A summary inventory of the **specific proposed revisions** to the draft Stormwater Geodata Transfer Standard [from v. 0.5 to v. 0.6]

Released June 28, 2021

This document contains the recommended changes to the draft Stormwater Geodata Transfer Standard in development; **items in red have been identified for deletion,** while **items in blue are identified for addition** to the next iteration of the draft standard. The deletions and additions are organized by feature type (Pipes, Channels, Artificial Paths, etc.) as they appear the draft standard documentation.

PIPES

To be added:

L_PIPE23 – Road Identifier

Database Name	**PIPE_RDID**		
Data Type	Text	Inclusion	If Available
Width	50	Domain	*(no domain)*
Examples	State Highway 280 West Frontage Road CSAH 42		
Description	This attribute is provided so a specific road name, road number or other road identifier data can be easily added and maintained		

The following attribute has been proposed for removal, to be replaced instead with three other attributes (below)

L_PIPE-- – Pipe Maintenance Agreement Number

Database Name	**PIPE_MAGRN**		
Data Type	Text	Inclusion	If Available
Width	75	Domain	*(no domain)*
Example	*(insert example of Maintenance Agreement Number/ID)*		
Description	Document ID of the agreement between agencies for the maintenance of the physical pipe		

In Version 0.6 – Three fields added to accommodate for maintenance and inspection frequency intended to replace Pipe Maintenance Agreement Number

L_PIPE-- – Pipe Maintenance Agreement Flag

Database Name	**PIPE_MAGRF**		
Data Type	Text	Inclusion	Conditional
Width	7	Domain	**YesNoUnknown**
Examples	Yes, No, Unknown		
Description	Flag to indicate if there is a maintenance agreement on the pipe		

L_PIPE-- – Pipe Maintenance Agreement Information

Database Name	**PIPE_MAGRI**		
Data Type	Text	Inclusion	If Available
Width	75	Domain	*(no domain)*
Example	*(insert example of Maintenance Agreement Number/ID)*		
Description	This field is provided so information such as agency name or specific Document ID of the agreement between agencies for the maintenance of the physical pipe can be maintained		

L_PIPE-- – Pipe Frequency of Inspection

Database Name	**PIPE_FQINSP**		
Data Type	Text	Inclusion	If Available
Width	50	Domain	*(no domain)*
Example	"Inspected each spring" "Every April" "Every other year"		
Description	The field contains a short description note of how often the fixture is inspected		

The following fields are recommended for removal from the Version 0.6 globally, these were determined to be 'out of scope' for a data transfer standard for all of the features to which they were originally affixed to. Instead, these fields can potentially be maintained via look-up table and joined by the feature ID as needed as they are more appropriately maintained directly in an asset management system and would not reside primarily in geospatial data.. Please see the 'Appendix of Related Features' at the end of the main Draft Stormwater Geodata Transfer Standard, v.0.6' document for addition comment and detail.

L_PIPE-- – Pipe Consequence of Failure Rating (REMOVE)

Database Name	**PIPE_COF**		
Data Type	Text	Inclusion	If Available
Width	1	Domain	**CriticalRating**
Examples	*(see values in Description below)*		
Description	Rating: 1-5 of severity of consequence of failure of pipe asset 1 = Low 2 = Medium Low 3 = Medium 4 = Medium High 5 = High		

L_PIPE-- – Pipe Probability of Failure Rating (REMOVE)

Database Name	**PIPE_POF**		
Data Type	Text	Inclusion	If Available
Width	1	Domain	**CriticalRating**
Examples	*(see values in Description below)*		
Description	Rating: 1-5 of severity of probability of failure of pipe asset 1 = Low 2 = Medium Low 3 = Medium 4 = Medium High 5 = High		

L_PIPE-- – Pipe Criticality to System (REMOVE)

Database Name	**PIPE_CRIT**		
Data Type	Text	Inclusion	If Available
Width	1	Domain	**CriticalRating**
Examples	*(see values in Description below)*		
Description	Rating: 1-5 of criticality of the asset (1 = low, 5=high) 1 = Low 2 = Medium Low 3 = Medium 4 = Medium High 5 = High		

CHANNELS

L_CHAN-- – AUID

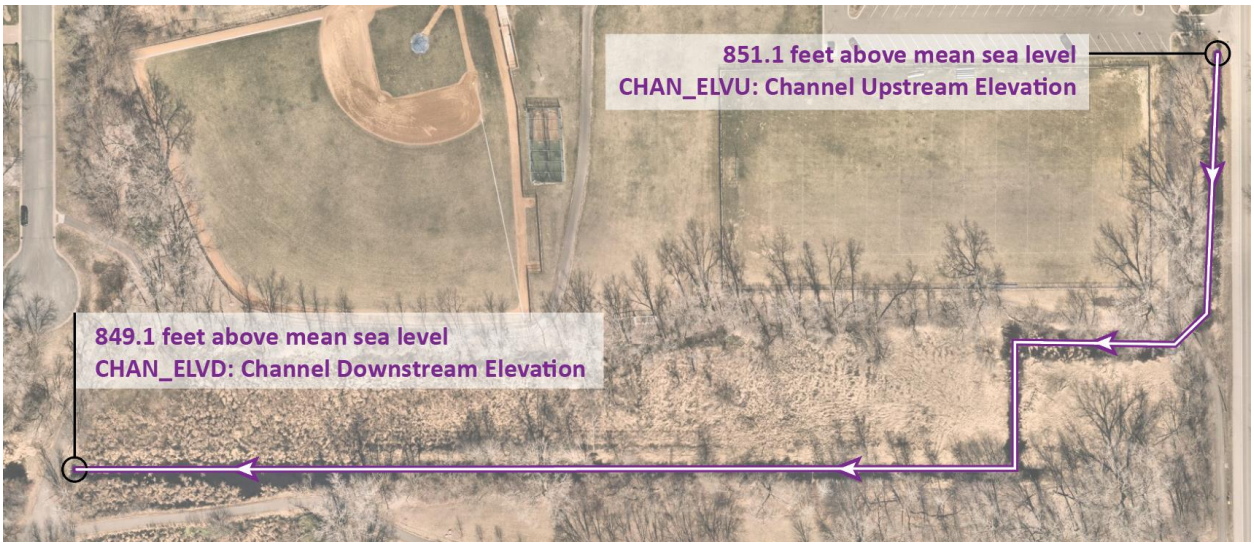
Database Name	**CHAN_AUID**		
Data Type	Text	Inclusion	Conditional
Width	12	Domain	**AUID**
Example	04010201-A79 07040008-871		
Description	Assessment Unit ID (to be changed to WIDs – Water Unit IDs) ID for streams, rivers, ditches and other types of open channels		

