



**MINNESOTA POLLUTION  
CONTROL AGENCY**

## *2013 MS4 General Permit- TMDL Annual Reporting*

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## Presentation Roadmap

Why are you here?

TMDL Annual Report

How to complete the Form

Resources for completing the Form

Q & A



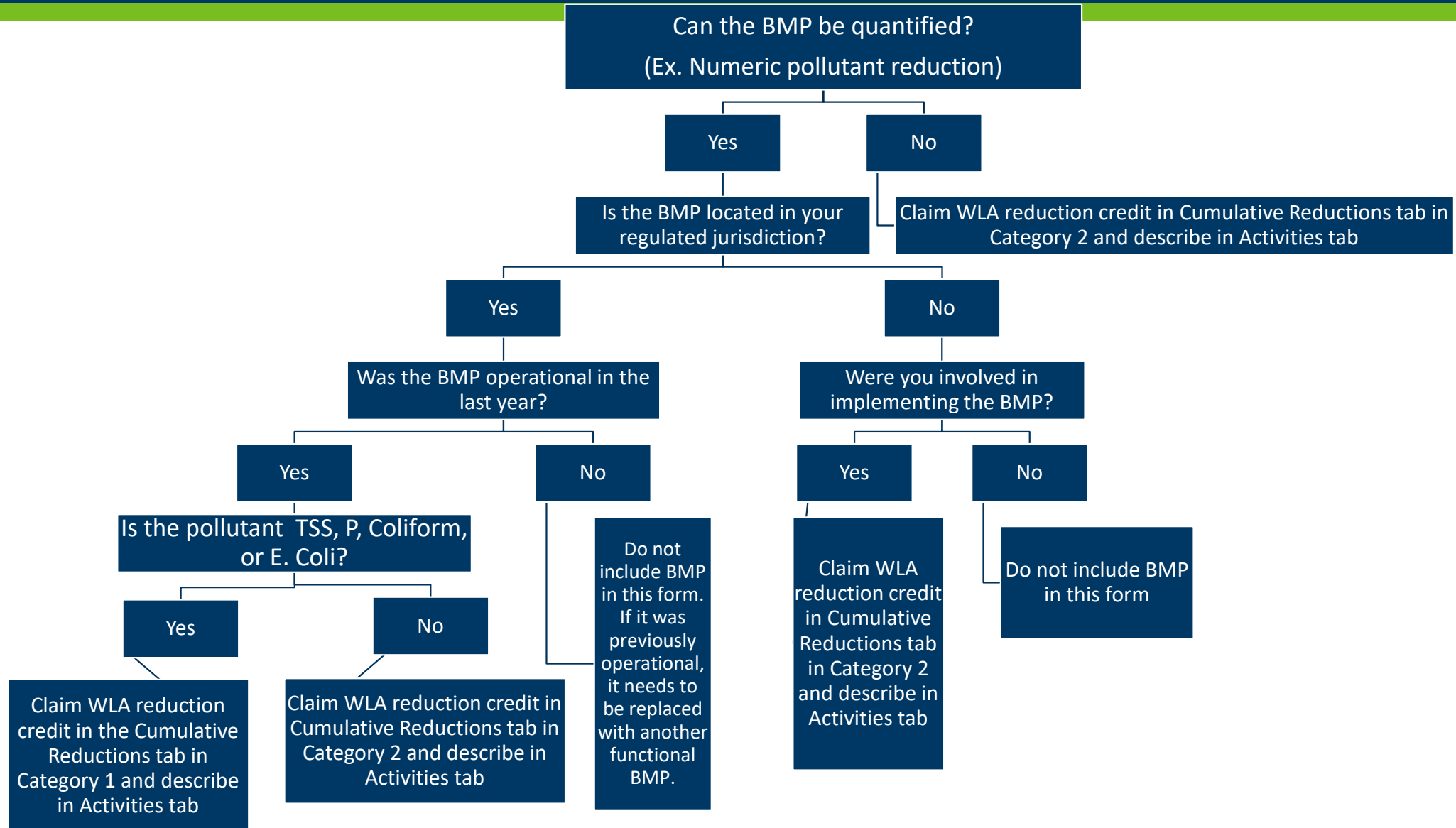
As part of the 2013 application-

Permittee checks wasteload allocation (WLA) List spreadsheet and lists all applicable WLAs

Is your MS4 currently meeting its WLA for any approved TMDLs?

