## StreamStatsDB version 2008-06-02b

## Data Dictionary

Total Number of Tables	Dependent: 4
Total Number of Relationships	Recursive:
Total Number of Indexes	86
Total Number of Fields	153
Number of Unique Fields as PK's	17 (Used as PK's 25 times)
Number of Fields as FK's	10
Non-PK or -FK Fields	117
Total Number of Records	1,552,322

How to read the Data Dictionary listings:

Each table starts on a new page. The top section shows table information:

Table Name

Number of fields

Current number of records at the time the dictionary was generated
Dependency - Full means the table primary key (PK) contains a foreign key (FK)
field; Partial means the table contains a required, non-PK, FK field; Optional
means the table contains a non-required FK; Independent means the table
has no FK fields; Unknown is used for broken links and other table errors.
Loading Order - 1 if not dependent upon other tables, 2 if dependent on at least
one level 1 table, 3 if dependent upon at least one level 2 table, etc.

Recursive - checked if table has a self-join, recursive Foreign Key field Date of last update to the table at the time the dictionary was generated Linked Table Source if table is linked to a table in another database Description of the table contents or function

Below the table section, each field in the table is listed along with definition information:

Field position within the table

Field Name

PK - checked if field is part of the Primary Key for the table

FK - checked if field is a Foreign Key--pointing to data in a 'parent' table

Rqd - checked if field is Required to have a value for each record in the table, if unchecked field is optional

Data Type of the field

Size of the field (allowed number of characters for Text fields, for other data types it represents the number of bytes used for storage)

Default value for the field (usually refers to a foreign key value representing a selection from a domain table)

Description of the field

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Та	able Name:	ClimateF	actor							
Та	able Description:	Table of coordinates and climate factor values used in ROI regression								
	umber of Fields:	5	Dependency: Independent		Recursive:					
Νι	umber of Records:	640	Loadi	ing Order: 1		Last Up	dated: 6/2/2008 10:13:37 AM			
	Field Name		PK FK Rqd	Type	Size	Default	Description			
1	X			Long Integer	4		ROI longitude variable?			
2	у			Long Integer	4		ROI latitude variable?			
3	C2			Double	8		ROI 2-year climate factor?			
4	C25			Double	8		ROI 25-year climate factor?			
5	C100			Double	8		ROI 100-year climate factor?			

Ta	able Name:	Components					
Ta	Table Description: List of parameters associated with each dependent variable and the constan and exponents associated with each parameter						
Nι	ımber of Fields:	8	Dependency:	Optional	Recursiv	e: 🗌	
Nι	umber of Records:	7,487 L	Loading Order	: 4	Last Upo	lated: 6/2/2008 10:42:01 AM	
	Field Name	PK FK 1	Rqd Type	Size	Default	Description	
1	DepVarID		Long In	teger 4		Regression equation dependent variable identification number	
2	ParmID		Long In	teger 4		Regression equation parameter (explanatory variable) identification number	
3	BaseMod		Double	8		Regression equation explanatory variable base modifier	
4	BaseCoeff		Double	8		Regression equation explanatory variable base coefficient	
5	BaseExp		Double	8		Regression equation explanatory variable base exponent	
6	ExponentParmID		☐ Integer	2		Regression equation parameter ID of the exponent variable	
7	ExpMod		Double	8		Regression equation exponent modifier	
8	ExpExp		Double	8		Regression equation exponent of the exponent	

Table Name: **County** Table Description: **List of Counties** Number of Fields: Dependency: Independent Recursive: Number of Records: 3,236 Loading Order: 1 Last Updated: 6/2/2008 10:13:37 AM PK FK Rqd Size Field Name Type **Default Description** 1 StateCountyCode Text 255 StateCode + CountyCode(2+3 digit = 5 digit)unique code) 2 StateCode Text 2 WATSTORE state identification number for location of station CountyCode Text WATSTORE county code 3 4 County Text

255

County name

Table Name: **Covariance** Table Description: Values that make up covariance matrices needed to compute prediction

intervals

Number of Fields:

4

Dependency: Full Last Updated: 6/2/2008 10:51:14 AM Number of Records: 7,840 Loading Order: 4

Recursive:

