

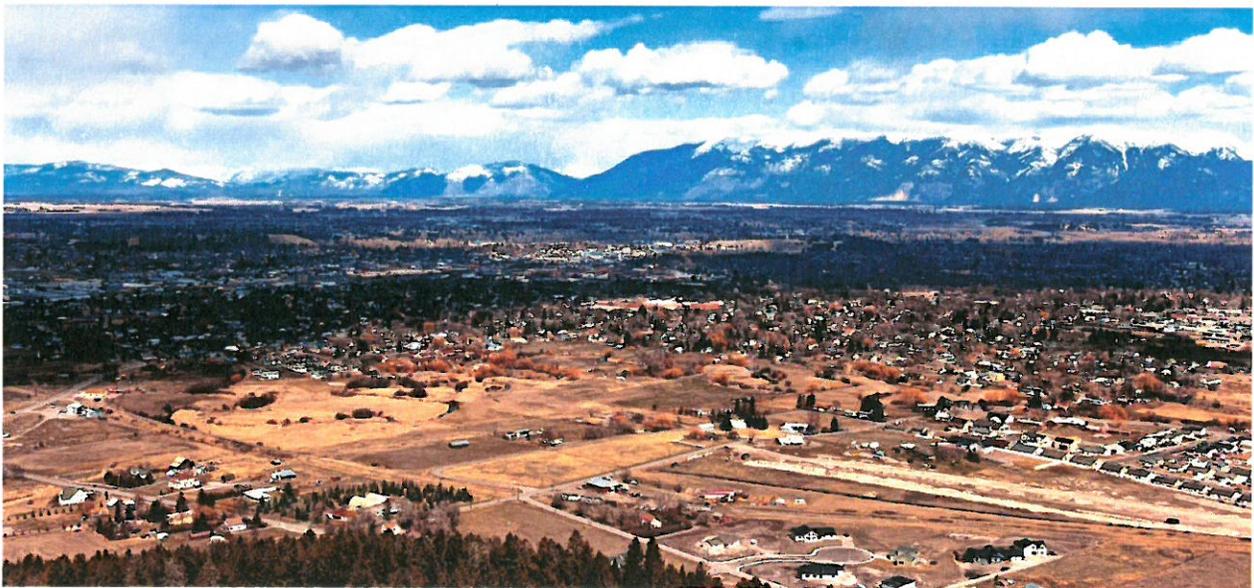


**City of Kalispell**

**MPDES Stormwater Small MS4 Annual Report**

**Permit Year – 2015**

**Permit No: MTR040005**



© Bret Bouda

**Submitted by  
City of Kalispell**

Submitted in accordance with the requirements of Montana Pollution Discharge Elimination System  
(MPDES) Permit Number MTR040005

Agency Use			
Permit No.:		Date Rec'd	Rec'd By



FORM <b>MS4-AR</b>	<b>MPDES Storm Water Small MS4 Annual Report Form</b>
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This form is to be completed by each permittee or co-permittee authorized to discharge storm water under the *General Permit for Storm Water Discharge Associated with Small Municipal Separate Storm Sewer System (MS4)*. All authorized permittees or co-permittees are required to complete this Annual Report Form for each calendar year the facility is authorized as required in Part IV.I. of the General Permit and to submit it (postmarked) no later than March 1<sup>st</sup> following the respective calendar year reporting period. For co-permittees authorized under one permit authorization and for co-permittees with multiple permit authorizations, you are required to complete this form and all items on it exclusively for your particular Small MS4 and Storm Water Management Program (SWMP) within your respective regulated Small MS4 area. The Department has attached instructions for this form in order to help with the completion of item responses. **If additional space is needed for item responses, you may include attachments noting the section and item number.**

**Section A - Permit Authorization Number for Facility** MTR04 0 0 0 5

MS4 Annual Report for Calendar Year 2015

What size population does your MS4 serve? 19,927 (2010 census data)

**Section B - Facility or Site Information** *(See instructions.):*

Small MS4 Name City of Kalispell

Zip Code 59901 County Flathead

Latitude 48 degree, 11 min, 48 sec Longitude -114 degree, 18 min, 39 sec

Small MS4 Type: Federal  State  County  City/Town  Other

**Section C - Applicant (Owner/Operator) Information**

Contact Person: Name Susie Turner Title Public Works Director

Owner or Operator City of Kalispell

Mailing Address PO Box 1997

City, State, and Zip Code Kalispell, MT 59903

Phone Number 406-758-7852

**Section D - Water Quality Priorities**

1. Does your MS4 discharge to waters listed as impaired on the Montana 303(d) List?  Yes  No

2. If yes, identify each impaired water, the impairment, whether a TMDL has been approved by EPA for each, and whether the TMDL assigns a wasteload allocation to your MS4. Use a new line for each impairment, and attach additional pages as necessary.

Impaired Water	Impairment	Approved TMDL	TMDL assigns WLA to MS4
Whitefish River	See attached sheet Section D	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Stillwater River	See attached sheet Section D	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Ashley Creek	See attached sheet Section D	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Spring Creek	See attached sheet Section D	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Please see Flathead-Stillwater Planning Area Nutrient, Sediment, and Temperature TMDLs and Water Quality Improvement Plan</b>		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No

3. What specific sources contributing to the impairment(s) are you targeting in your Storm Water Management Program?

See attached sheet Section D

4. Do you discharge to any "high-quality waters" (as defined in 75-5-103, MCA)?  Yes  No

5. Are you implementing additional specific provisions to ensure their continued integrity?  Yes  No

If yes, what are they?

See attached sheet Section D

### Section E - Public Education and Public Participation

1. Is your public education program targeting specific pollutants and sources of those pollutants?  Yes  No

2. If yes, what are the specific sources and/or pollutants addressed by your public education program?

Residential and commercial pollutants: household waste, fertilizers, automobile waste, construction, & pet wastes.

3. Note specific successful outcome(s) (e.g., quantified reduction in fertilizer use; Do Not List tasks, events, publications) fully or partially attributable to your public education program during this reporting period.

See Section L

4. Do you have an advisory committee or other body comprised of the public and other stakeholders that provides regular input on your SWMP?  Yes  No

### Section F - Construction

1. Do you have an ordinance or other regulatory mechanism stipulating:  
Erosion and sediment control requirements?  Yes  No

Other construction waste control requirements?  Yes  No

Requirement to submit construction plans for review?  Yes  No

MS4 enforcement authority?  Yes  No

2. Do you have written procedures for:  
Reviewing construction plans?  Yes  No

Performing inspections?  Yes  No

Responding to violations?  Yes  No

3. Identify the number of active construction sites, greater than or equal to 1 acre, in operation in your jurisdiction at any time during the reporting period. 15
4. How many of the sites identified in F.3. did you inspect during this reporting period? 3
5. Describe, on average, the frequency with which your SWMP conducts construction site inspections.  
On average, City staff inspects random and scheduled construction sites twice per month for greater and less than 1 ac
6. Do you prioritize certain construction sites for more frequent inspections?  Yes  No  
If yes, based on what criteria?  
Priority sites are inspected more frequently due to the size, location, type of construction, and previous violations.
7. Identify which of the following types of enforcement actions you used during the reporting period for construction activities, indicate the number of actions, or note those for which you do not have authority:
- |   |                       |    |                                       |
|---|-----------------------|----|---------------------------------------|
| <input checked="" type="checkbox"/> Yes | Notice of violation   | #2 | No Authority <input type="checkbox"/> |
| <input type="checkbox"/> Yes            | Administrative fines  | #  | No Authority <input type="checkbox"/> |
| <input type="checkbox"/> Yes            | Stop Work Orders      | #  | No Authority <input type="checkbox"/> |
| <input type="checkbox"/> Yes            | Civil penalties       | #  | No Authority <input type="checkbox"/> |
| <input type="checkbox"/> Yes            | Criminal actions      | #  | No Authority <input type="checkbox"/> |
| <input type="checkbox"/> Yes            | Administrative orders | #  | No Authority <input type="checkbox"/> |
| <input checked="" type="checkbox"/> Yes | Other verbal notice   | #6 |                                       |
8. Do you use an electronic tool (e.g., GIS, database, spreadsheet) to track the locations, inspection results, and enforcement actions of active construction sites in your jurisdiction?  Yes  No
9. What are the 3 most common types of violations documented during this reporting period?  
See Section L
10. How often do municipal employees receive training on the construction program?  
Once per year

### Section G - Illicit Discharge Elimination

1. Have you completed a map of all outfalls and receiving waters of your storm sewer system?  Yes  No
2. Have you completed a map of all storm drain pipes and other conveyances in the storm sewer system?  Yes  No
3. Identify the number of outfalls in your storm sewer system. 66  
Number of Major outfalls 9 Number of Minor Outfalls 57  
Are these numbers estimated or measured? Measured
4. Do you have documented procedures, including frequency, for screening outfalls?  Yes  No
5. Of the outfalls identified in G.3., how many were screened for dry weather discharges during this reporting period? 6
6. Of the outfalls identified in G.3., how many have been screened for dry weather discharges at any time since you obtained MS4 permit coverage? 65
7. What is your frequency for screening outfalls for illicit discharges? Describe any variation based on size/type.  
See Section L

8. Do you have an ordinance or other regulatory mechanism that effectively prohibits illicit discharges?  Yes  No
9. Do you have an ordinance or other regulatory mechanism that provides authority for you to take enforcement action and/or recover costs for addressing illicit discharges?  Yes  No
10. During this reporting period, how many illicit discharges/illegal connections have you discovered?  
one \_\_\_\_\_
11. Of those illicit discharges/illegal connections that have been discovered or reported, how many have been eliminated? one \_\_\_\_\_
12. How often do municipal employees receive training on the illicit discharge program?  
Relevant City departments receive training once per year \_\_\_\_\_

### Section H - Storm Water Management for Municipal Operations

1. Have storm water pollution prevention plans (or an equivalent plan) been developed for:
- All public parks, ball fields, other recreational facilities and other open spaces?  Yes  No
  - All municipal construction activities, including those disturbing less than 1 acre?  Yes  No
  - All municipal turf grass/landscape management activities?  Yes  No
  - All municipal vehicle fueling, operation and maintenance activities?  Yes  No
  - All municipal maintenance yards?  Yes  No
  - All municipal waste handling and disposal areas?  Yes  No
- Other \_\_\_\_\_
2. Are storm water inspections conducted at these facilities?  Yes  No
3. If yes, at what frequency are inspections conducted? Once per year
4. List activities for which operating procedures or management practices specific to storm water management have been developed (e.g., road repairs, catch basin cleaning).  
See Section L
5. Do you prioritize certain municipal activities and/or facilities for more frequent inspection?  Yes  No
6. If yes, which activities and/or facilities receive most frequent inspections?  
The City Shop Complex.
7. Do all municipal employees and contractors overseeing planning and implementation of storm water-related activities receive comprehensive training on storm water management?  Yes  No
8. If yes, do you also provide regular updates and refreshers?  Yes  No
9. If so, how frequently and/or under what circumstances?  
Pollution Prevention Good Housekeeping training is provided annually to City Departments.

**Section I - Long-term (Post-Construction) Storm Water Measures**

1. Do you have an ordinance or other regulatory mechanism to require:
- Site plan reviews for storm water/water quality of all new and re-development projects?  Yes  No
  - Long-term operation and maintenance of storm water management controls?  Yes  No
  - Retrofitting to incorporate long-term storm water management controls?  Yes  No
2. If you have retrofit requirements, what are the circumstances/criteria?  
10,000 sq. ft. of new or replaced impervious surface on a developed site.
3. What are your criteria for determining which new/re-development storm water plans you will review (e.g., all projects, projects disturbing greater than one acre, etc.)  
All projects disturbing equal to or greater than 10,000 square feet.
4. Do you require water quality or quantity design standards or performance standards, either directly or by reference to a Montana or other standard, be met for new development and re-development?  Yes  No
5. Do these performance or design standards require that pre-development hydrology be met for:
- Flow volumes?  Yes  No
  - Peak discharge rates?  Yes  No
  - Discharge frequency?  Yes  No
  - Flow duration?  Yes  No
6. Please provide the URL/reference where all post-construction storm water management standards can be found.  
[www.kalispell.com/public\\_works/documents/StandardsforDesignandConstruction-April2015-Final.pdf](http://www.kalispell.com/public_works/documents/StandardsforDesignandConstruction-April2015-Final.pdf)
7. How many development and redevelopment project plans were reviewed during the reporting period to assess impacts to water quality and receiving stream protection? 19
8. How many of the plans identified in I.7. were approved? 17
9. How many privately owned permanent storm water management practices/facilities were inspected during the reporting period? 2
10. How many of the practices/facilities identified in I.9. were found to have inadequate maintenance?  
0
11. How long do you give operators to remedy any operation and maintenance deficiencies identified during inspections?  
30 days, see Section L
12. Do you have authority to take enforcement action for failure to properly operate and maintain storm water practices/facilities?  Yes  No
- If yes, what authority?  
See Section L
13. How many formal enforcement actions (i.e., more than a verbal or written warning) were taken for failure to adequately operate and/or maintain storm water management practices? None



## Section L - Additional Information

In the space below, please include any additional information on the performance of your MS4 Storm Water Management Program. If providing clarification to any of the questions on this form, please provide the question number (e.g., I.5.) in your response.

Section E.3: During 2015 the City issued 128 Construction Site Stormwater Management Permits. These permits include all construction activities greater than 1,000 square feet of land disturbance within City limits. Six verbal notice of violation and two written notice of violation were issued for the 128 permits, this is attributed to the public education and participation activities listed in the Kalispell Stormwater Management Program (SWMP). Also in 2015, by following the Street Sweeping and Leaf Collection Programs, 2,688 C.Y. street sweepings and 4,835 C.Y. of leaves were collected from city streets which resulted in a reduction of pollutants that entered the City's MS4 system.

Section F.9: Inadequate or not maintaining tracking approaches is the most common violation. The two other most common violations are lack of inlet protection and either incorrect installation of silt fence or lack of silt fence.

Section G.6: 65 of 66 outfalls have been screened at least once, and many have been screened multiple times based on their priority rankings. Screened outfall inspections are recorded and tracked electronically in the City's outfall database. The one outfall that has not been screened was added in 2013 as part of the Montana Department of Transportation Kalispell Hwy 93 Bypass Project.

Section G.7: A drainage basin was delineated for each outfall and evaluated to determine illicit discharge potential. The basins were prioritized based on ranking factors and field screened for potential illicit discharges. Suspect outfalls evaluated at the time of field screening are then followed up with more field investigations to determine flow characterization (illicit or not). Outfalls ranked higher in priority based on their potentials for illicit discharge are screened most often.

Section H.4: Stormwater Best Management Practices (BMPs) for Municipal activities and facilities are described in detail in the Kalispell Municipal Pollution Prevention/Good Housekeeping Guidance Manual. BMPs outlined in the manual include but are not limited to:

Facility: building maintenance, solid waste handling, small equipment fueling, vehicle fueling, maintenance and repair, hazardous material management, outdoor storage and concrete mixing.  
Field: road, street, and alley repairs, plaza and sidewalk cleaning, landscape maintenance, construction dewatering, and water, sewer and storm maintenance and repairs.

Section I.11 & I.16: As part of the program, owners/operators of private stormwater quality facilities will be given 30 days to complete maintenance if it is identified during inspections that their facility is in need of maintenance or repair. Relevant Public Works staff will receive training on the program annually.

Section I.12: The City of Kalispell has authority to take actions for failure to properly operate and maintain stormwater facilities. The City's authority is outlined in the Standards for Design and Construction and states the following: If the required maintenance and repairs are not being performed and inhibit the intended function of the stormwater system the City may hire a contractor to perform the required maintenance and bill the property owner or a stormwater maintenance district program may be formed in accordance with Montana Code Annotated incorporating all the loss within a development.

**Section M - Additional Detailed Information: Storm Water Discharge Monitoring**

In the space below, please provide the "Evaluation of Storm Water Quality Monitoring Test Results" based on the requirements in Part IV.A.6. of the General Permit. Please also use this space to describe and evaluate any other storm water discharge monitoring which may have occurred during this reporting period.

See attached document: MPDES Permit # MTR04005, Evaluation of Stormwater Quality Monitoring 2015 Sample Results

**Section N - Additional Detailed Information: Summary of Compliance and/or Status of SWMP**

Please provide a summary of compliance with respect to General Permit requirements, and the development/implementation of your SWMP. In this section, each permittee must describe the status of SWMP activities and components. Responsible persons, agencies, departments or co-permittees must be included. Each activity/component must specify established goals or performance standards. *(See instructions.)*

Minimum Control Measure Name	General Permit Condition Item Number	SWMP Activity or Component Name	Brief Description of SWMP Activity or Component	Responsible Agency, Department, or Organization; and Person or Position	Development of SWMP Item Completed and/or In Effect (Yes or No, Explain)	Measurable Goal or Performance Standard Utilized
Public Education and Outreach on Storm Water Impacts	II.B.1.	See attached sheet Section N, Table 12				
Public Involvement/ Participation	II.B.2.					
Illicit Discharge Detection and Elimination (IDDE)	II.B.3.					
Construction Site Storm Water Runoff Control	II.B.4.					
Post-Construction Storm Water Management in New Development and Redevelopment	II.B.5.					
Pollution Prevention/Good Housekeeping for Municipal Operations	II.B.6.					

**Section O - Additional Detailed Information: Summary of Activities and Description of SWMP Effectiveness During Past Year**

Please describe the previous year's activities for the actual implementation of your SWMP and highlight the SWMP's effectiveness, preferably using quantitative indicators. *(See instructions.)*

<b>SWMP Activity or Component Name</b>	See attached sheet Section O, Table 13			
<b>Minimum Control Measure Name (If Applicable)</b>				
<b>General Permit Condition Item Number (If Applicable)</b>				
<b>Brief Description of Planned SWMP Action Taken</b>				
<b>Responsible Agency, Department, or Organization; and Person or Position</b>				
<b>Measurable Goal or Performance Standard Utilized</b>				
<b>Quantitative Indicators Used and Results</b>				
<b>Impact On SWMP Effectiveness</b>				

**Section P - Additional Detailed Information: Planned Activities and Changes During Next Year**

In attached documentation, please describe activities planned for the next year for the actual implementation of your SWMP, highlighting any changes made to improve control measures and SWMP effectiveness. *(See instructions.)*

<b>SWMP Activity or Component Name</b>	See attached sheet Section P, Table 14			
<b>Minimum Control Measure Name (If Applicable)</b>				
<b>General Permit Condition Item Number (If Applicable)</b>				
<b>Brief Description of Planned SWMP Action Taken</b>				
<b>Responsible Agency, Department, or Organization; and Person or Position</b>				
<b>Measurable Goal or Performance Standard Utilized</b>				

**Section Q - CERTIFICATION**

**Applicant Information:** This form must be completed, signed, and certified as follows (see Section V.K. of the General Permit):

- For a corporation, by a principal officer of at least the level of vice president;
- For a partnership or sole proprietorship, by a general partner or the proprietor, respectively; or
- For a municipality, state, federal, or other public facility, by either a principal executive officer or ranking elected official.

**All Applicants Must Complete the Following Certification:**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information; including the possibility of fine and imprisonment for knowing violations. [75-5-633, MCA]

A. Name (Type or Print)

Doug Russell

B. Title (Type or Print)

City Manager

C. Phone No.

406-758-7703

D. Signature



E. Date Signed

2-10-16

*The Department will not process this form until all of the requested information is supplied. Return this form to:*

Department of Environmental Quality  
Water Protection Bureau  
PO Box 200901  
Helena, MT 59620-0901  
(406) 444-3080

**Section D**

Water Quality Priorities

*#2*

## Section D: Water Quality Priorities

#2: Identify each impaired water, the impairment and whether a TMDL has been approved by EPA.

Impaired Water	Impairment	Approved TMDL		TMDL Assigns WLA to MS4	
		YES	NO	YES	NO
Whitefish River	Oil and Grease		X		X
	PCB in Water Column		X		X
	Temperature, water	X		X	
Stillwater River	Alteration in stream-side or littoral vegetative covers		X		X
	Sedimentation/Siltation	X		X	
Ashley Creek	Alteration in stream-side or littoral vegetative covers		X		X
	Chlorophyll-A		X		X
	Excess Algal Growth		X		X
	Total Nitrogen	X		X	
	Nitrate/Nitrite (Nitrate + Nitrite as N)		X		X
	Oxygen, Dissolved		X		X
	Total Phosphorus	X		X	
Spring Creek	Temperature, water	X		X	
	Alteration in stream-side or littoral vegetative covers		X		X
	Arsenic		X		X
	Nitrogen, Total	X		X	
	Nitrate/Nitrite (Nitrate + Nitrite as N)		X		X
	Other flow regime alterations		X		X
	Oxygen, Dissolved		X		X
Total Phosphorus	X		X		
	Physical substrate habitat alterations		X		X

**Section D**

Water Quality Priorities

*#3 & #5*

## Section D: Water Quality Priorities

### #3 and #5: Water Quality Controls for Discharges to Impaired Water bodies

The City will control discharges of pollutants of concern and ensure stormwater discharges will not cause or contribute to in stream exceedance of water quality standards to the maximum extent possible by implementing the following measures and BMPs outlined in the SWMP. The table below outlines pollutants of concern, contributors, and the specifically identified measures and BMPs that will collectively control the discharges of the pollutants of concern. Information on the impaired water bodies was obtained from the DEQ Clean Water Act Information Center (CWAIC).

Pollutants of Concern	Possible Contributors	Minimum Measure*	SWMP BMP
Sediment  (Total Suspended Solids)	1. Construction Activities  2. Land Development or Redevelopment	4	C-1: Land Disturbance Ordinance 1600  C-2: Kalispell Construction Site Stormwater Management Permit  C-3: Construction Inspection  C-4: Erosion Control Plan Review Procedures  C-5: Annual Erosion & Sediment Control Training
		1	PE-1: Public Education Program
		2	PI-1: Stormwater Advisory Committee Meeting  PI-5: Public Contact Program
		5	PC-1: Kalispell Stormwater Quality Management Plan for New Development and Redevelopment  PC-2: City Standards for Design and Construction  PC-3: Site Inspection and Enforcement and Post-Construction BMPs
	Municipal O&M	6	GH-1: Kalispell Municipal Pollution Prevention Good Housekeeping Guidance Manual  GH-2: Stormwater Pollution Prevention Training

Pollutants of Concern	Possible Contributors	Minimum Measure*	SWMP BMP
Sediment (Continued)	Municipal O&M (Cont.)	6	GH-3: Street Sweeping GH-5: Storm Drainage Inspection and Cleaning
Total Nitrogen, Total Phosphorus	Residential Yard Maintenance	1	PE-1: Public Education Program
		2	PI-1: Stormwater Advisory Committee Meeting
		2	PI-5: Public Contact Program
	Pet Waste	6	GH-4: Leaf Collection
		1	PE-1: Public Education Program
	2	PI-1: Stormwater Advisory Committee Meeting PI-5: Public Contact Program	
	Land Development or Redevelopment	5	PC-1: Kalispell Stormwater Quality Management Plan for New Development and Redevelopment PC-2: City Standards for Design and Construction PC-3: Site Inspection and Enforcement and Post-Construction BMPs

Pollutants of Concern	Possible Contributors	Minimum Measure*	SWMP BMP
Metals (Copper, Lead, Zinc)	Vehicles	6	GH-1: Kalispell Municipal Pollution Prevention Good Housekeeping Guidance Manual  GH-3: Street Sweeping  GH-5: Storm Drainage System Inspection and Cleaning
		2	PI-3: Charity Carwash Program
	Commercial/Industrial Point Source	3	ID-2: Illicit Discharge Detection and Elimination (IDDE)  ID-3: Illicit Discharge Investigations  ID-4: Illicit Discharge Ordinance
		1	PE-1: Public Education Program
Oils & Grease	City Roads and Parking Lots	6	GH-1: Kalispell Municipal Pollution Prevention Good Housekeeping Guidance Manual  GH-2: Stormwater Pollution Prevention Training
		1	PE-1: Public Education Program
	Residential Auto Maintenance	1	PE-1: Public Education Program
		2	PI-1: Stormwater Advisory Committee Meeting  PI-2: Storm Drain ID  PI-5: Public Contact Program
	Commercial/Industrial Point Source	1	PE-1: Public Education Program

Pollutants of Concern	Possible Contributors	Minimum Measure*	SWMP BMP
		2	PI-1: Stormwater Advisory Committee Meeting PI-5: Public Contact Program
		3	ID-2: Illicit Discharge Detection and Elimination (IDDE) ID-3: Illicit Discharge Investigations ID-4: Illicit Discharge Ordinance
Organics  (Chemical Oxygen Demand)	Litter	6	GH-1: Kalispell Municipal Pollution Prevention Good Housekeeping Guidance Manual
		1	PE-1: Public Education Program
		2	PI-1: Stormwater Advisory Committee Meeting PI-5: Public Contact Program
	Residential Yard Maintenance	1	PE-1: Public Education Program
		2	PI-1: Stormwater Advisory Committee Meeting PI-5: Public Contact Program
	Leaves	6	GH-1: Kalispell Municipal Pollution Prevention Good Housekeeping Guidance Manual GH-3: Street Sweeping GH-4: Leaf Collection GH-5: Storm Drainage System Inspection and Cleaning

Pollutants of Concern	Possible Contributors	Minimum Measure*	SWMP BMP
	Illicit Discharge	3	ID-2: Illicit Discharge Detection and Elimination (IDDE) ID-3: Illicit Discharge Investigations ID-4: Illicit Discharge Ordinance
Temperature, water	Low Flow	5	PC-1: Kalispell Stormwater Quality Management Plan for New Development and Redevelopment

\*1= Public Education and Outreach on Stormwater Impacts, 2=Public Involvement/Participation, 3=Illicit Discharge Detection and Elimination, 4=Construction Site Stormwater Runoff Control, 5=Post-Construction Stormwater Management in New Development and Redevelopment, 6= Pollution Prevention/Good Housekeeping for Municipal Operations

**Section N**

Additional Detailed Information: Summary of  
Compliance and/or Status of SWMP

*Table #12*

**Table #12: Section N – Additional Detailed Information: Summary of Compliance and/or Status of SWMP**

<i>Minimum Control Measure Name</i>	<i>General Permit Condition Item Number</i>	<i>SWMP Activity or Component Name</i>	<i>Brief Description or SWMP Activity or Component</i>	<i>Responsible Agency, Department, or Organization; and Person or Position</i>	<i>Development of SWMP Item Completed and/or In Effect (Yes or No, Explain)</i>	<i>Measurable Goal or Performance Standard Utilized</i>
<b>Public Education and Outreach on Stormwater Impacts</b>	II.B.1.	PE-1 Public Education Program	Stormwater educational program for target audiences regarding stormwater pollution identification and prevention.	Kalispell Public Works-Engineer II	Yes, BMP in effect. Continue to implement through 2016.	Create and provide educational material through the use of printed and digital media as well as training opportunities annually.
<b>Public Education and Outreach on Stormwater Impacts</b>	II.B.1.	PE-2 Utility Bill Inserts	Utility Bill Inserts are printed flyers that are included in utility bills with concise messages on stormwater topics.	Kalispell Public Works-Engineer II	Yes, BMP in effect. Continue to implement through 2016.	Create and mail one utility bill insert per year based on the schedule outlined in the Public Education Program.
<b>Public Education and Outreach on Stormwater Impacts</b>	II.B.1.	PE-3 Bulk Mailings	Page printouts on specific stormwater management practices directed towards target audiences.	Kalispell Public Works-Engineer II	Yes, BMP in effect. Continue to implement through 2016.	Create and mail one bulk mailing per year based on the schedule outlined in the Public Education Program.
<b>Public Education and Outreach on Stormwater Impacts</b>	II.B.1.	PE-4 Pamphlets	Printed brochures used to convey detailed information on specific topics related to stormwater management and pollution prevention activities.	Kalispell Public Works-Engineer II	Yes, BMP in effect. Continue to implement through 2016.	Create and distribute one pamphlet per year based on the schedule outlined in the Public Education Program.