- If yes, list WLAs and corresponding BMPs and strategy for long term continuation of meeting each WLA. (no further TMDL related reporting requirements for the rest of the 2013 permit cycle)
- If No, list interim milestones, implementation dates and strategies for BMPs beyond this permit cycle. (BMPs reported on in annual reports)

# How do MS4s record BMPs in the TMDL Annual Reporting Spreadsheet?

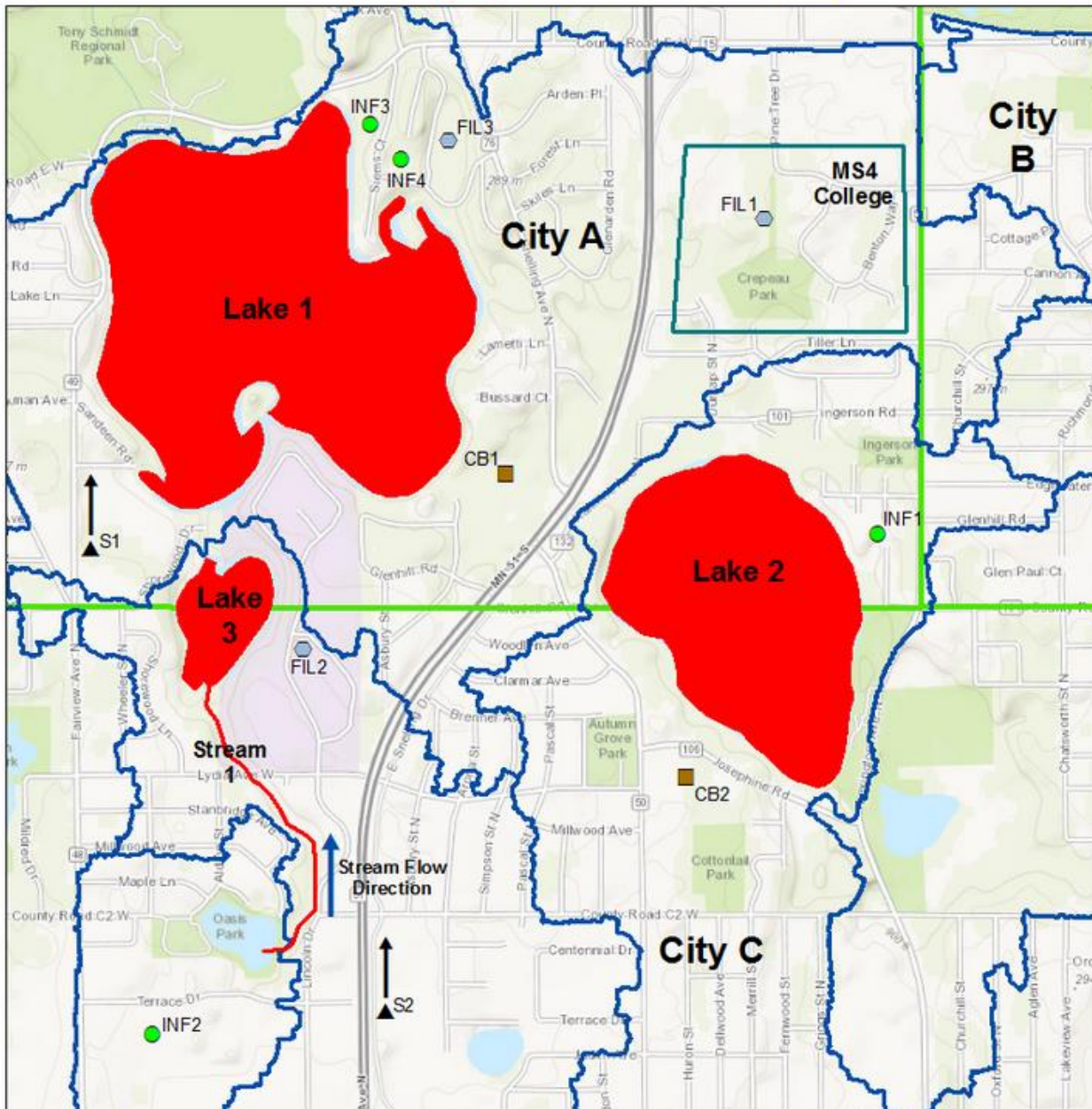


1. What did you implement? (BMPs-Activities Completed tab)
2. What reductions did you achieve with implemented activities? (Cumulative Reductions tab)
3. Unimplemented BMPs/Activities that don't reduce pollutants (Category 3 tab)
4. What will you do in the future? (Adaptive Management tab)

