

Spatial Data Submission Template Data Dictionary

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How to Use this Document

This document describes the data tables that are included in the Spatial Data Submission Template, as well as the associated error tables that are generated by the tools in the Spatial Data Submission Tool. The template tables are for importing and attributing the spatial features. The attributes can have the following designations, as indicated in the tables:

- **Required** – These values are required, and if not provided will cause an error entry in the error table.
- **Unique** – These values should be unique in the table. Typically, these are values that are used as identifiers.

Many of the values use domains, which allow the user to select from a list of values. The descriptions for the domains are included in [Appendix A](#).

Stream Asset Features

Input Data Table (Stream_Asset_Features)

This table is part of the Spatial Data Submission Template.

Reach Name (ReachNam) ✓ Required	Text (30)
Code or identifier that is used to refer to the reach in tables and graphics. For example, "UT1".	
Subreach ID (SRID) ✓ Required ✓ Unique	Integer
Unique number for each reach segment within the project. These can be numbered sequentially.	
Data Source (Source) ✓ Required	Select a Value
The source of the spatial data. Select from a list of sources in the Source domain in Appendix A.	
LineType (LType) ✓ Required	Select a Value
The part of the stream that the linear feature represents. Select from a list of standardized line types in the LineType domain in Appendix A.	
Pre-Rest Feet (PRFEET) ✓ Required	Integer
The pre-restoration length of the reach segment as a whole number in feet.	
BSTA (BSTA) ✓ Required	Integer
The beginning station for a reach segment as a whole number in feet.	

ESTA (BSTA) ✓ Required	Integer
The end station for a reach segment as a whole number in feet.	
Restoration Type (RestLevel) ✓ Required	Select a Value
Stream restoration type. Select from a list of standardized sources in the StreamRestLevelType domain in Appendix A. Note that stream segments with a Restoration Type of NA should have a Credit Ratio of 0.	
Credit Ratio (CreditDiv_1) ✓ Required	Double
The credit ratio for the stream asset segment.	
Credit Supporting (Cred_Tabl) ✓ Required	Select a Value
<p>A yes/no value to indicate if the stream asset segment is credit supporting. While this value is not auto-populated, it will be set to No if the credit ratio is 0.</p> <p>When using Calculation Routine 3 – No Amendment, this value should be set to No for all segments.</p> <p>When using Calculation Routine 4 – Full Amendment, this value should be set to Yes for all segments where the Credit Ratio is greater than 0.</p>	
Stream Mit Category (SMitCat) ✓ Required	Select a Value
The stream mitigation category (Cold, Cool, Warm). Select a value from the Stream Mit Cat domain in Appendix A.	
EIP (EIP) ✓ Required	Select a Value
The stream ephemeral, intermittent or perennial status. Select a value from the EIP domain in Appendix A.	
Rosgen Priority (RosRestP) ✓ Required	Select a Value
The Rosgen priority level of the stream asset segment. Select a value from the RosgenPriority domain in Appendix A.	
Pre-Rosg Type (PROsType) ✓ Required	Select a Value
The primary Rosgen type of the stream asset segment prior to construction. Select a value from the Rosgen domain in Appendix A.	

Pre-Rosg Sub (PRosSub) ✓ Required	<i>Select a Value</i>
The Rosgen subtype of the stream asset segment prior to construction. Select a value from the RosgenSub domain in Appendix A.	
Post-Rosg Type (RosType) ✓ Required	<i>Select a Value</i>
The primary Rosgen type of the stream asset segment post construction. Select a value from the Rosgen domain in Appendix A.	
Post-Rosg Subtype (RosSub) ✓ Required	<i>Select a Value</i>
The Rosgen subtype of the stream asset segment post construction. Select a value from the RosgenSub domain in Appendix A.	
Comment (Comment)	Text (100)
An optional comment about the stream asset segment. An example use of this field would be to denote the reason for a change.	

Auto-populated Fields (StreamAssets)

This table is included in the output when you run the tool. It has all the information from the input data table, along with these additional auto-populated fields.

Project ID (Project_ID) ✓ Required	Integer
The DMS Project ID number. This is different from the contract number. Auto-population Source: User provided value in the tool dialog.	
Segment Name (RID_SRID) ✓ Unique	Text (50)
This field is used to uniquely identify the stream asset reaches in the geodatabase. This is important, because if a reach is being updated in a future submission, it should have the same Reach Name and Subreach ID so that the system knows which features to update. Auto-population Source: This is calculated by concatenating the Reach Name and Subreach ID with an underscore.	
Submission Phase (Feat_Phase)	<i>Select a Value</i>
The Submission Phase for the Asset features. The available values are in the FeatPhaseChrono domain in Appendix A. This value is populated by the tool. Auto-population Source: User provided value in the tool dialog.	

