



Draft Stormwater Geodata Transfer Standard

Inlet, Outlet & Pond Inspection Schemas

As developed by the **Metro Stormwater Geodata Project**

Version 0.3: Released for Public Stakeholder Review: June 28, 2021

This draft version of the **Inlet, Outlet & Pond Inspection Schemas, v. 0.3** is published for public statewide stakeholder review and comment.



Funding for this project was provided by the
Water Resources Center of the University of Minnesota
<https://www.wrc.umn.edu/>



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Inlet, Outlet and Pond Inspection Schemas: Draft Version 0.3

Provided for Public Review and Comment

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Acknowledgements

Huge thanks are due to the numerous participants of the **Metro Stormwater Geodata Project** (April 2018 – present) for their time, energy, patience and thoughtful contributions to the development of this work. Enormous thanks are due to **Perry Clark** (GIS Analyst, Carver County) for his stellar work in pulling together the inspection forms of numerous cities to create the ‘master’ draft inspection schema proposal which underlies this proposed draft schema. Thanks to **Carrie Magnuson** for her keen editorial eye in reviewing the document, catching errors and valiantly working to curb Geoff’s excessive semi-colon usage; and thanks to **John Bilotta** and **Jeff Peterson** of the Water Resources Center at the University of Minnesota for their facilitation of grant funding for our pilot project effort and to **Rachel Olmanson** (Minnesota Pollution Control Agency) for shepherding an early version of these inspection schemas through the staff at MPCA for pre-release review and comment during 2019.

Cover image: Courtesy of Bolton & Menk

Overview, Context and FAQs

Purpose of the Inlet, Outlet and Pond Inspection Schema and this document.

This document contains a proposed draft schema intended to be used for the consistent and detailed collection of field inspection data on stormwater inlets, outlets and ponds as they relate to reporting required for Municipal Separate Stormwater Sewer System (MS4) permits. This document is offered as a draft to the entire stakeholder community of Minnesota for their review and comment.

Who prepared this proposed draft schema and why was it prepared?

As part of the development of the **Stormwater Geodata Transfer Standard** by the **Metro Stormwater Geodata Project** during 2018-2019, several participants were looking to explore and define a more standardized format for collecting and documenting field inspection information on inlets, outlets and ponds for their MS4 reporting requirements. There were a wide range of different inspection forms already in use. These were collected, edited and assembled into a single format where as many needed features as possible were provided. The availability of a consistent inspection schema format is intended to provide better data, and consistent data across collecting and reporting jurisdictions to water quality practitioners for maintaining the fixtures and to serve the larger aim of improving water quality.

What is the Metro Stormwater Geodata Project (MSWGP)?

This MSWGP is a voluntary collaborative project comprised of private sector and public sector partners in the Twin Cities metropolitan region. The goal of the MSWGP effort is to create a stormwater geodata transfer standard that reflects the functional needs of the professional community and that contains the attributes, terminology and content—as well as the supporting documentation—to satisfactorily meet those needs.



The MSWGP effort began with an initial kick-off meeting in Medina, Minnesota on April 17, 2018. The primary purpose of this kick-off session was to:

- to engage a variety of interested stakeholders;
- to present the proposed project and articulate some of the needs for it;
- to document their core business needs of the participants;
- to determine if there was enough interest from the stakeholder community in the project; and,
- if so, to create an initial Steering Committee to begin developing it.

The MSWGP builds upon initial prior work undertaken between 2008-2010 by state level agencies to create an initial stormwater system data exchange standard. The current MSWGP effort is being co-ordinated by volunteer staff from metro counties and watershed districts who organize and lead the meetings, prepare needed research and contextual materials and document the input from the participants. The MSWGP Steering Committee—comprised of professionals with backgrounds in engineering, planning, landscape architecture, water resources management, water quality regulation, monitoring, geospatial work, asset management, public works and other disciplines—convened six times between June 2018 and October 2019. In addition to the project Steering Committee, several smaller

technical working groups also met to confer on specific details of the standard's development; the result of these groups' dedicated discussion, focus and work is contained within the pages of this document.

Version 0.3 of the Draft Inlet, Outlet and Pond Inspection Schema

This document represents the current iteration of the standard in its development. This draft reflects the dedicated work of Perry Clark, GIS Analyst for Carver County in reviewing and assembling various municipal inspection schema forms and templates into a cohesive whole and the discussion, research, revision and review during 2018 and 2019 by the MSWGP participants of that work. As the MSWGP Steering Committee will be publishing its full draft Stormwater Geodata Transfer Standard (v. 0.5) out for public review in 2020, it felt that it would be beneficial to also publish this **Inlet, Outlet and Pond Inspection Schema** out for public review along with the main stormwater geodata draft standard.

Is this Inlet, Outlet and Pond Inspection schema a *mandated* standard? Is this something we are going to be required to use? Absolutely not. No data standard developed by and for the geospatial of community in Minnesota are required or mandated. Standards—such as this emerging stormwater geodata transfer standard—are intended to serve as voluntary tools that the members of our profession work to develop collaboratively as a means of working more easily and efficiently with one another. There are no laws, statutes, administrative rules or court orders in Minnesota that dictate what a city, county, watershed district or other agency must do with their data in terms of using or maintaining standards. The use of this forthcoming standard and other geodata standards, such as those already adopted for address points, road centerlines and parcels—while encouraged—are completely voluntary.

Is this version 0.3 the “definitive version” of the Inlet, Outlet and Pond Inspection schema?