# Gather Information

- Inventory all applicable BMPs
  - BMPs that remove pollutants in a TMDL project area
- Plot location
- Determine which TMDL each BMP applies to

- ▲ Swale/Strip    ● Filter    □ Permitted Entity Boundary    — MS4 Community College
- Infiltrator    ■ Constructed Basin    ■ Impaired Water    □ Subwatershed



Plotted Location of BMPs

# BMP Inventory

BMPs that treat stormwater in a TMDL watershed, installed after the baseline year

[Examples for completing the TMDL reporting form - Minnesota Stormwater Manual \(state.mn.us\)](https://state.mn.us)

# BMP Inventory

## BMPs described in your Compliance Schedule on your TMDL Attachment Spreadsheet at the time of application

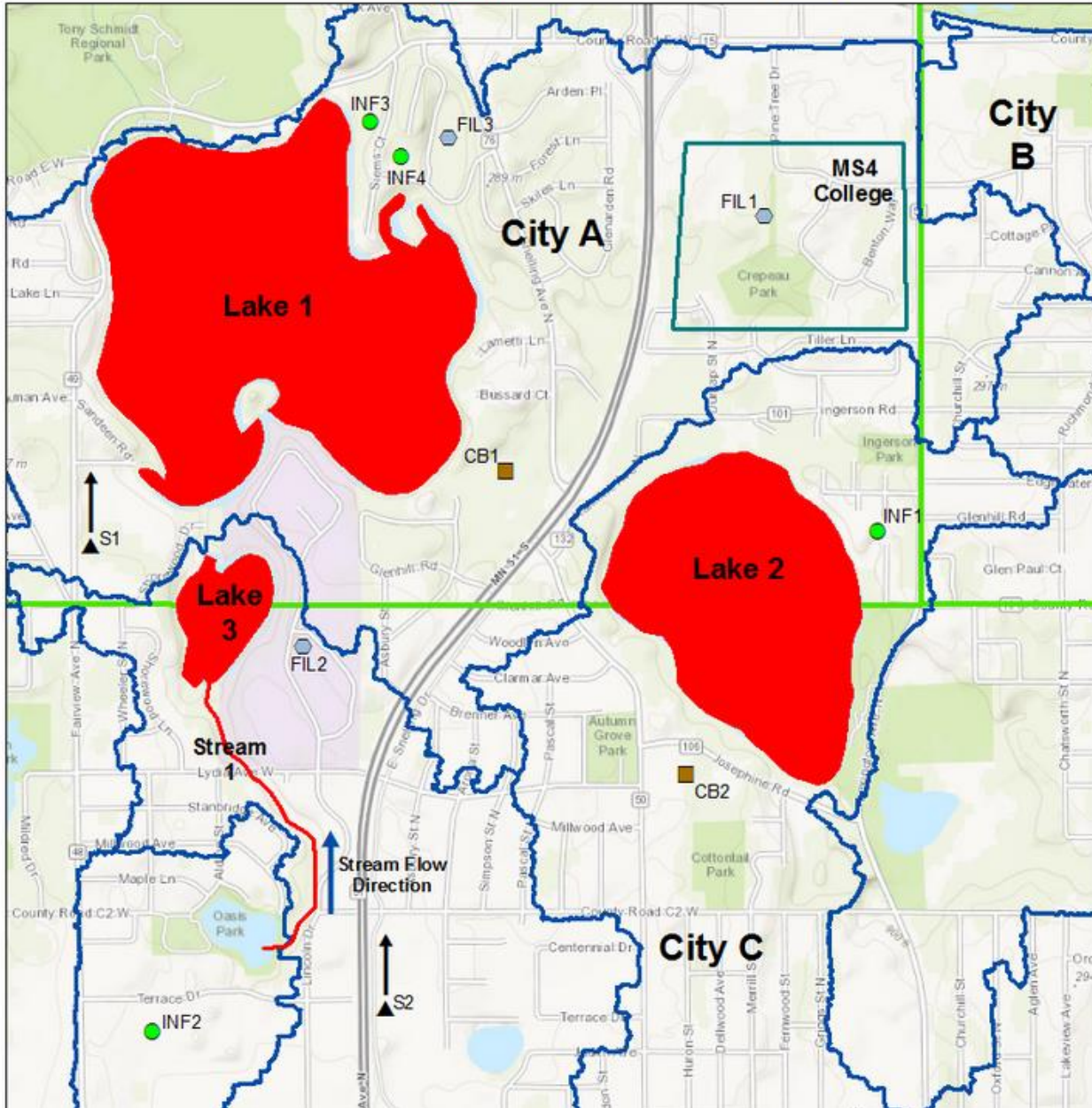
	A	B	C	D	E	F
50	<b>Table 1</b>					
51	Fill in the following table with your Interim Milestones, BMP IDs, and Implementation Dates. Replace "TMDL Project Name & Pollutant" Columns with each TMDL Project Name and the corresponding pollutant. Then put an "X" in the boxes for the TMDL that corresponds with each BMP. PART II.D.6.f.(1)-(2)					
52						
53	<b>NOTE:</b>					
54	It is recommended to assign each Interim Milestone (BMP) a BMP ID. You will be required to report on the status of each Interim Milestone and include a BMP ID for all structural BMPs as part of the MS4 Annual Report including those ID numbers at the time of application may be useful in tracking implementation efforts. If a pond that will be included in the pond inventory (Part III.C.2.) is to be applied toward a WLA, use the same ID inventory and TMDL tracking. Non-structural BMPs are not required to have an ID, but it may be useful to assign it an ID for internal MS4 recordkeeping.					