**Table #12: Section N – Additional Detailed Information: Summary of Compliance and/or Status of SWMP**

<i>Minimum Control Measure</i>	<i>General Permit Condition Item Number</i>	<i>SWMP Activity or Component Name</i>	<i>Brief Description or SWMP Activity or Component</i>	<i>Responsible Agency, Department, or Organization; and Person or Position</i>	<i>Development of SWMP Item Completed and/or In Effect (Yes or No, Explain)</i>	<i>Measurable Goal or Performance Standard Utilized</i>
<b>Public Education and Outreach on Stormwater Impacts</b>	II.B.1.	PE-5 Parks and Recreation Newspaper	Provide stormwater pollution prevention information in an advertisement twice a year in the City Parks and Recreation Newspaper.	Kalispell Public Works-Engineer II	Yes, BMP in effect. Continue to implement through 2016.	Place an advertisement in the spring and fall editions of the Parks and Recreation Newspaper annually.
<b>Public Education and Outreach on Stormwater Impacts</b>	II.B.1.	PE-6 School Book Covers	Provide paper book covers with stormwater material presented in an eye-catching manner to appeal to students.	Kalispell Public Works-Engineer II	Yes, BMP in effect. Continue to implement through 2016.	Distribute one book cover for a percentage of high school and/or junior high students each year.
<b>Public Education and Outreach on Stormwater Impacts</b>	II.B.1.	PE-7 Classroom Education	Educate students on stormwater related issues, will allow for coordination with other BMPs in SWMP.	Kalispell Public Works-Engineer II	Yes, BMP in effect. Continue to implement through 2016.	Participate in at least one classroom session per year.
<b>Public Education and Outreach on Stormwater Impacts</b>	II.B.1.	PE-8 Web Site	Webpage will be a tool for relaying an unlimited amount of information including: webpages for frequently asked questions, household hazardous waste, and current public involvement activity schedules.	Kalispell Public Works-Engineer II	Yes, BMP in effect. Continue to implement through 2016.	Add or update one webpage each year with current educational or SWMP information.

**Table #12: Section N – Additional Detailed Information: Summary of Compliance and/or Status of SWMP**

<b>Minimum Control Measure</b>	<b>General Permit Condition Item Number</b>	<b>SWMP Activity or Component Name</b>	<b>Brief Description or SWMP Activity or Component</b>	<b>Responsible Agency, Department, or Organization; and Person or Position</b>	<b>Development of SWMP Item Completed and/or In Effect (Yes or No, Explain)</b>	<b>Measurable Goal or Performance Standard Utilized</b>
<b>Public Education and Outreach on Stormwater Impacts</b>	II.B.1.	PE-9 Advertising Campaign	Stormwater educational videos that are created either by local high school audio/video classes or professional educational sources and are played on the public TV station.	Kalispell Public Works-Engineer II	Yes, BMP in effect. Continue to implement through 2016.	A minimum of two stormwater educational videos will be played per year.
<b>Public Involvement/ Participation</b>	II.B.2.	PI-1 Stormwater Advisory Committee Meetings	Public meetings held bi-monthly to review the progress toward SWMP implementation and suggest changes if certain program elements or BMPs are not functioning as intended. The group will review each of the six minimum control measures annually.	Kalispell Public Works-Engineer II	Yes, BMP in effect. Continue to implement through 2016.	Hold bi-monthly stormwater advisory committee meetings with members of the community.

**Table #12: Section N – Additional Detailed Information: Summary of Compliance and/or Status of SWMP**

<i>Minimum Control Measure</i>	<i>General Permit Condition Item Number</i>	<i>SWMP Activity or Component Name</i>	<i>Brief Description or SWMP Activity or Component</i>	<i>Responsible Agency, Department, or Organization; and Person or Position</i>	<i>Development of SWMP Item Completed and/or In Effect (Yes or No, Explain)</i>	<i>Measurable Goal or Performance Standard Utilized</i>
<b>Public Involvement/ Participation</b>	II.B.2.	PI-2 Storm Drain Identification Program	Community volunteers affix decals with a "prevent pollution" message to storm drain inlets in all areas of the City.	Kalispell Public Works-Engineer II	Yes, BMP in effect. Continue to implement through 2016.	Community volunteer groups place markers on storm drain inlets in Kalispell.
<b>Public Involvement/ Participation</b>	II.B.2	PI-3 Charity Carwash Program	Provide education and organizational equipment to prevent waste wash water from entering the storm drain system.	Kalispell Public Works-Engineer II	Yes, BMP in effect. Continue to implement through 2016.	Promotion and utilization of Charity Carwash Program by local non-profit organizations.
<b>Public Involvement/ Participation</b>	II.B.2	PI-4 Student Participation Awareness	City staff being involved in classrooms and fieldtrip activities when available. Participation programs are teacher dependent and class specified.	Kalispell Public Works-Engineer II	Yes, BMP in effect. Continue to implement through 2016.	Present in classrooms and involved in field trips, availability dependent.
<b>Public Involvement/ Participation</b>	II.B.2	PI-5 Public Contact Program	Provide a means for residents to contact City staff and MDT staff to relay comments, concerns, or gain information concerning stormwater including contact phone number and email address.	Kalispell Public Works-Engineer II	Yes, BMP in effect. Continue to implement through 2016.	Track and answer public concerns by use of phone and email.

**Table #12: Section N – Additional Detailed Information: Summary of Compliance and/or Status of SWMP**

<i>Minimum Control Measure</i>	<i>General Permit Condition Item Number</i>	<i>SWMP Activity or Component Name</i>	<i>Brief Description or SWMP Activity or Component</i>	<i>Responsible Agency, Department, or Organization; and Person or Position</i>	<i>Development of SWMP Item Completed and/or In Effect (Yes or No, Explain)</i>	<i>Measurable Goal or Performance Standard Utilized</i>
<b>Illicit Discharge Detection and Elimination</b>	II.B.3	ID-1 Kalispell Storm Drain System Mapping	Kalispell storm drain system mapping consists of a GPS utility map including pipes, manholes, ditches and outfalls within city limits.	Kalispell Public Works-Engineering Tech	Yes, BMP in effect. Continue to implement through 2016.	Update storm drain system map each year to include new outfalls and storm drain utility additions and corrections.
<b>Illicit Discharge Detection and Elimination</b>	II.B.3	ID-2 Illicit Discharge Detection and Elimination (IDDE)	Audit storm system, assess illicit discharge potential, dry weather screening, isolate and fix discharges, track and evaluate.	Kalispell Public Works- Engineer II & Utility Management Superintendent	Yes, BMP in effect. Continue to implement through 2016.	Find and eliminate illicit discharges by following the Illicit Discharge Detection and Elimination Program.
<b>Illicit Discharge Detection and Elimination</b>	II.B.3	ID-3 Illicit Discharge Investigations	A means to conduct investigations as needed based on public and City staff input. The purpose is to track, evaluate, educate, and eliminate illicit discharges into the City's MS4.	Kalispell Public Works- Engineer II & Utility Management Superintendent	Yes, BMP in effect. Continue to implement through 2016.	Investigate and eliminate illicit discharges identified by implementing the components of the Illicit Discharge Detection and Elimination Program each year.

**Table #12: Section N – Additional Detailed Information: Summary of Compliance and/or Status of SWMP**

<i>Minimum Control Measure</i>	<i>General Permit Condition Item Number</i>	<i>SWMP Activity or Component Name</i>	<i>Brief Description or SWMP Activity or Component</i>	<i>Responsible Agency, Department, or Organization; and Person or Position</i>	<i>Development of SWMP Item Completed and/or In Effect (Yes or No, Explain)</i>	<i>Measurable Goal or Performance Standard Utilized</i>
<b>Illicit Discharge Detection and Elimination</b>	II.B.3	ID-4 Illicit Discharge Ordinance	Ordinance prohibits illicit discharges and illegal connections to the MS4, as well as sanctions to ensure compliance to the extent allowable under State and local law.	Kalispell Public Works- Engineer II & Utility Management Superintendent	Yes, BMP in effect. Continue to implement through 2016.	Minimize pollutants to MS4 by enforcing the Illicit Discharge Ordinance.
<b>Illicit Discharge Detection and Elimination</b>	II.B.3	ID-5 Public Education Through Public Education Program	Train employees on illicit discharges through the Pollution Prevention Good Housekeeping annual training and Kalispell residents as outlined in the Public Education Program.	Kalispell Public Works- Engineer II & Utility Management Superintendent	Yes, BMP in effect. Continue to implement through 2016.	Provide annual training and educational material for City personnel.
<b>Construction Site Stormwater Runoff Control</b>	II.B.4	C-1 Land Disturbance Ordinance 1600	Ordinance 1600 outlines construction site stormwater management permit procedures, and ensures compliance and enforcement for construction site stormwater management.	Kalispell Public Works- Engineer II & Construction Manager	Yes, BMP in effect. Continue to implement through 2016.	Minimize pollutants into MS4 by enforcing the Land Disturbance Ordinance.

**Table #12: Section N – Additional Detailed Information: Summary of Compliance and/or Status of SWMP**

<i>Minimum Control Measure</i>	<i>General Permit Condition Item Number</i>	<i>SWMP Activity or Component Name</i>	<i>Brief Description or SWMP Activity or Component</i>	<i>Responsible Agency, Department, or Organization; and Person or Position</i>	<i>Development of SWMP Item Completed and/or In Effect (Yes or No, Explain)</i>	<i>Measurable Goal or Performance Standard Utilized</i>
<b>Construction Site Stormwater Runoff Control</b>	II.B.4	C-2 Kalispell Construction Site Stormwater Management Permit	The purpose of the permit is to develop/implement an erosion and sediment control plan to minimize construction site pollution from getting into the City storm conveyance systems, streams, and rivers.	Kalispell Public Works- Construction Manager	Yes, BMP in effect. Continue to implement through 2016.	Require permits for construction sites in Kalispell that meet the triggers requiring permit coverage.
<b>Construction Site Stormwater Runoff Control</b>	II.B.4	C-3 Construction Inspection	City staff will perform construction inspections once every two weeks, or as needed to ensure compliance and help educate contractors.	Kalispell Public Works- Construction Manager	Yes, BMP in effect. Continue to implement through 2016.	Conduct Bi-monthly inspections for a portion of permitted sites.
<b>Construction Site Stormwater Runoff Control</b>	II.B.4	C-4 Erosion Control Plan Review Procedures	Perform a site plan review for potential water quality impacts at the time the stormwater management permit is submitted, and conduct regular inspections of the construction site.	Kalispell Public Works-Construction Manager	Yes, BMP in effect. Continue to implement through 2016.	Review submitted erosion control plans for each submitted permit.

**Table #12: Section N – Additional Detailed Information: Summary of Compliance and/or Status of SWMP**

<i>Minimum Control Measure</i>	<i>General Permit Condition Item Number</i>	<i>SWMP Activity or Component Name</i>	<i>Brief Description or SWMP Activity or Component</i>	<i>Responsible Agency, Department, or Organization; and Person or Position</i>	<i>Development of SWMP Item Completed and/or In Effect (Yes or No, Explain)</i>	<i>Measurable Goal or Performance Standard Utilized</i>
<b>Construction Site Stormwater Runoff Control</b>	II.B.4	C-5 Annual Erosion and Sediment Control Training	Provide participants from the local construction community with the knowledge and skills to stay in compliance with local and state erosion and sediment control regulations.	Kalispell Public Works- Engineer II	Yes, BMP in effect. Continue to implement through 2016.	Hold at least one training session per year to educate the construction community about erosion and sediment control.
<b>Post Construction Stormwater Management in New Development and Redevelopment</b>	II.B.5	PC-1 Kalispell Stormwater Quality Management Plan in New Development and Redevelopment	Ensure controls are in place to prevent or minimize water quality impacts from new development and redevelopment by using structural and non-structural BMPs.	Kalispell Public Works- Engineer II & City Engineer	Yes, BMP in effect. Continue to implement through 2016.	Require water quality practices to be used by new development and redevelopment projects that trigger compliance with the City of Kalispell Design and Construction Standards.
<b>Post Construction Stormwater Management in New Development and Redevelopment</b>	II.B.5	PC-2 City Standards for Design and Construction	A regulatory mechanism that addresses post-construction runoff from new development and redevelopment.	Kalispell Public Works- Engineer II & City Engineer	Yes, current Standards for Design and Construction were adopted by resolution in April 2015. Continue to implement through 2016.	Minimize pollutants into MS4 by addressing stormwater runoff quantity and quality.

**Table #12: Section N – Additional Detailed Information: Summary of Compliance and/or Status of SWMP**

<i>Minimum Control Measure</i>	<i>General Permit Condition Item Number</i>	<i>SWMP Activity or Component Name</i>	<i>Brief Description or SWMP Activity or Component</i>	<i>Responsible Agency, Department, or Organization; and Person or Position</i>	<i>Development of SWMP Item Completed and/or In Effect (Yes or No, Explain)</i>	<i>Measurable Goal or Performance Standard Utilized</i>
<b>Post Construction Stormwater Management in New Development and Redevelopment</b>	II.B.5	PC-3 Site Inspection and Enforcement of Post-Construction BMPs	Ensure compliance with approved plans for project sites located within the City.	Kalispell Public Works-Engineer II & Utility Management Superintendent	Yes, BMP in effect. Continue to implement through 2016.	Conduct site inspections annually for a portion of the of post construction BMPs located within the City.
<b>Pollution Prevention/Good Housekeeping for Municipal Operations</b>	II.B.6	GH-1 Kalispell Municipal Pollution Prevention Good Housekeeping Guidance Manual	An operation and maintenance program which includes a training component, and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations	Kalispell Public Works-Engineer II & Utility Management Superintendent	Yes, BMP in effect. Continue to implement through 2016.	Provide annual training to City employees about following Guidance Manual Standard Operating Procedures through utilization of the Kalispell Municipal Pollution Prevention Good Housekeeping Guidance Manual. Make adjustments as necessary.
<b>Pollution Prevention/Good Housekeeping for Municipal Operations</b>	II.B.6	GH-2 Stormwater Pollution Prevention Training	All employees of the MS4 owner, operator, and leaseholders whose activities can potentially impact surface waters are required to receive training regarding stormwater quality and municipal operations.	Kalispell Public Works-Engineer II & Utility Management Superintendent	Yes, BMP in effect. Continue to implement through 2016.	Provide one training session per year for all municipal facilities.

**Table #12: Section N – Additional Detailed Information: Summary of Compliance and/or Status of SWMP**

<i>Minimum Control Measure</i>	<i>General Permit Condition Item Number</i>	<i>SWMP Activity or Component Name</i>	<i>Brief Description or SWMP Activity or Component</i>	<i>Responsible Agency, Department, or Organization; and Person or Position</i>	<i>Development of SWMP Item Completed and/or In Effect (Yes or No, Explain)</i>	<i>Measurable Goal or Performance Standard Utilized</i>
<b>Pollution Prevention/Good Housekeeping for Municipal Operations</b>	II.B.6	GH-3 Street Sweeping	Kalispell streets are swept on a routine basis. During spring sweeping operations, streets are swept more often to collect winter sanding material.	Kalispell Public Works-Engineer II & Street Maintenance Department	Yes, BMP in effect. Continue to implement through 2016.	Implement the Street Sweeping Program annually, and track the quantity of street sweepings collected.
<b>Pollution Prevention/Good Housekeeping for Municipal Operations</b>	II.B.6	GH-4 Leaf Collection	Kalispell streets are swept and cleaned on a routine basis in the fall to collect leaves. During fall leaf sweeping operations, leaves are collected from street, curb, and gutter using sweepers, loaders, and vacuum trucks.	Kalispell Public Works-Engineer II & Street Maintenance Department	Yes, BMP in effect. Continue to implement through 2016.	Implement the Leaf Collection Program annually, and track the quantity of leaves collected.

**Table #12: Section N – Additional Detailed Information: Summary of Compliance and/or Status of SWMP**

<i>Minimum Control Measure</i>	<i>General Permit Condition Item Number</i>	<i>SWMP Activity or Component Name</i>	<i>Brief Description or SWMP Activity or Component</i>	<i>Responsible Agency, Department, or Organization; and Person or Position</i>	<i>Development of SWMP Item Completed and/or In Effect (Yes or No, Explain)</i>	<i>Measureable Goal or Performance Standard Utilized</i>
<b>Pollution Prevention/Good Housekeeping for Municipal Operations</b>	II.B.6	GH-5 Storm Drainage System Inspection and Cleaning Program	Clean 250 catch basins and manholes each year. Catch basins, storm drain inlets, and other conveyance structures in high pollutant load areas are identified and cleaned annually before the wet season to remove sediments and debris accumulated during the summer.	Kalispell Public Works-Engineer II, Utility Management Superintendent, & Sewer Storm Maintenance Department	Yes, BMP in effect. Continue to implement through 2016.	Inspect and clean catch basins and manholes in areas outlined in program annually.

**Section O**

Additional Detailed Information-Summary of  
Activities and Description of SWMP Effectiveness  
During Past Year

*Table #13*

**Table #13: Section O-Additional Detailed Information: Summary of Activities and Description of SWMP Effectiveness During Past Year**

<b>SWMP Activity or Component Name</b>	<b>PE-1 Public Education Program</b>	<b>PE-2 Utility Bill Inserts</b>	<b>PE-3 Bulk Mailings</b>	<b>PE-4 Pamphlets</b>	<b>PE-5 Parks and Recreation Newspaper</b>
<b>Minimum Control Measure Name (If Applicable)</b>	Public Education and Outreach on Stormwater Impacts	Public Education and Outreach on Stormwater Impacts	Public Education and Outreach on Stormwater Impacts	Public Education and Outreach on Stormwater Impacts	Public Education and Outreach on Stormwater Impacts
<b>General Permit Condition Item Number (If Applicable)</b>	II.B.1	II.B.1	II.B.1	II.B.1	II.B.1
<b>Brief Description of Planned SWMP Action Taken</b>	Stormwater educational program for target audiences regarding stormwater pollution identification and prevention.	Utility Bill Inserts are printed flyers that are included in utility bills with concise messages on stormwater topics.	Page printouts on specific stormwater management practices directed towards target audiences.	Printed brochures used to convey detailed information on specific topics related to stormwater management and pollution prevention activities.	Provide stormwater pollution prevention information in an advertisement twice a year in the City Parks and Recreation Newspaper.
<b>Responsible Agency, Department, or Organization; and Person or Position</b>	Kalispell Public Works-Engineer II	Kalispell Public Works-Engineer II	Kalispell Public Works-Engineer II	Kalispell Public Works-Engineer II	Kalispell Public Works-Engineer II
<b>Measurable Goal or Performance Standard Utilized</b>	Create and provide educational material through the use of printed and digital media as well as training opportunities annually.	Create and mail one utility bill insert per year based on the schedule outlined in the Public Education Program.	Create and mail one bulk mailing per year based on the schedule outlined in the Public Education Program.	Create and distribute one pamphlet per year based on the schedule outlined in the Public Education Program.	Place an advertisement in the spring and fall editions of the Parks and Recreation Newspaper annually.
<b>Quantitative Indicators Used and Results</b>	Implemented each of the nine BMP's identified in the Public Education Program in 2015.	One utility bill insert was included in each utility bill for a complete billing cycle. The message of the utility bill insert was "Fertilizers/Landscaping/Yard Waste".	Each commercial property within the City of Kalispell was sent a mailing with the topic of "Healthy Business Habits" totaling approximately 600 bulk mailings sent in 2015.	A pamphlet was created to inform citizens about fertilizers, landscaping, and yard waste.	Two advertisements were created and placed in the spring and fall editions of the Parks and Recreation Newspaper. A total of 20,000 Parks and Recreation Newspapers were printed and distributed both spring and fall. Also, an advertisement was placed in the MT Ag News Magazine and approximately 5,000 copies of the magazine were printed and distributed.
<b>Impact on SWMP Effectiveness</b>	Through the Public Education Program, a large audience was reached with materials designed to inform them about actions they can take to prevent stormwater pollution.	By including utility bill inserts with regular utility bills, a large population of the City of Kalispell was reached and provided educational material describing how to do yard maintenance without contributing to stormwater pollution.	Approximately 600 businesses were reached within Kalispell, and were provided educational material on spill prevention and spill cleanup, proper waste water disposal, and dumpster maintenance.	Pamphlets provide a concise and effective way to convey a pollution prevention message, and were made available to the public at the Public Work's office and the City's website.	Placing newspaper advertisements in the Parks and Rec Newspaper is a means to provide the community with pollution prevention information and reach a large viewing audience including the normal subscribers of the newspaper, at the Parks and Recreation Office, and is also distributed in classrooms.

**Table #13: Section O-Additional Detailed Information: Summary of Activities and Description of SWMP Effectiveness During Past Year**

<b>SWMP Activity or Component Name</b>	<b>PE-6 School Book Covers</b>	<b>PE-7 Classroom Education</b>	<b>PE-8 Web Site</b>	<b>PE-9 Advertising Campaign</b>
<b>Minimum Control Measure Name (If Applicable)</b>	Public Education and Outreach on Stormwater Impacts	Public Education and Outreach on Stormwater Impacts	Public Education and Outreach on Stormwater Impacts	Public Education and Outreach on Stormwater Impacts
<b>General Permit Condition Item Number (If Applicable)</b>	II.B.1	II.B.1	II.B.1	II.B.1
<b>Brief Description of Planned SWMP Action Taken</b>	Provide paper book covers with stormwater material presented in an eye-catching manner to appeal to students.	Educate students on stormwater related issues, will allow for coordination with other BMPs in SWMP.	Webpage will be a tool for relaying an unlimited amount of information including: web pages for frequently asked questions, household hazardous waste, and current public involvement activity schedules.	Stormwater educational videos that are created by local high school audio/video classes or professional educational sources are played on the public TV station.
<b>Responsible Agency, Department, or Organization; and Person or Position</b>	Kalispell Public Works-Engineer II	Kalispell Public Works-Engineer II	Kalispell Public Works-Engineer II	Kalispell Public Works-Engineer II
<b>Measurable Goal or Performance Standard Utilized</b>	Distribute one book cover for a percentage of high school and junior high students each year.	Participate in at least one classroom session per year.	Add or update one webpage each year with current educational or SWMP information.	A minimum of two stormwater educational videos will be played per year.
<b>Quantitative Indicators Used and Results</b>	A book cover with stormwater educational material was distributed to approximately 300 middle school students.	Stormwater presentations were given to three Peterson School third grade classes by MDT on May 22, 2015. Unfortunately City staff were unable to attend.	Added four PDF's of public education material created in 2015 to the City's website.	Two videos were played on Kalispell's Public TV Station. The videos were aired 10-15 times per week.
<b>Impact on SWMP Effectiveness</b>	Book Covers are a cost effective way of reaching not only students with stormwater related messages, but also often times children will share the information with their parents.	Classroom presentations are an effective way to provide educational material at an age appropriate level as well as provide an opportunity to receive feedback.	The website was created in response to public survey comments in order to provide residents with easy access to the City's SWMP, stormwater pollution prevention materials created for distribution, and the stormwater hotline information to report any stormwater concerns.	Stormwater educational videos are played multiple times a week, and reach a large audience in the community with educational content about stormwater pollution prevention.

**Table #13: Section O-Additional Detailed Information: Summary of Activities and Description of SWMP Effectiveness During Past Year**

<i>SWMP Activity or Component Name</i>	<i>PI-1 Stormwater Advisory Committee Meetings</i>	<i>PI-2 Storm Drain ID</i>	<i>PI-3 Charity Carwash Program</i>	<i>PI-4 Student Participation Awareness</i>	<i>PI-5 Public Contact Program</i>
<i>Minimum Control Measure Name (If Applicable)</i>	Public Involvement/ Participation	Public Involvement/ Participation	Public Involvement/ Participation	Public Involvement/ Participation	Public Involvement/ Participation
<i>General Permit Condition Item Number (If Applicable)</i>	II.B.2	II.B.2	II.B.2	II.B.2	II.B.2
<i>Brief Description of Planned SWMP Action Taken</i>	Public meetings held bi-monthly to review the progress toward SWMP implementation and suggest changes if certain program elements or BMPs are not functioning as intended. The group will review each of the six minimum control measures annually.	Volunteers affix decals with a "prevent pollution" message to storm drain inlets in all areas of the City.	Provide education and organizational equipment to prevent waste wash water from entering the storm drain system.	City staff being involved in classrooms and fieldtrip activities when available. Participation programs are teacher dependent and class specified.	Provide a means for residents to contact City staff and MDT staff to relay comments, concerns, or gain information concerning stormwater including contact phone number and email address.
<i>Responsible Agency, Department, or Organization; and Person or Position</i>	Kalispell Public Works-Engineer II	Kalispell Public Works-Engineer II	Kalispell Public Works-Engineer II	Kalispell Public Works-Engineer II	Kalispell Public Works-Engineer II
<i>Measurable Goal or Performance Standard Utilized</i>	Hold bi-monthly stormwater advisory committee meetings with members of the community.	Community volunteer groups place markers on storm drain inlets in Kalispell.	Promotion and utilization of Charity Carwash Program by local non-profit organizations.	Present in classrooms and involved in field trips (availability dependent).	Track and answer public concerns by use of phone and email.
<i>Quantitative Indicators Used and Results</i>	Five Stormwater Advisory Committee meetings were held in 2015.	The Storm Drain ID Program was advertised and made available to volunteer groups. To date many inlets in the core area of Kalispell have received a storm drain decal. Currently in the process of working with an Eagle Scout on preparing a project for installation of decals in spring of 2016.	One Charity Carwash kit was checked out in 2015. The program was advertised and made available for carwash events. Local grocery stores and non-profit groups were notified of the requirement to use a carwash kit in areas where the runoff water flows to the storm drain system.	City staff was unable to attend a presentation made to Peterson Elementary third-grade students on May 22, 2015 presented by MDT staff.	City staff tracked and answered 12 stormwater complaint.
<i>Impact on SWMP Effectiveness</i>	The Stormwater Advisory Committee provides an opportunity for regular review of the City's SWMP and an outlet to encourage constructive feedback in order to improve the SWMP from individuals who have a vested interest in the success of the program.	The City has made available the Storm Drain ID Program which allows volunteers to participate in placing decals near storm drain inlets as reminders that items that go into the storm system go straight to our water bodies. Decals have been placed in many core areas of downtown Kalispell, and are visible reminders of how to prevent stormwater pollution.	Advertisement of the program has been successful, because several organizations have contacted the Public Works Department to determine where the drainage from their proposed charity carwash location drains to, and if a carwash kit is required.	Hands-on stormwater education provided to students helps to reinforce the message of the presentation as well as provide students with information at their level that they can relate to and pass on what they've learned to family members and friends.	City staff investigated reported incidences which provided an opportunity to educate individuals about good housekeeping procedures to prevent pollutants from getting into the storm sewer system.