Station Length (STACALC)	Integer
<p>The station length in feet.</p> <p>Auto-population Source: This is calculated by subtracting the value in the BSTA field from the ESTA field.</p>	
GIS Length (Feet) (GeomFeet)	Integer
<p>The reach segment length in feet calculated by ArcGIS and rounded to the nearest foot.</p> <p>Auto-population Source: This is populated by rounding the system maintained Shape_Length field rounded to the nearest foot.</p>	
CALCRED (CALCRED)	Double
<p>The calculated credit for the stream asset segment.</p> <p>Auto-population Source: When Credit Ratio = 0, then this value is set to 0. Otherwise, it is GIS Length (Feet) divided by the Credit Ratio rounded to 3 decimal places.</p>	
Equivalence Category (Equiv_1)	Text (5)
<p>The equivalence category for the steam asset segment.</p> <p>Auto-population Source: When the Restoration Type is Preservation, this is set to 'RE'. It is set to "R" for all other values except "NA", in which case it is set to Null.</p>	
PID_RID_SRID	Text (60)
<p>This is a unique ID field generated by the tool.</p> <p>Auto-population Source: The value is a concatenation of Project ID, Reach Name and Subreach ID.</p>	
PID_SRID_PHAS	Text (15)
<p>This is a unique ID field generated by the tool.</p> <p>Auto-population Source: The value is a concatenation of Project ID, Subreach ID and the domain code associated with the Submission Phase.</p>	
PID_PHS_SRID	Text (15)
<p>This is a unique ID field generated by the tool.</p> <p>Auto-population Source: The value is a concatenation of Project ID, the domain code associated with the Submission Phase and Subreach ID.</p>	

Error Table (Stream_Asset_ErrorTable)

This table is created by the tool. Only stream asset records that have errors will be included in this table.

Field	Description
ObjectID	Unique ID generated by ArcGIS for the error table.
GISOID	Object ID that can be used to reference the row with the error in the StreamAssetsAutoCalc table.
Station_Length	An 'Error' value in this field indicates that Station Length (STACALC) does not equal GIS Length (Feet) (GEOMFEET).
Overlap_of_Stream_Segments	Errors are identified using the pair of object ids where the issue is detected. There may be overlapping stream segments, or end points or intersections that may indicate problems. Note that this check is not compatible with multipart geometry and multipart geometry will be flagged as errors.
Overlap_With_Wetland_Asset	An 'Error' value in this field indicates that the stream asset segment intersects with a wetland asset polygon by more than 0.5 feet.
Outside_Easement	An 'Error' value in this field indicates that a stream segment extends or is outside a buffered easement polygon. The current buffer is set to 0.5 feet.
Fields_Left_Blank	A list of field names that are required but have been left blank will appear here.
SubReachID_Unique	An 'Error' value in this field indicates that the Subreach ID (SRID) is not unique in the stream asset feature class.
Domain_Check	A list of field names that have invalid domain values will be listed here. The valid values are determined by the domain definitions in the DMS template, which are also listed in Appendix A.
Invalid_Type	An 'Error' in this field indicates that the Restoration Type (RestLevel) that is NA but a Credit Ratio (CreditDiv_1) that is > 0.
Credit_Support	<p>When Calculation Routine 3 is selected, an 'Error' in this field indicates that the Credit Supporting (Cred_Tabl) value is set to Yes. All Credit Support values for calculation routine 3 should be set to No.</p> <p>When Calculation Routine 4 is selected, an 'Error' in this field indicates that the Crediting Supporting (Cred_Tabl) value is set to No but the Credit Ratio (CreditDiv_1) is > 0.</p>

Wetland Asset Features

Input Data Table (Wetland_Asset_Features)

This table is part of the spatial data submission template.

Wetland Tract/Group Name (WetNam) ✓ Required	Text (50)
Code or identifier that is used to refer to the wetland tract/group in data tables and graphics. For example, "Riparian Rehabilitation".	
Wetland Number (WetID) ✓ Required ✓ Unique	Integer
Unique number for each wetland within the project. These can be numbered sequentially.	
Data Source (Source) ✓ Required	Select a Value
The source of the spatial data. Select from a list of standardized sources in the Source domain in Appendix A.	
Restoration Level (RestLevel) ✓ Required	Select a Value
Wetland restoration type. Select from a list of standardized sources in the WetRestLevelType domain in Appendix A.	
Note that if the selected Restoration Level is None, the Credit Ratio should be 0.	
Credit Ratio (CreditDiv_1) ✓ Required	Double
The credit ratio for the wetland asset.	
Cred Table (Cred_Tabl) ✓ Required	Select a Value
A yes/no value to indicate if the wetland asset is credit supporting. While this value is not auto-populated, it will be set to no if the credit ratio is 0.	
When using Calculation Routine 3 – No Amendment, this value should be set to No for all segments.	
When using Calculation Routine 4 – Full Amendment, this value should be set to Yes for all segments where the Credit Ratio is greater than 0.	
Mitigation Category (LandPos) ✓ Required	Select a Value
The wetland mitigation category (Riparian, Non-Riparian, or Coastal Marsh). Select a value from the WetLandscape domain in Appendix A.	