55						
56						
57	MPCA recommends the Implementation Dates align with the submittal of MS4 Annual Reports. Dates selected may not reflect the actual date a BMP is implemented, but shall indicate a BMP will be implemented on the reporting year.					
58						
59						
60						
61	<b>Interim Milestone (Best Management Practice)</b>	<b>BMP ID</b>	<b>Implementation Date</b>	<b>Lake 1: Phosphorus</b>	<b>Lake 2: Phosphorus</b>	<b>Lake 3: Phosphorus</b>
62	Permeable pavement with no underdrain	INF3 and INF4	6/30/2014	x		
63	Increased street sweeping		6/30/2014	x	x	x
64	Raingarden retrofit assessment		6/30/2014		x	
65	Implement raingarden retrofit	INF1	6/30/2015		x	
66	Improved lawn turf vegetation management		6/30/2016	x	x	x
67	Impervious disconnection		6/30/2016	x		
68	Planning for raingarden construction		6/30/2017		x	
69	Stormwater Reuse		6/30/2017			x
70	Construct raingarden without underdrain	INF5	6/30/2018		x	
71						



# Summary of Categories

- **Category 1:** BMPs with quantifiable pollutant reductions
- **Category 2:** BMPs without easily-quantifiable reductions
- **Category 3:** BMPs/Activities not yet implemented or not pollutant-reducing

- ▲ Swale/Strip    ● Filter    □ Permitted Entity Boundary    — MS4 Community College
- Infiltrator    ■ Constructed Basin    ■ Impaired Water    □ Subwatershed