**Table #13: Section O-Additional Detailed Information: Summary of Activities and Description of SWMP Effectiveness During Past Year**

<b>SWMP Activity or Component Name</b>	<b>ID-1 Kalispell Storm Drain System Mapping</b>	<b>ID-2 Illicit Discharge Detection and Elimination (IDDE)</b>	<b>ID-3 Illicit Discharge Investigations</b>	<b>ID-4 Illicit Discharge Ordinance</b>
<b>Minimum Control Measure Name (If Applicable)</b>	Illicit Discharge Detection and Elimination	Illicit Discharge Detection and Elimination	Illicit Discharge Detection and Elimination	Illicit Discharge Detection and Elimination
<b>General Permit Condition Item Number (If Applicable)</b>	II.B.3	II.B.3	II.B.3	II.B.3
<b>Brief Description of Planned SWMP Action Taken</b>	Kalispell storm drain system mapping consists of a GPS utility map including pipes, manholes, ditches and outfalls within city limits.	Audit storm system, assess illicit discharge potential, dry weather screening, isolate and fix discharges, track and evaluate.	A means to conduct investigations as needed based on public and City staff input. The purpose is to track, evaluate, educate, and eliminate illicit discharges into the City's MS4.	Ordinance prohibits illicit discharges and illegal connections to the MS4, as well as sanctions to ensure compliance to the extent allowable under State and local law.
<b>Responsible Agency, Department, or Organization; and Person or Position</b>	Kalispell Public Works-Engineer Tech	Kalispell Public Works-Engineer II & Utility Management Superintendent	Kalispell Public Works-Engineer II & Utility Management Superintendent	Kalispell Public Works-Engineer II & Utility Management Superintendent
<b>Measurable Goal or Performance Standard Utilized</b>	Update storm drain system map each year to include new outfalls and storm drain utility additions and corrections.	Find and eliminate illicit discharges by following the Illicit Discharge Detection and Elimination Program.	Investigate and eliminate illicit discharges identified by implementing the Illicit Discharge Detection and Elimination Program each year.	Minimize pollutants to MS4 by enforcing the Illicit Discharge Ordinance.
<b>Quantitative Indicators Used and Results</b>	Using GPS, a total of 31 stormwater manholes, 102 catch basins, and 14,098 linear feet of pipe were added or updated to the City's utility map in 2015. An audit of the City's drainage basin delineations was performed. As a result of the audit, 2 new outfalls were added and 7 previously delineated outfalls were removed either only discharge MDT's runoff or they do not meet the definition of an outfall.	Six outfalls were screened during dry weather, and no illicit discharges were found to be connected to the storm sewer system in 2015.	Two illicit discharge investigations were conducted based on public input. As a result of the inspections, one illicit discharge was identified and resolved. No illicit connections to the storm system were identified in 2015.	One illicit discharge was identified as a diesel spill in 2015. The illicit discharge was from a diesel spill in a subdivision.
<b>Impact on SWMP Effectiveness</b>	An accurate map of the City's stormwater system is necessary for activities such as dry weather screening and illicit discharge investigations.	No illicit connections were identified in 2015 as a result of following the IDDE Program.	One illicit discharge was reported and resolved.	The Illicit Discharge Ordinance provides the enforcement to prohibit illicit discharges to the City's MS4.

**Table #13: Section O-Additional Detailed Information: Summary of Activities and Description of SWMP Effectiveness During Past Year**

<b>SWMP Activity or Component Name</b>	<b>ID-5 Public Education Through Public Education Program</b>	<b>C-1 Land Disturbance Ordinance 1600</b>	<b>C-2 Kalispell Construction Site Stormwater Management Permit</b>	<b>C-3 Construction Inspection</b>
<b>Minimum Control Measure Name (If Applicable)</b>	Illicit Discharge Detection and Elimination	Construction Site Stormwater Runoff Control	Construction Site Stormwater Runoff Control	Construction Site Stormwater Runoff Control
<b>General Permit Condition Item Number (If Applicable)</b>	II.B.3	II.B.4	II.B.4	II.B.4
<b>Brief Description of Planned SWMP Action Taken</b>	Train employees on illicit discharges through the Pollution Prevention Good Housekeeping annual training and Kalispell residents as outlined in the Public Education Program.	Ordinance 1600 outlines construction site stormwater management permit procedures, and ensures compliance and enforcement for construction site stormwater management.	The purpose of the permit is to develop/implement an erosion and sediment control plan to minimize construction site pollution from getting into the city storm conveyance systems, streams, and rivers.	City staff will perform construction inspections every two weeks, or as needed to ensure compliance and help educate contractors.
<b>Responsible Agency, Department, or Organization; and Person or Position</b>	Kalispell Public Works-Engineer II & Utility Management Superintendent	Kalispell Public Works-Engineer II & Construction Manager	Kalispell Public Works-Engineer II & Construction Manager	Kalispell Public Works-Construction Manager
<b>Measurable Goal or Performance Standard Utilized</b>	Provide annual training and educational material for City personnel.	Minimize pollutants into MS4 by enforcing the Land Disturbance Ordinance.	Require permits for construction sites in Kalispell that meet the triggers requiring permit coverage.	Conduct Bi-monthly inspections for a portion of permitted sites.
<b>Quantitative Indicators Used and Results</b>	Municipal employees were trained on illicit discharges through the Pollution Prevention Good Housekeeping Program, and citizens were educated on illicit discharges through the educational material provided in the Public Education Program.	Ordinance 1600 provided the enforcement to require contractors to obtain a city construction site stormwater management permit on 128 projects with disturbance greater than 1,000 ft. sq., and as part of the permit establish an erosion and sediment control plan for each permit.	128 City construction site stormwater management permits were issued for project which disturb greater than 1,000 sq. ft., and 128 erosion and sediment control plans were reviewed.	City staff documented eight construction site inspections.
<b>Impact on SWMP Effectiveness</b>	Training City staff ensures that staff members have the knowledge to identify potential illicit discharges, and avoid creating illicit discharges.	The land disturbance ordinance gives the City the authority to inspect construction sites and utilize enforcement actions for violations.	Requiring permit coverage for 128 sites in 2015 provided the opportunity to review, comment, and educate contractors and home owners about BMPs to reduce or eliminate pollution created from construction projects.	Conducting regular inspections on project sites ensures compliance with the permit. It also provides opportunity to educate permittees about erosion and sediment control practices.

**Table #13: Section O-Additional Detailed Information: Summary of Activities and Description of SWMP Effectiveness During Past Year**

<b>SWMP Activity or Component Name</b>	<b>C-4 Erosion Control Plan Review Procedures</b>	<b>C-5 Annual Erosion and Sediment Control Training</b>	<b>PC-1 Kalispell Stormwater Quality Management Plan in New Development and Redevelopment</b>	<b>PC-2 City Standards for Design and Construction</b>	<b>PC-3 Site Inspection and Enforcement and Post-Construction BMPs</b>
<b>Minimum Control Measure Name (If Applicable)</b>	II.B.4	II.B.4	II.B.5	II.B.5	II.B.5
<b>General Permit Condition Item Number (If Applicable)</b>	Construction Site Stormwater Runoff Control	Construction Site Stormwater Runoff Control	Post Construction Stormwater Management in New Development and Redevelopment	Post Construction Stormwater Management in New Development and Redevelopment	Post Construction Stormwater Management in New Development and Redevelopment
<b>Brief Description of Planned SWMP Action Taken</b>	Perform a site plan review for potential water quality impacts at the time the stormwater management permit is submitted, and conduct regular inspections of the construction site.	Provide participants from the local construction community with the knowledge and skills to stay in compliance with local and state erosion and sediment control regulations.	Ensure controls are in place to prevent or minimize water quality impacts from new development and redevelopment by using structural and non-structural BMPs.	Regulatory mechanism that addresses post-construction runoff from new development and redevelopment.	Ensure compliance with approved plans for project sites located within the City.
<b>Responsible Agency, Department, or Organization; and Person or Position</b>	Kalispell Public Works-Construction Manager	Kalispell Public Works- Engineer II	Kalispell Public Works-Engineer II & City Engineer	Kalispell Public Works-Engineer II & City Engineer	Kalispell Public Works-Engineer II & Utility Management Superintendent
<b>Measurable Goal or Performance Standard Utilized</b>	Review submitted erosion control plans for each submitted permit.	Hold at least one training session per year to educate the construction community about erosion and sediment control.	Require water quality practices to be used by new development and redevelopment projects that trigger compliance with the City of Kalispell Design and Construction Standards.	Minimize pollutants into MS4 by addressing stormwater runoff quantity and quality.	Conduct site inspections annually for a portion of the of post construction BMPs located within the City.
<b>Quantitative Indicators Used and Results</b>	128 erosion control plans were reviewed for projects that disturb at least 1,000 sq. ft.	Annual erosion and sediment control training was held on April 29-May 1, 2015 with 77 participants.	19 new development and redevelopment projects were reviewed.	19 new development and redevelopment projects were reviewed for compliance with the City Standards for Design and Construction.	Two private post-construction BMPs were inspected for proper maintenance. 13 new post-construction BMPs were inspected for proper installation during construction.
<b>Impact on SWMP Effectiveness</b>	By reviewing 128 erosion control plans, it provided an opportunity to give guidance and education in order to aid with compliance with the construction site stormwater permit.	77 participants learned erosion and sediment control skills and techniques that they can implement during construction activities in order to prevent stormwater pollution.	17 projects were approved which implemented water quality treatment minimizing their impact on water quality.	17 land development projects were approved that implemented water quality standards and flood control requirements as described in the Standards for Design and Construction.	By ensuring that post-construction BMPs are properly installed and maintained, BMPs are able to perform as designed and treat stormwater runoff for pollutants.

**Table #13: Section O-Additional Detailed Information: Summary of Activities and Description of SWMP Effectiveness During Past Year**

<b>SWMP Activity or Component Name</b>	<b>GH-1 Kalispell Municipal Pollution Prevention Good Housekeeping Guidance Manual</b>	<b>GH-2 Stormwater Pollution Prevention Training</b>	<b>GH-3 Street Sweeping</b>	<b>GH-4 Leaf Collection</b>
<b>Minimum Control Measure Name (If Applicable)</b>	II.B.6	II.B.6	II.B.6	II.B.6
<b>General Permit Condition Item Number (If Applicable)</b>	Pollution Prevention/Good Housekeeping for Municipal Operations	Pollution Prevention/Good Housekeeping for Municipal Operations	Pollution Prevention/Good Housekeeping for Municipal Operations	Pollution Prevention/Good Housekeeping for Municipal Operations
<b>Brief Description of Planned SWMP Action Taken</b>	An operation and maintenance program which includes a training component, and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations.	All employees of the MS4 owner, operator, and leaseholders whose activities can potentially impact surface waters are required to receive training regarding stormwater quality and municipal operations.	Kalispell streets are swept on a routine basis. During spring sweeping operations, streets are swept more often to collect winter sanding material.	Kalispell streets are swept and cleaned on a routine basis in the fall to collect leaves. During fall leaf sweeping operations, leaves are collected from street, curb, and gutter using sweepers, loaders, and vacuum trucks.
<b>Responsible Agency, Department, or Organization; and Person or Position</b>	Kalispell Public Works-Engineer II & Utility Management Superintendent	Kalispell Public Works-Engineer II & Utility Management Superintendent	Kalispell Public Works-Engineer II & Street Maintenance Department	Kalispell Public Works-Engineer II & Street Maintenance Department
<b>Measurable Goal or Performance Standard Utilized</b>	Provide annual training to City employees about following Guidance Manual Standard Operating Procedures through utilization of the Kalispell Municipal Pollution Prevention Good Housekeeping Guidance Manual.	Provide one training session per year for all municipal facilities.	Implement the Street Sweeping Program annually, and track the quantity of street sweepings collected.	Implement the Leaf Collection Program annually, and track the quantity of leaves collected.
<b>Quantitative Indicators Used and Results</b>	Each municipal department received a copy of the Manual, as well as training for applicable good housekeeping BMPs.	48 employees of the MS4 were trained on the Pollution Prevention Good Housekeeping Guidance Manual in 2015.	2,688 C.Y. of sweepings were collected from Kalispell's roadways between 1/1/15 through 12/31/15.	4,835 C.Y. of leaves were collected from Kalispell's roadways between 1/1/15 through 12/31/15.
<b>Impact on SWMP Effectiveness</b>	Providing a Guidance Manual to municipal staff gives them the references that they need as well as an understanding of the facility that they work at so that they have the knowledge to practice good housekeeping procedures in their job.	Training municipal employees to implement good housekeeping BMPs that were designed around the facilities that they work at as well as the field activities they conduct ensures that they have the knowledge to conduct their jobs in a manner that prevents stormwater pollution.	By sweeping city streets, dirt, gravel, and other debris are prevented from entering and adding pollution to the MS4 system.	By collecting leaves from city streets, leaves are prevented from entering and adding pollution to the MS4 system.

**Table #13: Section O-Additional Detailed Information: Summary of Activities and Description of SWMP Effectiveness During Past Year**

<b>SWMP Activity or Component Name</b>	<b>GH-5 Storm Drainage System Inspection and Cleaning Program</b>	
<b>Minimum Control Measure Name (If Applicable)</b>	II.B.6	
<b>General Permit Condition Item Number (If Applicable)</b>	Pollution Prevention/Good Housekeeping for Municipal Operations	
<b>Brief Description of Planned SWMP Action Taken</b>	Clean 250 catch basins and manholes each year. Catch basins, storm drain inlets, and other conveyance structures in high pollutant load areas are identified and cleaned annually before the wet season to remove sediments and debris accumulated during the summer.	
<b>Responsible Agency, Department, or Organization; and Person or Position</b>	Kalispell Public Works-Engineer II, Utility Management Superintendent, and Sewer/Storm Maintenance Department	
<b>Measurable Goal or Performance Standard Utilized</b>	Inspect and clean catch basins and manholes in areas outlined in program annually.	
<b>Quantitative Indicators Used and Results</b>	In 2015, 319 structures were inspected and 114 were cleaned including catch basins, manholes, storm mains, and culverts.	
<b>Impact on SWMP Effectiveness</b>	By cleaning catch basins and manholes, dirt, gravel, leaves, and other debris are prevented from adding pollution to the MS4 system.	

**Section P**

Additional Detailed Information: Planned Activities  
and Changes During Next Year

*Table #14*

<b>Table #14: Section P- Additional Detailed Information: Planned Activities and Changes During Next Year</b>				
<b>SWMP Activity or Component Name</b>	<b>PE-1 Public Education Program</b>	<b>PE-2 Utility Bill Inserts</b>	<b>PE-3 Bulk Mailings</b>	<b>PE-4 Pamphlets</b>
<b>Minimum Control Measure Name (If Applicable)</b>	Public Education and Outreach on Stormwater Impacts	Public Education and Outreach on Stormwater Impacts	Public Education and Outreach on Stormwater Impacts	Public Education and Outreach on Stormwater Impacts
<b>General Permit Condition Item Number (If Applicable)</b>	II.B.1.	II.B.1.	II.B.1.	II.B.1.
<b>Brief Description of Planned SWMP Action Taken</b>	Stormwater educational program for target audiences regarding stormwater pollution identification and prevention.	Utility Bill Inserts are printed flyers that are included in utility bills with concise messages on stormwater topics.	Page Printouts on specific stormwater management practices directed towards target audiences.	Printed brochures used to convey detailed information on specific topics related to stormwater management and pollution prevention activities.
<b>Responsible Agency, Department, or Organization; and Person or Position</b>	Kalispell Public Works-Engineer II	Kalispell Public Works-Engineer II	Kalispell Public Works-Engineer II	Kalispell Public Works-Engineer II
<b>Measurable Goal or Performance Standard Utilized</b>	Create and provide educational material through the use of printed and digital media as well as training opportunities annually.	Create and mail one utility bill insert per year based on the schedule outlined in the Public Education Program.	Create and mail one bulk mailing per year based on the schedule outlined in the Public Education Program.	Create and distribute one pamphlet per year based on the schedule outlined in the Public Education Program.
<b>2016 Action Items</b>	Create a utility bill insert, bulk mailing, pamphlet, Parks and Recreation Newspaper Ads, school book covers, web page, and advertising campaign.	Create a utility bill insert with a survey concerning the Stormwater Management Program.	Create and distribute a bulk mailing with the topic of Healthy Business Habits.	Create a pamphlet about Pet Waste Pollution and Proper Disposal.
<b>2016 SWMP Changes</b>	None	None	None	None

<b>Table #14: Section P- Additional Detailed Information: Planned Activities and Changes During Next Year</b>					
<b>SWMP Activity or Component Name</b>	<b>PE-5 Parks and Recreation Newspaper</b>	<b>PE-6 School Book Covers</b>	<b>PE-7 Classroom Education</b>	<b>PE-8 Web Site</b>	<b>PE-9 Advertising Campaign</b>
<b>Minimum Control Measure Name (If Applicable)</b>	Public Education and Outreach on Stormwater Impacts	Public Education and Outreach on Stormwater Impacts	Public Education and Outreach on Stormwater Impacts	Public Education and Outreach on Stormwater Impacts	Public Education and Outreach on Stormwater Impacts
<b>General Permit Condition Item Number (If Applicable)</b>	II.B.1.	II.B.1.	II.B.1	II.B.1.	II.B.1.
<b>Brief Description of Planned SWMP Action Taken</b>	Provide stormwater pollution prevention information in an advertisement twice a year in the City Parks and Recreation Newspaper.	Provide paper book covers with stormwater material presented in an eye-catching manner to appeal to students.	Educate students on stormwater related issues, will allow for coordination with other BMPs in SWMP.	Webpage will be a tool for relaying an unlimited amount of information including: webpages for frequently asked questions, household hazardous waste, and current public involvement activity schedules.	Stormwater educational videos that are created by local high school audio/video classes or professional educational sources are played on the public TV station.
<b>Responsible Agency, Department, or Organization; and Person or Position</b>	Kalispell Public Works-Engineer II	Kalispell Public Works-Engineer II	Kalispell Public Works-Engineer II	Kalispell Public Works-Engineer II	Kalispell Public Works-Engineer II
<b>Measurable Goal or Performance Standard Utilized</b>	Place an advertisement in the spring and fall editions of the Parks and Recreation Newspaper annually.	Distribute one book cover for a percentage of high school and/or junior high students each year.	Participate in at least one classroom session per year.	Add or update one webpage each year with current educational or SWMP information.	A minimum of two stormwater educational videos will be played per year.
<b>2016 Action Items</b>	Create Parks and Recreation Newspaper ads with the topics of "Household Waste" and "Automotive Maintenance".	Create and distribute school book covers with the topic of "Two Separate Systems: General Household Waste, Fertilizers, Pet Waste, and Litter".	Participate with local schools to present stormwater activities to students at an age appropriate level.	Add or update webpage to include information on fertilizers, landscaping, and yard waste.	Select video clips with stormwater pollution prevention material to play on the local public TV station.
<b>2016 SWMP Changes</b>	None	None	None	None	Begin placing educational material on the City of Kalispell's Facebook page in addition to the public TV station.

**Table #14: Section P- Additional Detailed Information: Planned Activities and Changes During Next Year**

<i>SWMP Activity or Component Name</i>	<b>PI-1 Stormwater Advisory Committee Meetings</b>	<b>PI-2 Storm Drain Identification Program</b>	<b>PI-3 Charity Carwash Program</b>
<i>Minimum Control Measure Name (If Applicable)</i>	Public Involvement/ Participation	Public Involvement/ Participation	Public Involvement/ Participation
<i>General Permit Condition Item Number (If Applicable)</i>	II.B.2	II.B.2	II.B.2
<i>Brief Description of Planned SWMP Action Taken</i>	Public meetings held bi-monthly to review the progress toward SWMP implementation and suggest changes if certain program elements or BMPs are not functioning as intended. The group will review each of the six minimum control measures annually.	Volunteers affix decals with a "prevent pollution" message to storm drain inlets in all areas of the City.	Provide education and organizational equipment to prevent waste wash water from entering the storm drain system.
<i>Responsible Agency, Department, or Organization; and Person or Position</i>	Kalispell Public Works-Engineer II	Kalispell Public Works-Engineer II	Kalispell Public Works-Engineer II
<i>Measurable Goal or Performance Standard Utilized</i>	Hold bi-monthly stormwater advisory committee meetings with members of the community.	Community volunteer groups place markers on storm drain inlets in Kalispell.	Promotion and utilization of Charity Carwash Program by local non-profit organizations.
<i>2016 Action Items</i>	Hold six stormwater advisory committee meetings in 2016 to discuss each of the six minimum control measures.	Work with volunteer groups to place decals on storm drain inlets in Kalispell.	Advertise Charity Car Wash Program to local non-profit groups to encourage utilization of the equipment for charity carwashes.
<i>2016 SWMP Changes</i>	None	None	None

**Table #14: Section P- Additional Detailed Information: Planned Activities and Changes During Next Year**

<b>SWMP Activity or Component Name</b>	<b>PI-4 Student Participation Awareness</b>	<b>PI-5 Public Contact Program</b>	<b>ID-1 Kalispell storm Drain System Mapping</b>
<b>Minimum Control Measure Name (If Applicable)</b>	Public Involvement/ Participation	Public Involvement/ Participation	Illicit Discharge Detection and Elimination
<b>General Permit Condition Item Number (If Applicable)</b>	II.B.2	II.B.2	II.B.3
<b>Brief Description of Planned SWMP Action Taken</b>	City staff being involved in classrooms and fieldtrip activities when available. Participation programs are teacher dependent and class specified.	Provide a means for residents to contact City staff and MDT staff to relay comments, concerns, or gain information concerning stormwater including contact phone number and email address.	Kalispell storm drain system mapping consists of a GPS utility map including pipes, manholes, ditches and outfalls within City limits.
<b>Responsible Agency, Department, or Organization; and Person or Position</b>	Kalispell Public Works-Engineer II	Kalispell Public Works-Engineer II	Kalispell Public Works-Engineer Tech
<b>Measurable Goal or Performance Standard Utilized</b>	As available, be present in classrooms and involved in field trips for stormwater related issues.	Track and answer public concerns by use of phone and email.	Update storm drain system map each year to include new outfalls and storm drain utility additions and corrections.
<b>2016 Action Items</b>	Present to Peterson Elementary third grade students.	Track and address stormwater issues and questions.	Use GIS to inventory existing stormwater infrastructure, and add new stormwater infrastructure to utility map.
<b>2016 SWMP Changes</b>	None	None	None

**Table #14: Section P- Additional Detailed Information: Planned Activities and Changes During Next Year**

<i>SWMP Activity or Component Name</i>	<b>ID-2 Illicit Discharge Detection and Elimination (IDDE)</b>	<b>ID-3 Illicit Discharge Investigations</b>	<b>ID-4 Illicit Discharge Ordinance</b>	<b>ID-5 Public Education Through Public Education Program</b>
<i>Minimum Control Measure Name (If Applicable)</i>	Illicit Discharge Detection and Elimination	Illicit Discharge Detection and Elimination	Illicit Discharge Detection and Elimination	Illicit Discharge Detection and Elimination
<i>General Permit Condition Item Number (If Applicable)</i>	II.B.3	II.B.3	II.B.3	II.B.3
<i>Brief Description of Planned SWMP Action Taken</i>	Audit storm system, asses illicit discharge potential, dry weather screening, isolate and fix discharges, track and evaluate.	A means to conduct investigations as needed based on public and City staff input. The purpose is to track, evaluate, educate, and eliminate illicit discharges into the City's MS4.	Ordinance prohibits illicit discharges and illegal connections to the MS4, as well as sanctions to ensure compliance to the extent allowable under State and local law.	Train employees on illicit discharges through the Pollution Prevention Good Housekeeping annual training and Kalispell residents as outlined in the Public Education Program.
<i>Responsible Agency, Department, or Organization; and Person or Position</i>	Kalispell Public Works- Engineer II & Utility Management Superintendent	Kalispell Public Works- Engineer II & Utility Management Superintendent	Kalispell Public Works-Engineer II & Utility Management Superintendent	Kalispell Public Works-Engineer II & Utility Management Superintendent
<i>Measurable Goal or Performance Standard Utilized</i>	Find and eliminate illicit discharges by following the Illicit Discharge Detection and Elimination Program.	Investigate and eliminate illicit discharges identified by implementing the Illicit Discharge Detection and Elimination Program each year.	Minimize pollutants to MS4 by enforcing the Illicit Discharge Ordinance.	Provide annual training and educational material for City personnel.
<i>2016 Action Items</i>	Perform dry weather screenings for a portion of outfalls that were previously identified as high risk outfalls for an illicit discharge.	Investigate any potentially illicit discharges identified during dry weather screening.	Continue to implement and enforce the Illicit Discharge Ordinance, and track enforcement actions.	Train employees on illicit discharges through the municipal employee annual training, and educate residents through Public Education Program.
<i>2016 SWMP Changes</i>	None	None	None	None

<b>Table #14: Section P- Additional Detailed Information: Planned Activities and Changes During Next Year</b>				
<b><i>SWMP Activity or Component Name</i></b>	<b>C-1 Land Disturbance Ordinance 1600</b>	<b>C-2 Kalispell Construction Site Stormwater Management Permit</b>	<b>C-3 Construction Inspection</b>	<b>C-4 Erosion Control Plan Review Procedures</b>
<b><i>Minimum Control Measure Name (If Applicable)</i></b>	Construction Site Stormwater Runoff Control	Construction Site Stormwater Runoff Control	Construction Site Stormwater Runoff Control	Construction Site Stormwater Runoff Control
<b><i>General Permit Condition Item Number (If Applicable)</i></b>	II.B.4	II.B.4	II.B.4	II.B.4
<b><i>Brief Description of Planned SWMP Action Taken</i></b>	Ordinance 1600 outlines construction site stormwater management permit procedures, and ensures compliance and enforcement for construction site stormwater management.	The purpose of the permit is to develop/implement an erosion and sediment control plan to minimize construction site pollution from getting into the City storm conveyance systems, streams, and rivers.	City staff will perform construction inspections once every two weeks, or as needed to ensure compliance and help educate contractors.	Perform a site plan review for potential water quality impacts at the time the stormwater management permit is submitted, and conduct regular inspections of the construction site.
<b><i>Responsible Agency, Department, or Organization; and Person or Position</i></b>	Kalispell Public Works- Engineer II & Construction Manager	Kalispell Public Works- Construction Manager	Kalispell Public Works- Construction Manager	Kalispell Public Works- Construction Manager
<b><i>Measurable Goal or Performance Standard Utilized</i></b>	Minimize pollutants into MS4 by enforcing the Land Disturbance Ordinance.	Require permits for construction sites in Kalispell that meet the triggers requiring permit coverage.	Conduct Bi-monthly inspections for a portion of city permitted sites.	Review submitted erosion control plans for each submitted permit.
<b><i>2016 Action Items</i></b>	Continue to enforce the Land Disturbance Ordinance.	Permit land disturbances that are greater than 1,000 SF or 5 CY.	Perform and track construction inspections to ensure compliance with the city permit.	Review construction sites as permits are obtained.
<b><i>2016 SWMP Changes</i></b>	None	None	None	None

