README - AACountyFY21MS4Geodatabase_02112022.mdb

Error Codes:

- '66666', '666', OR '66': These error codes were used where numeric values are required but submitted values are larger or smaller than the field allows. The length of the error code used depends on the field size limit. The actual data are placed in the GEN_COMMENTS field.
- '88888', '8888', OR '888': These error codes were used where a numeric value was mandatory (or in some cases, revised to optional by the May 2017 MDE-revised schema; version 1.2) but no data were collected. The length of the error code used depends on the field size limit.
- '99999', '999', OR '9': These error codes were used where a descriptive value (e.g. location, permit number) was mandatory but data were missing and may be populated later, the field is not applicable, or the field should be conditional.
- '1/1/1899': This error code was used where date/time information was not available.
- 0 values are not equivalent to NULL values.
- The first day of the month is used when the exact date is not known; this date is approximate and will be noted in the GEN_COMMENTS where applicable.

General Comments:

- With the exception of the *ImperviousSurface* table the 4th Generation Permit number is used throughout. The GEN_COMMENTS field in each BMP feature class details where BMPs are expected to contribute to the 5th Generation Permit.
- As per communication with MDE, the following conventions are used:
    - *AltBMPLine* feature class: INSTALL_DATE is now conditional upon project completion status.
    - *RestBMP* feature class: IMPL_COST field type changed to 'Long Integer'.
    - *AltBMPLine*, *AltBMPPoint, AltBMPPoly,* and *RestBMP* feature classes: PROJECTED_IMPL_YR for projects not moving forward will be marked as NULL and the STATUS will be 'P', inactive status will be noted in GEN_COMMENTS.
    - *Outfall* feature class: DIM_OUTFALL is populated with equivalent diameter (NOT hydraulic equivalent diameter) of circular/noncircular pipes. HT_OUTFALL and WT_OUTFALL are populated with widest and tallest dimensions of pipe.
- *BMP* table:
    - APPR_DATE field type was changed from numeric to date.
    - "BMP_TYPE" field - OWSW (wet swale) has been omitted from MDE's domain. The County data include several facilities of this BMP type, in violation of the domain.
- *RestBMP* feature class: Populated according to the database model provided in "MDE_NPDES_MS4_052017.mdb". Note that the field order (see fields BMPPOI_ID and RESTBMP_DRAIN_AREA) in the database framework and the Geodatabase Design and User's Guide (Version 1.2, May 2017) do not match. Also, there is a typographic error in the database framework for the field REST_tBMP_TYPE; field name corrected, per the guidance document, to REST_BMP_TYPE.

- *Relationship error:* "rBMPPOI_RESTBMP" - relationship type is one-to-one. However, multiple restoration BMPs may be combined within a single BMP system (i.e., represented by a single POI), just as multiple BMP records may share a POI. The County has several restoration BMPs with BMPPOI_IDs that violate this relationship, but that the County notes are correct.
- *AltBMPLine* feature class: IMPL_COST was omitted by MDE from the feature class schema and manually added for the County's data set.
- *AltBMPPoly* feature class: Replaced IMPL_COST greater than four digits with error code '666' and recorded the actual value to GEN_COMMENTS.
- *AltBMPPoint* feature class: Added 'Alternative BMP' to 'BMPClass' domain.
- *CountywideStormwaterWatershedAssessment* table: WATERSHED8DGT was populated with '99999' since reductions are calculated at the Countywide scale.
- *CountywideStormwaterWatershedAssessment* table: The data for loads (fields: BASELINE_LOAD, TARGET_LOAD, PERMIT_LOAD, and CURRENT, LOAD) contain the full values in each record. The data have not been altered to reduce the number of significant digits to two; some values are longer than the limit for the double type.
- *ErosionSedimentControl* table: PERMITS_ACTIVE and NUM_VIOLS exceeded character length. Replaced with '666' and moved actual value to GEN_COMMENTS.
- *IDDE* table: When flow was observed, but the flow rate was less than 0.01 CFS, '0' was entered in the CFS_FLOW field and the measured flow rate was reported in GEN_COMMENTS.
- *SWM* table: Field size for CON_INSPECT, MAIN_INT and MAIN_FLW exceeded character length. Replaced with '666' and moved actual value to GEN_COMMENTS.
- *RespPersonnelCertInfo* table: This table is empty. Responsible Personnel Certification training is conducted through MDE's online training course. The County no longer provides this information to MDE.
- *ChemicalApplication* table: Changed the code in the domain 'dChemUnit' from 'IBS' to 'LBS'
- *LocalConcern* table: This table is empty. There are no chemical monitoring data collected for local concerns at this time.
- *LocalStormwaterWatershedAssessment* table: Added 'Sediment' and 'E. coli' values to the 'dPollutant' domain.
- *LocalStormwaterWatershedAssessment* table: The data for loads (fields: BASELINE_LOAD, TARGET_LOAD, PERMIT_LOAD, and CURRENT, LOAD) contain the full values in each record. The data have not been altered to reduce the number of significant digits to two; some values are longer than the limit for the double type. FC and ECOLI have the current load set to '88888' as TMDL progress for these parameters is now assessed by monitoring rather than modeling.
- *LocalStormwaterWatershedAssessment* table: The same code (PCB) is used in the dPollutant domain for both PCB - grams/year and PCB pounds/year. The details of the PCB type are included in the GEN_COMMENTS field for clarification.
- *BiologicalMonitoring* table: This table is empty. The County now participates in the Pooled Monitoring Program.
- *ChemicalMonitoring* table: This table only contains data for 2 quarters. The County now participates in the Pooled Monitoring Program.
- *NarrativeFiles* table: Documents referenced in text of Anne Arundel County's FY2021 MS4 Annual Report and included as appendices to the County's FY2021 MS4 Annual Report are included in this table.

- *NarrativeFiles* table: The values in the MON_STATION_ID field are simple placeholders (copies of the values in the MDE_DOC_NAME_ID field) to allow the import of data into a field that does not allow NULLs. There is not a 1:1 relationship between monitoring stations and narrative files.
- *QuarterlyGradingPmtInfo* table: Made the 'LAND_USE_AF' field nullable. The coded domain is not properly assigned for this field.
- *StrRestProtocols* table: Record AA20SRP000013 is associated with a SPSC (REST_BMP_ID AA20RST000004), where Protocol 1 was the most appropriate protocol for calculating TN, TP, and TSS reductions.