10 alphanumeric characters	AMBIENT, WTRSHD-MGT	Any valid LIMS customer code	Blank	Customer codes are maintained by LIMS Database Manager. Any changes should be requested via Laboratories.
PROJECT_ID		VARCHAR2	10	A project associated with the Customer in LIMS	10 alphanumeric characters	SW-TREND, STATUS, SPG_QTR_WQ	Any valid LIMS Project	Blank	LIMS project codes are maintained by LIMS Database Manager. Any changes should be requested via Laboratories.
SITE_ID		VARCHAR2	80	Description of site where sample was collected. For Trend Network, this will normally be the T_STATION.PK_STATION for the established station. For Status Network, this will normally be the T_RANDOM_SAMPLE_LOCATION.PK_RANDOM_SAMPLE_LOCATION. Other values may be used.	80 alphanumeric characters	3566, Z1-UA-10014	Any alphanumeric string	Blank	For WMS, this value comes from T_PENDING.BARCODE_ID and is encoded in the barcode on the pre-printed labels that are placed on the custody sheets for submittal to the laboratory. In the event a label is not used, the Lab Receiving Staff determine what to put into this field based on how the custody sheet is filled out.
FIELD_ID		VARCHAR2	80	Description of site where field data was collected. For Trend Network, this will normally be the T_STATION.STATION_NAME for the established station. For Status Network, this will normally be the T_RANDOM_SAMPLE_LOCATION.PK_RANDOM_SAMPLE_LOCATION. Other values may be used.	80 alphanumeric characters	FLO 50 230 0, SUW100, Z1-UA-10014	Any alphanumeric string	Blank	For WMS, this value comes from the field T_PENDING.FK_STATION_NAME, which is printed on the sample labels that are placed on the custody sheets for submittal to the laboratory. In the event a label is not used, the Lab Receiving Staff determine what to put into this field based on how the custody sheet is filled out.
SAMP_COLLECTOR		VARCHAR2	40	The name(s) of the person(s), agency, program or agency code indicating who collected the sample	40 alphanumeric characters	8024, NWFWMD, Tom Wippick	Any text string	Blank	The entry in this field is dependent on how the laboratory custody sheets are filled out.
SAMPLED_DATE		DATE		Date and time sample collected	MM/DD/YYYY HH:MI:SS AM/PM	11/16/2016 4:10:00 PM	Any valid date	Blank	This is the date and time that samplers record on the laboratory custody sheets.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
JOB_NAME		VARCHAR2	20	Unique value assigned by DEP Lab to a group of samples belonging to a specific sampling event. A job typically contains multiple sites collected for the same project being analyzed for analytes in one analytical group.	TLH-YYYY-MM-DD-## where YYYY is the four-digit year in which samplers were received, MM is the two-digit month in which samples are received, DD is the two-digit day on which samples were received, and ## is a sequential number.	TLH-2017-10-20-34	Any valid job name from LIMS	Blank	
SAMPLE_ID		VARCHAR2	10	Unique sequential id assigned to a sample by lab. A sample is defined as a bottle, which represents one site/date/analytical group.	10 numeric characters	475335, 475331	Any valid sample ID from LIMS	Blank	
PREP_METHOD		VARCHAR2	234	Method used to prepare sample for analysis.	234 alphanumeric characters	EPA 360.1, SOP-BB29	Any valid preparation method from LIMS	Blank	Not all methods have a PREP_METHOD.
ANALYSIS_ID		VARCHAR2	10	Code designating the measurement being performed.	10 alphanumeric characters			Blank	Currently there are no analysis ID's assigned for field parameters in GWIS.
ANALYSIS_METHOD		VARCHAR2	80	Code assigned by Lab designating the test(s) being performed on the sample	80 alphanumeric characters	EPA 200.7 mod., EPA 365.1	Any valid method from LIMS	Blank	
PREP_DATE		DATE		Date and time sample is prepared for analysis	MM/DD/YYYY HH:MI:SS AM/PM	3/6/2017 12:11:29 PM	Any valid date	Blank	If an analysis does not have a preparation step before analysis, this field will be null.
ANALYSIS_DATE		DATE		Date and time sample is analyzed	MM/DD/YYYY HH:MI:SS AM/PM	3/7/2017 3:06:00 PM	Any valid date	Blank	
MDL		VARCHAR2	10	Method Detection Limit is the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the true value is greater than zero.	10 numeric characters	0.004, 0.01	Any valid number	Blank	Some methods do not have an MDL. If populated, this value should equal the MDL reported by the laboratory for the result.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
PQL		VARCHAR2	10	Practical Quantitation LIMS is the lowest level that can be reliably achieved within the specified limits of precision and accuracy during routine laboratory conditions	10 numeric characters	0.04, 0.1	Any valid number	Blank	Some methods do not have a PQL. If populated, this value should equal the PQL reported by the laboratory for the result.
PARAMETER_NAME		VARCHAR2	40	Name of chemical or physical parameter being analyzed.	40 alphanumeric characters	Iron, Potassium	Any valid parameter from LIMS	Blank	
PARAMETER_CODE		VARCHAR2	10	Numeric code assigned to chemical or physical parameter being measured	10 numeric characters	630, 71900	Any valid PK_PARAM_CODE from T_PARAMETER	Blank	When data is transferred from VGSM.AMBIENT_DATA@LIMS, this value is converted from the code provided by the Lab to T_PARAMETER.PK_PARAM_CODE if the values are not the same.
VALUE		VARCHAR2	234	Measured value of the parameter in question	234 alphanumeric characters	0.004, 2.5	Any valid result value from LIMS	Blank	If VALUE is blank, AMBIENT_DATA.QUALIFIER should contain the qualifier ‘O’ and a TEST_COMMENT.
UNITS		VARCHAR2	10	The unit of measure of the parameter being measured	10 alphanumeric characters	mg P/L, umhos/cm, ug/L	The units from LIMS that correspond to the parameter being measured	Blank	
QUALIFIER		VARCHAR2	10	Set of codes used to qualify sample measurements	10 alphanumeric characters	A, J, U	Refer to 2018 QA Rule 62-160.700 Table 1 (Data Qualifier Codes)	Blank	
SAMPLE_COMMENT		VARCHAR2	80	Comments entered during sample log in to LIMS pertaining to the sampling event that may be helpful to the interpretation of results. Comments may come from custody sheets or apply to actions taken during log in by Receiving staff.	500 alphanumeric characters	Extreme flood conditions,	Any text string	Blank	This comment will be combined with any T_FIELD_DATA.SAMPLE_COMMENT when data is merged.
TEST_COMMENT		VARCHAR2	2000	Comments pertaining to the analysis. Any analysis results that have a QUALIFIER applied should have a TEST_COMMENT.	2000 alphanumeric characters	Results confirmed in re-extraction, See nonconformance report #6076	Any text string	Blank	This comment will be combined with T_FIELD_DATA.RESULT_COMMENT and the combined comment becomes the T_RESULT.RESULT_COMMENT when data is merged.
QC_BATCH		VARCHAR2	20	Ties a collection of samples analyzed together that share the same set of QC.	20 alphanumeric characters	P318711	Any valid QC_BATCH from LIMS.	Blank	

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
MATRIX		VARCHAR2	20	The matrix of the sample as defined by the Laboratory during sample log in.	20 alphanumeric characters	W-GROUND, W-SURF-FRH, SEDIMENT	Any valid matrix reported by the lab	Blank	
DILUTION_FACTOR		VARCHAR2	10	The factor by which the sample aliquot was diluted prior to analysis by the Laboratory	20 alphanumeric characters	1, 1.5, 4.75	Any valid number reported by the lab.	Blank	Although this field can be null, the value is required for any laboratory reported values that will be loaded to WIN.

Table T_RANDOM_SAMPLE_LOCATION

Contains information concerning randomly selected surface water sites and additionally, the statistical information associated with these sites. Table contains legacy data that include ground water sites but is currently used only for surface water.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
PK_RANDOM_SAMPLE_LOCATION	NOT NULL	VARCHAR2	50	Primary key - The letter 'Z' for Zone, followed by the number representing the Zone (aka Reporting Unit) where the station is located (1,2,3,4,5,6) followed by a dash ('-'), followed by a two-letter code representing the water resource (SL, LL, LR, SS, CN), followed by a dash ('-') followed by the one or two-digit number representing the reporting cycle, followed by a three-digit sequential number that is unique to the particular reporting Zone, Cycle and Resource.	VARCHAR2 - See description	Z1-SL-12001, Z5-CN-11005	Any valid string conforming to the format noted that is created by the procedure GWIS_ADMIN.CREATE_PK_RANDOM_SAMPLE	None legal – field must be filled	
FK_STATION		NUMBER		Foreign key to T_STATION.PK_STATION	Numeric	3559, 50919	Any valid PK_STATION	Blank	This field remains null until a station is sampled, updated latitude and longitude are provided, and a station is created in T_STATION using GWIS_ADMIN.PKG_TRIMBLEDATA_LOAD.
RESOURCE_TYPE		VARCHAR2	50	Waterbody type	50 alphabetic characters	SMALL LAKE, CANAL	LARGE LAKE SMALL LAKE LARGE RIVER SMALL STREAM CANAL No longer in use: UNCONFINED AQUIFER CONFINED AQUIFER HIGH-ORDER STREAM LOW-ORDER STREAM ESTUARY SPRING_VENT SPRING_BOIL SPRING_RUN SPRING_CONDUIT SPRING_CONDUIT_WELL SPRING_CONDUIT_TUBING	Blank	

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
REPORTING_UNIT		VARCHAR2	25	One of the six geographic zones used for data analysis	25 alphanumeric characters	ZONE-1	ZONE 1, ZONE 2, ZONE 3, ZONE 4, ZONE 5, ZONE 6 Historic Reporting Units NWFWMD-1, NWFWMD-2 NWFWMD-A, NWFWMD-B , NWFWMD-C NWFWMD-D, SFWMD-1 SFWMD-2 SFWMD-6, SFWMD-7 SFWMD-A SFWMD-B, SFWMD-C, SFWMD-D SJRWMD-1, SJRWMD-2, SJRWMD-6 SJRWMD-A, SJRWMD-B, SJRWMD-C SJRWMD-D, SRWMD-1, SRWMD-A, SRWMD-B, SRWMD-C, SRWMD-D SWFWMD-1, SWFWMD-2, SWFWMD-A WFWMD-B, SWFWMD-C, SWFWMD-D	Blank	Zones correspond to Water Management District boundaries, except for South Florida which is split into an east and west subunits.
REPORTING_CYCLE		NUMBER		Identifier giving the sequential number of the Status Monitoring Network's statewide basin rotation schedule. This is the time period during which the entire state will be monitored.	Numeric	11, 12	Any valid reporting cycle	Blank	Cycle 1 was sampled between 2000 and 2003. Cycle 2 was sampled between 2004 and 2008. Cycle 3 was sampled in 2009 and thereafter, a reporting cycle represented one calendar year.
WATERBODY_TYPE		VARCHAR2	50	The name identifying the type of water body on which the station is located. The designation "stream" includes streams, rivers, and sloughs. Dictates which Impaired Water Rule (IWR) assessment procedure to use.	50 alphabetic characters	AQUIFER, CANAL, STREAM	AQUIFER, CANAL, ESTUARY, LAGOON, LAKE, STREAM, SPRING, UNKNOWN	Blank	Added 1997
WATERBODY_NAME		VARCHAR2	250	A 250-alphabetic character name identifying legal or map name of the water body on which the station resides.	250 alphanumeric characters	St. Marks River, Floridian Aquifer, Lake Okeechobee	Any waterbody name recognized by USGS Board on Geographic Names (https://geonames.usgs.gov/) and incorporated into the NHD GIS Layer.	Blank	Added 1997. If waterbody name is not known, the field should be populated with UNKNOWN.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
AGENCY_IN_CHARGE		VARCHAR2	25	Agency in charge of conducting site reconnaissance.	25 alphanumeric characters	DEP SOUTHWEST ROC, NWFWMD	Any valid agency name	Blank	
CAN_BE_SAMPLED		VARCHAR2	3	Indicates if site is sampleable	1 alphabetic character	Y, N	Y, N	Blank	This field will remain null until the site is reconned and determined to be sampleable or not.
RANDOM_LATITUDE		NUMBER		Comprehensive latitude value (degrees, minutes, seconds)	Numeric	243625.56, 311501.325	In Florida, latitude ranges from approximately 240000 to 320000.	Blank	
RANDOM_LONGITUDE		NUMBER		Comprehensive longitude value (degrees, minutes, seconds)	Numeric	812544.36, 854906.54	In Florida, longitude ranges from approximately 800000 to 880000.	Blank	
LAT_DD	NOT NULL	NUMBER		The degrees portion of the angular distance on a meridian north of the equator	Numeric	23, 31	+23 through +31 (for Florida landmass and surrounding waters)	None legal – field must be filled	
LAT_MM	NOT NULL	NUMBER		The minutes portion of the angular distance on a meridian north of the equator	Numeric	01, 58	00 through +59	None legal – field must be filled	
LAT_SS	NOT NULL	NUMBER		The seconds portion to four significant digits of the angular distance on a meridian north of the equator	Numeric	20.0098, 00.8932	+00.0000 through +59.9999	None legal – field must be filled	
LONG_DD	NOT NULL	NUMBER		The degrees portion of the angular distance on a meridian west of the prime meridian. Although measurements west of the prime meridian are by convention regarded as negative, the standard provides for the storage of positive values to conform to current practice.	Numeric	80, 85	79 through 87 (for Florida landmass and surrounding waters)	None legal – field must be filled	
LONG_MM	NOT NULL	NUMBER		The minutes portion of the angular distance on a meridian west of the prime meridian.	Numeric	01, 58	00 through +59	None legal – field must be filled	
LONG_SS	NOT NULL	NUMBER		The seconds portion to four significant digits of the angular distance on a meridian west of the prime meridian.	Numeric	20.0098, 00.8932	+00.0000 through +59.9999	None legal – field must be filled	

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
PUBLIC_LAND_SURVEY_COORDINATES		VARCHAR2	25	Township section and range	25 alphanumeric characters	T30 SR20 E20	Any valid township, section and range.	Blank	
COUNTY_NAME		VARCHAR2	20	Legal name of Florida county where station is located	20 alphabetic characters	Leon, Sarasota, Broward.	Appendix C	Blank	Field is automatically populated by an Oracle Spatial procedure that is triggered any time a station is added to or updated in T_RANDOM_SAMPLE_LOCATION.
COUNTY_CODE		VARCHAR2	3	Numeric code referencing county_name in MT_COUNTY	Numeric	1, 2, 3…	Any number 1 through 67	Blank	
WATER_MANAGEMENT_DISTRICT		VARCHAR2	60	Water Management District name in which station is located, regardless of actual sampling agency.	60 alphabetic characters	SOUTHWEST FLORIDA WMD	• NORTHWEST FLORIDA WMD • ST. JOHNS RIVER WMD • SUWANNEE RIVER WMD • SOUTHWEST FLORIDA WMD • SOUTH FLORIDA WMD	Blank	Field is automatically populated by an Oracle Spatial procedure that is triggered any time a station is added to or updated in T_RANDOM_SAMPLE_LOCATION.
DEP_DISTRICT		VARCHAR2	40	Name identifying the DEP District in which station is located, regardless of actual sampling agency.	40 alphabetic characters	CENTRAL DISTRICT	• NORTHWEST DISTRICT • CENTRAL DISTRICT • NORTHEAST DISTRICT • SOUTHWEST DISTRICT • SOUTHEAST DISTRICT • SOUTH DISTRICT	Blank	Added 1994. Field is automatically populated by an Oracle Spatial procedure that is triggered any time a station is added to or updated in T_RANDOM_SAMPLE_LOCATION.
QUARTER_QUAD_MAP_NUMBER		VARCHAR2	30	USGS digital orthophoto quarter quad map name	30 alphanumeric characters	GASKIN Q5650SW, Q5545NE	Any valid USGS digital ortho quad name	Blank	Field no longer populated
HYDROLOGIC_UNIT_CODE		VARCHAR2	8	USGS numerical designator of major surface water basin in which station is located. This can be determined from USGS Hydrologic Unit Map/State of Florida, 1974, Florida Bureau of Geology Map series No. 72.	8 numeric characters in 03nnnnnn Where: 03 is state code (same statewide) nnnnnn is basin code	03110102, 03100103	Appendix D	Blank	These are surface water basin boundaries.
HYDROLOGIC_UNIT_NAME		VARCHAR2	30	Corresponding name for Hydrologic_Unit_Code	25 alphanumeric characters	WITHLACOOCHEE RIVER, TAYLOR CREEK	Appendix D	Blank	These are surface water basin boundaries.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
SAMPLED_BACKGROUND_WELL		VARCHAR2	1	Was this well sampled as a background well at least once? Coding indicates Active or Inactive for the present year	1 alphabetic character	A, I, N	A, I, N	Blank	Should be marked 'I' if well has EVER been sampled through WQMS as a background well (historical, "doughnut", or other discrete, non-TV sampling) but is not currently a background well, 'N' if well has NEVER been sampled as a background well, or 'A' if the well currently is a background well. Applies only to WATERBODY_TYPE = AQUIFER
SAMPLED_VISA_WELL		VARCHAR2	1	Was this well sampled as a VISA well at least once?	1 alphabetic character	A, I, N	A, I, N	Blank	Should be marked 'I' if well has EVER been sampled through WQMS as a VISA well but is not currently a VISA well, 'N' if well have NEVER been sampled as a VISA well, or 'A' if the well is currently a VISA well. Applies only to WATERBODY_TYPE = AQUIFER
SAMPLED_HRSPWS_WELL		VARCHAR2	1	Was this well sampled as an HRS private well Survey well at least once?	1 alphabetic character	A, I, N	A, I, N	Blank	Should be marked 'I' if well has EVER been sampled through HRS PWS but is not currently an HRS PWS well, 'N' if well has NEVER been an HRS PWS well, or 'A' if the well is currently an HRS PWS well. Applies only to WATERBODY_TYPE = AQUIFER
SAMPLED_TV_STATION		VARCHAR2	1	Was this well or site sampled as a TV station at least once?	1 alphabetic character	A, I, N	A, I, N	Blank	Should be marked 'I' if well/site has EVER been sampled through WQMS as a quarterly TV well/site but is not currently a quarterly TV well/site, 'N' if well/site has NEVER been sampled as a TV well or site or 'A' if the well/site is currently a quarterly TV well/site.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
SAMPLED_STATUS_NETWORK_STATION		VARCHAR2	1	Was this well or site sampled as a STATUS well / site at least once?	1 alphabetic character	A, I, N	A, I, N	Blank	Should be marked 'I' if well/site has EVER been sampled through WQMS as a STATUS NETWORK well/site but is not currently a STATUS NETWROK well/site, 'N' if well/site has NEVER been sampled as a STATUS NETWORK well or site or 'A' if the well/site is currently a STATUS NETWORK well/site.
COMMENTS		VARCHAR2	2000	Any useful comments regarding the station or changes/updates made to station information	2000 Alphanumeric characters.	Any text string	Any text string	Blank	
LOCATIONAL_DATUM		VARCHAR2	10	A code identifying the set of parameters defining a coordinate system and a set of control points whose geographic relationships are known, either through measurement or calculation.	10 alphanumeric characters	NAD83, WGS84	• HARN – High Accuracy Reference Network • HPGN – High Precision GIS Network / High Precision Geodetic Reference • NAD27 - North American Datum of 1927 • NAD83 – North American Datum of 1983 • WGS84 – World Geodetic Survey of 1984	Blank	Added 1997
FK_EXCLUSION_CRITERIA		NUMBER	3, default 0	Foreign key corresponding to MT_EXCLUSION_CRITERIA2.PK_EXCLUSIONCRITERIA used to denote why a random sample location that was reconned was deemed unsampleable.	Numeric	1, 3, 26	Appendix F	Blank	
FK_EPA_RANDOM_ID		VARCHAR2	15	Unique id assigned to site by EPA	15 Alphanumeric characters.	FLW03431-12857, FLSS17001-589	Any valid ID	Blank	This value is assigned during site selection using code in the statistical software R.
SAMPLED_DATE		DATE		Date site was sampled if at all	MM/DD/YYYY	2/15/2017	Any legal date	Blank	This value is populated when the sampling team enters it into GWIS Database Utilities. If the site I is excluded or not reconned, the value will be null.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
NEWT1_WT		NUMBER		Specific to the Watershed Monitoring Program's Status Network surface water resources. Sample resource element's weight (number, length, or area) based on the sample frame units divided by the sample size for the basin. For example, the Choctawhatchee-St Andrews TMDL basin contains a sample frame of 412 small lakes, the calculation 412/30 = 13.73 lakes. One of the estimated 30 samples in the Choctawhatchee-St Andrews basin represents 13.73 small lakes.	Numeric	13.73, 5, 67.1	Any number	Blank	This value is assigned during site selection using code in the statistical software R.
RCH_CODE		VARCHAR2	14	The Environmental Protection Agency's (EPA) Reach File (Version 3.0), known as RF3, is a national hydrologic database that interconnects and uniquely identifies the 3.2 million stream segments or "reaches" that comprise the Country's surface water drainage system. RF3 is being developed by the EPA's Office of Water from U.S. Geological Survey (USGS) 1:100,000 scale hydrographic data. The RF3 production process assigns a unique reach code to each stream segment contained within the USGS hydrographic and determines the upstream/downstream relationships of each reach, allowing them to be connected to form a national hydrologic transport network. The reach codes provide a common nomenclature for Federal and State reporting of surface water conditions as required under the Clean Water Act. In addition, the hydrologic transport network defined within RF3 enables the modeling of waterborne pollution associated with both point and non-point sources.	14 alphanumeric characters.	03100101000025, 3110102002154	Any valid EPA Reach Code	Blank	
NEST1_NUMBER		NUMBER		Expected number of samples for initial design categories.	Numeric	30, 840	Any number	Blank	