WAM Type (WAMTYP) ✓ Required	<i>Select a Value</i>
Wetland type from NC WAM classification system). Select a value from the WAM_TYPE domain in Appendix A.	
Comment (Comment)	Text (100)
An optional comment about the wetland asset. An example use of this field would be to denote the reason for a change.	

Auto-populated Fields (WetlandAssetAutoCalc)

This table is included in the output when you run the tool. It has all the information from the input data table, along with these additional auto-populated fields.

Project ID (Project_ID)	Integer
The DMS Project ID number. This is different from the contract number. Auto-population Source: User provided value in the tool dialog.	
Segment Name (WNM_WID) ✓ Unique	Text (60)
This field is used to uniquely identify the wetland assets in the geodatabase. This is important, because if a wetland is being updated in a future submission, it should have the same Wetland Tract/Group Name and Wetland Number so that the system knows which features to update. Auto-population Source: This is calculated by concatenating the Wetland Tract/Group Name and Wetland Number with an underscore.	
Submission Phase (Feat_Phase)	<i>Select a Value</i>
The Submission Phase for the Asset features. The available values are in the FeatPhaseChrono domain in Appendix A. This value is populated by the tool. Auto-population Source: User provided value in the tool dialog.	
Calc GIS (Acres) (CalcAcre)	Integer
The wetland area calculated by the ArcGIS. Auto-population Source: This is populated by converting the system-maintained Shape_Area field to acres and rounding to 3 decimal places.	
Equivalence Category (Equiv_1)	Text (5)
The equivalence category for the wetland asset. Auto-population Source: When the Restoration Type is Preservation, this is set to 'RE'. It is set to "R" for all other values except "None", in which case it is set to Null.	

CALCRED (CALCRED)	Double
<p>The calculated credit for the wetland asset.</p> <p>Auto-population Source: When Credit Ratio = 0, then this value is set to 0. Otherwise, it is Calc GIS (Acres) divided by the Credit Ratio rounded to 3 decimal places.</p>	
PID_WID	Text (60)
<p>This is a unique ID field generated by the tool.</p> <p>Auto-population Source: The value is a concatenation of Project ID, Wetland Tract/Group Name, and Wetland Number.</p>	
PID_WID_PHAS	Text (15)
<p>This is a unique ID field generated by the tool.</p> <p>Auto-population Source: The value is a concatenation of Project ID, Wetland Number and the domain code associated with the Submission Phase.</p>	
PID_PHS_WID	Text (15)
<p>This is a unique ID field generated by the tool.</p> <p>Auto-population Source: The value is a concatenation of Project ID, the domain code associated with the Submission Phase and Wetland Number.</p>	

Error Table (Wetland_Asset_ErrorTable)

This table is created by the tool. Only stream asset records that have errors will be included in this table.

Field	Description
ObjectID	Unique ID generated by ArcGIS for the error table.
GISOID	Object ID that can be used to reference the row with the error in the WetlandAssetsAutoCalc table.
Overlap_of_Wetland_Segments	An 'Error' value in this field indicates that the wetland polygon intersects with one or more wetland polygons on the same feature class.
Outside_Easement	An 'Error' value in this field indicates that a wetland asset polygon extends or is outside a buffered easement polygon. The current buffer is set to 0.5 feet.
Field_Left_Blank	A list of field names that are required but have been left blank will appear here.
WetlandNumber_Unique	An 'Error' value in this field indicates that the Wetland Number (WetID) is not unique in the wetland asset feature class.
Domain_Check	A list of field names that have invalid domain values will be listed here. The valid values are determined by the domain definitions in the DMS template.

