Water Quality Database

Database Design and Data Dictionary

Prepared For:

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BACKGROUND

Since the formation of the Chesapeake Bay Program in 1983, the Chesapeake Bay Program Office (CBPO) acted as a central repository for environmental data related to the Chesapeake Bay and its tributaries. While this type of data management system provided some level of control over the timely collection of data and the quality of those data, it also created problems such as:

- *Data accessibility*
- *Database inconsistencies*
- *Duplication of effort*

Data located at the CBPO were physically stored on several different and disparate computing platforms running different operating systems. The data stored in numerous formats included:

- *Semi-relational dBase databases*
- *Non-relational and non-normalized SAS data sets*
- *ASCII text files*
- *Spreadsheets and,*
- *Document tables*

This situation made it difficult for data analysts to retrieve different types of data required to determine possible cause and effect relationships

Throughout the years, State and federal government agencies and several information technology companies processed the different types of environmental data. Depending upon the type of data and the amount of resources devoted to managing it, at both the State and federal levels, different levels of quality assurance (QA) were performed on the of data. In some cases, QA procedures performed at the CBPO duplicated efforts made at the State level.

A distributed data management system, the Chesapeake Information Management System (CIMS), was developed to combat these problems. In contrast to the old system where all Chesapeake Bay environmental data was stored at the CBPO, CIMS will transfer ownership of the data back to the agencies that generate the data. These data generating agencies will in turn provide their own data quality assurance and adhere to mutually agreed upon data standards. These agencies will also have the opportunity to serve their data over the Internet, thereby enabling access to the data to any legitimate user that has access to the Internet. As part of the implementation of CIMS, a relational database structure for managing Chesapeake Bay related environmental data was developed. The key to the success of a distributed, relational data management system lies in the willingness of the data generators to take ownership of and responsibility for their data and in their adherence to the established data standards for public access to the data. This document describes the components of this structure.

The benefits of a distributed data management system over the current, centralized data management system are many. The most obvious benefit is that a distributed system empowers

data generators, allowing for easier access to their data and hopefully increasing the utility of the data beyond Chesapeake Bay Program activities. The other key benefits of the CIMS structure relate to the implementation of a relational database structure. In a relational database, data are stored in tables that are related to one another by common fields. These common fields are set as primary and/or foreign keys. The creation of relationships between tables using key fields allows for the enforcement of referential integrity. Referential integrity prohibits the data manager from entering records into a child table containing a foreign key for which there is not an associated primary key in the parent table. While this document is not intended to provide a complete discussion of the concepts of a relational database, it is the intention of the CBPO to provide limited assistance to data managers at distributed data centers.

INTRODUCTION

Water Quality Data

Historically, water quality data compiled by the Chesapeake Bay Program Office (CBPO) was processed using the Statistical Analysis System (SAS) programming language and stored as permanent SAS data sets. Each participating agency submitted either a SAS data set or an ASCII delimited text file containing ambient water quality monitoring data associated with samples collected during a particular month or entire year. The data set was then processed using a quality assurance program called MONITOR, which performed a series of checks pertaining to station name, value ranges, method codes, etc.

The resulting data sets were stored in the appropriate subdirectory on the CBPO DEC Alpha. Approximately 400 SAS data sets comprised all of the Chesapeake Bay and tributary water quality monitoring data from 1983 to 1998. A program named BAYSTATS allowed users with DEC Alpha accounts to retrieve these data using an input form to narrow the data search.

This type of data management system was inefficient both in terms of its structure and its accessibility to users. Each agency's data were stored as individual monthly data sets with a predefined horizontal structure that precluded the entry of additional parameters and made quality assurance procedures difficult to execute. Furthermore, there was a significant amount of redundant data. Each record in every data set contained information that pertained solely to the water quality station, not to the samples and resultant parameter values. Access to the data was also limited to those users with DEC alpha accounts.

Because of these weaknesses, the Chesapeake Bay Program decided to develop a relational database management system (RDBMS) for water quality data. Referential integrity was utilized to enforce "business rules" related to value qualifiers, method codes, problem codes, weather codes, etc. Additionally, the database was made available via the World Wide Web to anyone with access to Internet browser software (e.g. Netscape, Internet Explorer).

The Relational Concept

Information obtained through water quality monitoring programs is most efficiently grouped into subsets that are related to one another through common elements. In the Chesapeake Bay Program relational database, water quality monitoring information is stored in the WQ_CRUISES, WQ_EVENT, WQ_CHLOROPHYLL, WQ_KD, WQ_DATA_BMDL, WQ_DATA, and WQ_QAQC tables. Information related specifically to monitoring stations (e.g. latitude, longitude, basin, etc.) is stored in the WQ_STATIONS table.
When an agency collects water quality samples at a group of stations over a period of one or more days, the information related to this "cruise" will be stored in the WQ_CRUISES table. Information related to sampling events conducted at individual stations during a cruise will be

stored in the WQ_EVENT table. Parameter values obtained either by field measurement or laboratory analysis will be stored in the WQ_CHLOROPHYLL table, the WQ_KD table, the WQ_DATA_BMDL table, the WQ_DATA, or the WQ_QAQC table depending upon its type. Information contained in the associated look-up tables supports the referential integrity of the database. Additional tables were also developed for future data presentation and the data format conversion between data collection programs.

The Relational Database Structure

The following relational data structure for water quality data contains descriptions of the primary data tables as well as the numerous lookup tables required to define in detail the codes contained in the primary tables. The table columns in this document used to describe the fields in the database tables are described below.

- **FIELD** - *This column contains the field name in the database table as well as the designation of the field as either a primary key (PK), a foreign key (FK), a not null (NN) field, or an optional (O) field. Primary key fields, by definition, are not null. Foreign key fields are restricted to a set list of values in a lookup table. If the value is not known, it is null. However, if a foreign key field is also part of a combined primary key, it can't be null. Fields which are neither primary nor foreign key fields, but which have been designated as not null are those fields deemed essential to certain applications of the database. Optional fields will serve to increase the functionality of the database from a user interface perspective. It will be up to the individual database manger/administrator as to whether or not these fields will be included.*

- **DESCRIPTION** - *This column contains a description of the database table field.*

- **TYPE (FORMAT)** - *This column specifies the field type as text, number, small integer, or date/time; it also includes the format of the field or the precision of the numeric value where appropriate (primary tables only).*

- **LENGTH (BYTES)** - *This column specifies the maximum length, text or numeric, of a field as well as the internal database storage requirement (primary tables only). For text fields, the internal storage requirement is equal to its length.*

Primary Tables

Within the proposed design, the primary tables WQ_EVENT and WQ_DATA are used to store the vast majority of the data contained within the database. The WQ_EVENT table contains all sampling event data that are not depth-dependent (e.g. weather parameters). It also contains fields specifying both the type and origin of the data. The WQ_DATA table contains all depth dependent ambient water quality sampling event data as well as secchi depth data (not depth dependent).

WQ_CRUISES

FIELD	DESCRIPTION	TYPE (FORMAT)	LENGTH (BYTES)
CRUISE	CBP cruise ID	Text	10
CRUISE_ID (PK, FK)	Agency cruise ID (YYYYMMA)	Text	7
SOURCE (PK, FK)	Code identifying agency/contractor that generated the data	Text	10
AGENCY (PK, FK)	Code identifying agency responsible for submitting/serving the data	Text	10
PROGRAM (PK, FK)	Agency monitoring program code	Text	10
PROJECT (PK, FK)	Code identifying the project under which the monitoring was conducted (MAIN,TRIB)	Text	10
START_DATE	Starting date of cruise	Date/Time (MM/DD/YYYY)	8
END_DATE	Ending date of cruise	Date/Time (MM/DD/YYYY)	8
COMMENTS	Comments related to sampling event (e.g. parameters not sampled)	Memo	No limit

The WQ_CRUISES table is used to store information pertaining to an agency cruise. The COMMENTS field can be used to store information about the cruise that was historically submitted as part of the accompanying documentation file. For example stations not sampled during a cruise could be noted in this field along with the reason why samples were not collected.

WQ_EVENT

FIELD	DESCRIPTION	TYPE (FORMAT)	LENGTH (BYTES)
SOURCE (PK, FK)	Code identifying agency/contractor that generated the data	Text	10
AGENCY (FK)	Code identifying agency responsible for submitting/serving the data	Text	10
PROGRAM (FK)	Agency monitoring program code	Text	10

FIELD	DESCRIPTION	TYPE (FORMAT)	LENGTH (BYTES)
PROJECT (PK, FK)	Code identifying the project under which the monitoring was conducted (MAIN,TRIB)	Text	10
CRUISE (FK)	Agency cruise ID	Text	8
STATION (PK, FK)	CBP station name	Text	15
SAMPLE_DATE (PK)	Date on which the sample was collected	Date/Time (MMDDYYYY)	8
SAMPLE_TIME (PK)	Time at which the sample was collected	Date/Time (HH24:MM)	8
TOTAL_DEPTH	Total station depth	Number (Single)	5,1 (4)
UPPER_PYCNOCLINE	Depth of upper pycnocline	Number (Single)	5,1 (4)
LOWER_PYCNOCLINE	Depth of lower pycnocline	Number (Single)	5,1 (4)
AIR_TEMP	Air temperature (degrees Celsius) measured at beginning of sampling event	Number (Single)	4,1 (4)
WIND_SPEED	Code identifying wind speed range estimated at beginning of sampling event	Text	2
WIND_DIRECTION	Code identifying wind direction estimated at beginning of sampling event	Text	3
WAVE_HEIGHT	Code identifying wave height range estimated at beginning of sampling event	Text	2
CLOUD_COVER	Code identifying percent cloud cover range estimated at beginning of sampling event	Text	2
PRECIP_TYPE	Code identifying type of precipitation at beginning of sampling event	Text	2
TIDE_STAGE	Code identifying tide stage at the beginning of sampling event	Text	2
GAGE_HEIGHT	Gage height (ft)	Number (Single)	5,1 (4)
PRESSURE	Barometric pressure (mm Hg)	Number (Single)	5,1 (4)
COMMENTS	Comments related to sampling event (e.g. parameters not sampled)	Memo	No limit

WQ_DATA

FIELD	DESCRIPTION	TYPE (FORMAT)	LENGTH (BYTES)
SOURCE (PK, FK)	Code identifying agency or contractor that generated the data	Text	10
PROJECT (PK, FK)	Code identifying the project under which the monitoring was conducted (MAIN,TRIB)	Text	10
STATION (PK, FK)	CBP station name	Text	15
SAMPLE_DATE (PK)	Date on which the sample was collected	Date/Time (MMDDYYYY)	8
SAMPLE_TIME (PK)	Time at which the sample was collected	Date/Time (HH24:MM)	8
DEPTH (PK)	Depth at which the sample was	Number (Single)	5,1 (4)

FIELD	DESCRIPTION	TYPE (FORMAT)	LENGTH (BYTES)
	collected		
SAMPLE_TYPE (PK, FK)	Code identifying type of sample collected (e.g. D=discrete, C=composite, etc.)	Text	5
SAMPLE_ID (PK, FK)	Code identifying the sample description and number (e.g. FS1=first subsample of field split sample)	Text	7
LAYER (PK, FK)	Code identifying water column layer at which sample was collected	Text	2
PARAMETER (PK, FK)	Code identifying parameter name	Text	10
QUALIFIER (FK)	Parameter value qualifier code (e.g. > = less than)	Text	5
VALUE	Parameter value	Number (Single)	12,4 (4)
UNITS (FK)	Abbreviation for units of parameter value	Text	10
METHOD (FK)	Method code identifying field/laboratory test procedure	Text	7
LAB (FK)	Laboratory code where analysis was performed	Text	15
PROBLEM (FK)	Problem code associated with parameter value	Text	2
COMMENTS	Comments related to sampled parameter value	Memo	No limit

Both these tables are used to store data which is essential to water quality data analysts in their daily tasks. The tables are linked or related by their five common fields (i.e. SOURCE, PROJECT, STATION, SAMPLE_DATE, and SAMPLE_TIME). Creating this one-to-many relationship between WQ_EVENT and WQ_DATA prevents the data manager from entering parameter values into the WQ_DATA table without first entering the associated sampling event data in the WQ_EVENT table. This provides an automatic layer of quality assurance to the database.

WQ_DATA_BMDL

FIELD	DESCRIPTION	TYPE (FORMAT)	LENGTH (BYTES)
SOURCE (PK, FK)	Code identifying agency or contractor that generated the data	Text	10
PROJECT (PK, FK)	Code identifying the project under which the monitoring was conducted (MAIN,TRIB)	Text	10
STATION (PK, FK)	CBP station name	Text	15
SAMPLE_DATE (PK)	Date on which the sample was collected	Date/Time (MMDDYYYY)	8
SAMPLE_TIME (PK)	Time at which the sample was collected	Date/Time (HH24:MM)	8
DEPTH (PK)	Depth at which the sample was collected	Number (Single)	5,1 (4)

FIELD	DESCRIPTION	TYPE (FORMAT)	LENGTH (BYTES)
SAMPLE_TYPE (PK, FK)	Code identifying type of sample collected (e.g. D=discrete, C=composite, etc.)	Text	5
SAMPLE_ID (PK, FK)	Code identifying the sample description and number (e.g. FS1=first subsample of field split sample)	Text	7
LAYER (PK, FK)	Code identifying water column layer at which sample was collected	Text	2
PARAMETER (PK, FK)	Code identifying parameter name	Text	10
VALUE	Parameter value	Number (Single)	12,4 (4)
UNITS (FK)	Abbreviation for units of parameter value	Text	10
METHOD (FK)	Method code identifying field/laboratory test procedure	Text	7
LAB (FK)	Laboratory code where analysis was performed	Text	15
PROBLEM (FK)	Problem code associated with parameter value	Text	2
COMMENTS	Comments related to sampled parameter value	Memo	No limit

This table is used to store parameter values below the method detection limit (MDL). Because of their sensitive nature, these data will be available only by request of the Chesapeake Bay Program Water Quality Data Manager. The table structure is identical to that of the WQ_DATA table except that the QUALIFIER field has been eliminated.

WQ_CHLOROPHYLL

FIELD	DESCRIPTION	TYPE (FORMAT)	LENGTH (BYTES)
SOURCE (PK, FK)	Code identifying agency or contractor that generated the data	Text	10
PROJECT (PK, FK)	Code identifying the project under which the monitoring was conducted (MAIN,TRIB)	Text	10
STATION (PK, FK)	CBP station name	Text	15
SAMPLE_DATE (PK)	Date on which the sample was collected	Date/Time (MM/DD/YYYY)	8
SAMPLE_TIME (PK)	Time at which the sample was collected	Date/Time (HH24:MM)	8
DEPTH (PK)	Depth at which the sample was collected (meters)	Number (Single)	5,1 (4)
SAMPLE_TYPE (PK, FK)	Code identifying type of sample collected (D = discrete sample, ISM = in-situ measurement)	Text	5
SAMPLE_ID (PK, FK)	Code identifying the sample description and number (e.g. FS1 = first sub-sample of field split sample)	Text	7
LAYER (PK, FK)	Code identifying water column layer at	Text	3

FIELD	DESCRIPTION	TYPE (FORMAT)	LENGTH (BYTES)
	which sample was collected		
SAMPLE_VOLUME	Chlorophyll sample volume (liters)	Number (Single)	4,2 (4)
EXTRACT_VOLUME	Chlorophyll extract volume (milliliters)	Number (Single)	4,2 (4)
LIGHT_PATH	Light path used in analysis (centimeters)	Integer	1 (2)
OD480B	Optical density reading (uE/m**2/s) taken at a wavelength of 480 nm, before acidification	Number (Single)	6,3 (4)
OD510B	Optical density reading (uE/m**2/s) taken at a wavelength of 510 nm, before acidification	Number (Single)	6,3 (4)
OD630B	Optical density reading (uE/m**2/s) taken at a wavelength of 630 nm, before acidification	Number (Single)	6,3 (4)
OD645B	Optical density reading (uE/m**2/s) taken at a wavelength of 480 nm, before acidification	Number (Single)	6,3 (4)
OD647B	Optical density reading (uE/m**2/s) taken at a wavelength of 647 nm, before acidification	Number (Single)	6,3 (4)
OD663A	Optical density reading (uE/m**2/s) taken at a wavelength of 663 nm, after acidification	Number (Single)	6,3 (4)
OD663B	Optical density reading (uE/m**2/s) taken at a wavelength of 663 nm, before acidification	Number (Single)	6,3 (4)
OD664B	Optical density reading (uE/m**2/s) taken at a wavelength of 664 nm, before acidification	Number (Single)	6,3 (4)
OD665A	Optical density reading (uE/m**2/s) taken at a wavelength of 665 nm, after acidification	Number (Single)	6,3 (4)
OD750A	Optical density reading (uE/m**2/s) taken at a wavelength of 750 nm, after acidification (corrected for turbidity)	Number (Single)	6,3 (4)
OD750B	Optical density reading (uE/m**2/s) taken at a wavelength of 750 nm, before acidification (corrected for turbidity)	Number (Single)	6,3 (4)
METHOD (FK)	Method code identifying field measurement procedure	Text	7
PROBLEM (FK)	Problem code associated with chlorophyll analysis	Text	2
LAB (FK)	Lab code identifying where the analysis was conducted	Text	10
COMMENTS	Comments related to chlorophyll analysis	Memo	No limit

The WQ_CHLOROPHYLL table contains optical density readings used to calculate total chlorophyll-a, active chlorophyll-a, pheophytin, trichromatic chlorophyll-a, trichromatic chlorophyll-b, and trichromatic chlorophyll-c.

WQ_KD

FIELD	DESCRIPTION	TYPE (FORMAT)	LENGTH (BYTES)
SOURCE (PK, FK)	Code identifying agency or contractor that measured the data	Text	10
PROJECT (PK, FK)	Code identifying the project under which the monitoring was conducted (MAIN,TRIB)	Text	10
STATION (PK, FK)	CBP station name	Text	15
SAMPLE_DATE (PK)	Date on which the PAR readings were taken	Date/Time (MM/DD/YYYY)	8
SAMPLE_TIME (PK)	Time at which the PAR readings were taken	Date/Time (HH24:MM)	8
DEPTH (PK)	Depth at which the PAR readings were taken (meters)	Number (Single)	5,1 (4)
SAMPLE_ID (PK, FK)	Code identifying the sample description and number (e.g. M1=first measurement, M2 = second measurement)	Text	7
EPAR_S	PAR reading measured from the boat while or just before PAR readings were taken at depth	Number (Single)	6,3 (4)
EPARU_Z	PAR reading taken at depth (up sensor)	Number (Single)	6,3 (4)
EPARD_Z	PAR reading taken at depth (down sensor)	Number (Single)	6,3 (4)
UNITS (FK)	Units for PAR (always UM/M**2/S)	Text	10
METHOD (FK)	Method code identifying field measurement procedure	Text	7
PROBLEM (FK)	Problem code associated with PAR analysis	Text	2
COMMENTS	Comments related to the collection of PAR readings	Memo	No limit

Photosynthetic active radiation (PAR) readings are taken in order to calculate a light attenuation coefficient for the water column. Because these data are collected using the same type of meter (i.e. one method for all) and have the same units, they can be stored in one data record.

WQ_QAQC

FIELD	DESCRIPTION	TYPE (FORMAT)	LENGTH (BYTES)
PROJECT (PK, FK)	Code identifying the project under which the monitoring was conducted (MAIN,TRIB)	Text	10
SOURCE (PK, FK)	Code identifying agency/contractor that generated the data	Text	10
STATION (PK, FK)	Monitoring station name	Text	15
SAMPLE_DATE_TIME (PK)	Date and time the sample was collected	Date/Time	

FIELD	DESCRIPTION	TYPE (FORMAT)	LENGTH (BYTES)
DEPTH (PK)	Depth at which the sample was collected	Number (Single)	5,1 (4)
LAYER (PK, FK)	Code identifying water column layer at which sample was collected	Text	2
SAMPLE_REPLICATE_ TYPE (PK, FK)	Code identifying the sample description and number (e.g. FS1=first subsample of field split sample)	Text	7
PARAMETER (PK, FK)	Code identifying parameter name	Text	10
QUALIFIER (FK)	Code identifying a reported value outside the method detection limit	Text	5
REPORTED_VALUE	The reported value of the parameter	Number (Single)	12,4 (4)
UNITS (FK)	Units of measurement for the reported value of the parameter	Text	10
SPKCONC	The concentration of the spike that was added to the background sample	Number (Single)	12,4 (4)
REPS_STDDEV	The number of replicates used to calculate the standard deviation	Number (Single)	2
PERCENT_REC	Percent recovery	Number (Single)	12,3 (4)
STDDEV	Standard deviation	Number (Single)	12,4 (4)
SAMP_SPK	The measured value of the mixture of the spike with the background sample	Number (Single)	12,4 (4)
PROBLEM (FK)	Problem code associated with parameter value	Text	2
LAB (FK)	Laboratory code where analysis was performed	Text	15
METHOD (FK)	Method code identifying field/laboratory test procedure	Text	7
DETAILS	Comments related to this sample record	Memo	No limit
AGENCY	Code identifying agency responsible for submitting/serving the data	Text	10
PROGRAM	Agency monitoring program code	Text	10
CRUISE	CBP cruise ID	Text	10

The WQ_QAQC table contains the quality assurance/quality control data run by each lab when analyzing mainstem data. This table is not a required table for the submission of tidal and non-tidal tributary data.

Lookup Tables

Primary tables contain many "code" fields that are described or defined in detail in related lookup tables. By creating one-to-many relationships between the lookup tables and the primary data tables and enforcing referential integrity, data managers are restricted to entering only valid lookup table values into the primary data tables.

WQ_STATIONS

FIELD	DESCRIPTION	TYPE (FORMAT)	LENGTH (BYTES)
STATION (PK)	CBP station name	Text	15
DESCRIPTION	Station description	Text	50
WATER_BODY (NN)	Water body (e.g. river, bay, creek, run) in which the station is located	Text	30
CBP_BASIN (O,FK)	Chesapeake Bay Program basin in which the station is located	Text	25
TS_BASIN (O, FK)	Tributary Strategy basin with which the station is associated	Text	25
BASIN (O)	Largest drainage basin (aside from Chesapeake Bay) with which the station is associated	Text	30
SUBBASIN (O)	Second largest drainage basin with which the station is associated (some stations will not have this attribute)	Text	30
SUBBASIN2 (O)	Third largest drainage basin with which the station is associated (some stations will not have this attribute)	Text	30
SEG_1985 (FK)	Code specifying the 1985 monitoring segment in which the station is located	Text	6
SEG_1998 (FK)	Code specifying the 1998 monitoring segment in which the station is located	Text	6
SEG_2003 (FK)	Code specifying the 2003 monitoring segment in which the station is located	Text	6
LATITUDE (NN)	Latitude of station (decimal degrees)	Number (Double)	9 (8)
LONGITUDE (NN)	Longitude of station (negative decimal degrees)	Number (Double)	10 (8)
HUC8 (NN, FK)	8-digit USGS hydrologic unit code	Text	8
HUC11 (NN, FK)	11-digit hydrologic unit code	Number (Integer)	2
FIPS (NN, FK)	Federal Information Processing System code identifying the state and county in which the station is located	Text	5
WSM_SEG (O, FK)	Code specifying the watershed model segment in which the station is located	Text	3
STORET_STATION	STORET code for the station	Text	8
FALL_LINE (O)	Code specifying whether the station is located above or below the geologic fall line or the zone of tidal influence (river input) (A = above, B = below)	Text	1
LATITUDE (NN)	Latitude of station (decimal degrees)	Number (Double)	9 (8)
LONGITUDE (NN)	Longitude of station (negative decimal degrees)	Number (Double)	10 (8)
UTM_X	UTM_X coordinates, zone 18	Number (Double)	8

FIELD	DESCRIPTION	TYPE (FORMAT)	LENGTH (BYTES)
UTM_Y	UTM_Y coordinates, zone 18	Number (Double)	8
LL_DATUM (O)	Associated datum of the latitude and longitude values (NAD27 or NAD83)	Text	5
COMMENTS	Comments related to station	Memo	No limit

The WQ_STATIONS table contains CBP water quality station names and associated attributes. Its primary use will be to establish common geographic referencing across data types. Because the Chesapeake Bay Program has historically used several "basin" designations (e.g. CBP_BASIN, TS_BASIN) to provide summary information to program participants and the public, these naming conventions must be preserved in order to maintain historical perspectives of the data. The newly proposed "basin" designations (e.g. WATER_BODY, BASIN, SUBASIN, SUBASIN2) are meant to provide the user with a more detailed geographic representation of point data to the subwatershed or local level. By doing so, users will be able to retrieve information for water quality stations located within small creeks, and will no longer be restricted to large basins. The following is a partial station table list. The complete table may be viewed and downloaded from the CBP website, www.chesapeakebay.net, Data Hub, Water Quality, CBP Water Quality Database (1984-present), Documentation, Water Quality Data Dictionary.