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
EPA_OVERSAMPLE		NUMBER	1	Indicator of the sites selected after the first draw of the random selection process. A value of 0 represents sites selected during the first draw, 1 represents sites selected after the first draw.	Numeric	0, 1	0, 1	Blank	Currently WMS is selecting 20 wells in each random selection draw with 10 random draws for a total of 20 primary selections and 180 alternate selections (oversamples). For surface waters WMS is selecting 15 sites in each random selection draw and with 10 random draws for a total of 15 primary selections and 135 alternate selections (oversamples).
EPA_DIVISION		NUMBER		Division breaks down panels and expected/replicate sites. (EPA's definition, we need to redefine.)	Numeric	1, 4	Any number 1 through 6	Blank	
ACERAGE		NUMBER		Acres of small or large lakes that are found within a TMDL basin, as based on 1:100,000 RNHD GIS coverage. Specific to the Watershed Monitoring Program.	Numeric	139.84, 6520.17	Any valid number	Blank	
HECTARES		NUMBER		Lake area measurement. Specific to lake random id falls within.	Numeric	22.34, 97.94	Any valid number	Blank	Applies only to lakes
ANALYSIS_SUITE		VARCHAR2	1	An indicator of whether all the scheduled analyses for the Watershed Monitoring Program's Status Network could be collected at the sample site. In the case of streams, a code of 'A' means water chemistry and biology where taken, a code of 'O' means only water chemistry. In the case of lakes, a code of 'A' means water chemistry and sediment where taken, a code of 'O' means only water chemistry.	1 alphabetic character	A, O	A, O	Blank	
TMDL_BASIN		VARCHAR2	50	This key links current table to MT_TMDL_Basin lookup table where basin names are listed. TMDL reporting unit consisting of one or more major river basins, *i.e.*, one or more hydrologic unit codes.	50 Alphanumeric characters.	EVERGLADES WEST COAST, OCHLOCKONEE - ST. MARKS, EVERGLADES	Appendix E	Blank	Field is automatically populated by an Oracle Spatial procedure that is triggered any time a station is added to or updated in T_RANDOM_SAMPLE_LOCATION.
FK_PROJECT		VARCHAR2	10	Foreign key corresponding to T_PROJECT.PK_PROJECT	10 Alphanumeric characters	Z1SL1709, Z5CN1702	Any valid PK_PROJECT from T_PROJECT	Blank	

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
GIS_ALBX		NUMBER	10,2	The number of meters east of the origin of the FDEP Albers projection.	10 digits to 2 decimal places	305200.75, 251775.2	+0.00 through +900,000.00	Blank	
GIS_ALBY		NUMBER	10,2	The number of meters east of the origin of the FDEP Albers projection.	10 digits to 2 decimal places	701052.62, 504688.67	+0.00 through +800,000.00	Blank	
WBID		VARCHAR2	6	Water Body Identification (ID) Subunit of USGS hydrologic unit code (HUC) derived from USGS 16-unit extended HUC code. Used for assessing water quality in the Impaired Waters Rule (IWR)	6 alphanumeric characters	1724, 1538A	Any valid WBID assigned by the Water Quality Assessment Section	Blank	Field is automatically populated by an Oracle Spatial procedure that is triggered any time a station is added to or updated in T_RANDOM_SAMPLE_LOCATION.
DCD_DATUM_ID	NOT NULL	VARCHAR2	10	The horizontal reference for measuring locations on the earth's surface.	10 alphanumeric characters	WGS84, NAD83	• HARN – High Accuracy Reference Network • HPGN – High Precision GIS Network / High Precision Geodetic Reference • NAD27 - North American Datum of 1927 • NAD83 – North American Datum of 1983 • WGS84 – World Geodetic Survey of 1984	None legal – field must be filled.	Legal values found in MT_LOC_DAT.
PLANNING_UNIT		VARCHAR2	40	Planning units are smaller areas in a basin that provide a more detailed geographic basis for evaluating water quality improvement activities. May consist of a HUC or groups of WBID.	40 alphanumeric characters	ESCAMBIA RIVER, YELLOW RIVER	Any legal planning unit	Blank	Field is automatically populated by an Oracle Spatial procedure that is triggered any time a station is added to or updated in T_RANDOM_SAMPLE_LOCATION.
FIPS_COUNTY_CODE		NUMBER	3	Federal Information Processing Standard (FIPS) County Code. A three-digit numerical code identifying county. Only odd numbers - no even numbered codes.	3 digit numerical - no decimal point, no decimal digits.	001, 027, 133	001 to 133 – no even values. See Appendix C	Blank	Field is automatically populated by an Oracle Spatial procedure that is triggered any time a station is added to or updated in T_RANDOM_SAMPLE_LOCATION.
NUTRIENT_WATERSHED_REGION		VARCHAR2	50	Numeric Nutrient Region of Florida in which site is located. Determines what numeric nutrient criteria apply to surface water stations (62-302 and 62-303 F.A.C.).	50 alphabetic characters	NORTH CENTRAL, PANHANDLE EAST, PANHANDLE WEST, PENINSULAR, SOUTH, WEST CENTRAL	• NORTH CENTRAL • PANHANDLE EAST • PANHANDLE WEST • PENINSULAR • SOUTH • WEST CENTRAL	Blank	Field is automatically populated by an Oracle Spatial procedure that is triggered any time a station is added to or updated in T_STATION. Technically, this field can be null but is required to be filled if a value exists. Oracle Spatial will not provide if the site falls outside of Florida and therefore the field will

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
									remain null for any stations falling outside of Florida. Due to the manner in which the layer was created, sites that fall near a state line or near the coast may not have a value populated when a value is applicable.
SCI_DO_BIOREGION_2012		VARCHAR2	50	Stream Condition Index Bioregion of Florida in which site is located with respect to macroinvertebrate communities. Determines which dissolved oxygen criterion applies to surface water stations (62-302 and 62-303 F.A.C.).	50 alphabetic characters	BIG BEND, EVERGLADES, NORTHEAST, PANHANDLE, PENINSULA	• BIG BEND • EVERGLADES • NORTHEAST • PANHANDLE • PENINSULA	Blank	Field is automatically populated by an Oracle Spatial procedure that is triggered any time a station is added to or updated in T_STATION. Technically, this field can be null but is required to be filled if a value exists. Oracle Spatial will not provide if the site falls outside of Florida and therefore the field will remain null for any stations falling outside of Florida. Due to the manner in which the layer was created, sites that fall near a state line or near the coast may not have a value populated when a value is applicable.

Table T_WELL_LISTFRAME

Contains information concerning randomly selected ground water sites and additionally, the statistical information associated with those sites.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
PK_RANDOM_SAMPLE_LOCATION	NOT NULL	VARCHAR2	50	Primary Key - The letter 'Z' for Zone, followed by the number representing the Zone (aka Reporting Unit) where the station is located (1,2,3,4,5,6) followed by a dash ('-'), followed by a two-letter code representing the water resource (UA, CA), followed by a dash ('-') followed by the one or two-digit number representing the reporting cycle, followed by a three-digit sequential number that is unique to the particular reporting Zone, Cycle and Resource.	50 alphanumeric characters – See Description	Z4-UA-10041, Z5-CA-11020	Any valid string conforming to the format noted that is created by the procedure GWIS_ADMIN.CREATE_PK_RANDOM_SAMPLE	None legal – field must be filled	
FK_EPA_RANDOM_ID		VARCHAR2	15	Unique id assigned to site by EPA	15 Alphanumeric characters.	FGW03425-0009, FGW03425-0115	Any valid ID	Blank	This value is assigned during site selection using code in the statistical software R.
TESSELLATION_ID		NUMBER		Unique EPA ID	Numeric	10968, 7899		Blank	Field not used
STRATUM		VARCHAR2	100	Strata used in the survey design.	100 alphanumeric characters	ZONE 3 – CONFINED, ZONE 5 - UNCONFINED	Any valid combination of the Reporting Unit and Resource being sampled.	Blank	This value is assigned during site selection using code in the statistical software R.
PANEL		VARCHAR2	100	Same as stratum for primary sample and oversample for non primary	100 alphanumeric characters	SJRWMD-2 CONFINED, UNCONFINED AQUIFER OCKLAWAHA	Any valid combination of the Reporting Unit and Resource being sampled.	Blank	This value is assigned during site selection using code in the statistical software R.
WELL_WEIGHT		NUMBER		Statistical weight in design plan	Numeric	2, 3, 4	Any valid number	Blank	This value is assigned during site selection using code in the statistical software R.
AQUIFER_WEIGHT		NUMBER		Statistical weight in design plan	Numeric	3, 13	Any valid number	Blank	This value is assigned during site selection using code in the statistical software R.
FK_STATION		NUMBER	7	Foreign key to T_STATION.PK_STATION	Numeric	3556, 50069	Any PK_STATION from T_STATION	Blank	For new wells, this field remains null until the well is sampled, updated latitude and longitude are provided, and a station is created in T_STATION using GWIS_ADMIN.PKG_TRIMBLEDATA_LOAD.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
CAN_BE_SAMPLED		VARCHAR2	3	Indicates if site is sampleable	3 alphabetic characters	Y, N	Y, N	Blank	This field will remain null until the site is reconned and determined to be sampleable or not.
PUBLIC_LAND_SURVEY_COORDINATES		VARCHAR2	25	Township section and range	25 alphanumeric characters	T30 SR20 E20	Any valid township, section and range.	Blank	
QUARTER_QUAD_MAP_NUMBER		VARCHAR2	30	USGS digital orthophoto quarter quad map name	30 alphanumeric characters	GASKIN Q5650SW, Q5545NE	Any valid USGS digital ortho quad name	Blank	Field no longer populated
FK_EXCLUSION_CRITERIA		NUMBER	3	Foreign key corresponding to MT_EXCLUSION_CRITERIA2.PK_EXCLUSIONCRITERIA used to denote why a random sample location that was reconned was deemed unsampleable.	Numeric	1, 3, 26	Appendix F	Blank	Default is 0
SAMPLED_DATE		DATE		Date site was sampled if at all	MM/DD/YYYY	2/15/2017	Any legal date	Blank	This value is populated when the sampling team enters it into GWIS Database Utilities. If the site I is excluded or not reconned, the value will be null.
STATION_ID		VARCHAR2	20	FDEP Unique sampling station.	20 alphanumeric characters	303001082153401, 260041080493101	Any unique station identifier.	Blank	Historic primary identifier used for Background, VISA and HRS monitoring networks. Became outdated in the year 2000 with the conversion of the database to Oracle. Previously named DER_WELLID in Well Database, modified 1997.
STATION_NAME		VARCHAR2	100	A 100-character alphanumeric code identifying the station.	100 alphanumeric characters	Power Plant #4, Harry Edwards Park	Any descriptive alphanumeric name up to 100 characters long	Blank	
STATION_ALIAS		VARCHAR2	50	Alias given to station which may provide more information	50 alphanumeric characters	A-12, Joe North’s Well, McInnes Arm	Any character string.	Blank	May refer to a specific project conducted by the sampling agency.
STORET_IDENTIFIER		VARCHAR2	15	An alphanumeric code identifying the unique EPA Florida STORET identifier for the station.	15 alphanumeric characters	46059	Any unique alphanumeric identifier up to 15 characters long	Blank	

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
FLORIDA_UNIQUE_WELL_IDENTIFIER		VARCHAR2	7	Florida Unique Well Identification tag number. Tag is affixed to well and uniquely identifies the well with a number that does not contain any imbedded information and does not link the well to any particular agency.	7 alphanumeric characters	AAA0311, AAD5321, AAE1303	Any unique alphanumeric identifier up to 16 7 characters long.	Blank	Allan Porostovsky (WRM) prints the labels and maintains a database containing a list of the FLUWID tag numbers that have been distributed, and which agency they were distributed to. Allan is also the contact for reprinting labels for older FLUWIDs for wells where the tag has become damaged.
PROPERTY_OWNER		VARCHAR2	50	The name of the individual to whom all correspondence about the well or surface water site should be addressed. The owner of the property where the well or site is located. May also be the owner of the well.	50 alphanumeric characters	John Q. Smith, City Manager, City of Tampa	Any character string	Blank	This is the name or position title of the person associated with the ownership of the property and/or well.
OWNER		VARCHAR2	50	Physical owner (a person or organization) of the well or waterbody	50 alphanumeric characters	John Q. Smith, City of Tallahassee, Buckeye Cellulose	Any character string	Blank	This is the actual owner of the well or surface water site, not agency monitoring well or local lesser/renter
OWNER_MAILING_ADDRESS		VARCHAR2	100	Mailing address of owner of property on which well of surface water site is located.	100 alphanumeric characters for the street address or post office box.	1324 Orange Ave, PO Box 555	Any real address	Blank	
OWNER_CITY		VARCHAR2	50	City component of mailing address of owner of property on which well of surface water site is located.	50 alphanumeric characters for city	Tallahassee, Miami, Hot Springs	Any real city	Blank	
OWNER_STATE		VARCHAR2	2	US Postal Service abbreviation for state code of owner of property on which well of surface water site is located.	2 alphabetic characters for state abbreviation	FL, SD	Any state code	Blank	Use standard US Postal Service abbreviations for states.
OWNER_ZIP		VARCHAR2	10	Mailing zip code of owner of property on which well of surface water site is located.	10 alphanumeric characters	32302, 12121-3454	Any US zip code	Blank	
OWNER_TELEPHONE		VARCHAR2	10	Phone number of owner of property on which well of surface water site is located.	10 numeric characters	9045551212, 4076211313	Any real phone number	Blank	Include current area code; Do not include dashes or parentheses. Although field allows characters, only numbers should be entered.
CONTACT_AGENCY		VARCHAR2	30	Agency designated by property owner to receive data and/or correspondence regarding well or surface water site.	30 alphanumeric characters	U.S. Geological Survey, Disney World, South Florida WMD	Any real agency or business	Blank	Agency for which the individual listed in the CONTACT_NAME field works or volunteers.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
CONTACT_NAME		VARCHAR2	50	Person or position at Contact Agency designated by property owner to receive data and/or correspondence regarding well or surface water site.	50 alphanumeric characters	John Q. Smith, City Manager, Environmental Officer	Any character string	Blank	May be either a name or position title.
CONTACT_ADDRESS		VARCHAR2	100	Mailing address of the person or agency, designated by the property owner, to receive data and/or correspondence regarding this well or surface water site.	100 alphanumeric characters for the street address or post office box.	1324 Orange Ave, PO Box 555	Any real address	Blank	
CONTACT_CITY		VARCHAR2	50	City component in the mailing address of the person or agency, designated by the property owner, to receive data and/or correspondence regarding this well or surface water site.	50 alphanumeric characters	Tallahassee, Miami, Hot Springs	Any real city	Blank	
CONTACT_ZIP		VARCHAR2	10	Zip code of the person or agency, designated by the property owner, to receive data and/or correspondence regarding this well or surface water site.	10 alphanumeric characters for the zip code	32302, 12121-1453	Any real zip code	Blank	
CONTACT_STATE		VARCHAR2	2	US Postal Service abbreviations for state code of the person or agency, designated by the property owner, to receive data and/or correspondence regarding this well or surface water site	2 alphabetic characters for state abbreviation	FL, SD	Any state code	Blank	Use standard US Postal Service abbreviations for states.
CONTACT_TELEPHONE		VARCHAR2	10	Phone number of the person or agency, designated by the property owner, to receive data and/or correspondence regarding this well or surface water site.	10 numeric characters	9045551212, 4076211313	Any real phone number	Blank	Include current area code; Do not include dashes or parentheses. Although field allows characters, only numbers should be entered.
NOTIFICATION_LETTER		VARCHAR2	1	A code field describing who, if anyone, should receive the ‘Owner’s Notification Letter’.	1 alphabetic character	O, C	O, C	Blank	C = Contact person, O = Owner, null = no letter to be sent. Added November 1998.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
LATITUDE		VARCHAR2	10	Latitude location of station to the nearest thousandth of a second (or best available information).	DDMMSS.THM	243625, 243625.298	In Florida, latitude ranges from approximately 240000 to 320000	Blank	Depending on method of location determination, the value may be expressed to the nearest second, or the nearest tenth, hundredth, of thousandth of a second. The value should be left-justified, and carried out to the appropriate number of significant figures. Given the current technology three characters to the right of decimal point gives the greatest accuracy possible. Due to GWIS Database Utilities programming this field can be NULL. However, if it is not populated the Oracle Spatial procedure will not update GIS information for the record.
LONGITUDE		VARCHAR2	10	Longitude location of station to the nearest thousandth of a second (or best available information).	DDMMSS.THM	820653, 820653.358	In Florida, longitude ranges from approximately 800000 to 880000	Blank	Depending on method of location determination, the value may be expressed to the nearest second, or the nearest tenth, hundredth, of thousandth of a second. The value should be left-justified, and carried out to the appropriate number of significant figures. Given the current technology three characters to the right of decimal point gives the greatest accuracy possible. Due to GWIS Database Utilities programming this field can be NULL. However, if it is not populated the Oracle Spatial procedure will not update GIS information for the record.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
LOCATION_METHOD		VARCHAR 2	60	The method or mechanism used to derive the locational measurements	60 alphanumeric characters	ADDM, DGPS	• ADDM – Address Matching • AGPS – Autonomous GPS • CALC – Calculated by GIS Software • CSUR – Cadastral Survey • DGPS – Differentially Corrected GPS • DMAP – Digital Map Interpolation • DPHO – Digital Aerial Photography With Ground Control • GGPS – Geodetic Quality GPS • LORN – LORAN-C Navigational Device • MMAP – Manual Map Interpolation • PMHO – Manual Aerial Photography With Ground Control • OTHR – A Method Not Listed • SATI – Satellite Imagery With Ground Control • WGPS – GPS with Wide-Area Augmentation Service Correction • UNKN – Unknown Method • ZIP2 – Zip Code + 2 Segment Centroid • ZIP4 – Zip Code + 4 Segment Centroid • ZIPC – Zip Code Centroid	Blank	The value in this field may be abbreviated or spelled out depending on how the information is received in the well submissions. If the well is sampled and a station created in T_STATION, this value becomes T_STATION.CMCD_COORDINATE_METHOD_ID and is converted to the appropriate four-letter acronym.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
LOCATIONAL_DATUM		VARCHAR2	10	A code identifying the set of parameters defining a coordinate system and a set of control points whose geographic relationships are known, either through measurement or calculation.	10 alphanumeric characters	NAD83, WGS84	• HARN – High Accuracy Reference Network • HPGN – High Precision GIS Network / High Precision Geodetic Reference • NAD27 - North American Datum of 1927 • NAD83 – North American Datum of 1983 • WGS84 – World Geodetic Survey of 1984	Blank	
LATITUDE_DEGREES	NOT NULL	NUMBER		The degrees portion of the angular distance on a meridian north of the equator.	Numeric	29, 31	+23 through +31 (for Florida landmass and surrounding waters)	None legal – field must be filled.	
LATITUDE_MINUTES	NOT NULL	NUMBER		The minutes portion of the angular distance on a meridian north of the equator	Numeric	00, 59	00 through +59	None legal – field must be filled.	
LATITUDE_SECONDS	NOT NULL	NUMBER		The seconds portion to four significant digits of the angular distance on a meridian north of the equator.	Numeric	2.0193, 0.8976	+0.0000 through +59.9999	None legal – field must be filled.	
LONGITUDE_DEGREES	NOT NULL	NUMBER		The degrees portion of the angular distance on a meridian west of the prime meridian. Although measurements west of the prime meridian are by convention regarded as negative, the standard provides for the storage of positive values to conform to current practice	Numeric	79, 83	+79 through +87 (for Florida landmass and surrounding waters)	None legal – field must be filled.	
LONGITUDE_MINUTES	NOT NULL	NUMBER		The minutes portion of the angular distance on a meridian west of the prime meridian	Numeric	00, 59	00 through +59	None legal – field must be filled.	
LONGITUDE_SECONDS	NOT NULL	NUMBER		The seconds portion to four significant digits of the angular distance on a meridian west of the prime meridian.	Numeric	2.0193, 0.8976	+0.0000 through +59.9999	None legal – field must be filled.	