No. This draft standard has been prepared by the participants of the Metro Stormwater Geodata Project as a beginning point, and the MSWGP members seek to improve it based on comments and input from the stakeholder community. This ‘version 0.3’ is being submitted and offered to the entire stakeholder community in Minnesota for them to review, critique, provide suggestions and comments on it. This review period is anticipated to take place during the spring and summer of 2020, and the comments received will be documented, reviewed and considered for modifying the next iteration of the inspection schema. Data standards and schemas like this are strengthened, enhanced and evolved by both the review and input of the professional community and through their usage.

My agency already has an inlet, outlet and pond inspection schema in use that meets our internal needs and MS4 permit reporting requirements. Why should we care about this new schema?

An agency or municipality already using its own format or schema can certainly maintain its data in its own format and does not need to switch to using another schema. The MSWGP effort is simply proposing and advancing this schema as something for folks to review and provide feedback on in the hopes your experience can help us improve it to be a tool that professional desire to use eventually. Our core tenet is that better data, which is standardized across jurisdictions helps us better understand our various water quality issues and helps support better decision making to improve, protect and maintain our water quality.

Applicability of this inspection schema.

Agencies who produce and maintain geospatial data representing stormwater features are certain to have their own unique methods, definitions, and criteria for capture and storage of geospatial data representing stormwater features to satisfy their own business requirements and meet their internal agency needs and to meet their external reporting requirements. This standard simply seeks to establish a set of attribute specifications primarily intended for data exchange purposes. This proposed and

emerging standard may be used not only to transfer and aggregate data, but also potentially utilized to create, manage and maintain geospatial data for representing stormwater fixtures, assets and conveyance systems within a jurisdiction. This standard in no way attempts to define, change or dictate any agency's existing internal data capture or storage specifications; however, some data producers may find benefit in using the standard to manage and maintain their data.

What does the public stakeholder review of this schema entail?

The MSWGP team will be publishing this schema document out for review and collecting and documenting the comments, suggestions, revisions and recommendations which are received during calendar 2020. The MSWGP Steering Team will use these comments to revise, improve and edit the version 0.5 standard, hopefully improving it and refining it to better satisfy the various needs of the stakeholder community. The creation of geodata standards, including this one for stormwater in Minnesota is best accomplished by using an inclusive and transparent process that encourages input and participation by the entire professional community. The resulting standard which results is a resource that reflects the expertise, needs and intelligence of the professionals who need it and (hopefully) will make use of it.

Project Contacts

Who do I contact if I have questions about these inspection schemas or if I wish to provide comments and suggestions for its improvement?

Please contact the following individuals—who are serving as co-coordinators of the Metro Stormwater Geodata Project—they will field your questions and will gladly add your comments to those documented during the stakeholder review period during 2020.



Geoffrey Maas, Senior Geospatial Business Analyst
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Inspection Schema Components

The data schema on the following pages represents an attempt to document and categorize the various attributes needed for successful field collection of condition and status of stormwater inlets, outlets and ponds for MS4 permit reporting. For many of these attributes, a domain of values are offered for consideration. The inspection schema is broken out into three components: inlets, outlets and ponds.



The MSWGP Steering Team **welcomes and encourages input, comments, suggestions and feedback from the stakeholder community** on what kinds of things to add, improve upon or edit with this schema so it can be more a more useful and applicable tool to the professional community.

Components appearing in the Draft Inspection Schema:

Inlet Inspection Schema

Outlet Inspection Schema

Pond/Basin Inspection Schema

Inlet Inspection Schema (Prefix: 'IN_')

An inlet is a site where stormwater enters the conveyance system. This draft inlet inspection schema contains twenty-eight (28) attributes for each inlet inspection point.

Outlet Inspection Schema (Prefix: 'O_')

An outlet is a site where stormwater discharges out from a pipe, channel or other conveyance. Note, **outlets** are not to be confused with **outfalls**. An **outfall** is a type of **outlet**, specifically applied to where water discharges into the Waters of the United States [40 CFR 230.3(s)] or into another municipal separate storm sewer system (MS4) permittee's jurisdiction. This draft outlet inspection schema contains thirty-three (33) attributes for each outlet inspection point.

Pond/Basin Inspection Schema (Prefix: 'PB_')

Ponds (stormwater ponds) are bodies of water in the built environment which collect and store stormwater runoff. These fixtures are intended to serve several simultaneous functions notably as temporary runoff storage for flood control and water quality improvement (facilitating absorption of water by the soil). This draft pond inspection schema contains seventy-three (73) attributes for each pond inspection site.

Guide to Schema Format and Attributes

Each **Component** contains numerous individual attributes; this document will be organized so each attribute has its own descriptive entry which details its content with examples also provided of each sub-component:

Element ID:	Example: MS4_IN.FK - this is just a reference (marker) for the entry. The Element IDs will potentially change with each version of the standard as attributes and features get added or dropped during the revision process.
Attribute (Alias) Name:	Foreign Key
Database Name:	IN_FKEY (these are kept to 10 characters or less)
Inclusion Category:	Mandatory, Conditional, If Available, Optional These are the categories in use by standards adopted by the Minnesota Geospatial Advisory Council (Please see page 8 for explanation of each term)
Field Width:	This indicates the character width of the field (a.k.a. length)
Domain:	This indicates if the field has a domain of accepted or set values
Example:	Where applicable, an example is provided
Description:	An additional verbal description of fixture represented

The graphic below explains the table provided for each descriptor of each attribute presented in the draft inlet, outlet and pond schemas to follow:

Element ID	Name of attribute	Inclusion Category information	Domain
	MS4_IN.FK – Foreign Key		
Database name	Database Name	IN_FKEY	
Data type (Text, Float, Date, etc.)	Data Type	Text	Inclusion Conditional
Width value	Width	150	Domain (no domain)
Examples (examples of actual values which might appear in the field)	Example	77456-01265	
Description	Description	Foreign key, unique ID of the asset or fixture being inspected The presence of a foreign key enables the full inspection record to be effectively joined to a geospatial feature (e.g. point geometry) which represents the inlet for mapping and visual display.	