STATION	DESCRIPTION
01531500	SUSQUEHANNA RIVER AT TOWANDA PA
01540500	SUSQUEHANNA RIVER AT DANVILLE PA
01553500	WEST BRANCH SUSQUEHANNA RIVER AT LEWISBURG PA
01567000	JUNIATA RIVER AT NEWPORT PA
01568000	SHERMAN CREEK AT SHERMANS DALE PA
01568750	STONY CREEK AT WATER TANK TRAIL NEAR DAUPHIN PA
01570500	SUSQUEHANNA RIVER AT HARRISBURG PA
01571000	PAXTON CREEK NEAR PENBROOK PA
01573500	SWATARA CREEK NEAR HERSHEY PA
01574000	WEST CONEWAGO CREEK NEAR MANCHESTER PA
01575500	CODORUS CREEK NEAR YORK PA
01575585	CODORUS CREEK AT PLEASUREVILLE PA
01576000	SUSQUEHANNA RIVER AT MARIETTA PA
01576754	CONESTOGA RIVER AT CONESTOGA PA
AAG01	APPROXIMATELY 50 METERS DIRECTLY INSIDE THE KENILWORTH MARSH INLET FROM THE ANACOSTIA. SITE IS WITHIN THE OPEN WATER BETWEEN THE VEGETATED ISLAND AND THE FRINGE MARSH OF MASS FILL III.
AAG02	A HIGH MARSH STATION LOCATION WITHIN MASS FILL I APPROXIMATELY 5 METERS BEYOND THE CANOE LAUNCH AREA AT THE END OF THE DREDGED TIDAL GUT. THE INVERTEBRATE TRANSECT EXTENDS NORTH TOWARD THE RIVER TRAIL ROAD.
ANA0082	ANACOSTIA RIVER BRIDGE ON BLADENBURG ROAD; CHARACTERIZES FREE-FLOWING FRESHWATER
ANA01	NEW YORK AVENUE BRIDGE 50M UPSTREAM OF WESTBOUND BRIDGE
ANA02	AQUATIC GARDENS NEAR MIDDLE RIVER BEND
ANA03	AQUATIC GARDENS INLET UPSTREAM SIDE
ANA04	NATIONAL ARBORETUM 200M DOWNSTREAM OF RIVER BEND
ANA05	HICKEY HILL 200M UPSTREAM OF HICKEY RUN
ANA06	KINGMAN LAKE; DOWNSTREAM SIDE
ANA07	UPSTREAM OF BENNING ROAD PEPCO POWER PLANT
ANA08	BENNING ROAD POWER PLANT; SOUTHERN MOST STACK
ANA09	KINGMAN ISLAND; ACROSS FROM GAZEBO ON EAST BANK
ANA10	UPSTREAM OF EAST CAPITAL STREET BRIDGE
ANA11	KINGMAN ISLAND SOUTH AT DAYMARKER #5
ANA12	KINGMAN LAKE OUTLET; UPSTREAM SIDE

ANA13	RAILROAD BRIDGE; 50M DOWNSTREAM OF BRIDGE
ANA14	PENNSYLVANIA AVENUE; MARINA SOUTH DOCK
ANA15	PENNSYLVANIA AVENUE SOUTH; 100M DOWNSTREAM OF BRIDGE
ANA16	ANACOSTIA PARK POOL ACROSS FROM MARINA FLAGPOLE
ANA17	11TH STREET BRIDGE ON UPSTREAM SIDE
ANA18	NAVY YARD EAST; 200M WEST OF 11TH STREET BRIDGE
ANA19	NAVY YARD; ACROSS FROM EAST PIER
ANA20	NAVY YARD WEST; NEXT TO WEST PIER
ANA21	100M NORTH OF SOUTH CAPITOL STREET BRIDGE
ANA22	300M SOUTH OF SOUTH CAPITOL STREET BRIDGE
ANA23	BUZZARD POINT POWER PLANT; BETWEEN FL#3 AND NUN #2
ANA24	BUZZARD POINT MARINA; SOUTH OF EAST DOCK
ANA25	GREENLEAF POINT; APPROXIMATELY 100M SOUTH OF CAN #1
ANA26	WASHINGTON CHANNEL; 200M SOUTH OF RED AND GREEN NUN
ANA27	HAINS POINT; 100M NORTH OF N #2
ANA29	AT RED AND GREEN FLASHER NEAR POTOMAC CONFLUENCE
ANA30	ACROSS THE ANACOSTIA RIVER MAIN NAVIGATIONAL CHANNEL; ACROSS THE MOST DOWNSTREAM DOCK OF THE BLADENBURG MARINA
ANT0044	ANTIETAM CREEK AT GAGE STATION BELOW BURNSIDE BRIDGE NEAR SHAPPSBURG; CHARACTERIZES FREE-FLOWING FRESHWATER
ANT0203	ANTIETAM CREEK AT BRIDGE ON PROFFENBURGER ROAD NEAR FUNKSTOWN; CHARACTERIZES FREE-FLOWING FRESHWATER
ANT0366	ANTIETAM CREEK AT GAGE STATION WEST OF MD ROUTE 60 AT ROCKY FORGETENDSVILLE; CHARACTERIZES FREE-FLOWING FRESHWATER
BDK0000	BRADDOCK RUN US 40 AND BRADDOCK STATION BRIDGE; CHARACTERIZES FREE-FLOWING FRESHWATER
BPC0035	BIG PIPE BRIDGE ON BIGGS FORD ROAD; CHARACTERIZES FREE-FLOWING FRESHWATER
BXK0031	BACK CREEK; MANOKIN RIVER
C-1	MOUTH OF CHERRYSTONE INLET
C-2	IN CHANNEL OFF WECOAT COVE
C-3	OFF EYREHALL NECK
CAC0031	CATOCTIN CREEK NEAR MOUTH AT BRIDGE ON MD ROUTE 464; CHARACTERIZES FREE-FLOWING FRESHWATER
CAC0148	CATOCTIN CREEK NEAR BRIDGE ON MD ROUTE 17 AT GAGE STATION; CHARACTERIZES FREE-FLOWING FRESHWATER
CB1.0	SUSQUEHANNA RIVER AT CONOWINGO DAM
CB1.1	MOUTH OF SUSQUEHANNA RIVER; HEAD OF BAY; MID-CHANNEL
CB2.1	SOUTHWEST OF TURKEY POINT; UPPER LIMIT OF TRANSITION ZONE; MID-CHANNEL
CB2.2	WEST OF STILL POND NEAR BUOY R-34; MIDDLE OF TRANSITION ZONE; MID-CHANNEL
CB3.1	SOUTHEAST OF GUNPOWDER NECK BETWEEN BUOY 24A AND 24B; LOWER LIMIT OF TRANSITION ZONE; MID-CHANNEL
CB3.2	NORTHWEST OF SWAN POINT NEAR BUOY R-10; LOWER ESTUARINE REACH; MID-CHANNEL
CB3.3C	NORTH OF BAY BRIDGE; CHARACTERIZES MID-CHANNEL
CB3.3E	NORTHEAST OF BAY BRIDGE; CHARACTERIZES EASTERN SHORE
CB3.3W	NORTHWEST OF BAY BRIDGE; CHARACTERIZES WESTERN SHORE
CB4.0C	SOUTH OF BAY BRIDGE; CHARACTERIZES MID-CHANNEL;SPECIAL DUMPING STUDY 6/90-10/90
CB4.0E	SOUTHEAST OF BAY BRIDGE; CHARACTERIZES EASTERN SHORE
CB4.0W	SOUTHWEST OF BAY BRIDGE; CHARACTERIZES WESTERN SHORE
CB4.1C	SOUTHWEST OF KENT POINT; CHARACTERIZES MID-CHANNEL
CB4.1E	SOUTH OF KENT POINT; BOUNDARY BETWEEN CB4 AND EE1; RIVER CHANNEL
CB4.1W	SOUTHEAST OF HORSESHOE POINT; CHARACTERIZES WESTERN SHORE
CB4.2C	SOUTHWEST OF TILGHMAN ISLAND NEAR BUOY CR; CHARACTERIZES MID-CHANNEL
CB4.2E	SOUTHWEST OF TILGHMAN ISLAND; CHARACTERIZES EASTERN SHORE
CB4.2W	NORTHWEST OF PLUM POINT; CHARACTERIZES WESTERN SHORE
CB4.3C	EAST OF DARES BEACH NEAR BUOY R-64; CHARACTERIZES MID-CHANNEL
CB4.3E	MOUTH OF CHOPTANK RIVER; BOUNDARY BETWEEN CB4 AND EE2
CB4.3W	EAST OF DARES BEACH; CHARACTERIZES WESTERN SHORE
CB4.4	NORTHEAST OF COVE POINT; MID-CHANNEL
CB5.1	EAST OF CEDAR POINT AND PR BUOY; MID-CHANNEL
CB5.1W	MID-CHANNEL BETWEEN CEDAR POINT AND COVE POINT; CHARACTERIZES LOWER ESTUARINE
CB5.2	EAST OF POINT NO POINT; MID-CHANNEL
CB5.3	NORTHEAST OF SMITH POINT AT VIRGINIA STATE LINE; MID-CHANNEL; OVERLAP STATION WITH VIRGINIA

CB5.4	CENTRAL CHESAPEAKE BAY (DEEP MAIN CHANNEL)
CB5.4W	CENTRAL CHESAPEAKE BAY AT THE MOUTH OF THE GREAT WICOMICO RIVER
CB5.5	CENTRAL CHESAPEAKE BAY (MAIN CHANNEL)
CB6.1	LOWER WEST CENTRAL CHESAPEAKE BAY (MAIN CHANNEL OFF LOWER END OF THE RAPPAHANNOCK RIVER)
CB6.2	LOWER WEST CENTRAL CHESAPEAKE BAY
CB6.3	LOWER WEST CENTRAL CHESAPEAKE BAY (WOLFTRAP)
CB6.4	CENTRAL CHESAPEAKE BAY OFFSHORE FROM MOUTH OF YORK RIVER
CB7.1	LOWER EAST CENTRAL CHESAPEAKE BAY (EASTERN SHORE CHANNEL)
CB7.1N	LOWER EAST CENTRAL CHESAPEAKE BAY (TANGIER SOUND CHANNEL)
CB7.1S	LOWER EAST CENTRAL CHESAPEAKE BAY (EASTERN SHORE CHANNEL)
CB7.2	LOWER EAST CENTRAL CHESAPEAKE BAY (EASTERN SHORE CHANNEL)
CB7.2E	LOWER EAST CENTRAL CHESAPEAKE BAY (EASTERN SHORE; SIDE CHANNEL)
CB7.3	MAINSTEM YORK SPIT CHANNEL
CB7.3E	LOWER EASTERN SHORE CHANNEL AREA
CB7.4	BALTIMORE CHANNEL AT THE BAY BRIDGE/TUNNEL
CB7.4N	NORTH CHANNEL AT THE BAY BRIDGE/TUNNEL
CB8.1	BETWEEN JAMES RIVER MOUTH AND THIMBLE SHOALS CHANNEL
CB8.1E	THIMBLE SHOALS CHANNEL AT BAY BRIDGE/TUNNEL
CCM0069	CHICAMACOMICO DRAWBRIDGE RD. CROSSING; CHARACTERIZES TIDAL FRESH ZONE
CJB0005	CABIN JOHN BRANCH AT BRIDGE ON MACARTHUR BLVD.; CHARACTERIZES FREE-FLOWING FRESHWATER
CON0005	CONOCOCHEAGUE CREEK AT MD ROUTE 68 BRIDGE; CHARACTERIZES FREE-FLOWING FRESHWATER
CON0180	CONOCOCHEAGUE CREEK AT GAGE STATION; 0.7 MILE ABOVE BRIDGE ON FAIRVIEW ROAD; CHARACTERIZES FREE-FLOW FRESHWATER
CS-3	UPSTREAM OF PUBLIC BOAT LANDING AND DOWNSTREAM OF FLAT
DER0015	DEER CREEK BRIDGE ON STAFFORD BRIDGE ROAD; CHARACTERIZES FREE-FLOWING FRESHWATER
EBB01	VADEQ STATION 2-EBE002.98. EASTERN BRANCH ELIZABETH RIVER AT N&W RR BRIDGE.
EBE1	EASTERN BRANCH ELIZABETH RIVER; WEST SIDE OF THE BERKLEY BRIDGE
EBE1-E	EASTERN BRANCH ELIZABETH RIVER; EASTERN SIDE OF THE BERKLEY BRIDGE
EBE2	EASTERN BRANCH ELIZABETH RIVER; OFF COLONNA'S SHIPYARD
EE1.1	EASTERN BAY BETWEEN TILGHMAN POINT AND PARSONS ISLAND; NORTH OF BUOY R-4; CHARACTERIZES EMBAYMENT
EE2.1	CHOPTANK EMBAYMENT BETWEEN TODDS POINT AND NELSON POINT; MIDWAY BETWEEN BUOY BWN63B AND R-12
EE2.2	LITTLE CHOPTANK RIVER MID-CHANNEL WEST OF RAGGED POINT; WEST OF BUOY FIG-"3"; CHARACTERIZES EMBAYMENT
EE3.0	FISHING BAY AT DAYMARK 3; WEST OF ROASTING EAR POINT; CHARACTERIZES EMBAYMENT
EE3.1	NORTH TANGIER SOUND; NORTHWEST OF HAINES POINT; 100 YARDS NORTH OF BUOY R-16; CHARACTERIZES EMBAYMENT
EE3.2	SOUTH TANGIER SOUND; 1 NAUTICAL MILE N OF JAMES ISLAND LIGHT ON A LINE FROM BUOY R-8 TO BELL 9 IN 27 METERS; CHARACTERIZES EMBAYMENT
EE3.3	POCOMOKE SOUND; MID-CHANNEL NEAR BUOY W-"A" PLACE; STATE LINE; CHARACTERIZES EMBAYMENT
EE3.4	POCOMOKE SOUND NORTHWEST OF LONG POINT
EE3.5	CHESAPEAKE BAY SOUTHEAST OF TANGIER ISLAND
ELD01	VADEQ STATION 2-ELI004.79 ELIZABETH RIVER SE OF DEGAUSSING STATION.
ELE01	VADEQ STATION 2-ELI006.92. ELIZABETH RIVER OFF NAUTICUS
ELI1	ELIZABETH RIVER MAINSTEM; OFF NORFOLK NAVAL BASE
ELI2	ELIZABETH RIVER MAINSTEM; ADJACENT TO THE SOUTHEAST CORNER OF CRANEY ISLAND
ELI3	ELIZABETH RIVER MAINSTEM; OFF PORTSMOUTH INTERNATIONAL TERMINALS
ET1.1	NORTHEAST RIVER AT BUOY F1R-12 OFF HANCE POINT; MID-CHANNEL; TIDAL FRESH WATER STATION
ET10.1	UPPER POCOMOKE RIVER NEAR ALTERNATE ROUTE 13 BRIDGE AT POCOMAKE CITY; TIDAL FRESH WATER STATION
ET2.1	BACK CREEK NEAR ROUTE 213 BRIDGE AT CHESAPEAKE BAY; TIDAL FRESH WATER STATION
ET2.2	BOHEMIA RIVER OFF OLD HACK POINT AT BUOY F1R-4; MID-CHANNEL; TIDAL FRESH WATER STATION
ET2.3	ELK RIVER; SOUTHEAST OF OLDFIELD POINT AT B-15; MID-CHANNEL; TIDAL FRESH WATER STATION
ET3.1	SASSAFRAS RIVER NEAR ROUTE 213 BRIDGE; TIDAL FRESH WATER STATION
ET4.1	CHESTER RIVER AT CRUMPTON NEAR ROUTE 290 BRIDGE; TIDAL FRESH WATER STATION
ET4.2	LOWER CHESTER RIVER; SOUTH OF EASTERN NECK ISLAND AT BUOY FIG-9; CHARACTERIZES LOWER ESTUARINE
ET5.0	CHOPTANK RIVER AT RED BRIDGE NEAR SEWELL MILLS; CHARACTERIZES FREE-FLOWING FRESHWATER
ET5.1	UPPER CHOPTANK RIVER AT GANEY WHARF; DOWNSTREAM OF CONFLUENCE; TUCKAHOE CIRCLE;

	TIDAL FRESH WATER STATION
ET5.2	LOWER CHOPTANK RIVER NEAR ROUTE 50 BRIDGE AT CAMBRIDGE; CHARACTERIZES LOWER ESTUARINE
ET6.1	UPPER NANTICOKE RIVER NEAR ROUTE 313 BRIDGE AT SHARPTOWN; MID-CHANNEL; TIDAL FRESH WATER STATION
ET6.2	LOWER NANTICOKE RIVER; MID-CHANNEL NEAR BUOY FIG-11; CHARACTERIZES LOWER ESTUARINE
ET7.1	LOWER WICOMICO RIVER AT WHITEHEAVEN OFF OF FERRY ROAD; CHARACTERIZES LOWER ESTUARINE
ET8.1	MANOKIN RIVER AT UPPER EXTENT OF CHANNEL NEAR BUOY R-8; CHARACTERIZES LOWER ESTUARINE
ET9.1	BIG ANNEMESSEX RIVER; NORTHWEST OF LONG POINT; 250 YARDS EAST OF DAY BEACON G-5; CHARACTERIZES LOWER ESTUARINE
FRG0018	FROG MORTAR CREEK; AT DAYMARKER R 6 CHARACTERIZES SALINITY TRANSITION
GEO0009	GEORGES CREEK RIGHT BANK AT FRANKLIN; 1 MILE NORTH OF WESTERN ; 1MILE NORTH OF WESTERNPORT; CHARACTERIZES FREE-FLOWING FRESHWATER
GUN0125	GUNPOWDER FALLS BRIDGE ON CROMWELL BRIDGE ROAD; CHARACTERIZES FREE-FLOWING FRESHWATER
GUN0258	GUNPOWDER FALLS 4 END GLENCO ROAD ABOVE OLD BRIDGE CROSSING; CHARACTERIZES FREE-FLOWING FRESHWATER
GUN0476	GUNPOWDER FALLS BRIDGE AT GUNPOWDER ROAD; CHARACTERIZES FREE-FLOWING FRESHWATER
GWN0115	GWYNNS FALLS BRIDGE ON ESSEX ROAD IN VILLA NOVA NEAR GAGE STATION; CHARACTERIZES FREE-FLOWING FRESHWATER
H-1	OFF DOCK BETWEEN CHANNEL MARKERS 3 AND 5
H-1A	NEAR MARKER 2
H-2	OFF DOCK NE OF MARKER 9
H-3	OFF WATERFORD POINT
HOK0005	HOPKINS CREEK OFF THE LAST PIER ON THE LEFT OF THE CREEK; CHARACTERIZES SALINITY TRANSITION
IH1	COVE AT IH PILOT PLANT COMPLEX ON POTOMAC RIVER
IH2	LARGE SHORELINE COVE AT MOUTH OF MATTAWOMAN CREEK
IH3	WEST OF STUMP NECK PIER ON POTOMAC SHORELINE
IH4	OFF OF STUMP NECK POINT ON CHICAMUXEN CREEK
IH5	EAST OF BULLITS NECK POINT ON MATTAWOMAN CREEK
IH6	NORTH OF POINT LANDING ON CHICAMUXEN CREEK
JON0184	JONES FALLS NEAR BRIDGE FALLS ROAD (MD ROUTE 25); CHARACTERIZES FREE-FLOWING FRESHWATER
KNG01	KINGMAN LAKE UPSTREAM OF THE EAST CAPITAL STREET BRIDGE ALONG THE WEST BANK
KNG02	KINGMAN LAKE UPSTREAM OF THE BENNNING ROAD BRIDGE ALONG THE WEST BANK
LAF1	LAFAYETTE RIVER - WEST SIDE OF HAMPTON BLVD BRIDGE
LE1.1	MID-CHANNEL; SSW OF JACK BAY SANDSPIT AND NORTHEAST OF SANDGATES; CHARACTERIZES LOWER ESTUARINE
LE1.2	MID-CHANNEL 1600 METERS; SOUTHWEST OF PATERSONS POINT; CHARACTERIZES LOWER ESTUARINE
LE1.3	MID-CHANNEL 1200 METERS DUE NORTH OF POINT PATIENCE; ENE OF HALF PONE POINT; CHARACTERIZES LOWER ESTUARINE
LE1.4	MID-CHANNEL BETWEEN DRUM POINT AND FISHING POINT; CHARACTERIZES LOWER ESTUARINE
LE2.2	POTOMAC RIVER OFF RAGGED POINT AT BUOY 51B; LOWER ESTUARINE ZONE
LE2.3	MOUTH OF POTOMAC RIVER; BOUNDARY BETWEEN CB5 AND LE2; RIVER CHANNEL
LE3.1	VIMS SLACK WATER; BUOY #11
LE3.2	LONG POINT UPSTREAM OF BUOY #R8
LE3.2N	LONG POINT UPSTREAM OF BUOY #R8 (NORTH SHORE) - SPECIAL 1994 NEAR-SHORE STUDY ONLY
LE3.2S	LONG POINT UPSTREAM OF BUOY #R8 (SOUTH SHORE) - SPECIAL 1994 NEAR-SHORE STUDY ONLY
LE3.3	CORROTOMAN RIVER; BUOY #R6
LE3.3A	CORROTOMAN RIVER; 1984 STATION LOCATION
LE3.4	ORCHARD PT; VIMS SLACK WATER
LE3.6	MOUTH OF THE RAPPAHANNOCK RIVER
LE3.6N	RAPPAHANNOCK RIVER NORTH SIDE
LE3.6S	RAPPAHANNOCK RIVER SOUTH SIDE
LE3.7	MOUTH OF THE PIANKATANK RIVER
LE4.1	VIMS SLACK WATER; #N44
LE4.2	VIMS SLACK WATER; #N34
LE4.2N	VIMS SLACK WATER; #N34 (NORTH SHORE) - SPECIAL 1994 NEAR-SHORE STUDY ONLY
LE4.2S	VIMS SLACK WATER; #N34 (SOUTH SHORE) - SPECIAL 1994 NEAR-SHORE STUDY ONLY
LE4.3	YORK RIVER BETWEEN AMOCO AND SARAH CREEKS
LE4.3N	YORK RIVER BETWEEN AMOCO AND SARAH CREEKS (NORTH SHORE) - SPECIAL 1994 NEAR-SHORE

	STUDY ONLY
LE4.3S	YORK RIVER BETWEEN AMOCO AND SARAH CREEKS (SOUTH SHORE) - SPECIAL 1994 NEAR-SHORE STUDY ONLY
LE5.1	VIMS SLACK WATER; RED BUOY #36
LE5.2	BUOY #C12-13
LE5.2N	BUOY #C12-13 (NORTH SHORE) - SPECIAL 1994 NEAR-SHORE STUDY ONLY
LE5.2S	BUOY #C12-13 (SOUTH SHORE) - SPECIAL 1994 NEAR-SHORE STUDY ONLY
LE5.3	NH-15 JAMES RIVER BRIDGE; VIMS
LE5.4	BUOY #9; HAMPTON ROADS; VIMS
LE5.5	MOUTH OF THE JAMES RIVER
LE5.5A	JAMES RIVER MOUTH. LOCATED AT 2-METER CONTOUR BETWEEN FORT WOOL AND SITE LE5.5 ON THE MAINSTEM SIDE - SAMPLED ONLY IN 1994
LE5.5B	JAMES RIVER MOUTH. LOCATED AT 2-METER CONTOUR BETWEEN FORT WOOL AND THE SHORE ON THE MAINSTEM SIDE OF THE HAMPTON BRIDGE TUNNEL - SAMPLED ONLY IN 1994.
LE5.6	RED BUOY #18
LFA01	VADEQ STATION 2-LAF001.15. LAFAYETTE RIVER AT HERMITAGE POINT
LFB01	VADEQ STATION 2-LAF003.83. LAFAYETTE RIVER AT GRANBY ST. BRIDGE.
MAT0016	MATTAWOMAN CREEK AT BLACK DAY BEACON 1; CHARACTERIZES TIDAL FRESH ZONE
MAT0078	MATTAWOMAN CREEK BRIDGE ON MARYLAND ROUTE; CHARACTERIZES TIDAL FRESH ZONE
MDR0028	MIDDLE RIVER; 10 YARDS SSW OF DAYMARKER CP; CHARACTERIZES SALINITY TRANSITION
MNK0146	MANOKIN RIVER MIDRIVER OFF NELSON PIER JUST BELW UNNAMED TRIB CHARACTERIZES TIDAL FRESH
MON0020	MONOCACY RIVER BRIDGE ON MARYLAND ROUTE 28; CHARACTERIZES FREE-FLOWING FRESHWATER
MON0155	MONOCACY RIVER BRIDGE ON REELS MILL ROAD; CHARACTERIZES FREE-FLOWING FRESHWATER
MON0269	MONOCACY RIVER BRIDGE ON BIGGS FORD ROAD; CHARACTERIZES FREE-FLOWING FRESHWATER
MON0528	MONOCACY RIVER AT BRIDGEPORT BRIDGE ON MD ROUTE 97 USGS GAGE STATION; CHARACTERIZES FREE-FLOWING FRESHWATER
NBP0023	NORTH BRANCH POTOMAC TOLL BRIDGE AT OLDTOWN; CHARACTERIZES FREE-FLOWING FRESHWATER
NBP0103	NORTH BRANCH POTOMAC RIVER WEST OF INTERSECTION OF MOORESHOLLOW ROAD AND MD ROUTE 51; CHARACTERIZES FREE-FLOWING FRESHWATER
NBP0326	NORTH BRANCH POTOMAC RIVER GAGE STATION NEAR WESTERN MARYLAND RAILROAD AT PINTO USGS; CHARACTERIZES FREE-FLOWING FRESHWATER
NBP0461	NORTH BRANCH POTOMAC AT BRIDGE ON MD ROUTE 220; CHARACTERIZES FREE-FLOWING FRESHWATER
NBP0534	NORTH BRANCH POTOMAC RIVER AT BLOOMINGTON UPSTREAM OF CONFLUENCE/SAVAGE ROAD; CHARACTERIZES FREE-FLOWING FRESHWATER
NBP0689	NORTH BRANCH POTOMAC RIVER DOWNSTREAM OF MD ROUTE 38; CHARACTERIZES FREE-FLOWING FRESHWATER
NOM0007	NORMAN CREEK MIDCREEK ACROSS FROM SUNSET HARBOR MARINA AND HOUSE WITH PIER CHARACTERIZES TIDAL FRESH
NPA0165	NORTH BRANCH PATAPSCO BRIDGE AT MARYLAND ROUTE 91 GAGE; CHARACTERIZES FREE-FLOWING FRESHWATER
OC-3	OFF DOCK BETWEEN BRIDGE AND WESCOTT COVE
ON-3	OFF DOCK JUST UPSTREAM OF MARKER 34A
OP-1	MOUTH OF OLD PLANTATION CREEK
OP-2	OFF HUNTS POINT
OP-3	JUST N OF LATITUDE OF RT. 682
PAT0176	PATAPSCO RIVER AT BRIDGE ON WASHINGTON BOULEVARD; CHARACTERIZES FREE-FLOWING FRESHWATER
PAT0285	PATAPSCO RIVER AT BRIDGE ON MD ROUTE 99 NEAR HOLLOFIELD GAGE; CHARACTERIZES FREE-FLOWING FRESHWATER
PIS0033	PISCATAWAY CREEK BRIDGE ON MARYLAND ROUTE 210; CHARACTERIZES TIDAL FRESH ZONE
PMS01	FLETCHER'S BOATHOUSE
PMS02	POTOMAC RIVER; SOUTH ACROSS THE NORTHWEST CORNER OF GEORGETOWN RESERVOIR
PMS03	FLETCHER'S BOATHOUSE SOUTH
PMS05	WINDY RUN WATERFALL
PMS07	SPOUT RUN
PMS08	THREE SISTERS ISLAND
PMS09	GEORGETOWN UNIVERSITY IN LINE WITH BOTH SPIRES
PMS10	UPSTREAM OF KEY BRIDGE
PMS11	ROOSEVELT ISLAND WEST
PMS12	LARGE "G" ON CEMENT WALL
PMS13	SOUTH BANK OF ROCK CREEK