L_CHAN-- – AUID is to be removed from the standard: AUID/WIDs are not permanent IDs, and the extent of a reach is subject to change over time, influenced by factors such as water quality standards, channelization or restoration work, hydrological influence, and other reasons that influence how the Minnesota Pollution Control Agency (MPCA) conducts water quality work. If the extent of a reach is changed, the WID number will also change. Historical associations are maintained by MPCA. Streams without a specific agency interest associated have an ID of '*HUC8*-999' assigned to them. As the MPCA programs associate stations or attributes with these un-specified waters, new WIDs will be continually assigned (https://gisdata.mn.gov/dataset/water-current-stream-wids).

The following two fields are proposed to be added to CHANNELS

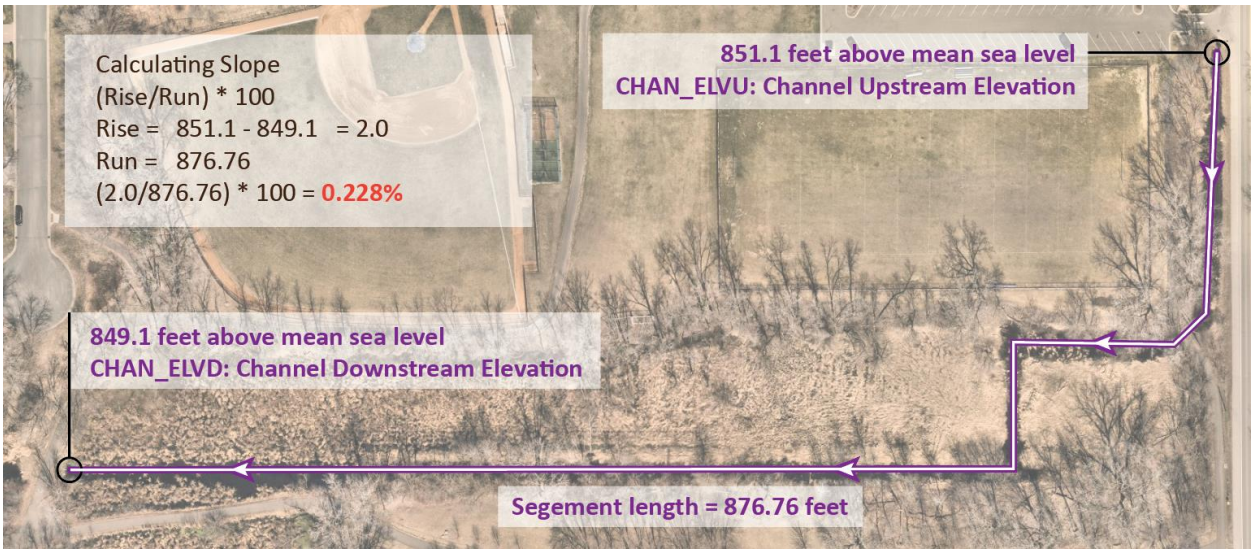
L_CHAN11 – Channel Upstream Elevation

Database Name	**CHAN_ELVU**		
Data Type	Double	Inclusion	If Available
Width	Default	Domain	*(no domain)*
Examples	*(numerical value in feet above mean sea level)*		
Description	Elevation at the bottom of the upstream origin point of the channel segment		



L_CHAN12 – Channel Downstream Elevation

Database Name	**CHAN_ELVD**		
Data Type	Double	Inclusion	If Available
Width	Default	Domain	*(no domain)*
Examples	*(numerical value in feet above mean sea level)*		
Description	Elevation at the bottom of the downstream ending point of the channel segment		



Channel Maintenance Agreement Number to be removed in favor of three new attributes below:

L_ CHAN-- – Channel Maintenance Agreement Number

Database Name	**CHAN_MAGRN**		
Data Type	Text	Inclusion	If Available
Width	75	Domain	*(no domain)*
Example	*(insert example of Maintenance Agreement Number/ID)*		
Description	Number of document ID of agreement between agencies for the maintenance of the physical channel		

To be added:

L_CHAN25 – Channel Maintenance Agreement Flag

Database Name	**CHAN_MAGRF**		
Data Type	Text	Inclusion	Conditional
Width	7	Domain	**YesNoUnknown**
Examples	Yes, No, Unknown		
Description	Flag to indicate if there is a maintenance agreement on the channel		

L_CHAN26 – Channel Maintenance Agreement Information

Database Name	**CHAN_MAGRI**		
Data Type	Text	Inclusion	If Available
Width	75	Domain	*(no domain)*
Example	*(insert example of Maintenance Agreement Number/ID)*		
Description	This field is provided so information such as agency name or specific Document ID of the agreement between agencies for the maintenance of the physical channel can be maintained		

L_CHAN27 – Pipe Frequency of Inspection

Database Name	**CHAN_FQINSP**		
Data Type	Text	Inclusion	If Available
Width	75	Domain	*(no domain)*
Example	"Inspected each spring" "Every April" "Every other year"		
Description	The field contains a short description note of how often the fixture is inspected		

The following attributes are recommended for removal from the Version 0.6, these were determined to be 'out of scope' for a data transfer standard. Instead these can be maintained via look-up table and joined by the feature ID as needed. Please see the 'Appendix of Related Features' at the end of this document.