Need_PreJD_Overlap	Rehabilitation, Enhancement, or Preservation wetlands that are not within polygons from the Pre-Jurisdictional Wetland feature class will show 'Error' in this field.
Bad_PreJD_Overlap	Restoration, Re-establishment, and Creation wetlands that intersect polygons from the Pre-Jurisdictional Wetland feature class will show 'Error' in this field.
Invalid_Type	An 'Error' in this field indicates that the Restoration Type (RestLevel) that is None but a Credit Ratio (CreditDiv_1) that is > 0 or a Restoration Type of Preservation and a Mitigation Category (LandPos) of Coastal Marsh.
Credit_Support	<p>When Calculation Routine 3 is selected, an 'Error' in this field indicates that the Credit Supporting (Cred_Tabl) value is set to Yes. All Credit Support values for calculation routine 3 should be set to No.</p> <p>When Calculation Routine 4 is selected, an 'Error' in this field indicates that the Crediting Supporting (Cred_Tabl) value is set to No but the Credit Ratio (CreditDiv_1) is > 0.</p> <p>(This supports the GDB to CRM process).</p>

Pre-Jurisdictional Wetland Features

Input Data Table (PreJurisdictional_Wetlands)

This table is part of the spatial data submission template.

Wetland Tract/Group Name (WetNam) ✓ Required	Text (50)
Code or identifier that is used to refer to the wetland tract/group in data tables and graphics.	
Wetland Number (WetID) ✓ Required ✓ Unique	Integer
Unique number for each wetland within the project. These can be numbered sequentially.	
Data Source (Source) ✓ Required	Select a Value
The source of the spatial data. Select from a list of standardized sources in the Source domain in Appendix A.	
Comment (Comment)	Text (100)
An optional comment about the wetland asset. An example use of this field would be to denote the reason for a change.	

Auto-populated Fields (PreJDWetlands)

This table is included in the output when you run the tool. It has all the information from the input data table, along with these additional auto-populated fields.

Project ID (Project_ID)	Integer
<p>The DMS Project ID number. This is different from the contract number.</p> <p>Auto-population Source: User provided value in the tool dialog.</p>	
Segment Name (WNM_WID) ✓Unique	Text (60)
<p>This field is used to uniquely identify the wetland assets in the geodatabase. This is important, because if a wetland is being updated in a future submission, it should have the same Wetland Tract/Group Name and Wetland Number so that the system knows which features to update.</p> <p>Auto-population Source: This is calculated by concatenating the Wetland Tract/Group Name and Wetland Number with an underscore.</p>	
Submission Phase (Feat_Phase)	Select a Value
<p>The Submission Phase for the PreJD Wetlands. This is set to PreRestoration/Existing.</p> <p>Auto-population Source: Default Value</p>	
Calc GIS (Acres) (CalcAcre)	Integer
<p>The wetland area calculated by the ArcGIS.</p> <p>Auto-population Source: This is populated by converting the system-maintained Shape_Area field to acres and rounding to 3 decimal places.</p>	
PID_WID	Text (60)
<p>This is a unique ID field generated by the tool.</p> <p>Auto-population Source: The value is a concatenation of Project ID, Wetland Tract/Group Name, and Wetland Number.</p>	
PID_WID_PHAS	Text (15)
<p>This is a unique ID field generated by the tool.</p> <p>Auto-population Source: The value is a concatenation of Project ID, Wetland Number and the domain code associated with the Submission Phase.</p>	
PID_PHS_WID	Text (15)
<p>This is a unique ID field generated by the tool.</p> <p>Auto-population Source: The value is a concatenation of Project ID, the domain code associated with the Submission Phase and Wetland Number.</p>	

Error Table (PreJDWetland_ErrorTable)

This table is created by the tool. Only stream asset records that have errors will be included in this table.

Field	Description
ObjectID	Unique ID generated by ArcGIS for the error table.
GISOID	Object ID that can be used to reference the row with the error in the PreJDWetlands table.
Overlap_With_Stream_Assets	An 'Impact' value in this field indicates that one or more stream asset segments intersects with the wetland polygon by more than 0.5 feet. This is not necessarily an error but should be examined.
Overlap_of_PreJD_Segments	An 'Error' value in this field indicates that the PreJD wetland polygon intersects with one or more PreJD wetland polygons on the same feature class.
Outside_Easement	An 'Error' value in this field indicates that a wetland asset polygon extends or is outside a buffered easement polygon. The current buffer is set to 0.5 feet.
Field_Left_Blank	A list of field names that are required but have been left blank will appear here.
WetlandNumber_Unique	An 'Error' value in this field indicates that the Wetland Number (WetID) is not unique in the PreJD wetland feature class.

Site Features

This collection of feature classes stores geometry related to measurements or other observations in the field. Vegetation plots, cross sections, and gauge locations are some examples. There are site feature classes for lines, points, and polygons.