PMS16	50M UPSTREAM OF MEMORIAL BRIDGE
PMS18	100M SOUTH OF CABLE CROSSING
PMS21	14TH STREET BRIDGE
PMS23	LINE BETWEEN GRAVELLY POINT AND NORTH COURSE MARKER
PMS25	HALFWAY BETWEEN NUN BOUY 4 AND 6; ROACHES RUN
PMS27	HALFWAY BETWEEN NUN BOUY 2 AND 4; NATIONAL AIRPORT NORTH
PMS29	150M DOWNSTREAM OF BLACK AND RED FLASHER; HAINS POINT
PMS31	GEISBORO POINT SOUTH; 200M SOUTH OF CAN #11
PMS33	FOUR MILE RUN NORTH; 150M NORTH OF BOLLING MAR. INLET
PMS35	DANGERFIELD ISLAND NORTH; IN LINE WITH NAVAL RESEARCH LAB TOWER
PMS37	100M SOUTH OF NAVAL RESEARCH LAB PIER
PMS39	BLUE PLAINS; 100M WEST OF CAN #1
PMS41	TORPEDO FACTORY; 200M WEST OF NUN BOUY #4
PMS44	WOODROW WILSON MEMORIAL BRIDGE; 50M UPSTREAM OF DRAW SPAN
PMS46	HUNTING CREEK NORTH; OPPOSITE SOUTH END OF PARKWAY BUILDING
PMS48	HUNTING CREEK SOUTH; 250M SOUTHWEST OF R #90
PMS51	ACROSS FROM ROSIER BLUFF; 100M WEST OF BOUY #88
POK0087	OFF RAMP AT TOWN OF REHOBETH CHARACTERIZES TIDAL FRESH ZONE
POT1184	POTOMAC RIVER GAGE STATION ABOVE LITTLE FALLS DAM; CHARACTERIZES FREE-FLOWING FRESHWATER
POT1471	POTOMAC RIVER TERMINUS OF WHITES FERRY; CHARACTERIZES FREE-FLOWING FRESHWATER
POT1472	POTOMAC RIVER WEST TERMINUS OF WHITES FERRY; CHARACTERIZES FREE-FLOWING FRESHWATER
POT1595	POTOMAC RIVER EAST END OF BRIDGE; U.S. ROUTE 15; CHARACTERIZES FREE-FLOWING FRESHWATER
POT1596	POTOMAC RIVER (VIRGINIA SIDE) AT POINT OF ROCKS; CHARACTERIZES FREE-FLOWING FRESHWATER
POT1830	POTOMAC RIVER AT GAGE STATION BELOW BRIDGE ON MD ROUTE 34; CHARACTERIZES FREE-FLOWING FRESHWATER
POT2386	POTOMAC RIVER AT GAGE STATION; 0.5 MILES BELOW BRIDGE ON US ROUTE 522; CHARACTERIZES FREE-FLOWING FR
POT2766	POTOMAC RIVER BRIDGE ON MD ROUTE 51 NEAR PAW PAW; WV; CHARACTERIZES FREE-FLOWING FRESHWATER
PTB01	OFF CENTER OF CONSTITUTION AVENUE BRIDGE
PWC04	WASHINGTON CHANNEL; 100M WEST OF NORTH SIDE OF MUNICIPAL PIER
PXT0809	PATUXENT RIVER AT GAGE STATION BELOW ROCKY GORGE DAM; CHARACTERIZES FREE-FLOWING FRESHWATER
PXT0972	PATUXENT RIVER AT BRIDGE ON ROUTE 97 NEAR UNITY GAGE; CHARACTERIZES FREE-FLOWING FRESHWATER
RCM0111	ROCK CREEK 1.5 MILES ABOVE MOUTH OF CREEK; CHARACTERIZES FREE-FLOWING FRESHWATER
RCR01	ROCK CREEK AT MEADOWBROOK AND BEACH DRIVES N.W.
RCR04	JOYCE ROAD N.W. IN ROCK CREEK PARK; UPSTREAM OF BRIDGE ON WEST BANK
RCR07	ROCK CREEK; KLINGLE RD.; NW; JUST DOWNSTREAM OF BRIDGE ON WEST BANK
RCR09	ROCK CREEK AT THE NATIONAL ZOO
RET1.1	MID-CHANNEL; 5000 METERS ENE OF LONG POINT; CHARACTERIZES TRANSITION ZONE
RET2.1	BUOY 27 SOUTHWEST OF SMITH POINT; CHARACTERIZES TRANSITION ZONE
RET2.2	BOUY 19 MID-CHANNEL OFF MARYLAND POINT; CHARACTERIZES TRANSITION ZONE
RET2.3	BOUY 13 OFF MOUTH OF NANJEMOY CREEK; CHARACTERIZES TRANSITION ZONE
RET2.4	MID-CHANNEL AT MORGANTOWN BRIDGE (U.S. ROUTE 301); CHARACTERIZES LOWER ESTUARINE
RET3.1	RAPPAHANNOCK RIVER NORTH OF BUOY R10; VIMS SLACK
RET3.1N	RAPPAHANNOCK RIVER NORTH OF BUOY R10; VIMS SLACK (NORTH SHORE) - SPECIAL 1994 NEAR-SHORE STUDY ONLY
RET3.1S	RAPPAHANNOCK RIVER NORTH OF BUOY R10; VIMS SLACK (SOUTH SHORE) - SPECIAL 1994 NEAR-SHORE STUDY ONLY
RET3.2	RAPPAHANNOCK RIVER (VIMS SLACK WATER #N16)
RET4.1	PAMUNKEY RIVER AT SOUTHERN END OF LEE MARSH
RET4.2	MATTAPONI RIVER AT MUDDY POINT
RET4.3	YORK RIVER (VIMS SLACK WATER #C57)
RET4.3N	YORK RIVER; VIMS SLACK WATER #C57 (NORTH SHORE) - WEST OF GOFF POINT - SPECIAL 1994 NEAR-SHORE STUDY ONLY
RET4.3S	YORK RIVER; VIMS SLACK WATER #C57 (SOUTH SHORE) - DUE EAST OF BAKER CREEK - SPECIAL 1994 NEAR-SHORE STUDY ONLY
RET5.1	CHICKAHOMINY RIVER; 1984-1988 ONLY
RET5.1A	CHICKAHOMINY RIVER ABOVE SHIPYARD LANDING
RET5.2	SWANN'S POINT; JAMES RIVER WQMP STA#19
RET5.2N	SWANN'S POINT; JAMES RIVER WQMP STA#19 (NORTH SHORE) - SPECIAL 1994 NEAR-SHORE STUDY ONLY

RET5.2S	SWANN'S POINT; JAMES RIVER WQMP STA#19 (SOUTH SHORE) - SPECIAL 1994 NEAR-SHORE STUDY ONLY
SAV0000	SAVAGE RIVER AT MD ROUTE 135; CHARACTERIZES FREE-FLOWING FRESHWATER
SBA1	SOUTHERN BRANCH ELIZABETH RIVER; SOUTHERN END OF NORSHIPCO PIERS
SBC1	SOUTHERN BRANCH ELIZABETH RIVER; MOUTH OF PARADISE CREEK
SBD1	SOUTHERN BRANCH ELIZABETH RIVER; MOUTH OF ST. JULIAN CREEK
SBD4	SOUTHERN BRANCH ELIZABETH RIVER; NORTH SIDE OF DOMINION BOULEVARD BRIDGE
SBE1	SOUTHERN BRANCH ELIZABETH RIVER; OFF NORSHIPCO - BERKELY PLANT
SBE2	SOUTHERN BRANCH ELIZABETH RIVER; ADJACENT TO ATLANTIC WOOD
SBE3	SOUTHERN BRANCH ELIZABETH RIVER; OFF EPPINGER & RUSSEL
SBE4	SOUTHERN BRANCH ELIZABETH RIVER; NORTH OF GILMERTON BRIDGE
SBE5	SOUTHERN BRANCH ELIZABETH RIVER; ADJACENT TO VIRGINIA POWER
SEN0008	SENECA CREEK BRIDGE ON MARYLAND ROUTE 112; CHARACTERIZES FREE-FLOWING FRESHWATER
SMNT01	LOCUST GROVE COVE
SMNT02	WAREHOUSE RUN
SMNT03	BELOW ST. MARY'S LAKE
SMNT04	ST. MARY'S LAKE
SMNT05	LANDFILL TRIBUTARY
SMNT06	HICKORY HILLS
SMNT07	NORRIS ROAD
SMNT08	JARBOESVILLE
SMNT09	USGS GAGING STATION
SMNT09.5	JOHNS CREEK
SMNT10	HILTON RUN
SMNT11	PEMBROOK RUN
SMNT12	EASTERN BRANCH
SMNT13	FISHERMAN CREEK
SMNT14	CHURCH CREEK
SMSMC	ST. MARY'S COLLEGE
SMT01	ADKINS ROAD
SMT02	TIPPITY WITCHITY
SMT03	SHORT POINT
SMT04	CHURCH POINT
SMT05	CHANCELLORS POINT
SMT06	PRIEST POINT
SMT07	MOUTH OF ST. MARY'S RIVER
SMT08	CARTHAGENA CREEK
SMT09	ST. GEORGE CREEK
SMT10	ST. INIGOES
SMT10A	ST. INIGOES AFTER SPLIT
SMT10B	CHURCH COVE
SMT11	CHICKENCOCK CREEK
SMT12	ROSECROFT POINT
SMT13	ST. MARY'S RIVER PINEY POINT BRIDGE
TBK01	BATTERY KEMBLE/FLETCHER'S BOATHOUSE; CANAL STREET N.W.
TCO01	C&O CANAL GEORGETOWN; 25 YARDS WEST OF 29TH STREET N.W.
TCO06	C&O CANAL FLETCHER'S BOATHOUSE; CANAL STREET N.W.
TDA01	DALECARLIA AND WEATHERHILL ROADS N.W.; UPSTREAM OF RESERVOIR GATE
TDU01	FORT DUPONT; RAILROAD YARD UNDER ANACOSTIA FREEWAY
TF1.0	FROM UPSTREAM SIDE OF THE MD ROUTE 50 BRIDGE; USGS GAGE NO. 59440; CHARACTERIZES TIDAL FRESH ZONE
TF1.2	MIDSTREAM AT WATER STREET IN UPPER MARLBORO; CHARACTERIZES TIDAL FRESH ZONE
TF1.3	MID-CHANNEL FROM MD ROUTE 4 BRIDGE NEAR WAYSONS CORNER; CHARACTERIZES TIDAL FRESH ZONE
TF1.4	WEST SHORE FROM MAIN PIER AT JACKSON LANDING; CHARACTERIZES TIDAL FRESH ZONE
TF1.5	MID-CHANNEL AT NOTTINGHAM; CHARACTERIZES TIDAL FRESH ZONE
TF1.6	MID-CHANNEL OFF WHARF AT LOWER MARLBORO; CHARACTERIZES TRANSITION ZONE
TF1.7	MID-CHANNEL ON A TRANSSECT OF APPROXIMATE 115 DEGREE FROM JACK'S CREEK; CHARACTERIZES TRANSITION ZONE
TF2.0	POTOMAC RIVER AT CHAIN BRIDGE
TF2.1	AT FL BOUY 77 OFF MOUTH OF PISCATAWAY CREEK; CHARACTERIZES TIDAL FRESH ZONE
TF2.2	BOUY 67 OFF MOUTH OF PISCATAWAY CREEK; CHARACTERIZES TIDAL FRESH ZONE
TF2.3	BOUY N 54 MID-CHANNEL OFF INDIANHEAD; CHARACTERIZES TIDAL FRESH ZONE
TF2.4	BOUY 44 BETWEEN POSSUM POINT AND MOSS POINT; CHARACTERIZES TIDAL FRESH/TRANSITION ZONE

TF3.0	RAPPAHANNOCK RIVER NEAR FREDERICKSBURG; VA (ROUTE 95). USGS 01668000; 'CABLEWAY' STATION. APPROXIMATELY 1 MILE UPRIVER FROM ROUTE 95 BRIDGE.
TF3.1	RAPPAHANNOCK RIVER AT RT1 BRIDGE; APPROXIMATELY 1-2 MILES DOWNRIVER FROM EMBRY DAM; VADEQ SAMPLING STATION 3-RPP110.57
TF3.1A	RAPPAHANNOCK RIVER BELOW MASSAPONAX STP
TF3.1B	RAPPAHANNOCK RIVER DOWNSTREAM OF FREDERICKSBURG; VA AT BUOY # 89
TF3.1C	RAPPAHANNOCK RIVER NEAR FREDERICKSBURG; VA 100 YARDS BELOW FMC DISCHARGE
TF3.1D	RAPPAHANNOCK RIVER NEAR FREDERICKSBURG; VA 100 YARDS BELOW FREDERICKSBURG STP
TF3.1E	RAPPAHANNOCK RIVER NEAR FREDERICKSBURG; VA; Buoy112
TF3.1W	RAPPAHANNOCK RIVER; APPROXIMATELY 1 MILE DOWNRIVER FROM USGS STATION 01668000; USED IN EVENT OF HIGH WATER 4 TIMES AS OF 2/5/99
TF3.2	RAPPAHANNOCK RIVER JUST DOWNSTREAM OF THE PORT ROYAL BRIDGE; #N74
TF3.2A	RAPPAHANNOCK RIVER ONE MILE DOWNSTREAM OF THE PORT ROYAL BRIDGE
TF3.3	RAPPAHANNOCK RIVER AT JONES CREEK? (VIMS SLACK WATER #N40)
TF4.0M	MATTAPONI RIVER NEAR BEULAHVILLE; VA (SOUTH OF BOILER RUN)
TF4.0P	PAMUNKEY RIVER NEAR HANOVER; VA (NORTH OF BECHUMPS CREEK)
TF4.1A	PAMUNKEY RIVER AT ROUTE 360 BRIDGE?
TF4.2	PAMUNKEY RIVER AT WHITE HOUSE; VA
TF4.4	MATTAPONI RIVER AT WALKERTON; VA
TF4.4A	MATTAPONI RIVER MIDWAY BETWEEN WEST POINT; VA AND WALKERTON; VA
TF5.0A	APPOMATTOX RIVER AT MATOACA; VA (SR600)
TF5.0J	JAMES RIVER AT CARTERSVILLE; VA
TF5.2	JAMES RIVER AT MAYO'S BRIDGE (JRWQMP STATION #2)
TF5.2A	JAMES RIVER AT BUOY # 166
TF5.3	JAMES RIVER AT BUOY #157 (JRWQMP STATION #8)
TF5.4	APPOMATTOX RIVER AT BUOY #8 (JRWQMP STATION #20A)
TF5.5	JAMES RIVER AT RED BUOY #107 (JRWQMP STATION #13)
TF5.5A	JAMES RIVER AT BUOY # 91
TF5.5AN	JAMES RIVER AT BUOY # 91 (NORTH SHORE) - SPECIAL 1994 NEAR-SHORE STUDY ONLY
TF5.5AS	JAMES RIVER AT BUOY # 91 (SOUTH SHORE) - SPECIAL 1994 NEAR-SHORE STUDY ONLY
TF5.6	JAMES RIVER NORTH OF BUOY #74; JAMES RIVER WQMP STATION #17
TF5.6A	JAMES RIVER - NEW LOCATION FOR TF5.6; 1994-1995 ONLY
TFB01	FOUNDARY BRANCH PARK; 50 YARDS SOUTH OF ENTRANCE TO TWS APARTMENTS
TFC01	FORT CHAPIN; CORNER OF C STREET AND BURBANK S.E.
TFD01	FORT DAVIS; PENNSYLVANIA AVENUE AT 33RD STREET S.E.
TFS01	FORT STANTON; REAR OF APARTMENT 1907; GOOD HOPE ROAD S.E.
THR01	NATIONAL ARBORETUM; NORTH SIDE OF BRIDGE ON HICKORY LANE N.E.
TNA01	NASH RUN; ANACOSTIA AVENUE N.E.
TOR01	OXON RUN; 100 YARDS BELOW AUDREY LANE IN OXON HILL; MD
TOW0030	TOWN CREEK AT GAGE STATION NEAR BRIDGE ON OLDTOWN ROAD; CHARACTERIZES FREE-FLOWING FRESHWATER
TPB01	FAIRLAWN AVENUE BETWEEN M STREET AND M PLACE S.E.
TRQ0088	TRANSQUAKING RIVER BRIDGE ON BESTPITCH FERRY RD CHARACTERIZES TIDAL FRESH
TRQ0146	TRANSQUAKING RIVER DECOURSEY BRIDGE RD CROSSING CHARACTERIZES TIDAL FRESH
TTX27	TEXAS AVENUE AT 27TH STREET S.E.
TUT01	THE UNNAMED TRIBUTARY; 400 YARDS SOUTH OF THE INTERSECTION OF NEW YORK AND SOUTH DAKOTA AVES.; SE JUST DOWNSTREAM OF INCLUSION OF SECOND SMALLER TRIBUTARY
TWB01	WATTS BRANCH; KENILWORTH PARK S.E.
TWB02	WATTS BRANCH DOWNSTREAM OF RAILROAD BRIDGE; NEAR STORM SEWER DISCHARGE AREA
TWB03	WATTS BRANCH JUST UPSTREAM OF 48TH ST.; SE BRIDGE
TWB04	WATTS BRANCH JUST DOWNSTREAM OF FIRST STORM SEWER BELOW DIVISION AVE.; SE BRIDGE
TWB05	WATTS BRANCH; NORTH TRIBUTARY ABOVE CONFLUENCE OF NORTHERN HEADWATER TRIBUTARY UNDER THE FOOTBRIDGE AT 61ST ST.; SE
TWB06	WATTS BRANCH; SOUTH TRIBUTARY JUST DOWNSTREAM AND SOUTH OF FOOTBRIDGE AT 61ST ST.; SE
WBB05	VADEQ STATION 2-WBE004.44. WESTERN BRANCH ELIZABETH RIVER AT DRUM POINT
WBE1	WESTERN BRANCH ELIZABETH RIVER; NORTH SIDE OF HIGHWAY 17 BRIDGE
WE4.1	CENTRAL MOBJACK BAY
WE4.2	MOUTH OF THE YORK RIVER; MID-CHANNEL
WE4.2N	MOUTH OF THE YORK RIVER; NORTH SHORE
WE4.2S	MOUTH OF THE YORK RIVER; SOUTH SHORE
WE4.3	MOUTH OF THE POQUOSON RIVER EAST OF YORK POINT
WE4.4	MOUTH OF THE BACK RIVER OFF NORTHEND POINT
WIL0013	WILLS CREEK GAGE STATION DOWNSTREAM FROM CONFLUENCE OF BRADDOCK RUN;

	CHARACTERIZES FREE-FLOWING FRESHWATER
WIW0141	AT UPPER FERRY CROSSING WICOMICO RIVER ON UPPER FERRY ROAD CHARACTERIZES TIDAL FRESH
WT1.1	BUSH RIVER; EAST OF GUM POINT AT FL G LT; CHARACTERIZES SALINITY TRANSITION
WT2.1	GUNPOWDER RIVER; 200 YARDS EAST OF OLIVER POINT AT BUOY G-"15"; CHARACTERIZES SALINITY TRANSITION
WT3.1	MIDDLE RIVER; EAST OF WILSON POINT AT CHANNEL JUNCTION DAY-MARKER; CHARACTERIZES SALINITY TRANSITION
WT4.1	BACK RIVER; EAST OF STANSBURY POINT AT DAY BEACON 12; CHARACTERIZES LOWER ESTUARINE
WT5.1	PATAPSCO RIVER; EAST OF HAWKINS POINT AT BUOY 5M; CHARACTERIZES LOWER ESTUARINE
WT6.1	MAGOTHY RIVER; NORTH OF SOUTH FERRY POINT AT BUOY FL R12; CHARACTERIZES LOWER ESTUARINE
WT7.1	SEVERN RIVER; 200 YARDS UPSTREAM OF ROUTE 50-301 BRIDGE; APPROX 150 YARDS OFF NE SHORE; CHARACTERIZES LOWER ESTUARINE
WT8.1	SOUTH RIVER; SOUTH OF POPLAR POINT AT DAY MARKER R-"16"; CHARACTERIZES LOWER ESTUARINE
WT8.2	RHODE RIVER BETWEEN FLAT ISLAND AND BIG ISLAND; CHARACTERIZES LOWER ESTUARINE
WT8.3	WEST RIVER JUST UPSTREAM OF DAY MARKER R-"6"; CHARACTERIZES LOWER ESTUARINE
WXT0001	MIDSTREAM AT MT. CALVERT HOUSE IN UPPER MARLBORO; WESTERN BRANCH; PATUXENT; CHARACTERIZES TIDAL FRESH ZONE
XAK7810	RIVERSIDE OF DAYMARK 23 AT THE ENTRANCE OF FAIR ISLAND CANAL (TO POCOMOKE SOUND); TIDAL FRESH; 2-3 M DEPTH
XCG8613	CHESAPEAKE BAY AT BUOY PIER OFF CEDAR POINT; MID-CHANNEL
XCI4078	ISLAND POINT IN CHANNEL AT BUOY FL 14 CHARACTERIZES LOWER ESTUARINE
XDJ9007	SITE OF OLD RT 50 BRIDGE AT VIENNA (BRIDGE NO LONGER EXISTS) CHARACTERIZES TIDAL FRESH
XFB1986	PISCATAWAY CREEK AT FORT WASHINGTON MARINA AT DAY MARKER 6; CHARACTERIZES TIDAL FRESH ZONE
XGG8251	KENT ISLAND NARROW AT DRAWSPAN ON ROUTE 50 BRIDGE; CHARACTERIZES FREE-FLOWING FRESHWATER
XJH6680	CHESAPEAKE BAY 2100 YARDS NORTHEAST OF SANDY POINT; MID-CHANNEL

WQ_EVENT lookup tables

The following lookup tables are related to the WQ_EVENT table (SOURCE and PROJECT are also related to other data tables). The WQ_EVENT table includes data origin codes, sampling event weather codes, and agency cruise codes. The codes contained in these tables must be updated before adding new data to the database.

SOURCE

FIELD	DESCRIPTION	TYPE (FORMAT)	LENGTH (BYTES)
SOURCE (PK)	Code identifying the organization that collected the water sample and/or took the field measurement	Text	10
DESCRIPTION	Description of SOURCE	Text	100
DETAILS	Additional information about the data record	Memo	

The SOURCE code describes the agency or company that collected the water quality samples or took the field measurements. The following SOURCE codes are currently in the water quality database.

ANS	THE ACADEMY OF NATURAL SCIENCES
DCDOH	DISTRICT OF COLUMBIA DEPARTMENT OF HEALTH
IHDNSWC	INDIAN HEAD DEFENSE NAVAL SURFACE WARFARE CENTER
MDDNR	MARYLAND DEPARTMENT OF NATURAL RESOURCES
ODU	OLD DOMINION UNIVERSITY
USGS	UNITED STATES GEOLOGICAL SURVEY
SMCM	ST MARY'S COLLEGE OF MARYLAND
SRBC	SUSQUEHANNA RIVER BASIN COMMIS
VADEQ	VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY
VADEQ/NRO	VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY-NORTHERN REGIONAL OFFICE
VADEQ/PRO	VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY-PIEDMONT REGIONAL OFFICE
VADEQ/TRO	VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY-TIDEWATER REGIONAL OFFICE
VERSAR	VERSAR INC.
VIMS	VIRGINIA INSTITUTE OF MARINE SCIENCE

AGENCY

FIELD	DESCRIPTION	TYPE (FORMAT)	LENGTH (BYTES)
AGENCY (PK)	Agency code	Text	**10**
DESCRIPTION	Description of AGENCY	Text	**100**
CONTACT	Contact person	Text	**50**

FIELD	DESCRIPTION	TYPE (FORMAT)	LENGTH (BYTES)
DATA MANAGER	Name of agency data manager	Text	**50**
DETAILS	Additional information about the data record	Memo	

The following AGENCY codes were added to the database to identify the agencies that are ultimately responsible for ensuring the proper processing, storage, and submission or serving of water quality data. In cases where a particular agency collects, processes, stores, and submits the data the SOURCE and AGENCY codes will be identical. The agency code usually refers to the group providing primary or secondary funding.