	,		8		1	
	Field Name	PK FK Rqd	Type	Size	Default	Description
1	DepVarID		Long Integer	4		Dependent variable ID for covariance matrix for computing prediction intervals
2	Row		Long Integer	4		Covariance matrix row number
3	Col		Long Integer	4		Covariance matrix column number
4	Value		Double	8		Covariance matrix value for designated row and column

Та	able Name:	<b>DataSource</b>						
Ta	Table Description: List of Sources of Data and Citation URL							
Number of Fields: Number of Records:		<ul> <li>Dependency: Independent</li> <li>Loading Order: 1</li> </ul>		Recursive:  Last Updated: 6/2/2008 10:13:37 AM				
	Field Name	PK I	FK Rqd	Type	Size	Default	Description	
1	DataSourceID	☑ [		Text	50		Data source identification number corresponding the citation for report	
2	Citation			Memo			Report reference	
3	CitationURL			Memo			Report Internet URL address	

Ta	ıble Name:	DBChangeLog									
Ta	ble Description:	tion: System table - Change log for structure or data									
Nι	ımber of Fields:	2	Dependency:	Independent	Recursiv	e: 🗌					
Nι	imber of Records:	31	Loading Order	: 1	Last Upo	lated: 6/2/2008 10:13:37 AM					
	Field Name	PK F	K Rqd Type	Size	Default	Description					
1	Date		DateTin	ne 8		Data of DB change					
2	Change		☐ Memo			Description of DB change					

Table Name: **DepVars** 

Table Description: List of dependent variables used in regression equations, errors associated

with the equations, and values needed to compute prediction intervals

Number of Fields: 16 Dependency: Optional Recursive:

Number of Records: 3,350 Loading Order: 3 Last Updated: 6/2/2008 10:51:14 AM

141	imber of Records: 3,350	Load	ing Order: 3		Last Op	dated: 0/2/2008 10.51.14 AM
	Field Name	PK FK Rqd	Type	Size	Default	Description
1	DepVarID	<b>V V</b>	Long Integer	4		Dependent variable identification number
2	RegionID		Long Integer	4		Hydrologic region identification number
3	StatLabelCode		Text	255		Dependent variable name
4	StdErr		Double	8		Average standard error (of either estimate or prediction)
5	EstErr		Double	8		Average standard error of estimate
6	PreErr		Double	8		Average standard error of prediction
7	EquivYears		Double	8		Equivalent years of record
8	Constant		Double	8		Regression equation constant
9	BCF		Double	8		Regression equation bias correction factor
10	t		Double	8		Student's t statistic for computing prediction intervals
11	Variance		Double	8		Model error variance of regression equation
12	Stas		Double	8		Number of stations used to develop equations - not used
13	ExpDA		Double	8		Exponent of drainage area for weighting ungaged sites near gaged sites
14	CoeffDet		Double	8		Coefficient of determination R-squared
15	MAD		Double	8		Median absolute deviation between observed and predicted

Table Name: <b>DetailedLog</b>								
Та	Table Description: System table - Transaction Log Details							
Νι	umber of Fields:	6	Deper	ndency: In	dependent	Recursiv	/e: 🗌	
Nι	umber of Records:	20,059	Loadi	ng Order: 1		Last Upo	dated: 6/2/2008 10:13:37 AM	
	Field Name		PK FK Rqd	Type	Size	Default	Description	
1	TransID			Long Intege	er 4		Transaction identification number	
2	Table			Text	255		Table name where change was made	
3	Field			Text	255		Field number hat was changed	
4	Record			Text	255		Record number that was changed	
5	OldVal			Text	255		Old value	
6	NewVal			Text	255		New value	

Table Name:	HUC

Table Description: List of HUCs

Number of Fields: 4 Dependency: Independent Recursive:

Number of Records: **2,960** Loading Order: **1** Last Updated: 6/2/2008 10:17:24 AM

	Field Name	PK FK Rqd	Type	Size	Default	Description
1	StateHucCode		Text	255		StateCode + HUC code as a unique text identifier
2	StateCode		Text	2		WATSTORE state identification number for location of station
3	HUC		Text	16		Hydrologic unit code number
4	HUCName		Text	70		Hydrologic unit name

Table Name: MCD

Table Description: List of MCDs

Number of Fields: 4 Dependency: Independent Recursive:

Number of Records: **36,352** Loading Order: **1** Last Updated: 6/2/2008 10:13:37 AM

	Field Name	PK FK Rqd	Туре	Size	Default	Description
1	StateMCDCode	<b>V</b>	Text	255		StateCode + MCDCode (2+5 digit = 7 digit unique code)
2	StateCode		Text	2		WATSTORE state identification number for location of station
3	MCDCode		Text	5		Minor civil division code number
4	MCDName		Text	40		Minor civil division name

Table Name: **Parameters** Table Description: List of Station Parameters (explanatory variables), units of measure, and ranges of applicability Number of Fields: Recursive: 10 Dependency: Partial Last Updated: 6/2/2008 10:41:50 AM Number of Records: 1,018 Loading Order: 3 Field Name PK FK Rqd Size Default **Description** Type 1 ParmID Long Integer 4 Parameter (explanatory variable) identification number 2 RegionID Long Integer Hydrologic region 4 identification number Parameter Text 255 Parameter name StatisticLabelCode Long Integer 4 Statistic label code 5 Parm Text 255 Parameter abbreviation Min Double 8 Minimum parameter 6 value used in regression analysis Double 8 Maximum parameter Max value used in regression analysis UnitID Long Integer Conversion flag for units 4 of measure SpatialDataPath Pathname of file that Text 255 contains the GIS coverage for measuring the parameter 10 CompMethod Text 255 Computation method used to measure the parameter

Та	able Name:	Regions						
Та	able Description:	List of State	e-hydrologic	region combi	nations w	ith para	meters	
Number of Fields: Number of Records:		8 394	•	ndency: Option	onal	Recursive:  Last Updated: 6/2/2008 10:40:43 AM		
	Field Name		PK FK Rqd	Type	Size	Default	Description	
1	RegionID		<b>V V</b>	Long Integer	4		Hydrologic region identification number	
2	StateCode			Text	2		WATSTORE state identification number for location of station	
3	RegionName			Text	50		Hydrologic region name	
4	Urban			Yes/No	1		Indicates if this equation is for urban conditions	
5	UrbanNeedsRural			Yes/No	1		Indicates if the urban estimate needs the rural estimate as a variable	
6	ROI			Long Integer	4		Hydrologic region for Region-of-Influence regression (-1 mean not applicable)	
7	LowFlow			Long Integer	4	-1	Hydrologic region for low-flow equations	
8	PredInt			Yes/No	1		Indicates if prediction intervals are used for this region	

Та	able Name: ROIUserParms									
Та	able Description:	Parameters	used for Re	OI regression						
Number of Fields: 5 Number of Records: 23			Dependency: Full Loading Order: <b>4</b>			Recursive:  Last Updated: 6/2/2008 10:40:43 AM				
	Field Name		PK FK Rqd	Туре	Size	Default	Description			
1	RegionID		<b>V V</b>	Long Integer	4		Hydrologic region identification number			
2	ParmID			Long Integer	4		Parameter (explanatory variable) identification number			
3	PosNegCorrelatio	n		Single	4		Defines type of correlation variable has between stations: 0=unspecified, 1= positive, 2=negative			
4	SimVar			Yes/No	1		Whether variable is used in similarity calculations			
5	RegVar			Yes/No	1		Whether variable is used in regression analysis			

Ta	able Name:	StateBasin	1							
Ta	Table Description: List of S		t of State Basins (MA only??)							
Number of Fields: Number of Records:		4 74	Dependency: Independent Loading Order: 1			Recursive:  Last Updated: 6/2/2008 10:13:37 AM				
_	Field Name		PK FK Rqd	Type	Size	Default	Description			
1	StateStateBasinCo	ode	<b>V V</b>	Text	255		StateCode + StateBasinCode as unique text identifier			
2	StateBasinCode			Long Inte	ger 4		State-assigned basin number			
3	StateBasin			Text	50		State-assigned basin name			
4	StateCode			Text	2		WATSTORE state identification number for location of station			