L_CHAN-- – Channel Consequence of Failure Rating

Database Name	**CHAN_COF**		
Data Type	Text	Inclusion	If Available
Width	1	Domain	**CriticalRating**
Examples	*(see values in Description below)*		
Description	Rating: 1-5 of severity of consequence of failure of channel asset 1 = Low 2 = Medium Low 3 = Medium 4 = Medium High 5 = High		

L_CHAN-- – Channel Probability of Failure Rating

Database Name	**CHAN_POF**		
Data Type	Text	Inclusion	If Available
Width	1	Domain	**CriticalRating**
Examples	*(see values in Description below)*		
Description	Rating: 1-5 of severity of probability of failure of channel asset 1 = Low 2 = Medium Low 3 = Medium 4 = Medium High 5 = High		

L_CHAN-- – Channel Criticality to System

Database Name	**CHAN_CRIT**		
Data Type	Text	Inclusion	If Available
Width	1	Domain	**CriticalRating**
Examples	*(see values in Description below)*		
Description	Rating: 1-5 of criticality of the asset (1 = low, 5=high) 1 = Low 2 = Medium Low 3 = Medium 4 = Medium High 5 = High		

ARTIFICIAL PATHS

No changes are recommended to the Artificial Paths data category

BASINS

Two new values were recommended for revision/addition to the **BasinType** domain
Retention-wet basin and **Detention-dry basin**

P_BASN.7 – Basin Type

Database Name	**BASN_TYPE**		
Data Type	Text	Inclusion	Mandatory
Width	30	Domain	**BasinType**
Example	Lake, Pond, Wetland, Constructed Wetland, Culvert (centroid), **Retention-wet basin, Detention-Dry basin,** Impoundment, Filtration with underdrain, Filtration without underdrain, Other, Unknown		
Description	Type of basin		

A new feature to be added:

P_BASN.8 – Basin Lining

Database Name	**BASN_LIN**		
Data Type	Text	Inclusion	If Available
Width	45	Domain	**BasinLining**
Example	*(Insert value of depth in feet)*		
Description	Lining material of the basin		

BasinLining domain to contain the following values:

Code	Value	General description
Grass	Grass	*Grass*
Natural vegetation	Natural vegetation	*Natural vegetation*
Other vegetation	Other vegetation	*Other vegetation*
Riprap	Riprap	*Riprap*
HDPE	HDPE	*High density polyethylene*
LLDPE	LLDPE	*Low density polyethylene*
RPE	RPE	*Reinforced polyethylene*
FPP	FPP	*Flexible polypropylene*
PVC	PVC	*Polyvinyl chloride*
EPDM	EPDM	*Ethylene propylene diene monomer*
Butyl	Butyl	*Butyl*
Mixed materials	Mixed materials	*Combination of various materials in same basin*
Other	Other	*Other*
Unknown	Unknown	*Unknown*

Note:
Additional values or comments on the utility/viability of these domain values are welcome.

Two new features to be added to BASINS to replace Basin Design Volume

P_BASN.10 – Basin Design Live Volume

Database Name	**BASN_LVOL**		
Data Type	Double	Inclusion	If Available
Width	Default	Domain	(none)
Example	*(Insert value of depth in acre-feet)*		
Description	Live volume of water the basin was designed to hold (if constructed) or holds naturally		

P_BASN.11 – Basin Design Dead Volume

Database Name	**BASN_DVOL**		
Data Type	Double	Inclusion	If Available
Width	Default	Domain	(none)
Example	*(Insert value of depth in acre-feet)*		
Description	Dead volume capacity in acre-feet		

To be removed from BASINS:

P_BASN.-- – Basin Design Volume

Database Name	**BASN_NELV**		
Data Type	Double	Inclusion	If Available
Width	Default	Domain	(none)
Example	*(Insert value in feet-above-sea-level)*		
Description	Volume of water the basin was designed to hold or holds naturally		

(To be replaced by **P_BASN.10 – Basin Design Live Volume** and **P_BASN.11 – Basin Design Dead Volume)**

To be removed from BASINS:

P_BASN.-- – Basin Consequence of Failure Rating

Database Name	**BASN_COF**		
Data Type	Text	Inclusion	If Available
Width	1	Domain	**CriticalRating**
Examples	*(see values in Description below)*		
Description	Rating: 1-5 of severity of consequence of failure of asset 1 = Low 2 = Medium Low 3 = Medium 4 = Medium High 5 = High		

P_BASN.-- – Basin Probability of Failure Rating

Database Name	**BASN_POF**		
Data Type	Text	Inclusion	If Available
Width	1	Domain	**CriticalRating**
Examples	*(see values in Description below)*		
Description	Rating: 1-5 of severity of probability of failure of asset 1 = Low 2 = Medium Low 3 = Medium 4 = Medium High 5 = High		

P_BASN.-- – Basin Criticality to System

Database Name	**BASN_CRIT**		
Data Type	Text	Inclusion	If Available
Width	1	Domain	**CriticalRating**
Examples	*(see values in Description below)*		
Description	Rating: 1-5 of criticality of the asset (1 = low, 5=high) 1 = Low 2 = Medium Low 3 = Medium 4 = Medium High 5 = High		

To be added to BASINS:

P_BASN31 – Basin Maintenance Agreement Flag

Database Name	**BASN_MAGRF**		
Data Type	Text	Inclusion	Conditional
Width	7	Domain	**YesNoUnknown**
Examples	Yes, No, Unknown		
Description	Flag to indicate if there is a maintenance agreement on the channel		