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
COUNTY_CODE		NUMBER		Numeric code referencing county_name in MT_COUNTY	Numeric	1,2,3…	Any number 1 through 67	Blank	Field is automatically populated by an Oracle Spatial procedure that is triggered any time a station is added to or updated in T_WELL_LISTFRAME. Oracle Spatial will not provide if the site falls outside of Florida and therefore the field will remain null for any stations falling outside of Florida.
COUNTY_NAME		VARCHAR2	20	Legal name of Florida county where station is located	20 alphabetic characters	Leon, Sarasota, Broward	Any legal Florida county name	Blank	Field is automatically populated by an Oracle Spatial procedure that is triggered any time a station is added to or updated in T_WELL_LISTFRAME. Oracle Spatial will not provide if the site falls outside of Florida and therefore the field will remain null for any stations falling outside of Florida.
WATER_MANGEMENT_DISTRICT		VARCHAR2	60	Water Management District name in which station is located, regardless of actual sampling agency.	60 alphabetic characters	SOUTHWEST FLORIDA WMD, ST. JOHNS RIVER WMD, etc.	NORTHWEST FLORIDA WMD ST. JOHNS RIVER WMD SUWANNEE RIVER WMD SOUTHWEST FLORIDA WMD SOUTH FLORIDA WMD	Blank	Field is automatically populated by an Oracle Spatial procedure that is triggered any time a station is added to or updated in T_WELL_LISTFRAME. Oracle Spatial will not provide if the site falls outside of Florida and therefore the field will remain null for any stations falling outside of Florida.
DEP_DISTRICT		VARCHAR2	40	Name identifying the DEP District in which station is located, regardless of actual sampling agency	40 alphabetic characters	CENTRAL DISTRICT	Any of the six DEP Districts	Blank	Field is automatically populated by an Oracle Spatial procedure that is triggered any time a station is added to or updated in T_WELL_LISTFRAME. Oracle Spatial will not provide if the site falls outside of Florida and therefore the field will remain null for any stations falling outside of Florida.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
REPORTING_UNIT		VARCHAR2	25	One of the six geographic zones used for data analysis.	25 alphanumeric characters	ZONE 1	The reporting unit names of the 6 zones used in the current cycle (of the Status Network; and the reporting unit names of the 29 TDML basins for cycle two of the status network (2004-2008), and the reporting unit names for the 20 reporting units used for the status network in cycle one.	Blank	Zones correspond to WMD boundaries, except for South Florida which is split into an east and west subunits. For cycle two of the status network see TMDL_BASIN database field name. Technically, this field can be null but is required to be filled if a value exists. This field is manually populated when a new Trend station is created or when Status randomly selected sites are loaded.
REPORTING_CYCLE		NUMBER		Identifier giving the sequential number of the Status Monitoring Network's statewide basin rotation schedule. This is the time period during which the entire state will be monitored.	Numeric	11, 12	Any valid reporting cycle	Blank	Cycle 1 was sampled between 2000 and 2003. Cycle 2 was sampled between 2004 and 2008. Cycle 3 was sampled in 2009 and thereafter, a reporting cycle represented one calendar year.
TMDL_BASIN		VARCHAR2	50	This key links current table to MT_TMDL_Basin lookup table where basin names are listed. TMDL reporting unit consisting of one or more major river basins, *i.e.*, one or more hydrologic unit codes.	50 Alphanumeric characters.	EVERGLADES WEST COAST, OCHLOCKONEE - ST. MARKS, EVERGLADES	Appendix E	Blank	Field is automatically populated by an Oracle Spatial procedure that is triggered any time a station is added to or updated in T_WELL_LISTFRAME.
HYDROLOGIC_UNIT_CODE		VARCHAR2	8	USGS numerical designator of major surface water basin in which station is located. This can be determined from USGS Hydrologic Unit Map/State of Florida, 1974, Florida Bureau of Geology Map series No. 72.	8 numeric characters in 03nnnnnn, where 03 is state code (same statewide) and nnnnnn is basin code	03110102, 03100103	Appendix D	Blank	Field is automatically populated by an Oracle Spatial procedure that is triggered any time a station is added to or updated in T_WELL_LISTFRAME. These are surface water basin boundaries.
HYDROLOGIC_UNIT_NAME		VARCHAR2	30	Corresponding name for Hydrologic Unit Code	30 alphanumeric characters	WITHLACOOCHEE RIVER, TAYLOR CREEK	Appendix D	Blank	Field is automatically populated by an Oracle Spatial procedure that is triggered any time a station is added to or updated in T_WELL_LISTFRAME. These are surface water basin boundaries.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
WATERBODY_TYPE		VARCHAR 2	30	The name identifying the type of the water body on which the station is located. The designation "stream" includes rivers and sloughs. The designation “lake” includes some marshes. Dictates which Impaired Water Rule (IWR) assessment procedure to use.	30 alphabetic characters	LAKE, STREAM	AQUIFER, CANAL, ESTUARY, LAKE, STREAM, SPRING	Blank	This field is manually populated when a new Trend station is created or when Status randomly selected sites are loaded.
RESOURCE_TYPE		VARCHAR2	30	Describes types of water bodies sampled for Status and Trend Networks	30 alphabetic characters	CANAL, LARGE LAKE, UNCONFINED AQUIFER	• UNCONFINED AQUIFER • CONFINED AQUIFER • LARGE LAKE • SMALL LAKE • LARGE RIVER • SMALL STREAM • ESTUARY • SPRING_VENT • SPRING_BOIL • SPRING_RUN • SPRING_CONDUIT • SPRING_CONDUIT_WELL • SPRING_CONDUIT_TUBING • SPRING_SEEP • SPRING_VENT_TUBING • CANAL • SPRING_DRAIN • SPRING_RISE • SPRING_UPSTREAM • KARST_WINDOW • SPRING_GENERAL	Blank	This field is manually populated when a new Trend station is created or when Status randomly selected sites are loaded. Any of names found in MT_W_RESOURCE.
WATERBODY_NAME		VARCHAR2	40	A 40-alphabetic character name identifying legal or map name of the water body on which the station resides.	40 alphabetic characters	St. Marks River, Floridian Aquifer, Lake Okeechobee	Any waterbody name recognized by USGS Board on Geographic Names (https://geonames.usgs.gov/) and incorporated into the NHD GIS Layer.	Blank	This field is manually populated when a new Trend station is created or when Status randomly selected sites are loaded.
SUBAQUIFER		VARCHAR2	60	Descriptive name for stratigraphic unit from which water is being taken.	60 alphanumeric characters	LAKE FLIRT MARL, NONARTESIAN SAND AQUIFER	Appendix G	Blank	Names are found in MT_SUBAQ.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
TOP_OF_AQUIFER		NUMBER		Elevation of top of aquifer tapped in feet, relative to National Geodetic Vertical Datum-1929 ("mean sea level").	(+) nnnn where n is a number (note optional +/- sign).	-234, -1010, -5	Any value between -9999 and +9999, inclusively	Blank	
BOTTOM_OF_AQUIFER		NUMBER		Elevation of bottom of aquifer tapped in feet, relative to National Geodetic Vertical Datum-1929 ("mean sea level").	(+) nnnn where n is a number (note optional +/- sign).	-234, -1010, -5	Any value between -9999 and +9999, inclusively	Blank	
WELL_GEOLOGIC_LOG		VARCHAR2	3	A yes or no flag telling whether a geophysical log of any sort is available on this well.	1 alphabetic character	Y or N	Y, N	Blank	Type of log(s) and location should be included in comments.
WELL_LITHOLOGIC_LOG		VARCHAR2	3	A yes or no flag telling whether a lithologic log is available on this well.	1 alphabetic character	Y or N	Y, N	Blank	Type of log(s) and location should be included in comments.
WELL_DRILLER_LOG		VARCHAR2	3	A yes or no flag telling whether a well driller's log is available on this well.	1 alphabetic character	Y or N	Y, N	Blank	Type of log(s) and location should be included in comments. Applies only to WATERBODY_TYPE = AQUIFER
WELL_HYDROLOGIC_DATA		VARCHAR2	3	A yes or no flag telling whether hydrologic data (permeability, transmissivity, pump tests, etc.) are available for this well.	1 alphabetic character	Y or N	Y, N	Blank	Type of data and location should be included as a comment.
CONFINED		VARCHAR2	3	A one-character code designating if a confining layer is present.	1 alphabetic character	Y or N	Y = yes, aquifer has a confining layer at the station's location; N = no, aquifer does not have a confining layer at the station's location.	Blank	
WELL_DRILL_DATE		DATE		Month, day and year well drilling was completed	MM/DD/YYYY	6/20/1985	Any real date where MM = Month, DD = Day, and YYYY equals year.	Blank	This is initial drilling date; if the well was drilled deeper more recently, then note this in comments field.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
WELL_STATUS		VARCHAR2	40	Description of physical status of well.	40 alphabetic characters	FLOWING, ACTIVE NOT FREE FLOWING DESTROYED	• DESTROYED • DESTROYED AND NO LONGER USEABLE • FLOWING,ABANDONED,FREE FLOWING • FLOWING,ABANDONED,NOT FREE FLOW • FLOWING,ACTIVE,FREE FLOWING • FLOWING,ACTIVE,NOT FREE FLOWNG • NON-FLOWING,ABANDONDED • NON-FLOWING,ACTIVELY PUMPED • NON-FLOWING,NO PUMP • PLUGGED • UNKNOWN	Blank	Codes provided by other agencies during listframe development must be converted to one of the legal values using the agencies data dictionary. Legal values found in MT_WELLSTAT.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
WELL_TYPE		VARCHAR2	40	Description of current use of well.	40 alphabetic characters	IRRIGATION WELL, GROUND WATER MONITORING WELL	• AGRICULTURAL SUPPLY WELL • DOMESTIC • DRAINAGE WELL • GROUND WATER LEVEL OBSERVATION WELL • GROUND WATER OBSERVATION WELL • GROUND WATER QUALITY MONITORING WELL • GROUND WATER QUALITY OBSERVATION WELL • GROUNDWATER MONITORING WELL • INDUSTRIAL SUPPLY WELL • IRRIGATION WELL • MONITORING • NOT YET DETERMINED • OPEN HOLE • OTHER WELL • PRIVATE DRINKING WATER WELL • PUBLIC DRINKING WATER WELL	Blank	This is the primary use of the well. Legal values found in MT_WELLTYPE.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
WELL_CONSTRUCTION_METHOD		VARCHAR2	35	Description of well construction method	35 alphabetic character	HYDRAULIC ROTARY, JETTED, UNKNOWN	• AIR PERCUSSION • AIR ROTARY • BORED OR AUGERED • CABLE TOOL • DRIVEN • HAND DUG • HYDRAULIC ROTARY • JETTED • NOT YET DETERMINED • OTHER • OTHER/COMBINATION (DESCRIBE COMB.IN COMMENT) • REVERSE ROTARY • ROTARY • UNKNOWN	Blank	If more than one method of construction is used, list methods in comment field. Legal values found in MT_CONSMETH.
WELL_LIFT_TYPE		VARCHAR2	25	Description of type of lift permanently installed in well.	25 alphabetic character	AIRLIFT, PERISTALTIC PUMP, TURBINE PUMP	• AIRLIFT • BUCKET/BAILER • CENTRIFUGAL PUMP • HAND OR PITCHER PUMP • JET PUMP • NONE • NOT YET DETERMINED • OTHER • PERISTALTIC PUMP • PISTON PUMP • ROTARY PUMP • SUBMERSIBLE PUMP • TURBINE PUMP • UNKNOWN	Blank	This is the type of lift permanently installed in well. It is not the method of sample collection or purging method. Legal values found in MT_LIFTTYPE.
WELL_TOTAL_DEPTH		NUMBER		Total depth (in feet) to current bottom of well from land surface rounded to nearest foot.	Numeric	1000, 235, 10	Any whole number between 1 and 99999, inclusively.	Blank	Total depth for springs should be best estimate of actual depth of spring.
WELL_CASING_DEPTH		NUMBER		Total depth (in feet) to current bottom of well casing from land surface rounded to nearest foot	Numeric	1000, 235, 10	Any whole number between 1 and 99999, inclusively.	Blank	Casing depth of wells without casing and springs is 0.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
WELL_FINISH		VARCHAR2	40	Description of method of well finish.	40 alphabetic characters	GRAVEL-PACK,PERFORATED CASING, PERFORATED OR SLOTTED CASING	• PVC, BOND UNKNOWN • ANY OTHER METHOD • GRAVEL-PACK, WITH SCREEN • GRAVEL-PACK,PERFORATED CASING • NOT YET DETERMINED • NOT YET DETERMINED, OTHER MATERIALS • OPEN HOLE • PERFORATED OR SLOTTED CASING • SAND POINT • SCREEN • SCREEN, PVC, BOND UNKNOWN • SCREEN, PVC, NON-SOLVENT BOND • UNKNOWN • WALLED	Blank	Legal values found in MT_FINISH.
WELL_SCREEN_BEGIN_DEPTH		NUMBER		Depth to top of screened or open hole interval measured in feet From land surface, rounded to nearest foot.	Numeric	123, 142, 10	Any value between 1 and 99999 inclusively, with the WELL_SCREEN_BEGIN_DEPTH being less than or equal to WELL_SCREEN_END_DEPTH (screen or open hole beginning at or higher than screen or open hole end).	Blank	If there is no screen or open hole, then open hole begins and ends at depth of casing. If there is no casing, then open hole begins at 0. If site is a spring, then open hole begins at 0 and continues to estimated actual depth of spring.
WELL_SCREEN_END_DEPTH		NUMBER		Depth to bottom of screened or open hole interval measured in feet from land surface, rounded to nearest foot.	Numeric	123, 142, 10	Any value between 1 and 99999 inclusively, with the WELL_SCREEN_END_DEPTH being greater than or equal to WELL_SCREEN_BEGIN_DEPTH (screen or open hole beginning at or higher than screen or open hole end).	Blank	If there is no screen or open hole, then open hole begins and ends at depth of casing. If there is no casing, then open hole begins at 0. If site is a spring, then open hole begins at 0 and continues to estimated actual depth of spring.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
WELL_SCREEN_MATERIAL		VARCHAR2	40	Description of material of which screen is made	40 alphabetic character	GALVANIZED IRON OR GALVANIZED STEEL, STAINLESS STEEL	• BLACK IRON OR BLACK STEEL • BRASS OR BRONZE • GALVANIZED IRON OR GALVANIZED STEEL • NOT APPLICABLE • OTHER METALS • OTHER MATERIALS • OTHER PLASTICS • PVC • PVC, BOND UNKNOWN • PVC, NON-SOLVENT BOND • PVC, NON-SOLVENT BOND (INCLUDES THREADED • PVC, SOLVENT BOND • STAINLESS STEEL • STEEL • UNKNOWN • WROUGHT IRON	Blank	Unscreened wells are left blank. Legal values found in MT_SCR_MAT.
WELL_SCREEN_DIAMETER		NUMBER		Diameter of screen in inches and hundredth of an inch	nn.nn where n is a number (note two digits after decimal point.)	2.00, 10.25, 4.50	Any value between 00.01 and 99.99, inclusively.	Blank	

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
WELL_CASING_MATERIAL		VARCHAR2	70	Description of material of which casing is made	70 alphabetic character	ABS PLASTIC, CONCRETE, FIBERGLASS	• ABS PLASTIC • BLACK IRON OR BLACK STEEL • BLACK STEEL • BRICK • CONCRETE • FIBERGLASS • GALVANIZED IRON OR GALVANIZED STEEL • IRON • NONE • OTHER MATERIALS • OTHER METALS • OTHER PLASTIC • PVC • PVC - UNKNOWN BOND • PVC OR PLASTIC • PVC, BOND UNKNOWN • PVC, NON-SOLVENT BOND • PVC, NON-SOLVENT BOND (INCLUDES THREADED PVC USING NO GLUE) • PVC, SOLVENT BOND • PVC, THREADED • PVC, UNKNOWN BOND • ROCK OR STONE • STAINLESS STEEL • STEEL • UNKNOWN • WROUGHT IRON	Blank	Uncased wells are left blank
WELL_CASING_DIAMETER		NUMBER		Diameter of casing in inches and hundredth of an inch.	nn.nn where n is a number (note two digits after decimal point.)	2.00, 10.25, 4.50	Any value between 00.01 and 99.99, inclusively.	Blank	Required for WATERBODY_TYPE = AQUIFER or SPRING where a casing is present.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
LAND_SURFACE_ELEVATION		VARCHAR2	7	Elevation of land surface, in feet, around casing relative to National Geodetic Vertical Datum-1929 ("mean sea level") or North American Vertical Datum of 1988.	7 alphanumeric characters in the format (+)/(-)nnn.nn. (+) is implied if not entered.	-2.00, 10.25,+124.54	Any value between -999.99 and +999.99, inclusively.	Blank	Required field to determine water level for WATERBODY_TYPE = AQUIFER. If LSE_DATUM_ID is not populated, value is assumed to be NGVD29.
WELL_MEASURING_PT_ELEVATION		VARCHAR2	7	Elevation of water level measuring point, in feet, relative to National Geodetic Vertical Datum-1929 ("mean sea level").	7 alphanumeric characters in the format (+)/(-)nnn.nn. (+) is implied if not entered.	-2.00, 10.25,+124.54	Any value between -999.99 and +999.99, inclusively.	Blank	Required field to determine water level for WATERBODY_TYPE = AQUIFER. If value is provided in NAVD88 datum, it should be converted to NVGD29.
WELL_WATER_LEVEL_RECORDER		VARCHAR2	5	Was this well sampled as a water level recording station with a water level recorder?	5 alphabetic characters	A, I, N, U	A, I, N, U	Blank	Should be marked 'A' if well is currently a water level monitor well; or 'I' if the well, at one time, had a water level recorder installed, but is not currently being used for continuous water level recording. An 'N' is used for those wells known to have never been used as a continuous water level recorder well. A 'U' is used use to identify wells for which it is unknown if they had water level recorders on them. Added 1993
WELL_LEAD_WEIGHT		VARCHAR2	10	Was a lead weight used in this well on a water level recording device? Or, is there a lead weight in the well.	10 alphabetic characters	Y, N, U	Y, N, U	Blank	This must be verified by a site visit, not assumed from lead values coming from the well.
WELL_GRID_CELL		NUMBER		Number depicting the four-township grid cell where the well is located.	5 digit numeric, zero decimal places.	32333	Any existing 5-digit number supplied for a grid cell.	Blank	Antiquated in 2000 when Background Network sampling stopped.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
DATA_SOURCE		VARCHAR2	8	An eight-character field giving the name of the database or agency from which the data was extracted or received	8 alphanumeric characters	SJRWM17, USGS2012	Any existing contractor's stations database name or the name and year of the agency providing the data if the database name is not known.	Blank	Historic well submittals used the database name (e.g. WACS, WAFR, SRWSTNS, SFWSTNS), but current procedure as of 2016 is to use an agency abbreviation, such as SJRWMD with the two-digit year in which the data was received. Added November 1998

AGENCY_MAINTAINING_STATION_INF		VARCHAR2	60	Name of the lead agency maintaining data on physical station parameters.	60 alphabetic characters	POLK CO., SOUTH FLORIDA WMD	• ALACHUA CO. • BROWARD CO. • COLLIER CO. • DADE CO. • DEP AMBIENT WATER QUALITY MONITORING • DEP CENTRAL DISTRICT • DEP CENTRAL ROC • DEP FLORIDA GEOLOGICAL SURVEY • DEP GW PROTECTION SECTION • DEP NORTHEAST DISTRICT • DEP NORTHEAST ROC • DEP NORTHWEST DISTRICT • DEP NORTHWEST ROC • DEP SOUTH DISTRICT • DEP SOUTH ROC • DEP SOUTHEAST DISTRICT • DEP SOUTHEAST ROC • DEP SOUTHWEST DISTRICT • DEP SOUTHWEST ROC • DEP WATERSHED ASSESSMENT • DEPT. HEALTH AND REHABILITATIVE SERVICES • NORTHWEST FLORIDA WMD • PALM BEACH CO. • POLK CO. • SFWMD W.P.B • SOUTH FLORIDA WMD • SOUTHWEST FLORIDA WMD • ST. JOHNS RIVER WMD • SUWANNEE RIVER WMD	Blank	This is identifying agency reporting data to DEP. Legal values found in MT_AGENCY.

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
							• U.S. GEOLOGICAL SURVEY • USGS ALTAMONTE SPRINGS • USGS FT MYERS • USGS TALLAHASSEE		
COMMENTS		VARCHAR2	2000	A 2000-character field for miscellaneous comments concerning the station.	2000 alphanumeric characters.	Free text	Free text	Blank	
CREATE_DATE		DATE		Date Station record was created in Oracle.	Date	Any legal date time.	Any legal date time.	Blank	Added 2000. A null value should only exist if a station was manually inserted into GWIS.
FIPS_COUNTY_CODE		NUMBER	3	Federal Information Processing Standard (FIPS) County Code. A three-digit numerical code identifying county. Only odd numbers - no even numbered codes.	3 digit numerical - no decimal point, no decimal digits.	001, 027, 133	001 to 133 – no even values. Appendix C	Blank	Field is automatically populated by an Oracle Spatial procedure that is triggered any time a station is added to or updated in T_WELL_LISTFRAME. Oracle Spatial will not provide if the site falls outside of Florida and therefore the field will remain null for any stations falling outside of Florida.
BIS_DISTRICT_ID		VARCHAR2	4	Up to 4 characters that correspond to the DEP District in which the station is located	4 alphabetic characters	CD, NWD	CD, NED, NWD, SD, SED, SWD	Blank	Field is automatically populated by an Oracle Spatial procedure that is triggered any time a station is added to or updated in T_WELL_LISTFRAME. Oracle Spatial will not provide if the site falls outside of Florida and therefore the field will remain null for any stations falling outside of Florida.
MULTIDENSITY_CATEGORY		NUMBER						Blank	
WELL_DENSITY		NUMBER						Blank	
FK_PROJECT		VARCHAR2	10					Blank	
GIS_ALBX		NUMBER	10,2	The number of meters east of the origin of the FDEP Albers projection.	10 digits to 2 decimal places	305200.75, 251775.2	+0.00 through +900,000.00	Blank	Added 2005
GIS_ALBY		NUMBER	10,2	The number of meters east of the origin of the FDEP Albers projection.	10 digits to 2 decimal places	701052.62, 504688.67	+0.00 through +800,000.00	Blank	Added 2005

DATABASE FIELD NAME	REQUIRED	DATA TYPE	DATA SIZE	DESCRIPTION	FORMAT	TYPICAL VALUES	LEGAL VALUES	MISSING VALUES	NOTES
WBID		VARCHAR2	6	Water Body Identification (ID) Subunit of USGS hydrologic unit code (HUC) derived from USGS 16-unit extended HUC code. Used for assessing water quality in the Impaired Waters Rule (IWR)	6 alphanumeric characters	1724, 1538A	Any valid WBID assigned by the Water Quality Assessment Section	Blank	Field is automatically populated by an Oracle Spatial procedure that is triggered any time a station is added to or updated in T_WELL_LISTFRAME. Technically, this field can be null but is required to be filled if a value exists. Oracle Spatial will not provide if the site falls outside of Florida and therefore the field will remain null for any stations falling outside of Florida. Added 2005.
PLANNING_UNIT		VARCHAR2	40	Planning units are smaller areas in a basin that provide a more detailed geographic basis for evaluating water quality improvement activities. May consist of a HUC or groups of WBID.	40 alphanumeric characters	ESCAMBIA RIVER, YELLOW RIVER	Any legal planning unit	Blank	Field is automatically populated by an Oracle Spatial procedure that is triggered any time a station is added to or updated in T_WELL_LISTFRAME. Oracle Spatial will not provide if the site falls outside of Florida and therefore the field will remain null for any stations falling outside of Florida. Added 2005.
DCD_DATUM_ID	NOT NULL	VARCHAR2	10	The horizontal reference for measuring locations on the earth's surface.	10 alphanumeric characters	WGS84, NAD83	• HARN – High Accuracy Reference Network • HPGN – High Precision GIS Network / High Precision Geodetic Reference • NAD27 - North American Datum of 1927 • NAD83 – North American Datum of 1983 • WGS84 – World Geodetic Survey of 1984	None legal – field must be filled.	Legal values found in MT_LOC_DAT.
FL_ID		NUMBER		Unique numeric identifier assigned to each well when it is added to the well listframe.		1, 200, 37000	Any whole number		This value is the same as WELL_LISTFRAME.FL_ID.