CBPO	CHESAPEAKE BAY PROGRAM OFFICE
CBL	UNIVERSITY OF MARYLAND CHESAPEAKE BIOLOGICAL LABORATORY
CRL	EPA CENTRAL REGIONAL LABORATORY
DCDOH	DISTRICT OF COLUMBIA DEPARTMENT OF HEALTH
ICPRB	INTERSTATE COMMISSION ON THE POTOMAC RIVER BASIN
IHDNSWC	INDIAN HEAD DEFENSE NAVAL SURFACE WARFARE CENTER
MDDNR	MARYLAND DEPARTMENT OF NATURAL RESOURCES
MDE	MARYLAND DEPARTMENT OF THE ENVIRONMENT
MDHMH	MARYLAND DEPARTMENT OF HEALTH AND MENTAL HYGIENE
NERRS	NOAA'S NATIONAL ESTUARINE RESEARCH RESERVE SYSTEM
NFWF	NATIONAL FISH AND WILDLIFE FOUNDATION
ODU	OLD DOMINION UNIVERSITY
PADEP	PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
SMCM	ST MARY'S COLLEGE OF MARYLAND
SRBC	SUSQUEHANNA RIVER BASIN COMMISSION
USGS	UNITED STATES GEOLOGICAL SURVEY
VADEQ	VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY
VIMS	VIRGINIA INSTITUTE OF MARINE SCIENCE

PROGRAM

FIELD	DESCRIPTION	TYPE	LENGTH
PROGRAM (PK)	Agency monitoring program code	Text	10
DESCRIPTION	Description of PROGRAM	Text	100

The PROGRAM code was added to the database design because Maryland DNR has adopted a project-oriented approach to water quality data management. This approach relies upon the use of PROGRAM (WQMP at DNR) and PROJECT (MAIN and TRIB) codes. As data from new programs are added to the database, new codes will be generated.

ERMP	ELIZABETH RIVER MONITORING PROGRAM
IHMP	INDIAN HEAD MONITORING PROGRAM
RIM	RIVER INPUT MONITORING PROGRAM
SMRP	ST MARY'S RIVER PROJECT
SNAP	SUSQUEHANNA NUTRIENT ASSESSMENT PROGRAM
SWM	SHALLOW WATER MONITORING
VEMP	VIMS EASTERN SHORE MONITORING PROGRAM
WQMP	WATER QUALITY MONITORING PROGRAM

PROJECT

FIELD	DESCRIPTION	TYPE (FORMAT)	LENGTH (BYTES)
PROJECT (PK)	Agency monitoring project code	Text	10
DESCRIPTION	Description of PROJECT	Text	100

The PROJECT code describes the project under which the monitoring was conducted.

CMON	CONTINUOUS MONITORING
DFLO	DATAFLOW MONITORING
ELIZ	ELIZABETH RIVER MONITORING
MAIN	CHESAPEAKE BAY MAINSTEM MONITORING
NTID	NON-TIDAL MONITORING
SPEC	SPECIAL STUDY
TRIB	CHESAPEAKE BAY TRIBUTARY MONITORING

CLOUD_COVER

FIELD	DESCRIPTION	TYPE (FORMAT)	LENGTH (BYTES)
CLOUD_COVER (PK)	Percent cloud cover range code	Text	2
DESCRIPTION	Description of CLOUD_COVER	Text	20

The CLOUD_COVER codes represent the best estimate of the percent cloud cover experienced during a sampling event.

0	CLEAR (0-10%)
1	SCATTERED TO PARTLY CLOUDY (10-50%)
2	PARTLY TO BROKEN (50-90%)
3	OVERCAST (>90%)
4	FOGGY
5	HAZY
6	CLOUD (NO PERCENTAGE)

WIND_SPEED

FIELD	DESCRIPTION	TYPE (FORMAT)	LENGTH (BYTES)
WIND_SPEED (PK)	Wind speed range code	Text	2
DESCRIPTION	Description of WIND_SPEED	Text	20

The WIND_SPEED codes represent the best estimate of the wind speed experienced during a sampling event.

0	0 TO 1 KNOT

1 >1 TO 10 KNOTS
2 >10 TO 20 KNOTS
3 >20 TO 30 KNOTS
4 >30 TO 40 KNOTS
5 >40 KNOTS

WIND_DIRECTION

FIELD	DESCRIPTION	TYPE (FORMAT)	LENGTH (BYTES)
WIND_DIRECTION (PK)	Wind direction code	Text	3
DESCRIPTION	Description of WIND_DIRECTION	Text	30

The WIND_DIRECTION codes represent the prevailing wind direction experienced during a sampling event.

E FROM THE EAST (90 DEGREES)
ENE FROM THE EASTE NORTHEAST (67.5 DEGREES)
ESE FROM THE EAST SOUTHEAST (112.5 DEGREES)
N FROM THE NORTH (0 DEGREES)
NE FROM THE NORTHEAST (45 DEGREES)
NNE FROM THE NORTH NORTHEAST (22.5 DEGREES)
NNW FROM THE NORTH NORTHWEST (337.5 DEGREES)
NW FROM THE NORTHWEST (315 DEGREES)
S FROM THE SOUTH (180 DEGREES)
SE FROM THE SOUTHEST (135 DEGREES)
SSE FROM THE SOUTH SOUTHEAST (157.5 DEGREES)
SSW FROM THE SOUTH SOUTHWEST (202.5 DEGREES)
SW FROM THE SOUTHWEST (225 DEGREES)
W FROM THE WEST (270 DEGREES)
WNW FROM THE WEST NORTHWEST (292.5 DEGREES)
WSW FROM THE WEST SOUTHWEST (247.5 DEGREES)

PRECIP_TYPE

FIELD	DESCRIPTION	TYPE (FORMAT)	LENGTH (BYTES)
PRECIP_TYPE (PK)	Precipitation type code	Text	2
DESCRIPTION	Description of PRECIP_TYPE	Text	20

The PRECIP_TYPE codes represent the type of precipitation experienced during a sampling event.

10 NONE
11 DRIZZLE

12 RAIN
13 RAIN, HEAVY
14 SQUALLY
15 FROZEN PRECIPITATION
16 RAIN, SNOW

WAVE_HEIGHT

FIELD	DESCRIPTION	TYPE (FORMAT)	LENGTH (BYTES)
WAVE_HEIGHT (PK)	Wave height range code	Text	2
DESCRIPTION	Description of WAVE_HEIGHT	Text	20

The WAVE_HEIGHT codes represent the best estimate of the wave conditions experienced during a sampling event.

0 0 TO <0.1 METERS
1 0.1 TO <0.3 METERS
2 0.3 TO <0.6 METERS
3 0.6 TO <1.0 METERS
4 1.0 TO <1.3 METERS
5 >1.3 METERS

TIDE_STAGE

FIELD	DESCRIPTION	TYPE (FORMAT)	LENGTH (BYTES)
TIDE_STAGE (PK)	Tidal stage code	Text	2
DESCRIPTION	Description of TIDE_STAGE	Text	10

The TIDE_STAGE codes represent the tidal stage experienced during a sampling event.

E EBB TIDE
F FLOOD TIDE
H HIGH SLACK TIDE
L LOW SLACK TIDE

WQ_DATA lookup tables

The following lookup tables are related to the data tables. They include codes related to parameter names, sampling methods and problems encountered during laboratory analysis of water quality samples.

PARAMETER

FIELD	DESCRIPTION	TYPE (FORMAT)	LENGTH (BYTES)
PARAMETER (PK)	Parameter Name	Text	10
DESCRIPTION	Parameter description/definition	Text	100
NAME	Full parameter name	Text	50
PARAMETER_ID	Sequential number	Number	5
STORET_CODE	Matching STORET parameter code	Text	10
UNITS (PK)	Parameter Units	Text	15
USGS_CODE	Matching USGS parameter code	Text	10

The following list of parameters is maintained in the PARAMETER table; however, not all of these are currently included in the database. In addition, the temporal and spatial record was interrupted for some parameters as monitoring and funding needs changed. While few calculated parameters are submitted directly to the database, the CBP does calculate parameters where possible and provides these through the website DATA HUB retrieval process. The complete table may be viewed on the DATA HUB at www.chesapeakebay.net .

PARAMETER	DESCRIPTION	UNIT
AG	TOTAL SILVER	UG/L
AS	TOTAL ARSENIC	UG/L
BIOSI	BIOGENIC SILICA	MG/L
BOD20F	20-DAY BIOCHEMICAL OXYGEN DEMAND (FILTERED SAMPLE)	MG/L
BOD20W	20-DAY BIOCHEMICAL OXYGEN DEMAND (WHOLE SAMPLE)	MG/L
BOD5F	5-DAY BIOCHEMICAL OXYGEN DEMAND (FILTERED SAMPLE)	MG/L
BOD5W	WHOLE 5-DAY BIOCHEMICAL OXYGEN DEMAND	MG/L
CAF	DISSOLVED CALCIUM AS CA	MG/L
CD	TOTAL CADMIUM	UG/L
CHL_B	CHLOROPHYLL B	MG/L
CHL_C	CHLOROPHYLL C	MG/L
CHLA	ACTIVE CHLOROPHYLL-A	UG/L
CLW	TOTAL CHLORIDE	MG/L
COD	CHEMICAL OXYGEN DEMAND	MG/L
COND	CONDUCTIVITY CORRECTED FOR TEMPERATURE (25 DEG C) AND SALINITY	UMHOS/CM
CR	TOTAL CHROMIUM	UG/L
CU	TOTAL COPPER	UG/L
DIN	DISSOLVED INORGANIC NITROGEN	MG/L
DO	DISSOLVED OXYGEN IN MG/L	MG/L
DO_SAT	DO SATURATION CONCENTATION IN MG/L	MG/L
DO_SAT	DO SATURATION USING PROBE UNITS IN PERCENT	PCT
DOC	DISSOLVED ORGANIC CARBON	MG/L
DON	DISSOLVED ORGANIC NITROGEN	MG/L
DOP	DISSOLVED ORGANIC PHOSPHORUS	MG/L
EPAR_S	PAR MEASURED IN AIR OR ON DECK	UM/M**2/S

EPARD_Z	PAR WITH SENSOR POINTING DOWN; MEASURES UPWELLING	UM/M**2/S
EPARU_Z	PAR WITH SENSOR POINTED UP; MEASURES DOWNWELLING	UM/M**2/S
FCOLI	FECAL COLIFORMS (COLONIES)	COL/100 ML
FCOLI	FECAL COLIFORMS (MOST PROBABLE NUMBER)	MPN/100 ML
FE	TOTAL IRON	MG/L
FE	TOTAL IRON	UG/L
FLOW_AVG	STREAM FLOW; MEAN DAILY	CFS
FLOW_INS	STREAM FLOW; INSTANTANEOUS	CFS
FS	FIXED SOLIDS	MG/L
FSS	FIXED SUSPENDED SOLIDS	MG/L
GAGE_HEIGHT	STREAM STAGE IN FEET	FT
HARDNESS	HARDNESS AS CACO3	MG/L
HG	TOTAL MERCURY	UG/L
IBOD5F	INHIBITED 5-DAY BIOCHEMICAL OXYGEN DEMAND (FILTERED)	MG/L
IBOD5W	INHIBITED 5-DAY BIOCHEMICAL OXYGEN DEMAND (WHOLE)	MG/L
KD	LIGHT ATTENUATION	
KF	DISSOLVED POTASSIUM AS K	MG/L
MGF	DISSOLVED MAGNESIUM AS MG	MG/L
MN	TOTAL MANGANESE	UG/L
NAF	DISSOLVED SODIUM AS NA	MG/L
NH4F	AMMONIUM NITROGEN AS N (FILTERED SAMPLE)	MG/L
NH4W	AMMONIUM NITROGEN AS N (WHOLE SAMPLE)	MG/L
NI	TOTAL NICKEL	UG/L
NO23F	NITRITE+NITRATE NITROGEN AS N (FILTERED SAMPLE)	MG/L
NO23W	NITRITE+NITRATE NITROGEN AS N (WHOLE SAMPLE)	MG/L
NO2F	NITRITE NITROGEN AS N (FILTERED SAMPLE)	MG/L
NO2W	NITRITE NITROGEN AS N (WHOLE SAMPLE)	MG/L
NO3F	NITRATE NITROGEN AS N (FILTERED SAMPLE)	MG/L
NO3W	NITRATE NITROGEN AS N (WHOLE SAMPLE)	MG/L
ORP	OXIDATION REDUCTION POTENTIAL	MG/L
ORP	OXIDATION REDUCTION POTENTIAL	MV
PB	TOTAL LEAD	UG/L
PC	PARTICULATE CARBON	MG/L
PERIPHY	PERIPHYTON BIOMASS; WATER	G/M**2
PH	PH CORRECTED FOR TEMPERATURE (25 DEG C)	SU
PHEO	PHEOPHYTIN	UG/L
PIC	PARTICULATE INORGANIC CARBON	MG/L
PIP	PARTICULATE INORGANIC PHOSPHORUS	MG/L
PN	PARTICULATE NITROGEN	MG/L
PO4F	ORTHOPHOSPHATE PHOSPHORUS AS P (FILTERED SAMPLE)	MG/L
PO4W	ORTHOPHOSPHATE PHOSPHORUS AS P (WHOLE SAMPLE)	MG/L
PON	PARTICULATE ORGANIC NITROGEN	MG/L
PP	PARTICULATE PHOSPHORUS	MG/L
SALINITY	SALINITY UNITS IN PPT AND EQUAL TO PRACTICAL SALNITY UNITS (PSU)	PPT
SE	TOTAL SELENIUM	UG/L
SECCHI	SECCHI DEPTH	M
SI	TOTAL SILICON AS SI	UG/L
SIF	SILICA AS SI (FILTERED SAMPLE)	MG/L
SIGMA_T	WATER DENSITY; DEPENDENT ON SALINITY AND WTEMP	NONE
SIW	SILICA AS SI (WHOLE SAMPLE)	MG/L
SN	TOTAL STRONTIUM	MG/L
SO3	TOTAL SULFITE AS SO3	MG/L
SO4F	SULFATE	MG/L
SO4W	TOTAL SULFATE AS SO4	MG/L
TALK	TOTAL ALKALINITY AS CACO3	MG/L
TCOLI	TOTAL COLIFORMS (COLONIES)	COL/100 ML
TCOLI	TOTAL COLIFORMS (MOST PROBABLE NUMBER)	MPN/100 ML
TDN	TOTAL DISSOLVED NITROGEN	MG/L
TDP	TOTAL DISSOLVED PHOSPHORUS	MG/L
TDS	TOTAL DISSOLVED SOLIDS; GRAVIMETRIC; DRIED AT 180 C	MG/L
TKNF	TOTAL KJELDAHL NITROGEN (FILTERED SAMPLE)	MG/L
TKNW	TOTAL KJELDAHL NITROGEN (WHOLE SAMPLE)	MG/L
TN	TOTAL NITROGEN	MG/L
TOC	TOTAL ORGANIC CARBON	MG/L
TON	TOTAL ORGANIC NITROGEN	MG/L
TOP	TOTAL ORGANIC PHOSPHORUS	MG/L

TP	TOTAL PHOSPHORUS	MG/L
TS	TOTAL SOLIDS	MG/L
TSS	TOTAL SUSPENDED SOLIDS	MG/L
TSSED	TOTAL SUSPENDED SEDIMENT	MG/L
TURB_FTU	TURBIDITY; TURBIDIMETER (FORMAZIN UNITS)	FTU
TURB_JTU	TURBIDITY; JACKSON CANDLE METHOD (FORWARD SCATTER)	JTU
TURB_NTU	TURBIDITY; NEPHELOMETRIC METHOD	NTU
VSS	VOLATILE SUSPENDED SOLIDS	MG/L
WTEMP	WATER TEMPERATURE	DEG C
ZN	TOTAL ZINC	MG/L
ZN	TOTAL ZINC	UG/L

SAMPLE_TYPE

FIELD	DESCRIPTION	TYPE (FORMAT)	LENGTH (BYTES)
SAMPLE_TYPE (PK)	Sample type code	Text	5
DESCRIPTION	Description of SAMPLE_TYPE	Text	50

The SAMPLE_TYPE code is used to identify the type of sample collected. The current water quality database contains data associated with field measurements of physical parameters taken at a specified depth and lab analysis of discrete samples collected at a specified depth.

CS	COMPOSITE SAMPLE COLLECTED SPATIALLY
CT	COMPOSITE SAMPLE COLLECTED TEMPORALLY
D	DISCRETE (GRAB) SAMPLE
HVIC	HORIZONTAL AND VERT INTEGRATED COMP SAMPLE
ISM	IN-SITU MEASUREMENT, NO SAMPLE COLLECTED

SAMPLE_ID

FIELD	DESCRIPTION	TYPE (FORMAT)	LENGTH (BYTES)
SAMPLE_ID (PK)	Sample ID code	Text	5
DESCRIPTION	Description of SAMPLE_ID	Text	100

The SAMPLE_ID code is used to further define the sample collection method so the user will be better able to manipulate the data correctly. Other codes will be added as monitoring protocols changes dictate. Note: In the SQL Server database viewed on the DATA HUB this parameter is named SAMPLE_REPLICATE_TYPE

FS_AVG	AVERAGE OF TWO FIELD SPLIT SUBSAMPLE VALUES
FS1	FIELD SPLIT SUBSAMPLE 1
FS1/LAV	LABORATORY AVERAGE FOR FIELD SPLIT 1
FS1/LS1	FIELD SPLIT SUBSAMPLE 1/LAB SPLIT SUBSAMPLE 1
FS1/LS2	FIELD SPLIT SUBSAMPLE 1/LAB SPLIT SUBSAMPLE 2
FS1_AVG	AVERAGE OF LAB SPLITS GENERATED FROM FIELD SPLIT SUBSAMPLE 1
FS2	FIELD SPLIT SUBSAMPLE 2

FS2/LAV	LABORATORY AVERAGE FOR FIELD SPLIT 2
FS2/LS1	FIELD SPLIT SUBSAMPLE 2/LAB SPLIT SUBSAMPLE 1
FS2/LS2	FIELD SPLIT SUBSAMPLE 2/LAB SPLIT SUBSAMPLE 2
FS2_AVG	AVERAGE OF LAB SPLITS GENERATED FROM FIELD SPLIT SUBSAMPLE 2
FS3	FIELD SPLIT SUBSAMPLE 3
FS4	FIELD SPLIT SUBSAMPLE 4
LS1	LAB SPLIT SUBSAMPLE 1
LS2	LAB SPLIT SUBSAMPLE 2
LS3	LAB SPLIT SUBSAMPLE 3
M1	FIELD MEASUREMENT 1
M2	FIELD MEASUREMENT 2
M3	FIELD MEASUREMENT 3
S1	SAMPLE 1
S1/LS1	SAMPLE 1/LAB SPLIT SUBSAMPLE 1
S1/LS2	SAMPLE 1/LAB SPLIT SUBSAMPLE 2
S1/LS3	SAMPLE 1/LAB SPLIT SUBSAMPLE 3
S2	SAMPLE 2
S2/LS1	SAMPLE2/LAB SPLIT SUBSAMPLE 1
S2/LS2	SAMPLE2/LAB SPLIT SUBSAMPLE 2
S2/LS3	SAMPLE2/LAB SPLIT SUBSAMPLE 3
S3	SAMPLE 3
SPK1	SPIKE SAMPLE SUBSAMPLE 1
SPK2	SPIKE SAMPLE SUBSAMPLE 2

LAYER

FIELD	DESCRIPTION	TYPE (FORMAT)	LENGTH (BYTES)
LAYER (PK)	Water column layer code	Text	1
DESCRIPTION	Description of LAYER	Text	20

The LAYER code defines the water column layer at which the sample or measurement was taken.

AB	FIXED ABOVE BOTTOM
AP	ABOVE PYCNOCLINE
B	BOTTOM
BP	BELOW PYCNOCLINE
BS	FLOATING BELOW SURFACE
I	INTEGRATED
M	MID-DEPTH
M1	MIDDLE 1/3 OF TOTAL STATION DEPTH
M2	MIDDLE 2/3 OF TOTAL STATION DEPTH
S	SURFACE
VP	VERTICAL PROFILE

UNIT

FIELD	DESCRIPTION	TYPE (FORMAT)	LENGTH (BYTES)
UNITS (PK)	Units abbreviation	Text	10
DESCRIPTION	Description of UNITS	Text	50

This table lists UNIT codes associated with parameter values.

UNIT	DESCRIPTION
%FS	PERCENT FULL SCALE
1/M	(KD UNIT) PER METER
ABS	OPTICAL DENSITY
CFS	CUBIC FEET PER SECOND
COL/100 ML	NUMBER OF COLONIES PER 100 MILLILITERS
DEG C	DEGREES CELSIUS
FT	FEET
FTU	FORMAZIN UNITS
G/M**2	GRAMS PER SQUARE METER
JTU	JACKSON TURBIDITY UNITS
KG/DAY	KILOGRAMS PER DAY
KG/MONTH	KILOGRAMS PER MONTH
KG/YEAR	KILOGRAMS PER YEAR
LBS/DAY	POUNDS PER DAY
LBS/MONTH	POUNDS PER DAY
LBS/YEAR	POUNDS PER YEAR
M	METERS
MG/L	MILLIGRAMS PER LITER
MPN/100 ML	MOST PROBABLE NUMBER PER 100 MILLILITERS
MV	MILLIVOLTS
NONE	PARAMETER HAS NO ASSOCIATED UNITS
NTU	NEPHELOMETRIC UNITS
PCT	PERCENT
PPT	PARTS PER THOUSAND. PPT ARE EQUAL TO PRACTICAL SALNITY UNITS (PSU).
SU	SPECIFIC UNITS
TONS/DAY	TONS PER DAY
TONS/MONTH	TONS PER MONTH
TONS/YEAR	TONS PER YEAR
UE/M**2/S	MICROEINSTEINS PER METER SQUARED PER SECOND
UG/L	MICROGRAMS PER LITER
UM/M**2/S	MICROMOLES PER METER SQUARED PER SECOND. EQUAL TO MICROEINSTEINS
UMHOS/CM	MICROHMS PER CENTIMETER
VOLTS	VOLTAGE

QUALIFIER

FIELD	DESCRIPTION	TYPE (FORMAT)	LENGTH (BYTES)
QUALIFIER (PK)	Parameter value qualifier code	Text	1
DESCRIPTION	Description of QUALIFIER	Text	50

The QUALIFIER code is used to describe the parameter value as less than or greater than the method detection limit.

< LESS THAN THE LOWER METHOD DETECTION LIMIT (MDL)
> GREATER THAN THE UPPER METHOD DETECTION LIMIT (MDL)
E ESTIMATED VALUE

METHOD

FIELD	DESCRIPTION	TYPE (FORMAT)	LENGTH (BYTES)
PARAMETER (PK,FK)	CIMS Parameter Code	Text	15
METHOD (PK,FK)	CIMS Method Code	Text	7
EPA_METHOD	EPA Method Number	Text	50
TITLE	Method Title	Text	50
DESCRIPTION	Method Description	Memo	
REFERENCE1	Method Reference #1	Memo	
REFERENCE2	Method Reference #2	Memo	
REFERENCE3	Method Reference #3	Memo	
REFERENCE4	Method Reference #4	Memo	
DETAILS	Comments	Memo	
INSTRUMENTS	Laboratory or field instrument	Memo	

The METHOD code defines the (F)ield, (L)ab or (D)atabase calculation procedure used to obtain the parameter value. The following is a partial listing of the METHOD table.