P_BASN32 –Basin Maintenance Agreement Information

Database Name	**BASN_MAGRI**		
Data Type	Text	Inclusion	If Available
Width	75	Domain	*(no domain)*
Example	*(insert example of Maintenance Agreement Number/ID)*		
Description	This field is provided so information such as agency name or specific Document ID of the agreement between agencies for the maintenance of the physical channel can be maintained		

P_BASN33 – Basin Frequency of Inspection

Database Name	**BASN**		
Data Type	Text	Inclusion	If Available
Width	75	Domain	*(no domain)*
Example	"Inspected each spring" "Every April" "Every other year"		
Description	The field contains a short description note of how often the fixture is inspected		

HYDRAULIC CONTROL STRUCTURES

To be removed:

P_HCS.-- – Hydraulic Control Structure Maintenance Agreement Number

Database Name	**HCS_MAGRN**		
Data Type	Text	Inclusion	If Available
Width	75	Domain	*(no domain)*
Example	*(insert example of Maintenance Agreement Number/ID)*		
Description	Document ID of agreement between agencies for the maintenance of the structure		

To be replaced by:

P_HCS.27 – Hydraulic Control Structure Maintenance Agreement Flag

Database Name	**HCS_MAGRF**		
Data Type	Text	Inclusion	Conditional
Width	7	Domain	**YesNoUnknown**
Examples	Yes, No, Unknown		
Description	Flag to indicate if there is a maintenance agreement on the channel		

P_ HCS.28 – Hydraulic Control Structure Maintenance Agreement Information

Database Name	**HCS_MAGRI**		
Data Type	Text	Inclusion	If Available
Width	75	Domain	*(no domain)*
Example	*(insert example of Maintenance Agreement Number/ID)*		
Description	This field is provided so information such as agency name or specific Document ID of the agreement between agencies for the maintenance of the physical channel can be maintained		

P_ HCS.29 – Hydraulic Control Structure Frequency of Inspection

Database Name	**HCS_FQINSP**		
Data Type	Text	Inclusion	If Available
Width	75	Domain	*(no domain)*
Example	"Inspected each spring" "Every April" "Every other year"		
Description	The field contains a short description note of how often the fixture is inspected		

To be removed:

P_HCS.-- – Hydraulic Control Structure Consequence of Failure Rating

Database Name	**HCS_COF**		
Data Type	Text	Inclusion	If Available
Width	1	Domain	**CriticalRating**
Examples	*(see values in Description below)*		
Description	Rating: 1-5 of severity of consequence of failure of asset 1 = Low 2 = Medium Low 3 = Medium 4 = Medium High 5 = High		

P_HCS.-- – Hydraulic Control Structure Probability of Failure Rating

Database Name	**HCS_POF**		
Data Type	Text	Inclusion	If Available
Width	1	Domain	**CriticalRating**
Examples	*(see values in Description below)*		
Description	Rating: 1-5 of severity of probability of failure of asset 1 = Low 2 = Medium Low 3 = Medium 4 = Medium High 5 = High		

P_HCS.-- – Hydraulic Control Structure Criticality to System

Database Name	**HCS_CRIT**		
Data Type	Text	Inclusion	If Available
Width	1	Domain	**CriticalRating**
Examples	*(see values in Description below)*		
Description	Rating: 1-5 of criticality of the asset (1 = low, 5=high) 1 = Low 2 = Medium Low 3 = Medium 4 = Medium High 5 = High		

POLLUTION CONTROL STRUCTURES

To be removed:

P_PCS.-- – Pollution Control Structure Maintenance Agreement Number

Database Name	**PCS_MAGRN**		
Data Type	Text	Inclusion	If Available
Width	75	Domain	*(no domain)*
Example	*(insert example of Maintenance Agreement Number/ID)*		
Description	Document ID of agreement between agencies for the maintenance of the physical asset		

To be added:

P_PCS.27 – Pollution Control Structure Maintenance Agreement Flag

Database Name	**PCS_MAGRF**		
Data Type	Text	Inclusion	Conditional
Width	7	Domain	**YesNoUnknown**
Examples	Yes, No, Unknown		
Description	Flag to indicate if there is a maintenance agreement on the channel		

P_ PCS.28 – Pollution Control Structure Maintenance Agreement Information

Database Name	**PCS_MAGRI**		
Data Type	Text	Inclusion	If Available
Width	75	Domain	*(no domain)*
Example	*(insert example of Maintenance Agreement Number/ID)*		
Description	This field is provided so information such as agency name or specific Document ID of the agreement between agencies for the maintenance of the physical channel can be maintained		

P_ PCS.29 – Pollution Control Structure Frequency of Inspection

Database Name	**PCS_FQINSP**		
Data Type	Text	Inclusion	If Available
Width	75	Domain	*(no domain)*
Example	“Inspected each spring” “Every April” “Every other year”		
Description	The field contains a short description note of how often the fixture is inspected		

To be removed:

P_PCS.-- – Pollution Control Structure Consequence of Failure Rating

Database Name	**PCS_COF**		
Data Type	Text	Inclusion	If Available
Width	1	Domain	**CriticalRating**
Examples	*(see values in Description below)*		
Description	Rating: 1-5 of severity of consequence of failure of asset 1 = Low 2 = Medium Low 3 = Medium 4 = Medium High 5 = High		

P_PCS.-- – Pollution Control Structure Probability of Failure Rating

Database Name	**PCS_POF**		
Data Type	Text	Inclusion	If Available
Width	1	Domain	**CriticalRating**
Examples	*(see values in Description below)*		
Description	Rating: 1-5 of severity of probability of failure of asset 1 = Low 2 = Medium Low 3 = Medium 4 = Medium High 5 = High		

P_PCS.-- – Pollution Control Structure Criticality to System

Database Name	**PCS_CRIT**		
Data Type	Text	Inclusion	If Available
Width	1	Domain	**CriticalRating**
Examples	*(see values in Description below)*		
Description	Rating: 1-5 of criticality of the asset (1 = low, 5=high) 1 = Low 2 = Medium Low 3 = Medium 4 = Medium High 5 = High		

ARTIFICIAL POINTS

No changes are recommended to the Artificial Points data category

INLETS

Inlet 'Flag' Attributes: The following thirteen components (**P_IN.3** through **P_IN.15**) enable the data creator to 'flag' each inlet with the types general features it contains. A single inlet may be flagged with one or more of the following characteristics; it was determined that this approach enables the stormwater data creator to have maximum flexibility for categorizing and attributing the features. The project is looking for suggestions and recommendations on how to shape and improve this approach.