APPENDIX A: PARAMETERS IN T_PARAMETER

(Sorted by PARAMETER and PARAMETER_GROUP):

PARAMETER	PK_PARAM_CODE	UNITS	PARAMETER_GROUP	CAS_NUMBER
1,1,1,2-Tetrachloroethane	77562	ug/L	ORGANIC	630206
1,1,1-Trichloroethane	34506	ug/L	ORGANIC	71556
1,1,2,2-Tetrachloroethane	34516	ug/L	ORGANIC	79345
1,1,2-Trichloroethane	34511	ug/L	ORGANIC	79005
1,1,2-Trichlorotrifluoroethane	77652	ug/L	ORGANIC	76131
1,1-Dichloroethane	34496	ug/L	ORGANIC	75343
1,1-Dichloroethene	34501	ug/L	ORGANIC	75354
1,1-Dichloropropane	45638	ug/L	ORGANIC	78999
1,1-Dichloropropene	77168	ug/L	ORGANIC	563586
1,2,3-Trichlorobenzene	77613	ug/L	ORGANIC	87616
1,2,3-Trichloropropane	77443	ug/L	ORGANIC	96184
1,2,4-Trichlorobenzene	34551	ug/L	ORGANIC	120821
1,2,4-Triethylbenzene	77544	ug/L	ORGANIC	877441
1,2,4-Trimethlybenzene	77222	ug/L	ORGANIC	95636
1,2-Benzisothiazole	4261	ug/L	ORGANIC	272162
1,2-Dibromo-3-chloropropane (DBCP)	38760	ug/L	PESTICIDE	96128
1,2-Dibromoethane (EDB)	77651	ug/L	PESTICIDE	106934
1,2-Dichlorobenzene	34536	ug/L	ORGANIC	95501
1,2-Dichloroethane	34531	ug/L	ORGANIC	107062
1,2-Dichloroethene (cis)	81686	ug/L	ORGANIC	156592
1,2-Dichloroethene (cis/trans)	45617	ug/L	ORGANIC	540590
1,2-Dichloroethene (trans)	34546	ug/L	ORGANIC	156605
1,2-Dichloropropane	34541	ug/L	ORGANIC	78875
1,2-Diphenylhydrazine	34346	ug/L	ORGANIC	122667
1,2-Diphenylhydrazine, total recoverable	82626	ug/L	ORGANIC	122667
1,3,5-Trimethylbenzene	77226	ug/L	ORGANIC	108678
1,3-Dichlorobenzene	34566	ug/L	ORGANIC	541731
1,3-Dichloropropane	77173	ug/L	ORGANIC	142289
1,3-Dichloropropene	34561	ug/L	PESTICIDE	542756
1,3-Dichloropropene (cis)	34704	ug/L	ORGANIC	10061015
1,3-Dichloropropene (trans)	34699	ug/L	ORGANIC	10061026
1,4-Dichlorobenzene	34571	ug/L	ORGANIC	106467
1-Methyl-4-Isopropylbenzene	77356	ug/L	ORGANIC	99876
1-Methylnaphthalene Sediments	99830	ug/kg	ORGANIC	90120
1-Methylphenanthrene Sediments	99829	ug/kg	ORGANIC	832699
2,2-Dichloropropane	77170	ug/L	ORGANIC	594207
2,3,5-Trimethylnaphthalene Sediments	99828	ug/kg	ORGANIC	2245387
2,4,5-T	39740	ug/L	PESTICIDE	93765
2,4,5-T	99649	ng/SPMD strip	PESTICIDE	93765
2,4,5-T	99745	ng/POCIS disk	PESTICIDE	93765
2,4,5-T Sediments	99827	ug/kg	PESTICIDE	93721
2,4,5-TP (Silvex)	39760	ug/L	PESTICIDE	93721
2,4,5-TP (Silvex) Sediments	99823	ug/kg	PESTICIDE	93765
2,4,6-Trichlorophenol	34621	ug/L	ORGANIC	88062
2,4-D	39730	ug/L	PESTICIDE	94757
2,4-D	99648	ng/SPMD strip	PESTICIDE	94757
2,4-D	99744	ng/POCIS disk	PESTICIDE	94757
2,4-D Sediments	99826	ug/kg	PESTICIDE	25057890
2,4-DB	99647	ng/SPMD strip	PESTICIDE	94826
2,4-DB	99743	ng/POCIS disk	PESTICIDE	94826
2,4-DB	38745	ug/L	PESTICIDE	94826
2,4-DB Sediments	99820	ug/kg	PESTICIDE	94826
2,4-Dichlorophenol	34601	ug/L	ORGANIC	120832
2,4-Dimethylphenol	34606	ug/L	ORGANIC	105679
2,4-Dinitrophenol	34616	ug/L	ORGANIC	51285
2,4-Dinitrotoluene	34611	ug/L	ORGANIC	121142
2,6-Dimethylnaphthalene Sediments	99831	ug/kg	ORGANIC	581420
2,6-Dinitrotoluene	34626	ug/L	ORGANIC	606202
2378-Tetrachlorodibenzo-P-Dioxin (TCDD)	34675	ug/L	PESTICIDE	1746016
2-Chloroethylvinyl ether	34576	ug/L	ORGANIC	110758
2-Chloronaphthalene	34581	ug/L	ORGANIC	91587
2-Chlorophenol	34586	ug/L	ORGANIC	95578
2-Chlorotoluene	77275	ug/L	ORGANIC	95498

2-Methyl-4,6-dinitrophenol	34657	ug/L	ORGANIC	534521
2-Methylnaphthalene Sediments	78868	ug/Kg	ORGANIC	91576
2-Nitrophenol	34591	ug/L	ORGANIC	88755
3,3'-Dichlorobenzidine	34631	ug/L	ORGANIC	91941
3-Hydroxycarbofuran	4258	ug/L	PESTICIDE	16655826
3-Hydroxycarbofuran	99637	ng/SPMD strip	PESTICIDE	16655826
3-Hydroxycarbofuran	99733	ng/POCIS disk	PESTICIDE	16655826
4-Bromophenylphenyl ether	34636	ug/L	ORGANIC	101553
4-Chloro-3-methylphenol	34452	ug/L	ORGANIC	59507
4-Chlorophenylphenyl ether	34641	ug/L	ORGANIC	7005723
4-Chlorotoluene	77277	ug/L	ORGANIC	106434
4-Nitrophenol	34646	ug/L	ORGANIC	100027
Acenaphthene	34205	ug/L	ORGANIC	83329
Acenaphthene Sediments	34208	ug/Kg	ORGANIC	83329
Acenaphthylene	34200	ug/L	ORGANIC	208968
Acenaphthylene Sediments	34203	ug/Kg	ORGANIC	208968
Acesulfame K	99552	ug/L	TRACER	55589623
Acetaminophen	99933	ug/L	TRACER	103-90-2
Acetaminophen	99617	ng/POCIS disk	TRACER	103-90-2
Acetaminophen	99616	ng/SPMD strip	TRACER	103-90-2
Acetaminophen Sediments	99591	ug/Kg	TRACER	103-90-2
Acetamiprid	99524	ug/L	PESTICIDE	135410207
Acetamiprid	99869	ug/mL POCIS extract	PESTICIDE	
Acetochlor	99688	ng/SPMD strip	PESTICIDE	34256821
Acetochlor	99883	ng/L	PESTICIDE	34256821
Acetochlor	99784	ng/POCIS disk	PESTICIDE	34256821
Acetone	81552	ug/L	ORGANIC	67641
Acifluorfen	99646	ng/SPMD strip	PESTICIDE	50594666
Acifluorfen	99924	ug/L	PESTICIDE	50594666
Acifluorfen	99742	ng/POCIS disk	PESTICIDE	50594666
Acifluorfen Sediments	99825	ug/kg	PESTICIDE	50594666
Acrolein	34210	ug/L	ORGANIC	107028
Acrylonitrile	34215	ug/L	ORGANIC	107131
Afidopyropen	99525	ug/L	PESTICIDE	915972177
Air Temperature	20	degrees C	FIELD	
Alachlor	77825	ug/L	PESTICIDE	15972608
Alachlor	99892	ng/L	PESTICIDE	15972608
Alachlor	99783	ng/POCIS disk	PESTICIDE	15972608
Alachlor	99687	ng/SPMD strip	PESTICIDE	15972608
Alachlor Sediments	81407	ug/kg	PESTICIDE	15972608
Aldicarb	39053	ug/L	PESTICIDE	116063
Aldicarb	99636	ng/SPMD strip	PESTICIDE	116063
Aldicarb	99732	ng/POCIS disk	PESTICIDE	116063
Aldicarb Sulfone	4257	ug/L	PESTICIDE	1646884
Aldicarb Sulfone	99635	ng/SPMD strip	PESTICIDE	1649884
Aldicarb Sulfone	99731	ng/POCIS disk	PESTICIDE	1649884
Aldicarb Sulfoxide	4260	ug/L	PESTICIDE	1646873
Aldicarb Sulfoxide	99634	ng/SPMD strip	PESTICIDE	1646873
Aldicarb Sulfoxide	99730	ng/POCIS disk	PESTICIDE	1646873
Aldrin	39330	ug/L	PESTICIDE	309002
Aldrin	99854	ng/L	PESTICIDE	309002
Aldrin	99811	ng/POCIS disk	PESTICIDE	309002
Aldrin	99715	ng/SPMD strip	PESTICIDE	309002
Aldrin Sediments	39333	ug/KG	PESTICIDE	309002
Algal Growth Potential	85209	mg/L	NUTRIENT	
ALGAL_ID	99618		BIOLOGICAL	
Alkalinity, Dissolved (as CaCO3)	29801	mg/L	PHYSICAL	471341
Alkalinity, Total (as CaCO3)	410	mg/L	PHYSICAL	471341
Alkalinity, Total Field (as CaCO3)	431	mg/L	PHYSICAL	471341
Alpha Counting Error, Dissolved	1504	pCi	RADIOMETRIC	12587461
Alpha Counting Error, Total	1502	pCi	RADIOMETRIC	12587461
Alpha-BHC	99714	ng/SPMD strip	PESTICIDE	319846
Alpha-BHC	99852	ug/L	PESTICIDE	319846
Alpha-BHC	99853	ng/L	PESTICIDE	319846
Alpha-BHC	99810	ng/POCIS disk	PESTICIDE	319846
Alpha-BHC Sediments	39076	ug/Kg	PESTICIDE	319846

Alpha-Chlordane	99713	ng/SPMD strip	PESTICIDE	5103719
Alpha-Chlordane	99851	ug/L	PESTICIDE	5103719
Alpha-Chlordane	99615	ng/L	PESTICIDE	5103719
Alpha-Chlordane	99809	ng/POCIS disk	PESTICIDE	5103719
Alpha-Chlordane Sediments	46481	ug/KG	PESTICIDE	5103719
Aluminum Sediments	99992	mg/Kg	METAL	7429905
Aluminum, Dissolved	1106	ug/L	METAL	7429905
Aluminum, Suspended	1107	ug/L	METAL	7429905
Aluminum, Total	1105	ug/L	METAL	7429905
Ametryn	82184	ug/L	PESTICIDE	834128
Ametryn	99686	ng/SPMD strip	PESTICIDE	834128
Ametryn	99906	ng/L	PESTICIDE	834128
Ametryn	99782	ng/POCIS disk	PESTICIDE	834128
Ametryn Sediments	78505	ug/kg	PESTICIDE	
Ammonia, Dissolved (as N)	608	mg/L	NUTRIENT	17778880
Ammonia, Dissolved (As NH4)	71846	mg/L	NUTRIENT	14798039
Ammonia, Total (as N)	610	mg/L	NUTRIENT	17778880
Ammonia, Total (as N) Sediments	99620	mg/Kg	NUTRIENT	1515
Ammonia, Total (as NH4)	71845	mg/L	NUTRIENT	14798039
Ammonia, unionized (as NH3)	619	mg/L	NUTRIENT	
AMPA	99553	ug/L	PESTICIDE	1066519
Analyzing Agency	28		FIELD	
Anatoxin-a	99850	ug/L	BIOLOGICAL	64285069
Anthracene	34220	ug/L	ORGANIC	120127
Anthracene Sediments	34223	ug/Kg	ORGANIC	120127
Antimony Sediments	99604	mg/Kg	METAL	7440360
Antimony, Dissolved	1095	ug/L	METAL	7440360
Antimony, Total	1097	ug/L	METAL	7440360
Arsenic Sediments	99986	mg/Kg	METAL	7440382
Arsenic, Dissolved	1000	ug/L	METAL	7440382
Arsenic, Total	1002	ug/L	METAL	7440382
Arsenic, Trivalent Dissolved	99939	ug/L	METAL	
Atrazine	39033	ug/L	PESTICIDE	1912249
Atrazine	99685	ng/SPMD strip	PESTICIDE	1912249
Atrazine	99905	ng/L	PESTICIDE	1912249
Atrazine	99781	ng/POCIS disk	PESTICIDE	1912249
Atrazine Desethyl	75981	ug/L	PESTICIDE	
Atrazine Desethyl	99684	ng/SPMD strip	PESTICIDE	6190654
Atrazine Desethyl	99916	ng/L	PESTICIDE	
Atrazine Desethyl	99780	ng/POCIS disk	PESTICIDE	6190654
Atrazine Desethyl Sediments	99881	ug/kg	PESTICIDE	
Atrazine Desisopropyl	75982	ug/L	PESTICIDE	
Atrazine Sediments	39631	ug/kg	PESTICIDE	
Azinphos Methyl	39580	ug/L	PESTICIDE	86500
Azinphos Methyl	99855	mg/L	PESTICIDE	86500
Azinphos Methyl	99891	ng/L	PESTICIDE	86500
Azinphos Methyl	99779	ng/POCIS disk	PESTICIDE	86500
Azinphos Methyl	99683	ng/SPMD strip	PESTICIDE	86500
Azinphos Methyl Sediments	39581	ug/kg	PESTICIDE	86500
Azobenzene/1,2-Diphenylhydrazine	4259	ug/L	ORGANIC	103333
Azoxystrobin	99497	ng/L	PESTICIDE	131860338
BacR-purified-qPCR	99849	TSC/100 mL	QPCR	
BacR-qPCR	99848	TSC/100 mL	QPCR	
Barium, Dissolved	1005	ug/L	METAL	7440393
Barium, Suspended	1006	ug/L	METAL	7440393
Barium, Total	1007	ug/L	METAL	7440393
Bendiocarb	99969	ug/L	PESTICIDE	
Benfluralin	39002	ug/L	PESTICIDE	1861401
Bentazon	38710	ug/L	PESTICIDE	25057890
Bentazon	99645	ng/SPMD strip	PESTICIDE	25057890
Bentazon	99741	ng/POCIS disk	PESTICIDE	25057890
Bentazon Sediments	99824	ug/kg	PESTICIDE	94757
Benzene	78124	ug/L	ORGANIC	71432
Benzidine	39120	ug/L	ORGANIC	92875
Benzo[a]anthracene	34526	ug/L	ORGANIC	56553
Benzo[a]anthracene Sediments	34529	ug/Kg	ORGANIC	56553
Benzo[a]pyrene	34247	ug/L	ORGANIC	50328

Benzo[a]pyrene Sediments	34250	ug/Kg	ORGANIC	50328
Benzo[b]fluoranthene	34230	ug/L	ORGANIC	205992
Benzo[b]fluoranthene Sediments	34233	ug/Kg	ORGANIC	205992
Benzo[g,h,i]perylene	34521	ug/L	ORGANIC	191242
Benzo[g,h,i]perylene Sediments	78828	ug/Kg	ORGANIC	191242
Benzo[k]fluoranthene	34242	ug/L	ORGANIC	207089
Benzo[k]fluoranthene Sediments	34245	ug/Kg	ORGANIC	207089
Benzoic Acid	99546	ug/L	TRACER	65850
Benzovindiflupyr	99526	ug/L	PESTICIDE	1072957711
Benzyl butyl phthalate	34292	ug/L	ORGANIC	85687
Beryllium Sediments	99606	mg/Kg	METAL	7440417
Beryllium, Dissolved	1010	ug/L	METAL	7440417
Beryllium, Total	1012	ug/L	METAL	7440417
Beta Counting Error, Dissolved	3504	pCi	RADIOMETRIC	12587472
Beta Counting Error, Total	3502	pCi	RADIOMETRIC	12587472
Beta-BHC	99712	ng/SPMD strip	PESTICIDE	319857
Beta-BHC	99847	ng/L	PESTICIDE	319857
Beta-BHC	99808	ng/POCIS disk	PESTICIDE	319857
Beta-BHC Sediments	34257	ug/Kg	PESTICIDE	319857
BHC, Alpha	39337	ug/L	PESTICIDE	319846
BHC, Beta	39338	ug/L	PESTICIDE	319857
BHC, Delta	34259	ug/L	PESTICIDE	319868
BHC, Gamma (Lindane)	39340	ug/L	PESTICIDE	58899
BHC, Gamma (Lindane) Sediments	39343	ug/Kg	PESTICIDE	58899
Bicarbonate Alkalinity, Diss. (as CaCO3)	4255	mg/L	PHYSICAL	
Bicarbonate Alkalinity, Total (as CaCO3)	425	mg/L	PHYSICAL	471341
Bicarbonate, Dissolved, as (HCO3)	29805	mg/L	PHYSICAL	71523
Bicarbonate, Total (as HCO3)	440	mg/L	PHYSICAL	71523
Biochemical Oxygen Demand-5 Day	310	mg/L	ORGANIC	
Biochemical Oxygen Demand-5 Day,N-Inhib	99554	mg/L	ORGANIC	
Biphenyl Sediments	99821	ug/kg	ORGANIC	92524
Bis(2-chloroethoxy)methane	34278	ug/L	ORGANIC	111911
Bis(2-chloroethyl)ether	34273	ug/L	ORGANIC	111444
Bis(2-chloroisopropyl)ether	34283	ug/L	ORGANIC	39638329
Bis(2-ethylhexyl)adipate	77903	ug/L	ORGANIC	103231
Bis(2-ethylhexyl)phthalate	39100	ug/L	ORGANIC	117817
Bis(Chloromethyl)ether	34268	ug/L	ORGANIC	542881
Bismuth, Dissolved	1015	ug/L	METAL	7440699
BLOOM_ID	99619		BIOLOGICAL	
BOD, 5 day	80082	mg/L	ORGANIC	
Boron, Dissolved	1020	ug/L	METAL	7440428
Boron, Total	1022	ug/L	METAL	7440428
Bromacil	82198	ug/L	PESTICIDE	314409
Bromacil	99682	ng/SPMD strip	PESTICIDE	314409
Bromacil	99907	ng/L	PESTICIDE	314409
Bromacil	99778	ng/POCIS disk	PESTICIDE	314409
Bromacil Sediments	49195	ug/kg	PESTICIDE	314409
Bromide	71870	mg/L	MAJOR	24959679
Bromine, Dissolved	99957	ug/L	OTHER	
Bromobenzene	81555	ug/L	ORGANIC	108861
Bromodichloromethane	32101	ug/L	ORGANIC	75274
Bromoform	32104	ug/L	ORGANIC	75252
Bromomethane	34413	ug/L	ORGANIC	74839
Butachlor	30235	ug/L	PESTICIDE	23184669
Butylate	30236	ug/L	PESTICIDE	2008415
Butylate	81410	ug/L	PESTICIDE	2008415
Butylate	99681	ng/SPMD strip	PESTICIDE	2008415
Butylate	99890	ng/L	PESTICIDE	2008415
Butylate	99777	ng/POCIS disk	PESTICIDE	2008415
Butylate Sediments	99880	ug/kg	PESTICIDE	2008415
Butylbenzene-n	77342	ug/L	ORGANIC	104518
Cadmium Sediments	99984	mg/Kg	METAL	7440439
Cadmium, Dissolved	1025	ug/L	METAL	7440439
Cadmium, Total	1027	ug/L	METAL	7440439
Caffeine	99486	ng/L	TRACER	58082
Calcium, Dissolved	915	mg/L	MAJOR	7440702
Calcium, Total	916	mg/L	MAJOR	7440702