PARAMETER	METHOD	EPA_METHOD	TITLE
AS	L01	206.2	TOTAL ARSENIC ATOMIC ABSORPTION FURNACE TECHNIQUE
BIOSI	L01		PARTICULATE BIOGENIC SILICA
BOD20F	L01		20 DAY BOD; FILTERED
BOD20W	L01		20 DAY BOD; UNFILTERED
BOD5F	L01	405.1	5-DAY BIOCHEMICAL OXYGEN DEMAND (FILTERED)
BOD5W	L01	405.1	5-DAY BIOCHEMICAL OXYGEN DEMAND
CD	L01	200.7	TOTAL CADMIUM; ATOMIC EMISSION SPECTROMETRIC
CHL_A	L01	446.0	TRICHROMATIC CHLOROPHYLL A
CHL_B	L01	446.0	TRICHROMATIC CHLOROPHYLL B
CHL_C	L01	446.0	TRICHROMATIC CHLOROPHYLL C
CHLA	F01		FLUOROMETIC CHLOROPHYLL USING PROBE
CHLA	L01		MONOCHROMATIC; SPECTROPHOTOMETRIC
CHLA	L02		MONOCHROMATIC; SPECTROPHOTOMETRIC
CHLA	L03		FLUOROMETRIC; IN-VITRO CHLOROPHYLL A
CLW	L01	325.3	TITRIMETRIC; MERCURIC NITRATE
COD	L01	410.1	TITRIMETRIC; MID-LEVEL
COD	L02	410.3	TITRIMETRIC; HIGH LEVEL FOR SALINE WATERS
COD	L03	410.4	COLORIMETRIC; AUTOMATED OR MANUAL

COND	F01		IN-SITU SPECIFIC CONDUCTANCE AT 25 C
COND	F02	120.1	SPECIFIC CONDUCTANCE AT 25 C - FIELD GRAB
CR	L01	200.7	TOTAL CHROMIUM; ATOMIC EMISSION SPECTROMETRIC
CU	L01	200.7	TOTAL COPPER; ATOMIC EMISSION SPECTROMETRIC
DIN	D01		DATABASE CALCULATED DIN - METHOD 1
DIN	D01A		DATABASE CALCULATED DIN - METHOD 1 - MDL
DIN	D01B		DATABASE CALCULATED DIN - METHOD 1 - 1/2 MDL
DIN	D01D		DATABASE CALCULATED DIN - METHOD 1
DIN	D02		DATABASE CALCULATED DIN - METHOD 2
DIN	D02A		DATABASE CALCULATED DIN - METHOD 2 - MDL
DIN	D02B		DATABASE CALCULATED DIN - METHOD 2 - 1/2 MDL
DIN	D02D		DATABASE CALCULATED DIN - METHOD 2
DO	F01	360.1	IN-SITU MEMBRANE ELECTRODE
DO	F02	360.1	DISSOLVED OXYGEN
DO	F03	360.2	DISSOLVED OXYGEN; MODIFIED WINKLER
DO_SAT	D01		DATABASE CALCULATED DO_SAT = METHOD 1
DO_SAT	F01		DO RELATIVE TO THEORETICAL VALUE AT SATURATION (%)
DOC	L01	415.1	COMBUSTION INFRARED METHOD
DOC	L02		WET OXIDATION METHOD
DOC	L03		UV OR HEATED PERSULFATE OXIDATION
DON	D01		DATABASE CALCULATED DON - METHOD 1
DON	D01A		DATABASE CALCULATED DON - METHOD 1 - MDL
DON	D01B		DATABASE CALCULATED DON - METHOD 1 - 1/2 MDL
DON	D01D		DATABASE CALCULATED DON - METHOD 1
DON	D02		DATABASE CALCULATED DON - METHOD 2
DON	D02A		DATABASE CALCULATED DON - METHOD 2 - MDL
DON	D02B		DATABASE CALCULATED DON - METHOD 2 - 1/2 MDL
DON	D02D		DATABASE CALCULATED DON - METHOD 2
DON	D03		DATABASE CALCULATED DON - METHOD 3
DON	D03A		DATABASE CALCULATED DON - METHOD 3 - MDL
DON	D03B		DATABASE CALCULATED DON - METHOD 3 - 1/2 MDL
DON	D03D		DATABASE CALCULATED DON - METHOD 3
DOP	D01		DATABASE CALCULATED DOP - METHOD 1
DOP	D01A		DATABASE CALCULATED DOP - METHOD 1 - MDL
DOP	D01B		DATABASE CALCULATED DOP - METHOD 1 - 1/2 MDL
DOP	D01D		DATABASE CALCULATED DOP - METHOD 1
EPAR_S	F01		EPAR AT SURFACE
EPARD_Z	F01		IN-SITU; SENSOR DOWN; UPWELLING PAR
EPARU_Z	F01		IN-SITU; SENSOR UP; DOWNWELLING PAR
FCOLI	L01		FECAL COLIFORM - EC MEDIUM; MPN
FCOLI	L02		FECAL COLIFORM MEMBRANE FILTER; M-FC MEDIUM
FCOLI	L03		DIRECT TEST; A-1 MEDIUM
FE	L01		TOTAL IRON; PHENANTHROLINE METHOD
FE	L02	200.7	TOTAL IRON; ATOMIC EMISSION SPECTROMETRIC
FLOW_AVG	F01		STREAMFLOW; MEAN DAILY
FLOW_INS	F01		STREAMFLOW; INSTANTANEOUS
FS	L01	160.4	FIXED SOLIDS
FSS	L01	160.4	FIXED SUSPENDED SOLIDS
HARDNESS	L01	130.2	TITRIMETRIC; EDTA
HARDNESS	L02	130.1	COLORIMETRIC; AUTOMATED EDTA
HG	L01	245.2	TOTAL MERCURY; AUTOMATED COLD VAPOR TECHNIQUE
IBOD5F	L01		CARBONACEOUS BOD5; INHIBITED; FILTERED
IBOD5W	L01		CARBONACEOUS BOD5; INHIBITED; UNFILTERED
KD	D01		DATABASE CALCULATED KD - SAV 2 POINT METHOD
KD	F01		LIGHT ATTENUATION
NH4F	L01	350.1, 349.0	COLORIMETRIC; AUTOMATED PHENATE (INDOPHENOL)
NH4F	L02		COLORIMETRIC; AUTO SALICYLATE-HYPOCHLORITE
NH4W	L01	350.1	COLORIMETRIC; AUTOMATED PHENATE (INDOPHENOL)
NO23F	D01		DATABASE CALCULATED NO23F - METHOD 1
NO23F	D01A		DATABASE CALCULATED NO23F - METHOD 1 - MDL
NO23F	D01B		DATABASE CALCULATED NO23F - METHOD 1 - 1/2 MDL
NO23F	D01D		DATABASE CALCULATED NO23F - METHOD 1
NO23F	L01	353.2, 353.4	COLORIMETRIC; AUTOMATED CADMIUM REDUCTION

NO23F	L02	353.3	SPECTROPHOTOMETRIC; MANUAL CADMIUM REDUCTION
NO23W	D01		DATABASE CALCULATED NO23W
NO23W	D01A		DATABASE CALCULATED NO23W - METHOD 1 - MDL
NO23W	D01B		DATABASE CALCULATED NO23W - METHOD 1 - 1/2 MDL
NO23W	D01D		DATABASE CALCULATED NO23W - METHOD 1
NO23W	L01	353.2	COLORIMETRIC; AUTOMATED CADMIUM REDUCTION
NO23W	L02	353.3	MANUAL; SPECTROPHOTOMETRIC; CADMIUM REDUCTION
NO2F	L01	353.2, 353.4	AUTOMATED; COLORIMETRIC; DIAZOTIZATION
NO2F	L02	354.1	MANUAL; SPECTROPHOTOMETRIC; DIAZOTIZATION
NO2W	L01	353.2	AUTOMATED; COLORIMETRIC; DIAZOTIZATION
NO2W	L02	354.1	MANUAL; SPECTROPHOTOMETRIC; DIAZOTIZATION
NO3F	C01		CALCULATED NO3F (SUBMITTED TO CBPO)
NO3F	D01		DATABASE CALCULATED NO3F - METHOD 1
NO3F	D01A		DATABASE CALCULATED NO3F - METHOD 1 - MDL
NO3F	D01B		DATABASE CALCULATED NO3F - METHOD 1 - 1/2 MDL
NO3F	D01D		DATABASE CALCULATED NO3F - METHOD 1
NO3F	L01	300.0	NITRATE BY ION CHROMATOGRAPHY
NO3W	D01		DATABASE CALCULATED NO3W - METHOD 1
NO3W	D01A		DATABASE CALCULATED NO3W - METHOD 1 - MDL
NO3W	D01B		DATABASE CALCULATED NO3W - METHOD 1 - 1/2 MDL
NO3W	D01D		DATABASE CALCULATED NO3W - METHOD 1
ORP	F01		OXIDATION REDUCTION POTENTIAL
PB	L01	239.2	TOTAL LEAD; ATOMIC ABSORPTION; FURNACE TECHNIQUE
PC	L01	440.0	PARTICULATE CARBON
PH	F01	150.1	IN-SITU ELECTRODE METHOD
PH	F02	150.1	ELECTRODE METHOD
PHEO	L01		MONOCHROMATIC; SPECTROPHOTOMETRIC
PHEO	L02		MONOCHROMATIC; SPECTROPHOTOMETRIC
PHEO	L03	445.0	MONOCHROMATIC; FLUOROMETRIC
PIC	L01	440.0	PARTICULATE INORGANIC CARBON
PIP	L01		PARTICULATE INORGANIC PHOSPHORUS
PN	L01	440.0	PARTICULATE NITROGEN
PO4F	L01	365.1,365.5	ORTHOPHOSPHATE; AUTOMATED; ASCORBIC ACID
PO4F	L02	365.2	ORTHO-P; MANUAL; ASCORBIC ACID; SINGLE REAGENT
PO4F	L03	365.3	ORTHOPHOSPHATE; MANUAL; ASCORBIC ACID; TWO REAGENT
PO4W	L01	365.1,365.5	ORTHOPHOSPHATE; AUTOMATED; ASCORBIC ACID
POC	D01		DATABASE CALCULATED POC - METHOD 1
POC	D01A		DATABASE CALCULATED POC - METHOD 1 - MDL
POC	D01B		DATABASE CALCULATED POC - METHOD 1 - 1/2 MDL
POC	D01D		DATABASE CALCULATED POC - METHOD 1
PON	D01		DATABASE CALCULATED PON - METHOD 1
PON	D01A		DATABASE CALCULATED PON - METHOD 1 - MDL
PON	D01B		DATABASE CALCULATED PON - METHOD 1 - 1/2 MDL
PON	D01D		DATABASE CALCULATED PON - METHOD 1
PP	D01		DATABASE CALCULATED PP - METHOD 1
PP	D01A		DATABASE CALCULATED PP - METHOD 1 - MDL
PP	D01B		DATABASE CALCULATED PP - METHOD 1 - 1/2 MDL
PP	D01D		DATABASE CALCULATED PP - METHOD 1
PP	L01		PARTICULATE PHOSPHORUS; SEMI-AUTOMATED; DIRECT
SALINITY	F01		IN-SITU MEASUREMENT WITH PROBE
SALINITY	F02		CALCULTED FROM COND
SALINITY	F03		CALCULTED FROM COND
SALINITY	F04		UNESCO '83 CALCULATION
SE	L01	270.2	TOTAL SELENIUM; ATOMIC ABSORPTION; FURNACE TECHNIQ
SECCHI	F01		20 CM SECCHI DEPTH
SECCHI	F02		30 CM SECCHI DEPTH
SIF	L01	366.0	COLORIMETRIC; AUTOMATED; MOLYBDENUM BLUE
SIF	L02	370.1	SPECTROPHOMETRIC; MANUAL; MOLYBDOSILICATE
SIF	L03		SILICA; ATOMIC ABSORPTION SPECTROMETRY; DIRECT
SIGMA_T	D01		DATABASE CALCULATED SIGMA_T - METHOD 1
SIW	L01	101	COLORIMETRIC; AUTOMATED; MOLYBDENUM BLUE
SIW	L02	370.1	SPECTROPHOMETRIC; MANUAL; MOLYBDOSILICATE
SO4F	L01	375.4	SULFATE; TURBIDIMETRIC METHOD

SO4F	L02	300.0	SULFATE BY ION CHROMATOGRAPHY
SO4F	L03	375.2	AUTOMATED COLORIMETRIC; METHYLTHYMOL BLUE
SO4W	L01	375.4	SULFATE; TURBIDIMETRIC METHOD
TALK	L01	310.1	ALKALINITY; TITRIMETRIC; pH 4.5
TCOLI	L01		STD. FERMENTATION TECHNIQUE (MPN)
TCOLI	L02		TOTAL COLIFORM MEMBRANE FILTER; M-FC MEDIUM
TDN	D01		DATABASE CALCULATED TDN - METHOD 1
TDN	D01A		DATABASE CALCULATED TDN - METHOD 1 - MDL
TDN	D01B		DATABASE CALCULATED TDN - METHOD 1 - 1/2 MDL
TDN	D01D		DATABASE CALCULATED TDN - METHOD 1
TDN	D02		DATABASE CALCULATED TDN - METHOD 2
TDN	D02A		DATABASE CALCULATED TDN - METHOD 2 - MDL
TDN	D02B		DATABASE CALCULATED TDN - METHOD 2 - 1/2 MDL
TDN	D02D		DATABASE CALCULATED TDN - METHOD 2
TDN	L01		ALKALINE PERSULFATE WET OXIDATION + EPA 353.2 or EPA 353.4
TDP	L01		ALKALINE PERSULFATE WET OXIDATION + EPA365.1or EPA 365
TDP	L02		ALKALINE PERSULFATE WET OXIDATION + EPA 365.2
TDP	L03		ALKALINE PERSULFATE WET OXIDATION + EPA 365.3
TDP	L04	365.1	COLOMETRIC; AUTOMATED; ASCORBIC ACID
TDP	L05	365.4	BLOCK DIGESTION; AUTOMATED ASCORBIC ACID
TDS	L01	160.1	TOT. DISSOLVED SOLIDS; GRAVIMETRIC; DRIED AT 180 C
TKNF	L01	351.1	TKN COLOMETRIC; AUTOMATED PHENATE (INDOPHENOL)
TKNF	L02	351.2	SEMI-AUTOMATED BLOCK DIGESTOR; COLORIMETRIC; NITRO
TKNF	L03	351.3	COLORIMETRIC: NESSLER;TITRIMETRIC OR POTENTIOMETRIC
TKNW	L01	351.1	TKN COLOMETRIC; AUTOMATED PHENATE (INDOPHENOL)
TKNW	L02	351.2	SEMI-AUTOMATED BLOCK DIGESTOR; COLORIMETRIC; NITRO
TKNW	L03	351.3	COLORIMETRIC: NESSLER;TITRIMETRIC OR POTENTIOMETRIC
TN	D01		DATABASE CALCULATED TN - METHOD 1
TN	D01A		DATABASE CALCULATED TN - METHOD 1 - MDL
TN	D01B		DATABASE CALCULATED TN - METHOD 1 - 1/2 MDL
TN	D01D		DATABASE CALCULATED TN - METHOD 1
TN	D02		DATABASE CALCULATED TN - METHOD 2
TN	D02A		DATABASE CALCULATED TN - METHOD 2 - MDL
TN	D02B		DATABASE CALCULATED TN - METHOD 2 - 1/2 MDL
TN	D02D		DATABASE CALCULATED TN - METHOD 2
TN	D03		DATABASE CALCULATED TN - METHOD 3
TN	D03A		DATABASE CALCULATED TN - METHOD 3 - MDL
TN	D03B		DATABASE CALCULATED TN - METHOD 3 - 1/2 MDL
TN	D03D		DATABASE CALCULATED TN - METHOD 3
TN	D04		DATABASE CALCULATED TN - METHOD 4
TN	D04A		DATABASE CALCULATED TN - METHOD 4 - MDL
TN	D04B		DATABASE CALCULATED TN - METHOD 4 - 1/2 MDL
TN	D04D		DATABASE CALCULATED TN - METHOD 4
TN	L01		ALKALINE PERSULFATE DIGESTION + EPA METHOD 353.2
TOC	D01		DATABASE CALCULATED TOC - METHOD 1
TOC	D01A		DATABASE CALCULATED TOC - METHOD 1 - MDL
TOC	D01B		DATABASE CALCULATED TOC - METHOD 1 - 1/2 MDL
TOC	D01D		DATABASE CALCULATED TOC - METHOD 1
TOC	L01	415.1	COMBUSTION INFRARED METHOD
TOC	L02		WET OXIDATION METHOD
TOC	L03		UV OR HEATED PERSULFATE OXIDATION
TON	D01		DATABASE CALCULATED TON - METHOD 1
TON	D01A		DATABASE CALCULATED TON - METHOD 1 - MDL
TON	D01B		DATABASE CALCULATED TON - METHOD 1 - 1/2 MDL
TON	D01D		DATABASE CALCULATED TON - METHOD 1
TON	D02		DATABASE CALCULATED TON - METHOD 2
TON	D02A		DATABASE CALCULATED TON - METHOD 2 - MDL
TON	D02B		DATABASE CALCULATED TON - METHOD 2 - 1/2 MDL
TON	D02D		DATABASE CALCULATED TON - METHOD 2
TON	D03		DATABASE CALCULATED TON - METHOD 3
TON	D03A		DATABASE CALCULATED TON - METHOD 3 - MDL
TON	D03B		DATABASE CALCULATED TON - METHOD 3 - 1/2 MDL
TON	D03D		DATABASE CALCULATED TON - METHOD 3

TP	D01		DATABASE CALCULATED TP - METHOD 1
TP	D01A		DATABASE CALCULATED TP - METHOD 1 - MDL
TP	D01B		DATABASE CALCULATED TP - METHOD 1 - 1/2 MDL
TP	D01D		DATABASE CALCULATED TP - METHOD 1
TP	L01	365.4	COLORIMETRIC; AUTOMATED; BLOCK DIGESTOR AAII
TP	L02	365.2	COLORIMETRIC; MANUAL; ASCORBIC ACID; SINGLE REAGENT
TP	L03	365.3	COLORIMETRIC; MANUAL; ASCORBIC ACID; TWO REAGENT
TP	L04	365.1	COLORIMETRIC; MANUAL; ASCORBIC ACID
TS	L01	160.3	TOTAL SOLIDS DRIED AT 103-105 DEGREES
TSS	L01	160.2	GRAVIMETRIC; DRIED AT 103-105 C
TSSED	L01		GRAVIMETRIC; FILTRATION; DRIED AT 104 C
TURB_FTU	L01		FORMAZIN TURBIDITY UNITS
TURB_JTU	L01		JACKSON TURBIDITY UNITS
TURB_NTU	F01	NONE	IN-SITU NEPHELOMETRIC (YSI 6136)
TURB_NTU	F02	NONE	IN-SITU NEPHELOMETRIC (YSI 6026)
TURB_NTU	L01	180.1	NEPHELOMETRIC
VSS	L01	160.4	GRAVIMETRIC; IGNITION AT 550 C
WTEMP	F01	170.1	IN-SITU THERMISTOR
WTEMP	F02	170.1	THERMOMETRIC
ZN	L01	200.7	TOTAL ZINC; ATOMIC EMISSION SPECTROMETRIC

PROBLEM

FIELD	DESCRIPTION	TYPE (FORMAT)	LENGTH (BYTES)
PROBLEM (PK)	Analysis problem code	Text	2
DESCRIPTION	Description of PROBLEM	Text	100

The PROBLEM codes are used to provide assistance to the data analyst who must determine how to use the data. These codes define lab and sampling problems that were encountered during measurement of the parameter value.

A LABORATORY ACCIDENT
B CHEMICAL MATRIX INTERFERENCE
BB TORN FILTER PAD
C INSTRUMENT FAILURE
D INSUFFICIENT SAMPLE
DD SAMPLE SIZE NOT REPORTED (ASSUMED)
E SAMPLE RECEIVED AFTER HOLDING TIME
FF POOR REPLICATION BETWEEN PADS, MEAN REPORTED
GG SAMPLE ANALYZED AFTER HOLDING TIME
I SUSPECT VALUE HAS BEEN VERIFIED CORRECT
J INCORRECT SAMPLE FRACTION FOR ANALYSIS
JJ VOLUME FILTERED NOT RECORDED (ASSUMED)
L LICOR CALIBRATION OFF BY >= 10% PER YEAR. USE WITH CALC KD WHERE PROB OF LU, LS, LB EXIST IN RAW
LB LICOR CALIBRATION OFF BY >= 10% PER YEAR FOR BOTH AIR AND UPWARD FACING SENSORS
LS LICOR CALIBRATION OFF BY >= 10% PER YEAR FOR AIR SENSOR
LU LICOR CALIBRATION OFF BY >= 10% PER YEAR FOR UPWARD FACING SENSOR
MM OVER 20% OF SAMPLE ADHERED TO POUCH AND OUTSIDE OF PAD
NN PARTICULATES FOUND IN FILTERED SAMPLE

P	PROVISIONAL DATA
QQ	PART EXCEEDS WHOLE VALUE YET DIFFERENCE IS WITHIN ANALYTICAL PRECISION
R	SAMPLE CONTAMINATED
RR	NO SAMPLE RECEIVED
SS	SAMPLE REJECTED, HIGH SUSPENDED SEDIMENT CONCENTRATION
U	MATRIX PROBLEM RESULTING FROM THE INTERRELATIONSHIP BETWEEN VARIABLES SUCH AS PH AND AMMONIA
V	SAMPLE RESULTS REJECTED DUE TO QC CRITERIA
VV	STATION WAS NOT SAMPLED DUE TO BAD FIELD CONDITIONS
WW	HIGH OPTICAL DENSITY (750 NM); ACTUAL VALUE RECORDED
X	SAMPLE NOT PRESERVED PROPERLY

LAB

FIELD	DESCRIPTION	TYPE (FORMAT)	LENGTH (BYTES)
LAB (PK)	Code identifying the laboratory at which the sample was analyzed	Text	10
DESCRIPTION	Full description of lab code	Text	100
DIRECTOR	Name of lab director	Text	50
ADDRESS	Street address	Text	100
CITY	City	Text	50
STATE	State	Text	2
ZIP	Zip code	Text	9
PHONE	Telephone number	Text	10

The LAB table contains codes that identify the laboratory at which the sample was analyzed.

AMRL	OLD DOMINION UNIVERSITY APPLIED MARINE RESEARCH LABORATORY (THIS LAB BECAME THE ODU LAB IN MAY, 2000
BPFL	BLUE PLAINS FIELD LABORATORY
CBL	UNIVERSITY OF MARYLAND CHESAPEAKE BIOLOGICAL LABORATORY
CRL	USEPA-CENTRAL REGIONAL LABORATORY (moved to FT Meade 1999)
ELB	DISTRICT OF COLUMBIA DEPT OF HEALTH ENVIRONMENTAL LABORATORY BRANCH AT EPA CRL
MDHMH	MARYLAND DEPARTMENT OF HEALTH AND MENTAL HYGIENE
MDHMH-WM	MARYLAND DEPARTMENT OF HEALTH AND MENTAL HYGIENE-WESTERN MARYLAND LAB
ODU	OLD DOMINION UNIVERSITY LABORATORY
OTHER	OTHER LABORATORY NOT LISTED
OWML	OCCOQUAN WATERSHED MONITORING LABORATORY
PADEP	PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
SMRP	ST MARY'S RIVER PROJECT
SRBC	SUSQUEHANNA RIVER BASIN COMMISSION LABORATORY
UMCES-AL	UNIVERSITY OF MARYLAND APPALACHIAN LABORATORY
USGS-NWQL	UNITED STATES GEOLOGICAL SURVEY NATIONAL WATER QUALITY LABORATORY
VADCLS	VIRGINIA DIVISION OF CONSOLIDATED LABORATORY SERVICES
VCU	VIRGINIA COMMONWEALTH UNIVERSITY
VIMS	VIRGINIA INSTITUTE OF MARINE SCIENCE

WQ_STATIONS lookup tables

The following lookup tables are related exclusively to the WQ_STATIONS table. They include codes related to the various geographic references. Values for several of these fields will be populated using GIS polygon coverages that reside at the CBPO.