P_IN.3 – Inlet Apron

Database Name	IN_APRON		
Data Type	Text	Inclusion	Mandatory
Width	7	Domain	**YesNoUnknown**
Example	Yes, No, Unknown		
Description	Flag to indicate if an apron conveying the stormwater from grade down to the inlet entrance is present;		

P_IN.4 – Inlet Combination

Database Name	IN_COMB		
Data Type	Text	Inclusion	Mandatory
Width	7	Domain	**YesNoUnknown**
Example	Yes, No, Unknown		
Description	Flag to indicate if the inlet has a combination of characteristics		

P_IN.5 – Inlet Curb Opening

Database Name	IN_CURB		
Data Type	Text	Inclusion	Mandatory
Width	7	Domain	**YesNoUnknown**
Example	Yes, No, Unknown		
Description	Flag to indicate if a drainage inlet is an opening in the roadway curb		

P_IN.6 – Inlet Deck Drain

Database Name	IN_DECK		
Data Type	Text	Inclusion	Mandatory
Width	7	Domain	**YesNoUnknown**
Example	Yes, No, Unknown		
Description	Flag to indicate a drainage inlet from a bridge deck or a scupper		

P_IN.7 – Inlet Drop

Database Name	IN_DROP		
Data Type	Text	Inclusion	Mandatory
Width	7	Domain	**YesNoUnknown**
Example	Yes, No, Unknown		
Description	Flag to indicate a drainage inlet with a horizontal or nearly horizontal opening		

P_IN.8 – Inlet Flanking

Database Name	IN_FLANK		
Data Type	Text	Inclusion	Mandatory
Width	7	Domain	**YesNoUnknown**
Example	Yes, No, Unknown		
Description	Flag to indicate a drainage inlet placed on either side of an inlet at low point in a vertical curve to intercept debris as the slope decreases (acts as relief to the inlet at the lower point)		

P_IN.9 – Inlet Grate

Database Name	IN_GRATE		
Data Type	Text	Inclusion	Mandatory
Width	7	Domain	**YesNoUnknown**
Example	Yes, No, Unknown		
Description	Flag to indicate a drainage inlet composed of a grate in the roadway section or at the roadside low point or channel;		

P_IN.10 – Inlet Headwall

Database Name	IN_HWALL		
Data Type	Text	Inclusion	Mandatory
Width	7	Domain	**YesNoUnknown**
Example	Yes, No, Unknown		
Description	Flag to indicate a drainage inlet has a headwall structure		

P_IN.11 – Inlet Manhole

Database Name	IN_MH		
Data Type	Text	Inclusion	Mandatory
Width	7	Domain	**YesNoUnknown**
Example	Yes, No, Unknown		
Description	Flag to indicate a drainage inlet is associated with a manhole		

P_IN.12 – Inlet Slotted

Database Name	IN_SLOT		
Data Type	Text	Inclusion	Mandatory
Width	7	Domain	**YesNoUnknown**
Example	Yes, No, Unknown		
Description	Flag to indicate a drainage inlet is composed of a continuous slot built into the top of a pipe which serves to intercept, collect and transport the flow.		

P_IN.13 – Inlet Trap

Database Name	IN_TRAP		
Data Type	Text	Inclusion	Mandatory
Width	7	Domain	**YesNoUnknown**
Example	Yes, No, Unknown		
Description	Flag to indicate if a drainage inlet is a trap		

P_IN.14 – Inlet Trench Drain

Database Name	**IN_TRDR**		
Data Type	Text	Inclusion	Mandatory
Width	7	Domain	**YesNoUnknown**
Example	Yes, No, Unknown		
Description	Flag to indicate if a drainage inlet is a trench drain		

P_IN.15 – Inlet Sump

Database Name	**IN_SUMP**		
Data Type	Text	Inclusion	Mandatory
Width	7	Domain	**YesNoUnknown**
Example	Yes, No, Unknown		
Description	Flag to indicate if a drainage inlet is a sump		

To be removed:

P_IN.-- – Inlet Maintenance Agreement Number

Database Name	**IN_MAGRN**		
Data Type	Text	Inclusion	If Available
Width	75	Domain	*(no domain)*
Example	*(insert example of Maintenance Agreement Number/ID)*		
Description	Document ID of agreement between agencies for the maintenance of the structure		

To be added:

P_IN.40 – Inlet Maintenance Agreement Flag

Database Name	**PCS_MAGRF**		
Data Type	Text	Inclusion	Conditional
Width	7	Domain	**YesNoUnknown**
Examples	Yes, No, Unknown		
Description	Flag to indicate if there is a maintenance agreement on the fixture		

P_ IN.41 – Inlet Maintenance Agreement Information

Database Name	**PCS_MAGRI**		
Data Type	Text	Inclusion	If Available
Width	75	Domain	*(no domain)*
Example	*(insert example of Maintenance Agreement Number/ID)*		
Description	This field is provided so information such as agency name or specific Document ID of the agreement between agencies for the maintenance of the fixture can be maintained		

P_ IN.42 – Inlet Frequency of Inspection

Database Name	**PCS_FQINSP**		
Data Type	Text	Inclusion	If Available
Width	75	Domain	*(no domain)*
Example	"Inspected each spring" "Every April" "Every other year"		
Description	The field contains a short description note of how often the fixture is inspected		

