The National Stormwater Quality Database
Version 4.02 - March 17 2015

The National Stormwater Quality Database (NSQD) is a U.S. EPA-led effort to compile stormwater quality data of the U.S. It includes the monitoring results of NPDES Communities, the National Urban Runoff Program (NURP), a portion of the International Stormwater BMP Database, and special projects that have been added since 2001. This brief overview of data elements describes the information included in fields of the database, including meta data for the sampling site description, sampling events, and sampling results for each runoff event. The database can be dowloaded in spreadsheet format in Excel or in a standard database format in Microsoft Access. The spreadsheet format includes columns for each constituent monitored (a "cross-tabbed" style format), whereas the Access format provides each sample result as a separate record where all water quality results are in one column and all constituents monitored are in one column. The same information is provided in each format.

	Data Element	DESCRIPTION	EXAMPLE
SITE DESCRIPTION	ID_V4	Key to identify the event, numeric, integer.	1
	Data_Source	Identifies the source of the information. It includes MS4 municipality, National Urban Runoff Program (NURP), BMP Database (BMP), United States Geological Survey (USGS), and previous NSQD especial stormwater projects.	MS4
	Latest_Revision_Addition	Indicates when was the last date the record was revised	Checked Nov 23 2007
	EPA_Rain_Zone	EPA Rain Zone as indicated in 1992 MS4 Federal register regulations. EPA440/5-87-001 September 1986.	3
	State	Two letters that indicate the state in which the sample was taken (i.e., AL for Alabama).	AL
	Location Code	Unique identifier for each sampling location. It is a 8-character code. The first two letters are the state, the next two letters the city, or municipality, and the last four are related to the site name. For example, the site ALHUCHIP is the site Chase Industrial Park located in Huntsville, Alabama	ALHUCHIP
	Jurisdiction County	County where the site is located.	Madison County
	Jurisdiction City	City where the site is located.	City of Huntsville
	Initial MS4 Contact	Name of the contact person. If available it is included the contact information.	rpitt@eng.ua.edu
	Latitude	Nearest North latitude coordinate based on available information in degrees, minutes, and seconds.	36_46_47
	Longitude	Nearest West longitude coordinate based on available information.	86_31_34
	Age of Development	Approximately period of time where the urban catchment was developed.	1950 - 1960
	Drainage Area Acres	Catchment area in acres.	19.5
	Principal Land Use	Principal land use in the catchment. ID: Industrial; RE: Residential; CO: Commercial; IS: Institutional ; FW: Highways and/or Freeways; OP: Open Space; UNK: Unknown. If there is more than one principal use, it is considered a mix. The secondary land use is described in the next column.	ID_MIX
	Secondary Land Use	Secondary land use in the catchment if primary is mixed. ID: Industrial; RE: Residential; CO: Commercial; IS: Institutional ; FW: Highways and/or Freeways; OP: Open Space; UNK: Unknown; WA: Water.	WA
	Percentage_Residential	Percentage of the catchment represented by residential land use.	50
	Percentage_Institutional	Percentage of the catchment represented by institutional land use.	50
	Percentage_Commercial	Percentage of the catchment represented by commercial land use.	50
	Percentage_Industrial	Percentage of the catchment represented by industrial land use.	50
	Percentage_Open_Space	Percentage of the catchment represented by open space land use.	50
	Percentage_Freeway	Percentage of the catchment represented by highways or freeways land use.	50
	Percentage_Water	Percentage of the catchment represented by water.	50
	Percentage_Unknown	Percentage of the catchment represented by an unknown land use.	50
	Percent_Impervious	Percentage of the catchment covered by impervious surfaces.	30
	Directly_Connected_Impervious_	Percentage of the catchment directly connected to impervious areas.	45
	Main_Type_Conveyance	Curb and Gutters (CG) or Grass Swales (GS). It could be a combination of both. In those cases the percentage of each type of conveyance is indicated. There are special cases and the conveyance system is described in this column.	76 CG 24 GS
	Controls	Describes if there are any stormwater control in the watershed. DS: Detention Storage. WP: Wet Pond.	WP

	Data Element	DESCRIPTION	EXAMPLE
EVENT DESCRIPTION	Start_Date	Identify the start day of the storm event.	4/12/1999
	Start_Time	Identify the start time of the storm event.	08_45
	End_Date	Identify the end day of the storm event.	4/13/1999
	End_Time	Identify the end time of the event_ID. **NOTE: If you don't have this information but have the duration, assign the start time at 00_00 of the storm day and assign the duration as end time. Additionally assign the start day as the end day.	23_30
	Days since last rain	Days since last storm event.	3
	Precipitation_Depth_(in)	Precipitation depth in inches.	2.5
	Maxr15	Maximum precipitation intensity in 15 minutes. (units in/hr)	0.4
	Runoff_(in)	Total runoff depth in inches.	0.26
	Runoff_Vol_Coef_for_Site	Volumetric runoff coefficient (Rv) calculated as the total runoff divided by total precipitation depth for the catchment.	0.5
	Calculated_Rv	Volumetric runoff coefficient for the storm event.	0.3
	Calculated_Curve_Number	Calculated Curve Number (CN) as indicated in TR-55.	90
	Season	Season based on the month of the year. Spring (SP): Mar, Apr, May; Summer (SU): Jun, Jul, Aug; Fall (FA): Sep, Oct, Nov; Winter (WI): Dec, Jan, Feb.	SU
	Type_Sampler	Automatic (AU) or Manual (MA).	AU
	Type_Sa_An	Type of Sample Analysis. Composite (COM), Discrete (DI), Flow Composite (FLOW_COM), Time Composite (TIME_COM).	COM
	3h_or_Total_Event?_3H_TOT	Indicates if only the first three hours if the storm event were sampled (3H) or the complete event (TOT).	TOT
	EMC_Calculation	Indicates how the EMC was calculated. Composite sample (COM) or Grab sample (Grab).	COM
STORMWATER CONSTITUENTS	Stormwater Constituent	The following columns describe the results for stormwater constituents. The header also includes the units of each constituent.	Hardness (mg/L CaCO3)
	Q	Qualifiers for all the stormwater constituents. ND: Not Detected; LD: Less than detection limit; UD: Greater than detection limit; E:Estimated; C:Calculated; RA: Range; BDL: Below detection limit (in this specific case the detection limit was not specified, we used the median detection limit of the whole column); DEL: Deleted value (The observed value appeared to be incorrect. The value is stored in the qualifier column in parenthesis.).	ND
	QAQC Columns	These columns were created to identify outliers or unusual results based on relations between two or more constituents.	QAQC TSS/Turbidity
	Comments	Comments considered relevant for this storm.	Low_Density_residential_in_Arlington_terms__Density_is_about_5_dwelling_units/acre__Garden_apts_and_low_rise_buildings