Captan	39640	ug/L	PESTICIDE	133062
Carbamazepine	99932	ug/L	TRACER	298464
Carbamazepine	99627	ng/SPMD strip	TRACER	298464
Carbamazepine	99723	ng/POCIS disk	TRACER	298464
Carbamazepine Sediments	99879	ug/kg	TRACER	298464
Carbaryl	39750	ug/L	PESTICIDE	63252
Carbaryl	77700	ug/L	PESTICIDE	63252
Carbaryl	99633	ng/SPMD strip	PESTICIDE	63252
Carbaryl	99729	ng/POCIS disk	PESTICIDE	63252
Carbofuran	81405	ug/L	PESTICIDE	1563662
Carbofuran	99632	ng/SPMD strip	PESTICIDE	1563662
Carbofuran	99728	ng/POCIS disk	PESTICIDE	1563662
Carbon Dioxide	405	mg/L	PHYSICAL	124389
Carbon Disulfide	77041	ug/L	ORGANIC	75150
Carbon tetrachloride	32102	ug/L	ORGANIC	56235
Carbon, Total Sediments	46490	% C	MAJOR	7440440
Carbonate Alkalinity, Diss. (as CaCO3)	4256	mg/L	PHYSICAL	
Carbonate Alkalinity, Total (as CaCO3)	430	mg/L	PHYSICAL	471341
Carbonate, Total (as CO3)	445	mg/L	PHYSICAL	3812326
Carbophenothion	99711	ng/SPMD strip	PESTICIDE	786196
Carbophenothion	99843	ng/L	PESTICIDE	786196
Carbophenothion	99807	ng/POCIS disk	PESTICIDE	786196
Carbophenothion (Trithion)	39786	ug/L	PESTICIDE	786196
Carbophenothion Sediments	39787	ug/Kg	PESTICIDE	786196
Carfentrazone Ethyl	99495	ng/L	PESTICIDE	128639021
Cerium, Dissolved	1110	ug/L	RARE EARTH	7440451
Cesium, Dissolved	1115	ug/L	METAL	7440462
Chemical Oxygen Demand	340	ug/L	ORGANIC	
Chlordane	39350	ug/L	PESTICIDE	57749
Chlordane	99717	ng/SPMD strip	PESTICIDE	57749
Chlordane	99614	ng/L	PESTICIDE	57749
Chlordane	99813	ng/POCIS disk	PESTICIDE	57749
Chlordane Sediments	39351	ug/Kg	PESTICIDE	57749
Chlordane (cis-Nonachlor)	39068	ug/L	PESTICIDE	57749
Chlordane (trans-Nonachlor)	78062	ug/L	PESTICIDE	57749
Chloride, Dissolved	941	mg/L	MAJOR	16887006
Chloride, Total	940	mg/L	MAJOR	16887006
Chlorobenzene	34301	ug/L	ORGANIC	108907
Chlorobenzilate	39460	ug/L	PESTICIDE	510156
Chlorobromomethane	73085	ug/L	ORGANIC	74975
Chloroethane	34311	ug/L	ORGANIC	75003
Chloroform	32106	ug/L	ORGANIC	67663
Chloromethane	34418	ug/L	ORGANIC	74873
Chloroneb	38423	ug/L	PESTICIDE	2675776
Chlorophyll/Pheophytin Ratio	32219		BIOLOGICAL	
Chlorophyll-A (Monochromatic)	32211	ug/L	BIOLOGICAL	479618
Chlorophyll-A Uncorrected, (Monochromatic)	32217	ug/L	BIOLOGICAL	479618
Chlorophyll-A Uncorrected, (Trichromatic)	32210	ug/L	BIOLOGICAL	479618
Chlorophyll-B (Trichromatic)	32212	ug/L	BIOLOGICAL	
Chlorophyll-C (Trichromatic)	32214	ug/L	BIOLOGICAL	
Chloropicrin	77548	ug/L	PESTICIDE	76062
Chlorothalonil	99710	ng/SPMD strip	PESTICIDE	1897456
Chlorothalonil	99842	ng/L	PESTICIDE	1897456
Chlorothalonil	99806	ng/POCIS disk	PESTICIDE	1897456
Chlorothalonil (Bravo)	70314	ug/L	PESTICIDE	1897456
Chlorothalonil Sediments	99846	ug/kg	PESTICIDE	1897456
Chlorotoluene	77970	ug/L	ORGANIC	25168052
Chlorpropham (CIPC)	81322	ug/L	PESTICIDE	101213
Chlorpyrifos	77969	ug/L	PESTICIDE	2921882
Chlorpyrifos	99915	ng/L	PESTICIDE	
Chlorpyrifos	99858	mg/L	PESTICIDE	2921882
Chlorpyrifos Ethyl	38932	ug/L	PESTICIDE	
Chlorpyrifos Ethyl	99914	ng/L	PESTICIDE	
Chlorpyrifos Ethyl	99776	ng/POCIS disk	PESTICIDE	2921882
Chlorpyrifos Ethyl	99680	ng/SPMD strip	PESTICIDE	2921882
Chlorpyrifos Ethyl Sediments	79792	ug/kg	PESTICIDE	
Chlorpyrifos Methyl	38740	ug/L	PESTICIDE	

Chlorpyrifos Methyl	99679	ng/SPMD strip	PESTICIDE	5598130
Chlorpyrifos Methyl	99913	ng/L	PESTICIDE	
Chlorpyrifos Methyl	99775	ng/POCIS disk	PESTICIDE	5598130
Chlorpyrifos Methyl Sediments	38743	ug/kg	PESTICIDE	
Chromium Sediments	99983	mg/Kg	METAL	7440473
Chromium, Dissolved	1030	ug/L	METAL	16065831
Chromium, Suspended	1031	ug/L	METAL	16065831
Chromium, Total	1034	ug/L	METAL	16065831
Chrysene	34320	ug/L	ORGANIC	218019
Chrysene Sediments	34323	ug/Kg	ORGANIC	218019
Clothianidin	99527	ug/L	PESTICIDE	210880925
Clothianidin	99868	ug/mL POCIS extract	PESTICIDE	
Cloud Cover	32	percent	FIELD	
Cobalt, Dissolved	1035	ug/L	METAL	7440484
Cobalt, Total	1037	ug/L	METAL	7440484
Coliform, Fecal (MF)	31616	cfu/100 mL	BIOLOGICAL	
Coliform, Fecal (MPN)	31625	MPN/100 mL	BIOLOGICAL	
Coliform, Total (MF)	31501	cfu/100 mL	BIOLOGICAL	
Coliform, Total (MPN)	31507	MPN/100 mL	BIOLOGICAL	
Color	81	Pt-Co	PHYSICAL	
Color (true)	80	PCU	PHYSICAL	
Copper Sediments	99991	mg/Kg	METAL	7440508
Copper, Dissolved	1040	ug/L	METAL	7440508
Copper, Suspended	1041	ug/L	METAL	7440508
Copper, Total	1042	ug/L	METAL	7440508
Coumaphos	99863	ug/mL POCIS extract	PESTICIDE	
Cyanazine	99678	ng/SPMD strip	PESTICIDE	21725462
Cyanazine	99882	ng/L	PESTICIDE	21725462
Cyanazine	99774	ng/POCIS disk	PESTICIDE	21725462
Cyanide, Dissolved	723	mg/L	OTHER	57125
Cyanide, Total	720	mg/L	OTHER	57125
Cycloate	30254	ug/L	PESTICIDE	1134232
Cylindrospermopsin	99841	ug/L	BIOLOGICAL	143545908
Cypermethrin	3781	ug/L	PESTICIDE	52315078
Cypermethrin	99840	ng/L	PESTICIDE	52315078
Cypermethrin	99805	ng/POCIS disk	PESTICIDE	52315078
Cypermethrin	99709	ng/SPMD strip	PESTICIDE	52315078
Cypermethrin Sediments	99845	ug/kg	PESTICIDE	52315078
Dacthal (DCPA)	39770	ug/L	PESTICIDE	1861321
Dalapon	38432	ug/L	PESTICIDE	75990
DDD (p,p')	39310	ug/L	PESTICIDE	72548
DDD (p,p') Sediments	39311	ug/Kg	PESTICIDE	72548
DDD-p,p'	99708	ng/SPMD strip	PESTICIDE	72548
DDD-p,p'	99839	ng/L	PESTICIDE	72548
DDD-p,p'	99804	ng/POCIS disk	PESTICIDE	72548
DDE (p,p')	39320	ug/L	PESTICIDE	72559
DDE (p,p') Sediments	39321	ug/Kg	PESTICIDE	72559
DDE-p,p'	99707	ng/SPMD strip	PESTICIDE	72559
DDE-p,p'	99838	ng/L	PESTICIDE	72559
DDE-p,p'	99803	ng/POCIS disk	PESTICIDE	72559
DDT (p,p')	39300	ug/L	PESTICIDE	50293
DDT (p-p') Sediments	39301	ug/Kg	PESTICIDE	50293
DDT (total products) Sediments	39359	ug/Kg	PESTICIDE	50293
DDT-p,p'	99706	ng/SPMD strip	PESTICIDE	50293
DDT-p,p'	99837	ng/L	PESTICIDE	50293
DDT-p,p'	99802	ng/POCIS disk	PESTICIDE	50293
Delta-BHC	99705	ng/SPMD strip	PESTICIDE	319868
Delta-BHC	99836	ng/L	PESTICIDE	319868
Delta-BHC	99801	ng/POCIS disk	PESTICIDE	319868
Delta-BHC Sediments	34262	ug/Kg	PESTICIDE	319868
Demeton	39560	ug/L	PESTICIDE	8065483
Demeton	99677	ng/SPMD strip	PESTICIDE	8065483
Demeton	99889	ng/L	PESTICIDE	8065483
Demeton	99773	ng/POCIS disk	PESTICIDE	8065483
Demeton Sediments	82400	ug/kg	PESTICIDE	8065483

Depth of Sample	68	feet	FIELD	
Depth of Waterbody	72025	feet	FIELD	
Depth to Water (from lse)	72019	feet	FIELD	
Depth to Water (from mpe)	72109	feet	FIELD	
Depth, Bottom of Waterbody, Sample Site	82903	meters	FIELD	
Desmethyl microcystin LR	99506	ug/L	BIOLOGICAL	120011667
DG3-purified-qPCR	99523	TSC/100 mL	QPCR	
DG3-qPCR	99538	TSC/100 mL	QPCR	
Diatom Identification	99993	# taxa	BIOLOGICAL	
Diazinon	39570	ug/L	PESTICIDE	333415
Diazinon	99676	ng/SPMD strip	PESTICIDE	333415
Diazinon	99860	mg/L	PESTICIDE	333415
Diazinon	99888	ng/L	PESTICIDE	333415
Diazinon	99772	ng/POCIS disk	PESTICIDE	333415
Diazinon Sediments	39571	ug/kg	PESTICIDE	333415
Dibenzo[a,h]anthracene	34556	ug/L	ORGANIC	53703
Dibenzo[a,h]anthracene Sediments	34559	ug/Kg	ORGANIC	53703
Dibenzothiophene Sediments	99832	ug/kg	ORGANIC	132650
Dibromochloromethane	32105	ug/L	ORGANIC	124481
Dicamba	82052	ug/L	PESTICIDE	1918009
Dicamba	99644	ng/SPMD strip	PESTICIDE	1918009
Dicamba	99740	ng/POCIS disk	PESTICIDE	1918009
Dicamba Sediments	99819	ug/kg	PESTICIDE	1918009
Dichloran	38446	ug/L	PESTICIDE	99309
Dichlorobenzene	81524	ug/L	ORGANIC	25321226
Dichlorodifluoromethane	34668	ug/L	ORGANIC	75718
Dichlorprop	99643	ng/SPMD strip	PESTICIDE	120365
Dichlorprop	99923	ug/L	PESTICIDE	120365
Dichlorprop	99739	ng/POCIS disk	PESTICIDE	120365
Dichlorprop Sediments	99818	ug/kg	PESTICIDE	120365
Dichlorvos	30218	ug/L	PESTICIDE	62737
Dicofol	99704	ng/SPMD strip	PESTICIDE	115322
Dicofol	77902	ug/L	PESTICIDE	115322
Dicofol	99613	ng/L	PESTICIDE	115322
Dicofol	99800	ng/POCIS disk	PESTICIDE	115322
Dicofol (Kelthane)	39780	ug/L	PESTICIDE	115322
Dicofol Sediments	79799	ug/KG	PESTICIDE	115322
Dieldrin	39380	ug/L	PESTICIDE	60571
Dieldrin	99703	ng/SPMD strip	PESTICIDE	60571
Dieldrin	99870	ng/L	PESTICIDE	60571
Dieldrin	99799	ng/POCIS disk	PESTICIDE	60571
Dieldrin Sediments	39383	ug/Kg	PESTICIDE	60571
Diethylphthalate	34336	ug/L	ORGANIC	84662
Difenoconazole	99490	ng/L	PESTICIDE	119446683
Dimethenamid	99537	ng/L	PESTICIDE	87674688
Dimethoate	99865	ug/mL POCIS extract	PESTICIDE	
Dimethylphthalate	34341	ug/L	ORGANIC	131113
Di-n-butyl phthalate	39110	ug/L	ORGANIC	84742
Di-n-octyl phthalate	34596	ug/L	ORGANIC	117840
Dinoseb	30191	ug/L	PESTICIDE	88857
Dinoseb	99642	ng/SPMD strip	PESTICIDE	88857
Dinoseb	99738	ng/POCIS disk	PESTICIDE	88857
Dinoseb Sediments	99817	ug/kg	PESTICIDE	88857
Dinotefuran	99528	ug/L	PESTICIDE	165252700
Diphenamid	30255	ug/L	PESTICIDE	957517
Diquat (Reglone)	78885	ug/L	PESTICIDE	85007
Disulfoton	81888	ug/L	PESTICIDE	298044
Disulfoton	99675	ng/SPMD strip	PESTICIDE	298044
Disulfoton	99904	ng/L	PESTICIDE	298044
Disulfoton	99771	ng/POCIS disk	PESTICIDE	298044
Disulfoton Sediments	81887	ug/kg	PESTICIDE	298044
Dithiopyr	99532	ng/L	PESTICIDE	97886458
Diuron	39650	ug/L	PESTICIDE	330541
Diuron	99722	ng/POCIS disk	PESTICIDE	330541
Diuron	99626	ng/SPMD strip	PESTICIDE	330541
Diuron Sediments	73030	ug/kg	PESTICIDE	330541

Duloxetine HCl	99545	ug/L	TRACER	136434349
Dysprosium, Dissolved	82331	ug/L	RARE EARTH	7429916
Eh Field (hydrogen electrode)	90	mv	FIELD	
Endosulfan I	34361	ug/L	PESTICIDE	959988
Endosulfan I	99702	ng/SPMD strip	PESTICIDE	959988
Endosulfan I	99833	ng/L	PESTICIDE	959988
Endosulfan I	99798	ng/POCIS disk	PESTICIDE	959988
Endosulfan I Sediments	34364	ug/Kg	PESTICIDE	959988
Endosulfan II	34356	ug/L	PESTICIDE	33213659
Endosulfan II	99598	ng/L	PESTICIDE	33213659
Endosulfan II	99797	ng/POCIS disk	PESTICIDE	33213659
Endosulfan II	99701	ng/SPMD strip	PESTICIDE	33213659
Endosulfan II Sediments	34359	ug/Kg	PESTICIDE	33213659
Endosulfan sulfate	34351	ug/L	PESTICIDE	1031078
Endosulfan sulfate	99597	ng/L	PESTICIDE	1031078
Endosulfan Sulfate	99796	ng/POCIS disk	PESTICIDE	1031078
Endosulfan Sulfate	99700	ng/SPMD strip	PESTICIDE	1031078
Endosulfan Sulfate Sediments	34354	ug/Kg	PESTICIDE	1031078
Endothall	38926	ug/L	PESTICIDE	145733
Endrin	39390	ug/L	PESTICIDE	72208
Endrin	99699	ng/SPMD strip	PESTICIDE	72208
Endrin	99596	ng/L	PESTICIDE	72208
Endrin	99795	ng/POCIS disk	PESTICIDE	72208
Endrin aldehyde	34366	ug/L	PESTICIDE	742934
Endrin Aldehyde	99698	ng/SPMD strip	PESTICIDE	7421934
Endrin Aldehyde	99595	ng/L	PESTICIDE	7421934
Endrin Aldehyde	99594	ug/L	PESTICIDE	7421934
Endrin Aldehyde	99794	ng/POCIS disk	PESTICIDE	7421934
Endrin Aldehyde Sediments	82633	ug/Kg	PESTICIDE	7421934
Endrin Ketone	99697	ng/SPMD strip	PESTICIDE	53494705
Endrin Ketone	99593	ug/L	PESTICIDE	53494705
Endrin Ketone	99612	ng/L	PESTICIDE	53494705
Endrin Ketone	99793	ng/POCIS disk	PESTICIDE	53494705
Endrin Ketone Sediments	85791	ug/Kg	PESTICIDE	53494705
Endrin Sediments	39393	ug/Kg	PESTICIDE	72208
Enterococci, Membrane Filter	31649	cfu/100 mL	BIOLOGICAL	
Enterococci-Quanti-Tray	99873	MPN/100 mL	BIOLOGICAL	
EPN	99864	ug/mL POCIS extract	PESTICIDE	
EPTC	99770	ng/POCIS disk	PESTICIDE	759944
EPTC	99674	ng/SPMD strip	PESTICIDE	759944
EPTC (EPTAM)	81894	ug/L	PESTICIDE	759944
EPTC (EPTAM)	99912	ng/L	PESTICIDE	
Erbium, Dissolved	99956	ug/L	RARE EARTH	
Escherichia coli, Membrane Filter	31648	cfu/100 mL	BIOLOGICAL	
Escherichia Coli-Quanti-Tray	99935	MPN/100 mL	BIOLOGICAL	
Ethion	39398	ug/L	PESTICIDE	563122
Ethion	99673	ng/SPMD strip	PESTICIDE	563122
Ethion	99903	ng/L	PESTICIDE	563122
Ethion	99769	ng/POCIS disk	PESTICIDE	563122
Ethion Sediments	39399	ug/kg	PESTICIDE	563122
Ethoprop	81758	ug/L	PESTICIDE	13194484
Ethoprop	99672	ng/SPMD strip	PESTICIDE	13194484
Ethoprop	99902	ng/L	PESTICIDE	13194484
Ethoprop	99768	ng/POCIS disk	PESTICIDE	13194484
Ethoprop Sediments	82288	ug/kg	PESTICIDE	13194484
Ethyl Parathion	46315	ug/L	PESTICIDE	56382
Ethyl Parathion	99856	mg/L	PESTICIDE	56382
Ethylbenzene	34371	ug/L	ORGANIC	100414
Etridiazole	38792	ug/L	PESTICIDE	2593159
Europium, Dissolved	99955	ug/L	RARE EARTH	
Feature code	99982		FIELD	
Fenamiphos	38929	ug/L	PESTICIDE	22224926
Fenamiphos	99671	ng/SPMD strip	PESTICIDE	22224926
Fenamiphos	99887	ng/L	PESTICIDE	22224926
Fenamiphos	99767	ng/POCIS disk	PESTICIDE	22224926
Fenamiphos Sediments	73032	ug/kg	PESTICIDE	22224926