To be removed:

P_IN.-- – Inlet Consequence of Failure Rating

Database Name	**IN_COF**		
Data Type	Text	Inclusion	If Available
Width	1	Domain	**CriticalRating**
Examples	*(see values in Description below)*		
Description	Rating: 1-5 of severity of consequence of failure of asset 1 = Low 2 = Medium Low 3 = Medium 4 = Medium High 5 = High		

P_IN.-- – Inlet Probability of Failure Rating

Database Name	**IN_POF**		
Data Type	Text	Inclusion	If Available
Width	1	Domain	**CriticalRating**
Examples	*(see values in Description below)*		
Description	Rating: 1-5 of severity of probability of failure of asset 1 = Low 2 = Medium Low 3 = Medium 4 = Medium High 5 = High		

P_IN.-- – Inlet Criticality to System

Database Name	**IN_CRIT**		
Data Type	Text	Inclusion	If Available
Width	1	Domain	**CriticalRating**
Examples	*(see values in Description below)*		
Description	Rating: 1-5 of criticality of the asset (1 = low, 5=high) 1 = Low 2 = Medium Low 3 = Medium 4 = Medium High 5 = High		

OUTLETS

Outlet 'Flag' Attributes: The following eight components (**P_OUT.3** through **P_OUT.10**) enable the data creator to 'flag' each outlet with the types general features it contains. As a single outlet may be flagged with one or more characteristics; it was determined that this approach enables the stormwater data creator to have maximum flexibility for categorizing and attributing the features.

Outlet 'Flag' Attributes: The following gten components (**P_OUT.3** through **P_OUT.12**) enable the data creator to 'flag' each outlet with the types general features it contains. A single outlet may be flagged with one or more of the following characteristics; it was determined that this approach enables the stormwater data creator to have maximum flexibility for categorizing and attributing the features.

P_OUT.3 – Outlet Apron

Database Name	**OUT_APRON**		
Data Type	Text	Inclusion	Mandatory
Width	7	Domain	**YesNoUnknown**
Example	Yes, No, Unknown		
Description	Flag to indicate if an apron is present;		

P_OUT.4 – Outlet Outfall

Database Name	**OUT_OUTFL**		
Data Type	Text	Inclusion	Mandatory
Width	7	Domain	**YesNoUnknown**
Example	Yes, No, Unknown		
Description	Flag to indicate if the features is an outfall;		

>> What is the difference between an outlet and an outfall?

An **outlet** is any discharge point in a system, whereas an **outfall** is the terminal end of a system where it discharges into a receiving water, or, it leaves one jurisdiction and enters another. An outlet may also be defined as an outfall due to an agreement or legal instrument defining responsibility for maintenance or ownership or location within a right of way.

The definition provided by the Minnesota Stormwater Manual for an outfall is as follows:
"Outfall" means the point source where a municipal separate storm sewer system discharges to a receiving water, or the stormwater discharge permanently leaves the permittee's municipal separate storm sewer system (a.k.a. MS4). It does not include diffuse runoff or conveyances that connect segments of the same stream or water systems (e.g., when a conveyance temporarily leaves an MS4 at a road crossing).

P_OUT.5 – Outlet Discharge Point

Database Name	**OUT_PDIS**		
Data Type	Text	Inclusion	Mandatory
Width	7	Domain	**YesNoUnknown**
Example	Yes, No, Unknown		
Description	Flag to indicate if the features is a discharge point		

P_OUT.6 – Outlet Ditch

Database Name	**OUT_DITCH**		
Data Type	Text	Inclusion	Mandatory
Width	7	Domain	**YesNoUnknown**
Example	Yes, No, Unknown		
Description	Flag to indicate if the features contains a ditch outlet		

To be added:

P_OUT.7 – Outlet Drop

Database Name	**OUT_DROP**		
Data Type	Text	Inclusion	Mandatory
Width	7	Domain	**YesNoUnknown**
Examples	Yes, No, Unknown		
Description	Flag to indicate if the fixture is a drop outlet		

P_OUT.8 – Outlet Slotted

Database Name	**OUT_SLOT**		
Data Type	Text	Inclusion	Mandatory
Width	7	Domain	**YesNoUnknown**
Examples	Yes, No, Unknown		
Description	Flag to indicate if the fixture is a drop outlet		

P_OUT.9 – Outlet Combination

Database Name	**OUT_COMBO**		
Data Type	Text	Inclusion	Mandatory
Width	7	Domain	**YesNoUnknown**
Examples	Yes, No, Unknown		
Description	Flag to indicate if the fixture is a combination		

P_OUT.10 – Outlet Underground

Database Name	**OUT_UNDER**		
Data Type	Text	Inclusion	Mandatory
Width	7	Domain	**YesNoUnknown**
Example	Yes, No, Unknown		
Description	Flag to indicate if the features is underground (subsurface);		

To be added:

P_OUT.11 – Outlet Submerged

Database Name	**OUT_SUBM**		
Data Type	Text	Inclusion	Conditional
Width	7	Domain	**YesNoUnknown**
Examples	Yes, No, Unknown		
Description	Flag to indicate if the fixture is submerged		

P_OUT.12 – Outlet Flapgate

Database Name	**OUT_FLAPG**		
Data Type	Text	Inclusion	Mandatory
Width	7	Domain	**YesNoUnknown**
Example	Yes, No, Unknown		
Description	Flag to indicate if the feature has a flapgate.		

Photo at right illustrates an example of a flapgate at an outlet >>

To be removed:

P_OUT.-- – Outlet Tide Chamber

Database Name	**OUT_TDCHM**		
Data Type	Text	Inclusion	Mandatory
Width	7	Domain	**YesNoUnknown**
Example	Yes, No, Unknown		
Description	Flag to indicate if the feature has a tide chamber		

Contributions of additional values and ideas for improvement to the above attributes and domains are strongly encouraged and welcomed.