<b>Table #14: Section P- Additional Detailed Information: Planned Activities and Changes During Next Year</b>					
<b>SWMP Activity or Component Name</b>	<b>C-5 Annual Erosion and Sediment Control Training</b>	<b>PC-1 Kalispell Stormwater Quality Management Plan in New Development and Redevelopment</b>	<b>PC-2 City Standards for Design and Construction</b>	<b>PC-3 Site Inspection and Enforcement of Post-Construction BMPs</b>	<b>GH-1 Kalispell Municipal Pollution Prevention Good Housekeeping Guidance Manual</b>
<b>Minimum Control Measure Name (If Applicable)</b>	Construction Site Stormwater Runoff Control	Post Construction Stormwater Management in New Development and Redevelopment	Post Construction Stormwater Management in New Development and Redevelopment	Post Construction Stormwater Management in New Development and Redevelopment	Pollution Prevention/Good Housekeeping for Municipal Operations
<b>General Permit Condition Item Number (If Applicable)</b>	II.B.4	II.B.5	II.B.5	II.B.5	II.B.6
<b>Brief Description of Planned SWMP Action Taken</b>	Provide participants from the local construction community with the knowledge and skills to stay in compliance with local and state erosion and sediment control regulations.	Ensure controls are in place to prevent or minimize water quality impacts from new development and redevelopment by using structural and non-structural BMPs.	Regulatory mechanism that addresses post-construction runoff from new development and redevelopment.	Ensure compliance with approved plans for project sites located within the City.	An operation and maintenance program which includes a training component, and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations.
<b>Responsible Agency, Department, or Organization; and Person or Position</b>	Kalispell Public Works-Engineer II	Kalispell Public Works-Engineer II & City Engineer	Kalispell Public Works-Engineer II & City Engineer	Kalispell Public Works-Engineer II & Utility Management Superintendent	Kalispell Public Works-Engineer II & Utility Management Superintendent
<b>Measurable Goal or Performance Standard Utilized</b>	Hold at least one training session per year to educate the construction community about erosion and sediment control.	Require water quality practices to be used by new development and redevelopment projects that trigger compliance with the City of Kalispell Design and Construction Standards.	Minimize pollutants into MS4 by addressing stormwater runoff quantity and quality.	Conduct site inspections annually for proper installation and maintenance for a portion of the post-construction BMPs located within the City.	Provide annual training to City employees about following Guidance Manual Standard Operating Procedures through utilization of the Kalispell Municipal Pollution Prevention Good Housekeeping Guidance Manual.
<b>2016 Action Items</b>	Hold Erosion and Sediment Control Trainings April 26-29, 2016.	Created in 2008, continue to implement in Standards for Design and Construction.	Implement City Standards for Design and Construction.	Perform and track inspections of post-construction BMPs.	Update Pollution Prevention Good Housekeeping Guidance Manual as necessary.
<b>2016 SWMP Changes</b>	None	None	None	None	None

<b>Table #14: Section P- Additional Detailed Information: Planned Activities and Changes During Next Year</b>				
<b>SWMP Activity or Component Name</b>	<b>GH-2 Stormwater Pollution Prevention Training</b>	<b>GH-3 Street Sweeping</b>	<b>GH-4 Leaf Collection</b>	<b>GH-5 Storm Drainage System Inspection and Cleaning</b>
<b>Minimum Control Measure Name (If Applicable)</b>	Pollution Prevention/Good Housekeeping for Municipal Operations	Pollution Prevention/Good Housekeeping for Municipal Operations	Pollution Prevention/Good Housekeeping for Municipal Operations	Pollution Prevention/Good Housekeeping for Municipal Operations
<b>General Permit Condition Item Number (If Applicable)</b>	II.B.6	II.B.6	II.B.6	II.B.6
<b>Brief Description of Planned SWMP Action Taken</b>	All employees of the MS4 owner, operator, and leaseholders whose activities can potentially impact surface waters are required to receive training regarding stormwater quality and municipal operations.	Kalispell streets are swept on a routine basis. During spring sweeping operations, streets are swept more often to collect winter sanding material. A tracking system will be implemented to ensure all areas of the City are being swept.	Kalispell streets are swept and cleaned on a routine basis in the fall to collect leaves. During fall leaf sweeping operations, leaves are collected from street, curb, and gutter using sweepers, loaders, and vacuum trucks.	Clean 250 catch basins and manholes each year. Catch basins, storm drain inlets, and other conveyance structures in high pollutant load areas are identified and cleaned annually before the wet season to remove sediments and debris accumulated during the summer.
<b>Responsible Agency, Department, or Organization; and Person or Position</b>	Kalispell Public Works-Engineer II & Utility Management Superintendent	Kalispell Public Works-Engineer II & Street Maintenance Department	Kalispell Public Works-Engineer II & Street Maintenance Department	Kalispell Public Works-Engineer II, Utility Management Superintendent, & Sewer/Storm Maintenance Department
<b>Measurable Goal or Performance Standard Utilized</b>	Provide one training session per year for all municipal facilities.	Implement the Street Sweeping Program annually, and track the quantity of street sweepings collected.	Implement the Leaf Collection Program annually, and track the quantity of leaves collected.	Inspect and clean catch basins and manholes in areas outlined in program annually.
<b>2016 Action Items</b>	Train employees of City owned facilities.	Continue sweeping city streets. Track and record the street sweeping throughout the year.	Continue collecting leaves. Track and record the leaf collection throughout the year.	Continue cleaning and inspection of storm sewer catch basins and manholes, as well as evaluating pollutant loading to the storm sewer infrastructure.
<b>2016 SWMP Changes</b>	None	None	None	None

**Section M**

Additional Detailed Information: Stormwater  
Discharge Monitoring

## MPDES Permit # MTR04005

### Evaluation of Stormwater Quality Monitoring 2015 Sample Results

#### 1.0 Introduction

Stormwater grab samples were collected semi-annually from two stormwater discharge locations within the City of Kalispell. Discharge sample locations were chosen to represent stormwater runoff from a primarily commercial/industrial area and from a primarily residential area. The sample sites are identified as “001A” for the industrial/commercial location and “002A” for the residential location.

Upon completion of each sampling event, the City is required to evaluate each parameter test result by the following:

1. Comparison with the Montana Pollutant Discharge Elimination System (MPDES) Municipal Separate Storm Sewer System (MS4) General Permit’s parameter median concentrations. Parameter median concentrations are listed in Table 1.

**Table 1: Median Concentrations**

<i>Parameters, units</i>	<i>Median Concentration</i>
Total Suspended Solids (TSS), mg/L	125
Chemical Oxygen Demand, (COD) mg/L	80
Total Phosphorus, mg/L	0.41
Total Nitrogen, mg/L	2.00
Total Copper, mg/L	0.040
Total Lead, mg/L	0.165
Total Zinc, mg/L	0.210

Source: EPA Environmental Impacts of Stormwater Discharges: A National Profile, published June 1992 (Nationwide Urban Runoff Program (NURP))

2. Comparing the pH value within the desired range of 6 to 9 standard units.
3. Comparing the oil and grease concentration with the receiving water standard of 10 mg/L.

If there is an exceedance of the median concentration, acceptable pH range, and oil and grease standard values, the City will evaluate potential sources and reasons and consider additional BMPs or other management measures which may need to be initiated to improve the quality of stormwater discharges. These measures will be implemented as necessary and updated in the City’s Stormwater Management Program (SWMP).

#### 2.0 Monitoring Parameters

The parameters required to be monitored can contribute to stormwater pollutions. The following is a description of the potential sources for stormwater runoff contamination.

## **2.1 Total Suspended Solids (TSS)**

TSS is a common stormwater pollutant and can be generated from construction sites, bare spots in lawns and gardens, wastewater from washing cars and trucks on driveways and parking lots, dirt roads and driveways, and sanding roads during winter conditions.

## **2.2 Total Phosphorus (TP)**

Nutrients such as phosphorus are common constituents of nonpoint source runoff. The introduction of nutrients into receiving waters stimulates the growth of algae and other aquatic plants causing algal blooms and creating turbid conditions. Total Phosphorus enters runoff from sources such as fertilizers, pesticides, grass clippings and leaves left on streets and sidewalks, detergents and washing fluids, animal wastes, and seepage from septic tanks. Automobile lubricant emissions, food products, and various household cleaners, paints, fabrics and carpets contain phosphates which can also be transported by runoff.

## **2.3 Chemical Oxygen Demand (COD)**

Organic material such as leaves, grass, oils, grease, and litter become deposited in urban areas and become part of stormwater runoff flows. COD concentration is used as an indicator for the amount of oxygen demanding organic material in the stormwater discharge. Impacts from high COD concentrations lower dissolved oxygen concentration and progressively deteriorate conditions for fish and other aquatic life. Also, the absence of dissolved oxygen could result in the growth of microorganisms that produce by-products which cause foul odors in the water.

## **2.4 Total Nitrogen (TN)**

Plant nutrients, such as nitrogen, are common constituents of nonpoint source runoff. The introduction of nutrients into receiving waters stimulates the growth of algae and other aquatic plants causing algal blooms and creating turbid conditions. Total Nitrogen enters runoff from sources such as fertilizers, grass clippings and leaves left on streets and sidewalks, detergents and washing fluids, animal wastes, and seepage from septic tanks.

## **2.5 Heavy Metals: Total Zinc (Zn), Copper (Cu), Lead (Pb)**

Metal pollutants can be generated from the operation and maintenance of motor vehicles, the degradation of highway material, and industrial/commercial site activities. Heavy metals in water can cause bioaccumulation in animal tissues, affect reproduction rates and life spans of aquatic species, and ultimately affect recreational and commercial fishing activities. Transportation related sources of Zn include diesel fuel, crankcase and lubrication oils, grease, and decorative and protective coatings.

Copper in stormwater runoff can be generated from wear on brake pads, roofing and gutter runoff, and copper based pesticides used for controlling algae, fungi, and mildew. Metal finishers, electroplaters, and semi-conductor manufacturers may use copper-containing materials in their manufacturing processes. Vehicle services (engine repair and service, fueling, vehicle body repair, replacement of fluids, recycling, cleaning, and outdoor equipment storage and parking (dripping engines)) can generate toxic hydrocarbons and other organic compounds, oils and greases, nutrients, phosphates,

heavy metals, paints and other contaminants. Radiator repair and flushing operations are the most likely source of copper containing waste streams.

The principal source of lead in highway and street stormwater runoff as well as soils in urban areas and near highways during the time of the NURP studies i.e., about 1980, was the use of lead as an additive in gasoline. Other sources of lead in stormwater runoff include yellow and white road marking paints used on parking lots, streets, and buildings, building cavity dust and other demolition waste from buildings and structures, and vehicular sources including leaded petrol (auto exhaust), auto paint (which can still contain 10% lead), lead acid batteries, lubricating oil and grease, and bearing wear.

## 2.6 Oil and Grease (O&G)

Oil and grease pollutants can be generated from leaks and spills of oil and gas, used oil dumping, and commercial and industrial activities. These organic pollutants cannot be easily decomposed through biological action and may persist for long periods.

## 2.7 pH

Most discharge flow types are neutral, having a pH value around 7, although groundwater concentrations can be somewhat variable. pH is a reasonably good indicator for liquid wastes from industries, which can have very high or low pH (ranging from 3 to 12). The pH of residential wash water tends to be rather basic (pH of 8 or 9). Although pH data is often not conclusive by itself, it can identify problem outfalls that merit follow-up investigations using more effective indicators.

## 3.0 Median Concentration and Sample Comparison

Table 2 is a summary of the 2015 sample parameter comparisons with the median concentrations, pH, and oil and grease standards. **Bold** parameter concentrations indicate an exceedance of the median concentrations.

**Table 2: 2013 Parameter Comparison**

Sample ID	Date	TSS mg/L	pH	TP mg/L	COD mg/L	TN mg/L	Copper mg/L	Lead mg/L	Zinc mg/L	Oil & Grease mg/L
<b>001A-Industrial</b>	5/13/15	45	7.08	<b>0.63</b>	<b>209</b>	<b>4.97</b>	0.023	0.0051	0.147	1
<b>001A-Industrial</b>	10/26/15	43	7.24	0.25	<b>130</b>	<b>2.75</b>	0.014	0.0057	0.086	2
<b>002A-Residential</b>	5/13/15	5	8.17	0.05	17	<b>5.01</b>	0.004	ND	ND	1
<b>002A-Residential</b>	10/26/15	1	8.31	0.04	44	<b>2.12</b>	ND	ND	ND	ND
<b>Median Concentrations</b>		<b>125</b>	<b>6 - 9</b>	<b>0.41</b>	<b>80</b>	<b>2</b>	<b>0.04</b>	<b>0.165</b>	<b>0.21</b>	<b>10</b>

ND=Not detected at the reporting limit

## 4.0 Parameter Exceedance Evaluation

The following analysis reviews the 2015 parameters exceeding the median concentrations. Sample location 001A Industrial exceeded the concentrations for Chemical Oxygen Demand, Total Nitrogen, and Total Phosphorus. Sample location 002A Residential exceeded the concentrations for Total Nitrogen. The parameters will be

evaluated for potential sources and the City’s current management measures will be reviewed to see if potential updates should be implemented in the SWMP.

#### 4.1 Chemical Oxygen Demand (COD)

COD was exceeded for the May 13, 2015 and October 26, 2015 samples from the industrial site.

##### Potential Sources

Potential sources include oils and grease resulting from transportation and industrial/commercial site activities, benzene from gasoline, synthetic detergents, pesticides, herbicides, wood preservatives, and a wide range of synthetic organic industrial chemicals. Organic material such as grass clippings and leaves left on streets and sidewalks may also contribute to the pollutant concentration.

##### Management Measures and BMPs

The following table outlines the potential sources, reasons, and management measures the City has or will implement for the MPDES MS4 permit.

**Table 3: COD Evaluation**

Potential Sources	Reasons	*Minimum Measure	BMP	Date Implemented
Organic material i.e. leaves, grass clippings	1. Fallen leaves, landscape pre-winter maintenance	1	Public Education Program	2010-2015
		6	Implement Pollution Prevention Good Housekeeping Guidance Manual for Kalispell Municipal Operations. Provide training to City employees.	2010-2015
			Street Sweeping Program	2011-2015
			Leaf Collection Program	2011-2015
			Storm Drainage System Inspection and Cleaning	2012-2015
			Storm Drainage System Inspection and Cleaning	2012-2015

#### 4.2 Total Nitrogen (TN)

Total Nitrogen was exceeded for the May 13, 2015 and October 26, 2015 sample for the industrial site and the residential site.

### Potential Sources

**Residential and Industrial/Commercial:** Total nitrogen enters runoff through sources such as fertilizers, grass clippings and leaves left on streets and sidewalks, detergents, and washing fluids.

### Management Measures and BMPs

The following table outlines the potential sources, reasons, and management measures the City has or will implement for the MPDES MS4 permit.

**Table 4: TN Evaluation**

Potential Sources	Reasons	*Minimum Measure	BMP	Date Implemented
Fertilizer	1.) Fertilizing of residential yards and commercial landscape areas 2.) Fertilization storage, handling, and application	1	Public Education Program	2010-2015
Organic material i.e. leaves, grass clippings	1. Fallen leaves, landscape pre-winter maintenance	6	Implement Pollution Prevention Good Housekeeping Guidance Manual for Kalispell Municipal Operations. Provide training to City employees.	2010-2015
			Street Sweeping Program	2011-2015
			Leaf Collection Program	2011-2015
			Storm Drainage System Inspection and Cleaning	2012-2015
Industrial Site Activities	Illicit connections to the storm sewer system	3	Illicit Discharge, Detection, and Elimination Program	2010-2015

### **4.3 Total Phosphorus (TP)**

Total Phosphorus was exceeded for the industrial May 13, 2015 sample.

### Potential Sources

**Industrial/Commercial:** Total Phosphorus enters runoff from sources such as fertilizers, pesticides, grass clippings and leaves left on streets and sidewalks, various cleaners, automobile lubricant emissions, detergents, and washing fluids. During the fall of 2015, fertilizer application, leaves and grass clippings collected in runoff were potentially the major contributor to the median concentration exceedance.

## Management Measures and BMPs

The following table outlines the potential sources, reasons, and management measures the City has or will implement for the general permit.

**Table 8: TP Evaluation**

Potential Sources	Reasons	*Minimum Measure	BMP	Date Implemented
Fertilizer	1. Fall fertilizing of residential yards and commercial landscape area  2. Fertilization storage, handling and, application	1	Public Education Program	2007-2015
Organic material i.e. leaves, grass clippings	1. Fallen leaves, landscape pre-winter maintenance	6	Street Sweeping Program	2011-2015
			Leaf Collection Program	2011-2015
			Storm Drainage System Inspection and Cleaning	2012-2015
			Review and update City Operational and Maintenance Activities as necessary. Provide training to City employees.	2007-2015

## 5.0 Summary Review

The following is a comprehensive review of the results from nine years of sampling for the residential and industrial/commercial areas and action items to be included in the current SWMP to meet permit goals to improve the quality of stormwater discharges.

### Industrial/Commercial

Table 10 is a summarization of sample results from 2007 to 2015. COD results identify a potential for an illicit sewer discharge to be occurring. Dry weather screenings have been conducted for the industrial/commercial sub-basin following the steps outlined in the Illicit Discharge Detection and Elimination Program. To date, no direct illicit discharges have been identified. Investigations will continue to identify the source of the Chemical Oxygen Demand pollutant.

**Table 10: Industrial/Commercial Parameter Comparison**

Sample ID	Date	TSS mg/L	pH	TP mg/L	COD mg/L	TN mg/L	Copper mg/L	Lead mg/L	Zinc mg/L	Oil & Grease mg/L
<b>001A-Industrial</b>	5/3/07	88	7.29	0.14	22	0.66	0.007	0.037	0.09	<b>17</b>
<b>001A-Industrial</b>	11/8/07	<b>167</b>	7.45	0.34	<b>118</b>	<b>2.62</b>	0.027	0.0795	<b>0.34</b>	<b>24</b>
<b>001A-Industrial</b>	6/10/08	45	7.23	0.1	45	0.94	0.009	0.018	0.093	<b>15</b>
<b>001A-Industrial</b>	11/12/08	<b>148</b>	8.64	0.27	72	1.36	0.012	0.0398	0.14	<b>5</b>
<b>001A-Industrial</b>	5/14/09	42	7.88	0.17	<b>89</b>	1.51	0.011	0.0236	0.13	4

**Table 10: Industrial/Commercial Parameter Comparison**

Sample ID	Date	TSS mg/L	pH	TP mg/L	COD mg/L	TN mg/L	Copper mg/L	Lead mg/L	Zinc mg/L	Oil & Grease mg/L
<b>001A-Industrial</b>	9/30/09	<b>262</b>	7.45	<b>1.17</b>	<b>149</b>	<b>8.14</b>	0.029	0.0651	<b>0.4</b>	<b>19</b>
<b>001A-Industrial</b>	5/20/10	19	8.06	0.12	50	0.69	0.006	0.067	0.07	3
<b>001A-Industrial</b>	11/16/10	<b>149</b>	7.63	0.35	169	<b>2.9</b>	0.023	0.0158	<b>0.23</b>	5
<b>001A-Industrial</b>	5/23/11	76	7.82	0.17	<b>133</b>	<b>2.49</b>	0.007	0.0173	0.10	3
<b>001A-Industrial</b>	10/04/11	64	7.7	0.25	<b>233</b>	<b>6.97</b>	0.013	<b>0.226</b>	0.153	2
<b>001A-Industrial</b>	5/21/12	<b>132</b>	7.09	.34	<b>237</b>	<b>5.51</b>	0.017	<b>.179</b>	<b>.307</b>	3
<b>001A-Industrial</b>	10/29/12	58	6.54	0.06	52	0.68	0.005	0.0059	0.05	2
<b>001A-Industrial</b>	5/22/13	24	6.94	0.06	58	<b>2.35</b>	0.007	0.0081	0.07	1
<b>001A-Industrial</b>	9/18/13	18	6.41	0.071	19	0.20	0.003	0.0021	0.05	2
<b>001A-Industrial</b>	5/9/14	108	6.60	0.19	<b>114</b>	1.86	0.014	0.0061	0.131	2
<b>001A-Industrial</b>	10/21/14	40	6.78	0.13	<b>91</b>	1.75	0.010	0.0056	0.069	2
<b>001A-Industrial</b>	5/13/15	45	7.08	<b>0.63</b>	<b>209</b>	<b>4.97</b>	0.023	0.0051	0.147	1
<b>001A-Industrial</b>	10/26/15	43	7.24	0.25	<b>130</b>	<b>2.75</b>	0.014	0.0057	0.086	2
<b>Median Concentrations</b>		<b>125</b>	<b>6 - 9</b>	<b>0.41</b>	<b>80</b>	<b>2</b>	<b>0.04</b>	<b>0.165</b>	<b>0.21</b>	<b>10</b>

Residential

Table 11 is a summarization of Residential sample results from 2007 to 2015. In the residential communities, poorly managed fertilizer application is potentially the major contributor to the median concentration exceedance. The City has a Public Education Program aimed at educating home owners on specific pollutant activities.

**Table 11: Residential Parameter Comparison**

Sample ID	Date	TSS mg/L	pH	TP mg/L	COD mg/L	TN mg/L	Copper mg/L	Lead mg/L	Zinc mg/L	Oil & Grease mg/L
<b>002A-Residential</b>	5/3/07	<b>951</b>	7.43	0.41	26	0.65	0.031	0.0155	0.13	<b>13</b>
<b>002A-Residential</b>	11/8/07	20	7.14	0.07	26	<b>4.04</b>	0.005	0.0006	ND	ND
<b>002A-Residential</b>	6/10/08	<b>205</b>	7.93	0.2	49	1.96	0.014	0.005	0.054	8.1
<b>002A-Residential</b>	11/12/08	46	7.14	0.2	33	1.06	0.007	0.0038	0.06	1
<b>002A-Residential</b>	5/14/09	8	7.82	0.05	24	<b>4.59</b>	0.006	0.0006	ND	ND
<b>002A-Residential</b>	9/30/09	<b>205</b>	7.84	0.4	<b>116</b>	<b>5.56</b>	0.027	0.0064	0.09	3
<b>002A-Residential</b>	5/20/10	<b>33</b>	7.67	0.09	34	<b>4.46</b>	0.006	0.0007	0.02	2
<b>002A-Residential</b>	11/16/10	27	7.31	0.08	11	1.38	0.004	0.0014	0.03	1
<b>002A-Residential</b>	5/23/11	3	8.06	0.03	27	<b>4.38</b>	ND	ND	ND	ND
<b>002A-Residential</b>	10/04/11	22	7.97	0.26	<b>167</b>	<b>5.18</b>	0.011	0.0013	0.037	1
<b>002A-Residential</b>	5/21/12	<b>274</b>	7.48	<b>2.34</b>	<b>636</b>	<b>15.1</b>	<b>0.042</b>	0.0092	<b>0.262</b>	3
<b>002A-Residential</b>	10/29/12	13	6.82	0.04	7	1.55	0.003	ND	0.02	1
<b>002A-Residential</b>	5/22/13	77	7.5	0.12	<b>89</b>	<b>4.14</b>	0.011	0.0023	0.05	1

**Table 11: Residential Parameter Comparison**

Sample ID	Date	TSS mg/L	pH	TP mg/L	COD mg/L	TN mg/L	Copper mg/L	Lead mg/L	Zinc mg/L	Oil & Grease mg/L
<b>002A-Residential</b>	9/18/13	4	6.49	0.040	3	0.28	0.002	ND	ND	ND
<b>002A-Residential</b>	5/9/14	15	7.63	0.05	21	<b>4.38</b>	0.002	ND	ND	ND
<b>002A-Residential</b>	10/21/14	13	6.98	0.12	44	0.82	0.006	0.0008	0.017	ND
<b>002A-Residential</b>	5/13/15	5	8.17	0.05	17	<b>5.01</b>	0.004	ND	ND	1
<b>002A-Residential</b>	10/26/15	1	8.31	0.04	44	<b>2.12</b>	ND	ND	ND	ND
<b>Median Concentrations</b>		<b>125</b>	<b>6 - 9</b>	<b>0.41</b>	<b>80</b>	<b>2</b>	<b>0.04</b>	<b>0.165</b>	<b>0.21</b>	<b>10</b>

\* ND=Not detected at the reporting limit

# **Stormwater Management Program**



## **STORMWATER MANAGEMENT PROGRAM**

**Permit Years 2015-2016  
Permit No: MTR040005**



**Updated: January 2016**

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## **1.0 PURPOSE OF PROGRAM**

Stormwater management is increasingly important for the purpose of maintaining clean water and preserving water bodies such as streams, rivers, and lakes. A General Permit for Stormwater Discharge Associated with Small Municipal Separate Storm Sewer System (MS4) or “General Permit” was approved for the City of Kalispell in July of 2006 and reapproved in December of 2009. The General Permit provides authorization to discharge stormwater to waters of the state under the Montana Pollutant Discharge Elimination System. The MS4 General Permit requires the City to develop and maintain a Stormwater Management Program (SWMP) that addressed six minimum control measures.

The objective of this Stormwater Management Program (SWMP) is to develop, implement, and enforce a program to reduce the discharge of pollutants from the permitted small MS4 to the Maximum Extent Practicable (MEP). This program was developed to meet state and federal program requirements, but also utilize current activities, address issues that are important to the community, and establish programs that are economically feasible.

## **2.0 DESCRIPTION OF PERMIT AREA**

### **2.1 Kalispell Permitted Area Description**

The City of Kalispell permitted area is bound by the City limits. The City limits in 2014 encompassed 11.75 square miles. The permitted area includes seventy two drainage basins and outfalls. Within the drainage basins the City operates and maintains multiple separate storm sewer systems.

### **2.2 Municipal Separate Storm Sewer System Definition**

A Municipal Separate Storm Sewer System (MS4) is identified as a conveyance or a system of conveyances including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains that discharges to surface waters.