Fenamiphos Sulfone	99997	ug/L	PESTICIDE	31972448
Fenamiphos Sulfoxide	99998	ug/L	PESTICIDE	31972437
Fenarimol	4101	ug/L	PESTICIDE	60168889
Fenbuconazole	99492	ng/L	PESTICIDE	114369436
Fenuron	99721	ng/POCIS disk	PESTICIDE	101428
Fenuron	99922	ug/L	PESTICIDE	
Fenuron	99625	ng/SPMD strip	PESTICIDE	101428
Fenuron Sediments	38470	ug/kg	PESTICIDE	
Fipronil	99670	ng/SPMD strip	PESTICIDE	120068373
Fipronil	99921	ng/L	PESTICIDE	
Fipronil	99766	ng/POCIS disk	PESTICIDE	120068373
Fipronil Desulfinyl	99534	ng/L	PESTICIDE	205650653
Fipronil Sulfide	99669	ng/SPMD strip	PESTICIDE	120067836
Fipronil Sulfide	99920	ng/L	PESTICIDE	
Fipronil Sulfide	99765	ng/POCIS disk	PESTICIDE	120067836
Fipronil Sulfone	99764	ng/POCIS disk	PESTICIDE	120068362
Fipronil Sulfone	99668	ng/SPMD strip	PESTICIDE	120068362
Fipronil Sulfone	99919	ng/L	PESTICIDE	
Fluazifop-P-butyl	99494	ng/L	PESTICIDE	79241466
Fludioxonil	99496	ng/L	PESTICIDE	131341861
Flumioxazin	99521	ng/L	PESTICIDE	103361097
Fluometuron	99720	ng/POCIS disk	PESTICIDE	
Fluometuron	99624	ng/SPMD strip	PESTICIDE	
Fluometuron Sediments	38813	ug/kg	PESTICIDE	
Fluoranthene	34376	ug/L	ORGANIC	206440
Fluoranthene Sediments	34379	ug/Kg	ORGANIC	206440
Fluorene	34381	ug/L	ORGANIC	86737
Fluorene Sediment	34384	ug/Kg	ORGANIC	86737
Fluoride, Dissolved	950	mg/L	MAJOR	7782414
Fluoride, Suspended	82299	mg/L	MAJOR	7782414
Fluoride, Total	951	mg/L	MAJOR	7782414
Fluridone	4100	ug/L	PESTICIDE	59756604
Fluridone	99611	ng/POCIS disk	PESTICIDE	59756604
Fluridone	99610	ng/SPMD strip	PESTICIDE	59756604
Fluridone Sediments	99587	ug/Kg	PESTICIDE	59756604
Flutolanil	99499	ng/L	PESTICIDE	66332965
Fluxapyroxad	99498	ng/L	PESTICIDE	907204313
Fonofos	81294	ug/L	PESTICIDE	944229
Fonofos	99667	ng/SPMD strip	PESTICIDE	944229
Fonofos	99886	ng/L	PESTICIDE	944229
Fonofos	99763	ng/POCIS disk	PESTICIDE	944229
Fonofos Sediments	82408	ug/kg	PESTICIDE	944229
Gadolinium, Dissolved	99954	ug/L	RARE EARTH	
Galaxolide	99926	ng/L	TRACER	
Galaxolide	62823	ug/L	TRACER	
Gallium, Dissolved	1120	ug/L	METAL	7440553
Gamma-BHC	99696	ng/SPMD strip	PESTICIDE	58899
Gamma-BHC	99592	ng/L	PESTICIDE	58899
Gamma-BHC	99792	ng/POCIS disk	PESTICIDE	58899
Gamma-Chlordane	99695	ng/SPMD strip	PESTICIDE	5103742
Gamma-Chlordane	99590	ug/L	PESTICIDE	5103742
Gamma-Chlordane	99609	ng/L	PESTICIDE	5103742
Gamma-Chlordane	99791	ng/POCIS disk	PESTICIDE	5103742
Gamma-Chlordane Sediments	46485	ug/Kg	PESTICIDE	5103742
Germanium, Dissolved	1125	ug/L	METAL	7440564
GFD-purified-qPCR	99589	TSC/100 mL	QPCR	
GFD-qPCR	99487	TSC/100 mL	QPCR	
Glufosinate	99551	ug/L	PESTICIDE	77182822
Glyphosate	99601	ng/POCIS disk	PESTICIDE	1071836
Glyphosate, Total	79743	ug/L	PESTICIDE	1071836
Gold, Dissolved	82334	ug/L	METAL	7440575
Gross Alpha, Dissolved	1503	pCi/L	RADIOMETRIC	14127629
Gross Alpha, Total	1501	pCi/L	RADIOMETRIC	14127629
Gross Beta, Dissolved	3503	pCi/L	RADIOMETRIC	12587472
Gross Beta, Total	3501	pCi/L	RADIOMETRIC	12587472
GULL2-purified-qPCR	99588	TSC/100 mL	QPCR	
GULL2-qPCR	99586	TSC/100 mL	QPCR	

Habitat, Primary SCI	99967	Points	ECOLOGICAL	
Habitat, Secondary SCI	99966	Points	ECOLOGICAL	
Habitat, Total SCI	99968	Points	ECOLOGICAL	
Hafnium, Dissolved	99953	ug/L	METAL	
Hardness, Calcium as CACO3, Total	45634	mg/L	PHYSICAL	471341
Hardness, calculated as CACO3	46570	mg/L	PHYSICAL	
Hardness, Noncarbonate	95902	mg/L	PHYSICAL	
Hardness, Total	900	mg/L	PHYSICAL	471341
Heptachlor	39410	ug/L	PESTICIDE	76448
Heptachlor	99694	ng/SPMD strip	PESTICIDE	76448
Heptachlor	99585	ng/L	PESTICIDE	76448
Heptachlor	99790	ng/POCIS disk	PESTICIDE	76448
Heptachlor epoxide	39420	ug/L	PESTICIDE	1024573
Heptachlor Epoxide	99693	ng/SPMD strip	PESTICIDE	1024573
Heptachlor Epoxide	99789	ng/POCIS disk	PESTICIDE	1024573
Heptachlor epoxide	99584	ng/L	PESTICIDE	1024573
Heptachlor epoxide Sediments	39423	ug/Kg	PESTICIDE	1024573
Heptachlor Sediments	75044	ug/Kg	PESTICIDE	76448
Hexachlorobenzene	39700	ug/L	ORGANIC	118741
Hexachlorobutadiene	34391	ug/L	ORGANIC	87683
Hexachlorocyclypentadiene	34386	ug/L	ORGANIC	77474
Hexachloroethane	34396	ug/L	ORGANIC	67721
Hexazinone	38815	ug/L	PESTICIDE	51235042
Hexazinone	99666	ng/SPMD strip	PESTICIDE	51235042
Hexazinone	99901	ng/L	PESTICIDE	51235042
Hexazinone	99762	ng/POCIS disk	PESTICIDE	51235042
Hexazinone Sediments	38818	ug/kg	PESTICIDE	51235042
HF183-purified-qPCR	99488	TSC/gWetWt	QPCR	
HF183-purified-qPCR	99582	GEU/100 mL	QPCR	
HF183-qPCR	99489	TSC/100 mL	QPCR	
HF183-qPCR	99581	GEU/100 mL	QPCR	
Holmium, Dissolved	99952	ug/L	RARE EARTH	
Hydrocodone	99550	ug/L	TRACER	125291
Hydroxide Alkalinity, (as CaCO3)	420	mg/L	PHYSICAL	471341
Ibuprofen	99544	ug/L	TRACER	15687271
Imazalil	99520	ng/L	PESTICIDE	35554440
Imazapyr	99641	ng/SPMD strip	PESTICIDE	
Imazapyr	99549	ug/L	PESTICIDE	81334341
Imazapyr	99737	ng/POCIS disk	PESTICIDE	
Imidacloprid	99996	ug/L	PESTICIDE	105827789
Imidacloprid	99719	ng/POCIS disk	PESTICIDE	138261413
Imidacloprid	99862	mg/L	PESTICIDE	105827789
Imidacloprid	99623	ng/SPMD strip	PESTICIDE	138261413
Imidacloprid Sediments	99878	ug/kg	PESTICIDE	105827789
Indaziflam	99543	ug/L	PESTICIDE	950782862
Indeno [1,2,3-cd] pyrene	34403	ug/L	ORGANIC	193395
Indeno[1,2,3-cd]pyrene Sediments	34406	ug/Kg	ORGANIC	193395
Indium, Dissolved	99950	ug/L	METAL	
Inorganic Carbon, Sediments	80149	% C	MAJOR	7440440
Iodine, Dissolved	99951	ug/L	OTHER	
Iprodione	99995	ug/L	PESTICIDE	36734197
Iprodione	99501	ng/L		36734197
Iron Sediments	99990	mg/Kg	METAL	7439896
Iron, Dissolved	1046	ug/L	METAL	7439896
Iron, Suspended	1044	ug/L	METAL	7439896
Iron, Total	1045	ug/L	METAL	7439896
Isodrin	39430	ug/L	PESTICIDE	465736
Isofenphos	78917	ug/L	PESTICIDE	25311711
Isophorone	34408	ug/L	ORGANIC	78591
Isopropylbenzene	77223	ug/L	ORGANIC	98828
Kjeldahl Nitrogen, Total (as N)	625	mg/L	NUTRIENT	17778880
Kjeldahl Nitrogen, Total (as N), Dissolved	623	mg/L	NUTRIENT	17778880
Lake Vegetative Index 2008	99936	Points	BIOLOGICAL	
Land Surface Elevation (from mse)	72000	feet	FIELD	
Lanthanum, Dissolved	1180	ug/L	METAL	7439910
Lead Sediments	99989	mg/Kg	METAL	7439921
Lead, Dissolved	1049	ug/L	METAL	7439921

Lead, Suspended	1050	ug/L	METAL	7439921
Lead, Total	1051	ug/L	METAL	7439921
Linuron	38477	ug/L	PESTICIDE	330552
Linuron	99718	ng/POCIS disk	PESTICIDE	330552
Linuron	99622	ng/SPMD strip	PESTICIDE	330552
Linuron Sediments	38480	ug/kg	PESTICIDE	330552
Lithium, Dissolved	1130	ug/L	METAL	7439932
Lutetium, Dissolved	99949	ug/L	RARE EARTH	
Magnesium, Dissolved	925	mg/L	MAJOR	7439954
Magnesium, Total	927	mg/L	MAJOR	7439954
Malathion	39530	ug/L	PESTICIDE	121755
Malathion	99665	ng/SPMD strip	PESTICIDE	121755
Malathion	99857	mg/L	PESTICIDE	121755
Malathion	99900	ng/L	PESTICIDE	121755
Malathion	99761	ng/POCIS disk	PESTICIDE	121755
Malathion Sediments	39531	ug/kg	PESTICIDE	121755
Mandestrobin	99529	ug/L	PESTICIDE	173662970
Manganese Sediments	99605	mg/Kg	METAL	7439965
Manganese, Dissolved	1056	ug/L	METAL	7439965
Manganese, Suspended	1054	ug/L	METAL	7439965
Manganese, Total	1055	ug/L	METAL	7439965
MCPA	99918	ug/L	PESTICIDE	94746
MCPA	99640	ng/SPMD strip	PESTICIDE	94746
MCPA	99736	ng/POCIS disk	PESTICIDE	94746
MCPA Sediments	99816	ug/kg	PESTICIDE	94746
MCPP	99917	ug/L	PESTICIDE	93652
MCPP	99639	ng/SPMD strip	PESTICIDE	93652
MCPP	99735	ng/POCIS disk	PESTICIDE	93652
MCPP Sediments	99815	ug/kg	PESTICIDE	93652
Measuring Point Elevation (from mse)	82514	feet	FIELD	
Mercury Sediments	71921	mg/Kg	METAL	7439976
Mercury, Dissolved	71890	ug/L	METAL	7439976
Mercury, Total	71900	ug/L	METAL	7439976
Mercury, Total	99547	ng/L	METAL	7439976
Metalaxyl	4254	ug/L	PESTICIDE	57837191
Metalaxyl	99664	ng/SPMD strip	PESTICIDE	57837191
Metalaxyl	99885	ng/L	PESTICIDE	57837191
Metalaxyl	99760	ng/POCIS disk	PESTICIDE	57837191
Metalaxyl Sediments	99877	ug/kg	PESTICIDE	57837191
Metam Sodium	38845	ug/L	PESTICIDE	137428
Metformin HCl	99542	ug/L	TRACER	657249
Methamidophos	38927	ug/L	PESTICIDE	10265926
Methamidophos Sediments	99876	ug/kg	PESTICIDE	10265923
Methiocarb	38500	ug/L	PESTICIDE	2032657
Methiocarb	99631	ng/SPMD strip	PESTICIDE	2032657
Methiocarb	99727	ng/POCIS disk	PESTICIDE	2032657
Methomyl	39051	ug/L	PESTICIDE	16752775
Methomyl	99726	ng/POCIS disk	PESTICIDE	16752775
Methomyl	99630	ng/SPMD strip	PESTICIDE	16752775
Methoxychlor	39480	ug/L	PESTICIDE	72435
Methoxychlor	99692	ng/SPMD strip	PESTICIDE	72435
Methoxychlor	99580	ng/L	PESTICIDE	72435
Methoxychlor	99788	ng/POCIS disk	PESTICIDE	72435
Methoxychlor Sediments	39481	ug/Kg	PESTICIDE	72435
Methyl Azinphos (Guthion)	81292	ug/L	PESTICIDE	2642719
Methyl Ethyl Ketone	81595	ug/L	ORGANIC	78933
Methyl Iso-butyl Ketone	81596	ug/L	ORGANIC	108101
Methyl Paraoxon	4099	ug/L	PESTICIDE	950356
Methyl Parathion	39600	ug/L	PESTICIDE	298000
Methyl Parathion	99859	mg/L	PESTICIDE	298000
Methyl tert-Butyl Ether (MTBE)	46491	ug/L	ORGANIC	1634044
Methylene chloride	34423	ug/L	ORGANIC	75092
Methylisothiocyanate (MITC)	4253	ug/L	PESTICIDE	556616
Methymercury Sediments	99961	mg/Kg	METAL	
Metolachlor	39356	ug/L	PESTICIDE	51218452
Metolachlor	82612	ug/L	PESTICIDE	51218452
Metolachlor	99884	ng/L	PESTICIDE	51218452

Metolachlor	99663	ng/SPMD strip	PESTICIDE	51218452
Metolachlor	99759	ng/POCIS disk	PESTICIDE	51218452
Metolachlor Sediments	38923	ug/kg	PESTICIDE	51218452
Metribuzin	81408	ug/L	PESTICIDE	21087649
Metribuzin	99662	ng/SPMD strip	PESTICIDE	21087649
Metribuzin	99899	ng/L	PESTICIDE	21087649
Metribuzin	99758	ng/POCIS disk	PESTICIDE	21087649
Metribuzin Sediments	81409	ug/kg	PESTICIDE	21087649
Mevinphos	39610	ug/L	PESTICIDE	7786347
Mevinphos	99661	ng/SPMD strip	PESTICIDE	7786347
Mevinphos	99757	ng/POCIS disk	PESTICIDE	7786347
Mevinphos	99898	ng/L	PESTICIDE	7786347
Mevinphos Sediments	82643	ug/kg	PESTICIDE	7786347
MGK-264	4098	ug/L	PESTICIDE	113484
Microcystin LA	99579	ug/L	BIOLOGICAL	96180799
Microcystin LF	99578	ug/L	BIOLOGICAL	154037704
Microcystin LR	99577	ug/L	BIOLOGICAL	101043372
Microcystin LW	99505	ug/L	BIOLOGICAL	157622021
Microcystin LY	99504	ug/L	BIOLOGICAL	123304109
Microcystin RR	99575	ug/L	BIOLOGICAL	111755374
Microcystin WR	99503	ug/L	BIOLOGICAL	138234589
Microcystin YR	99574	ug/L	BIOLOGICAL	101064486
MicroLanduse Category	84147		FIELD	
Mirex	39755	ug/L	PESTICIDE	2385855
Mirex	99691	ng/SPMD strip	PESTICIDE	2385855
Mirex	99573	ng/L	PESTICIDE	2385855
Mirex	99787	ng/POCIS disk	PESTICIDE	2385855
Mirex Sediments	79800	ug/Kg	PESTICIDE	2385855
Molinate	49562	ug/L	PESTICIDE	2212671
Molinate	99660	ng/SPMD strip	PESTICIDE	2212671
Molinate	99911	ng/L	PESTICIDE	2212671
Molinate	99756	ng/POCIS disk	PESTICIDE	2212671
Molybdenum Sediments	99603	mg/Kg	METAL	7439987
Molybdenum, Dissolved	1060	ug/L	METAL	7439987
Molybdenum, total	1062	ug/L	METAL	7439987
Monocrotophos Sediments	81889	ug/kg	PESTICIDE	
Myclobutanil	99493	ng/L	PESTICIDE	88671890
N15/N14, NITRATE, RATIO/MIL	82690	┐	NUTRIENT	
Naled	38855	ug/L	PESTICIDE	300765
Naled	99516	ng/L	PESTICIDE	300765
Naled Sediments	38858	ug/kg	PESTICIDE	300765
Naphthalene	34696	ug/L	ORGANIC	91203
Naphthalene Sediments	34445	ug/Kg	ORGANIC	91203
Napropamide	79195	ug/L	PESTICIDE	1529999
Naproxen	99541	ug/L	TRACER	22204531
Neodymium, Dissolved	99947	ug/L	RARE EARTH	
Nickel Sediments	99988	mg/Kg	METAL	7440020
Nickel, Dissolved	1065	ug/L	METAL	7440020
Nickel, Suspended	1066	ug/L	METAL	7440020
Nickel, Total	1067	ug/L	METAL	7440020
Niobium, Dissolved	99948	ug/L	METAL	
Nitrate, Dissolved (as N)	618	mg/L	NUTRIENT	14797558
Nitrate, Total (as N)	620	mg/L	NUTRIENT	14797558
Nitrate, Total (as NO3)	71850	mg/L	NUTRIENT	14797558
Nitrate+Nitrite, Dissolved (as N)	631	mg/L	NUTRIENT	9999999
Nitrate+Nitrite, Dissolved (As NO3)	71851	mg/L	NUTRIENT	9999999
Nitrate+Nitrite, Total (as N)	630	mg/L	NUTRIENT	1820
Nitrate+Nitrite, Total (as N) Sediments	99621	mg/Kg	NUTRIENT	1820
Nitrite, Dissolved (as N)	613	mg/L	NUTRIENT	14797650
Nitrite, Total (as N)	615	mg/L	NUTRIENT	14797650
Nitrobenzene	34447	ug/L	ORGANIC	98953
Nitrogen, Dissolved	602	mg/L	NUTRIENT	17778880
Nitrogen, Suspended	601	mg/L	NUTRIENT	17778880
Nitrogen, Total	600	mg/L	NUTRIENT	17778880
N-Nitrosodimethylamine	34438	ug/L	ORGANIC	62759
N-Nitrosodi-n-propylamine	34428	ug/L	ORGANIC	621647
N-Nitrosodiphenylamine	34433	ug/L	ORGANIC	86306

Noncarbonate Hardness (as CaCO3)	902	mg/L	PHYSICAL	471341
Norflurazon	78064	ug/L	PESTICIDE	27314132
Norflurazon	99910	ng/L	PESTICIDE	27314132
Norflurazon	99659	ng/SPMD strip	PESTICIDE	27314132
Norflurazon	99755	ng/POCIS disk	PESTICIDE	27314132
Norflurazon Sediments	99875	ug/kg	PESTICIDE	27314132
Number of species, periphyton	71483	# species	BIOLOGICAL	
O18/O16, NITRATE, RATIO/MIL	63041	┐	NUTRIENT	
Organic Carbon, Dissolved	681	mg/L	MAJOR	7440440
Organic Carbon, Sediments	80153	% C	MAJOR	7440440
Organic Carbon, Total	680	mg/L	MAJOR	7440440
Organic Nitrogen	605	mg/L	NUTRIENT	17778880
Organic Nitrogen, Dissolved	607	mg/L	NUTRIENT	17778880
Organic Phosphorus, Dissolved	673	mg/L	NUTRIENT	7723140
Orthophosphate, Dissolved (as P)	671	mg/L	NUTRIENT	7723140
Orthophosphate, Dissolved (as PO4)	660	mg/L	NUTRIENT	14265442
Orthophosphate, Total (as P)	70507	mg/L	NUTRIENT	7723140
Osmium, Dissolved	99946	ug/L	METAL	
Oxadiazon	99536	ng/L	PESTICIDE	19666309
Oxamyl	38865	ug/L	PESTICIDE	23135220
Oxamyl	99725	ng/POCIS disk	PESTICIDE	23135220
Oxamyl	99629	ng/SPMD strip	PESTICIDE	23135220
Oxyfluorfen	99500	ng/L	PESTICIDE	42874033
Oxygen Reduction Potential	99938	mV	FIELD	
Oxygen uptake	290	ug/L	ORGANIC	7782447
Oxygen, Dissolved	300	mg/L	PHYSICAL	7782447
Oxygen, Dissolved Percent Saturation	301	%	FIELD	
Oxygen, Dissolved, Field	299	mg/L	FIELD	7782447
PAHS Total Sediments	31668	ug/Kg	ORGANIC	
Palladium, Dissolved	82040	ug/L	METAL	7440053
Paraquat	82416	ug/L	PESTICIDE	1910425
Parathion Ethyl	99872	ng/L	PESTICIDE	56382
Parathion Ethyl	99658	ng/SPMD strip	PESTICIDE	56382
Parathion Ethyl	99754	ng/POCIS disk	PESTICIDE	56382
Parathion Ethyl Sediments	39541	ug/kg	PESTICIDE	56382
Parathion Methyl	99871	ng/L	PESTICIDE	298000
Parathion Methyl	99657	ng/SPMD strip	PESTICIDE	298000
Parathion Methyl	99753	ng/POCIS disk	PESTICIDE	298000
Parathion Methyl Sediments	39601	ug/kg	PESTICIDE	298000
PCB-1016	34671	ug/L	ORGANIC	12674112
PCB-1016	99572	ng/L	ORGANIC	12674112
PCB-1016 Sediments	39514	ug/Kg	ORGANIC	12674112
PCB-1221	39488	ug/L	ORGANIC	11104282
PCB-1221	99571	ng/L	ORGANIC	11104282
PCB-1221 Sediments	39491	ug/Kg	ORGANIC	11104282
PCB-1232	39492	ug/L	ORGANIC	11141165
PCB-1232	99570	ng/L	ORGANIC	11141165
PCB-1232 Sediments	39495	ug/Kg	ORGANIC	60571
PCB-1242	39496	ug/L	ORGANIC	53469219
PCB-1242	99569	ng/L	ORGANIC	53469219
PCB-1242 Sediments	39499	ug/Kg	ORGANIC	53469219
PCB-1248	39500	ug/L	ORGANIC	12672296
PCB-1248	99568	ng/L	ORGANIC	12672296
PCB-1248 Sediments	39503	ug/Kg	ORGANIC	12672296
PCB-1254	39504	ug/L	ORGANIC	11097691
PCB-1254	99567	ng/L	ORGANIC	11097691
PCB-1254 Sediments	39507	ug/Kg	ORGANIC	11097691
PCB-1260	39508	ug/L	ORGANIC	11096825
PCB-1260	99566	ng/L	ORGANIC	11096825
PCB-1260 Sediments	39511	ug/Kg	ORGANIC	11096825
PCB-1262	81649	ug/L	ORGANIC	37324235
PCBs total Sediments	39519	ug/Kg	ORGANIC	12767792
PCNB	81316	ug/L	PESTICIDE	82688
Pebulate	79192	ug/L	PESTICIDE	1114712
Pendimethalin	79190	ug/L	PESTICIDE	40487421
Pendimethalin	99656	ng/SPMD strip	PESTICIDE	40487421
Pendimethalin	99909	ng/L	PESTICIDE	40487421