# BMP Inventory

City C-Category 1

CB2

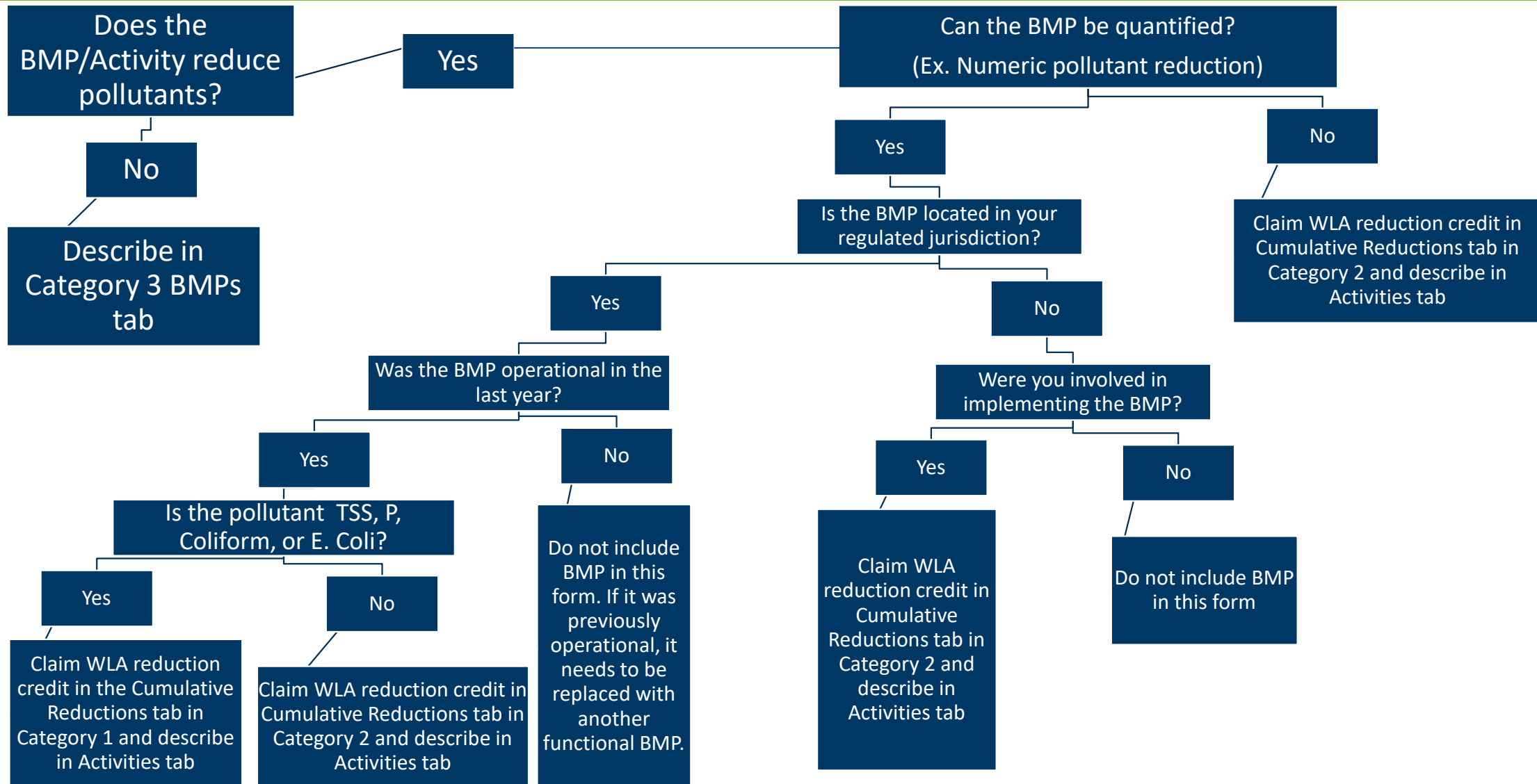
FIL2

INF2

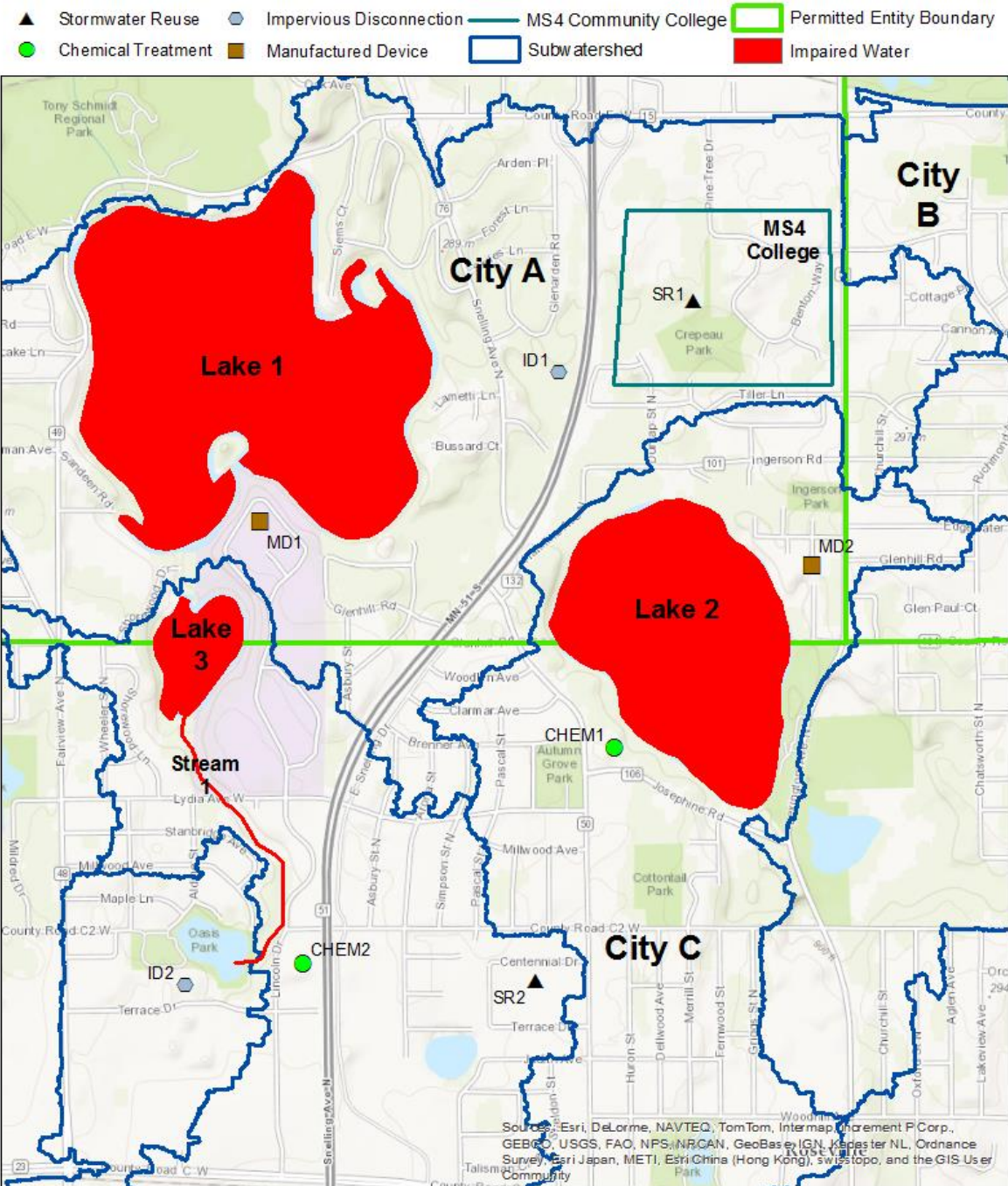
S2

[Examples for completing the TMDL reporting form - Minnesota Stormwater Manual \(state.mn.us\)](https://state.mn.us)

# How do MS4s record BMPs in the TMDL Annual Reporting Spreadsheet?



# BMP Inventory



- City C- Category 2:
- Chemical Treatment
- Impervious Disconnection
- Stormwater Reuse (SR2)
- Aquatic buffer ordinance
- Supplemental Street Sweeping

[Examples for completing the TMDL reporting form - Minnesota Stormwater Manual \(state.mn.us\)](#)