### **2.3 Receiving Surface Waters**

There are seven named or perennial surface waters that receive stormwater discharges from the City of Kalispell’s MS4. These receiving waters are as follows:

- Whitefish River
- Stillwater River
- Ashley Creek
- Spring Creek
- Bowser-Spring Creek
- Unnamed perennial surface water tributary to Ashley Creek from Foy’s Lake

### **2.3.1 Pollutants of Concern**

The following parameters are pollutants of concern identified in Part IV of the MS4 General Permit:

- Sediment (Total Suspended Solids)
- Nutrients (Total Nitrogen, Total Phosphorus)
- Metals (Copper, Lead, Zinc)
- Oils & Grease
- pH
- Organics (Chemical Oxygen Demand)
- Water Temperature

The City is required to collect stormwater samples semi annually at two locations. One location is from a point which represents stormwater runoff from a relatively residential drainage area and the other from a relatively commercial drainage area. The sample results are analyzed and evaluated based on median parameter concentrations set in the MS4 General Permit. If there is an exceedance of the median parameter concentration, acceptable pH range, and oil and grease standard values, the City will evaluate potential sources, reasons, and consider additional BMPs or other management measures which may need to be initiated to improve the quality of stormwater discharges. These measures will be implemented as necessary and updated in the City's Stormwater Management Program (SWMP).

## **3.0 SUMMARY OF PHASE II STORMWATER REGULATIONS AND PROGRAM REQUIREMENTS**

### **3.1 Effluent Limitations**

The following conditions apply to all Small MS4s covered under the General Permit. There must be no discharge of pollutants via stormwater runoff to state waters except as provided below:

- No discharge of stormwater containing pollutants from processed wastewater streams may occur under the General Permit.
- No discharge of stormwater containing pollutants from Small MS4s covered under the General Permit may cause or contribute to a violation of water quality standards.
- Discharges of stormwater containing pollutants associated with Small MS4s covered under this General Permit will be controlled through the development, implementation, and enforcement of a Stormwater Management Program (SWMP). Management practices defined within the SWMP must help eliminate or minimize the discharge of pollutants to state waters.

### **3.2 Summary of Federal Regulatory Requirements**

The final Phase II National Pollutant Discharge Elimination System (NPDES) regulations were published on December 8, 1999. In developing the federal NPDES regulations for small MS4s, the EPA was able to build upon their experience with Phase I MS4s. Based on a survey of the successful Phase I municipal programs, the EPA recognized that successful stormwater quality programs have several things in common including:

- Educate the public on stormwater impacts
- Involve the public in the development and operation of the program
- Establish procedures to detect and eliminate pollutant discharges
- Control stormwater runoff from construction sites
- Require permanent controls for post-construction stormwater runoff
- Include good housekeeping practices for municipal operations

The EPA refers to these items as “minimum control measures”, and the Phase II regulations require the City of Kalispell to “develop, implement, and enforce a stormwater program to reduce the discharge of pollutants to the Maximum Extent Practicable, to protect water quality, and satisfy the appropriate water quality requirements of the Clean Water Act.” Enforcement of the MS4 General Permit is administered by the State of Montana Department of Environmental Quality.

### **3.3 Stormwater Management Program Requirements**

The MS4 General Permit requires permittees to develop, implement, and enforce a Stormwater Management Program (SWMP). The SWMP shall be designed to reduce the discharge of pollutants from the permitted MS4 to the Maximum Extent Practicable (MEP), to protect water quality, and satisfy the appropriate water quality requirements of the Montana Water Quality Act. The SWMP must include Best Management Practices, control techniques, good standard engineering practices, and other provisions necessary to control pollutants.

The SWMP must include the following six minimum control measures:

1. Public Education and Outreach on Stormwater Impact
2. Public Involvement / Participation
3. Illicit Discharge Detection and Elimination (IDDE)
4. Construction Sites Stormwater Runoff Control
5. Post Construction Stormwater Management for New Development and Redevelopment
6. Pollution Prevention/Good Housekeeping for Municipal Operations

Under the MS4 General Permit, the following information is required for each of the six minimum control measures:

- The Best Management Practices (BMPs) that the permittee will implement for each of the six stormwater minimum control measures.

- The measurable goals for each of the BMPs include as appropriate, the months and years in which the permittee will undertake required actions, interim milestones and the frequency of the action.
- The person or persons responsible for implementing or coordinating the BMPs for the SWMP.

#### **4.0 KALISPELL STORMWATER MANAGEMENT PROGRAM (SWMP)**

The SWMP includes the development and implementation of Best Management Practices (BMPs) and measurable goals for the six minimum control measures listed in Section 3.3. BMP sheets developed for the six minimum control measures provide:

- A description of the BMP.
- The rationale for BMP selection.
- The sectors of the public that are targeted by the BMP. The BMPs can be applicable for four sectors of the public including residents, public service employees, commercial businesses, and construction site personnel.
- The implementation activity and measurable goal for each year of the 2015-2016 permit cycle.

#### **4.1 Public Education and Outreach on Stormwater Impacts**

The goal of Stormwater Public Education and Outreach Programs is to educate Kalispell citizens by developing education and informational programs which address specific pollutants generated by residential and commercial activities. Some goals regarding pollution prevention include:

- **Increase Knowledge:** help residents and businesses recognize and understand the components of a stormwater system and the impacts of stormwater pollution on receiving waters; help residents recognize and develop potential solutions to mitigate the pollution problems.
- **Encourage Behavior Change:** help residents and businesses recognize and implement appropriate means of handling or disposing of detrimental materials (engine oil, pet animal waste, fertilizer, pesticides, paint, chemicals, etc.) in order to eliminate stormwater pollution.
- **Meet Permit Requirements:** Implement an educational program that meets permit requirements.

An effective public education program can significantly reduce other program costs such as inspection and enforcement costs for the illicit discharge program. Informed citizens and business owners will usually take steps to reduce potential pollution from their own activities.

As specified in the MS4 General Permit, the Public Education Minimum Measure must include:

1. The permittee shall implement a public education program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of stormwater discharges on water bodies, and the steps that the public can take to reduce pollutants in stormwater runoff.

2. The permittee shall maintain documentation with respect to the development of a stormwater public education and outreach program. This documentation must address the overall public education program and the individual BMPs, measurable goals, and responsible persons/positions for the program.

The list of BMPs below has been developed to modify the method and message on a regular basis in order to keep the program fresh and effective. The City of Kalispell will utilize nine different BMPs to inform the public about the impacts that stormwater runoff can have on water quality, hazards associated with illegal discharges and the improper disposal of waste, and steps that they can take to reduce pollutants in stormwater runoff.

- PE-1 Public Education Program
- PE-2 Utility Bills
- PE-3 Bulk Mailings
- PE-4 Pamphlets
- PE-5 Parks and Recreation Newspaper
- PE-6 School Book Covers
- PE-7 Classroom Education
- PE-8 Web Site
- PE-9 Advertising Campaign

		<b>PUBLIC EDUCATION PROGRAM</b>	<b>PE-1</b>	
<b>RESPONSIBLE AUTHORITY</b> City		<b>DESCRIPTION</b> The City of Kalispell will educate the general public by developing an educational and informational program targeting specific audiences regarding stormwater pollution identification and prevention. The program will include the following items:		
<b>APPLICABILITY</b>		<b>RATIONALE FOR SELECTION</b> The Public Education Program outlines the educational material, target audience, and distribution sources for the 2015-2016 permit cycle.		
<input checked="" type="checkbox"/> Residents	<ul style="list-style-type: none"> <li>• Utility bills</li> <li>• Bulk mailings</li> <li>• Pamphlets</li> <li>• Parks &amp; Recreation Newspaper</li> <li>• School book covers</li> <li>• Classroom education</li> <li>• Website</li> <li>• Advertising campaign</li> </ul>			
<input checked="" type="checkbox"/> Public Service Employees				
<input checked="" type="checkbox"/> Commercial Businesses				
<input checked="" type="checkbox"/> Construction				
<b>YEAR</b>	<b>IMPLEMENTATION ACTIVITY</b>	<b>MEASURABLE GOAL</b>		
<b>2015</b>	<ul style="list-style-type: none"> <li>• Review survey on Stormwater Public Education Program</li> <li>• Define target audiences and messages</li> <li>• Update Public Education Program</li> </ul>	Provide educational material		
<b>2016</b>	Implement Program	Provide educational material		

	<b>UTILITY BILL INSERTS</b>		<b>PE-2</b>
<b>RESPONSIBLE AUTHORITY</b>  City	<b>DESCRIPTION</b>  Utility bill inserts are printed flyers that are included in Kalispell's utility bill to educate the public with brief and concise information on a variety of stormwater related topics. The following messages are suggested for utility bill inserts:		
<b>APPLICABILITY</b>  <input checked="" type="checkbox"/> Residents  <input checked="" type="checkbox"/> Public Service Employees  <input checked="" type="checkbox"/> Commercial Businesses    Construction	<ul style="list-style-type: none"> <li>• Pet waste pollution and proper disposal</li> <li>• Introduce stormwater participation programs (e.g., charity carwash, storm drain ID)</li> <li>• Introduce the stormwater website</li> <li>• Explain illicit discharges</li> <li>• Advertise the Flathead Household Hazardous Waste Program</li> <li>• Provide general pollution prevention practices</li> <li>• Provide pollution prevention practices for commercial businesses</li> </ul> <b>RATIONALE FOR SELECTION</b>  Utility bill inserts are currently being utilized on a regular basis to convey a variety of short and simple messages. They are well received in Kalispell, provide timely information, and are very economical to produce.		
<b>YEAR</b>	<b>IMPLEMENTATION ACTIVITY</b>	<b>MEASURABLE GOAL</b>	
<b>2015</b>	Produce utility bill insert based on Message developed in Public Education Program	1 insert mailed	
<b>2016</b>	Produce utility bill insert based on Message developed in Public Education Program	1 insert mailed	

	<b>BULK MAILINGS</b>		<b>PE-3</b>
<b>RESPONSIBLE AUTHORITY</b>  City	<b>DESCRIPTION</b>  Bulk mailings will include page printouts that will be used to convey information on specific topics related to stormwater management practices. Target audiences will be established such as commercial carwashes and restaurants, and they will be mailed information regarding the target business activities.		
<b>APPLICABILITY</b>  Residents  Public Service Employees  <input checked="" type="checkbox"/> Commercial Businesses	<b>RATIONALE FOR SELECTION</b>  Stormwater management is unique for specific target businesses. Businesses will be able to relate to the specified educational material, whereas other informal mailings are for general public education.		
<b>YEAR</b>	<b>IMPLEMENTATION ACTIVITY</b>	<b>MEASURABLE GOAL</b>	
<b>2015</b>	<ul style="list-style-type: none"> <li>• Identify mailing topics and audiences in the Public Education Program</li> <li>• Produce mailing brochure</li> </ul>	1 bulk mailing	
<b>2016</b>	Produce mailing brochure	1 bulk mailing	



**PAMPHLETS**

**PE-4**

**RESPONSIBLE AUTHORITY**

City

**DESCRIPTION**

Pamphlets are printed brochures used to convey detailed information on specific topics related to stormwater management and pollution prevention activities. The City will distribute pamphlets at public events, directly to businesses, and at the front desk of the Public Works office.

**APPLICABILITY**

- Residents
- Public Service Employees
- Commercial Businesses
- Construction

**RATIONALE FOR SELECTION**

Kalispell has the following pamphlets created:

- General pollution prevention
- Lawn care
- Automotive waste
- Pet waste

Additional pamphlet topics will be outlined in the Public Education Program.

**YEAR**

**IMPLEMENTATION ACTVITY**

**MEASURABLE GOAL**

**2015**

- Identify pamphlet topic in Public Education Program
- Produce pamphlets
- Distribute as needed

1 Pamphlet

**2016**

- Produce pamphlets
- Distribute as needed

1 Pamphlet

	<b>PARKS &amp; RECREATION NEWSPAPER</b>	<b>PE-5</b>
<b>RESPONSIBLE AUTHORITY</b>  City	<b>DESCRIPTION</b>  The City Parks & Recreation Newspaper is printed twice a year to provide information on the City's park and recreation programs. The City will print stormwater pollution prevention information in this newspaper.	
<b>APPLICABILITY</b>  <input checked="" type="checkbox"/> Residents  Public Service Employees  <input checked="" type="checkbox"/> Commercial Businesses  Construction	<b>RATIONALE FOR SELECTION</b>  The newspaper is an excellent distribution source for stormwater pollution awareness. The Parks & Recreation Newspaper is economically feasible and is received by a wide target audience.	
<b>YEAR</b>	<b>IMPLEMENTATION ACTIVITY</b>	<b>MEASURABLE GOAL</b>
<b>2015</b>	<ul style="list-style-type: none"> <li>• Identify topic in Public Education Program</li> <li>• Produce advertisements</li> </ul>	2 advertisements in Parks & Recreation Newspaper
<b>2016</b>	Produce advertisements	2 advertisements in Parks & Recreation Newspaper

		<b>SCHOOL BOOK COVERS</b>	<b>PE-6</b>
<b>RESPONSIBLE AUTHORITY</b> City		<b>DESCRIPTION</b> School book covers are paper sheets that are folded over the covers of school books to protect the books and provide educational information at the same time. These typically have limited amounts of information that is presented in an eye-catching manner that will appeal to students. The messages on these covers can be tailored to specific educational levels and subjects.	
<b>APPLICABILITY</b>  <input checked="" type="checkbox"/> Residents  Public Service Employees  Commercial Businesses  Construction			
		<b>RATIONALE FOR SELECTION</b> These covers can be easily modified to include graphic designs and messages related to stormwater, and are an economical way of reaching many people since children will often share the information with their parents. The stormwater message can be coordinated with the City's classroom education program to increase its effectiveness.	
<b>YEAR</b>	<b>IMPLEMENTATION ACTIVITY</b>	<b>MEASURABLE GOAL</b>	
<b>2015</b>	Print and distribute	1 book cover for a percentage of high school and junior high students	
<b>2016</b>	Print and distribute	1 book cover for a percentage of high school and junior high students	

	<b>CLASSROOM EDUCATION</b>	<b>PE-7</b>
<b>RESPONSIBLE AUTHORITY</b>  City	<b>DESCRIPTION</b>  A classroom education program will be developed to educate students on stormwater related issues. This program will be flexible and involve coordination with several of the other BMPs in Kalispell's SWMP. For example, when stormwater related book covers are provided to students, they can be used as a tool for classroom education. Additionally, when computer classes are teaching students how to use the web, the class can visit the City's stormwater webpage.	
<b>APPLICABILITY</b>  <input checked="" type="checkbox"/> Residents  Public Service Employees  Commercial Businesses  Construction	<b>RATIONALE FOR SELECTION</b>  Classroom education has been shown to be a very effective way to increase environmental awareness of students as well as their parents. There are many ways to educate students that can be incorporated into the current teacher's curriculum, especially science and biology classes.	
<b>YEAR</b>	<b>IMPLEMENTATION ACTIVITY</b>	<b>MEASURABLE GOAL</b>
<b>2015</b>	<ul style="list-style-type: none"> <li>• Distribute book covers and materials</li> <li>• Participate in classrooms</li> </ul>	Participate in at least one classroom session per year
<b>2016</b>	<ul style="list-style-type: none"> <li>• Distribute book covers and materials</li> <li>• Participate in classrooms</li> </ul>	Participate in at least one classroom session per year

	<b>WEB SITE</b>	<b>PE-8</b>
<b>RESPONSIBLE AUTHORITY</b>  City-Lead	<b>DESCRIPTION</b>  Webpage development allows the City to provide education that specifically addresses stormwater issues. An updated webpage will provide information including links to various state and federal related sites. Also, an interactive form could be used as an additional contact opportunity for citizens to report stormwater problems or concerns.	
<b>APPLICABILITY</b>  <input checked="" type="checkbox"/> Residents  <input checked="" type="checkbox"/> Public Service Employees  <input checked="" type="checkbox"/> Commercial Businesses  <input checked="" type="checkbox"/> Construction	<b>RATIONALE FOR SELECTION</b>  The City of Kalispell currently maintains a website that can be modified to include a stormwater page with links to several existing agency websites. The webpage will be an excellent tool for relaying an unlimited amount of information, including webpages for frequently asked questions, household hazardous waste, and current public involvement activity schedules.	
<b>YEAR</b>	<b>IMPLEMENTATION ACTIVITY</b>	<b>MEASURABLE GOAL</b>
2015	Implement website update	1 new webpage
2016	Implement website update	1 new webpage

	<b>ADVERTISING CAMPAIGN</b>		<b>PE-9</b>
<b>RESPONSIBLE AUTHORITY</b>  City	<b>DESCRIPTION</b>  Stormwater educational videos are played on the public TV station. The videos played are created by the local high school audio/video classes and from educational videos created by other municipalities and agencies.		
<b>APPLICABILITY</b>  <input checked="" type="checkbox"/> Residents  <input checked="" type="checkbox"/> Public Service Employees  <input checked="" type="checkbox"/> Commercial Businesses  <input checked="" type="checkbox"/> Construction	<b>RATIONALE FOR SELECTION</b>  Videos are aired on the public TV station at no cost to the City. The videos are played weekly and are viewed by a wide audience.		
<b>YEAR</b>	<b>IMPLEMENTATION ACTIVITY</b>	<b>MEASURABLE GOAL</b>	
<b>2015</b>	Research storm water videos to play on public TV station	2 videos played per year	
<b>2016</b>	Research storm water videos to play on public TV station	2 videos played per year	

## **4.2 Public Involvement / Participation**

The public can provide valuable input and assistance to a municipal stormwater management program. An active and involved community is crucial to the success of a stormwater management program. It allows for broader public support since the citizens who participate in the development and decision making processes are responsible for the programs. It also provides a conduit to other programs, because citizens involved in the stormwater program development process provide important cross-connections and relationships with other community and government programs.

As specified in the MS4 General Permit, the Public Involvement Minimum Measure must include:

1. Identify how the public was involved in the development and submittal of the permit application and the SWMP.
2. Identify plans to actively involve the public in the development and implementation of the SWMP.
3. Identify the target audiences for the public involvement program, including a description of the types of ethnic and economic groups engaged. The permittee is encouraged to actively involve all potentially affected stakeholder groups, including commercial and industrial businesses, trade associations, environmental groups, homeowners associations, and educational organizations.
4. Identify the types of public involvement activities included in this program.
5. Identify who is responsible for the overall management and implementation of the stormwater public involvement/participation program and, if different, who is responsible for each of the BMPs identified for this program.
6. Identify how the success of this minimum control measure will be evaluated, including how the measurable goals for each of the BMPs were selected.

The list of BMPs below has been developed to easily allow the public to become involved in stormwater programs:

- PI-1 Stormwater Advisory Committee Meetings
- PI-2 Storm Drain ID
- PI-3 Charity Carwash Program
- PI-4 Student Participation Awareness
- PI-5 Public Contact Program

	<b>STORMWATER ADVISORY COMMITTEE MEETINGS</b>	<b>PI-1</b>
<b>RESPONSIBLE AUTHORITY</b>  City	<b>DESCRIPTION</b>  Public meetings held bi-monthly to review the progress toward SWMP implementation and suggest changes if certain program elements or BMPs are not functioning as intended. The group will review each of the six minimum control measures annually.	
<b>APPLICABILITY</b>  <input checked="" type="checkbox"/> Residents  <input checked="" type="checkbox"/> Public Service Employees  <input checked="" type="checkbox"/> Commercial Businesses  <input checked="" type="checkbox"/> Construction	<b>RATIONALE FOR SELECTION</b>  Stormwater Advisory Committee Meetings allows community members to learn about the Stormwater Management Program and provide input to improve the program.	
<b>YEAR</b>	<b>IMPLEMENTATION ACTIVITY</b>	<b>MEASURABLE GOAL</b>
<b>2015</b>	Create public meeting presentation and agenda	Hold bi-monthly storm water advisory committee meetings with members of the community
<b>2016</b>	Create public meeting presentation and agenda	Hold bi-monthly storm water advisory committee meetings with members of the community

	<b>STORM DRAIN IDENTIFICATION PROGRAM</b>	<b>PI-2</b>
<b>RESPONSIBLE AUTHORITY</b>  City	<b>DESCRIPTION</b>  The Storm Drain Identification Program consists of volunteers affixing plastic buttons with a “prevent pollution” message to storm drain inlets. This storm drain marking effort will include all areas of the City. Students and involved community citizens can mark inlets through classroom education projects and community involvement projects. Kalispell will try to utilize as many organizations as possible to mark the inlets.	
<b>APPLICABILITY</b>  <input checked="" type="checkbox"/> Residents  <input checked="" type="checkbox"/> Public Service Employees  <input checked="" type="checkbox"/> Commercial Businesses  <input checked="" type="checkbox"/> Construction	<b>RATIONALE FOR SELECTION</b>  Storm drain buttons have been used by many municipalities and is generally a very effective BMP that is relatively inexpensive and easy to implement. The effectiveness of this activity multiplies when various volunteer groups and organizations are utilized to place markers on the inlets. The button also provides public education by identifying where the drains discharge.	
<b>YEAR</b>	<b>IMPLEMENTATION ACTIVITY</b>	<b>MEASURABLE GOAL</b>
<b>2015</b>	<ul style="list-style-type: none"> <li>• Advertise through Public Education Program and on webpage</li> <li>• Provide information to organizations (Boy &amp; Girl Scouts, Flathead Conservation District, Flathead Lakers, Schools)</li> </ul>	Community volunteer groups place markers on storm drain inlets in Kalispell
<b>2016</b>	<ul style="list-style-type: none"> <li>• Advertise through Public Education Program and on webpage</li> <li>• Provide information to organizations (Boy &amp; Girl Scouts, Flathead Conservation District, Flathead Lakers, Schools)</li> </ul>	Community volunteer groups place markers on storm drain inlets in Kalispell

	<b>CHARITY CARWASH PROGRAM</b>	<b>PI-3</b>
<b>RESPONSIBLE AUTHORITY</b>  City	<b>DESCRIPTION</b>  The Charity Carwash Program will consist of providing education and organizational equipment to prevent waste wash water from entering the storm drain system.	
<b>APPLICABILITY</b>  <input checked="" type="checkbox"/> Residents Public Service Employees  <input checked="" type="checkbox"/> Commercial Businesses  Construction	A protocol will be developed for the Charity Carwash Program. The City of Kalispell will promote this program by advertising through the Education Program as well as the City's website. Information will also be provided to organizations such as Boy and Girl Scouts, Flathead Conservation District, Flathead Lakers, and local schools.  <b>RATIONALE FOR SELECTION</b>  Charity carwashes are an important part of community fundraising. Unfortunately, it also allows pollutants to enter the City's MS4. The development of this BMP allows fundraising to continue while minimizing pollution.	
<b>YEAR</b>	<b>IMPLEMENTATION ACTIVITY</b>	<b>MEASURABLE GOAL</b>
<b>2015</b>	<ul style="list-style-type: none"> <li>• Advertise in Public Education Program</li> <li>• Provide information directly to organizations and schools</li> </ul>	Promotion and utilization of Charity Carwash Program by local non-profit organizations
<b>2016</b>	<ul style="list-style-type: none"> <li>• Advertise in Public Education Program</li> <li>• Provide information directly to organizations and schools</li> </ul>	Promotion and utilization of Charity Carwash Program by local non-profit organizations

	<b>STUDENT PARTICIPATION AWARENESS</b>	<b>PI-4</b>
<b>RESPONSIBLE AUTHORITY</b>  City	<b>DESCRIPTION</b>  Student Participation Awareness involves City staff being involved in classrooms and fieldtrip activities, when available. Participation programs are teacher dependent and class specified.	
<b>APPLICABILITY</b>  <input checked="" type="checkbox"/> Residents  <input checked="" type="checkbox"/> Public Service Employees  Commercial Businesses  Construction	<b>RATIONALE FOR SELECTION</b>  Participation in student activities such as classroom presentations, educational video creation, and field trips allow hands-on education that students can relate to and possibly pass on to family members or friends.	
<b>YEAR</b>	<b>IMPLEMENTATION ACTIVITY</b>	<b>MEASURABLE GOAL</b>
<b>2015</b>	<ul style="list-style-type: none"> <li>• Work with teachers and organizations to provide education for students in classroom setting and field trips</li> <li>• Contact school officials and offer assistance for classroom activities related to storm water (water resource) subjects</li> </ul>	Present in classrooms and involved in field trips (availability dependent)
<b>2016</b>	<ul style="list-style-type: none"> <li>• Work with teachers and organizations to provide education for students in classroom setting and field trips</li> <li>• Contact school officials and offer assistance for classroom activities related to storm water (water resource) subjects</li> </ul>	Present in classrooms and involved in field trips (availability dependent)

	<b>PUBLIC CONTACT PROGRAM</b>	<b>PI-5</b>
<b>RESPONSIBLE AUTHORITY</b>  City	<b>DESCRIPTION</b>  The goal of the Stormwater Public Contact Program is to provide means for Kalispell residents to contact City staff to relay comments, concerns, or gain information concerning stormwater. The contact line will also be used in the tracking process for incident and complaints regarding illicit and illegal discharges into the City's storm drain system.	
<b>APPLICABILITY</b>  <input checked="" type="checkbox"/> Residents  <input checked="" type="checkbox"/> Public Service Employees  <input checked="" type="checkbox"/> Commercial Businesses  <input checked="" type="checkbox"/> Construction	<b>RATIONALE FOR SELECTION</b>  Providing means for the public to contact the City is a General Permit requirement. The public can contact the City through the Public Works Department front office. The contact information is provided on all printed and distributed material.  Public Works Department 201 1st Avenue East Kalispell, MT 59903-1997 Phone: (406) 758-7720	
<b>YEAR</b>	<b>IMPLEMENTATION ACTIVITY</b>	<b>MEASURABLE GOAL</b>
<b>2015</b>	Continue program	Track and answer public concerns
<b>2016</b>	Continue program	Track and answer public concerns

### **4.3 Illicit Discharge Detection and Elimination**

Discharges into storm conveyance systems often include wastes and wastewater from non-stormwater sources. A portion of these dry weather flows are from illicit and inappropriate discharges and connections to the storm conveyance systems. Illicit discharges enter the system through either direct or indirect connections. The results are untreated discharges that contribute high levels of pollutants, including heavy metals, toxins, oil and grease, solvents, nutrients, viruses, and bacteria to receiving streams and rivers. Pollutant levels from these illicit discharges have been shown in EPA studies to be high enough to significantly degrade receiving water quality, threaten aquatic wildlife, and human health.

As specified in the MS4 General Permit, the Illicit Discharge Detection and Elimination Minimum Measure must include:

1. Develop, implement, and enforce a program to detect and eliminate illicit discharges, including illegal dumping into the permitted small MS4s.
2. Develop and maintain a storm sewer system map, showing the location of all outfalls and the names and location of all state waters that receive discharges from those outfalls.
3. To the extent allowable effectively prohibit, through ordinance, or other regulatory mechanism, non-stormwater discharges into the permitted storm sewer system and implement appropriate enforcement procedures and actions.
4. Inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste.