Input Data Tables

Site Lines (Site_Lines)

Site Line Subtype (Line_Subtype) ✓ Required	Integer
The Site Line Subtype indicates the type of linear feature being represented. The subtypes available for selection are Cross Section, Bank Erosion, Repair, Open Ditch, Filled Ditch, and Other.	
Secondary Subtype (SecondarySubtype) ✓ Required (conditionally)	Text (30)
The secondary subtype provides additional information about the selected subtype. This only applies to the Cross Section and Bank Erosion subtypes.	
If the subtype is Cross Section, then select a value from the CrossSectionTypes domain in Appendix A.	
If the subtype is Bank Erosion, then select a value from the BankErosionTypes domain in Appendix A.	

Data Source (Source) ✓ Required	<i>Select a Value</i>
The source of the spatial data. Select from a list of standardized sources in the Source domain in Appendix A.	
Segment Name (SegmentName) ✓ Required (conditionally)	Text (50)
This should be set to the Segment Name of the corresponding stream asset segment. This is required for the Cross Section, Bank Erosion and Repair subtypes.	
Unique ID (UID) ✓ Required	Text (20)
A unique ID that is used to refer to this feature in the data submissions. For example, if data are submitted for Cross Section "XS-1", the value entered here should be "XS-1". Features that are not typically referred to using an ID, such as an Open Ditch, can be numbered sequentially.	
Comment (Comment)	Text (100)
An optional comment about the site line.	

Site Points (Site_Points)

Site Point Subtype (Point_Subtype) ✓ Required	Integer
The Site Point Subtype indicates the type of point feature being represented. The subtypes available for selection are Groundwater Gauge, Continuous Stage Recorder, Crest Gauge, Precipitation Gauge, Photo Point - Station, WQ Sampling Point, Biological Sampling Point, Reference Groundwater Gauge, Survey Benchmark, Photo Point - Problem Area, Beaver Dam and Soil Probe.	
Data Source (Source) ✓ Required	Text (30)
The source of the spatial data. Select from a list of standardized sources in the Source domain in Appendix A.	
Segment Name (SegmentName) ✓ Required (conditionally)	<i>Select a Value</i>
This should be set to the Segment Name of the corresponding stream or wetland asset segment. This is required for the Groundwater Gauge, Continuous Stage Recorder, Crest Gauge, WQ Sampling Point and Biological Sampling Point subtypes.	
Unique ID (UID) ✓ Required	Text (50)
A unique ID that is used to refer to this feature in the data submissions. For example, if data is being provided for groundwater gauge 1, the value in this field could be "1".	

Comment (Comment)	Text (20)
An optional comment about the site point.	

Site Polygons (Site_Polygons)

Site Area Subtype (Area_Subtype) ✓ Required	Integer
The Site Area Subtype indicates the type of polygon feature being represented. The subtypes available for selection are Fixed Veg Plot, Random Veg Plot, Invasive Area, Low Stem Density, Poor Growth, Bare Area, Supplemental Planting, Invasives Treatment, WQ Treatment Feature, and Channel Polygon.	
Data Source (Source) ✓ Required	Text (30)
The source of the spatial data. Select from a list of standardized sources in the Source domain in Appendix A.	
Segment Name (SegmentName) ✓ Required (conditionally)	Select a Value
This should be set to the Segment Name of the corresponding stream or wetland asset segment. This is required for the Fixed Veg Plot and Channel Polygon subtypes.	
Unique ID (UID) ✓ Required	Text (50)
A unique ID that is used to refer to this feature in the data submissions (for example, the fixed veg plot ID).	
Comment (Comment)	Text (20)
An optional comment about the site polygon.	

Auto-populated Fields

The same fields are added and auto-populated to the output in the Monitoring Features Tool for all Site Features. The output feature classes are called SiteLines, SitePoints, and SitePolygons respectively. The have all the information from the input data table, along with these additional auto-populated fields.

Project ID (Project_ID)	Integer
The DMS Project ID number. This is different from the contract number. Auto-population Source: User provided value in the tool dialog.	
Submission Phase (Feat_Phase)	Select a Value
The Submission Phase for the site features. The available values are in the FeatPhaseChrono domain in Appendix A. This value is populated by the tool. Auto-population Source: User provided value in the tool dialog.	

PID_Type_UID (PID_Type_UID) ✓Unique	Text (60)
<p>This field is used to uniquely identify the site features in the geodatabase.</p> <p>Auto-population Source: This is calculated by concatenating the Project ID (Project_ID), Site Line Subtype (Line_Subtype), and Submission Phase (Feat_Phase) with an underscore.</p>	

Error Table

This table is created by the tool. Only site feature records that have errors will be included in this table. The error tables created by the tool are called SiteLinesErrorTable, SitePointsErrorTable and SitePolygonsErrorTable.

