Data Dictionary for the Water Quality Survey

The following tables describe the variables (data columns) for the Water Quality Survey (WQS) presented in the metadata. The metadata for the WQS are not complete if they are not distributed with this document.

Table 1. WQS variables and their definitions.

Var_name	Full Name	Description	Code	Code Description
AIR.TEMPERATURE	Air temperature	The measurement of air temperature in degrees Celsius.		
BEACH.NUMBER	Beach number	Number used to identify a particular beach.		
BOTTOM.TYPE	Bottom type	Code used to classify the sediment composition at a sampling site on the river.	1	Sand
			2	Mud
			3	Vegetation
			4	Debris
			5	Brick
			6	Gravel less than 3"
			7	Gravel greater than 3"
			8	Mussel/oyster bed
			9	Other
CATCH_CD	Catch code	A code indicating whether the sample had catch or not. For ichthyoplankton, sampling will have a CATCH_CD = 2 (No catch) if for all taxa in the sample, the following are equal to 0 or missing values: CT_EGGS, CT_YSL, CT_PYSL, CT_UNID, and CT_YOY.	1	Catch
			2	No catch
			3	Catch not analyzed
CLOUD.COVER	Cloud cover	A code to represent the percentage of the sky which is overcast.	0	0-9%
			1	10-19%
			2	20-29%
			3	30-39%
			4	40-49%
			5	50-59%
			6	60-69%
			7	70-79%
			8	80-89%
			9	90-100%

Var_name	Full Name	Description	Code	Code Description
COMMENTS	Comments	Remarks pertinent to the collection and/or handling of the sample.		
CONDUCTIVITY	Conductivity	The conductivity of the water expressed in micro siemens per centimeter at 25 degrees Celsius		
DATE	Date	The date of sample collection. The date in MM/DD/YY format derived from SAS date function.		
DISSOLVED.OXYGEN	Dissolved oxygen	The concentration of dissolved oxygen in the water expressed in milligram per liter at ambient temperature.		
DURATION	Duration	The duration of sampling in minutes.		
FLOWMETER.DIFFERENCE	Flowmeter difference	Flowmeter end minus flowmeter start equals flowmeter difference.		
FLOWMETER.END	Flowmeter end	The numbers read from the mechanical flowmeter at the end of each collection or calibration.		
FLOWMETER.NUMBER	Flowmeter number	A number assigned to each flowmeter for identification purposes.		
FLOWMETER.START	Flowmeter start	The numbers read from the mechanical flowmeter before the collection or calibration starts.		
GEAR.CODE	Gear code	A code assigned to each type of sampling device used.	12	100' beach seine tow
			17	12' bottom try trawl (experimental prior to 09/01/78)
			36	3' x 6' box trap, without wings or leads, with two fykes (12/06/74)
			64	1-m^2 epibenthic sled
			65	1-m^2 Tucker trawl
GEAR.NARRATIVE	Gear narrative	A code used to describe if a problem was encountered with the sampling device during a particular collection.	1	No sampling problems
			2	Sampling problems encountered. Partial or

Var_name	Full Name	Description	Code	Code Description
				complete loss of sample probable.
LAT.DEGREE	Latitude degree	Latitude in degrees.		
LAT.MINUTE	Latitude minute	Latitude in minutes.		
LON.DEGREE	Longitude degree	Longitude in degrees.		
LON.MINUTE	Longitude minute	Longitude in minutes.		
ND		Latitude in degrees.		
NET.LENGTH.OPENING.WIDTH.RATIO	Net length/ opening width ratio	A code representing the net length (from mouth to cod end) divided by the net width (measured horizontally at the mouth). Codes 10, and 58 (used only in 1974) are not defined in the existing HRMBP data dictionaries.	5 8	5:1 8:1
NET.MESH	Net mesh	A code which indicates the ichthyoplankton net gear mesh size in microns micron. Codes 53, 58, 65, and 85 (used only in 1974) are not defined in the existing HRBMP data dictionaries.	30 50 55 500 3000	3000 microns 500 microns 505 microns 500 microns 3000 microns
NM		Latitude in minutes.		
NS		Latitude in seconds.		
NUMBER.OF.GEARS.USED	Number of gears used	Number of gears used.		
PH	pH	The pH of the water measured in units of pH.		
PROCESSING.DATE	Processing date	The date (derived from SAS date function) a sample was processed.		
PROJECT	Project	A code assigned to each survey.	FS LR	FJS LRS
RELATIVE.DEPTH	Water quality relative depth	A code assigned to the depth where the water quality data are taken relative to the depth sampled. Variable from the 1984 LMS gear comparison.	1 2 3	Surface Mid-depth Bottom
RIVER.DEPTH	River depth	The depth, in meters, of the river from surface to bottom where sampling occurred.		