Table Name:		States						
Ta	ble Description:	List of states	, state code	es, and R	OI metrics			
	umber of Fields:	10 55		ndency: ing Order:	Independent	Recursive:  Last Updated: 6/2/2008 10:13:37 AM		
INU				ing Order.				
_	Field Name		PK FK Rqd	Type	Size	Default	Description	
1	StateCode			Text	50		WATSTORE state identification number for location of station	
2	St			Text	2		2-letter state postal code	
3	State			Text	30		State name	
4	Metric			Yes/No	1		Units indicator (0 if English, -1 if Metric)	
5	ROIPeakFlows			Text	40		Statistic labels of peak- flow statistics included in ROI (ex. PK2,PK5)	
6	ROIClimateFacto	r		Yes/No	1		Indicates if ROI uses climate factor	
7	ROIDistance			Yes/No	1		Indicates if distance criterion is used for selecting stations in ROI	
8	ROIBackStepReg	ression		Yes/No	1		Indicates if Back Step process is used in ROI	
9	ROIRegions			Yes/No	1		Indicates if ROI uses sub- regions	
10	ROISimStations			Integer	2	0	Number of stations used in ROI to compute equation for ungaged site	

Table Name:	Station				
Table Description:	Descriptiv	ve information for dat	a-collection	stations	
Number of Fields:	25	Dependency:	Optional	Recursive:	

Number of Records: 29,137	Load	ing Order: 2		Last Updated: 6/2/2008 10:13:37 AM		
Field Name	PK FK Rqd	Type	Size	Default	Description	
1 StaID	<b>V V</b>	Text	15		USGS station identification number	
2 StationName		Text	80		Station name	
3 StationTypeCode		Text	3		Station type indicator (gaging station, low-flow, high-flow, misc.)	
4 IsRegulated		Text	10	"Undefi ned"	Indicates if flows at station are regulated	
5 PeriodOfRecord		Text	100		Period of record collected at station	
6 StationRemarks		Text	250		Brief discussion of any factors that affect the records for the station	
7 Latitude		Double	8		Latitude of station from NWIS	
8 Longitude		Double	8		Longitude of station from NWIS	
9 HUC		Text	8		Hydrologic Unit Code	
10 StateBasinCode		Long Integer	4		State-assigned basin number	
11 CountyCode		Text	3		WATSTORE county code	
12 MCDCode		Text	5		Minor civil division code number	
13 Directions		Text	100		Brief description of how to reach station	
14 HasData		Yes/No	1	0	Indicates if any statistics are stored in the STATISTIC table for the station	
15 StateCode		Text	2		2-digit FIPS code for the State where the site is location (name is compatible with STATION-DISTRICT- STATE and 'Station State'	

16 DistrictCode	Text	4	2-digit State FIPS code for the WSC that administers the Station
17 CoordinateSource	Text	255	* Def needed
18 CoordinateScale	Text	255	* Def needed
19 StateCountyCode	Text	255	StateCode + CountyCode (2+3 digit = 5 digit unique code) * replace 2- field join to County table
20 StateMCDCode	Text	255	StateCode + MCDCode (2+5 digit = 7 digit unique code) * replace 2- field join to MCD table
21 StateHucCode	Text	255	StateCode + HUC code as a unique text identifier * replace 2-field join to HUC table
22 StateStateBasinCode	Text	255	StateCode + StateBasinCode as unique text identifier * replace 2-field join to StateBasin table
23 NHDReach	Text	255	
24 NHDPercent	Text	255	
25 NHDScale	Text	255	

Та	able Name:	StationD	istrictState									
Та	ble Description:	Station-St	Station-State-District combinations									
Number of Fields:		3	Deper	Dependency:		Recursiv	Recursive:					
Number of Records:		28,058	Loading Order: 3			Last Updated: 6/2/2008 10:13:37 AM						
	Field Name		PK FK Rqd	Type	Size	Default	Description					
1	StaID		<b>V</b>   <b>V</b>	Text	15		USGS station identification number					
2	DistrictCode			Text	2		WATSTORE state code for USGS office that operates the station					
3	StateCode			Text	2		WATSTORE state identification number for location of station					

Table Name: StationState

Table Description: List of Station-State combinations - stations can have multiple states when

used for ROI

Number of Fields: 3 Dependency: Full Recursive: □

Number of Records: 29,753 Loading Order: 3 Last Updated: 6/2/2008 10:13:37 AM

			8		I	
	Field Name	PK FK Rqd	Type	Size	Default	Description
1	StaID	<b>V</b>   <b>V</b>	Text	15		USGS station identification number
2	StateCode		Text	2		WATSTORE state identification number for location of station
3	ROI		Integer	2		Indicates if station is used in ROI regression for designated State