Field	Description
ObjectID	Unique ID generated by ArcGIS for the error table.
GISOID	Object ID that can be used to reference the row with the error in the corresponding site features autocalc table.
Fields_Left_Blank	A list of field names that are required but have been left blank will appear here.
Unique_Check	An 'Error' value in this field indicates that the Unique ID (UID) was not unique within its associated subtype. You can identify the issue by looking for duplicates in the PID_Type_UID field.
Easement_Check	An 'Error' value in this field indicates that a site feature extends or is outside a buffered easement polygon. The current buffer is set to 0.5 feet.
Domain_Check	A list of field names that have invalid domain values will be listed here. The valid values are determined by the domain definitions in the DMS template.

Stream Structures

Stream structures differ slightly from the other DMS data in that all of the data is stored directly in the geodatabase. In the spatial data submission template, there is a feature class Stream_Structures that stores the point features, and a corresponding Stream_Structures_Perform_Table that stores the condition rating for the structure. The Unique ID (UID) in both tables should match to associate the table data with the feature.

Input Data Tables

Stream Structures (Stream_Structures)

Stream Structures Subtype (StreamStructureSubtype) ✓ Required	Integer
The Stream Structures Subtype indicates the type of structure being represented. The subtypes available for selection are Grade Control Structure, Bank Protection Structure, and Other.	
Data Source (Source) ✓ Required	Text (30)
The source of the spatial data. Select from a list of standardized sources in the Source domain in Appendix A.	
Segment Name (SegmentName) ✓ Required	Select a Value
This should be set to the Segment Name of the corresponding stream or wetland asset segment. This is required for all subtypes.	
Unique ID (UID) ✓ Required	Integer
A unique ID that is used to refer to this feature in the data submissions. This ID should match the ID used in the Stream Structure Performance table so it can be linked to the condition data. The ID field is a short integer intended to provide a sequential numbering of the structures from the top of the mainstem down and then continuing with the upper most tributary.	
Comment (Comment)	Text (20)
An optional comment about the stream structure.	

Stream Structure Performance Table (Stream_Structures_Perform_Table)

Unique ID (UID) ✓ Required	Integer
A unique ID that is used to refer to this feature in the data submissions. This ID should match the ID used for the associated in the Stream Structures feature class.	
Structure_Condition (Structure_Condition) ✓ Required	Text (30)
The condition rating for the structure. Select a value from the StructureRating domain in Appendix A.	
Comment (Comment)	Text (20)
An optional comment about the stream structure condition rating.	

Auto-populated Fields

The same fields are added and auto-populated to the output in the Monitoring Features Tool for the stream structure feature class and stream structure performance table. The output is called StreamStructures and StreamStructurePerformance respectively. They have all the information from the input data table, along with these additional auto-populated fields.

Project ID (Project_ID)	Integer
<p>The DMS Project ID number. This is different from the contract number.</p> <p>Auto-population Source: User provided value in the tool dialog.</p>	
Submission Phase (Feat_Phase)	Select a Value
<p>The Submission Phase for the stream structure data. The available values are in the FeatPhaseChrono domain in Appendix A. This value is populated by the tool.</p> <p>Auto-population Source: User provided value in the tool dialog.</p>	
PID_UID (PID_UID)	Text (30)
<p>The DMS Project ID number concatenated with the stream structure unique ID. This creates an ID that will be unique in the DMS Enterprise Geodatabase.</p> <p>Auto-population Source: Project ID (Project_ID) and Unique ID (UID) concatenated with an underscore.</p>	

Error Table

This table is created by the tool. Only stream structure records that have errors will be included in this table. The error tables created by the tool are called StreamStructuresErrorTable and StreamStructurePerformanceErrorTable.

Field	Description
ObjectID	Unique ID generated by ArcGIS for the error table.
GISOID	Object ID that can be used to reference the row with the error in the associated encroachment autocalc table.
Fields_Left_Blank	A list of field names that are required but have been left blank will appear here.
Easement_Check (Stream Structures feature class only)	An 'Error' value in this field indicates that structure point is outside the buffered easement polygon. The current buffer is set to 0.5 feet.
Domain_Check	A list of field names that have invalid domain values will be listed here. The valid values are determined by the domain definitions in the DMS template.

Encroachments

There are three feature classes to store encroachments, EncroachmentLine, EncroachmentPoint and EncroachmentPolygon. Encroachments differ from the other feature classes in that they do not have an ID. All data associated with the encroachment is contained in the feature class attributes.