Pendimethalin	99752	ng/POCIS disk	PESTICIDE	40487421
Pentachlorophenol	39032	ug/L	ORGANIC	87865
Percent Moisture	99522	%		
Periphyton, Qualitative	99960	#taxa	BIOLOGICAL	
Permethrin	79191	ug/L	PESTICIDE	52645531
Permethrin	99690	ng/SPMD strip	PESTICIDE	52645531
Permethrin	99565	ng/L	PESTICIDE	52645531
Permethrin	99786	ng/POCIS disk	PESTICIDE	52645531
Permethrin (cis)	82418	ug/L	PESTICIDE	54774468
Permethrin (trans)	82420	ug/L	PESTICIDE	54774479
Permethrin Sediments	99835	ug/kg	PESTICIDE	52645531
Perthane	39034	ug/L	PESTICIDE	72560
pH	400	SU	FIELD	C006
pH, Field	406	SU	FIELD	
pH, Lab	403	SU	PHYSICAL	
Phenanthrene	34461	ug/L	ORGANIC	85018
Phenanthrene Sediments	34464	ug/Kg	ORGANIC	85018
Phenol	34694	ug/L	ORGANIC	108952
Phenolics, Total	32730	ug/L	ORGANIC	
Pheophytin-A (Monochromatic)	32218	ug/L	BIOLOGICAL	603178
Phorate	46313	ug/l	PESTICIDE	298022
Phorate	99655	ng/SPMD strip	PESTICIDE	298022
Phorate	99861	mg/L	PESTICIDE	298022
Phorate	99897	ng/L	PESTICIDE	298022
Phorate	99751	ng/POCIS disk	PESTICIDE	298022
Phorate Sediments	81412	ug/kg	PESTICIDE	298022
Phosphate, Dissolved (as PO4)	653	mg/L	NUTRIENT	14265442
Phosphate, Total	650	mg/L	NUTRIENT	14265442
Phosphorus, Dissolved (as P)	666	mg/L	NUTRIENT	7723140
Phosphorus, Suspended (as P)	667	mg/L	NUTRIENT	7723140
Phosphorus, Total (as P) Sediments	668	mg/Kg	NUTRIENT	7723140
Phosphorus, Total (as P)	665	mg/L	NUTRIENT	7723140
Phytoplankton Identification	71260	# taxa	BIOLOGICAL	
Phytoplankton, Quantitative - # Diatoms	99959	#taxa	BIOLOGICAL	
Picloram	39720	ug/L	PESTICIDE	1918021
Picloram Sediments	99814	ug/kg	PESTICIDE	1918021
Platinum, Dissolved	1172	ug/L	METAL	7440064
Potassium, Dissolved	935	mg/L	MAJOR	7440097
Potassium, Total	937	mg/L	MAJOR	7440097
Praseodymium, Dissolved	99945	ug/L	RARE EARTH	
Precipitation	99958		FIELD	
Primidone	99931	ug/L	TRACER	125-33-7
Primidone	99608	ng/POCIS disk	TRACER	125-33-7
Primidone	99607	ng/SPMD strip	TRACER	125-33-7
Primidone Sediments	99583	ug/Kg	TRACER	125-33-7
Prodiamine	99533	ng/L	PESTICIDE	29091212
Prometon	39056	ug/L	PESTICIDE	1610180
Prometon	99654	ng/SPMD strip	PESTICIDE	1610180
Prometon	99894	ng/L	PESTICIDE	1610180
Prometon	99750	ng/POCIS disk	PESTICIDE	1610180
Prometon Sediments	82402	ug/kg	PESTICIDE	1610180
Prometryn	39057	ug/L	PESTICIDE	7287196
Prometryn	99653	ng/SPMD strip	PESTICIDE	7287196
Prometryn	99896	ng/L	PESTICIDE	7287196
Prometryn	99749	ng/POCIS disk	PESTICIDE	7287196
Prometryn Sediments	78688	ug/kg	PESTICIDE	7287196
Pronamide	39080	ug/L	PESTICIDE	23950585
Pronamide	99519	ng/L	PESTICIDE	23950585
Propachlor	77729	ug/L	PESTICIDE	1918167
Propazine	38578	ug/L	PESTICIDE	139402
Propiconazole	99518	ng/L	PESTICIDE	60207901
Propoxur	38537	ug/L	PESTICIDE	114261
Propoxur	99724	ng/POCIS disk	PESTICIDE	114261
Propoxur	99628	ng/SPMD strip	PESTICIDE	114261
Propylbenzene (-n)	77224	ug/L	ORGANIC	103651
Purge Volume	73675	gal	FIELD	
Pyraclostrobin	99564	ug/L	PESTICIDE	175013180

Pyrene	34469	ug/L	ORGANIC	129000
Pyrene Sediments	34472	ug/Kg	ORGANIC	129000
Pyriproxyfen	99491	ng/L	PESTICIDE	95737681
Radium-226 Counting Error, Total	9502	pCi/L	RADIOMETRIC	13982633
Radium-226, Total	9501	pCi/L	RADIOMETRIC	13982633
Radium-228 Counting Error, Total	11502	pCi/L	RADIOMETRIC	15262201
Radium-228, Total	11501	pCi/L	RADIOMETRIC	15262201
Radon-222 Counting Error, Total	82302	pCi/L	RADIOMETRIC	14859677
Radon-222, Total	82303	pCi/L	RADIOMETRIC	14859677
Rhenium, Dissolved	99944	ug/L	METAL	
Rubidium,Dissolved	1135	ug/L	METAL	7440177
Ruthenium, Dissolved	99943	ug/L	METAL	
Salinity (ppt)	480	ppt	FIELD	
Salinity based on conductivity	70305	ppt	PHYSICAL	
Samarium, Dissolved	82323	ug/L	RARE EARTH	7440199
Sample Collection Agency	27		FIELD	
Sample Depth	90068	meters	FIELD	
Sampling Station Location (vertical)	3	feet	FIELD	
Sampling Station Locations (vertical)	98	meters	FIELD	
Saxitoxin	99502	ug/L	BIOLOGICAL	35523898
Scandium, Dissolved	1187	ug/L	METAL	7440202
Sec-Butylbenzene	77350	ug/L	ORGANIC	135988
Sediment % Organic	99563	% dry wt	BIOLOGICAL	
Sediment Collection Area	99978		FIELD	
Sediment Color	99975		FIELD	
Sediment Grabs	99974		FIELD	
Sediment Odor	99976		FIELD	
Sediment Particle Size, %, <0.063 mm	99562	% vol <2mm	BIOLOGICAL	
Sediment Particle Size, %, >2.0 mm	99561	%totdrywt	BIOLOGICAL	
Sediment Particle Size, %, 0.063-0.125mm	99560	% vol <2mm	BIOLOGICAL	
Sediment Particle Size, %, 0.125-0.25 mm	99559	% vol <2mm	BIOLOGICAL	
Sediment Particle Size, %, 0.25-0.5 mm	99558	% vol <2mm	BIOLOGICAL	
Sediment Particle Size, %, 0.5-2.0 mm	99557	% vol <2mm	BIOLOGICAL	
Sediment Sample Collection Device	99973		FIELD	
Sediment Type	99977		FIELD	
Selenium Sediments	99602	mg/Kg	METAL	7782492
Selenium, Dissolved	1145	ug/L	METAL	7782492
Selenium, Total	1147	ug/L	METAL	7782492
Silica, Dissolved	955	mg/L	NUTRIENT	7631869
Silica, Total	956	mg/L	MAJOR	7631869
Silicate, Total	958	mg/L	MAJOR	7631869
Silicon, Dissolved	1140	ug/L	OTHER	7440213
Silver Sediments	99987	mg/Kg	METAL	7440224
Silver, Dissolved	1075	ug/L	METAL	7440224
Silver, Suspended	1076	ug/L	METAL	7440224
Silver, Total	1077	ug/L	METAL	7440224
Simazine	39055	ug/L	PESTICIDE	122349
Simazine	99652	ng/SPMD strip	PESTICIDE	122349
Simazine	99895	ng/L	PESTICIDE	122349
Simazine	99748	ng/POCIS disk	PESTICIDE	122349
Simazine Sediments	39046	ug/kg	PESTICIDE	122349
Simetryne	39054	ug/L	PESTICIDE	1014706
Simvastatin	99540	ug/L	TRACER	79902639
Sodium Absorption Ratio	931		MAJOR	7440235
Sodium Percent	932		MAJOR	7440235
Sodium, Dissolved	930	mg/L	MAJOR	7440235
Sodium, Total	929	mg/L	MAJOR	7440235
Sodium+Potassium	933	mg/L	MAJOR	
Specific Conductance, Field	94	uS/cm	FIELD	
Specific Conductance, Lab	95	uS/cm	PHYSICAL	
Specific Conductance, QA	90095	uS/cm	PHYSICAL	
Stirofos	38877	ug/L	PESTICIDE	961115
Stream Condition Index 1992	99970	Points	ECOLOGICAL	
Stream Condition Index 2004	99971	Points	ECOLOGICAL	
Stream Condition Index 2007	99965	Points	ECOLOGICAL	
Stream Condition Index 2012	99874	Points	ECOLOGICAL	
Stream Flow, Daily Mean	60	cfs	FIELD	

Stream Flow, Instantaneous	61	cfs	FIELD	
Stream Flow, Qualitative	99934		FIELD	
Stream Stage	65	feet	FIELD	
Strobane	39026	ug/L	PESTICIDE	8001501
Strontium, Dissolved	1080	ug/L	METAL	7440246
Strontium, Suspended	1081	ug/L	METAL	7440246
Strontium, Total	1082	ug/L	METAL	7440246
Styrene	77128	ug/L	ORGANIC	100425
Sucralose	99937	ug/L	TRACER	56038-13-2
Sucralose	99600	ng/POCIS disk	TRACER	56038-13-2
Sucralose Sediments	99576	ug/Kg	TRACER	56038-13-2
Sulfate, Dissolved	946	mg/L	MAJOR	14808798
Sulfate, Sediments	99962	mg/Kg	MAJOR	14808798
Sulfate, Total	945	mg/L	MAJOR	14808798
Sulfentrazone	99517	ng/L	PESTICIDE	122836355
Sulfide Odor	34773		MAJOR	
Sulfide, Total	745	mg/L	MAJOR	18496258
Tantalum, Dissolved	82319	ug/L	METAL	7440257
Taxa, # per 20 dipnets	99972	#taxa	BIOLOGICAL	
TCEP	99930	ng/L	TRACER	51805-45-9
TCPP	99929	ng/L	TRACER	13674-84-5
TDCPP	99928	ng/L	TRACER	13674-87-8
Tebuconazole	99535	ng/L	PESTICIDE	107534963
Tebuthiuron (GRASLAN, SPIKE)	45607	ug/L	PESTICIDE	34014181
Tedion	39808	ug/L	PESTICIDE	116290
Tellurium, Dissolved	99941	ug/L	OTHER	
Tentatively Identified Organic Compound	99999	ug/L	ORGANIC	
Terbacil	38882	ug/L	PESTICIDE	5902512
Terbium, Dissolved	99942	ug/L	RARE EARTH	
Terbufos	82088	ug/L	PESTICIDE	13071799
Terbufos	99651	ng/SPMD strip	PESTICIDE	13071799
Terbufos	99893	ng/L	PESTICIDE	13071799
Terbufos	99747	ng/POCIS disk	PESTICIDE	13071799
Terbufos Sediments	38922	ug/kg	PESTICIDE	13071799
Terbuthylazine	38559	ug/L	PESTICIDE	5915413
Terbuthylazine	99650	ng/SPMD strip	PESTICIDE	5915413
Terbuthylazine	99908	ng/L	PESTICIDE	5915413
Terbuthylazine	99746	ng/POCIS disk	PESTICIDE	5915413
Terbutryn	38887	ug/L	PESTICIDE	886500
Tert-Butlybenzene	77353	ug/L	ORGANIC	98066
Tetrachloroethene	34475	ug/L	ORGANIC	127184
Thallium, Dissolved	1057	ug/L	METAL	7440280
Thallium, Total	1059	ug/L	METAL	7440280
Thiacloprid	99867	ug/mL POCIS extract	PESTICIDE	
Thiamethoxam	99530	ug/L	PESTICIDE	153719234
Thiamethoxam	99866	ug/mL POCIS extract	PESTICIDE	
Thorium, Dissolved	82365	ug/L	ACTINIDE	7440291
Thulium, Dissolved	99940	ug/L	RARE EARTH	
Tin, Dissolved	1100	ug/L	METAL	7440315
Tin, Total	1102	ug/L	METAL	7440315
Titanium, Dissolved	1150	ug/L	METAL	7440326
Tolfenpyrad	99531	ug/L	PESTICIDE	129558765
Toluene	78131	ug/L	ORGANIC	108883
Tonalide	99925	ng/L	TRACER	
Tonalide	62812	ug/L	TRACER	
Total Dissolved Solids (TDS measured)	70300	mg/L	PHYSICAL	
Total Dissolved Solids (TDS-calculated)	70301	mg/L	PHYSICAL	
Total Kjeldahl Nitrogen, Total (as N)	627	mg/Kg	NUTRIENT	17778880
Total PCBs	39516	ug/L	ORGANIC	1336363
Total Solids	500	mg/L	PHYSICAL	
Total Suspended Solids (TSS)	530	mg/L	PHYSICAL	
Total Trihalomethanes	82080	ug/L	ORGANIC	
Toxaphene	39400	ug/L	PESTICIDE	8001352
Toxaphene	99716	ng/SPMD strip	PESTICIDE	8001352
Toxaphene	99812	ng/POCIS disk	PESTICIDE	8001352

Toxaphene	99599	ng/L	PESTICIDE	8001352
Toxaphene Sediments	39403	ug/Kg	PESTICIDE	8001352
Transparency (Secchi Depth)	77	inches	FIELD	
Transparency (Secchi Depth)	78	meters	FIELD	
Trash	99980		FIELD	
Triademefon	38892	ug/L	PESTICIDE	43121433
Trichloroethene	39180	ug/L	ORGANIC	79016
Trichlorofluoromethane	34488	ug/L	ORGANIC	75694
Triclopyr	99822	ug/L	PESTICIDE	55335063
Triclopyr	99638	ng/SPMD strip	PESTICIDE	55335063
Triclopyr	99734	ng/POCIS disk	PESTICIDE	55335063
Triclopyr Sediments	99556	ug/Kg	PESTICIDE	55335063
Triclosan Methyl	99927	ng/L	TRACER	1/1/4640
Tricyclazole	38902	ug/L	PESTICIDE	41814782
Trifluralin	81284	ug/L	PESTICIDE	1582098
Trifluralin	99689	ng/SPMD strip	PESTICIDE	1582098
Trifluralin	99555	ng/L	PESTICIDE	1582098
Trifluralin	99785	ng/POCIS disk	PESTICIDE	1582098
Trifluralin Sediments	81618	ug/Kg	PESTICIDE	1582098
Trimethylbenzene	78136	ug/L	ORGANIC	25551137
Triphenyl Phosphate	77881	ng/L	TRACER	115-86-6
Trophic State Index CAT	99514			
Trophic State Index CHL	99513			
Trophic State Index NUTR	99512			
Trophic State Index TN	99511			
Trophic State Index TN2	99510			
Trophic State Index TNTP	99515			
Trophic State Index TP	99509			
Trophic State Index TP2	99508			
Trophic State Index XTSI	99507			
Tungsten, Dissolved	1155	ug/L	METAL	7440337
Turbidity, Field	82078	ntu	PHYSICAL	
Turbidity, Lab	76	ntu	PHYSICAL	
Turbidity, Lab	82079	ntu	PHYSICAL	
Uranium, Dissolved	22703	ug/L	ACTINIDE	7440611
Uranium, Total	99539	ug/L	ACTINIDE	7440611
Vanadium, Dissolved	1085	ug/L	METAL	7440622
Vanadium, Total	1087	ug/L	METAL	7440622
Velocity-Stream	55	Ft/Sec	FIELD	
Vernolate	30324	ug/L	PESTICIDE	1929777
Vinyl Acetate	77057	ug/L	ORGANIC	108054
Vinyl Chloride	39175	ug/L	ORGANIC	75014
Water Column from Casing-ft	73665	FT	FIELD	
Water column height	99994	feet	FIELD	
Water Level	99981		FIELD	
Water Level Elevation (from mse)	50040	feet	FIELD	
Water Sample Collection Device	99979		FIELD	
Water Temperature	10	degrees C	FIELD	
Weather	41	WMO	FIELD	
Wind Direction	36	degrees	FIELD	
Wind Speed	35	mph	FIELD	
Xylene-meta	81710	ug/L	ORGANIC	108383
Xylene-ortho	77135	ug/L	ORGANIC	95476
Xylene-para	78132	ug/L	ORGANIC	106423
Xylenes	81551	ug/L	ORGANIC	1330207
Ytterbium, Dissolved	1194	ug/L	RARE EARTH	7440644
Yttrium, Dissolved	1201	ug/L	METAL	7440655
Zinc Sediments	99985	mg/Kg	METAL	7440666
Zinc, Dissolved	1090	ug/L	METAL	7440666
Zinc, Suspended	1091	ug/L	METAL	7440666
Zinc, Total	1092	ug/L	METAL	7440666
Zirconium, Dissolved	1160	ug/L	METAL	7440677

APPENDIX B: AGENCY CODES (MT_AGENCY)

CODE	AGENCY
4003	USGS ALTAMONTE SPRINGS
6138	PARK, PARK, & BERGDOL
6160	ABC RESEARCH LAB
7010	USGS-OCALA
7019	CH2M HILL
7726	PBS&J ENVIRONMENTAL
7729	THORTON LAB
7733	P E LAMOREAUX LAB
7735	BIONOMICS LAB
7746	SAVANNAH LAB
7754	FLOWERS LAB
8010	DEP NORTHWEST ROC
8023	SWFWMD
8024	SFWMD
8025	NWFWMD
8026	SJRWMD
8027	SRWMD
8030	DEP CENTRAL ROC
8031	DEP NORTHEAST ROC
8034	DEP TALLAHASSEE ROC
8040	DEP SOUTHWEST ROC
8041	DEP PUNTA GORDA
8050	DEP SOUTHEAST ROC
8051	DEP PORT ST. LUCIE
8052	DEP SOUTH ROC
8053	DEP FT. PIERCE
8065	DEP ENVIRONMENTAL ASSESSMENT
8066	DEP CENTRAL LAB
8068	DADE CO.
8070	ALACHUA CO.
8076	BROWARD CO.
8079	PALM BEACH CO.
8081	LEE CO.
8127	POLK CO.
8201	CITY OF TALLAHASSEE LAB
8240	DEPT. HEALTH AND REHABILITATIVE SERVICES
8505	COLLIER CO.
9987	FMRI
9988	USGS ORLANDO
9989	USGS FT MYERS
9990	USGS DAVIE
9991	DEP GW PROTECTION SECTION
9992	FLORIDA FISH & WILDLIFE CONSERVATION COMMISSION
9993	USGS TALLAHASSEE
9994	DEP WATERSHED ASSESSMENT
9995	DEP FLORIDA GEOLOGICAL SURVEY
9996	ENVIRONMENTAL SERVICES PERMITTING
9997	EVERGLADES N.P.
9998	SFWMD OCKEECHOBEE
9999	SFWMD W.P.B

APPENDIX C: FIPS COUNTY CODE/NAME (MT_COUNTY)

FIPS COUNTY CODE	NAME (MT_COUNTY)
001	Alachua
047	Hamilton
093	Okeechobee
003	Baker
049	Hardee
095	Orange
005	Bay
051	Hendry
097	Osceola
007	Bradford
053	Hernando
099	Palm Beach
009	Brevard
055	Highlands
101	Pasco
011	Broward
057	Hillsborough
103	Pinellas
013	Calhoun
059	Holmes
105	Polk
015	Charlotte
061	Indian River
107	Putnam
017	Citrus
063	Jackson
109	St. Johns
019	Clay
065	Jefferson
111	St. Lucie
021	Collier
067	Lafayette
113	Santa Rosa
023	Columbia
069	Lake
115	Sarasota
025	Miami-Dade
071	Lee
117	Seminole
073	Leon
119	Sumter
029	Dixie
075	Levy
121	Suwannee
031	Duval
077	Liberty
123	Taylor
033	Escambia
079	Madison
125	Union
035	Flagler
081	Manatee
127	Volusia
037	Franklin
083	Marion
129	Wakulla
039	Gadsden
085	Martin
131	Walton
041	Gilchrist
087	Monroe
133	Washington
043	Glades
089	Nassau
045	Gulf
091	Okaloosa
027	DeSoto

APPENDIX D: HYDROLOGIC_UNIT_CODE/NAME (MT_HUC)