FIPS

FIELD	DESCRIPTION	TYPE (FORMAT)	LENGTH (BYTES)
FIPS (PK)	Federal Information Processing System code	Text	5
STATE	Two-letter state abbreviation	Text	2
NAME	County/city name	Text	30

The FIPS table contains Federal Information Processing System codes identifying state and county or incorporated city

10001	DE	KENT
10003	DE	NEW CASTLE
10005	DE	SUSSEX
11001	DC	DISTRICT OF COLUMBIA
24001	MD	ALLEGANY
24003	MD	ANNE ARUNDEL
24005	MD	BALTIMORE
24009	MD	CALVERT
24011	MD	CAROLINE
24013	MD	CARROLL
24015	MD	CECIL
24017	MD	CHARLES
24019	MD	DORCHESTER
24021	MD	FREDERICK
24023	MD	GARRETT
24025	MD	HARFORD
24027	MD	HOWARD
24029	MD	KENT
24031	MD	MONTGOMERY
24033	MD	PRINCE GEORGES
24035	MD	QUEEN ANNES
24037	MD	SAINT MARYS
24039	MD	SOMERSET
24041	MD	TALBOT
24043	MD	WASHINGTON
24045	MD	WICOMICO
24047	MD	WORCESTER
24510	MD	BALTIMORE CITY
36003	NY	ALLEGANY
36007	NY	BROOME

36011	NY	CAYUGA
36015	NY	CHEMUNG
36017	NY	CHENANGO
36023	NY	CORTLAND
36025	NY	DELAWARE
36043	NY	HERKIMER
36051	NY	LIVINGSTON
36053	NY	MADISON
36065	NY	ONEIDA
36067	NY	ONONDAGA
36069	NY	ONTARIO
36077	NY	OTSEGO
36095	NY	SCHOHARIE
36097	NY	SCHUYLER
36101	NY	STEUBEN
36107	NY	TIOGA
36109	NY	TOMPKINS
36123	NY	YATES
42001	PA	ADAMS
42009	PA	BEDFORD
42011	PA	BERKS
42013	PA	BLAIR
42015	PA	BRADFORD
42021	PA	CAMBRIA
42023	PA	CAMERON
42025	PA	CARBON
42027	PA	CENTRE
42029	PA	CHESTER
42033	PA	CLEARFIELD
42035	PA	CLINTON
42037	PA	COLUMBIA
42041	PA	CUMBERLAND
42043	PA	DAUPHIN
42047	PA	ELK
42055	PA	FRANKLIN
42057	PA	FULTON
42061	PA	HUNTINGDON
42063	PA	INDIANA
42065	PA	JEFFERSON
42067	PA	JUNIATA
42069	PA	LACKAWANNA
42071	PA	LANCASTER
42075	PA	LEBANON
42079	PA	LUZERNE
42081	PA	LYCOMING
42083	PA	MCKEAN
42087	PA	MIFFLIN
42093	PA	MONTOUR
42097	PA	NORTHUMBERLAND
42099	PA	PERRY
42105	PA	POTTER
42107	PA	SCHUYLKILL
42109	PA	SNYDER

42111	PA	SOMERSET
42113	PA	SULLIVAN
42115	PA	SUSQUEHANNA
42117	PA	TIOGA
42119	PA	UNION
42127	PA	WAYNE
42131	PA	WYOMING
42133	PA	YORK
51001	VA	ACCOMACK
51003	VA	ALBEMARLE
51005	VA	ALLEGHANY
51007	VA	AMELIA
51009	VA	AMHERST
51011	VA	APPOMATTOX
51013	VA	ARLINGTON
51015	VA	AUGUSTA
51017	VA	BATH
51019	VA	BEDFORD
51023	VA	BOTETOURT
51029	VA	BUCKINGHAM
51031	VA	CAMPBELL
51033	VA	CAROLINE
51036	VA	CHARLES CITY
51037	VA	CHARLOTTE
51041	VA	CHESTERFIELD
51043	VA	CLARKE
51045	VA	CRAIG
51047	VA	CULPEPER
51049	VA	CUMBERLAND
51053	VA	DINWIDDIE
51057	VA	ESSEX
51059	VA	FAIRFAX
51061	VA	FAUQUIER
51065	VA	FLUVANNA
51069	VA	FREDERICK
51071	VA	GILES
51073	VA	GLOUCESTER
51075	VA	GOOCHLAND
51079	VA	GREENE
51085	VA	HANOVER
51087	VA	HENRICO
51091	VA	HIGHLAND
51093	VA	ISLE OF WIGHT
51095	VA	JAMES CITY
51097	VA	KING AND QUEEN
51099	VA	KING GEORGE
51101	VA	KING WILLIAM
51103	VA	LANCASTER
51107	VA	LOUDOUN
51109	VA	LOUISA
51111	VA	LUNENBURG
51113	VA	MADISON
51115	VA	MATHEWS

51119	VA	MIDDLESEX
51121	VA	MONTGOMERY
51125	VA	NELSON
51127	VA	NEW KENT
51131	VA	NORTHAMPTON
51133	VA	NORTHUMBERLAND
51135	VA	NOTTOWAY
51137	VA	ORANGE
51139	VA	PAGE
51145	VA	POWHATAN
51147	VA	PRINCE EDWARD
51149	VA	PRINCE GEORGE
51153	VA	PRINCE WILLIAM
51157	VA	RAPPAHANNOCK
51159	VA	RICHMOND
51161	VA	ROANOKE
51163	VA	ROCKBRIDGE
51165	VA	ROCKINGHAM
51171	VA	SHENANDOAH
51177	VA	SPOTSYLVANIA
51179	VA	STAFFORD
51181	VA	SURRY
51187	VA	WARREN
51193	VA	WESTMORELAND
51199	VA	YORK
51510	VA	ALEXANDRIA CITY
51530	VA	BUENA VISTA CITY
51540	VA	CHARLOTTESVILLE CITY
51550	VA	CHESAPEAKE CITY
51560	VA	CLIFTON FORGE CITY
51570	VA	COLONIAL HEIGHTS CITY
51580	VA	COVINGTON CITY
51600	VA	FAIRFAX CITY
51610	VA	FALLS CHURCH CITY
51630	VA	FREDERICKSBURG CITY
51650	VA	HAMPTON CITY
51660	VA	HARRISONBURG CITY
51670	VA	HOPEWELL CITY
51678	VA	LEXINGTON CITY
51680	VA	LYNCHBURG CITY
51683	VA	MANASSAS CITY
51685	VA	MANASSAS PARK CITY
51700	VA	NEWPORT NEWS CITY
51710	VA	NORFOLK CITY
51730	VA	PETERSBURG CITY
51735	VA	POQOUSON CITY
51740	VA	PORTSMOUTH CITY
51760	VA	RICHMOND CITY
51790	VA	STAUNTON CITY
51800	VA	SUFFOLK CITY
51810	VA	VIRGINIA BEACH CITY
51820	VA	WAYNESBORO CITY
51830	VA	WILLIAMSBURG CITY

51840	VA	WINCHESTER CITY
54003	WV	BERKELEY
54023	WV	GRANT
54027	WV	HAMPSHIRE
54031	WV	HARDY
54037	WV	JEFFERSON
54057	WV	MINERAL
54063	WV	MONROE
54065	WV	MORGAN
54071	WV	PENDLETON
54077	WV	PRESTON
54093	WV	TUCKER

HUC8

FIELD	DESCRIPTION	TYPE (FORMAT)	LENGTH (BYTES)
HUC8 (PK)	Cataloging Unit or USGS 8 Digit HUC (Hydrologic Unit Code)	Text	8
DESCRIPTION	8 Digit HUC Name	Text	255

The HUC8 code is the 8-digit USGS hydrologic unit code in which the station is located.

02050101	UPPER SUSQUEHANNA
02050102	CHENANGO
02050103	OWEGO-WAPPASENING
02050104	TIOGA
02050105	CHEMUNG
02050106	UPPER SUSQUEHANNA-TUNKHANNOCK
02050107	UPPER SUSQUEHANNA-LACKAWANNA
02050201	UPPER WEST BRANCH SUSQUEHANNA
02050202	SINNEMAHONING
02050203	MIDDLE WEST BRANCH SUSQUEHANNA
02050204	BALD EAGLE
02050205	PINE
02050206	LOWER WEST BRANCH SUSQUEHANNA
02050301	LOWER SUSQUEHANNA-PENNS
02050302	UPPER JUNIATA
02050303	RAYSTOWN
02050304	LOWER JUNIATA
02050305	LOWER SUSQUEHANNA-SWATARA
02050306	LOWER SUSQUEHANNA
02060001	UPPER CHESAPEAKE BAY
02060002	CHESTER-SASSAFRAS
02060003	GUNPOWDER-PATAPSCO
02060004	SEVERN
02060005	CHOPTANK
02060006	PATUXENT
02060007	BLACKWATER-WICOMICO

02060008 NANTICOKE
02060009 POCOMOKE
02070001 SOUTH BRANCH POTOMAC
02070002 NORTH BRANCH POTOMAC
02070003 CACAPON-TOWN
02070004 CONOCOCHEAGUE-OPEQUON
02070005 SOUTH FORK SHENANDOAH
02070006 NORTH FORK SHENANDOAH
02070007 SHENANDOAH
02070008 MIDDLE POTOMAC-CATOCTIN
02070009 MONOCACY
02070010 MIDDLE POTOMAC-ANACOSTIA-OCCOQUAN
02070011 LOWER POTOMAC
02080101 LOWER CHESAPEAKE BAY
02080102 GREAT WICOMICO-PIANKATANK
02080103 RAPIDAN-UPPER RAPPAHANNOCK
02080104 LOWER RAPPAHANNOCK
02080105 MATTAPONI
02080106 PAMUNKEY
02080107 YORK
02080108 LYNNHAVEN-POQUOSON
02080109 WESTERN LOWER DELMARVA
02080201 UPPER JAMES
02080202 MAURY
02080203 MIDDLE JAMES-BUFFALO
02080204 RIVANNA
02080205 MIDDLE JAMES-WILLIS
02080206 LOWER JAMES
02080207 APPOMATTOX
02080208 HAMPTON ROADS

HUC11

FIELD	DESCRIPTION	TYPE (FORMAT)	LENGTH (BYTES)
HUC11 (PK)	CBP Small Watershed Number	Number (Integer)	(2)
HUC8	USGS 8 digit Hydrologic Unit Code	Text	8
WATERSHED	Small Watershed Name	Text	100

The HUC11 table contains information on small watersheds that were developed from state watersheds by the CBP GIS Office.

1 02050101 UNADILLA RIVER - UPPER
2 02050102 CHENANGO RIVER - UPPER
3 02050101 CANADARAGO LAKE - OAKS CK
4 02050101 BEAVER CREEK
5 02050102 TIOUGHNIOGA RIVER - UPPER
6 02050101 OTSEGO LAKE - SUSQUEHANNA HEADWATERS
7 02050101 WHARTON CREEK
8 02050102 OTSELIC RIVER - UPPER

9	02050101	CHERRY CREEK
10	02050101	CENTER BROOK AND TALLETTE CREEK
11	02050101	BUTTERNUT CREEK - UPPER
12	02050102	OTSELIC RIVER
13	02050101	OTEGO CREEK
14	02050101	SUSQUEHANNA RIVER - OAKS CK. TO SCHENEVUS CK.
15	02050101	ELK CREEK
16	02050102	CANASAWACTA RIVER
17	02050101	SCHENEVUS CREEK
18	02050105	COHOCTON RIVER - UPPER
19	02050101	GREAT BROOK
20	02050102	TIOUGHNIOGA RIVER - MIDDLE
21	02050105	FIVEMILE CREEK - UPPER
22	02050101	UNADILLA RIVER LOWER AND BUTTERNUT CREEK LOWER
23	02050101	CHARLOTTE CREEK
24	02050102	GENEGANTSLET CREEK
25	02050105	COHOCTON RIVER UPPER - TWELVEMILE CREEK
26	02050102	CHENANGO RIVER - MIDDLE
27	02050105	TENMILE CREEK AND SALMON CREEK
28	02050101	SUSQUEHANNA RIVER - SCHENEVUS TO OULEOUT CKS
29	02050101	OTSDAWA CREEK
30	02050105	MUD CREEK
31	02050105	NEILS CREEK
32	02050103	OWEGO CREEK
33	02050104	MARSH DITCH
34	02050105	FIVEMILE CREEK - LOWER
35	02050104	CANISTEO RIVER - UPPER
36	02050105	COHOCTON RIVER - UPPER - GOFF CREEK
37	02050103	CAYUTA CREEK
38	02050102	DUDLEY CREEK
39	02050105	COHOCTON RIVER - UPPER MIDDLE
40	02050102	TIOUGHNIOGA RIVER LOWER
41	02050101	OULEOUT CREEK
42	02050101	SUSQUEHANNA RIVER - UNADILLA R. TO CASCADE CK.
43	02050104	CANACADEA CREEK
44	02050105	CAMPBELL CREEK
45	02050105	MEADS CREEK
46	02050104	CANISTEO RIVER - UPPER MIDDLE
47	02050103	CATATONK CREEK
48	02050101	KELSEY BROOK
49	02050101	SUSQUEHANNA RIVER - OULEOUT CK. TO UNADILLA R.
50	02050104	CANISTEO RIVER - LOWER MIDDLE
51	02050103	NANTICOKE CREEK
52	02050105	STOCKING CREEK
53	02050105	POST CREEK
54	02050105	COHOCTON RIVER - LOWER MIDDLE
55	02050101	CARRS BROOK
56	02050104	BENNETTS CREEK
57	02050101	WYLIE BROOK
58	02050102	PAGE BROOK
59	02050102	CASTLE CREEK
60	02050101	MASONVILLE CREEK
61	02050104	COLONEL BILLS CREEK

62	02050105	CHEMUNG RIVER - UPPER - SING SING CREEK
63	02050105	NEWTOWN CREEK
64	02050105	COHOCTON RIVER LOWER - CUTLER CREEK
65	02050102	CHENANGO RIVER - LOWER
66	02050104	NORTH BRANCH TUSCARORA CK. AND TUSCARORA CK. - LOWER
67	02050103	PIPE CREEK
68	02050103	LITTLE CHOCONUT CREEK
69	02050104	CANISTEO RIVER - LOWER
70	02050104	SOUTH BRANCH TUSCARORA CK. AND TUSCARORA CK. - UPPER
71	02050105	CHEMUNG RIVER LOWER - WYNKOOP CREEK
72	02050103	SUSQUEHANNA RIVER - PATTERSON CREEK
73	02050104	TIOGA RIVER - CANISTEO RIVER TO CHEMUNG RIVER
74	02050103	SUSQUEHANNA RIVER - LITTLE NANTICOKE CREEK
75	02050105	GOLDSMITH CREEK
76	02050105	CHEMUNG RIVER - UPPER - CATON CREEK
77	02050103	HOYT CREEK
78	02050101	SUSQUEHANNA RIVER - CASCASDE CK. TO CHENANGO R.
79	02050105	HOFFMAN BROOK
80	02050104	TROUPS CREEK
81	02050103	SUSQUEHANNA RIVER - ELLIS CREEK
82	02050104	TIOGA RIVER
83	02050103	SUSQUEHANNA RIVER - CHENANGO R. TO VESTAL, NY
84	02050103	SUSQUEHANNA RIVER - HUNTS CK. AND PUMPELLY CK.
85	02050105	CHEMUNG RIVER LOWER - HENDY CREEK
86	02050101	SUSQUEHANNA RIVER - ROCKBOTTOM DAM
87	02050101	PIERCE CREEK
88	02050103	CHOCONUT CREEK
89	02050105	SEELEY CREEK
90	02050103	APPALACHIN CREEK
91	02050103	TRACY CREEK
92	02050105	SOUTH CREEK
93	02050104	COWANESQUE RIVER
94	02050101	LITTLE SNAKE CREEK
95	02050101	STARRUCCA CREEK
96	02050105	BENTLEY CREEK
97	02050103	SUSQUEHANNA RIVER - WAPPASENING CK TO CHEMUNG R.
98	02050103	WAPPASENING CREEK
99	02050101	SNAKE CREEK
100	02050101	SALT LICK CREEK
101	02050106	WYSOX CREEK - AT WYSOX
102	02050104	CROOKED CREEK
103	02050205	PINE CREEK - AT MARSH CREEK
104	02050106	SUSQUEHANNA RIVER - AT WYALUSING CR.
105	02050106	WYALUSING CREEK - AT WYALUSING
106	02050104	MILL CREEK
107	02050106	SUGAR CREEK - AT NORTH TOWANDA
108	02050106	EAST BRANCH WYALUSING CREEK - AT LAWTON
109	02050106	TUNKHANNOCK CREEK - AT TUNKHANNOCK
110	02050205	MARSH CREEK - AT ANSONIA
111	02050107	LACKAWANNA RIVER - AT UPPER PITTSTON
112	02050106	MESHOPPEN CREEK - AT MESHOPPEN
113	02050205	WEST BRANCH PINE CREEK - AT GALETON
114	02050202	FIRST FORK SINNEMAHONING CREEK – AT JERICHO

115	02050106	EAST BRANCH TUNKHANNOCK CREEK - AT GLENWOOD
116	02050106	TOWANDA CREEK - AT SOUTH TOWANDA
117	02050205	PINE CREEK - AT JERSEY SHORE
118	02050205	BABB CREEK
119	02050106	SUSQUEHANNA RIVER - NEAR HARDING
120	02050202	SINNEMAHONING PORTAGE CREEK – AT EMPORIUM
121	02050106	SCHRADER CREEK - AT POWELL
122	02050203	KETTLE CREEK - AT WESTPORT
123	02050202	DRIFTWOOD BRANCH SINNEMAHONING CR. - AT DRIFTWOOD
124	02050206	LYCOMING CREEK - AT WILLIAMSPORT
125	02050106	SOUTH BRANCH TUNKHANNOCK CREEK – AT BARDWELL
126	02050205	LITTLE PINE CREEK - AT WATERVILLE
127	02050206	LITTLE LOYALSOCK CREEK - AT FORKSVILLE
128	02050206	LOYALSOCK CREEK - AT MONTOURSVILLE
129	02050106	MEHOOPANY CREEK - AT MEHOOPANY
130	02050203	YOUNG WOMANS CREEK - AT NORTH BEND
131	02050106	BOWMAN CREEK - AT EATONVILLE
132	02050206	LOYALSOCK CREEK - AT LITTLE LOYALSOCK CREEK
133	02050202	BENNETT BRANCH SINNEMAHONING CREEK – AT DRIFTWOOD
134	02050203	WEST BRANCH SUSQUEHANNA RIVER – AT YOUNG WOMANS CREEK
135	02050206	LARRYS CREEK - AT LARRYS CREEK
136	02050203	WEST BRANCH SUSQUEHANNA R. - AT PINE CREEK
137	02050202	SINNEMAHONING CREEK - AT KEATING
138	02050206	MUNCY CREEK - AT MUNCY
139	02050107	SUSQUEHANNA RIVER - AT NESCOPECK CREEK
140	02050107	SUSQUEHANNA RIVER - AT HARVEY CREEK
141	02050107	FISHING CREEK - AT RUPERT
142	02050107	HUNTINGTON CREEK - AT FORKS
143	02050206	LITTLE MUNCY CREEK - AT CLARKETOWN
144	02050206	WEST BRANCH SUSQUEHANNA RIVER - AT MUNCY CREEK
145	02050201	MOSQUITO CREEK - AT KARTHAUS
146	02050201	W. BRANCH SUSQUEHANNA RIVER - AT SINNEMAHONING CREEK
147	02050107	LITTLE FISHING CREEK - NEAR BLOOMSBURG
148	02050204	BEECH CREEK - AT BEECH CREEK STAT
149	02050206	WEST BRANCH SUSQUEHANNA RIVER – AT NORTHUMBERLAND
150	02050206	WHITE DEER HOLE CREEK - AT ALLENWOOD
151	02050201	ANDERSON CREEK - AT CURWENSVILLE
152	02050206	CHILLISQUAQUE CREEK - AT CHILLISQUAQUE CREEK
153	02050204	BALD EAGLE CREEK - AT LOCK HAVEN
154	02050107	NESCOPECK CREEK - AT NESCOPECK
155	02050201	W. BRANCH SUSQUEHANNA RIVER - AT CLEARFIELD CREEK
156	02050204	FISHING CREEK - AT MILL HALL
157	02050107	SUSQUEHANNA RIVER - AT W. BRANCH SUSQUEHANNA R.
158	02050201	MOSHANNON CREEK
159	02050206	BUFFALO CREEK - AT LEWISBURG
160	02050201	CLEARFIELD CREEK - AT CLEARFIELD
161	02050301	PINE CREEK - AT COBURN
162	02050107	CATAWISSA CREEK - AT CATAWISSA
163	02050204	SPRING CREEK - AT MILESBURG
164	02050301	PENNS CREEK - NEAR SELINSGROVE
165	02050107	ROARING CREEK - AT ROARING CREEK
166	02050201	CHEST CREEK - AT MAHAFFEY
167	02050301	SUSQUEHANNA RIVER - AT JUNIATA RIVER

168	02050301	SHAMOKIN CREEK - AT SUNBURY
169	02050301	MIDDLE CREEK - NEAR SELINSGROVE
170	02050302	SPRUCE CREEK - AT SPRUCE CREEK
171	02050301	MAHANOY CREEK - AT HERNDON
172	02050302	LITTLE JUNIATA RIVER - NEAR PETERSBURG
173	02050304	HONEY CREEK - AT REEDSVILLE
174	02050304	JUNIATA RIVER - AT TUSCARORA CREEK
175	02050302	STANDING STONE CREEK - AT HUNTINGDON
176	02050301	MAHANTANGO CREEK - AT MAHANTANGO
177	02050302	SHAVER CREEK - AT PETERSBURG
178	02050301	PINE CREEK - AT KLINGERSTOWN
179	02050304	KISHACOQUILLAS CREEK - AT LEWISTOWN
180	02050301	MAHANTANGO CREEK - NEAR PAXTON
181	02050304	COCOLAMUS CREEK - NEAR MILLERSTOWN
182	02050305	SWATARA CREEK - AT LITTLE SWATARA CREEK
183	02050304	JUNIATA RIVER - AT DUNCANNON
184	02050301	WICONISCO CREEK - AT MILLERSBURG
185	02050302	FRANKSTOWN BRANCH JUNIATA RIVER - NEAR PETERSBURG
186	02050304	JUNIATA RIVER - AT KISHACOQUILLAS CR.
187	02050304	TUSCARORA CREEK - AT PORT ROYAL
188	02050302	JUNIATA RIVER - AT RAYSTOWN BRANCH
189	02050302	BEAVERDAM BRANCH - AT HOLLIDAYSBURG
190	02050304	JUNIATA RIVER - AT AUGHWICK CREEK
191	02050305	SUSQUEHANNA RIVER - AT CONEWAGO CREEK (YORK CO.)
192	02050304	BUFFALO CREEK - AT NEWPORT
193	02050305	LITTLE SWATARA CREEK - AT BEVERLY HEIGHTS
194	02050304	BLACKLOG CREEK - NEAR ORBISONIA
195	02050303	RAYSTOWN BRANCH JUNIATA RIVER - AT ARDENHEIM
196	02050305	SWATARA CREEK - AT MIDDLETOWN
197	02050302	FRANKSTOWN BR. JUNIATA RIVER - AT BEAVERDAM BRANCH
198	02050303	GREAT TROUGH CREEK
199	02050305	SHERMAN CREEK - AT DUNCANNON
200	02050303	BOBS CREEK - AT REYNOLDSDALE
201	02050304	AUGHWICK CREEK - NEAR ALLENPORT
202	02050305	QUITTAPAHILLA CREEK - NEAR PALMYRA
203	02050303	YELLOW CREEK - AT HOPEWELL
204	02050305	CONODOGUINET CREEK - AT MT. ROCK SPRING CR.
205	02050305	CONODOGUINET CREEK - AT WEST FAIRVIEW
206	02050306	COCALICO CREEK - AT TALMAGE
207	02050303	DUNNING CREEK - AT CLIFFS
208	02050306	CONESTOGA CREEK - AT SAFE HARBOR
209	02050306	CHICKIES CREEK - AT MARIETTA
210	02050304	SIDELING HILL CREEK - AT MADDENSVILLE
211	02070004	WEST BRANCH - FRANKLIN COUNTY
212	02050305	YELLOW BREECHES CREEK - AT NEW CUMBERLAND
213	02050305	CONODOGUINET CREEK - AT MIDDLE SPRING CREEK
214	02050303	RAYSTOWN BRANCH JUNIATA RIVER - AT YELLOW CREEK
215	02050306	SUSQUEHANNA RIVER - AT HAINES BRANCH (LAN. CO.)
216	02050306	CONEWAGO CREEK - AT YORK HAVEN
217	02050306	LITTLE CONESTOGA CREEK - AT ROCK HILL
218	02050303	RAYSTOWN BRANCH JUNIATA RIVER - AT DUNNING CREEK
219	02050306	BERMUDIAN CREEK - AT DETTERS MILLS
220	02050306	LITTLE CONEWAGO CREEK - AT CONNEWAGO HEIGHTS

221	02050306	PEQUEA CREEK - AT PEQUEA
222	02070004	LICKING CREEK - AT YEAKLE MILL
223	02070004	BACK CREEK - AT WILLIAMSON
224	02050306	CODORUS CREEK - NEAR SAGINAW
225	02050303	BRUSH CREEK - NEAR EVERETT
226	02050306	CONEWAGO CREEK - AT BEAVER CREEK
227	02070004	CONOCOCHEAGUE CREEK - AT MUDDY RUN
228	02070002	WILLS CREEK
229	02050306	EAST BRANCH OCTORARO CREEK - AT PINE GROVE
230	02070004	TONOLOWAY CREEK - NEAR DOGTOWN
231	02070002	EVITTS CREEK
232	02050306	OCTORARO CREEK - NEAR WRIGHTSDALE
233	02070003	TOWNS CREEK
234	02070003	SIDELING HILL CREEK
235	02070009	MONOCACY RIVER - UPPER
236	02050306	SOUTH BRANCH CODORUS CREEK - NEAR WEST YORK
237	02050306	MUDDY CREEK - AT MUDDY CREEK FORKS
238	02050306	SOUTH BRANCH CONEWAGO CREEK - AT NEWCHESTER
239	02050306	CONOWINGO DAM - ON THE SUSQUEHANNA RIVER
240	02070004	ANTIETAM CREEK
241	02060002	CHRISTINA RIVER
242	02070004	CONOCOCHEAGUE CREEK
243	02070009	TOMS CREEK - AT ZORA
244	02070003	FIFTEEN MILE CREEK
245	02050306	OCTORARO CREEK
246	02070004	TONOLOWAYCREEK - WASHINGTON COUNTY
247	02070004	POTOMAC RIVER - EASTERN WASHINGTON COUNTY
248	02050306	DEER CREEK
249	02060002	LITTLE ELK CREEK
250	02070002	SAVAGE RIVER
251	02070004	LITTLE CONOCOCHEAGUE
252	02060002	NORTHEAST RIVER
253	02060003	PRETTYBOY RESEVOIR
254	02070002	GEORGES CREEK
255	02060003	LOCH RAVEN RESEVOIR
256	02070004	POTOMAC RIVER - WESTERN WASHINGTON COUNTY
257	02070002	NORTH BRANCH POTOMAC RIVER - LOWER
258	02070004	ST JOHNS RUN DIRECT DRAINS
259	02070004	WARMS SPRINGS RUN DIRECT DRAINS
260	02070004	DIRECT DRAINS BETWEEN WARMS SPRINGS & SLEEPY CREEK
261	02050306	BROAD CREEK - ON THE SUSQUEHANNA RIVER
262	02070009	DOUBLE PIPE CREEK
263	02070002	NORTH BRANCH POTOMAC RIVER - MIDDLE
264	02070004	SLEEPY CREEK
265	02070004	CHERRY CREEK - ON THE POTOMAC RIVER
266	02070002	DIRECT DRAINS KEYSER TO RIDGELEY
267	02060002	FURNACE BAY
268	02070003	POTOMAC RIVER - ALLEGANY COUNTY
269	02070003	DIRECT DRAINS BETWEEN LITTLE CACAPON & CACAPON RIVER
270	02050306	SUSQUEHANNA RIVER - LOWER
271	02070004	MARSH RUN
272	02070004	MEADOW CREEK
273	02070008	CATOCTIN CREEK - FREDRICK COUNTY