“Inclusion” Category Explanations

“**Inclusion**” is a term used to explain the requirement for the population of a field in a dataset for it to **comply with the standard**.

Each attribute can be defined as one of **four types of Inclusion**, these are:

- **Mandatory;**
- **Conditional;**
- **If Available;**
- **Optional;**

Each category is explained in more detail below:

Mandatory: The field must be populated for each record to be *compliant with the standard*.

The use of the term ‘mandatory’ indicates nothing more than for the data to be *compliant with the standard* it must have, at minimum, the mandatory fields populated. In a ‘mandatory’ designation, null values would not be allowed. Further, the term ‘mandatory’ is not to be applied to the fulfillment of an agency’s request for data (e.g. “it is ‘mandatory’ that you provide this data to us” – this is not the intention of the ‘mandatory’ category in this or any other standard).

Agencies can create and maintain data that does not contain the ‘mandatory’ fields in any standards. This simply means their data is not compliant with the standard, but in no way does it mean that their data isn’t useful or cannot be used.

For example, the field **Pipe ID** is a ‘mandatory’ field to be populated in the draft MSWGP v. 0.5 data standard, which makes sense as each asset should have its own unique identifier; however, a data producer such as a city may have digitized their stormwater network and while it has usable data, it simply has not applied a unique ID to each pipe in their system. Their data would not be compliant with the standard; but could still be used to fulfill many useful and important mapping and analysis uses.

Conditional: Each field with a ‘Conditional’ designation is to be populated with a non-null value for each record that is applicable to the feature. For example, the field **Pipe Shape** is a Conditional field; if the shape of a given pipe asset is not known, the data producer is can reasonably be expected to enter the value ‘Unknown’ and not to leave the field ‘blank’ or ‘null’.

If Available: Each field with an ‘If Available’ designation is to be populated—if the data exists—in the data provider’s database or system. If a data provider does not have the data, it cannot be populated. For example, the field **Pipe Casing** is an If Available field. As not all pipes types have or require a casing, or the presence of a casing may not be known, it is acceptable to leave unknowns as null values.

Optional: An ‘optional’ field is one that is not required to be populated, however, inclusion of this data would enhance the value and usability of the data and data producers are encouraged to provide as much data as possible.

Inlet Inspection Schema Components

MS4_IN.PK – Primary Key

Database Name	IN_PKEY		
Data Type	Text	Inclusion	Mandatory
Width	150	Domain	(no domain)
Example	202003030001		
Description	Primary key, a unique ID for the <i>inspection record</i>		

MS4_IN.FK – Foreign Key

Database Name	IN_FKEY		
Data Type	Text	Inclusion	Conditional
Width	150	Domain	(no domain)
Example	77456-01265		
Description	Foreign key, unique ID of the <i>asset or fixture</i> being inspected The presence of a foreign key enables the full inspection record to be effectively joined to a geospatial feature (e.g. point geometry) which represents the inlet for mapping and visual display.		

MS4_IN.1 – Inspection Date

Database Name	INSP_DATE		
Data Type	Date	Inclusion	Mandatory
Width	Default	Domain	(no domain)
Example	2/14/2020		
Description	Date of inspection		

MS4_IN.2 – Inspector

Database Name	IN_INSPEC		
Data Type	Text	Inclusion	Mandatory
Width	254	Domain	(no domain)
Example	Alex Blenkush		
Description	Name of inspector		

MS4_IN.3 – Agency

Database Name	IN_AGENCY		
Data Type	Text	Inclusion	Mandatory
Width	254	Domain	(no domain)
Example	Hennepin County Public Works		
Description	Name of agency		

MS4_IN.4 – Temperature

Database Name	IN_TEMP		
Data Type	Double	Inclusion	Conditional
Width	Default	Domain	<i>(no domain)</i>
Example	68.0		
Description	Temperature in degrees Fahrenheit		

MS4_IN.5 – Rainfall in last 24 hours

Database Name	IN_RAIN24		
Data Type	Double	Inclusion	Conditional
Width	Default	Domain	<i>(no domain)</i>
Example	0.8		
Description	Amount of recorded rainfall in inches in the last 24-hour period		

MS4_IN.6 – Rainfall in last 48 hours

Database Name	IN_RAIN48		
Data Type	Double	Inclusion	Conditional
Width	Default	Domain	<i>(no domain)</i>
Example	0.8		
Description	Amount of recorded rainfall in inches in the last 48-hour period		

MS4_IN.7 – Flow Present

Database Name	IN_FLOWPRE		
Data Type	Text	Inclusion	Conditional
Width	3	Domain	ms4YesNo
Examples	Yes, No		
Description	Yes or no flag if flow is present at time of inspection		

MS4_IN.8 – Flow Description

Database Name	IN_FLOWDESC		
Data Type	Text	Inclusion	Conditional
Width	12	Domain	ms4FlowDescription
Examples	Trickle, Moderate, Substantial		
Description	General description of flow at time of inspection		

MS4_IN.9 – Odor

Database Name	IN_ODOR		
Data Type	Text	Inclusion	Conditional
Width	16	Domain	ms4Odor
Examples	None, Petroleum or gas, Rancid or sour, Sewage, Sulfide, Other		
Description	General description of odor characteristics at time of inspection		