HYDROLOGIC_UNIT_CODE	NAME (MT_HUC)
3070204	ST.MARYS RIVER
3070205	NASSAU RIVER
3080101	UPPER ST.JOHNS RIVER
3080102	OKLAWAHA RIVER
3080103	LOWER ST. JOHNS RIVER
3080201	UPPER EAST COAST
3080202	NORTH INDIAN RIVER
3080203	SOUTH INDIAN RIVER
3090101	KISSIMMEE RIVER
3090102	TAYLOR CREEK
3090103	FISHEATING CREEK
3090201	LAKE OKEECHOBEE
3090202	SOUTHEAST FLORIDA COAST
3090203	FLORIDA KEYS
3090204	EVERGLADES-WEST COAST
3090205	CALOOSAHATCHEE RIVER
3100101	PEACE RIVER
3100102	MYAKKA RIVER
3100103	CHARLOTTE HARBOR
3100201	SARASOTA BAY
3100202	MANATEE RIVER
3100203	LITTLE MANATEE RIVER
3100204	ALAFIA RIVER
3100205	HILLSBOROUGH RIVER
3100206	TAMPA BAY
3100207	ANCLOTE-CRYSTAL RIVER
3100208	WITHLACOOCHEE RIVER S.
3110101	WACCASASSA RIVER
3110102	FENHOLLOWAY RIVER
3110103	AUCILLA RIVER
3110201	UPPER SUWANNEE RIVER
3110202	ALAPAHA RIVER
3110203	WITHLACOOCHEE RIVER N.
3110205	LOWER SUWANNEE RIVER
3110206	SANTA FE RIVER
3120001	ST.MARKS RIVER
3120003	OCHLOCKONEE
3130004	CHATTAHOOCHEE RIVER
3130011	APALACHICOLA RIVER
3130012	CHIPOLA RIVER
3130013	NEW RIVER
3130014	APALACHICOLA BAY
3140101	ST.ANDREWS BAY
3140102	CHOCTAWHATCHEE BAY
3140103	YELLOW RIVER
3140104	BLACKWATER RIVER
3140105	PENSACOLA BAY
3140106	PERDIDO RIVER
3140107	PERDIDO BAY
3140202	PEA RIVER
3140203	CHOCTAWHATCHEE RIVER
3140304	CONEEAH RIVER
3140305	ESCAMBIA RIVER

APPENDIX E: TMDL_BASIN (MT_TMDL_BASIN)

TMDL_BASIN	REP_UNIT	BASIN_GROUP
EVERGLADES WEST COAST	ZONE 5, ZONE 6	1
LAKE OKEECHOBEE	ZONE 5, ZONE 6	1
OCHLOCKONEE - ST. MARKS	ZONE 1, ZONE 2	1
OCKLAWAHA	ZONE 2, ZONE 3, ZONE 4, ZONE A	1
SUWANNEE	SRWMD-1	1
TAMPA BAY	SWFWMD-1	1
APALACHICOLA - CHIPOLA	NWFWMD-2	2
CHARLOTTE HARBOR	SFWMD-7	2
LOWER ST. JOHNS	SJRWMD-2	2
MIDDLE ST. JOHNS	SJRWMD-6	2
ST. LUCIE-LOXAHATCHEE	SFWMD-2	2
TAMPA BAY TRIBUTARIES	SWFWMD-2	2
CALOOSAHATCHEE	SFWMD-3	3
CHOCTAWHATCHEE - ST. ANDREWS	NWFWMD-3	3
LAKE WORTH LAGOON - PALM BEACH COAST	SFWMD-8	3
SARASOTA BAY - PEACE - MYAKKA	SWFWMD-3	3
UPPER ST. JOHNS	SJRWMD-3	3
FISHEATING CREEK	SFWMD-4	4
KISSIMMEE RIVER	SFWMD9	4
NASSAU - ST. MARYS	SJRWMD-4	4
PENSACOLA	NWFWMD-4	4
SOUTHEAST COAST - BISCAYNE BAY	SFWMD-10	4
WITHLACOOCHEE	SWFWMD-4	4
EVERGLADES	SFWMD-5	5
FLORIDA KEYS	SFWMD-11	5
INDIAN RIVER LAGOON	SJRWMD-5	5
PERDIDO	NWFWMD-5	5
SPRINGS COAST	SWFWMD-5	5
UPPER EAST COAST	SJRWMD-7	5

APPENDIX F: EXCLUSION_CRITERIA (MT_EXCLUSION_CRITERIA2)

EXCLUSION CATEGORY	WATER RESOURCE MEDIA	EXCLUSION CRITERIA	EXCLUSION CRITERIA DESCRIPTION
DRY	GW	WELL DRY DURING INDEX PERIOD	WELL CONSISTENTLY DRY, PURGES DRY OR DOES NOT RECOVER WITHIN 6 HOURS.
DRY	SW	SMALL LAKE OR LARGE LAKE DEPTH < 1 METER AT DEEPEST POINT	CATEGORY PREVIOUSLY = WRONG RESOURCE/NOT PART OF TARGET POPULATION
DRY	SW	STREAM/RIVER/CANAL FLOW POOLED AND DISCONNECTED AT RANDOM LOCATION.	
DRY	SW	DRY DURING INDEX PERIOD, INCLUDES SMALL LAKE WATER < 4 HECTARES LARGE LAKE WATER < 10 HECTARES	
DRY	SW	RANDOM LOCATION LESS THAN 10 CM DEEP	CATEGORY PREVIOUSLY = OTHERWISE UNSAMPLEABLE
NO PERMISSION FROM OWNER	GW	ACCESS DENIED BY PROPERTY/WELL OWNER	ACCESS DENIED BY PROPERTY/WELL OWNER. CATEGORY PREVIOUSLY = DENIED ACCESS
NO PERMISSION FROM OWNER	GW	UNABLE TO OBTAIN PERMISSION FROM PROPERTY/WELL OWNER	CATEGORY PREVIOUSLY = UNABLE TO OBTAIN ACCESS
NO PERMISSION FROM OWNER	SW	UNABLE TO OBTAIN PERMISSION FROM OWNER	CATEGORY PREVIOUSLY = UNABLE TO OBTAIN ACCESS
NO PERMISSION FROM OWNER	SW	ACCESS DENIED BY PROPERTY OWNER	ACCESS DENIED BY PROPERTY OWNER. CATEGORY PREVIOUSLY = DENIED ACCESS
OTHERWISE UNSAMPLEABLE	GW	DEPTH TO WATER TOO DEEP FOR PURGING WITH AVAILABLE EQUIPMENT	
OTHERWISE UNSAMPLEABLE	GW	MINIMUM PURGE TIME GREATER THAN 6 HOURS	
OTHERWISE UNSAMPLEABLE	GW	CAN NOT LOCATE WELL	WELL CAN NOT BE FOUND AFTER GROUND TRUTHING
OTHERWISE UNSAMPLEABLE	GW	WELL NONFUNCTIONAL AS SAMPLING DEVICE	WELL NO LONGER SERVES AS AQUIFER SAMPLING DEVICE (I.E, DESTROYED).
OTHERWISE UNSAMPLEABLE	GW	SAMPLE WITHDRAWAL LOCATION AFTER FILTER OR SOFTENER	
OTHERWISE UNSAMPLEABLE	GW	SAMPLER CAN NOT RUN IN-PLACE PLUMBING	
OTHERWISE UNSAMPLEABLE	GW	UNSAFE SAMPLING CONDITIONS	
OTHERWISE UNSAMPLEABLE	GW	WELL DAMAGED	
OTHERWISE UNSAMPLEABLE	GW	REQUIRED PHYSICAL AND/OR GEOLOGICAL INFORMATION NOT AVAILABLE FOR WELL	
OTHERWISE UNSAMPLEABLE	SW	LESS THAN 0.5 SQUARE METERS FREE OF ATTACHED VEGETATION AT SAMPLING POINT	
OTHERWISE UNSAMPLEABLE	SW	OPEN WATER IN LAKE LESS THAN .1 HECTARE	
OTHERWISE UNSAMPLEABLE	SW	UNSAFE SAMPLING CONDITIONS	

EXCLUSION CATEGORY	WATER RESOURCE MEDIA	EXCLUSION CRITERIA	EXCLUSION CRITERIA DESCRIPTION
OTHERWISE UNSAMPLEABLE	SW	FLOOD CONDITIONS (FLOW OUT OF BANKS) AT STREAM/RIVER/CANAL RANDOM LOCATION	
UNABLE TO ACCESS	GW	UNABLE TO GET EQUIPMENT TO RANDOM LOCATION	CATEGORY PREVIOUSLY = UNABLE TO OBTAIN ACCESS
UNABLE TO ACCESS	GW	SAMPLER UNABLE TO GET EQUIPMENT INTO WELL	CATEGORY PREVIOUSLY = UNABLE TO OBTAIN ACCESS
UNABLE TO ACCESS	SW	NO OPEN WATER AVAILABLE AT LAKE SAMPLING POINT	CATEGORY PREVIOUSLY = WRONG RESOURCE/NOT PART OF TARGET POPULATION, CRITERIA PREVIOULSY = LAKE DOES NOT MEET EMAP LAKE DEFINITION (SMALL OR LARGE LAKE LESS THAN .1 HECTARE OPEN WATER)
UNABLE TO ACCESS	SW	UNABLE TO REACH RANDOM LOCATION WITHIN THREE HOURS FROM ACCESS POINT	CATEGORY PREVIOUSLY = UNABLE TO OBTAIN ACCESS
UNABLE TO ACCESS	SW	UNABLE TO GET EQUIPMENT TO RANDOM LOCATION	SAMPLER CANNOT GET NECESSARY SAMPLING EQUIPMENT TO SITE. CATEGORY PREVIOUSLY = UNABLE TO OBTAIN ACCESS
WRONG RESOURCE/NOT PART OF TARGET POPULATION	GW	WELL FALLS OUTSIDE OF ZONE/BASIN BOUNDARY	
WRONG RESOURCE/NOT PART OF TARGET POPULATION	GW	WELL IS NOT UPGRADIENT WELL AT FACILITY	
WRONG RESOURCE/NOT PART OF TARGET POPULATION	GW	WELL IN ZONE OF DISCHARGE OF PERMITTED FACILITY	
WRONG RESOURCE/NOT PART OF TARGET POPULATION	GW	WELL TAPS WRONG RESOURCE	
WRONG RESOURCE/NOT PART OF TARGET POPULATION	SW	ESTABLISHED LAKE SIZE VIA BEST PROFESSIONAL JUDGEMENT IS LESS THAN FOUR HECTARES	
WRONG RESOURCE/NOT PART OF TARGET POPULATION	SW	CHANGING RESOURCE TYPE (INCLUDING RESTORATION AREAS)	RESOURCE TYPE WILL DEFINITELY CHANGE PRIOR TO SCHEDULED SAMPLING. EXAMPLE: IMPOUNDMENT OF A FORMER RIVER TO FORM A LAKE.
WRONG RESOURCE/NOT PART OF TARGET POPULATION	SW	DRAINAGE/IRRIGATION DITCH	ADDED WITH THE ADDITION OF CANALS AS A WATER RESOURCE, 12/13/11.
WRONG RESOURCE/NOT PART OF TARGET POPULATION	SW	STREAM SEGMENT IS NOT CONNECTED TO WATERS OF THE STATE	
WRONG RESOURCE/NOT PART OF TARGET POPULATION	SW	ARTIFICIALLY CREATED LAKE OTHER THAN ESTABLISHED IMPOUNDMENTS	
WRONG RESOURCE/NOT PART OF TARGET POPULATION	SW	STORMWATER TREATMENT AREAS	
WRONG RESOURCE/NOT PART OF TARGET POPULATION	SW	WETLANDS	
WRONG RESOURCE/NOT PART OF TARGET POPULATION	SW	ROADSIDE BORROW PIT	
WRONG RESOURCE/NOT PART OF TARGET POPULATION	SW	STREAM/RIVER ARTIFICIALLY ALTERED WITH LOSS OF SINUOSITY AND BOX CUT BANKS (NOT A PRIMARY CANAL).	STREAM/RIVER ARTIFICIALLY ALTERED WITH LOSS OF SINUOSITY AND BOX CUT BANKS, FUNCTIONS AS A CANAL. ADDED 3/19/2010.

EXCLUSION CATEGORY	WATER RESOURCE MEDIA	EXCLUSION CRITERIA	EXCLUSION CRITERIA DESCRIPTION
WRONG RESOURCE/NOT PART OF TARGET POPULATION	SW	CURRENT MINING OPERATION OR HISTORIC MINING OPERATION WITHOUT RESTORATION	
WRONG RESOURCE/NOT PART OF TARGET POPULATION	SW	ARTIFICIAL LAKE, LAGOON, OR POND USED FOR AGRICULTURAL OR AQUACULTURE OPERATIONS	COMBINED AGRICULTURAL AND AQUACULTURE EXCLUSIONS INTO ONE
WRONG RESOURCE/NOT PART OF TARGET POPULATION	SW	ESTUARY	
WRONG RESOURCE/NOT PART OF TARGET POPULATION	SW	RANDOM LOCATION FALLS OUTSIDE REPORTING UNIT (ZONE)	
WRONG RESOURCE/NOT PART OF TARGET POPULATION	SW	RANDOM LOCATION LIES AT OUTFALL OF FDEP PERMITTED FACILITY (SITE LIES AT THE OUTFALL POINT OF EFFLUE	SITE LIES AT THE OUTFALL POINT OF EFFLUENT ENTERING STATE WATERS (IN MIXING ZONE OK).
WRONG RESOURCE/NOT PART OF TARGET POPULATION	SW	WATERBODY WITHIN FDEP PERMITTED FACILITY BOUNDARY	
WRONG RESOURCE/NOT PART OF TARGET POPULATION	SW	GIS COVERAGE INCORRECT, WATERBODY NOT PRESENT AT RANDOM LOCATION	

APPENDIX G: SUBAQUIFER (MT_SUBAQU)

ALACHUA FM.
ALLUVIUM AND DELTAIC DEPOSITS, HIGH LEVEL
ALUM BLUFF STAGE
ALVA CLAY MEMBER OF TAMIAMI FM.
ANASTASIA FM.
ATKINSON FM.
AUSTIN GROUP
AVON PARK LIMESTONE
AYERS LANDING MARL MEMBER OF CALOOSAHATCHEE FM.
BASALT
BASHI MARL MEMBER OF HATCHETIGBEE FM.
BAYSHORE MEMBER OF TAMIAMI FM.
BEE BRANCH MEMBER OF CALOOSAHATCHEE FM.
BIG CYPRESS GROUP
BIOTITIC GRANITE
BISCAYNE LIMESTONE AQUIFER
BISCAYNE SANDY LIMESTONE AQUIFER
BONE VALLEY FM.
BRANDYWINE FM.
BRUCE CREEK LIMESTONE
BUCATUNNA CLAY MEMBER OF BYRAM FM.
BUCKINGHAM LIMESTONE OF TAMIAMI FM.
BUCKNER MEMBER OF HAYNESVILLE FM.
BUMPNOSE MEMBER OF CRYSTAL RIVER FM.
BYRAM FM.
CALOOSAHATCHEE AQUIFER
CALOOSAHATCHEE FM.
CAMBRIAN SYSTEM
CARD SOUND DOLOMITE
CEDAR KEYS LIMESTONE
CEDAR KEYS LIMESTONE AQUIFER
CENOZOIC ERATHEM
CHARLTON FM.
CHATTAHOOCHEE FM.
CHICKASAWHAY LIMESTONE
CHICKASAWHAY LIMESTONE AND TAMPA FM. UNDIFF
CHIPOLA FM.
CHOCTAWHATCHEE FM.
CITRONELLE FM.
CLAIBORNE
COFFEE MILL HAMMOCK MEMBER OF FT. THOMPSON FM.
COHARIE FM.
COQUINA AQUIFER
COTTON VALLEY GROUP
CRETACEOUS-JURASSIC SYSTEMS
CRYSTAL RIVER FM.
DANTZLER FM.
DENKMAN SANDSTONE
DEVONIAN SYSTEM
DIABASE
DOLLAR BAY FM.
DUNCAN CHURCH BEDS MEMBER OF SUWANNEE LIMESTONE
DUPLIN MARL
DUPLIN MARL
EAGLE MILLS FORMATION
EOCENE SERIES
ESCAMBIA SAND MEMBER OF PENSACOLA CLAY
EUTAW FM.
FERRY LAKE ANHYDRITE
FLORIDAN AQUIFER
FORT PIERCE FM.
FORT PRESTON FM.
FREDERICKSBURG GROUP
FT. DENAUD MEMBER OF CALOOSAHATCHEE FM.
FT. THOMPSON FM.
GLADES GROUP
GRANITE
HATCHETIGBEE FM.
HAWTHORN GROUP
HAWTHORN LIMESTONE AQUIFER
HAWTHORN SAND AND GRAVEL AQUIFER
HAYNESVILLE FM.
HOLOCENE SERIES

HOLOCENE-PLEISTOCENE SERIES
HORNBLENDE DIORITE
HOSSTON FM.
INGLIS FM.
INTRACOASTAL FM.
JACKSON BLUFF FM.
JACKSON GROUP
KEY LARGO FM.
LA BELLE CLAY MEMBER OF TAMIAMI FM.
LA CROSSE SANDSTONE
LAKE CITY LIMESTONE
LAKE FLIRT MARL
LAKE TRAFFORD FM.
LAWSON LIMESTONE
LIMESTONE AQUIFER
LIMESTONE AQUIFER
LISBON FM.
LOUANN SALT
LOWER BONE VALLEY FM.
LOWER CRETACEOUS SERIES
LOWER MEMBER OF TUSCALOOSA FM.
LOWER ORDOVICIAN
LOWER TRINITY
MARIANNA LIMESTONE
MARINE TERRACE DEPOSITS
MASSIVE SANDSTONE MEMBER OF LOWER TUSCALOOSA FM.
MELBOURNE BED OF PAMLICO FM.
MESOZOIC ERATHEM
MIAMI OOLITE
MICCOSUKEE FM.
MIDDLE MEMBER OF TUSCALOOSA FM.
MIDWAY FM.
MIOCENE COARSE CLASTICS
MOORINGSPORT FM.
MURDOCK STATION MEMBER OF TAMIAMI FM.
NAPLES BAY GROUP
NAVARRO GROUP
NEWARK GROUP
NONARTESIAN SAND AQUIFER
NONARTESIAN SAND AQUIFER
NONARTESIAN SAND AQUIFER
NONARTESIAN SAND AQUIFER
NORPHLET SANDSTONE
NORTHWESTERN FLORIDA SAND AND GRAVEL AQUIFER
NOT YET DETERMINED
OAK GROVE SAND MEMBER OF SHOAL RIVER FM.
OCALA GROUP
OCALA LIMESTONE
OCALA LIMESTONE LOWER MEMBER
OCALA LIMESTONE UPPER MEMBER
OCEAN REEF GROUP
OCHOPEE LIMESTONE MEMBER OF TAMIAMI FM.
OKALOAKOOCHEE MEMBER OF FT. THOMPSON FM.
OLDSMAR LIMESTONE
OLDSMAR LIMESTONE AQUIFER
OLIGOCENE SERIES
ORDOVICIAN SYSTEM
ORTONA SAND MEMBER OF TAMIAMI FM.
PALEOCENE SERIES
PALEOZOIC ERATHEM
PALUXY FM.
PAMLICO FM.
PENHOLWAY FM.
PENSACOLA CLAY
PENSACOLA CLAY, LOWER MEMBER
PENSACOLA CLAY, UPPER MEMBER
PILOT SANDSTONE MEMBER OF TUSCALOOSA FM.
PINE ISLAND FM.
PINECREST SAND
PLEISTOCENE SERIES
PLIOCENE SERIES
PLIOCENE-PLEISTOCENE SERIES
PRECAMBRIAN ERATHEM
PUNTA GORDA ANHYDRITE
QUARTERNARY SYSTEM

RED BAY FM.
RHYOLITE
ROBERTS ZONE OF SUNNILAND LIMESTONE
RODESSA FM.
SAND AND GRAVEL AQUIFER
SAND AND GRAVEL AQUIFER
SAND AQUIFER
SANDS AND GRAVELS UNDIFFERENTIATED
SANDSTONE AQUIFER
SELMA GROUP
SHELL MARL AQUIFER
SHOAL RIVER FM.
SILURIAN SYSTEM
SILVER BLUFF FM.
SMACKOVER FM.
ST. JOE LIMESTONE
ST. MARKS FM.
STEINHATCHEE DOLOMITE MEMBER OF CRYSTAL RIVER FM.
SUNDERLAND FM.
SUNNILAND LIMESTONE
SUWANNEE LIMESTONE
TALBOT FM.
TALLAHASSEE LIMESTONE
TALLAHATTA FORMATION
TAMIAMI FM.
TAMIAMI FM. LIMESTONE AQUIFER
TAMIAMI FM. SHELL MARL AQUIFER
TAMPA LIMESTONE
TAYLOR GROUP
TERRACE DEPOSITS, LOWER, MARINE, AND ESTUARINE
TERRACE SANDS
TERTIARY SYSTEM
TORREYA FM.
TRIASSIC SYSTEM
TRINITY GROUP
TUFF
TUSCALOOSA FM.
UNDIFFERENTIATED SAND AND CLAY
UNDIFFERENTIATED SAND, CLAY, AND SHELLS
UPPER BONE VALLEY
UPPER CRETACEOUS SERIES
UPPER JURASSIC
UPPER MEMBER OF TUSCALOOSA FM.
UPPER MIOCENE SERIES
UPPER TRIASSIC SERIES
UPPER TRINITY
VICKSBURG GROUP
WASHITA GROUP
WERNER ANHYDRITE
WICOMICO FM.
WILCOX GROUP
WILLISTON FM.
WILLISTON-INGLIS
YELLOW RIVER FM.