T	able Name:	StationTyp	e				
Та	ble Description:	List of Type	s of Station	S			
Number of Fields: Number of Records:		2 5	Dependency: Independer Loading Order: 1		Independent: 1	Recursive:  Last Updated: 6/2/2008 10:13:37 AM	
	Field Name		PK FK Rqd	Type	Size	Default	Description
1	StationTypeCode			Text	3		Station type indicator (gaging station, low- flow, high-flow, misc.)
2	StationType			Text	40		Text description of station type (ex. Gaging station, continuous record)

Table Name: Statistic

Table Description: Statistics for a Station

Number of Fields: 6 Dependency: Full Recursive:

Number of Records: 1,377,502 Loading Order: 3 Last Updated: 6/2/2008 10:13:37 AM

	Field Name	PK FK Rqd	Type	Size	Default	Description
1	StaID	<b>V V</b>	Text	15		USGS station identification number
2	StatisticLabelCode		Long Integer	4		Statistic label code
3	DataSourceID		Text	50		Data source identification number corresponding the citation for report
4	StatisticValue		Text	50		Value of the statistic
5	Date		Text	20		Date that statistic was entered
6	YearsRec		Text	255		Years of record

Table Name: **StatLabel** Table Description: List of Statistic terms and labels Number of Fields: Dependency: Optional Recursive: Last Updated: 6/2/2008 10:13:37 AM Number of Records: 1,657 Loading Order: 2 PK FK Rqd **Type** Size **Description Field Name Default** 1 StatisticLabelCode Long Integer 4 Numeric code indicating the type (category) of statistic 2 StatisticTypeCode Text 6 Abbreviated name for the type of statistic (ex. PFS for Peak-Flow Statistics) StatLabel Text 15 Maximum 15-character abbreviation for statistic name StatisticLabel Text 40 Name of statistic (ex. 100-Year\_Peak\_Flood) -Note: no spaces allowed Units identification code UnitID Long Integer 4 number Definition Text Description of statistic, 150 including measurement method and data source, if needed StatisticTypeID Long Integer 4 Numeric code indicating the type (category) of statistic

Ta	able Name:	StatType						
Та	able Description:	List of Stati	istic Types					
Number of Fields: 3		Depe	Dependency: Independent			Recursive:		
Number of Records: 27		27	Load	ing Order: 1	l	Last Updated: 6/2/2008 10:13:37 AM		
	Field Name		PK FK Rqd	Туре	Size	Default	Description	
1	StatisticTypeID		<b>V V</b>	Long Integ	ger 4		Numeric code indicating the type (category) of statistic	
2	StatisticTypeCode	e		Text	6		Text code indicating the type of statistic (ex. PFS for Peak-Flow Statistics)	
3	StatisticType			Text	40		Name of statistic type (ex_Peak-Flow Statistics)	

Table Name: **TransactionLog** Table Description: **System table - Transaction log** Number of Fields: Dependency: Independent Recursive: Last Updated: 6/2/2008 10:13:37 AM Number of Records: 2,561 Loading Order: 1 PK FK Rqd Field Name Type Size **Description Default** 1 TransID AutoNumber 4 Transaction identification number (Long) UserName Text 255 Name of person who made modifications to values in the database 3 LogOnName Text 255 Logon ID of person who made modifications to values in the database Organization Text 255 Organization of person who made modifications to values in the database Date\_Time Text 255 Date and time when modifications were made 255 Explanation Text Explanation of what changes were made Region Text 255 Hydrologic region name

Table Name:		Units					
Table Description:		List of Unit terms and codes					
Number of Fields: 4		Dependency: Independent			Recursive:		
Number of Records: 33		Loading Order: 1			Last Updated: 6/2/2008 10:13:37 AM		
	Field Name		PK FK Rqd	Type	Size	Default	Description
1	UnitID		<b>V V</b>	Long Intege	er 4		Units identification number
2	Metric			Text	50		Metric Unit Label
3	English			Text	50		English Unit Label
4	EnglishMetricFac	etor		Double	8		Number to multiply English units by to get Metric units