MS4_IN.10 – Odor Severity

Database Name	IN_ODORSV		
Data Type	Text	Inclusion	Conditional
Width	24	Domain	ms4OdorSeverity
Examples	Faint, Easily Detected, Noticeable at a distance		
Description	General description of odor characteristics at time of inspection		

MS4_IN.11 – Color

Database Name	IN_COLOR		
Data Type	Text	Inclusion	Conditional
Width	6	Domain	ms4Color
Examples	Brown, Clear, Gray, Green, Orange, Red, Yellow, Other		
Description	General description of color characteristics at time of inspection		

MS4_IN.12 – Color Severity

Database Name	IN_COLORSV		
Data Type	Text	Inclusion	Conditional
Width	32	Domain	ms4ColorSeverity
Examples	Faint color in sample bottle Clearly visible in sample bottle Clearly visible in outlet flow		
Description	General description of color characteristics at time of inspection		

MS4_IN.13 – Turbidity Severity

Database Name	IN_TURBSV		
Data Type	Text	Inclusion	Conditional
Width	18	Domain	ms4TurbiditySeverity
Examples	Slight cloudiness Cloudy Opaque		
Description	General description of apparent turbidity characteristics at time of inspection		

MS4_IN.14 – Floatables

Database Name	IN_FLOAT		
Data Type	Text	Inclusion	Conditional
Width	18	Domain	ms4Floatables
Examples	Sewage indicators Petroleum Suds Other		
Description	General description of the floatable materials present in the water at time of inspection		

MS4_IN.15 – Floatables Severity

Database Name	IN_FLOATSV		
Data Type	Text	Inclusion	Conditional
Width	8	Domain	ms4FloatablesSeverity
Examples	Low Medium Heavy		
Description	General description of severity of floatable materials in the water at time of inspection		

MS4_IN.16 – Inlet Damage

Database Name	IN_DAMAGE		
Data Type	Text	Inclusion	Conditional
Width	30	Domain	ms4Damage
Examples	Corrosion Peeling Paint Spalling Cracking Chipping Combination Other		
Description	General description of visible damage to the inlet at time of inspection		

MS4_IN.17 – Deposit Stains

Database Name	IN_DSTAIN		
Data Type	Text	Inclusion	Conditional
Width	9	Domain	ms4DepositStains
Examples	Oily Flow Line Paint Other		
Description	General description of visible deposit stains to the inlet at time of inspection		

MS4_IN.18 – Abnormal Vegetation

Database Name	IN_ABVEG		
Data Type	Text	Inclusion	Conditional
Width	9	Domain	ms4AbVegetation
Examples	Excessive Inhibited Other		
Description	General description of abnormal vegetation growth present at time of inspection		

MS4_IN.19 – Debris

Database Name	IN_DEBRIS		
Data Type	Text	Inclusion	Conditional
Width	8	Domain	ms4Debris
Examples	None Brush Garbage Other		
Description	General description of presence of debris (brush, garbage, other) present at time of inspection		

MS4_IN.20 – Illicit Discharge Characteristics

Database Name	IN_ILCHAR		
Data Type	Text	Inclusion	Conditional
Width	9	Domain	ms4Characteristic
Examples	Unlikely Potential (Presence of two or more indicators) Suspect (One or more indicators with a high severity) Obvious (Obvious illicit discharge)		
Description	General description of illicit discharge characteristics		

MS4_IN.21 – MS4 Illicit Inspection Notes

Database Name	IN_NOTES		
Data Type	Text	Inclusion	Conditional
Width	254	Domain	<i>(none)</i>
Examples	<i>(insert inspector comments related to MS4 permit compliance)</i>		
Description	Notes or comments related to the inspection of the inlet for MS4 permit compliance		

MS4_IN.22 – Sample Collected

Database Name	INSAMPCOL		
Data Type	Text	Inclusion	Conditional
Width	3	Domain	ms4YesNo
Examples	Yes, No		
Description	Flag to confirm collection of sample at site		

MS4_IN.23 – Overall Condition

Database Name	IN_OCOND		
Data Type	Text	Inclusion	Conditional
Width	3	Domain	ms4Condition
Examples	NA (not applicable) NI (not inspected) 0 (no problems, not a problem) 1 (monitor, potential future problems) 2 (routine maintenance required) 3 (immediate repair necessary)		
Description	Indicator of overall condition of the inlet		

MS4_IN.24 – Condition Notes

Database Name	IN_CNOTES		
Data Type	Text	Inclusion	Conditional
Width	254	Domain	<i>(none)</i>
Examples	<i>(insert condition notes relevant to inspection)</i>		
Description	Condition notes on the inlet		

MS4_IN.25 – Maintenance Required

Database Name	IN_MNTREQ		
Data Type	Text	Inclusion	Conditional
Width	3	Domain	ms4YesNo
Examples	Yes, No		
Description	Flag to indicate if maintenance is required		

MS4_IN.26 – Maintenance Required Notes

Database Name	IN_MNTNOTE		
Data Type	Text	Inclusion	Conditional
Width	254	Domain	<i>(none)</i>
Examples	<i>“Inlet should be put on CIP Maintenance project for 2021”</i>		
Description	Notes on maintenance activity needed		

Outlet Inspection Schema Components

MS4_OUT.PK – Primary Key

Database Name	O_PKEY		
Data Type	Text	Inclusion	Mandatory
Width	150	Domain	(no domain)
Example	202003030001		
Description	Primary key, a unique ID for the <i>inspection record</i>		

MS4_OUT.FK – Foreign Key

Database Name	O_FKEY		
Data Type	Text	Inclusion	Conditional
Width	150	Domain	(no domain)
Example	77456-01265		
Description	Foreign key, unique ID of the <i>asset or fixture</i> being inspected The presence of a foreign key enables the full inspection record to be effectively joined to a geospatial feature (e.g. point geometry) which represents the inlet for mapping and visual display.		