Input Data Tables

Encroachment Lines (EncroachmentLine)

Observation_Date (DATE) ✓ Required	Date
The date the encroachment was observed.	
SUBTYPE (SUBTYPE) ✓ Required	Integer
The Subtype indicates the type of encroachment that was observed. The subtypes available for selection are Vegetation Damage, Vandalism/Trespass, Prohibited Uses, Other.	
Type (TYPE) ✓ Required (conditionally)	Text (50)
<p>The type value provides additional information about the encroachment being reported. This is required for all subtype values except Other.</p> <p>If the subtype is Vegetation Damage, then select a value from the d_VegetationDamage domain in Appendix A.</p> <p>If the subtype is Vandalism/Trespass, then select a value from the d_VandalismTrespass domain in Appendix A.</p> <p>If the subtype is ProhibitedUses, then select a value from the d_ProhibitedUses domain in Appendix A.</p>	
Reported By (REPORTEDBY) ✓ Required	Text (50)
The person reporting the encroachment.	
Violation Description (DESCRIPTION) ✓ Required	Text (250)
A description of the encroachment.	

Encroachment Points (EncroachmentPoint)

Observation_Date (DATE) ✓ Required	Date
The date the encroachment was observed.	
SUBTYPE (SUBTYPE) ✓ Required	Integer
The Subtype indicates the type of encroachment that was observed. The subtypes available for selection are Vegetation Damage, Vandalism/Trespass, Prohibited Uses, Other.	
Reported By (REPORTEDBY) ✓ Required	Text (50)
The person reporting the encroachment.	
Violation Description (DESCRIPTION) ✓ Required	Text (250)
A description of the encroachment.	

Encroachment Polygons (EncroachmentPolygon)

Observation_Date (DATE) ✓ Required	Date
The date the encroachment was observed.	
SUBTYPE (SUBTYPE) ✓ Required	Integer
The Subtype indicates the type of encroachment that was observed. The subtypes available for selection are Vegetation Damage, Vandalism/Trespass, Prohibited Uses, Other.	
Type (TYPE) ✓ Required (conditionally)	Text (50)
<p>The type value provides additional information about the encroachment being reported. This is required for all subtype values except Other.</p> <p>If the subtype is Vegetation Damage, then select a value from the d_VegetationDamage domain in Appendix A.</p> <p>If the subtype is Vandalism/Trespass, then select a value from the d_VandalismTrespass domain in Appendix A.</p> <p>If the subtype is ProhibitedUses, then select a value from the d_ProhibitedUses domain in Appendix A.</p>	

Reported By (REPORTEDBY) ✓ Required	Text (50)
The person reporting the encroachment.	
Violation Description (DESCRIPTION) ✓ Required	Text (250)
A description of the encroachment.	

Auto-populated Fields

The same fields are added and auto-populated to the output in the Monitoring Features Tool for all of the encroachment feature classes. The output feature classes are called EncroachmentLine, EncroachmentPoint, and EncroachmentPolygon respectively. They have all the information from the input data table, along with these additional auto-populated fields.

Project ID (Project_ID)	Integer
The DMS Project ID number. This is different from the contract number. Auto-population Source: User provided value in the tool dialog.	
Submission Phase (Feat_Phase)	Select a Value
The Submission Phase for the encroachment features. The available values are in the FeatPhaseChrono domain in Appendix A. This value is populated by the tool. Auto-population Source: User provided value in the tool dialog.	

Error Table

This table is created by the tool. Only encroachment records that have errors will be included in this table. The error tables created by the tool are called EncroachmentLineErrorTable, EncroachmentPointErrorTable and EncroachmentPolygonErrorTable.

Field	Description
ObjectID	Unique ID generated by ArcGIS for the error table.
GISOID	Object ID that can be used to reference the row with the error in the associated encroachment autocalc table.
Fields_Left_Blank	A list of field names that are required but have been left blank will appear here.
Easement_Check	An 'Error' value in this field indicates that an encroachment feature extends or is outside a buffered easement polygon. The current buffer is set to 0.5 feet.
Domain_Check	A list of field names that have invalid domain values will be listed here. The valid values are determined by the domain definitions in the DMS template.

Special Management Areas

Input Data Table (SpecialManagementArea)

ManagementType (ManagementType) ✓ Required	Text (100)
Type of Area that allows use, access or management that differs from the standard easement provisions. Select a value from the dSpecialManagementType domain in Appendix A.	
Description (Description) ✓ Required	Text (300)
A description of the special management area.	

Auto-populated Fields

The following fields are added to the Special Management Area input feature class when creating the SpecialManagementArea table. Both values are populated based on user input from the tool dialog.

Project ID (Project_ID)	Integer
The DMS Project ID number. This is different from the contract number. Auto-population Source: User provided value in the tool dialog.	
Submission Phase (Feat_Phase)	Select a Value
The Submission Phase for the Special Management features. The available values are in the FeatPhaseChrono domain in Appendix A. This value is populated by the tool. Auto-population Source: User provided value in the tool dialog.	