The list of BMPs below includes current and new activities that meet regulatory requirements and will aid Kalispell in the elimination of illicit discharges:

- ID-1 Kalispell Storm Drain System Mapping
- ID-2 Illicit Discharge Detection and Elimination (IDDE) Program
- ID-3 Illicit Discharge Investigations
- ID-4 Illicit Discharge Ordinance
- ID-5 Public Education through Public Education Program

	<b>KALISPELL STORM DRAIN SYSTEM MAPPING</b>		<b>ID-1</b>
<b>RESPONSIBLE AUTHORITY</b>  City	<b>DESCRIPTION</b>  The Kalispell storm drain system mapping consists of a Global Positioning System (GPS) utility map that is updated once a year. The stormwater utility map with GPS elevations and locations is generated in AutoCAD. The stormwater map identifies the locations of current storm conveyance systems including pipes, manholes, ditches and outfalls within the city limits.		
<b>APPLICABILITY</b>  <input checked="" type="checkbox"/> Residents  <input checked="" type="checkbox"/> Public Service Employees  <input checked="" type="checkbox"/> Commercial Businesses  <input checked="" type="checkbox"/> Construction	<b>RATIONALE FOR SELECTION</b>  A storm drain system map is a required component of this minimum control measure and must identify the locations of all outfalls from the MS4 and the names and locations of the surface waters to which they drain.		
<b>YEAR</b>	<b>IMPLEMENTATION ACTIVITY</b>	<b>MEASURABLE GOAL</b>	
<b>2015</b>	GPS previous year new development and redevelopment storm conveyance systems	Update Storm Drain System Map	
<b>2016</b>	GPS previous year new development and redevelopment storm conveyance systems	Update Storm Drain System Map	

	<b>ILLCIT DISCHARGE DETECTION AND ELIMINATION (IDDE)</b>	<b>ID-2</b>
<b>RESPONSIBLE AUTHORITY</b>  City	<b>DESCRIPTION</b>  The IDDE program is used to detect and address illicit discharges to the municipal storm conveyance systems. The measures used to accomplish the goals of the program are as follows: <ul style="list-style-type: none"> <li>• Audit storm system</li> <li>• Assess illicit discharge potential</li> <li>• Dry weather screening (walk streams and outfalls)</li> <li>• Isolate and fix discharges</li> <li>• Track and evaluate</li> </ul> A complete copy of the IDDE Program can be obtained at the Public Works Department front office.	
<b>APPLICABILITY</b>  <input checked="" type="checkbox"/> Residents  <input checked="" type="checkbox"/> Public Service Employees		
<input checked="" type="checkbox"/> Commercial Businesses  <input checked="" type="checkbox"/> Construction		
<b>RATIONALE FOR SELECTION</b>  As a permitted Municipal Separate Storm Sewer System (MS4), the City of Kalispell is required to develop, implement, and enforce a program to detect and eliminate illicit discharges.		
<b>YEAR</b>	<b>IMPLEMENTATION ACTIVITY</b>	<b>MEASURABLE GOAL</b>
<b>2015</b>	Perform activities outlined in IDDE Program	Find and eliminate illicit discharges
<b>2016</b>	Perform activities outlined in IDDE Program	Find and eliminate illicit discharges

	<b>ILLCIT DISCHARGE INVESTIGATIONS</b>		<b>ID-3</b>
<b>RESPONSIBLE AUTHORITY</b>  City	<b>DESCRIPTION</b>  Illicit Discharge Investigation is a means to conduct investigations as needed based on public and City staff input. The purpose of the BMP is to track, evaluate, educate, and eliminate illicit discharges into the City's MS4. The public and municipal staff will be educated on illicit discharges and how to contact the City through the Public Education Program, Public Contact program, and Pollution Prevention Good Housekeeping Program.		
<b>APPLICABILITY</b>  <input checked="" type="checkbox"/> Residents  <input checked="" type="checkbox"/> Public Service Employees  <input checked="" type="checkbox"/> Commercial Businesses  <input checked="" type="checkbox"/> Construction	<b>RATIONALE FOR SELECTION</b>  Illicit Discharge Investigation is a component of the IDDE program. Illicit discharge complaints will be tracked, evaluated, and used to eliminate illicit discharges.		
<b>YEAR</b>	<b>IMPLEMENTATION ACTIVITY</b>	<b>MEASURABLE GOAL</b>	
<b>2015</b>	Conduct investigations as needed based on public and City staff input	Investigate and eliminate illicit discharges	
<b>2016</b>	Conduct investigations as needed based on public and City staff input	Investigate and eliminate illicit discharges	

	<b>ILLICIT DISCHARGE ORDINANCE</b>	<b>ID-4</b>
<b>RESPONSIBLE AUTHORITY</b>  City	<b>DESCRIPTION</b>  Ordinance 1634 establishes regulations controlling the introduction of pollutants into the City's Municipal Separate Storm Sewer System (MS4). The ordinance prohibits illicit discharges and illegal connections to the MS4, as well as sanctions to ensure compliance to the extent allowable under State and local law.	
<b>APPLICABILITY</b>  <input checked="" type="checkbox"/> Residents  <input checked="" type="checkbox"/> Public Service Employees  <input checked="" type="checkbox"/> Commercial Businesses  <input checked="" type="checkbox"/> Construction	<b>RATIONALE FOR SELECTION</b>  The Phase II MPDES regulations require the establishment of a regulatory mechanism. In 2008, Kalispell City Council adopted Ordinance 1634 which establishes regulation controlling the introduction of pollutants into the City's MS4.	
<b>YEAR</b>	<b>IMPLEMENTATION ACTIVITY</b>	<b>MEASURABLE GOAL</b>
<b>2015</b>	Continue ordinance enforcement	Minimize pollutants into MS4
<b>2016</b>	Continue ordinance enforcement	Minimize pollutants into MS4



**PUBLIC EDUCATION THROUGH PUBLIC EDUCATION PROGRAM**

**ID-5**

**RESPONSIBLE AUTHORITY**

City

**DESCRIPTION**

The City will continue to train municipal employees on illicit discharges through the Pollution Prevention Good Housekeeping annual training and Kalispell Residents as outlined in the Public Education Program (See PE-1).

**APPLICABILITY**

Residents

Public Service Employees

Commercial Businesses

Construction

**RATIONALE FOR SELECTION**

Public education provides awareness to residents, business owners, and municipal staff regarding stormwater pollution impacts on water bodies and provides practices to reduce and eliminate stormwater pollution.

YEAR	IMPLEMENTATION ACTIVITY	MEASURABLE GOAL
2015	<ul style="list-style-type: none"> <li>• Review survey on Stormwater Public Education Program</li> <li>• Define target audiences and messages</li> <li>• Update Public Education Program</li> </ul>	Provide educational material
2016	Implement Program	Provide educational material

#### **4.4 Construction Site Stormwater Runoff Control**

Sediment from construction sites is a leading cause of water quality problems. Construction site sediment runoff rates are 10 to 20 times greater than those from agricultural lands and 1,000 to 2,000 times greater than those of forestlands. During a short period of time, construction sites can contribute more sediment to streams than can be deposited naturally during several decades.

As specified in the MS4 General Permit, the Construction Site Stormwater Runoff Control Minimum Measure must include:

1. An ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions to ensure compliance, to the extent allowable under State, Tribal, or local law.
2. Requirements for construction site operators to implement appropriate erosion and sediment control BMPs.
3. Requirements for construction site operators to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality.
4. Procedures for the Small MS4 permittee to perform site plan review for consistency with state and local requirements, and which incorporates consideration of potential water quality impacts including stormwater pollution prevention through appropriate erosion, sediment, and waste control BMPs.
5. Procedures for receipt and consideration of information submitted by the public.
6. Procedures for the Small MS4 permittee to perform site inspection and enforcement, in part based upon the site of erosion, sediment, and waste control BMPs.

The list of BMPs below includes current and new activities that meet regulatory requirements and will aid Kalispell in construction site pollution control:

- C-1 Land Disturbance Ordinance 1600
- C-2 Kalispell Construction Site Stormwater Management Permit
- C-3 Construction Inspection
- C-4 Erosion Control Plan Review Procedures
- C-5 Annual Erosion and Sediment Control Training

	<p align="center"><b>LAND DISTURBANCE ORDINANCE 1600</b></p>	<p align="center"><b>C-1</b></p>
<p><b>RESPONSIBLE AUTHORITY</b></p> <p align="center">City</p>	<p><b>DESCRIPTION</b></p> <p>The City of Kalispell's Ordinance 1600 "Stormwater Discharges Resulting from Construction and Land Disturbance Activities" establishes land disturbance, erosion, and sediment standards. The ordinance outlines construction site stormwater management permit procedures, and ensures compliance and enforcement for construction site stormwater management.</p>	
<p><b>APPLICABILITY</b></p> <p><input checked="" type="checkbox"/> Residents</p> <p><input checked="" type="checkbox"/> Public Service Employees</p> <p><input checked="" type="checkbox"/> Commercial Businesses</p> <p><input checked="" type="checkbox"/> Construction</p>	<p><b>RATIONALE FOR SELECTION</b></p> <p>The MS4 General Permit regulations require the establishment of a regulatory mechanism to require erosion and sediment controls. In 2007, Kalispell City Council adopted Ordinance 1600 which establishes regulations controlling the introduction of pollutants into the City's MS4 from land disturbance activities.</p>	
<p><b>YEAR</b></p>	<p><b>IMPLEMENTATION ACTIVITY</b></p>	<p><b>MEASURABLE GOAL</b></p>
<p align="center"><b>2015</b></p>	<p align="center">Continue enforcement and permit procedures</p>	<p align="center">Minimize pollutants into MS4</p>
<p align="center"><b>2016</b></p>	<p align="center">Continue enforcement and permit procedures</p>	<p align="center">Minimize pollutants into MS4</p>

	<b>KALISPELL CONSTRUCTION SITE STORMWATER MANAGEMENT PERMIT</b>	<b>C-2</b>
<b>RESPONSIBLE AUTHORITY</b>  City	<b>DESCRIPTION</b>  Land disturbing activity, or any construction activities disturbing 5 CY or 1,000 SF shall prepare and submit a Construction Site Stormwater Management Permit to the Public Works Department. The purpose of the permit is to develop and implement an erosion and sediment control plan to minimize construction site pollution from getting into the city storm conveyance systems, streams, and rivers.	
<b>APPLICABILITY</b>  <input checked="" type="checkbox"/> Residents  <input checked="" type="checkbox"/> Public Service Employees  <input checked="" type="checkbox"/> Commercial Businesses  <input checked="" type="checkbox"/> Construction	<b>RATIONALE FOR SELECTION</b>  Construction Site Stormwater Management Permit is a component of Ordinance 1600 "Stormwater Discharges Resulting from Construction and Land Disturbance Activities". The Permit ensures compliance for construction site erosion and sediment controls.	
<b>YEAR</b>	<b>IMPLEMENTATION ACTIVITY</b>	<b>MEASURABLE GOAL</b>
<b>2015</b>	Implement construction permitting procedures	Permitting required on construction sites in Kalispell
<b>2016</b>	Implement construction permitting procedures	Permitting required on construction sites in Kalispell

	<b>CONSTRUCTION INSPECTION</b>	<b>C-3</b>
<b>RESPONSIBLE AUTHORITY</b>  City	<b>DESCRIPTION</b>  City staff will perform construction inspections once every two weeks, or as needed, to ensure compliance and help educate contractors.	
<b>APPLICABILITY</b>  <input checked="" type="checkbox"/> Residents  <input checked="" type="checkbox"/> Public Service Employees  <input checked="" type="checkbox"/> Commercial Businesses  <input checked="" type="checkbox"/> Construction	<b>RATIONALE FOR SELECTION</b>  Conducting regular inspections on project sites ensures compliance for the Kalispell Construction Stormwater Management Permit. It also provides an opportunity to educate permittees on erosion and sediment control practices.	
<b>YEAR</b>	<b>IMPLEMENTATION ACTIVITY</b>	<b>MEASURABLE GOAL</b>
<b>2015</b>	Continue existing construction inspections	Bi-monthly site inspections
<b>2016</b>	Continue existing construction inspections	Bi-monthly site inspections

	<b>EROSION CONTROL PLAN REVIEW PROCEDURES</b>		<b>C-4</b>
<b>RESPONSIBLE AUTHORITY</b>  City	<b>DESCRIPTION</b>  Site plan review and inspection programs aid in compliance, enforcement, and provide an opportunity for guidance and education. The City will perform a site plan review for potential water quality impacts at the time the Stormwater Management Permit is submitted, and will conduct regular inspections of the construction sites.		
<b>APPLICABILITY</b>  <input checked="" type="checkbox"/> Residents  <input checked="" type="checkbox"/> Public Service Employees  <input checked="" type="checkbox"/> Commercial Businesses  <input checked="" type="checkbox"/> Construction	<b>RATIONALE FOR SELECTION</b>  Site plan review aids in compliance and enforcement of the Stormwater Management Permit.		
<b>YEAR</b>	<b>IMPLEMENTATION ACTIVITY</b>	<b>MEASURABLE GOAL</b>	
<b>2015</b>	<ul style="list-style-type: none"> <li>• Follow procedure</li> <li>• Educate City staff as needed</li> </ul>	Review submitted erosion control plans for each submitted permit	
<b>2016</b>	<ul style="list-style-type: none"> <li>• Follow procedure</li> <li>• Educate City staff as needed</li> </ul>	Review submitted erosion control plans for each submitted permit	



**ANNUAL EROSION AND SEDIMENT CONTROL TRAINING**

**C-5**

**RESPONSIBLE AUTHORITY**

City

**DESCRIPTION**

The Annual Erosion and Sediment Control Training provides participants from the local construction community, i.e., contractors, developers, and engineers, with the following knowledge, skills, and abilities:

**APPLICABILITY**

Residents

Public Service Employees

Commercial Businesses

Construction

- Impacts of erosion and sedimentation
- Erosion and sedimentation processes
- State and local regulations
- Stormwater planning
- Monitoring, reporting, recordkeeping
- Best Management Practices
- Adaptive management

**RATIONALE FOR SELECTION**

Training ensures the local construction community has the knowledge and skills to stay in compliance with local and state erosion and sediment control regulations.

<b>YEAR</b>	<b>IMPLEMENTATION ACTIVITY</b>	<b>MEASURABLE GOAL</b>
<b>2015</b>	Hold training session	1 training session per year
<b>2016</b>	Hold training session	1 training session per year

#### **4.5 Post Construction Stormwater Management for New Development and Redevelopment**

Numerous studies have documented that stormwater runoff from developed sites contributes significant pollutant loads to receiving waters. The increase in impervious surfaces such as rooftops, roads, and parking lots can increase urban runoff and have a detrimental impact on aquatic systems due to increased concentrations of sediment, nutrients, road salts, heavy metals, pathogenic bacteria, and petroleum hydrocarbons. The best way to mitigate stormwater impacts from new development and redevelopment is to use practices to treat, store, and infiltrate runoff onsite before it can affect downstream water bodies.

As specified in the MS4 General Permit, the Post Construction Stormwater Management for New Development and Redevelopment Minimum Measure must include:

1. Develop, implement, and enforce a program to address stormwater runoff from new development and redevelopment projects. This program must ensure that controls are in place that would prevent or minimize water quality impacts.
2. Develop and implement strategies which include a combination of structural and/or non-structural BMPs appropriate for the community.
3. Use an ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects to the extent allowable under State, Tribal or local law.
4. Ensure adequate long-term operation and maintenance of BMPs.
5. Develop and implement procedures for the Small MS4 permittee to perform site plan review which incorporates consideration of potential water quality impacts including appropriate post-construction BMPs.
6. Develop and implement procedures for the Small MS4 permittee to perform site inspection and enforcement of post-construction BMPs.
7. For new development or redevelopment projects, the program shall include a process, where such practices are practicable; to require the implementation of low impact development practices that infiltrate, evapotranspire, or capture for reuse stormwater runoff.

The list of BMPs below includes current and new activities that meet regulatory requirements and will aid Kalispell in reducing pollutant loads from new development and redevelopment:

- PC-1 Kalispell Stormwater Quality Management Plan in New Development and Redevelopment
- PC-2 2009 City Standards for Design and Construction
- PC-3 Site Inspection and Enforcement of Post-Construction BMPs

		<b>KALISPELL STORMWATER QUALITY MANAGEMENT PLAN FOR NEW AND REDEVELOPMENT</b>	<b>PC-1</b>
<b>RESPONSIBLE AUTHORITY</b>  City		<b>DESCRIPTION</b>  The goal of the Kalispell Stormwater Quality Management Plan is to ensure controls are in place to prevent or minimize water quality impacts from new development and redevelopment. The goal of the plan was to develop and implement strategies that include non-structural and structural Best Management Practices (BMPs).	
<b>APPLICABILITY</b>  <input checked="" type="checkbox"/> Residents <input checked="" type="checkbox"/> Public Service Employees <input checked="" type="checkbox"/> Commercial Businesses <input checked="" type="checkbox"/> Construction		<b>RATIONALE FOR SELECTION</b>  Development of a program to address stormwater runoff from new development and redeveloped is a required component of this minimum control measure and must ensure controls are in place to prevent or minimize water quality impact.	
<b>YEAR</b>	<b>IMPLEMENTATION ACTIVITY</b>	<b>MEASURABLE GOAL</b>	
2015	Implement Stormwater Quality Management Plan	Practices outlined in the plan used by new development & redevelopment	
2016	Implement Stormwater Quality Management Plan	Practices outlined in the plan used by new development & redevelopment	

		<b>CITY STANDARDS FOR DESIGN AND CONSTRUCTION</b>	<b>PC-2</b>
<b>RESPONSIBLE AUTHORITY</b>  City		<b>DESCRIPTION</b>  The 2009 Standards for Design and Construction ensure the following requirements for this minimum measure: <ul style="list-style-type: none"> <li>• Regulatory mechanism to address post construction runoff from new development and redevelopment</li> <li>• Implementation of structural and non-structural practices to minimize water quality impacts, including Low Impact Development (LID) practices, where practicable</li> <li>• Ensure long-term operation and maintenance of structural practices</li> </ul>	
<b>APPLICABILITY</b>  <input checked="" type="checkbox"/> Residents  <input checked="" type="checkbox"/> Public Service Employees  <input checked="" type="checkbox"/> Commercial Businesses  <input checked="" type="checkbox"/> Construction		<b>RATIONALE FOR SELECTION</b>  The MS4 General Permit regulations requires the establishment of a regulatory mechanism to address post-construction runoff from new development an redevelopment. The 2009 Standards for Design and Construction were adopted by resolution in October of 2009.  A copy of the 2009 Standards for Design and Construction can be obtained from Kalispell's website at <a href="http://www.kalispell.com">www.kalispell.com</a> .	
<b>YEAR</b>	<b>IMPLEMENTATION ACTIVITY</b>	<b>MEASURABLE GOAL</b>	
<b>2015</b>	Implement and enforce Standards for Design and Construction	Minimize pollutants into MS4 by implementing standards	
<b>2016</b>	Implement and enforce Standards for Design and Construction	Minimize pollutants into MS4 by implementing standards	

		<b>2009 CITY STANDARDS FOR DESIGN AND CONSTRUCTION</b>	<b>PC-2</b>
<b>RESPONSIBLE AUTHORITY</b>  City		<b>DESCRIPTION</b>  The 2009 Standards for Design and Construction ensure the following requirements for this minimum measure: <ul style="list-style-type: none"> <li>• Regulatory mechanism to address post construction runoff from new development and redevelopment</li> <li>• Implementation of structural and non-structural practices to minimize water quality impacts, including Low Impact Development (LID) practices, where practicable</li> <li>• Ensure long-term operation and maintenance of structural practices</li> </ul>	
<b>APPLICABILITY</b>  <input checked="" type="checkbox"/> Residents  <input checked="" type="checkbox"/> Public Service Employees  <input checked="" type="checkbox"/> Commercial Businesses  <input checked="" type="checkbox"/> Construction		<b>RATIONALE FOR SELECTION</b>  The MS4 General Permit regulations requires the establishment of a regulatory mechanism to address post-construction runoff from new development an redevelopment. The 2009 Standards for Design and Construction were adopted by resolution in October of 2009.  A copy of the 2009 Standards for Design and Construction can be obtained from Kalispell's website at <a href="http://www.kalispell.com">www.kalispell.com</a> .	
<b>YEAR</b>	<b>IMPLEMENTATION ACTVITY</b>	<b>MEASURABLE GOAL</b>	
<b>2015</b>	Implement and enforce Standards for Design and Construction	Minimize pollutants into MS4 by implementing standards	
<b>2016</b>	Implement and enforce Standards for Design and Construction	Minimize pollutants into MS4 by implementing standards	

		<b>SITE INSPECTION AND ENFORCEMENT OF POST-CONSTRUCTION BMPs</b>	<b>PC-3</b>
<b>RESPONSIBLE AUTHORITY</b>  City		<b>DESCRIPTION</b>  Site inspection and enforcement of post construction BMPs will ensure compliance with approved plans for project sites located within the City. Post construction inspections allow the City to compare approved site designs for stormwater quality BMPs to the final constructed project. Inspections will identify deficiencies of the constructed stormwater quality BMP.	
<b>APPLICABILITY</b>  Residents  <input checked="" type="checkbox"/> Public Service Employees  Commercial Businesses  Construction		<b>RATIONALE FOR SELECTION</b>  A procedure to perform site inspection and enforcement of post-construction BMPs is a requirement for the Small MS4 permittee according to the MS4 General Permit.	
<b>YEAR</b>	<b>IMPLEMENTATION ACTIVITY</b>	<b>MEASURABLE GOAL</b>	
<b>2015</b>	Continue current activities	Site inspection of Post Construction BMPs	
<b>2016</b>	Continue current activities	Site inspection of Post Construction BMPs	

#### **4.6 Pollution Prevention/Good Housekeeping for Municipal Operations**

Municipalities conduct numerous activities that can pose a threat to water quality if practices and procedures are not in place to prevent pollutants from entering the MS4. These activities include winter road maintenance, minor road repairs, infrastructure work, automobile fleet maintenance, landscaping and park maintenance, and building maintenance.

Pollution Prevention/Good Housekeeping for municipal operations minimum control measure is a key element of the small MS4 stormwater management program. This measure requires the small MS4 operator to examine and subsequently alter their own actions to help ensure a reduction in the amount and type of pollution that: (1) collects on streets, parking lots, open spaces, and storage and vehicle maintenance areas and is discharged into local waterways; and (2) results from actions such as environmentally damaging land development and flood management practices or poor maintenance of storm sewer systems.

As specified in the MS4 General Permit, the Pollution Prevention/Good Housekeeping for Municipal Operations Minimum Measure must include:

1. Develop and implement an operation and maintenance program which includes a training component, and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations
2. The program must include employee training to prevent and reduce stormwater pollution from activities such as park and open space maintenance, vehicle fleet and building maintenance, new construction and land disturbances, and stormwater system maintenance.
3. Identify the operation and maintenance program to prevent or reduce pollutant runoff from municipal operations. The program must specifically list the municipal operations which are impacted by this operation and maintenance program.
4. Identify the municipal government employee training program, including frequency, which will be used to prevent and reduce stormwater pollution from activities such as park and open space maintenance, vehicle fleet and building maintenance, new construction and land disturbances, and stormwater system maintenance.
5. Maintenance activities, maintenance schedules, and long-term inspection procedures for controls to reduce floatables and other pollutants to the permitted Small MS4.
6. Controls for reducing or eliminating the discharge of pollutants from streets, roads, highways, municipal parking lots, maintenance and storage yards, waste handling and disposal areas, vehicle fleet or maintenance shops with outdoor storage areas, salt/sand storage locations, and snow disposal areas operated by the permittee.
7. Procedures for the proper disposal of waste removed from the permitted Small MS4 through the permittee's municipal operations, including dredge spoils, accumulated sediments, floatables, catch basin cleaning, and other debris.

8. Procedures to ensure that new flood management projects are assessed for impacts on water quality and existing projects are assessed for incorporation of additional water quality protection devices or practices.

The list of BMPs below includes current and new activities that meet regulatory requirements and will aid Kalispell in minimizing the discharge of pollutants during municipal operation and maintenance activities:

- GH-1 Kalispell Municipal Pollution Prevention Good Housekeeping Guidance Manual
- GH-2 Stormwater Pollution Prevention Training
- GH-3 Street Sweeping
- GH-4 Leaf Collection
- GH-5 Storm Drainage System Inspection and Cleaning Program



**KALISPELL MUNICIPAL POLLUTION  
PREVENTION GOODHOUSE KEEPING  
GUIDANCE MANUAL**

**GH-1**

<b>RESPONSIBLE AUTHORITY</b>  City	<b>DESCRIPTION</b>  The Kalispell Municipal Pollution Prevention/Good Housekeeping Guidance Manual presents a summary of City fixed facilities, field operations, good housekeeping measures, training procedures, and best management practices (BMPs) to be employed by the City. The objective of the Manual is to reduce the potential for polluting or negatively impacting local receiving water from stormwater runoff. A copy of the Guidance Manual may be obtained from Public Works Department front office.
<b>APPLICABILITY</b>  Residents  <input checked="" type="checkbox"/> Public Service Employees  Commercial Businesses  Construction	
<b>RATIONALE FOR SELECTION</b>  An operation and maintenance program which includes a training component, and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations is required for the Small MS4 permittee according to the MS4 General Permit.	