To be removed:

P_OUT.-- – Outlet Tide Chamber (REMOVE)

Database Name	**OUT_TDCHM**		
Data Type	Text	Inclusion	Mandatory
Width	7	Domain	**YesNoUnknown**
Example	Yes, No, Unknown		
Description	Flag to indicate if the feature has a tide chamber 		

To be removed:

P_OUT.-- – Outlet Maintenance Agreement Number

Database Name	**OUT_MAGRN**		
Data Type	Text	Inclusion	If Available
Width	75	Domain	*(no domain)*
Example	*(insert example of Maintenance Agreement Number/ID)*		
Description	Document ID of agreement between agencies for the maintenance of the structure		

To be added:

P_OUT.37 – Outlet Maintenance Agreement Flag

Database Name	**OUT_MAGRF**		
Data Type	Text	Inclusion	Conditional
Width	7	Domain	**YesNoUnknown**
Examples	Yes, No, Unknown		
Description	Flag to indicate if there is a maintenance agreement on the fixture		

P_ OUT.38 – Outlet Maintenance Agreement Information

Database Name	**OUT_MAGRI**		
Data Type	Text	Inclusion	If Available
Width	75	Domain	*(no domain)*
Example	*(insert example of Maintenance Agreement Number/ID)*		
Description	This field is provided so information such as agency name or specific Document ID of the agreement between agencies for the maintenance of the fixture can be maintained		

P_OUT.39 – Outlet Frequency of Inspection

Database Name	**OUT_FQINSP**		
Data Type	Text	Inclusion	If Available
Width	75	Domain	*(no domain)*
Example	“Inspected each spring” “Every April” “Every other year”		
Description	The field contains a short description note of how often the fixture is inspected		

To be removed:

P_OUT.-- – Outlet Consequence of Failure Rating

Database Name	**OUT_COF**		
Data Type	Text	Inclusion	If Available
Width	1	Domain	**CriticalRating**
Examples	*(see values in Description below)*		
Description	Rating: 1-5 of severity of consequence of failure of asset 1 = Low 2 = Medium Low 3 = Medium 4 = Medium High 5 = High		

P_OUT.-- – Outlet Probability of Failure Rating

Database Name	**OUT_POF**		
Data Type	Text	Inclusion	If Available
Width	1	Domain	**CriticalRating**
Examples	*(see values in Description below)*		
Description	Rating: 1-5 of severity of probability of failure of asset 1 = Low 2 = Medium Low 3 = Medium 4 = Medium High 5 = High		

P_OUT.-- – Outlet Criticality to System

Database Name	**OUT_CRIT**		
Data Type	Text	Inclusion	If Available
Width	1	Domain	**CriticalRating**
Examples	*(see values in Description below)*		
Description	Rating: 1-5 of criticality of the asset (1 = low, 5=high) 1 = Low 2 = Medium Low 3 = Medium 4 = Medium High 5 = High		

MANHOLE

To be added:

P_MH.10 – Manhole Deep

Database Name	**MH_DEEP**		
Data Type	Text	Inclusion	Mandatory
Width	7	Domain	**YesNoUnknown**
Example	Yes, No, Unknown		
Description	Flag if manhole accesses multiple outfalls		

P_MH.11 – Manhole Multi-Outfall

Database Name	**MH_MOUT**		
Data Type	Text	Inclusion	Mandatory
Width	7	Domain	**YesNoUnknown**
Example	Yes, No, Unknown		
Description	Flag if manhole accesses multiple outfalls		

To be removed:

P_MH.-- – Manhole Maintenance Agreement Number

Database Name	**MH_MAGRN**		
Data Type	Text	Inclusion	If Available
Width	75	Domain	*(no domain)*
Example	*(insert example of Maintenance Agreement Number/ID)*		
Description	Document ID of agreement between agencies for the maintenance of the structure		

To be added:

P_MH.36 – Manhole Maintenance Agreement Flag

Database Name	**MH_MAGRF**		
Data Type	Text	Inclusion	Conditional
Width	7	Domain	**YesNoUnknown**
Examples	Yes, No, Unknown		
Description	Flag to indicate if there is a maintenance agreement on the fixture		

P_ MH.37 – Manhole Maintenance Agreement Information

Database Name	**MH_MAGRI**		
Data Type	Text	Inclusion	If Available
Width	75	Domain	*(no domain)*
Example	*(insert example of Maintenance Agreement Number/ID)*		
Description	This field is provided so information such as agency name or specific Document ID of the agreement between agencies for the maintenance of the fixture can be maintained		

P_MH.38 – Manhole Frequency of Inspection

Database Name	**MH_FQINSP**		
Data Type	Text	Inclusion	If Available
Width	75	Domain	*(no domain)*
Example	"Inspected each spring" "Every April" "Every other year"		
Description	The field contains a short description note of how often the fixture is inspected		

The following three attributes are to be removed from version 0.6

P_MH.-- – Manhole Consequence of Failure Rating

Database Name	**MH_COF**		
Data Type	Text	Inclusion	If Available
Width	1	Domain	**CriticalRating**
Examples	*(see values in Description below)*		
Description	Rating: 1-5 of severity of consequence of failure of asset 1 = Low 2 = Medium Low 3 = Medium 4 = Medium High 5 = High		

P_MH.-- – Manhole Probability of Failure Rating

Database Name	**MH_POF**		
Data Type	Text	Inclusion	If Available
Width	1	Domain	**CriticalRating**
Examples	*(see values in Description below)*		
Description	Rating: 1-5 of severity of probability of failure of asset 1 = Low 2 = Medium Low 3 = Medium 4 = Medium High 5 = High		