Error Table

This table is created by the tool and is called SpecialManagementAreaErrorTable. Only special management area records that have errors will be included in this table.

Field	Description
ObjectID	Unique ID generated by ArcGIS for the error table.
GISOID	Object ID that can be used to reference the row with the error in the associated inputSpecialManagementAreaAutoCalc table.
Fields_Left_Blank	A list of field names that are required but have been left blank will appear here.
Easement_Check	An 'Error' value in this field indicates that the special management area extends beyond the buffered easement polygon. The current buffer is set to 0.5 feet.
Domain_Check	A list of field names that have invalid domain values will be listed here. The valid values are determined by the domain definitions in the DMS template.

Appendix A. Domains

The tables below detail the coded value domains used in the Spatial Data Submission Template.

BankErosionTypes

Code	Value
Scour	Scour
ToeErosion	ToeErosion
BankFailure	BankFailure

CrossSectionTypes

Code	Value
Riffle	Riffle
Pool	Pool
Other	Other

d_Prohibited_Uses

Code	Value
Agriculture	Agriculture
New Structures	New Structures
Unauthorized Management	Unauthorized Management
Subdivision	Subdivision

d_Vandalism_Trespass

Code	Value
Motor Vehicle Use	Motor Vehicle Use
Dumping	Dumping
Dredging/filling	Dredging/filling

d_Vegetation_Damage

Code	Value
Cutting	Cutting
Clearing/Timbering	Clearing/Timbering
Herbicide	Herbicide

dSpecialManagement

Code	Value
Roads/Trails	Roads/Trails
Structure	Structure
Authorized Management	Authorized Management

EIP

Code	Value
1	Ephemeral
2	Intermittent
3	Perennial
4	Perennial ditch
5	Intermittent ditch
6	NA

FeatPhaseChrono

Code	Value
0	PreRestoration/Jurisdictional*
1	Proposed
2	Mitigation Plan
3	As-Built
4	MY1
5	MY2
6	MY3
7	MY4
8	MY5
9	MY6
10	MY7
11	MY8
12	MY9
13	MY10
14	MY11
15	MY12
30	Closeout
50	Long Term Management

* Monitoring Tool Only

LineType

Code	Value
1	Thalweg
2	Drawing Centerline
3	Surveyed Centerline
4	Unknown

Rosgen

Code	Value
1	A
2	B
3	C
4	D
5	E
6	F
7	G
8	NA

RosgenPriority

Code	Value
5	None
1	1
2	2
3	3
4	4
6	Mixed
7	NA

RosgenSub

Code	Value
1	1
2	2
3	3
4	4
5	5
6	6
1a	1a
2a	2a
3a	3a
4a	4a
5a	5a
6a	6a
1b	1b
2b	2b
3b	3b
4b	4b
5b	5b
6b	6b
1c	1c
2c	2c
3c	3c
4c	4c
5c	5c
6c	6c
NA	NA

Source

Code	Value
Recorded	Recorded
Sealed Survey	Sealed Survey
Survey	Survey
Submeter GPS	Submeter GPS
GPS	GPS
Digitized	Digitized
Post Processed	Post Processed
Other	Other

Stream_Mit_Cat

Code	Value
1	Cold
2	Cool
3	Warm

StreamRestLevelType

Code	Value
1	Preservation
2	Enhancement I
3	Enhancement II
4	Restoration
5	NA

StructureRating

Code	Value
Functioning	Functioning
Repaired	Repaired
Failed	Failed
Removed	Removed

WAM_TYPE

Code	Value
SBM	Salt/Brackish Marsh
EWV	Estuarine Woody Wetland
TFM	Tidal Freshwater Marsh
RSF	Riverine Swamp Forest
S	Seep
HFL	Hardwood Flat
NRSF	Non-Riverine Swamp Forest
P	Pocosin
PS	Pine Savanna
PF	Pine Flat
BW	Basin Wetland
B	Bog
NTFM	Non-Tidal Freshwater Marsh
FP	Floodplain Pool
HFO	Headwater Forest
BHF	Bottomland Hardwood Forest

WetLandscape

Code	Value
NR	Non-Riparian
R	Riparian
CM	Coastal Marsh

WetRestLevelType

Code	Value
0	Restoration
1	Re-establishment
2	Creation
3	Rehabilitation
4	Rehabilitation-Veg
5	Rehabilitation-Hydro
6	Enhancement
7	Enhancement-Veg
8	Enhancement-Hydro
9	Preservation
10	None