MS4_OUT.1 – Inspection Date

Database Name	O_INSDATE		
Data Type	Date	Inclusion	Mandatory
Width	Default	Domain	(no domain)
Example	2/14/2020		
Description	Date of inspection		

MS4_OUT.2 – Inspector

Database Name	O_INSPCR		
Data Type	Text	Inclusion	Mandatory
Width	254	Domain	(no domain)
Example	Carrie Magnuson		
Description	Name of inspector		

MS4_OUT.3 – Agency

Database Name	O_AGENCY		
Data Type	Text	Inclusion	Mandatory
Width	254	Domain	(no domain)
Example	Ramsey Washington Metro Watershed District		
Description	Name of agency completing the inspection?		

MS4_OUT.4 – Presence of Outfall

Database Name	O_OUTFALL		
Data Type	Text	Inclusion	Conditional
Width	7	Domain	ms4YesNoUnknown
Example	Yes, No, Unknown		
Description	Flag to indicate if outlet is also 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).

MS4_OUT.5 – Temperature

Database Name	O_TEMP		
Data Type	Double	Inclusion	Conditional
Width	Default	Domain	(no domain)
Example	68.0		
Description	Temperature in degrees Fahrenheit		

MS4_OUT.6 – Rainfall in last 24 hours

Database Name	O_RAIN24		
Data Type	Double	Inclusion	Conditional
Width	Default	Domain	(no domain)
Example	0.8		
Description	Amount of recorded rainfall in inches in the last 24-hour period		

MS4_OUT.7 – Rainfall in last 48 hours

Database Name	O_RAIN48		
Data Type	Double	Inclusion	Conditional
Width	Default	Domain	(no domain)
Example	0.8		
Description	Amount of recorded rainfall in inches in the last 48-hour period		

MS4_OUT.8 – Outlet Submerged

Database Name	O_SUB		
Data Type	Text	Inclusion	Conditional
Width	9	Domain	ms4OutStatus
Examples	No Partially Fully		
Description	Flag if outlet is submerged at time of inspection		

MS4_OUT.9 – Outlet Sediment

Database Name	O_SEDIM		
Data Type	Text	Inclusion	Conditional
Width	9	Domain	ms4OutStatus
Examples	No Partially Fully		
Description	Flag if outlet is impeded/impacted with sediment at time of inspection		

MS4_OUT.10 – Flow Present

Database Name	O_FLOWPRES		
Data Type	Text	Inclusion	Conditional
Width	3	Domain	ms4YesNoUnknown
Examples	Yes, No		
Description	Yes or no flag if flow is present at time of inspection		

MS4_OUT.11 – Flow Description

Database Name	O_FLOWDSC		
Data Type	Text	Inclusion	Conditional
Width	12	Domain	ms4FlowDescription
Examples	Trickle, Moderate, Substantial		
Description	General description of flow at time of inspection		

MS4_OUT.12 – Odor

Database Name	O_ODOR		
Data Type	Text	Inclusion	Conditional
Width	16	Domain	ms4Odor
Examples	None, Petroleum or gas, Rancid or sour, Sewage, Sulfide, Other		
Description	General description of odor characteristics at time of inspection		

MS4_OUT.13 – Odor Severity

Database Name	O_ODORSV		
Data Type	Text	Inclusion	Conditional
Width	24	Domain	ms4OdorSeverity
Examples	Faint, Easily Detected, Noticeable at a distance		
Description	General description of odor severity at time of inspection		

MS4_OUT.14 – Color

Database Name	O_COLOR		
Data Type	Text	Inclusion	Conditional
Width	6	Domain	ms4Color
Examples	Brown, Clear, Gray, Green, Orange, Red, Yellow, Other		
Description	General description of color characteristics at time of inspection		

MS4_OUT.15 – Color Severity

Database Name	O_COLORSV		
Data Type	Text	Inclusion	Conditional
Width	32	Domain	ms4ColorSeverity
Examples	Faint color in sample bottle Clearly visible in sample bottle Clearly visible in outlet flow		
Description	General description of color characteristics at time of inspection		

MS4_OUT.16 – Turbidity Severity

Database Name	O_TURBSV		
Data Type	Text	Inclusion	Conditional
Width	18	Domain	ms4TurbiditySeverity
Examples	Slight cloudiness Cloudy Opaque		
Description	General description of apparent turbidity characteristics at time of inspection		

MS4_OUT.17 – Floatables

Database Name	O_FLOAT		
Data Type	Text	Inclusion	Conditional
Width	18	Domain	ms4Floatables
Examples	Sewage indicators Petroleum Suds Other		
Description	Indication of type of floatable materials present in water at time of inspection		

MS4_OUT.18 – Floatables Severity

Database Name	O_FLOATSV		
Data Type	Text	Inclusion	Conditional
Width	8	Domain	ms4FloatablesSeverity
Examples	Low Medium Heavy		
Description	General description of severity of floatable materials in the water at time of inspection		

MS4_OUT.19 – Outlet Damage

Database Name	O_DAMAGE		
Data Type	Text	Inclusion	Conditional
Width	30	Domain	ms4Damage
Examples	Corrosion Peeling Paint Spalling Cracking Chipping Combination Other		
Description	General description of visible damage to the outlet at time of inspection		