# Cumulative Reductions Worksheet

## Category 1 – Summary of quantitative reductions

- The purpose of this category is to provide a quantitative estimate of the cumulative reductions in loading achieved for each TMDL WLA applicable to the permittee.
- Use Category 1 if ALL of the following apply.
  - Pollutant loadings from the BMP/activity can be estimated using an appropriate method
  - The pollutant is phosphorus, TSS, fecal coliform, or E. coli
  - The BMP/activity was constructed within your regulated jurisdiction (upstream of your MS4's outfall)
  - The BMP/activity was in operation the past year
- The following BMPs require estimated reductions in loading under Category 1 if the pollutant is phosphorus, TSS, fecal coliform, or E. coli:
  - Infiltrator: examples include infiltration trench, infiltration basin, tree trench/box, permeable pavement, infiltration vault, bioinfiltration
  - Constructed basin: examples include wet pond, stormwater wetland, dry pond
  - Filter: examples include sand filter, green roof, biofiltration, iron enhanced sand filter
  - Swale or strip: examples include filter strip, swale, wet swale, grass waterway
- Recommend using Category 2 if the pollutant is chloride, but Category 1 may be used if you have detailed records and can justify your methodology.

# Cumulative Reductions Worksheet

## Category 2 – Number of BMPs implemented

- The purpose of this category is to acknowledge BMPs/activities that likely reduce pollutant loads but lack information for estimating load reductions or reduce pollutant loads outside the permittee's regulated MS4.
- Use Category 2 if any of the following applies:
  - Pollutant is Biochemical Oxygen Demand (BOD), Nitrogenous Biochemical Oxygen Demand (NBOD), chloride, or thermal loading
  - Pollutant reduction information from the BMP/activity is not readily available using an appropriate method
  - You contribute(d) to the implementation of the BMP/activity but the reduction in pollutant loading occurs outside your jurisdictional area (e.g. you contributed funding to a BMP in another MS4's jurisdiction)
- As with Category 1, the value entered represents a cumulative value, in this case the total number of BMPs/activities that are applied to a TMDL Project. All BMPs and activities included in this number must be included in the BMPs-Activities completed tab.
- [Guidance for completing the TMDL reporting form - Minnesota Stormwater Manual \(state.mn.us\)](https://state.mn.us)

# Category 3 BMPs – Activities Worksheet

- The purpose of this category is to capture progress made that did not directly result in a pollutant reduction , such as planning, feasibility studies, or acquisition of funding.
  - These entries will remain in Category 3 for the duration of the permit term
- This category will also be used to record planned BMPs that have not yet been implemented but were submitted as a part of the compliance schedule in the MS4 Permit TMDL Attachment spreadsheet at the time of application.
- When BMPs that reduce pollutants are fully implemented they will be:
  - Translated to the BMP-Activities Completed worksheet
  - Removed from the Category 3 BMPs – Activities worksheet; AND
  - The reduction will be added to either category 1 or 2 for the associated TMDL WLA
- Stage of implementation and reporting year must also be reported here.
- [Guidance for completing the TMDL reporting form - Minnesota Stormwater Manual \(state.mn.us\)](#)



## Total Maximum Daily Loads (TMDLs) - Minnesota Stormwater Manual

### **TMDL MS4 permit guidance**

- [Summary of TMDL requirements in stormwater permits](#)
- [Guidance for completing the MS4 Permit TMDL Application Form](#)
- [Guidance for meeting chloride TMDL MS4 permit requirements](#)
- [Guidance for meeting bacteria TMDL MS4 permit requirements](#)
- [Guidance for meeting dissolved oxygen or oxygen demand TMDL MS4 permit requirements](#)
- [Guidance for meeting temperature TMDL MS4 permit requirements](#)
- [Guidance for categorical TMDLs](#)
- [List of Approved TMDLs with MS4 WLAs](#)
- [Forms, guidance, and resources for completing the TMDL annual report form](#)
- [Baseline year](#)
- [Interpreting wasteload allocations based on flow/load duration curves](#)

# Resources – Minnesota Pollution Control Agency

- [Stormwater Mapping Tool](#)

How to get there: Municipal Stormwater page; *In this section* sidebar: MS4 Mapping Tool

- Default view
- Scroll into one MS4
- Go to Layer list, click carrot next to MS4 layers
- Add TMDL Study Area
  - Can find GPS coordinates, add points, measure areas, print maps

- [Impaired waters viewer \(IWAV\) | Minnesota Pollution Control Agency \(state.mn.us\)](#)

- Type in waterbody identification

# Where is the TMDL Annual Report Form?

TMDL Annual Report Forms: [Annual TMDL forms submitted by MS4 permittees - Minnesota Stormwater Manual \(state.mn.us\)](#)



Questions?  
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