Appendix 2. FoxDB Data Dictionary

Primary Table Descriptions

The tables are grouped into five major groups with the table *TBLIDLocations* being an independent table used to signify the original location from which the data were acquired. The tables are grouped as project-related, parameter-related, results-related, and station-related tables that define codes within the main table. The groups of the main tables are:

Project:	*TBLProjects_Programs* (This is a definition group for *TBLSample*)
Sample:	*TBLSample*
Station:	*TBLStation_Information* (This is a definition group for *TBLSample*)
Results:	*TBLResults*
Parameter:	*TBLParameter_Codes* (This is a definition group for *TBLResults*)

TBLIDLocations

Column Name	Description	Data Type
IDLoc	ID Code	Nvarchar(1)
ID_Description	Location Data Acquired From	Nvarchar(50)

Project-Related Tables:

TBLProjects_Programs

Column Name	Description	Data Type
Project_Code	Unique value assigned	Nvarchar(50)
Program_Project	Name of the project for a particular monitoring effort	Nvarchar(255)
Organization_ID	Code of organization conducting the project. Lookup is *TBLOrganization.*	Int
Project_Study_Area	Description of the project study area.	Nvarchar(50)
Project_Purpose	Description of the project, type of monitoring and intent, etc.	Nvarchar(255)
Project_Start_Date	Starting date of the project (MMDDYYY)	Smalldatetime
Project_End_Date	Ending date of the project (MMDDYYY)	Smalldatetime
Contact_Name	If appropriate/available	Nvarchar(50)
Contact_Phone	If appropriate/available	Nvarchar(12)

TBLProject_Grade

Column Name	Description	Data Type
Project_Code	Project Code	Nvarchar(50)
QAPPCode	Parameter Groups (see *TBLParameter_Groups*) within a Project assigned a Grade	Int
QAPP_Grade	Quality Grade assigned to Group by Project	Int
CU_Grade	Comparability Grade assigned to Group by Project	Int

TBLOrganization		
Column Name	*Description*	*Data Type*
Organization _ID	Unique four-digit number for the organization	Int
Organization_Code	Unique identifier for a federal, state, local, or independent entity. Examples: USEPA, IEPA, ISWS, USGS, Huff & Huff, and NIPC	Nvarchar(50)
Organization_Name	Official name of the organization	Nvarchar(255)
Description	Short narrative describing the organization	Nvarchar(255)
Contact_Name	As available	Nvarchar(50)
Contact_Phone	As available	Nvarchar(12)
Address	If appropriate/available	Nvarchar(50)
Zip	If appropriate/available	Int
Web_Site	If appropriate/available	Nvarchar(50)

TBLZip		
Column Name	*Description*	*Data Type*
Zip	Lookup for *TBLOrganization*	Int
City		Nvarchar(50)
State		Nvarchar(2)

Station-Related Tables:

TBLStation_Information		
Column name	*Description*	*Data Type*
Station_ID	Unique identification for stations in the database	Int
Latitude	Latitude in decimal degrees	Float(53)
Longitude	Longitude in decimal degrees	Float(53)
Lat_Long_Accuracy	Code describing accuracy and origin of latitude and longitude for the station reference location. The lookup table is *TBLLat_Long_Accuracy.*	Nvarchar(2)
EPA_Station_Code	The station code used by the USEPA and the IEPA. Not all stations have a code assigned by USEPA/IEPA.	Nvarchar(20)
USGS_Station_Code	The station code used by the USGS. Not all stations have a code assigned by USGS.	Int
Station_Code1	Reserved for other organizations code	Nvarchar(50)
Station_Code2	Reserved for other organizations code	Nvarchar(50)
Place_Name_Description	Descriptive information about the station site, such as bridge/road names, nearby communities, or features.	Nvarchar(255)
TempRiver_Stream_Lake	Location information from Legacy STORET data, a merge of the three station_name fields. For reference only.	Nvarchar(50)
Total Area	Drainage area of river/stream or lake at the station, units of square miles, if available	Float(53)
Hydrologic_Unit_Code	Eight-digit code assigned by the USGS.	Int

Station_Type	Code describing the feature where the station is located, e.g. river/stream, lake, wetland, etc. Lookup is *TBLstoret_code*. Same as new STORET.	Int
Water_Body_Name	Common name of water feature where station is located. Feature name determined from NHD 1:100K GIS coverage and/or RF3.	Nvarchar(50)
RF3_River_Reach	RF3 Reach Code of a reach where station is located.	Nvarchar(50)
NHD_24K_River_Reach	NHD Reach Code of a reach where station is located.	Nvarchar(50)
Ambnt	Indicates whether station is ambient	Char(1)