MS4_OUT.20 – Deposit Stains

Database Name	O_DSTAIN		
Data Type	Text	Inclusion	Conditional
Width	9	Domain	ms4DepositStains
Examples	Oily Flow Line Paint Other		
Description	General description of visible deposit stains to the outlet at time of inspection		

MS4_OUT.21 – Abnormal Vegetation

Database Name	O_ABVEG		
Data Type	Text	Inclusion	Conditional
Width	9	Domain	ms4AbVegetation
Examples	Excessive Inhibited Other		
Description	General description of abnormal vegetation growth present at time of inspection		

MS4_OUT.22 – Poor Pool Quality

Database Name	O_PPQUAL		
Data Type	Text	Inclusion	Conditional
Width	15	Domain	ms4PPQuality
Examples	Colors Excessive algae Floatables Odors Oil sheen Suds Other		
Description	General description of the impacts resulting in poor pool quality at outlet		

MS4_OUT.23 – Debris

Database Name	O_DEBRIS		
Data Type	Text	Inclusion	Conditional
Width	8	Domain	ms4Debris
Examples	None Brush Garbage Other		
Description	General description of presence of debris (brush, garbage, other) present at time of inspection		

MS4_OUT.24 – Illicit Discharge Characteristics

Database Name	O_ILCHAR		
Data Type	Text	Inclusion	Conditional
Width	9	Domain	ms4Characteristic
Examples	Unlikely Potential (Presence of two or more indicators) Suspect (One or more indicators with a high severity) Obvious (Obvious illicit discharge)		
Description	General description of illicit discharge characteristics		

MS4_OUT.25 – MS4 Illicit Inspection Notes

Database Name	O_NOTES		
Data Type	Text	Inclusion	Conditional
Width	254	Domain	<i>(none)</i>
Examples	<i>(insert inspector comments related to MS4 permit compliance)</i>		
Description	Notes or comments related to the inspection of the outlet for MS4 permit compliance		

MS4_OUT.26 – Sample Collected

Database Name	O_SAMPCOL		
Data Type	Text	Inclusion	Conditional
Width	3	Domain	ms4YesNo
Examples	Yes, No		
Description	Flag to confirm collection of a sample at site		

MS4_OUT.27 – Sample Collected From (Site Location)

Database Name	O_SAMPCFR		
Data Type	Text	Inclusion	Conditional
Width	7	Domain	Ms4SampleCollectedFrom
Examples	Flow, Pool, Other, Unknown		
Description	Indicator of where the sample was taken from		

MS4_OUT.28 – Overall Condition

Database Name	O_OVERCN		
Data Type	Text	Inclusion	Conditional
Width	3	Domain	ms4Condition
Examples	NA (not applicable), NI (not inspected) 0 (no problems, not a problem), 1 (monitor, potential future problems) 2 (routine maintenance required), 3 (immediate repair necessary)		
Description	Indicator of overall outlet condition		

MS4_OUT.29– Condition Notes

Database Name	O_CNOTES		
Data Type	Text	Inclusion	Conditional
Width	254	Domain	(none)
Examples	<i>(insert condition notes relevant to inspection)</i>		
Description	Condition notes on the inlet		

MS4_OUT.30 – Maintenance Required

Database Name	O_MNTREQ		
Data Type	Text	Inclusion	Conditional
Width	3	Domain	ms4YesNo
Examples	Yes, No		
Description	Flag to indicate if maintenance is required		

MS4_OUT.31 – Maintenance Required Notes

Database Name	O_MNTNOTE		
Data Type	Text	Inclusion	Conditional
Width	254	Domain	(none)
Examples	Yes, No		
Description	Notes on maintenance activity relevant to inspection		

Pond/Basin Inspection Schema Components

MS4_PB.PK – Pond Inspection Primary Key

Database Name	PB_PKEY		
Data Type	Text	Inclusion	Mandatory
Width	150	Domain	<i>(no domain)</i>
Example	2020-02-14-0001		
Description	Unique ID for the inspection report		

MS4_PB.FK – Pond Inspection Foreign Key

Database Name	PB_FKEY		
Data Type	Text	Inclusion	Mandatory
Width	150	Domain	<i>(no domain)</i>
Example	CEB-100020003-009		
Description	Unique ID for the fixture being inspected (to facilitate linkage)		

MS4_PB.01 – Inspection Date

Database Name	PB_INSDATE		
Data Type	Date	Inclusion	Mandatory
Width	Default	Domain	<i>(no domain)</i>
Example	02/14/2020		
Description	Date of inspection		

MS4_PB.02 – Inspector

Database Name	PB_INSPECT		
Data Type	Text	Inclusion	Mandatory
Width	254	Domain	<i>(no domain)</i>
Example	John Q. Public		
Description	Name of inspector		

MS4_PB.03 – Agency

Database Name	PB_AGENCY		
Data Type	Text	Inclusion	Mandatory
Width	254	Domain	<i>(no domain)</i>
Example	Ramsey County		
Description	Agency conducting the inspection		

MS4_PB.04 – Temperature

Database Name	PB_TEMP		
Data Type	Double	Inclusion	Conditional
Width	Default	Domain	<i>(no domain)</i>
Example	68		
Description	Temperature in degrees Fahrenheit		

MS4_PB.05 – Weather

Database Name	PB_WEATHER		
Data Type	Text	Inclusion	Conditional
Width	254	Domain	<i>(no domain)</i>
Example	Overcast, misty rain, wind 8 mph from NW		
Description	Description of weather conditions		

MS4_PB.06 – Outlet Woody Growth

Database Name	PBO_WOODG		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Description of wood growth conditions at outlet		