Var_name	Full Name	Description	Code	Code Description
RIVER.MILE	River mile	A segment of the Hudson River (approximately one mile) defined on the river charts. A river mile extends from the river mile line northward to the next successive river mile line.		
RIVER.RUN	River run	A number assigned to each WQS sampling period.		
SAM_NARR	Sample narrative	A code used to describe the quality of the biological collection for ichthyoplankton. SAM_NARR codes will be the same as those for CATCH_CD (1983).	1 2 3	Fish caught (field) or processed (lab) as appropriate No fish caught Lab processing problems (spilled, deteriorated, misplaced), sample not processed
SAMPLE.NUMBER	Sample number	A number assigned sequentially within a year and task which are used to identify a sample collection.		
SITE	Site	Site indicates a more specific area or zone within a river mile from which the sample is taken. Code 8 (one record in 1978) is not defined in the existing HRBMP data dictionaries and is likely a typo.	4 5 6	West of channel (<= 20 ft. depth) Channel (>20 ft. depth) East of channel (<= 20 ft. depth)
SPLIT_CD	Split code	Code indicating the portion of the sample which was worked up.	1 8	None 1/8 split
STATION	Station code	A code which defines the specific sampling location, ranges from stations 1 to 65 based on river region, river mile, and site.		
STRATA.CODE	Strata code	A code indicating a segment of the river characterized by specific depth criteria. Note, in regions where the shoal stratus is not formally sampled, samples collected in water <= 20 ft. depth should be assigned to the bottom or channel structure, based on the difference between sample depth and river depth.	1 2	Shoals- water of 20 ft (6m) or less Bottom- water within 10 ft (3m) of the river bottom in more than 20 ft (6m depth)

Var_name	Full Name	Description	Code	Code Description
			3	Channel- water more than 10 ft (3m) from the river bottom in more than 20 ft (6m) depth
TASK_CODE	Task code	A code uniquely identifying each survey from which a sample originated. Code 5 (used only in 1976) is not defined in the existing HRBMP data dictionaries.	3	Standard stations
			13	Interregional trawl
			23	Beach seine survey
			24	Beach seine efficiency
			33	Mark recapture
			39	Try trawl survey
			43	Tomcod (box traps & trawl)
			53	Adult striped bass
			88	Long river ichthyoplankton
			89	Long river ich. and fall shoals water quality (since 1982)
			98	Fall shoals survey
TIDAL.METHOD	Tidal method	A code identifying the source or method used to describe the tide stage	1	Subjective observation
TIDE.STAGE	Tidal stage	A code used to describe the direction of tidal flow. Code 9 (one record in 1980) is not defined in the existing HRBMP data dictionary and is likely a typo.	1	Low slack
			2	Flood
			3	High slack
			4	Ebb
TIME	Time	The time at which sampling occurred. Time in hour: minute format derived from SAS time function.		
TOW.DIRECTION		Code for the direction toward which the gear was towed.	1	North
			2	South
			3	East
TOW.SPEED		Boat speed, in meters per second, relative to the water during sampling.		
TURBIDITY	Turbidity	The turbidity of the water measured in formazin turbidity units.		

Var_name	Full Name	Description	Code	Code Description
USE.CODE	Use code	A code limiting the analytical use of a sample.	1	Assigned to a sample when there are no sampling problems. Sample may be used for C/F analysis for all species.
			2	Assigned to a sample when sampling problems are encountered, but any markable or unusual species are caught. Sample not to be used for C/F analysis.
			3	Assigned to samples when only selected species from the catch are counted. Sample may be used for C/F for selected species only, dependent on task.
			5	Assigned to samples when sampling problems are encountered and no markable or unusual species are caught (i.e., void)
VESSEL.CODE	Vessel code	A code assigned to a boat used to collect ichthyoplankton and commercial samples.	1	Liberty Belle
			2	Celia Thaxter
			3	Sametta Too
			5	Robert Gabrielson's Boats
			6	David White's Boats

Var_name	Full Name	Description	Code	Code Description
			9	Woody I
			10	Ecological Analyst's Pride
VOLUME.OF.WATER.SAMPLED.IN.CUBIC.METERS	Volume of water sampled in cubic meters	Volume of water sampled in cubic meters		
WATER.QUALITY.SAMPLE.DEPTH.m	Water quality sample depth	Depth, in meters, from which a water quality sample was collected.		
WATER.TEMPERATURE	Water temperature	The measurement of the temperature of the water in degrees Celsius.		
WAVE.HEIGHT	Wave height	Code describing the condition of the surface of the water. Codes 5 and 8 (two records in 1974), are not defined in the existing HRBMP data dictionaries and are likely a typo.	1 2 3 4	Calm (0 to 0.5 ft.) Light chop (> 0.5 ft. to 1 ft.) Heavy chop (> 1 ft. to 2 ft.) Large waves (> 2 ft.)
WD		Longitude in degrees.		
WIND.DIRECTION	Wind direction	A code for the direction from which the wind is blowing.	0 1 2 3 4	No wind North South East West
WIND.SPEED	Wind speed	The speed of the wind in knots.		
WM		Longitude in minutes		
WS		Longitude in seconds		
YEAR.OF.DATA.COLLECTION	Year of data collection	Year in which data was collected.		