YEAR	IMPLEMENTATION ACTIVITY	MEASURABLE GOAL
<b>2015</b>	<ul style="list-style-type: none"> <li>• Review Guidance Manual with employees</li> <li>• Update as needed</li> </ul>	Employees following manual Standard Operating Procedures
<b>2016</b>	<ul style="list-style-type: none"> <li>• Review Guidance Manual with employees</li> <li>• Update as needed</li> </ul>	Employees following manual Standard Operating Procedures

		<b>STORMWATER POLLUTION PREVENTION TRAINING</b>	<b>GH-2</b>
<b>RESPONSIBLE AUTHORITY</b> City		<b>DESCRIPTION</b> The City of Kalispell is required to train employees on how to incorporate pollution prevention/good housekeeping techniques into municipal facility and field operations. All employees of an MS4 owner, operator, and leaseholders whose activities can potentially impact surface waters are required to receive training regarding stormwater quality and municipal operation.	
<b>APPLICABILITY</b> Residents  <input checked="" type="checkbox"/> Public Service Employees  Commercial Businesses  Construction			
		<b>RATIONALE FOR SELECTION</b> As a part of the Pollution Prevention Good Housekeeping Guidance Manual, the program must include employee training to prevent and reduce stormwater pollution from activities as required for the Small MS4 permittee according to the MS4 General Permit.	
<b>YEAR</b>	<b>IMPLEMENTATION ACTIVITY</b>	<b>MEASURABLE GOAL</b>	
<b>2015</b>	Develop training to educate City staff, airport staff, and golf course staff	Provide one training session per year for all municipal facilities	
<b>2016</b>	Develop training to educate City staff, airport staff, and golf course staff	Provide one training session per year for all municipal facilities	

	<b>STREET SWEEPING</b>		<b>GH-3</b>
<b>RESPONSIBLE AUTHORITY</b>  City	<b>DESCRIPTION</b>  Kalispell streets are swept on a routine basis. During spring sweeping operations, streets are swept more often to collect winter sanding material. Routine sweeping practices include: <ul style="list-style-type: none"> <li>• Operating sweeper to get optimal debris removal</li> <li>• If storm drain plugging or high pollutant loading have been found in certain areas, schedule additional sweeping in those areas</li> <li>• Schedule sweeping immediately after street repair projects and water and sewer repair projects</li> <li>• Schedule sweeping immediately after special events like street fairs, art shows, and parades</li> </ul>		
<b>APPLICABILITY</b>  Residents  <input checked="" type="checkbox"/> Public Service Employees  Commercial Businesses  Construction	<b>RATIONALE FOR SELECTION</b>  Controls for reducing or eliminating the discharge of pollutants from streets, roads, highways, and municipal parking lots is a requirement for the Small MS4 permittee according to the MS4 General Permit.		
<b>YEAR</b>	<b>IMPLEMENTATION ACTIVITY</b>	<b>MEASURABLE GOAL</b>	
<b>2015</b>	Implement Street Sweeping Program	Follow the street sweeping program and track the quantity collected	
<b>2016</b>	Implement Street Sweeping Program	Follow the street sweeping program and track the quantity collected	

	<b>LEAF COLLECTION</b>	<b>GH-4</b>
<b>RESPONSIBLE AUTHORITY</b>  City	<b>DESCRIPTION</b>  Kalispell streets are swept and cleaned on a routine basis in the fall to collect leaves. During fall leaf sweeping operations, leaves are collected from the street, curb, and gutter using sweepers, loaders, and vacuum trucks. Public Service Announcements are sent to inform Kalispell citizens of the correct leaf collection disposal method and routes. The leaves are collected and deposited at the City compost site.	
<b>APPLICABILITY</b>  Residents  <input checked="" type="checkbox"/> Public Service Employees  Commercial Businesses  Construction	<b>RATIONALE FOR SELECTION</b>  Controls for reducing or eliminating the discharge of pollutants from streets, roads, highways, and municipal parking lots is a requirement for the Small MS4 permittee according to the MS4 General Permit.	
<b>YEAR</b>	<b>IMPLEMENTATION ACTIVITY</b>	<b>MEASURABLE GOAL</b>
<b>2015</b>	Implement Leaf Collection Program	Follow the leaf collection program and track the quantity collected
<b>2016</b>	Implement Leaf Collection Program	Follow the leaf collection program and track the quantity collected

		<b>STORM DRAINAGE SYSTEM INSPECTION AND CLEANING PROGRAM</b>	<b>GH-5</b>
<b>RESPONSIBLE AUTHORITY</b>  City		<b>DESCRIPTION</b>  A storm drainage system inspection and cleaning program will be developed and implemented to ensure the following goals: <ul style="list-style-type: none"> <li>• Clean 200 manholes and storm drain inlets each year</li> <li>• Catch basins, storm drain inlets, and other conveyance structures in high pollutant load areas are identified and cleaned before the wet season to remove sediments and debris accumulated during the summer.</li> <li>• During routine maintenance and inspections, note the condition of the sewer and identify areas that need repair or maintenance, look for evidence of illegal discharge or illicit connections, and report illicit discharge to supervision.</li> </ul>	
<b>APPLICABILITY</b>  Residents  <input checked="" type="checkbox"/> Public Service Employees  Commercial Businesses  Construction		<b>RATIONALE FOR SELECTION</b>  Maintenance activities, schedules, and long-term inspection procedures for controls to reduce floatables and other pollutant is a requirement for the Small MS4 permittee according to the MS4 General Permit.	
<b>YEAR</b>	<b>IMPLEMENTATION ACTIVITY</b>	<b>MEASURABLE GOAL</b>	
<b>2015</b>	Implement Drainage System Inspection and Cleaning Program	Inspect and clean catch basins and manholes in areas outlined in the program annually	
<b>2016</b>	Implement Drainage System Inspection and Cleaning Program	Inspect and clean catch basins and manholes in areas outlined in the program annually	

### 5.0 Water Quality Controls for Discharges to Impaired Water bodies

The City will control discharges of pollutants of concern and ensure stormwater discharges will not cause or contribute to in stream exceedance of water quality standards to the maximum extent possible by implementing the following measures and BMPs outlined in the SWMP. The table below outlines pollutants of concern, contributors, and the specifically identified measures and BMPs that will collectively control the discharges of the pollutants of concern. Information on the impaired water bodies was obtained from the Montana State Library website.

Pollutants of Concern	Possible Contributors	Minimum Measure*	BMP
Sediment (Total Suspended Solids)	1. Construction Activities 2. Land Development or Redevelopment	4	C-1: Land Disturbance Ordinance 1600 C-2: Kalispell Construction Site Stormwater Management Permit C-3: Construction Inspection C-4: Erosion Control Plan Review Procedures C-5: Annual Erosion & Sediment Control Training
		1	PE-1: Public Education Program
		2	PI-1: Annual Public Meeting PI-5: Public Contact Program
		5	PC-1: Kalispell Stormwater Quality Management Plan for New Development and Redevelopment PC-2: City Standards for Design and Construction PC-3: Site Inspection and Enforcement and Post-Construction BMPs
Sediment (Continued)	Municipal O&M	6	GH-1: Kalispell Municipal Pollution Prevention Good Housekeeping Guidance Manual GH-2: Stormwater Pollution Prevention Training GH-3: Street Sweeping GH-5: Storm Drainage Inspection and Cleaning
Total Nitrogen, Total Phosphorus	Residential Yard Maintenance	1	PE-1: Public Education Program
		2	PI-1: Annual Public Meeting
		2	PI-5: Public Contact Program
	6	GH-4: Leaf Collection	
	Pet Waste	1	PE-1: Public Education Program

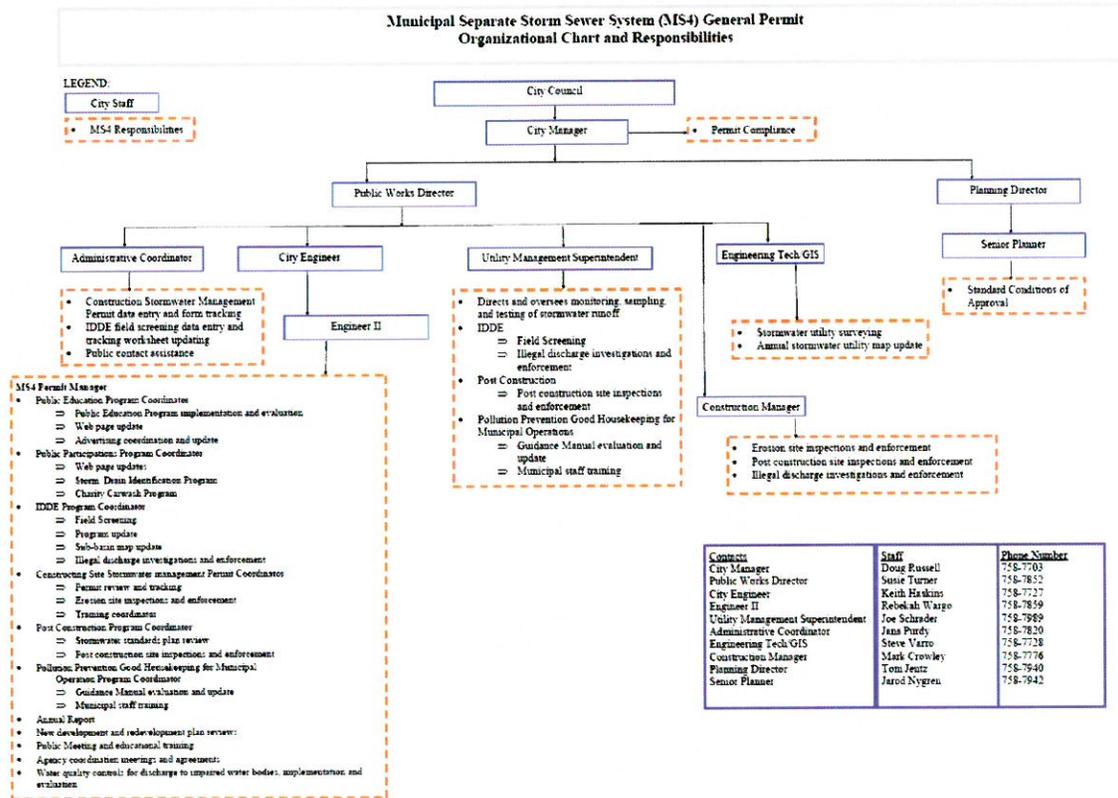
Pollutants of Concern	Possible Contributors	Minimum Measure*	BMP
		2	PI-1: Annual Public Meeting PI-5: Public Contact Program
	Land Development or Redevelopment	5	PC-1: Kalispell Stormwater Quality Management Plan for New Development and Redevelopment PC-2: City Standards for Design and Construction PC-3: Site Inspection and Enforcement and Post-Construction BMPs
Metals (Copper, Lead, Zinc)	Vehicles	6	GH-1: Kalispell Municipal Pollution Prevention Good Housekeeping Guidance Manual GH-3: Street Sweeping GH-5: Storm Drainage System Inspection and Cleaning
	Vehicles (Cont.)	2	PI-3: Charity Carwash Program
	Commercial/Industrial Point Source	3	ID-2: Illicit Discharge Detection and Elimination (IDDE) ID-3: Illicit Discharge Investigations ID-4: Illicit Discharge Ordinance
		1	PE-1: Public Education Program
Oils & Grease	City Roads and Parking Lots	6	GH-1: Kalispell Municipal Pollution Prevention Good Housekeeping Guidance Manual GH-2: Stormwater Pollution Prevention Training
		1	PE-1: Public Education Program
	Residential Auto Maintenance	1	PE-1: Public Education Program
		2	PI-1: Annual Public Meeting PI-2: Storm Drain ID PI-5: Public Contact Program
	Commercial/Industrial Point Source	1	PE-1: Public Education Program
		2	PI-1: Annual Public Meeting PI-5: Public Contact Program
		3	ID-2: Illicit Discharge Detection and Elimination (IDDE) ID-3: Illicit Discharge Investigations ID-4: Illicit Discharge Ordinance
Organics (Chemical Oxygen Demand)	Litter	6	GH-1: Kalispell Municipal Pollution Prevention Good Housekeeping Guidance Manual
		1	PE-1: Public Education Program

<b>Pollutants of Concern</b>	<b>Possible Contributors</b>	<b>Minimum Measure*</b>	<b>BMP</b>
		2	PI-1: Annual Public Meeting PI-5: Public Contact Program
	Residential Yard Maintenance	1	PE-1: Public Education Program
		2	PI-1: Annual Public Meeting PI-5: Public Contact Program
	Leaves	6	GH-1: Kalispell Municipal Pollution Prevention Good Housekeeping Guidance Manual GH-3: Street Sweeping GH-4: Leaf Collection GH-5: Storm Drainage System Inspection and Cleaning
	Illicit Discharge	3	ID-2: Illicit Discharge Detection and Elimination (IDDE) ID-3: Illicit Discharge Investigations ID-4: Illicit Discharge Ordinance
Temperature, water	Low Flow	5	PC-1: Kalispell Stormwater Quality Management Plan for New Development and Redevelopment

\*1= Public Education and Outreach on Stormwater Impacts, 2=Public Involvement/Participation, 3=Illicit Discharge Detection and Elimination, 4=Construction Site Stormwater Runoff Control, 5=Post-Construction Stormwater Management in New Development and Redevelopment, 6= Pollution Prevention/Good Housekeeping for Municipal Operations

## 6.0 SWMP ORGANIZATION AND RESPONSIBILITIES

The City of Kalispell is governed by the Mayor and Council and is managed by a City Manager. The City Manager is the principal executive officer and therefore is the certified official to sign documents for the MS4 Permit. The MS4 permit requirements are developed, implemented, and enforced by the Public Works Department, which is managed by the Public Works Director. The following is an organizational chart identifying City staff and MS4 Permit responsibilities.



## 5.0 SWMP EVALUATION STRATEGIES

SWMP evaluations review the ongoing management of the MS4 general permit and progress toward meeting the measurable program goals. Evaluation of the SWMP will occur on different levels depending on the permit requirements, minimum measure BMP program implementation schedules, and identified goals. The SWMP implementation goals are evaluated annually and sent in a report to DEQ. The Annual Report provides an update of efforts made in implementing the measures and programs set forth in the SWMP.

The programs developed in response to the minimum measure BMPs are evaluated on the following schedule.

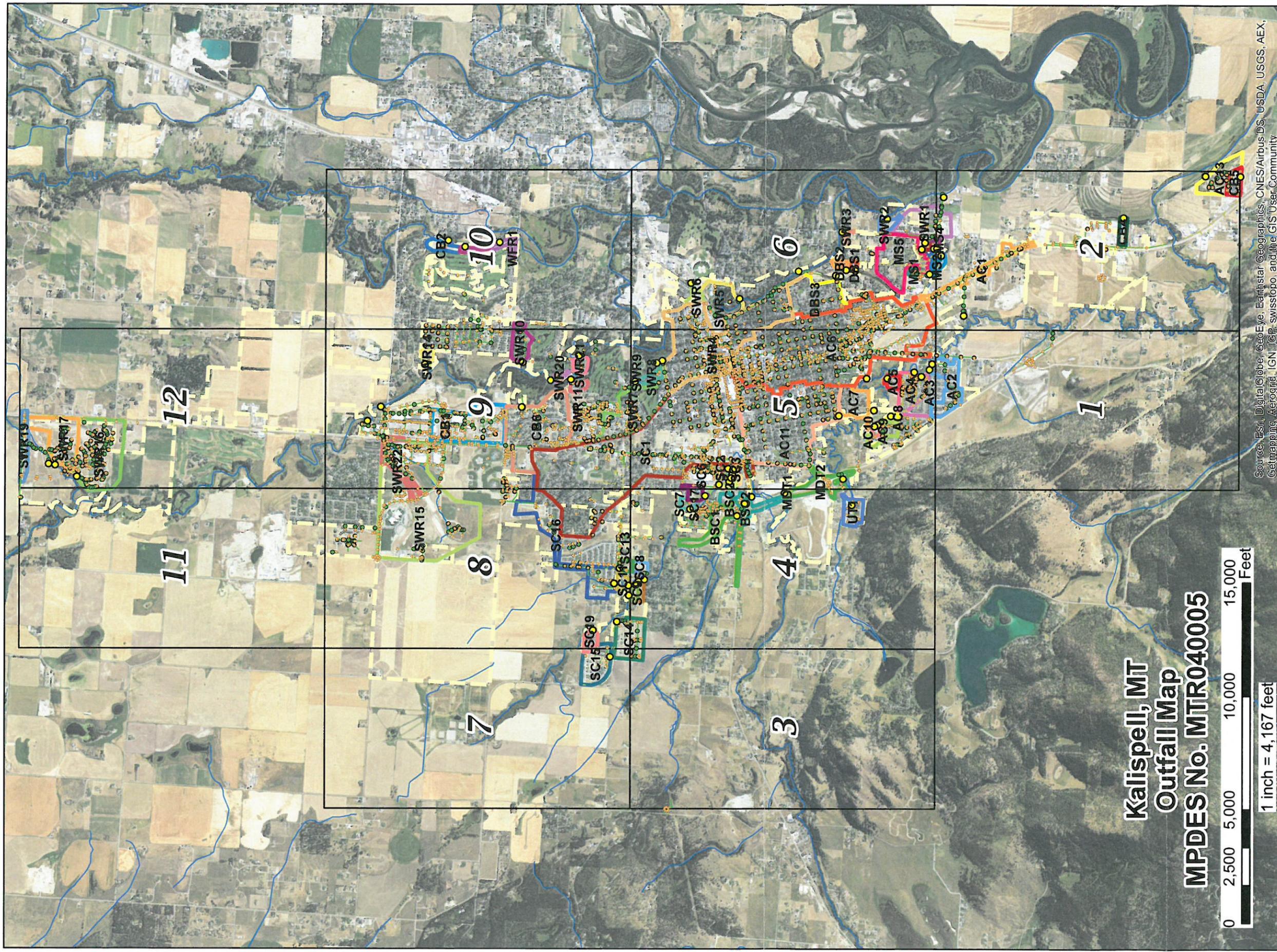
1. Public Education Program and Participation Programs
  - a. Evaluated in January for Annual Report
2. Illicit Discharge Detection and Elimination Program
  - a. Field Screening: annual evaluation and tracking update

- b. Storm utility map update and sub-basin delineation update
- 3. Annual Erosion and Sediment Control Training
  - a. Training survey evaluation and curriculum adjustment
- 4. Pollution Prevention Good Housekeeping Program
  - a. Guidance Manual update and annual training

Permit required evaluations on an annual basis are as follows:

1. The City is required to evaluate each sample parameter test result by comparison with the parameter MS4 median concentrations, pH values, and oil and grease concentration. If there is an exceedance the City will evaluate potential sources and reasons and consider additional BMPs or other management measures which may need to be initiated to improve the quality of stormwater discharges. These measures will be implemented as necessary and updated in the City's Stormwater Management Program (SWMP).
2. Evaluate SWMP BMPs to ensure water quality controls are in place for discharges to impaired water bodies. The City reviews the SWMP to ensure control of discharges of pollutants and ensure stormwater discharges will not cause or contribute to in stream exceedance of water quality standards to the maximum extent possible.

**Kalispell, MT**  
**Delineated Outfall Maps**



**Kalispell, MT**  
**Outfall Map**  
**MPDES No. MTR040005**

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

**Legend**

- Outfall
- Stormwater Catch Basins
- Storm Water Manholes
- Stormwater Mains
- AC1
- AC2
- AC3
- AC4
- AC5
- AC6
- AC7
- AC8
- AC9
- AC10
- AC11
- AC13
- BSC1
- BSC2
- CB1
- CB2
- CB3
- CB4
- CB5
- CB6
- DBS1
- DBS2
- DBS3
- MDT1
- MDT2
- MS1
- MS2
- MS3
- MS4
- MS5
- MS6
- SC1
- SC2
- SC3
- SC4
- SC5
- SC6
- SC7
- SC8
- SC9
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- SC11
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- SC14
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- SWR1
- SWR2
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- SWR4
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- City Limits

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- SWR21
- SWR22
- WFR1
- UT1
- City Limits



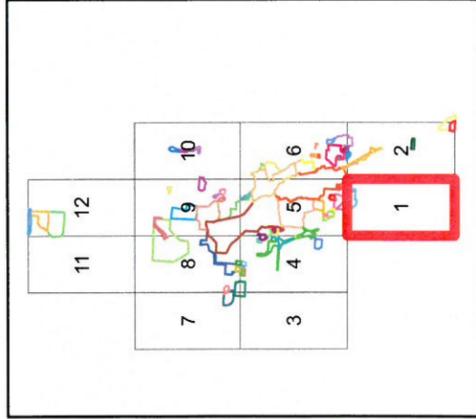
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

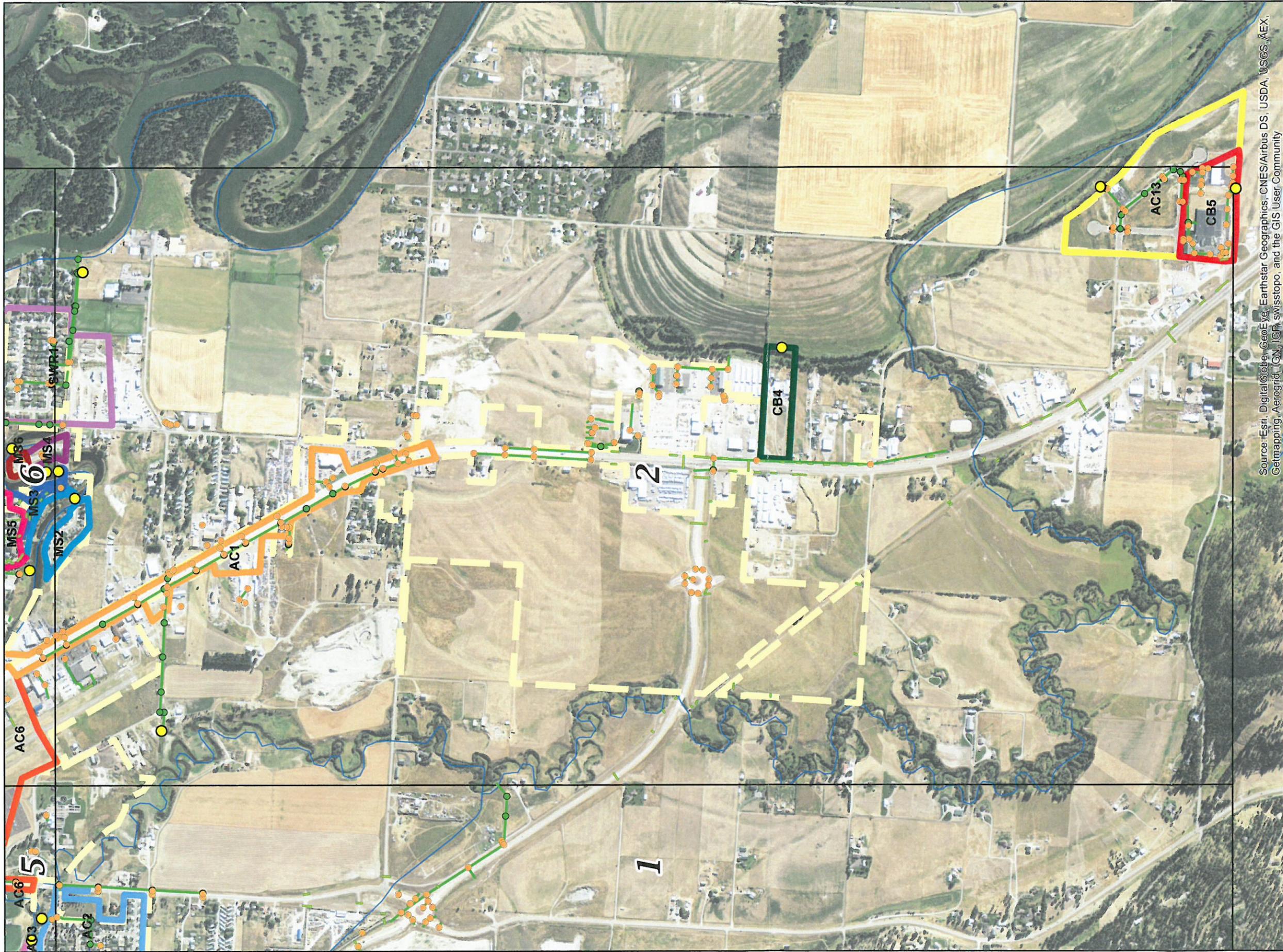


**Kalispell, MT**  
**Outfall Map**  
**MPDES No. MTR040005**

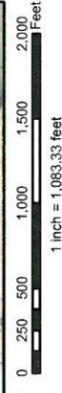
**Legend**

- Stormwater Catch Basins
- Storm Water Manholes
- Stormwater Mains
- AC2
- AC3
- City Limits





Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

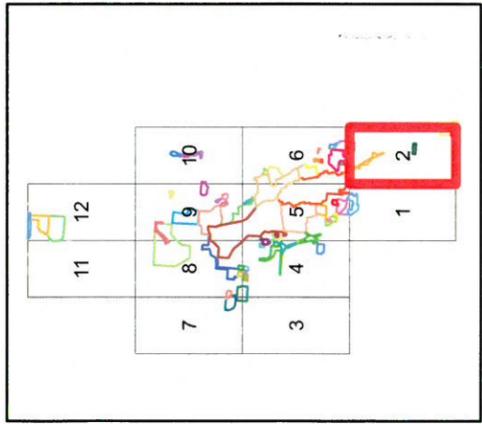


# Kalispell, MT Outfall Map

## MPDES No. MTR040005

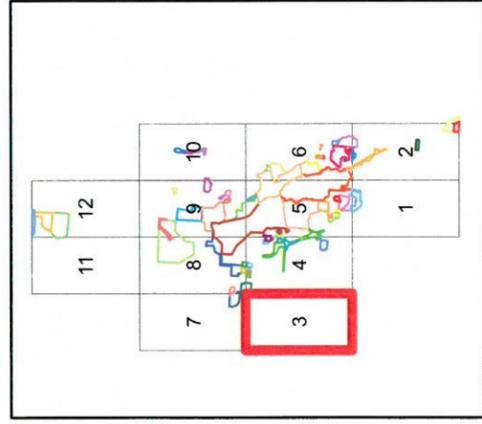
### Legend

- Outfall
- Stormwater Catch Basins
- Storm Water Manholes
- Stormwater Mains
- AC1
- AC6
- AC13
- CB4
- CB5
- MS2
- MS3
- MS4
- SWR1
- City Limits





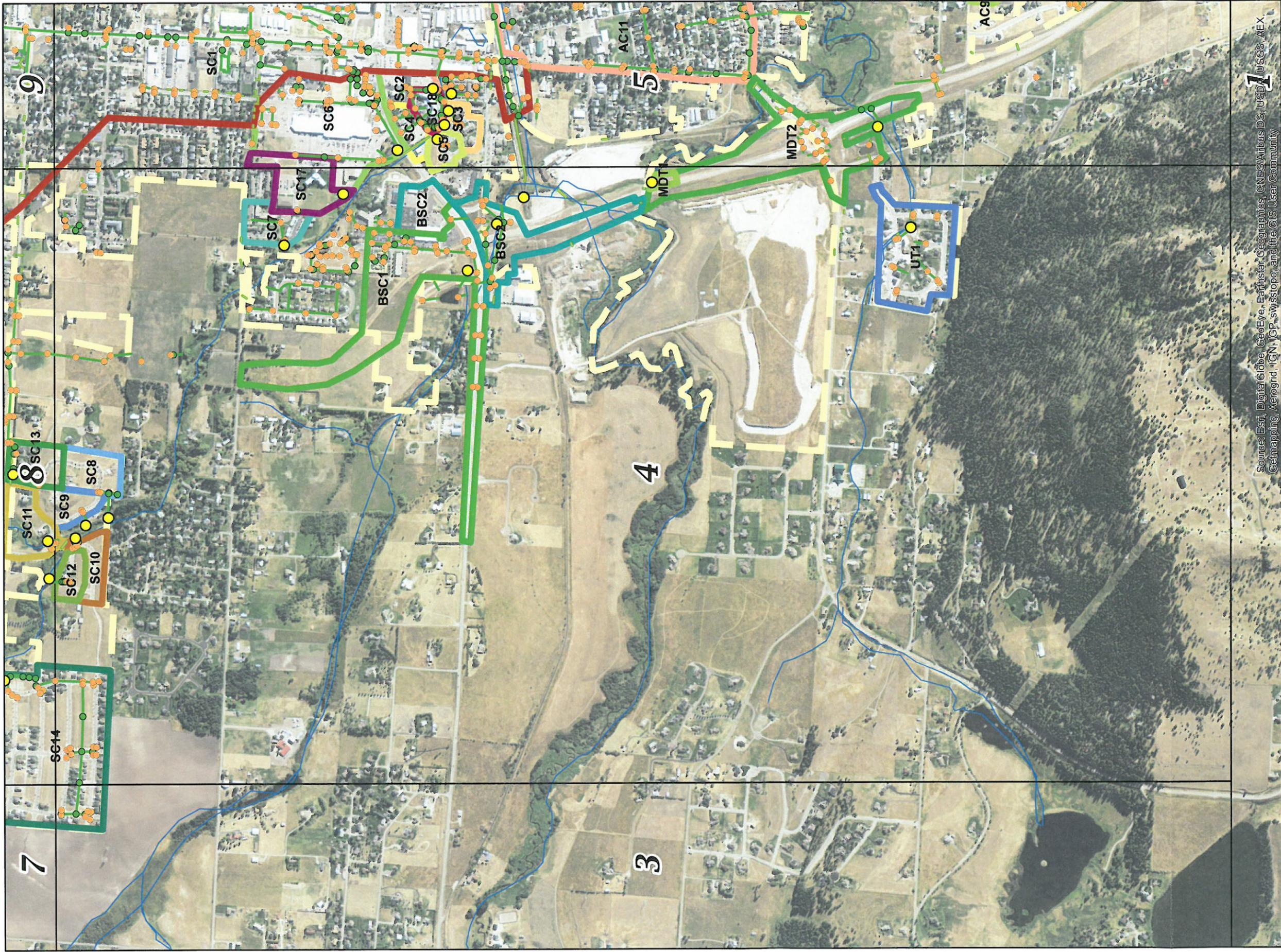
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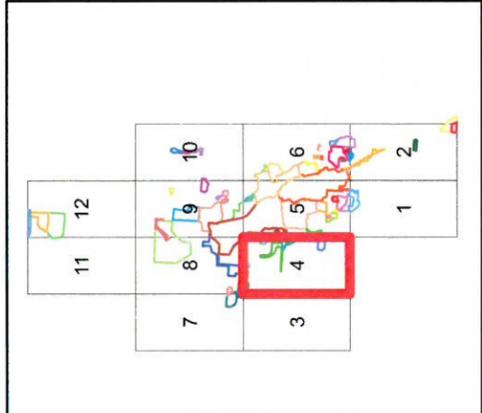
**Legend**