MS4_PB.07 – Outlet Structures

Database Name	PBO_STRUCT		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Description of outlet structure(s) at pond/basin		

MS4_PB.08 – Outlet Undercutting

Database Name	PBO_UNDERCT		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Description of conditions from released water undercutting the outlet		

MS4_PB.09 – Outlet Erosion

Database Name	PBO_EROSN		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Description of general erosion conditions		

MS4_PB.10 – Outlet Rip Rap

Database Name	PBO_RIPRAP		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Description of general rip rap conditions		

MS4_PB.11 – Outlet Sediment

Database Name	PBO_SEDIMT		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Description of general sediment conditions		

MS4_PB.12 – Outlet Vegetation

Database Name	PBO_VEG		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Description of general vegetation conditions		

MS4_PB.13 – Outlet Overall Condition

Database Name	PBO_COND		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Indicator of overall condition of outlet(s) at pond/basin		

MS4_PB.14 – Outlet Comments

Database Name	PBO_COMNT		
Data Type	Text	Inclusion	Optional
Width	254	Domain	(none)
Example	<i>(Text description of overall description of pond/basin outlet)</i>		
Description	Written description of overall condition or characteristics of pond/basin		

MS4_PB.15 – Bank Spillway Geometry

Database Name	PBBS_GEOM		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Indicator of conditions of cracking, bulging or sloughing in the spillway		

MS4_PB.16 – Bank Spillway Erosion

Database Name	PBBS_EROSN		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Indicator of presence and impact of erosion of the spillway		

MS4_PB.17 – Bank Spillway Animal Damage

Database Name	PBBS_ANDAM		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Indicator of presence of animal damage activity (burrows, etc.)		

MS4_PB.18 – Bank Spillway Soft Spots

Database Name	PBBS_SOFTS		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Indicator of presence of soft spots		

MS4_PB.19 – Bank Spillway Vegetation

Database Name	PBBS_VEG		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Indicator of status of vegetation impacts		

MS4_PB.20 – Bank Spillway Debris

Database Name	PBBS_DEBR		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Indicator of status of debris obstructions		

MS4_PB.21 – Bank Spillway Woody Growth

Database Name	PBBS_WOODG		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Indicator of status of woody growth or unauthorized plantings		

MS4_PB.22 – Bank Spillway Condition

Database Name	PBBS_COND		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Indicator of overall condition/status of the bank spillway		

MS4_PB.23 – Bank Spillway Condition Comments

Database Name	PBBS_CMNT		
Data Type	Text	Inclusion	Optional
Width	254	Domain	<i>(none)</i>
Example	<i>(insert general comments/observations from field)</i>		
Description	Indicator of overall condition/status of the bank spillway		

MS4_PB.24 – Trash Rack Structure

Database Name	PBTR_STR		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Indicator of overall condition/status of the weir and trash rack		

MS4_PB.25 – Trash Rack Debris Removal

Database Name	PBTR_DBRM		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Weir and trash rack debris removal		

MS4_PB.26 – Trash Rack Corrosion

Database Name	PBTR_CORR		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Weir and trash rack corrosion		

MS4_PB.27 – Trash Rack Condition

Database Name	PBTR_COND		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Weir and trash rack condition		

MS4_PB.28 – Trash Rack Comments

Database Name	PBTR_CMNT		
Data Type	Text	Inclusion	Optional
Width	254	Domain	<i>(none)</i>
Example	<i>(insert general comments/observations from field)</i>		
Description	Indicator of overall condition/status of the weir and trash rack		

MS4_PB.29 – Spillway Spalling

Database Name	PBS_SPALL		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Spillway, indicator of concrete spalling		

MS4_PB.30 – Spillway Joint Failure

Database Name	PBS_JFAIL		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Spillway, indicator of joint failure		

MS4_PB.31 – Spillway Leaking

Database Name	PBS_LEAK		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Spillway, indicator of leaking		

MS4_PB.32 – Spillway Corrosion

Database Name	PBS_CORR		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Spillway, presence of corrosion		

MS4_PB.33 – Spillway Misalignment

Database Name	PBS_MISAL		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Spillway, misalignment or split seams or joints		

MS4_PB.34 – Spillway Manhole

Database Name	PBS_MH		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Spillway, condition of manhole access and steps available		

MS4_PB.35 – Spillway Sediment

Database Name	PBS_SEDIM		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Spillway, sediment accumulation within riser		

MS4_PB.36 – Spillway Condition

Database Name	PBS_COND		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Spillway, general/overall condition		

MS4_PB.37 – Spillway Comments

Database Name	PBS_CMNT		
Data Type	Text	Inclusion	Optional
Width	254	Domain	<i>(none)</i>
Example	<i>(insert general comments/observations from field)</i>		
Description	Comments related to the condition/status of spillway		

MS4_PB.38 – Pool Pollution

Database Name	PBP_PLTN		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Visible pollution in pool		

MS4_PB.39 – Pool Erosion

Database Name	PBP_EROSN		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Visible erosion of pool		

MS4_PB.40 – Pool Vegetative Growth

Database Name	PBP_VEG		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Visible (unwanted?) vegetation in pool		

MS4_PB.41 – Pool Debris

Database Name	PBP_DBRS		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Visible debris in pool		

MS4_PB.42 – Pool Sediment

Database Name	PBP_SEDIM		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Visible sediment in pool		

MS4_PB.43 – Pool Condition

Database Name	PBP_COND		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Overall condition of pool		

