

Anne Arundel County Comments on the November 2021 MS4 Geodatabase Schema

Anne Arundel County appreciates the opportunity to provide feedback on Maryland Department of the Environment's 2021 Phase I MS4 Geodatabase (Version 1.2). The County's comments on the geodatabase elements follow the order of the *Draft Supplement to the Geodatabase Design and User's Guide* (MDE, November 2021).

Global Geodatabase Concerns

1. Since points are provided as geospatial features, is there a use for including coordinates as attributes for the feature classes?
2. The County would appreciate guidance on how to deal with mandatory and conditional fields of different data types for which the County may not have data available. This is of particular importance for older features, where there is sometimes no information available for populating certain attributes (in some cases that data may never be available; in other cases, such as minor outfall diameters, we may be able to collect that data over time, but will need a way to attribute the field until the data is collected). There are also cases where data attributes relying on field-collected data may be unavailable due to equipment failure or other issues and ways to indicate that within the record, rather than in comments, is desirable.

I. Permit Info

Response

- The County has no comments related to this table.

II. BMPs

a. BMP FC

Response

- For all feature classes where applicable, we would like to recommend a combined Status field that covers implementation and BMP status, since a BMP can never be more than one thing at a time.
Suggested domain: Cancelled (if MDE wishes BMPs that are not moving forward to remain in the geodatabase for submittal), Planning, Under Construction, Active (Complete/Active seem to be the same status, just in two places), Removed (and possibly Converted if a BMP is technically removed and converted/replaced to another BMP type, but provided credit that should still be accounted for but not considered restoration). This may be a good topic of conversation for the broader MS4 group to see how it might fit in with how other jurisdictions track and manage data.

- Please allow for IMPL_COSTs of \$0 or provide an error code for where the data is not available. We have some projects installed by NGOs or private developers – in those cases we often do not have access to the IMPL_COST.
- QUAN_MGMT – we will need guidance on how to populate this field for the vast majority of BMPs where this data was not collected (revisiting the plans for every BMP is not feasible at this stage in light of the cost and time investment that would be required for revisiting all of the plans, which were all reviewed just four years ago to collect all of the data required under the previous geodatabase schema). Using the era of BMP construction was suggested at previous meetings, and we would like to see that implemented in some fashion.

b. BMP Drainage Area FC

Response

- The County still believes it would be helpful to have an active/inactive status attribution for DAs. We come across a variety of scenarios (redevelopment, conversion, evolution of a BMPs DA over time) that would make this useful and help provide context for crediting in complex cases.

c. BMPInspections

Response

- The previous structure allowed for SW treatment to be attributed to a group of BMPs at the permit/system level via a single BMP POI, while the individual BMPs in that system could be listed separately in the BMP table as associated tabular records, each of which could have an independent inspection record. Under the new system, there will be many cases where we must submit multiple BMPs as a grouped, single record because we simply do not have information on the individual contribution of each BMP to that permit/site's SW treatment. However, that grouping does not reflect how BMPs are actually inspected in the field, i.e., inspections are performed for each individual BMP under that grouped record via individual points maintained in our internal data management system – can you please provide guidance on how to populate a single inspection record for a set of grouped BMPs (i.e., one BMP feature class record) when that inspection record is actually made up of, for example, 20 separate rain garden inspections?

III. Alternative BMPs

a. AlternativeBMPLine FC

Response

- Field description for TP_REDUCTION_TOTAL needs to be corrected – currently notes for STRE it is the sum of P1, P2, P3, and P5. It should be the sum of P1, P3, and P5.
- For non-conforming projects where the default rate will be used and no protocol

data will be available, is this something we should add to the general comments on the AltBMPLine feature? Will there be an issue if an SHST does not have an associated record in the Shoreline Protocol table?

- For BMPs that were previously called SPSCs:
 - If a BMP coded as an SPSC before uses P5 only, is that now an OUT?
 - If a BMP coded as an SPSC before uses P4 only, it is now and SPSP?
 - If a BMP coded as an SPSC before uses both P4 and P5 credit, is that now two records?
- Please allow for IMPL_COSTs of \$0 or provide an error code for where the data is not available. We have some projects installed by NGOs or private developers – in those cases we often do not have access to the IMPL_COST.

1. Stream Restoration Protocols

Response

- The Guidance description for this table states: “This table contains information on the individual protocols used for a specific stream restoration project that has been completed.” Does this mean that stream restoration protocol data should only be submitted when a project is complete or should completed be removed from this description? While protocol data is not always available in the early planning stages, it is typically available during the late design stages and has always been submitted prior to project completion in the past.
- In Appendix C of the Guidance, a field is listed, SCNDRY_DESIGN_TYPE, that is not in the schema. Was this accidentally omitted from the schema or accidentally included in the Appendix?
- Please confirm – when one BMP provides both Protocol 4 and P5 (and SPSP that provides WQv treatment and stabilizes and eroding gully), that BMP will be included in the BMP feature class, as well as the AltBMPLine feature class. Would you please provide an examples in the Guidance appendix that covers this situation?
- In the Appendices there is a section titled “Additional Recordkeeping Recommendations for Stream Restoration Projects”. There are a number of recommendations in this section suggesting documentation to submit with the MS4 report for completed stream restorations. Please clarify if any of these items are requirements, rather than suggestions.