274	02060003	LIBERTY RESEVOIR
275	02070003	CAPACON RIVER - DOWNSTREAM FROM BLOOMERY
276	02070004	DIRECT DRAINS BETWEEN BACK & OPEQUON CREEK
277	02070004	BACK CREEK - ON THE POTOMAC
278	02070002	PATTERSON CREEK
279	02060003	WINTERS RUN - UPPER
280	02060003	LITTLE GUNPOWER FALLS
281	02060002	UPPER ELK RIVER
282	02070002	DIRECT DRAINS IN THE GREEN SPRINGS AREA
283	02060002	CHESAPEAKE DELAWARE CANAL
284	02060003	BYNUM RUN
285	02070009	MONOCACY RIVER - LOWER
286	02060003	SWAN CREEK
287	02070004	OPEQUON CREEK
288	02070001	SOUTH BRANCH POTOMAC
289	02070003	DIRECT DRAINS POTOMAC RIVER
290	02070003	LITTLE CACAPON RIVER
291	02070002	NORTH BRANCH POTOMAC RIVER - UPPER
292	02070004	POTOMAC - FROM OPEQUON TO THE SHENANDOAH
293	02060003	BUSH RIVER
294	02070002	NORTH BRANCH POTOMAC RIVER - UPPER MIDDLE
295	02070002	ABRAM CREEK
296	02060001	CHESAPEAKE BAY - UPPER
297	02060002	ELK RIVER LOWER
298	02060003	ABERDEEN PROVING GROUND
299	02060003	GUNPOWDER FALLS - LOWER
300	02070002	NEW CREEK
301	02060003	WINTERS RUN - LOWER
302	02060002	BOHEMIA RIVER
303	02070003	CACAPON RIVER - WARDENVILLE FROM BLOOMERY
304	02070003	NORTH RIVER
305	02060003	GWYNNS FALLS
306	02060003	PATAPSCO RIVER - UPPER
307	02060003	JONES FALLS
308	02070008	LITTLE CATOCTIN CREEK
309	02060003	GUNPOWDER RIVER
310	02060002	SASSAFRAS RIVER
311	02060003	BIRD RIVER
312	02060003	BACK RIVER - ON THE CHESAPEAKE BAY
313	02060003	PATAPSCO RIVER - LOWER
314	02070002	STONY RIVER
315	02070002	DIRECT DRAINS BAYARD AREA
316	02070008	TUSCARORA CREEK
317	02070007	SHENANDOAH RIVER - LOWER
318	02060002	STILLPOND FAIRLEE
319	02060006	BRIGHTON DAM
320	02060002	CHESTER RIVER - UPPER
321	02060003	MIDDLE RIVER BROWNS
322	02070008	PINEY RUN AND DUTCHMAN CREEK
323	02060003	BALTIMOR HARBOR
324	02060003	GUNPOWER NECK
325	02060006	MIDDLE PATUXENT RIVER
326	02060006	LITTLE PATUXENT RIVER

327	02060002	CHESTER RIVER - MIDDLE
328	02060001	CHESAPEAKE BAY - UPPER MIDDLE
329	02070008	CATOCTIN CREEK - LOUDOUN COUNTY
330	02070008	SENECA CREEK
331	02070008	LIMESTONE BRANCH
332	02070008	BROAD RUN TO HORSEPEN BRANCH DRAINAGE
333	02060006	ROCK GORGE DAM
334	02070001	LUNICE CREEK
335	02060002	LANGFORD CREEK
336	02070006	CEDAR CREEK
337	02070010	ROCK CREEK
338	02060002	CHESTER RIVER - LOWER
339	02070008	GOOSE CREEK
340	02070007	SHENANDOAH RIVER - UPPER
341	02060002	SOUTHEAST CREEK
342	02060005	CHOPTANK RIVER - UPPER
343	02070003	LOST RIVER
344	02060003	BODKIN CREEK
345	02070010	ANACOSTIA RIVER
346	02070008	SANDY BRANCH - ON THE POTOMAC
347	02060004	SEVERN RIVER
348	02070001	NORTH BRANCH
349	02060005	TUCKAHOE CREEK
350	02060006	PATUXENT RIVER - UPPER
351	02060004	MAGOTHY RIVER
352	02070001	SOUTH FORK
353	02070003	TROUT RUN
354	02070008	BROAD RUN
355	02070008	CABIN JOHN CREEK
356	02060002	CORSICA RIVER
357	02070001	REEDS CREEK - LOWER
358	02070006	NORTH FORK SHENANDOAH RIVER - LOWER
359	02070008	DIFFICULT RUN
360	02070001	NORTH AND SOUTH MILL CREEK AREA
361	02060001	CHESAPEAKE BAY - LOWER MIDDLE
362	02060004	SOUTH RIVER - ON THE CHESAPEAKE BAY
363	02060002	EASTERN BAY
364	02060002	WYE RIVER
365	02060006	WESTERN BRANCH
366	02070008	LITTLE FALLS ON THE POTOMAC
367	02070005	SOUTH FORK SHENANDOAH RIVER - LOWER
368	02060008	MARSHYHOPE CREEK
369	02070010	BULL RUN
370	02060002	KENT NARROWS
371	02070010	ARLINGTON AND ALEXANDRIA CITY DRAINAGES
372	02080103	RAPPAHNNOCK RIVER - HEADWATERS
373	02070010	CEDAR, KETTEL, AND BROAD RUNS
374	02070006	NORTH FORK SHENANDOAH RIVER - UPPER
375	02060004	WEST RIVER
376	02070010	ACCOTINK CREEK
377	02060006	PATUXENT RIVER - MIDDLE
378	02070001	REEDS CREEK - UPPER
379	02060008	NANTICOKE RIVER

380	02060002	TILGHMAN POINT
381	02070010	OXON CREEK
382	02070006	NORTH FORK SHENANDOAH RIVER - MIDDLE
383	02060002	MILES RIVER
384	02070010	POTOMAC RIVER - UPPER TIDAL
385	02060004	CHESAPEAKE BAY- WEST
386	02070010	PISCTAWAY CREEK
387	02060005	CHOPTANK RIVER - LOWER
388	02080103	HAZEL RIVER
389	02070010	OCCOQUAN RESEVOIR
390	02070005	SOUTH FORK SHENANDOAH RIVER - UPPER
391	02060006	PATUXENT RIVER - LOWER
392	02070010	OCCOQUAN BAY
393	02060008	DEEP CREEK - SUSSEX COUNTY
394	02070005	DRY AND NORTH RIVERS
395	02070011	MATTAWOMAN CREEK
396	02070011	POTOMAC RIVER - MIDDLE TIDAL
397	02070011	ZEKIAH SWAMP
398	02070011	QUANTICO AND CHOPAWAMSIC CREEKS
399	02080103	RAPPAHNNOCK RIVER - UPPER
400	02080103	ROBINSON RIVER
401	02070011	PORT TOBACCO RIVER
402	02060008	BROAD CREEK
403	02060007	TRANSQUAKING RIVER
404	02060005	LITTLE CHOPTANK
405	02070011	AQUIA CREEK
406	02070011	NANJEMOY CREEK
407	02080201	JACKSON RUN
408	02070011	GILBERT SWAMP
409	02060007	FISHING BAY
410	02080103	RAPIDAN RIVER UPPER
411	02060009	POCOMOKE RIVER - UPPER
412	02070005	NORTH RIVER - ON THE SHENANDOAH
413	02080201	BULL PASTURE RUN
414	02070011	POTOMAC CREEK
415	02080201	COW PASTURE RUN
416	02080103	RAPIDAN RIVER LOWER
417	02070011	WICOMICO RIVER - ON THE POTOMAC RIVER
418	02070011	POTOMAC RIVER - LOWER TIDAL
419	02060007	WICOMICO RIVER - HEAD
420	02080202	CALF PASTURE RUN
421	02080104	RAPPAHANNOCK RIVER - MIDDLE
422	02070011	ST. CLEMENT BAY
423	02060007	WICOMICO RIVER - SALISBURY CITY
424	02080204	NORTHFORK RIVANNA RIVER
425	02070011	POTOMAC RIVER - LOWER TIDAL MIDDLE DRAINAGES
426	02060005	HONGA RIVER
427	02070011	BRETON BAY
428	02070005	MIDDLE RIVER - TO THE SHENANDOAH
429	02060009	NASSAWANGO CREEK
430	02070005	SOUTH RIVER - ON THE SHENANDOAH
431	02080105	PO AND NI RIVERS
432	02070011	ST. MARY'S RIVER

433	02080204	SOUTH FORK RIVANNA RIVER
434	02060007	WICOMICO CREEK
435	02080106	LAKE ANNA
436	02060009	DIVIDING CREEK
437	02060007	MONIE BAY
438	02060009	MANOKIN RIVER
439	02080202	LITTLE CALF PASTURE RUN
440	02060009	POCOMOKE RIVER - LOWER
441	02080105	MATTAPONI RIVER - UPPER
442	02080106	NORTH ANNA RIVER
443	02060001	TANGIER SOUND
444	02080106	SOUTH ANNA RIVER - UPPER
445	02080104	RAPPAHANNOCK RIVER - LOWER MIDDLE
446	02080204	RIVANNA RIVER
447	02070011	POTOMAC RIVER - LOWER TIDAL LOWER DRAINAGES
448	02080202	MAURY RIVER
449	02060009	POCOMOKE SOUND
450	02080201	JAMES RIVER - NEAR THE TOWN OF COVINGTON
451	02060009	BIG ANNEMESSEX RIVER
452	02080105	MATTAPONI RIVER - MIDDLE
453	02080203	ROCKFISH RIVER
454	02080203	HARDWARE RIVER
455	02080201	DUNLAP CREEK
456	02080202	SOUTH RIVER - ON THE JAMES RIVER
457	02080106	LITTLE RIVER
458	02080104	RAPPAHANNOCK RIVER - LOWER
459	02080106	SOUTH ANNA RIVER - LOWER
460	02080205	JAMES RIVER - CROSSING ROUTE 45
461	02080203	TYE RIVER
462	02080101	CHESAPEAKE BAY - LOWER
463	02080109	LOWER DELMARVA - UPPER
464	02080202	BUFFALO CREEK
465	02080102	GREAT WICOMICO RIVER
466	02080203	JAMES RIVER - NEAR HATTON FERRY
467	02080201	JAMES RIVER - BOTEFOURT COUNTY
468	02080203	JAMES RIVER - LYNCHBURG CITY
469	02080201	POTTS CREEK
470	02080106	PAMUNKEY RIVER - UPPER
471	02080105	MATTAPONI RIVER - LOWER
472	02080102	PIANKATANK RIVER
473	02080104	RAPPAHANNOCK RIVER - OUTLET
474	02080203	JAMES RIVER - UPRIVER OF COLUMBIA
475	02080203	BUFFALO RIVER
476	02080201	CRAIG CREEK
477	02080205	JAMES RIVER - RICHMOND CITY
478	02080206	CHICKAHOMINY RIVER - UPPER
479	02080109	LOWER DELMARVA - MIDDLE
480	02080203	SLATE RIVER
481	02080201	JAMES RIVER - PURGATORY TO BIG HELLGATE CREEKS
482	02080205	WILLIS RIVER
483	02080203	JAMES RIVER - DOWNSTREAM OF LYNCHBURG CITY
484	02080106	PAMUNKEY RIVER - LOWER
485	02080206	JAMES RIVER - NORTH OF HOPEWELL

486	02080207	APPOMATTOX RIVER - UPPER
487	02080107	YORK RIVER - UPPER TIDAL
488	02080207	SWIFT CREEK
489	02080206	CHICKAHOMINY RIVER - LOWER
490	02080102	MOBJACK BAY DRAINAGE
491	02080207	APPOMATTOX RIVER - HEAD
492	02080207	FLAT CREEK
493	02080109	LOWER DELMARVA - LOWER
494	02080206	JAMES RIVER - UPPER TIDAL
495	02080207	APPOMATTOX RIVER - LOWER
496	02080107	YORK RIVER - LOWER TIDAL
497	02080207	APPOMATTOX RIVER - OUTLET
498	02080207	DEEP CREEK - ON THE APPOMATOX RIVER
499	02080207	BUSH RIVER
500	02080206	JAMES RIVER - MIDDLE TIDAL
501	02080206	JAMES RIVER - LOWER TIDAL
502	02080108	POQUOSON RIVER
503	02080208	ELIZABETH RIVER AND HAMPTON ROADS
504	02080108	LYNNHAVEN RIVER
505	02080208	NANSEMOND RIVER

CBP_BASIN

FIELD	DESCRIPTION	TYPE (FORMAT)	LENGTH (BYTES)
CBP_BASIN (PK)	Chesapeake Bay Program basin (12 total)	Text	30
DESCRIPTION	Description of CBP_BASIN	Text	100

The CBP_BASIN code provides the Chesapeake Bay Program basin in which the station is located. These basin designations have been used by the Chesapeake Bay Program since its inception to summarize watershed model loads from all sources. Point related data naturally fall into one of these basins, so this field has been retained in order to maintain the ability to summarize information using this scheme. For stations located within Chesapeake Bay, the CBP may want to consider assigning the most proximal CBP_BASIN to these stations as a means of providing the ability to determine cause and effect relationships. The CBP_BASIN code OUTSIDE WATERSHED is included because there are point source facilities located outside the watershed that are tracked for modeling purposes.

CHESAPEAKE BAY	LOCATED DIRECTLY IN CHESAPEAKE BAY
JAMES RIVER	JAMES RIVER WATERSHED
MD EASTERN SHORE	MARYLAND EAST OF CHESAPEAKE BAY
MD WESTERN SHORE	MARYLAND WEST OF CHAESAPEAKE BAY, EXCLUDING THE POTOMAC AND PATUXENT WATERSHEDS
OUTSIDE WATERSHED	OUTSIDE OF THE CHESAPEAKE BAY WATERSHED
PATUXENT RIVER	PATUXENT RIVER WATERSHED
POTOMAC RIVER	POTOMAC RIVER WATERSHED
RAPPAHANNOCK RIVER	RAPPAHANNOCK RIVER WATERSHED

SUSQUEHANNA RIVER	SUSQUEHANNA RIVER WATERSHED
VA EASTERN SHORE	VIRGINIA EAST OF CHESAPEAKE BAY
VA WESTERN SHORE	VIRGINIA WEST OF CHESAPEAKE BAY, EXCLUDING THE POTOMAC, JAMES, RAPPAHANNOCK AND YORK WATERSHEDS
YORK RIVER	YORK RIVER WATERSHED

TS_BASIN

FIELD	DESCRIPTION	TYPE (FORMAT)	LENGTH (BYTES)
TS_BASIN (PK)	State Tributary Strategy basin	Text	30
DESCRIPTION	Description of TS_BASIN	Text	60

The TS_BASIN code identifies the state tributary strategy in which a particular station is located. The appropriate state abbreviations are included in parentheses for informational purposes only. They are not part of the field value. Although part of Maryland actually drains to the Susquehanna River, these sections were placed in the UPPER EASTERN SHORE and UPPER WESTERN SHORE tributary strategy basins.

CHOPTANK RIVER	CHOPTANK RIVER WATERSHED
EASTERN SHORE	VIRGINIA'S EASTERN SHORE (NORTHERN NECK)
JAMES RIVER	JAMES RIVER WATERSHED
LOWER EASTERN SHORE	MARYLAND'S LOWER EASTERN SHORE
LOWER POTOMAC RIVER	MARYLAND'S LOWER SECTION OF THE POTOMAC RIVER WATERSHED
LOWER WESTERN SHORE	MARYLAND'S LOWER WESTERN SHORE
MIDDLE POTOMAC RIVER	MARYLAND'S MIDDLE SECTION OF THE POTOMAC RIVER WATERSHED
PATAPSCO/BACK RIVERS	PATAPSCO AND BACK RIVER WATERSHEDS
PATUXENT RIVER	PATUXENT RIVER WATERSHED
POTOMAC RIVER	POTOMAC RIVER WATERSHED (EXCLUDING MARYLAND'S PORTION)
RAPPAHANNOCK RIVER	RAPPAHANNOCK RIVER WATERSHED
SUSQUEHANNA RIVER	SUSQUEHANNA RIVER WATERSHED
UPPER EASTERN SHORE	MARYLAND'S UPPER EASTERN SHORE
UPPER POTOMAC RIVER	MARYLAND'S UPPER SECTION OF THE POTOMAC RIVER WATERSHED
UPPER WESTERN SHORE	MARYLAND'S UPPER WESTERN SHORE
YORK RIVER	YORK RIVER WATERSHED

SEGS_1985

FIELD	DESCRIPTION	TYPE (FORMAT)	LENGTH (BYTES)
CBSEG_1985 (PK)	1985 monitoring segment	Text	4
DESCRIPTION	Description of CBSEG_1985	Text	125

The SEGS_1985 table provides the monitoring segment in which the station is located. It is based upon the original 1985 segmentation scheme.

AFL	NON-TIDAL AREAS OF THE CHESAPEAKE BAY WATERSHED
CB1	SUSQUEHANNA FLATS
CB2	UPPER PORTION OF THE CHESAPEAKE BAY MAINSTEM
CB3	UPPER-MOST ESTUARINE ZONE IN THE CHESAPEAKE BAY MAINSTEM
CB4	UPPER PORTION OF THE CENTRAL CHESAPEAKE BAY MAINSTEM
CB5	CENTRAL PORTION OF THE CHESAPEAKE BAY MAINSTEM
CB6	LOWER WEST-CENTRAL PORTION OF THE CHESAPEAKE BAY MAINSTEM
CB7	LOWER EAST-CENTRAL PORTION OF THE CHESAPEAKE BAY MAINSTEM
CB8	SOUTHERN-MOST PORTION OF THE CHESAPEAKE BAY MAINSTEM
EE1	EASTERN BAY, MILES RIVER, AND WYE RIVER
EE2	CHOPTANK RIVER WEST OF CASTLE HAVEN, INCLUDING THE TRED AVON RIVER, BROAD CREEK, HARRIS CREEK, AND THE LITTLE CHOPTANK RIVER
EE3	TANGIER AND POCOMOKE SOUNDS
ET1	NORTHEST RIVER
ET2	ELK AND BOHEMIA RIVERS
ET3	SASSAFRAS RIVER
ET4	CHESTER RIVER
ET5	CHOPTANK RIVER, EXCLUDING EE2
ET6	NANTICOKE RIVER
ET7	WICOMICO RIVER
ET8	MANOKIN RIVER
ET9	BIG ANNEMESSEX RIVER
ET10	POCOMOKE RIVER
LE1	PATUXENT RIVER, LOWER ESTUARINE SEGMENT
LE2	POTOMAC RIVER, LOWER ESTUARINE SEGMENT
LE3	RAPPAHANNOCK RIVER, LOWER ESTUARINE SEGMENT
LE4	YORK RIVER, LOWER ESTUARINE SEGMENT
LE5	JAMES RIVER, LOWER ESTUARINE SEGMENT
RET1	PATUXENT RIVER, RIVERINE-ESTUARINE TRANSITION ZONE
RET2	POTOMAC RIVER, RIVERINE-ESTUARINE TRANSITION ZONE
RET3	RAPPAHANNOCK RIVER, RIVERINE-ESTUARINE TRANSITION ZONE
RET4	YORK RIVER, RIVERINE-ESTUARINE TRANSITION ZONE
RET5	JAMES RIVER, RIVERINE-ESTUARINE TRANSITION ZONE
TF1	PATUXENT RIVER, TIDAL FRESHWATER SEGMENT
TF2	POTOMAC RIVER, TIDAL FRESHWATER SEGMENT
TF3	RAPPAHANNOCK RIVER, TIDAL FRESHWATER SEGMENT
TF4	YORK RIVER, TIDAL FRESHWATER SEGMENT
TF5	JAMES RIVER, TIDAL FRESHWATER SEGMENT
WE4	MOBJACK BAY
WT1	BUSH RIVER
WT2	GUNPOWDER RIVER
WT3	MIDDLE RIVER AND SENECA CREEK
WT4	BACK RIVER
WT5	PATAPSCO RIVER
WT6	MAGOTHY RIVER
WT7	SEVERN RIVER
WT8	SOUTH, RHODE, AND WEST RIVERS

SEGS_1998

FIELD	DESCRIPTION	TYPE (FORMAT)	LENGTH (BYTES)
CBSEG_1998 (PK)	1998 Chesapeake Bay segment ID	Text	6
DESCRIPTION	Description of CBSEG_1998	Text	100

The SEGS_1998 table provides the monitoring segment in which the station is located. It is based upon the 1998 segmentation scheme.

ANATF	ANACOSTIA RIVER-TIDAL FRESH REGION
APPFW	APPOMATTOX RIVER-FRESHWATER REGION
APPTF	APPOMATTOX RIVER-TIDAL FRESH REGION
BACOH	BACK RIVER-OLIGOHALINE REGION
BIGMH	BIG ANNEMESSEX RIVER-MESOHALINE REGION
BOHOH	BOHEMIA RIVER-OLIGOHALINE REGION
BSHOH	BUSH RIVER-OLIGOHALINE REGION
C&DOH	C&D CANAL-OLIGOHALINE REGION
CB1TF	CHESAPEAKE BAY-TIDAL FRESH REGION
CB2OH	CHESAPEAKE BAY-OLIGOHALINE REGION
CB3MH	CHESAPEAKE BAY-MESOHALINE REGION
CB4MH	CHESAPEAKE BAY-MESOHALINE REGION
CB5MH	CHESAPEAKE BAY-MESOHALINE REGION
CB6PH	CHESAPEAKE BAY-POLYHALINE REGION
CB7PH	CHESAPEAKE BAY-POLYHALINE REGION
CB8PH	CHESAPEAKE BAY-POLYHALINE REGION
CHKOH	CHICKAHOMINY RIVER-OLIGOHALINE REGION
CHOFW	CHOPTANK RIVER-FRESHWATER REGION
CHOMH1	CHOPTANK RIVER-MESOHALINE REGION 1
CHOMH2	CHOPTANK RIVER-MESOHALINE REGION 2
CHOOH	CHOPTANK RIVER-OLIGOHALINE REGION
CHOTF	CHOPTANK RIVER-TIDAL FRESH REGION
CHSMH	CHESTER RIVER-MESOHALINE REGION
CHSOH	CHESTER RIVER-OLIGOHALINE REGION
CHSTF	CHESTER RIVER-TIDAL FRESH REGION
CRRMH	CORROTOMAN RIVER-MESOHALINE REGION
EASMH	EASTERN BAY-MESOHALINE REGION
EBEMH	EAST BRANCH ELIZABETH RIVER-MESOHALINE REGION
ELIMH	ELIZABETH RIVER-MESOHALINE REGION
ELIPH	ELIZABETH RIVER-POLYHALINE REGION
ELKOH	ELK RIVER-OLIGOHALINE REGION
FSBMH	FISHING BAY-MESOHALINE REGION
GUNFW	GUNPOWDER RIVER-FRESHWATER REGION
GUNOH	GUNPOWDER RIVER-OLIGOHALINE REGION
GUNTF	GUNPOWDER RIVER-TIDAL FRESH REGION
HNGMH	HONGA RIVER-MESOHALINE REGION
JMSFW	JAMES RIVER-FRESHWATER REGION
JMSMH	JAMES RIVER-MESOHALINE REGION
JMSOH	JAMES RIVER-OLIGOHALINE REGION
JMSPH	JAMES RIVER-POLYHALINE REGION
JMSTF	JAMES RIVER-TIDAL FRESH REGION

LAFMH	LAFAYETTE RIVER-MESOHALINE REGION
LCHMH	LITTLE CHOPTANK RIVER-MESOHALINE REGION
LYNPH	LYNNHAVEN RIVER-POLYHALINE REGION
MAGMH	MAGOTHY RIVER-MESOHALINE REGION
MANMH	MANOKIN RIVER-MESOHALINE REGION
MATTF	MATTAWOMAN CREEK-TIDAL FRESH REGION
MIDOH	MIDDLE RIVER-OLIGOHALINE REGION
MOBPH	MOBJACK BAY-POLYHALINE REGION
MPNFW	MATTAPONI RIVER-FRESHWATER REGION
MPNOH	MATTAPONI RIVER-OLIGOHALINE REGION
MPNTF	MATTAPONI RIVER-TIDAL FRESH REGION
NANMH	NANTICOKE RIVER-MESOHALINE REGION
NANOH	NANTICOKE RIVER-OLIGOHALINE REGION
NANTF	NANTICOKE RIVER-TIDAL FRESH REGION
NORTF	NORTHEAST RIVER-TIDAL FRESH REGION
PATFW	PATAPSCO RIVER-FRESHWATER REGION
PATMH	PATAPSCO RIVER-MESOHALINE REGION
PATTF	PATAPSCO RIVER-TIDAL FRESH REGION
PAXFW	PATUXENT RIVER-FRESHWATER REGION
PAXMH	PATUXENT RIVER-MESOHALINE REGION
PAXOH	PATUXENT RIVER-OLIGOHALINE REGION
PAXTF	PATUXENT RIVER-TIDAL FRESH REGION
PIAMH	PIANKATANK RIVER-MESOHALINE REGION
PISTF	PISCATAWAY CREEK-TIDAL FRESH REGION
PMKFW	PAMUNKEY RIVER-FRESHWATER REGION
PMKOH	PAMUNKEY RIVER-OLIGOHALINE REGION
PMKTF	PAMUNKEY RIVER-TIDAL FRESH REGION
POCMH	POCOMOKE RIVER-MESOHALINE REGION
POCOH	POCOMOKE RIVER-OLIGOHALINE REGION
POCTF	POCOMOKE RIVER-TIDAL FRESH REGION
POTFW	POTOMAC RIVER-FRESHWATER REGION
POTMH	POTOMAC RIVER-MESOHALINE REGION
POTOH	POTOMAC RIVER-OLIGOHALINE REGION
POTTF	POTOMAC RIVER-TIDAL FRESH REGION
RHDMH	RHODE RIVER-MESOHALINE REGION
RPPFW	RAPPAHANNOCK RIVER-FRESHWATER REGION
RPPMH	RAPPAHANNOCK RIVER-MESOHALINE REGION
RPPOH	RAPPAHANNOCK RIVER-OLIGOHALINE REGION
RPPTF	RAPPAHANNOCK RIVER-TIDAL FRESH REGION
SASOH	SASSAFRAS RIVER-OLIGOHALINE REGION
SBEMH	SOUTH BRANCH ELIZABETH RIVER-MESOHALINE REGION
SEVMH	SEVERN RIVER-MESOHALINE REGION
SOUMH	SOUTH RIVER-MESOHALINE REGION
SUSFW	SUSQUEHANNA RIVER-FRESHWATER REGION
SUSTF	SUSQUEHANNA RIVER-TIDAL FRESH REGION
TANMH	TANGIER SOUND-MESOHALINE REGION
WBEMH	WEST BRANCH ELIZABETH RIVER-MESOHALINE REGION
WBRTF	WESTERN BRANCH-TIDAL FRESH REGION
WICMH	WICOMICO RIVER-MESOHALINE REGION
WSTMH	WEST RIVER-MESOHALINE REGION
YRKMH	YORK RIVER-MESOHALINE REGION
YRKPH	YORK RIVER-POLYHALINE REGION

SEGS_2003

FIELD	DESCRIPTION	TYPE (FORMAT)	LENGTH (BYTES)
CBSEG_2003 (PK)	2003 Chesapeake Bay segment ID	Text	6
DESCRIPTION	Description of CBSEG_2003	Text	100

The SEGS_2003 table provides the monitoring segment in which the station is located. The 2003 segments include the creation of a GIS coverage for ANATF, and the Elizabeth River segment ELIMH was combined with ELIPH.