MS4_PB.44 – Pool Comments

Database Name	PBP_CMNT		
Data Type	Text	Inclusion	Conditional
Width	254	Domain	<i>(none)</i>
Example	<i>(insert general comments/observations from field)</i>		
Description	Comments related to the condition/status of pool		

MS4_PB.45 – Dry Pond Vegetation Adequate

Database Name	PBDP_VEGA		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Status of desired vegetation of dry pond feature		

MS4_PB.46 – Dry Pond Vegetation Undesirable

Database Name	PBDP_VEGU		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Status of the undesirable/woody vegetative growth of dry pond feature		

MS4_PB.47 – Dry Pond Obstructions

Database Name	PBDP_OBST		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Status of low flow channel obstructions		

MS4_PB.48 – Dry Pond Standing Water

Database Name	PBDP_STW		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Status of standing water and/or wet spots		

MS4_PB.49 – Dry Pond Debris

Database Name	PBDP_DBR		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Status of debris in dry pond		

MS4_PB.50 – Dry Pond Sediment

Database Name	PBDP_SDM		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Status of sediment in dry pond		

MS4_PB.51 – Dry Pond Condition

Database Name	PBDP_COND		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Overall condition/status description of dry pond		

MS4_PB.52 – Dry Pond Comments

Database Name	PBDP_CMNT		
Data Type	Text	Inclusion	Conditional
Width	254	Domain	<i>(none)</i>
Example	<i>(insert general comments/observations from field)</i>		
Description	Comments related to the condition/status of dry pond		

MS4_PB.53 – Inflow Rip Rap

Database Name	PBI_RIPRAP		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Condition status of rip rap at pond/basin inflow		

MS4_PB.54 – Inflow Erosion

Database Name	PBI_EROSN		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Condition status of erosion at pond/basin inflow		

MS4_PB.55 – Inflow Debris

Database Name	PBI_DBRS		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Condition status of debris at pond/basin inflow		

MS4_PB.56 – Inflow Sediment

Database Name	PBI_SEDM		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Condition status of sediment at pond/basin inflow		

MS4_PB.57 – Inflow Forebay Sediment Debris

Database Name	PBI_FBSD		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Condition status of sediment at inflow forebay		

MS4_PB.58 – Inflow Condition

Database Name	PBI_COND		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Overall condition/status description of inflow		

MS4_PB.59 – Inflow Comments

Database Name	PBI_CMNT		
Data Type	Text	Inclusion	Conditional
Width	254	Domain	<i>(none)</i>
Example	<i>(insert general comments/observations from field)</i>		
Description	Comments related to the condition/status of inflow		

MS4_PB.60 – Buffer

Database Name	PBB_BUFF		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Overall condition/status description of buffer		

MS4_PB.61 – Encroachments

Database Name	PBB_ENCR		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Presence of physical encroachments (structures in buffer)		

MS4_PB.62 – Buffer Clearing Vegetation

Database Name	PBB_CLVG		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Status/need for clearing vegetation in buffer		

MS4_PB.63 – Buffer Planting Needed

Database Name	PBB_PLND		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Status/need for planting vegetation in buffer		

MS4_PB.64 – Buffer Access Routes

Database Name	PBB_ACRT		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Status or condition of access route to/through buffer		

MS4_PB.65 – Buffer Public Hazards

Database Name	PBB_PHAZ		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Status/presence of public hazard (Details of public hazard can be added in PB_INSUM [General Comments])		

MS4_PB.66 – Buffer Fence

Database Name	PBB_FENCE		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Status or condition of fence in buffer		

MS4_PB.67 – Buffer Condition

Database Name	PBB_COND		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Overall rating of status or condition of buffer		

MS4_PB.68 – Buffer Comments

Database Name	PBB_COND		
Data Type	Text	Inclusion	Optional
Width	254	Domain	<i>(none)</i>
Example	<i>(insert general status notes about buffer)</i>		
Description	General status or condition description of buffer		

MS4_PB.70 – Overall Condition of Pond/Basin

Database Name	PB_OVERCND		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4Condition
Example	NA = Not Applicable NI = Not Inspected 0 = Not a problem 1 = Monitor 2 = Routine Maintenance Required 3 = Immediate Repair, Work or Activity Necessary		
Description	Overall condition of the pond/basin feature		

MS4_PB.71 – Illicit Discharge Evidence Connections

Database Name	PBIL_CT		
Data Type	Text	Inclusion	Conditional
Width	2	Domain	ms4YesNoUnknown
Example	Yes, No, Unknown		
Description	Evidence of illicit discharge or illicit connections		

MS4_PB.72 – Illicit Discharge Evidence of Connection Comments

Database Name	PBIL_CMNT		
Data Type	Text	Inclusion	Optional
Width	254	Domain	<i>(none)</i>
Example	<i>(Inspector summary of evidence of illicit discharge or illicit connections)</i>		
Description	Evidence of illicit discharge or illicit connections		

MS4_PB.73 – Capacity Gauging

Database Name	PB_CAPG		
Data Type	Text	Inclusion	Optional
Width	254	Domain	<i>(none)</i>
Example	<i>(text notes)</i>		
Description	Notes on capacity gauging		

MS4_PB.74 – Sediment Sample Notes

Database Name	PB_PB_SEDSAM		
Data Type	Text	Inclusion	Optional
Width	254	Domain	<i>(none)</i>
Example	<i>(text notes)</i>		
Description	Inspector sediment sampling performed		

MS4_PB.75 – Inspectors Summary

Database Name	PB_INSUM		
Data Type	Text	Inclusion	Optional
Width	254	Domain	<i>(none)</i>
Example	<i>(insert text of inspector's comments/summary on the feature)</i>		
Description	Inspector summary notes		