TBLStation_Type		
Column Name	*Description*	*Data Type*
Station_Type	Links to Station Primary Type	Int
Primary_Type	Letter code describing the feature where the station is located, e.g. river/stream, lake, wetland, etc. Lookup is *TBLstoret_code*. Same as new STORET.	Nvarchar(50)
Secondary_Type	Letter code, further describing the feature where the station is located, e.g., type of wetland, etc. Lookup is *TBLstoret_code*. Same as new STORET.	Nvarchar(50)
Natural_Indicator_Type	Single character describing station site, Y= natural feature, N= artificial/manmade feature. Same as new STORET.	Nvarchar(1)

TBLLandUsage		
Column Name	*Description*	*Data Type*
Station_ID		Int
Land_Use	Description (only available for select Stations)	Nvarchar(50)
Land_Use_Code	Code for Description	Nvarchar(5)

TBLLat_Long_Accuracy		
Column Name	*Description*	*Data Type*
Lat_Long_Accuracy_Code	Code to Link with Station Table	Nvarchar(2)
Accuracy_Description	Describes Accuracy of Latitude and Longitude	Nvarchar(250)

Sample-Related Tables:

TBLSample		
Column Name	*Description*	*Data Type*
IDLoc	Code to identify original data source from which the data was retrieved. Lookup table is *TBLIDLocations*.	Nvarchar(1)
Sample_Code	Unique sample identification number, number assigned if not provided by data originator. A sample is a monitoring activity (e.g., ambient samples, measurements, observations) that is performed at a specific date, time, and location in order to characterize the environment.	Int

Project_Code	Unique number, lookup is *TBLProjects_Programs*.	Nvarchar(50)
Station_ID	Unique number for the station, identifying the specific location, at which field work/sampling is conducted.	Int
Start_Date	Date and time when field work/sample collection began, MMDDYYYY:HH:MM	Smalldatetime
Missing_Time	Indicates whether sampling time was missing in the original data.	Varchar(1)
End_Date	Date and time when field work/sample collection ended, MMDDYYYY HH:MM	Smalldatetime
Medium	Letter code describing type material sampled (e.g., water, sediment, biological). Lookup is *TBLMedium*.	Nvarchar(1)
Sample_Type	Letter code describing the sampling method (e.g., grab, composite grab, continuous). Lookup is *TBLSample_Type*.	Nvarchar(1)
Composite_Statistic_ Code	Code qualifying the statistic represented by the result values for the sample, such as average, maximum, and minimum. This information from some data sets, primarily Legacy STORET. Lookup is *TBLComposite_Statistic*.	Nvarchar(1)
Comment	Any comment. Also used to designate samples for which a replicate is available.	Nvarchar(50)
Sample_Depth	Depth (feet) at which a sample was taken. Only for noncomposite samples.	Float(53)

TBLMedium		
Column Name	*Description*	*Data Type*
Medium	Sample material medium description	Nvarchar(1)
Medium_Description		Nvarchar(20)

TBLComposite_Statistic		
Column Name	*Description*	*Data Type*
Composite_Statistic_ Code	Code qualifying the statistic representation	Nvarchar(1)
Composite_Statistic_ Name	Composite statistic name	Nvarchar(3)
Composite_Statistic_ Description	Composite statistic description	Nvarchar(255)

TBLSample_Type		
Column Name	*Description*	*Data Type*
Sample_Type	Letter code describing the sampling type	Nvarchar(1)
Sample_Type_Description	Sample type description	Nvarchar(150)

Results-Related Tables:

TBLResults		
Column Name	*Description*	*Data Type*
Sample_Code	Unique sample identification number, number assigned if not provided by data originator. A sample is a monitoring activity (e.g., ambient samples, measurements, and observations) performed at a specific date, time, and location in order to characterize the environment.	Int
Parameter_Code	Five-digit, zero-filled code used by USEPA and USGS for the characteristic measured. The lookup table is *TBLParameter_Codes*. Units of measurement are specified with the code. A parameter is the substance or property being measured.	Int
Result_Value	Data value for a sample result or a code representing an observation. Result values can be numeric or alphanumeric values.	Float(53)
Remark_Code	A single character code and definition used to further quantify a result. Lookup is *TBLResults_Remarks* for code descriptions.	Nvarchar(1)
Grade	Used to flag questionable data.	Nvarchar(2)
IDLOC	Code to identify original data source from which data were retrieved. Lookup is *TBLIDLocations*.	Nvarchar(1)
Comments		Nvarchar(50)