ANANT	ANACOSTIA RIVER-NON-TIDAL REGION
ANATF	ANACOSTIA RIVER-TIDAL FRESH REGION
APPTF	APPOMATTOX RIVER-TIDAL FRESH REGION
BACOH	BACK RIVER-OLIGOHALINE REGION
BIGMH	BIG ANNEMESSEX RIVER-MESOHALINE REGION
BOHOH	BOHEMIA RIVER-OLIGOHALINE REGION
BSHOH	BUSH RIVER-OLIGOHALINE REGION
C&DOH	C&D CANAL-OLIGOHALINE REGION
CB1TF	CHESAPEAKE BAY-TIDAL FRESH REGION
CB2OH	CHESAPEAKE BAY-OLIGOHALINE REGION
CB3MH	CHESAPEAKE BAY-MESOHALINE REGION
CB4MH	CHESAPEAKE BAY-MESOHALINE REGION
CB5MH	CHESAPEAKE BAY-MESOHALINE REGION
CB6PH	CHESAPEAKE BAY-POLYHALINE REGION
CB7PH	CHESAPEAKE BAY-POLYHALINE REGION
CB8PH	CHESAPEAKE BAY-POLYHALINE REGION
CHKOH	CHICKAHOMINY RIVER-OLIGOHALINE REGION
CHOMH1	CHOPTANK RIVER-MESOHALINE REGION 1
CHOMH2	CHOPTANK RIVER-MESOHALINE REGION 2
CHOOH	CHOPTANK RIVER-OLIGOHALINE REGION
CHOTF	CHOPTANK RIVER-TIDAL FRESH REGION
CHSMH	CHESTER RIVER-MESOHALINE REGION
CHSOH	CHESTER RIVER-OLIGOHALINE REGION
CHSTF	CHESTER RIVER-TIDAL FRESH REGION
CRRMH	CORROTOMAN RIVER-MESOHALINE REGION
EASMH	EASTERN BAY-MESOHALINE REGION
EBEMH	EAST BRANCH ELIZABETH RIVER-MESOHALINE REGION
ELIPH	ELIZABETH RIVER-POLYHALINE REGION
ELKOH	ELK RIVER-OLIGOHALINE REGION
FSBMH	FISHING BAY-MESOHALINE REGION
GUNNT	GUNPOWDER RIVER-NON-TIDAL REGION
GUNOH	GUNPOWDER RIVER-OLIGOHALINE REGION
GUNTF	GUNPOWDER RIVER-TIDAL FRESH REGION
HNGMH	HONGA RIVER-MESOHALINE REGION
JMSMH	JAMES RIVER-MESOHALINE REGION
JMSOH	JAMES RIVER-OLIGOHALINE REGION
JMSPH	JAMES RIVER-POLYHALINE REGION
JMSTF	JAMES RIVER-TIDAL FRESH REGION

LAFMH	LAFAYETTE RIVER-MESOHALINE REGION
LCHMH	LITTLE CHOPTANK RIVER-MESOHALINE REGION
LYNPH	LYNNHAVEN RIVER-POLYHALINE REGION
MAGMH	MAGOTHY RIVER-MESOHALINE REGION
MANMH	MANOKIN RIVER-MESOHALINE REGION
MATTF	MATTAWOMAN CREEK-TIDAL FRESH REGION
MIDOH	MIDDLE RIVER-OLIGOHALINE REGION
MOBPH	MOBJACK BAY-POLYHALINE REGION
MPNOH	MATTAPONI RIVER-OLIGOHALINE REGION
MPNTF	MATTAPONI RIVER-TIDAL FRESH REGION
NANMH	NANTICOKE RIVER-MESOHALINE REGION
NANOH	NANTICOKE RIVER-OLIGOHALINE REGION
NANTF	NANTICOKE RIVER-TIDAL FRESH REGION
NORTF	NORTHEAST RIVER-TIDAL FRESH REGION
PATMH	PATAPSCO RIVER-MESOHALINE REGION
PATNT	PATAPSCO RIVER-NON-TIDAL REGION
PATTF	PATAPSCO RIVER-TIDAL FRESH REGION
PAXMH	PATUXENT RIVER-MESOHALINE REGION
PAXOH	PATUXENT RIVER-OLIGOHALINE REGION
PAXTF	PATUXENT RIVER-TIDAL FRESH REGION
PIAMH	PIANKATANK RIVER-MESOHALINE REGION
PISTF	PISCATAWAY CREEK-TIDAL FRESH REGION
PMKOH	PAMUNKEY RIVER-OLIGOHALINE REGION
PMKTF	PAMUNKEY RIVER-TIDAL FRESH REGION
POCMH	POCOMOKE RIVER-MESOHALINE REGION
POCOH	POCOMOKE RIVER-OLIGOHALINE REGION
POCTF	POCOMOKE RIVER-TIDAL FRESH REGION
POTMH	POTOMAC RIVER-MESOHALINE REGION
POTNT	POTOMAC RIVER-NON-TIDAL REGION
POTOH	POTOMAC RIVER-OLIGOHALINE REGION
POTTF	POTOMAC RIVER-TIDAL FRESH REGION
RHDMH	RHODE RIVER-MESOHALINE REGION
RPPMH	RAPPAHANNOCK RIVER-MESOHALINE REGION
RPPOH	RAPPAHANNOCK RIVER-OLIGOHALINE REGION
RPPTF	RAPPAHANNOCK RIVER-TIDAL FRESH REGION
SASOH	SASSAFRAS RIVER-OLIGOHALINE REGION
SBEMH	SOUTH BRANCH ELIZABETH RIVER-MESOHALINE REGION
SEVMH	SEVERN RIVER-MESOHALINE REGION
SOUMH	SOUTH RIVER-MESOHALINE REGION
SUSNT	SUSQUEHANNA RIVER-NON-TIDAL REGION
TANMH	TANGIER SOUND-MESOHALINE REGION
WBEMH	WEST BRANCH ELIZABETH RIVER-MESOHALINE REGION
WBRTF	WESTERN BRANCH-TIDAL FRESH REGION
WICMH	WICOMICO RIVER-MESOHALINE REGION
WSTMH	WEST RIVER-MESOHALINE REGION
YRKMH	YORK RIVER-MESOHALINE REGION
YRKPH	YORK RIVER-POLYHALINE REGION

WSM_SEGS

FIELD	DESCRIPTION	TYPE (FORMAT)	LENGTH (BYTES)
WSM_SEGMENT (PK)	Watershed model segment number	Text	3
DESCRIPTION	Description of WSM_SEGMENT	Text	50

The WSM_SEG code defines the watershed model segment in which the station is located. Currently the WSM_SEG field in the STATION table is not populated.

10 UPPER SUSQUEHANNA RIVER
20 UPPER SUSQUEHANNA RIVER
30 UPPER SUSQUEHANNA RIVER
40 UPPER SUSQUEHANNA RIVER
50 UPPER WEST BRANCH SUSQUEHANNA RIVER
60 WEST BRANCH SUSQUEHANNA RIVER
70 LOWER WEST BRANCH SUSQUEHANNA RIVER
80 SUSQUEHANNA RIVER
90 JUNIATA RIVER
100 JUNIATA RIVER
110 LOWER SUSQUEHANNA RIVER
140 LOWER SUSQUEHANNA RIVER
160 NORTH BRANCH POTOMAC RIVER
170 NORTH BRANCH POTOMAC RIVER
175 UPPER POTOMAC RIVER
180 UPPER POTOMAC RIVER
190 SOUTH BRANCH SHENANDOAH RIVER
200 SHENANDOAH RIVER
210 LOWER POTOMAC RIVER
220 LOWER POTOMAC RIVER
230 UPPER RAPPAHANNOCK RIVER
235 UPPER MATTAPONI RIVER
250 PAMUNKEY RIVER
260 PAMUNKEY RIVER
270 UPPER JAMES RIVER
280 UPPER JAMES RIVER
300 UPPER APPOMATTOX RIVER
330 PATUXENT RIVER
340 PATUXENT RIVER
370 BOHEMIA RIVER
380 CHESTER RIVER
390 WYE RIVER
400 CHOPTANK RIVER
410 NANTICOKE RIVER
420 WICOMICO RIVER
430 POCOMOKE RIVER
440 VA EASTERN SHORE
450 MOUTH OF SUSQUEHANNA RIVER
470 GUNPOWDER RIVER

480	BALTIMORE HARBOR
490	PATAPSCO RIVER
500	PATUXENT RIVER
510	SEVERN RIVER
540	ANACOSTIA RIVER
550	OCCOQUAN RIVER
560	RAPPAHANNOCK RIVER
580	GREAT WICOMICO RIVER
590	YORK RIVER
600	JAMES RIVER
610	CHICKAHOMINY RIVER
620	NANSEMOND RIVER
630	ELIZABETH RIVER
700	UPPER SUSQUEHANNA RIVER
710	LOWER SUSQUEHANNA RIVER
720	LOWER SUSQUEHANNA RIVER
730	UPPER POTOMAC RIVER
740	UPPER POTOMAC RIVER
750	LOWER POTOMAC RIVER
760	BACK RIVER
770	CHOPTANK RIVER
800	UPPER EASTERN SHORE-MD
810	UPPER EASTERN SHORE-MD
820	UPPER EASTERN SHORE-MD
830	UPPER EASTERN SHORE-MD
850	BACK RIVER
860	BACK RIVER
870	BACK RIVER
880	UPPER WESTERN SHORE-MD
890	POTOMAC RIVER
900	POTOMAC RIVER
910	POTOMAC RIVER
920	POTOMAC RIVER
930	MOUTH OF RAPPAHANNOCK RIVER
940	MOUTH OF RAPPAHANNOCK RIVER
960	MOUTH OF JAMES RIVER
970	POTOMAC RIVER
980	POTOMAC RIVER
990	PATUXENT RIVER

Data Presentation Tables

The format for these data presentation tables was developed for future use. Currently they do not exist in the database.

TIME_SERIES

FIELD	DESCRIPTION	TYPE (FORMAT)	LENGTH (BYTES)
STATION (PK,FK)	CIMS Station Name	Text	9
PARAMETER (PK,FK)	CIMS Parameter Code	Text	10
SAMPLE_DATE (PK)	Date on which sample was collected	Date/Time (MM/DD/YYYY)	8
S	Mean Value at the S Layer	Number (Single)	5,1 (4)
AP	Mean Value at the AP Layer	Number (Single)	5,1 (4)
BP	Mean Value at the BP Layer	Number (Single)	5,1 (4)
B	Mean Value at the Bottom Layer	Number (Single)	5,1 (4)
SAMPLE_DATE2	SAMPLE_DATE (MM/DD/YY) format	Text	8

STATISTICS

FIELD	DESCRIPTION	TYPE (FORMAT)	LENGTH (BYTES)
STATION (PK,FK)	CIMS Station Name	Text	9
PARAMETER (PK,FK)	CIMS Parameter Code	Text	10
LAYER (PK,FK)	CIMS Layer Code	Text	5
MONTH	Month	Byte	1
N	Number of samples for month over period of record	Number (Single)	5,1 (4)
MIN	Minimum value for month over period of record	Number (Single)	5,1 (4)
MAX	Maximum value for month over period of record	Number (Single)	5,1 (4)
AVG	Mean value for month over period of record	Number (Single)	5,1 (4)
STD	Standard deviation of value over period of record	Number (Single)	5,1 (4)
VAR	Variance of value over period of record	Number (Single)	5,1 (4)

LOADS Table

Currently, only concentration data is reported in the database, but it is anticipated that loads data will be added in the future. This LOADS table was created to demonstrate a format for yearly, monthly, or daily loads for water quality parameters along with information about methods of calculation.

LOADS

FIELD	DESCRIPTION	(FORMAT)	LENGTH (BYTES)
AGENCY (PK, FK)	Code identifying agency responsible for calculating/submitting the loads	Text	10
STATION (PK, FK)	CBP station name	Text	15
PARAMETER (PK, FK)	Code identifying parameter name	Text	10
YEAR (PK)	Year	Text (YYYY)	5
MONTH (PK)	Month	Number (Byte)	(1)
DAY (PK)	Day	Number (Byte)	(1)
LOAD	Parameter load	Number (Single)	5,1 (4)
UNITS (FK)	Units of measure	Text	15
METHOD (FK)	Method of calculation	Text	7
SEP	Standard Error of Prediction (kg/year)	Number (Single)	5,1 (4)
SEP_PERCENT	Standard Error of Prediction (%)	Number (Single)	2,0 (4)
MODEL_TIME_WIN	Model Time Window	Text	15
COMMENTS	Comments related to load value	Memo	No limit

Conversion Auxiliary Tables

These tables were designed to demonstrate how to incorporate data collected by another agency into the CBP database. The River Input Monitoring project data was used as an example.

AGENCY_AKA

FIELD	DESCRIPTION	TYPE (FORMAT)	LENGTH (BYTES)
AGENCY (FK)	Agency code	Text	**15**
RIM_AGENCY_CODE (PK)	River Input Monitoring Agency code	Text	**15**

AGENCY	RIM_AGENCY_CODE
MDHMH	9724
PADEP	9813
OTHER	99999
SRBC	42011
UNKNOWN	
USGS	1028
USGS	80020
VADEQ	9751
VADEQ	85116

LAB_AKA

FIELD	DESCRIPTION	TYPE (FORMAT)	LENGTH (BYTES)
LAB (FK)	Laboratory code	Text	**15**
RIM_LAB_CODE (PK)	River Input Monitoring Laboratory code	Text	**15**

LAB	RIM_LAB_CODE
MD/DHMH	9724
PADEP	9813
OWML	51005
USGSACL	80010
USGS-NWQL	1028
USGS-NWQL	80020
USGS-NWQL	80028
VADCLS	85116
OTHER	99999

PARAMETER_AKA

FIELD	DESCRIPTION	TYPE (FORMAT)	LENGTH (BYTES)
PARAMETER (FK)	Parameter ID	Text	10
UNITS	Parameter Units	Text	15
AKA_CODE (PK)	Code used by other agencies	Text	10
CODE_SOURCE (FK)	Agency/Source of AKA_CODE	Text	10

The table is to be used for EPA's STORET parameter name conversion to CIMS parameter name.

PARAMETER	UNITS	AKA_CODE	CODE_SOURCE
WTEMP	DEG C	00010	STORET
FLOW_AVG	CFS	00060	STORET
FLOW_INS	CFS	00061	STORET
TURB_FTU	FTU	00076	STORET
SECCHI	M	00078	STORET
ORP	MG/L	00090	STORET
COND	UMHOS/CM	00095	STORET
DO	MG/L	00300	STORET
BOD5W	MG/L	00310	STORET
BOD20W	MG/L	00324	STORET
PH	SU	00400	STORET
TALK	MG/L	00410	STORET
SALINITY	PPT	00480	STORET
TSS	MG/L	00530	STORET
VSS	MG/L	00535	STORET
FSS	MG/L	00540	
TN	MG/L	00600	STORET
PN	MG/L	00601	STORET
TDN	MG/L	00602	
TON	MG/L	00605	STORET
DON	MG/L	00607	STORET
NH4F	MG/L	00608	
NH4W	MG/L	00610	STORET
NO2F	MG/L	00613	STORET
NO2W	MG/L	00615	
NO3F	MG/L	00618	STORET
NO3W	MG/L	00620	STORET
TKNF	MG/L	00623	STORET
TKNW	MG/L	00625	STORET
NO23W	MG/L	00630	STORET
NO23F	MG/L	00631	
TIN	MG/L	00640	STORET

TP	MG/L	00665	STORET
TDP	MG/L	00666	
PP	MG/L	00667	STORET
TOP	MG/L	00670	STORET
PO4F	MG/L	00671	STORET
DOP	MG/L	00673	STORET
TOC	MG/L	00680	STORET
DOC	MG/L	00681	
PC	MG/L	00689	STORET
SO3	MG/L	00740	STORET
HARDNESS	MG/L	00900	
SO4W	MG/L	00945	STORET
SIO2	MG/L	00955	STORET
SIF	MG/L	00956	
CD	UG/L	01027	STORET
CR	UG/L	01034	STORET
CU	UG/L	01042	
FE	UG/L	01045	STORET
PB	UG/L	01051	STORET
MN	UG/L	01055	
NI	UG/L	01067	STORET
AG	UG/L	01077	STORET
ZN	UG/L	01092	
SN	MG/L	01102	STORET
AL_D	NG/L	01106	STORET
SI	UG/L	01142	
SE	UG/L	01147	STORET
AS	UG/L	01252	STORET
TCOLI	MPN/100 ML	31505	STORET
FCOLI	MPN/100 ML	31615	STORET
CHLA	UG/L	32211	STORET
PHEO	UG/L	32218	STORET
BIOSI	MG/L	49574	STORET
PO4W	MG/L	70507	STORET
HG	UG/L	71900	STORET
TSSED	MG/L	80154	STORET
TURB_NTU	NTU	82079	STORET
TURB_JTU	JTU	82537	STORET

PARAM_METHOD_MAP

FIELD	DESCRIPTION	TYPE (FORMAT)	LENGTH (BYTES)

FIELD	DESCRIPTION	TYPE (FORMAT)	LENGTH (BYTES)
AGENCY (PK)	Agency code	Text	15
PARAMETER (PK)	Parameter code	Text	10
METHOD (FK)	CBP Method code	Text	7
COMMENTS	Comments related to a record	Memo	No limit

LAB	PARAMETER	METHOD
USGS-NWQL	NH4F	L02
	NO23F	
USGS-NWQL	NO2F	L01
USGS-NWQL	NO3F	C01
USGS-NWQL	PO4F	
USGS-NWQL		L01
USGS-NWQL	TDP	L01
USGS-NWQL	TKNF	L02
USGS-NWQL		L02
USGS-NWQL	TOC	L02
USGS-NWQL	TP	L04
USGS-NWQL	TSSED	L01
VADCLS	FLOW_AVG	F01
VADCLS	FLOW_INS	F01
VADCLS	FSS	L01
VADCLS	NH4F	L01
	NO23F	L01
VADCLS	NO2F	L01
VADCLS	NO3F	C01
VADCLS	PC	
VADCLS		L01
VADCLS	PO4F	L01
VADCLS	PP	L01
VADCLS		L01
VADCLS	TDN	L01
VADCLS	TDP	L01
VADCLS	TKNW	L02
VADCLS	TOC	L02
	TP	L01
VADCLS	TSS	L01
VADCLS	TURB_NTU	L01

WQ_STATIONS_AKA

FIELD	DESCRIPTION	TYPE (FORMAT)	LENGTH (BYTES)
AGENCY (PK)	Agency	Text	10
STATION (PK)	Agency's station code	Text	10
CBP_STATION	CBP station code	Text	15

The WQ_STATIONS_AKA table will be used by grantee agencies and their contractors to ensure that data submitted to the CBPO contain the proper station codes. If an agency has already adopted CBP station names, this table will not need to be included in their database.

AGENCY	CBP_STATION	STATION
USGS	CB1.0	01578310
USGS	ET5.0	01491000
USGS	TF1.0	01594440
USGS	TF2.0	01646580
USGS	TF3.0	01668000
USGS	TF4.0P	01673000
USGS	TF4.0M	01674500
USGS	TF5.0J	02035000
USGS	TF5.0A	02041650
MDDNR	CB1.0	SUS0109
MDDNR	CB3.3C	XHF1373
MDDNR	CB5.1W	XCF9575
MDDNR	EE3.4	EE3.1
MDDNR	EE3.5	EE3.2
MDDNR	ET5.0	CHO0626
MDDNR	LE1.1	XDE5339
MDDNR	LE1.2	XDE2792
MDDNR	LE1.3	XDF0407
MDDNR	LE1.4	XCF8747
MDDNR	RET1.1	XDE9401
MDDNR	RET2.1	XDA4238
MDDNR	RET2.2	XDA1177
MDDNR	RET2.3	XDB3321
MDDNR	RET2.4	XDC1706
MDDNR	TF1.0	PXT0603
MDDNR	TF1.2	WXT0045
MDDNR	TF1.3	PXT0494
MDDNR	TF1.4	PXT0456
MDDNR	TF1.5	PXT0402
MDDNR	TF1.6	XED9490
MDDNR	TF1.7	XED4892
MDDNR	TF2.0	PR01
MDDNR	TF2.1	XFB2470
MDDNR	TF2.2	XFB1433

MDDNR	TF2.3	XEA6596
MDDNR	TF2.4	XEA1840
VADEQ	TF3.0	TF3.1
VADEQ	TF4.0M	TF4.3
VADEQ	TF4.0P	TF4.1
VADEQ	TF5.0A	TF5.4A
VADEQ	TF5.0J	TF5.1
PADEP	WQN0202	WQN0201
PADEP	WQN0206	WQN0204
PADEP	WQN0218	WQN0217
PADEP	WQN0241	WQN0214
PADEP	WQN0303	WQN0302
PADEP	WQN0304	WQN0303
PADEP	WQN0312	WQN0311
PADEP	WQN0436	WQN0426
ODU	CB5.4	9A
ODU	CB6.4	8
ODU	CB7.1N	9H
ODU	CB7.1S	9I
ODU	CB7.2E	9E
ODU	CB7.3	6
ODU	CB7.3E	7
ODU	CB7.4	4
ODU	CB7.4N	5
ODU	CB8.1	2
ODU	CB8.1E	3
ODU	LE3.7	9B
ODU	LE5.5	1
ODU	WE4.1	9C
ODU	WE4.2	9F
ODU	WE4.3	9G
ODU	WE4.4	9D
VIMS	EE3.4	EE3.1
VIMS	EE3.5	EE3.2

RIM_INIT_STATIONS

FIELD	DESCRIPTION	TYPE (FORMAT)	(BYTES)
STATION	RIM station code	Text	10
STATE	Two-letter state abbreviation	Text	2

This table contains the list of stations for the River Input Monitoring project.

STATION	STATE
01491000	MD
01578310	MD
01594440	MD
01646580	MD

01668000	VA
01673000	VA
01674500	VA
02035000	VA
02041650	VA

RIM_INIT_PARAMETERS

FIELD	DESCRIPTION	TYPE (FORMAT)	LENGTH (BYTES)
STATE	Two-letter state abbreviation	Text	2
PARAM_NUMBER	Reflects parameters order in RIM data records	Number (Integer)	(2)
PARAM_CODE	RIM parameter code	Text	10

This table contains the list of parameters collected for the River Input Monitoring project.

STATE	PARAM_NUMBER	PARAM_CODE
MD	100	P00065
MD	200	P00061
MD		P00020
MD	400	P00025
MD	500	P00010
MD	600	P00095
MD	700	P00300
MD	800	P00400
MD	900	P39086
MD	1000	P29801
	1100	P00600
MD	1200	P00608
MD	1300	P00613
MD	1400	P00618
MD	1500	P00631
MD	1600	P00623
MD	1700	P00625
MD		P00665
MD	1900	P00666
MD	2000	P00671
MD	2100	P80154
MD	2200	P80155
MD	2300	P70331
MD	2400	P00955
MD	2500	P00680
MD	2600	P01106

VA	100	P00065
VA	200	P00061
VA	300	P00020
VA		P00025
VA	500	P00010
VA	600	P00095
VA	700	P00300
VA	800	P00400
VA	900	P00601
VA	1000	P00602
VA	1100	P00613
	1200	P00618
VA		P00631
VA	1400	P00608
VA	1500	P00625
VA	1600	P00665
VA	1700	P00666
VA	1800	P00667
VA	1900	P00671
VA	2000	P00530
	2100	P00535
VA		P00540
VA	2300	P00076
VA	2400	P00955
VA	2500	P00680
VA	2600	P00694