P_MH.-- – Manhole Criticality to System

Database Name	**MH_CRIT**		
Data Type	Text	Inclusion	If Available
Width	1	Domain	**CriticalRating**
Examples	*(see values in Description below)*		
Description	Rating: 1-5 of criticality of the asset (1 = low, 5=high) 1 = Low 2 = Medium Low 3 = Medium 4 = Medium High 5 = High		

LIFT STATION

New value to be added to the **LiftStationType** domain:

- **Emergency Lift Station**

To be removed:

P_LS.-- – Lift Station Maintenance Agreement Number

Database Name	**LS_MAGRN**		
Data Type	Text	Inclusion	If Available
Width	75	Domain	*(no domain)*
Example	*(insert example of Maintenance Agreement Number/ID)*		
Description	Document ID of agreement between agencies for the maintenance of the structure		

To be added:

[NEW] P_OUT.35 – Manhole Maintenance Agreement Flag

Database Name	**MH_MAGRF**		
Data Type	Text	Inclusion	Conditional
Width	7	Domain	**YesNoUnknown**
Examples	Yes, No, Unknown		
Description	Flag to indicate if there is a maintenance agreement on the fixture		

[NEW] P_ OUT.36 – Manhole Maintenance Agreement Information

Database Name	**MH_MAGRI**		
Data Type	Text	Inclusion	If Available
Width	75	Domain	*(no domain)*
Example	*(insert example of Maintenance Agreement Number/ID)*		
Description	This field is provided so information such as agency name or specific Document ID of the agreement between agencies for the maintenance of the fixture can be maintained		

[NEW] P_OUT.37 – Manhole Frequency of Inspection

Database Name	**MH_FQINSP**		
Data Type	Text	Inclusion	If Available
Width	75	Domain	*(no domain)*
Example	"Inspected each spring" "Every April" "Every other year"		
Description	The field contains a short description note of how often the fixture is inspected		

To be removed from LIFT STATION:

P_LS.-- – Lift Station Consequence of Failure Rating

Database Name	**LS_COF**		
Data Type	Text	Inclusion	If Available
Width	1	Domain	**CriticalRating**
Examples	*(see values in Description below)*		
Description	Rating: 1-5 of severity of consequence of failure of asset 1 = Low 2 = Medium Low 3 = Medium 4 = Medium High 5 = High		

P_LS.-- – Lift Station Probability of Failure Rating

Database Name	**LS_POF**		
Data Type	Text	Inclusion	If Available
Width	1	Domain	**CriticalRating**
Examples	*(see values in Description below)*		
Description	Rating: 1-5 of severity of probability of failure of asset 1 = Low 2 = Medium Low 3 = Medium 4 = Medium High 5 = High		

P_LS.-- – Lift Station Criticality to System

Database Name	**LS_CRIT**		
Data Type	Text	Inclusion	If Available
Width	1	Domain	**CriticalRating**
Examples	*(see values in Description below)*		
Description	Rating: 1-5 of criticality of the asset (1 = low, 5=high) 1 = Low 2 = Medium Low 3 = Medium 4 = Medium High 5 = High		

BEST MANAGEMENT PRACTICES

New value to be added to the **BMPType** domain:

- **Tree Trenches**

To removed:

P_BMP.-- – BMP Maintenance Agreement Number

Database Name	**BMP_MAGRN**		
Data Type	Text	Inclusion	If Available
Width	75	Domain	*(no domain)*
Example	*(insert example of Maintenance Agreement Number/ID)*		
Description	Document ID of agreement between agencies for the maintenance of the structure		

To be added:

[NEW] P_BMP.28 – BMP Maintenance Agreement Flag

Database Name	**BMP_MAGRF**		
Data Type	Text	Inclusion	Conditional
Width	7	Domain	**YesNoUnknown**
Examples	Yes, No, Unknown		
Description	Flag to indicate if there is a maintenance agreement on the BMP		

[NEW] P_ BMP.29 – BMP Maintenance Agreement Information

Database Name	**BMP_MAGRI**		
Data Type	Text	Inclusion	If Available
Width	75	Domain	*(no domain)*
Example	*(insert example of Maintenance Agreement Number/ID)*		
Description	This field is provided so information such as agency name or specific Document ID of the agreement between agencies for the maintenance of the BMP can be maintained		

[NEW] P_BMP.30 – BMP Frequency of Inspection

Database Name	**BMP_FQINSP**		
Data Type	Text	Inclusion	If Available
Width	75	Domain	*(no domain)*
Example	"Inspected each spring" "Every April" "Every other year"		
Description	The field contains a short description note of how often the BMP is inspected		

To be removed:

P_BMP.-- – BMP Consequence of Failure Rating

Database Name	**BMP_COF**		
Data Type	Text	Inclusion	If Available
Width	1	Domain	**CriticalRating**
Examples	*(see values in Description below)*		
Description	Rating: 1-5 of severity of consequence of failure of asset 1 = Low 2 = Medium Low 3 = Medium 4 = Medium High 5 = High		

P_BMP.-- – BMP Probability of Failure Rating

Database Name	**BMP_POF**		
Data Type	Text	Inclusion	If Available
Width	1	Domain	**CriticalRating**
Examples	*(see values in Description below)*		
Description	Rating: 1-5 of severity of probability of failure of asset 1 = Low 2 = Medium Low 3 = Medium 4 = Medium High 5 = High		

P_BMP.-- – BMP Criticality to System

Database Name	**BMP_CRIT**		
Data Type	Text	Inclusion	If Available
Width	1	Domain	**CriticalRating**
Examples	*(see values in Description below)*		
Description	Rating: 1-5 of criticality of the asset (1 = low, 5=high) 1 = Low 2 = Medium Low 3 = Medium 4 = Medium High 5 = High		

MONITOR

No changes have been advanced to the MONITOR data category.

BASIN (as POLYGONS)

No changes have been advanced to the MONITOR data category.

BEST MANAGEMENT PRACTICES (as POLYGONS)

No changes have been advanced to the MONITOR data category.