2. Shoreline Management Protocols

Response

- The Guidance description for this table states: “This table contains information on the individual protocols used for a completed shoreline management project that uses the protocols.” Does this mean that shoreline protocol data should only be submitted when a project is complete or should completed be removed from this description?

b. AltBMPPoint FC

Response

- The County has no comments related to this table.

1. Discharges from Grey Infrastructure Protocols

Response

- The County has no comments related to this table.
- Please allow for IMPL_COSTs of \$0 or provide an error code for where the data is not available. We have some projects installed by NGOs or private developers/homeowners – in those cases we often do not have access to the IMPL_COST.

c. AltBMPPoly FC

Response

- The field name SDV_MATERIAL would seem to indicate this field is exclusively associated with SDV (storm drain vacuuming). If it is also intended to apply to CBC (catch basin cleaning), perhaps the name could be revised to something that could cover both practice types (e.g., SDC – Storm Drain Cleaning). At a minimum, the description should be enhanced to indicate that it should be used for both CBC and SDV practice types.
- Please allow for IMPL_COSTs of \$0 or provide an error code for where the data is not available. We have some projects installed by NGOs or private developers – in those cases we often do not have access to the IMPL_COST.

d. AltBMPInspections

Response

- The County has no comments related to this table.

IV. TMDLs

a. Chesapeake Bay Progress

Response

- The fifth generation MS4 permit has listed the Chesapeake Bay TMDL WLAs in Appendix A by Segmentshed – please consider eliminating the 8- and 12-digit watershed fields in favor of a mandatory attribute that aligns with the way the Bay TMDL requirements are listed in the permit.

b. Local TMDL Progress

Response

- The County has no comments related to this table.

V. Management Programs

a. Stormwater Management

Response

- The County has no comments related to this table.

b. Erosion and Sediment Control

Response

- The County has no comments related to this table.

1. Quarterly Grading Permit FC

Response

- The County appreciates the combining of the old table and FC schemas.
- Based on the descriptions, it seems like SITE_ADDRESS and SITE_LOCATION might be Conditional (address conditional based on availability, location conditional on address), rather than Optional?

2. Responsible Personnel Certification

Response

- The County supports the removal of this table from the geodatabase.

c. IDDE

1. Outfall FC

Response

- Please confirm the permit and geodatabase requires only the major outfalls to be submitted in this FC. Permit language (Part IV.C.a) states “all infrastructure, major outfalls, inlets, and associated drainage area delineated...” The County will continue to submit the supplemental storm drain infrastructure geodatabase with our annual report.
- Is the field for noting industrial outfalls intended to capture outfalls associated with industrial permits or any outfalls associated with industrial land uses? Please confirm that this attribution should exclude commercial outfalls (as opposed to MS4 Permit Section C.2, which includes both industrial AND commercial land uses).

2. Outfall Drainage Area FC

Response

- Does OUTFALL_DRAIN_AREA need to be limited to 2 significant digits?

3. IDDE Screening

Response

- The County has no comments related to this table.

d. Property Management

1. Municipal Facilities

Response

- Please re-review this table in light of the permit requirements. The MS4 permit requires the County to ensure only the following:
 - An NOI has been submitted for each facility requiring SW Industrial GP coverage
 - Submit a list of county properties currently covered.
- The MS4 Permit does not require the County to document annual or quarterly inspection dates for SW Industrial GP coverage and this field (LAST_INSP_DATE) should be “optional” or “allow null” for those facilities. Therefore, the field should be “conditional” such that if a facility requires/has a GHP, then the field is completed.

2. Chemical Application

Response

- Please confirm: if a chemical was not used in the current year, but was used the previous year, a record is required with current use noted as 0.

VI. Assessment of Controls

a. Monitoring Site FC

Response

- Per the Geodatabase Guidance, this feature class is not required for Anne Arundel due to participating in the Pooled Monitoring Program.

b. Monitoring Drainage Area FC

Response

- Per the Geodatabase Guidance, this feature class is not required for Anne Arundel due to participating in the Pooled Monitoring Program.

c. Chemical Monitoring

Response

- Per the Geodatabase Guidance, this table is not required for Anne Arundel due to participating in the Pooled Monitoring Program.

d. Biological Monitoring

Response

- Per the Geodatabase Guidance, this table is not required for Anne Arundel due to participating in the Pooled Monitoring Program.

e. Local Concern

Response

- The County has no comments related to this table.

VII. Program Funding

Response

- The County has no comments related to this table.

VIII. Impervious Surface

Response

- The fifth generation MS4 permit restoration goal, per MDE, is not connected to the baseline controlled impervious analysis performed for the fourth generation MS4 permit. Perhaps the baseline BASELINE and CONTROLLED acreage fields could be replaced with the restoration goal acreage and percent completed to better align with this permit's requirements.

IX. Narrative Files

Response

- dDocType – The descriptions for RESTP and SID seem to overlap. Are the examples for SID correct? If they are, what would lead a watershed restoration plan to be noted as RESTP vs SID?
- Would you please consider increasing the size of the field DOC_NAME to 75 or 100 characters? We have a number of document titles that overrun the 50 character limit by several characters.