TBLResults_Val_NonNumeric		
Column Name	*Description*	*Data Type*
Sample_Code	Unique sample identification number, number assigned if not provided by data originator. A sample is a monitoring activity (e.g., ambient samples, measurements, and observations) performed at a specific date, time, and location in order to characterize the environment.	Int
Parameter_Code	Five-digit, zero-filled code used by USEPA and USGS for the characteristic measured. Lookup is *TBLParameter_Codes*. Units of measurement are specified with the code. A parameter is the substance or property being measured.	Int
Result_Value	Data value for a sample result or a code representing an observation. Result values can be numeric or alphanumeric values.	Nvarchar(5)
Remark_Code	A single character code and definition used to further quantify a result. Lookup is *TBLResults_Remarks* for code descriptions.	Nvarchar(1)

Grade	Used to flag questionable data.	Nvarchar(2)
IDLOC	Code to identify original data source from which the data were retrieved. Lookup is *TBLIDLocations*.	Nvarchar(1)
Comments		Nvarchar(50)

TBLReplicates		
Column Name	*Description*	*Data Type*
Sample_Code	Unique sample identification number, number assigned if not provided by data originator. A sample is a monitoring activity (e.g., ambient samples, measurements, and observations) performed at a specific date, time, and location in order to characterize the environment.	Int
Parameter_Code	Five-digit, zero-filled code used by USEPA and USGS for the characteristic measured. Lookup is *TBLParameter_Codes*. Units of measurement are specified with the code. A parameter is the substance or property being measured.	Int
Result_Value	Data value for a sample result or a code representing an observation. Result values can be numeric or alphanumeric values.	Float(53)
Remark_Code	A single character code and definition used to further quantify a result. Lookup is *TBLResults_Remarks* for code descriptions.	Nvarchar(1)
Grade	Used to flag questionable data.	Nvarchar(2)
IDLOC	Code to identify original data source from which data were retrieved. Lookup is *TBLIDLocations*.	Nvarchar(1)
ALTSample_Code	Alternate Sample Code for Replicate Records	int
AltIDLOC	Alternate IDLOC for Replicate Records	Nvarchar(1)

TBLResults_Remarks		
Column Name	*Description*	*Data Type*
Remark_Code	A single character	Nvarchar(1)
Remark_Description	Remark description	Nvarchar(255)

Parameter-Related Tables:

TBLQAPP_Group_Codes		
Column Name	*Description*	*Data Type*
QAPPCode	Unique code for QAPP evaluation, group of parameters	Int
Media_Group	Code describing media, lookup is *TblMedia_Group*	Int
Parameter_Group	Code describing parameters, lookup *TblParameter_Group*	Int

TBLQAPPGroups

Column Name	Description	Data Type
QAPPCode	Unique code for QAPP evaluation, group of parameters	Int
Parameter_Code	Five-digit code assigned to the QAPPCode	Int

TBLReporting_Units

Column Name	Description	Data Type
Reporting_Units	Reporting unit	Nvarchar(1)
Reporting_Units_ Description	Reporting units description	Nvarchar(255)

TBLEPA_Group_Code

Column Name	Description	Data Type
EPAGroup_Code	Group code from original Legacy data	Int
EPAGroup_Description	From Legacy description of code	Nvarchar(255)

TBLParameter_Codes

Column name	description	Data Type
Parameter_Code	Five-digit code	Int
EPAGroup_Code	USEPA Group code	Int
Reporting_Units	Reporting units	Nvarchar(1)
Decimal_Point	Decimal point	Int
Short_Name	Short name	Nvarchar(100)
Full_Name	Full name	Nvarchar(255)

TBLParameterCAS

Column Name	Description	Data Type
Parameter_Code	Parameter code	Int
CASNum	CAS # (Chemical Abstract Number)	Nvarchar(50)

TBLParameter_Group

Column name	Description	Data Type
Parameter_Group	Defined for QAPP Grade	Int
First_Order_Parameter_ Group	A general Parameter Group defined for QAPP evaluation	Nvarchar(50)
Second_Order_Parameter_ Group	A specific Parameter Group defined for QAPP evaluation	Nvarchar(50)

TBLMedia_Group

Column name	Description	Data Type
Media_Group	Defined for QAPP Grade	Int
Media_Group_ Description	Describes medium	Nvarchar(50)