- Stormwater Catch Basins
- Storm Water Manholes
- Stormwater Mains
- SC14
- City Limits

**Kalispell, MT  
Outfall Map  
MPDES No. MTR040005**



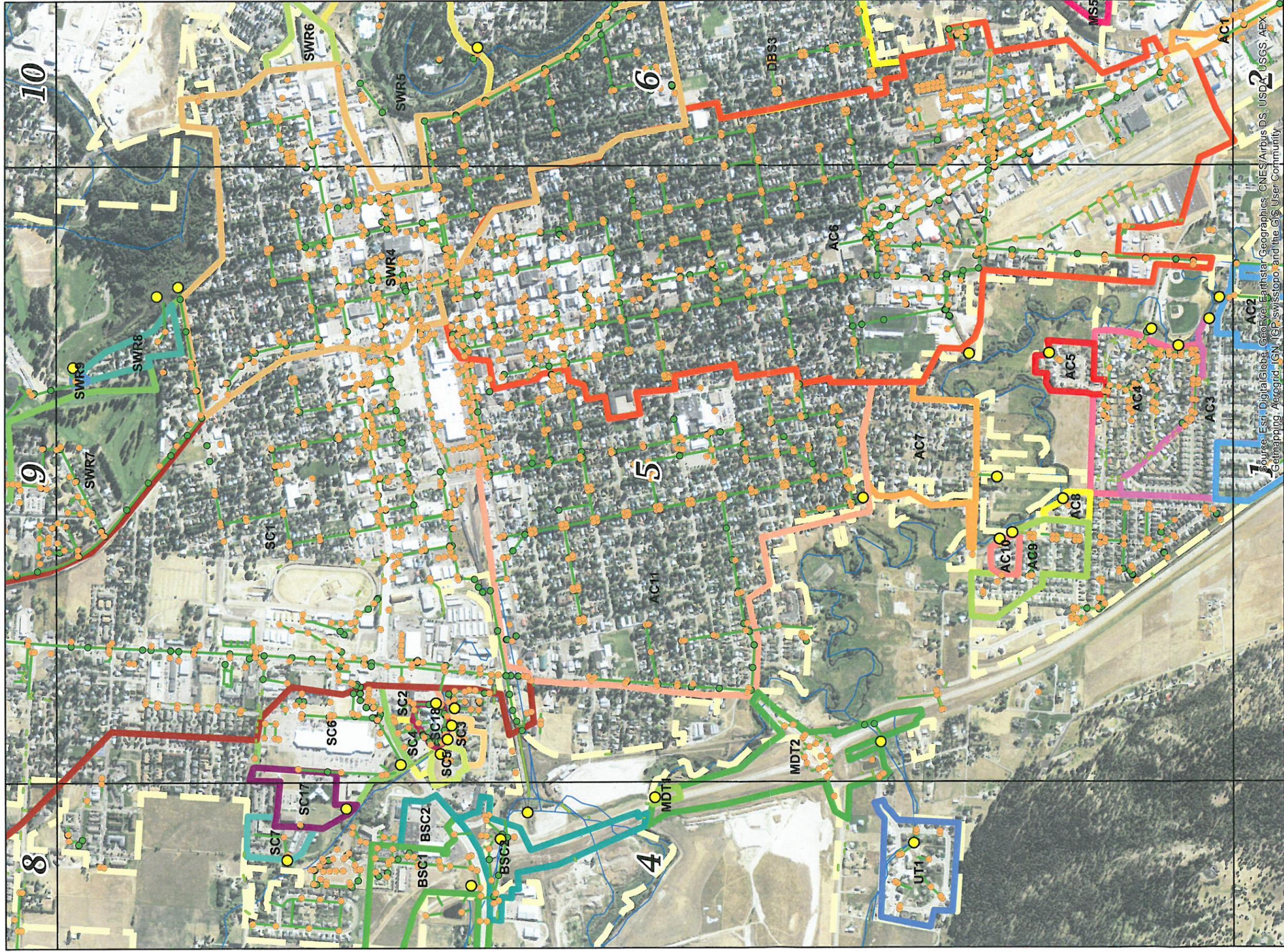
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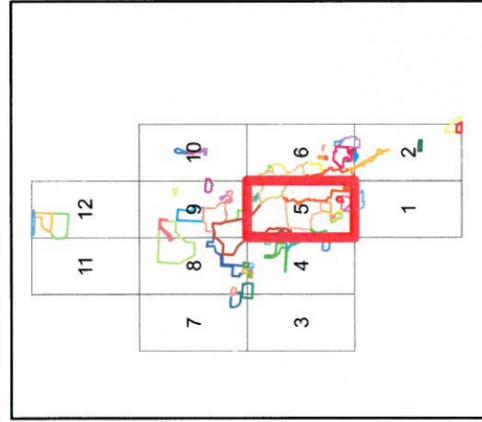
## Kalispell, MT Outfall Map MPDES No. MTR040005

### Legend

- Outfall
- Stormwater Catch Basins
- Storm Water Manholes
- Stormwater Mains
  - BSC1
  - BSC2
  - MDT1
- MDT2
- SC1
- SC5
- SC6
- SC7
- SC8
- SC9
- SC10
- SC11
- SC12
- SC13
- SC14
- SC17
- UT1
- City Limits



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



### Legend

- Outfall
- Stormwater Catch Basins
- Storm Water Manholes
- Stormwater Mains
- ▭ AC2
- ▭ AC3
- ▭ AC4

- ▭ AC5
- ▭ AC6
- ▭ AC7
- ▭ AC8
- ▭ AC9
- ▭ AC10
- ▭ AC11

- ▭ MDT2
- ▭ SC1
- ▭ SC2
- ▭ SC3
- ▭ SC4
- ▭ SC5
- ▭ SC6

- ▭ SC17
- ▭ SC18
- ▭ SWR4
- ▭ SWR5
- ▭ SWR7
- ▭ SWR8
- ▭ SWR9

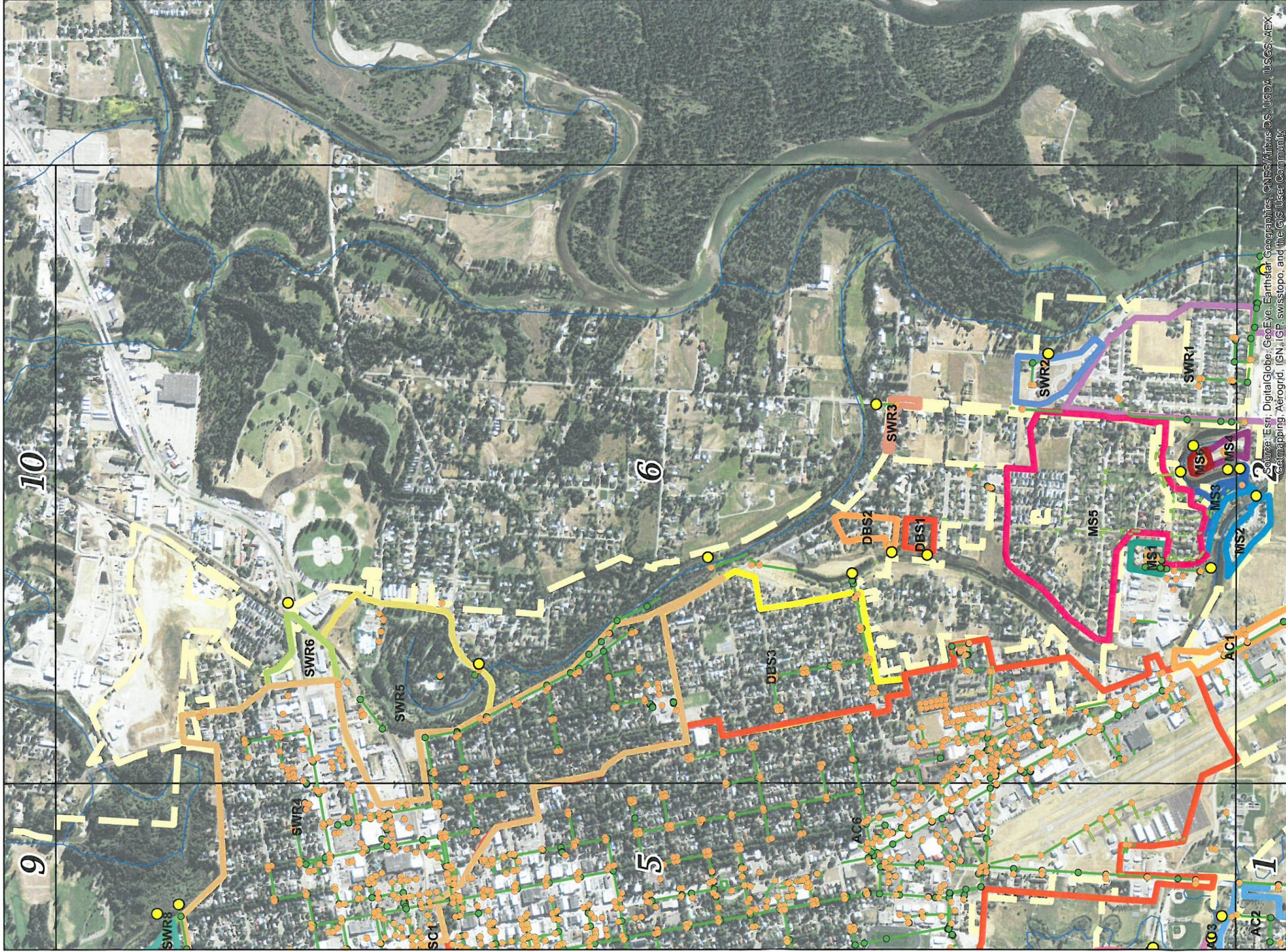
▭ City Limits

0 250 500 1,000 1,500 2,000 Feet  
1 inch = 1,083.33 feet



## Kalispell, MT Outfall Map

### MPDES No. MTR040005



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



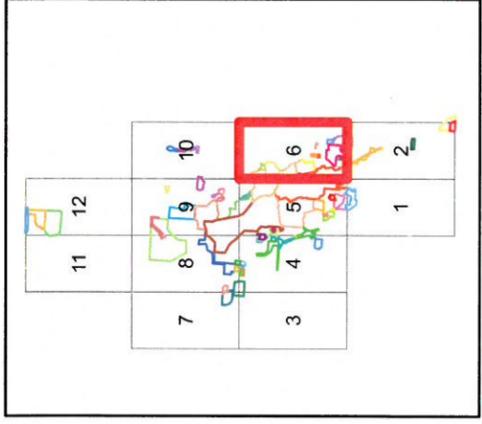
**Kalispell, MT**  
**Outfall Map**  
**MPDES No. MTR040005**

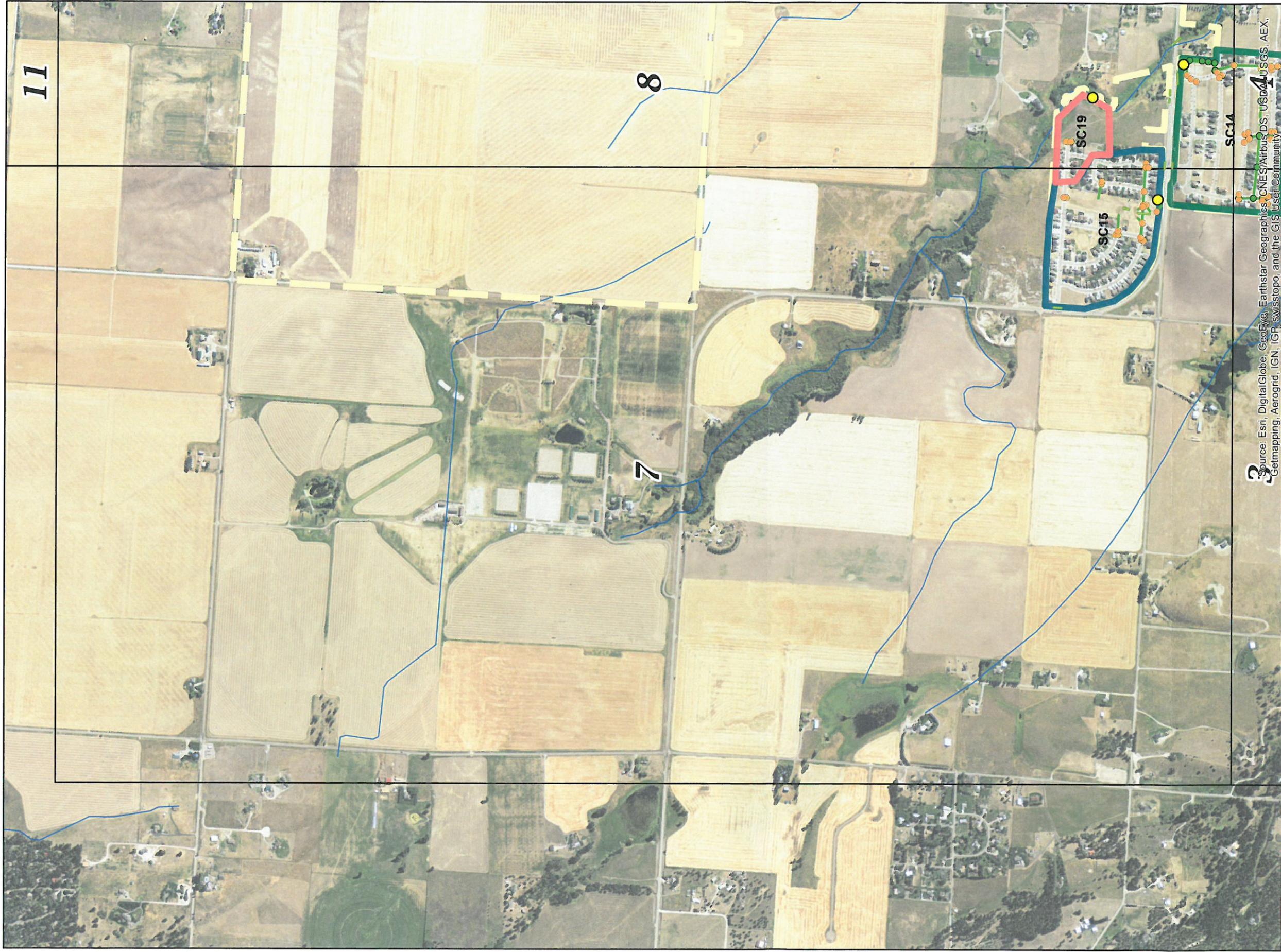
**Legend**

- Outfall
- Stormwater Catch Basins
- Storm Water Manholes
- Stormwater Mains
- AC1
- AC6
- DBS1

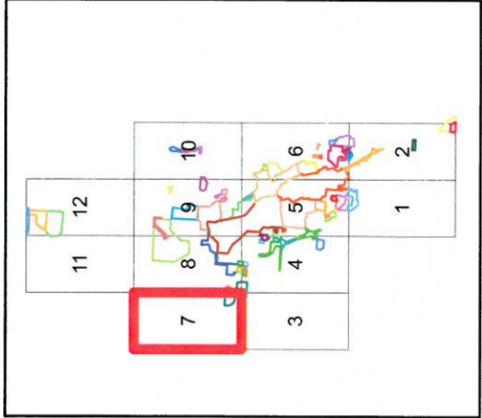
- DBS2
- DBS3
- MS1
- MS2
- MS3
- MS4
- MS5
- MS6
- SWR1
- SWR2
- SWR3
- SWR4
- SWR5
- SWR6

City Limits





Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGH, swisstopo, and the GIS User Community

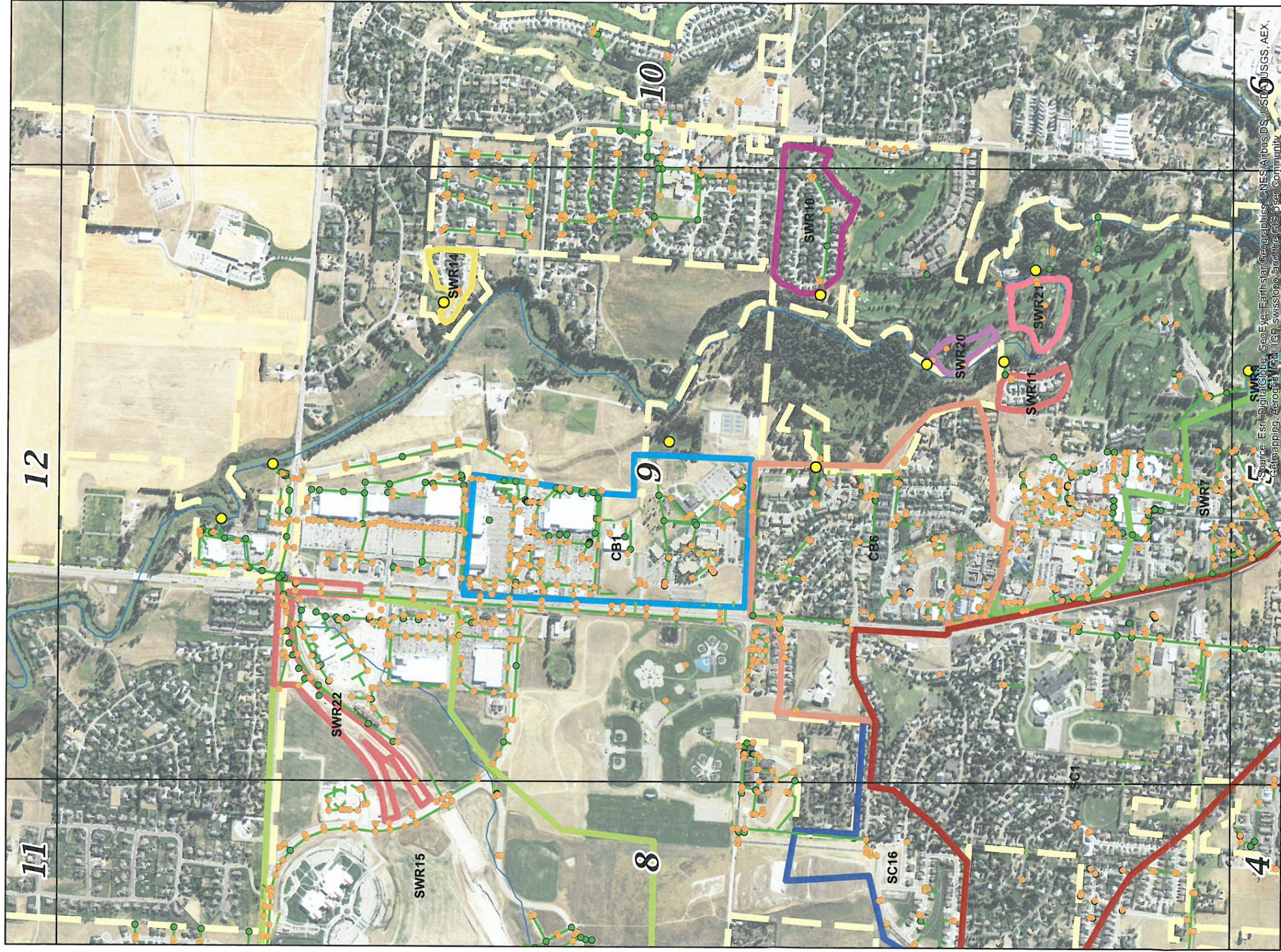


**Legend**

-  Outfall
-  Stormwater Catch Basins
-  Stormwater Mains
-  SC14
-  SC15
-  SC19
-  City Limits

**Kalispell, MT  
Outfall Map  
MPDES No. MTR040005**





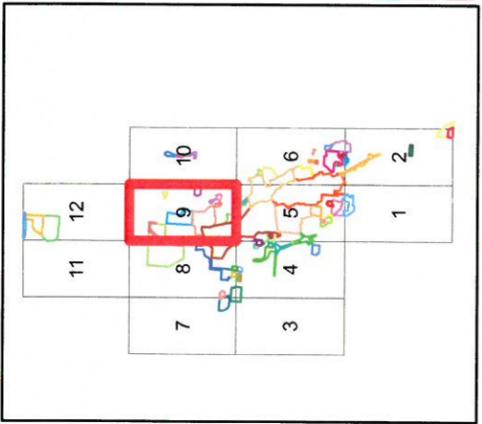
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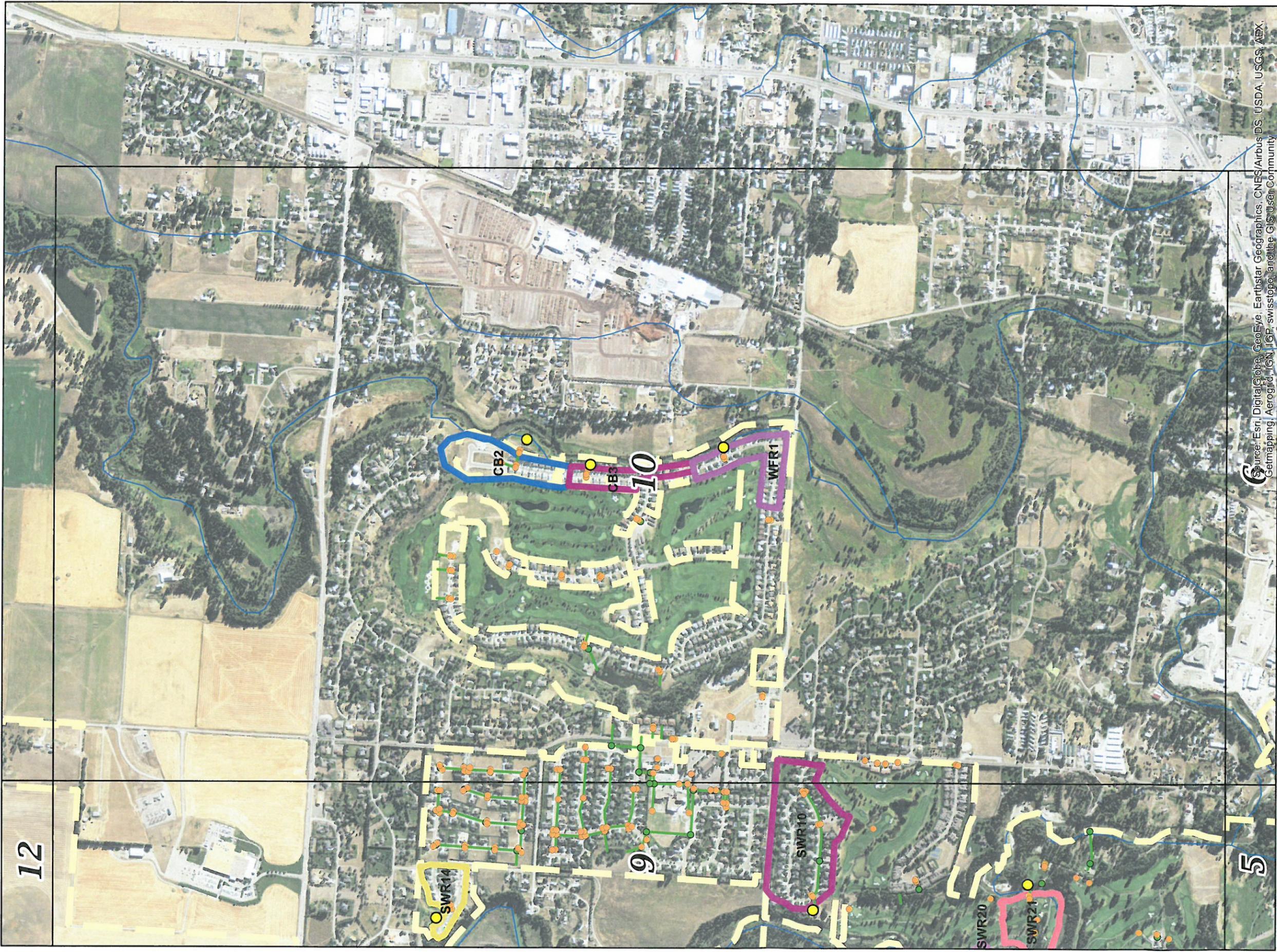


# Kalispell, MT Outfall Map MPDES No. MTR040005

## Legend

-  Outfall
-  Stormwater Catch Basins
-  Storm Water Manholes
-  Stormwater Mains
-  CB1
-  CB6
-  SC1
-  SC16
-  SWR7
-  SWR10
-  SWR11
-  SWR14
-  SWR15
-  SWR20
-  SWR21
-  SWR22
-  City Limits





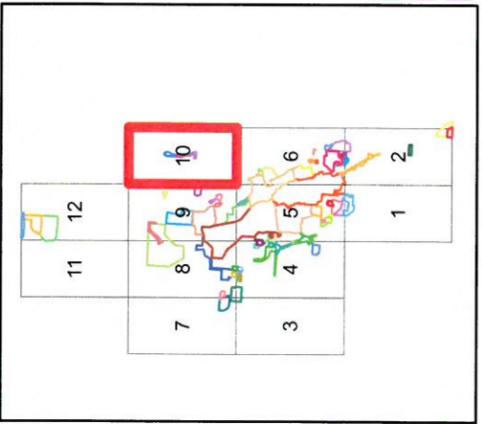
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

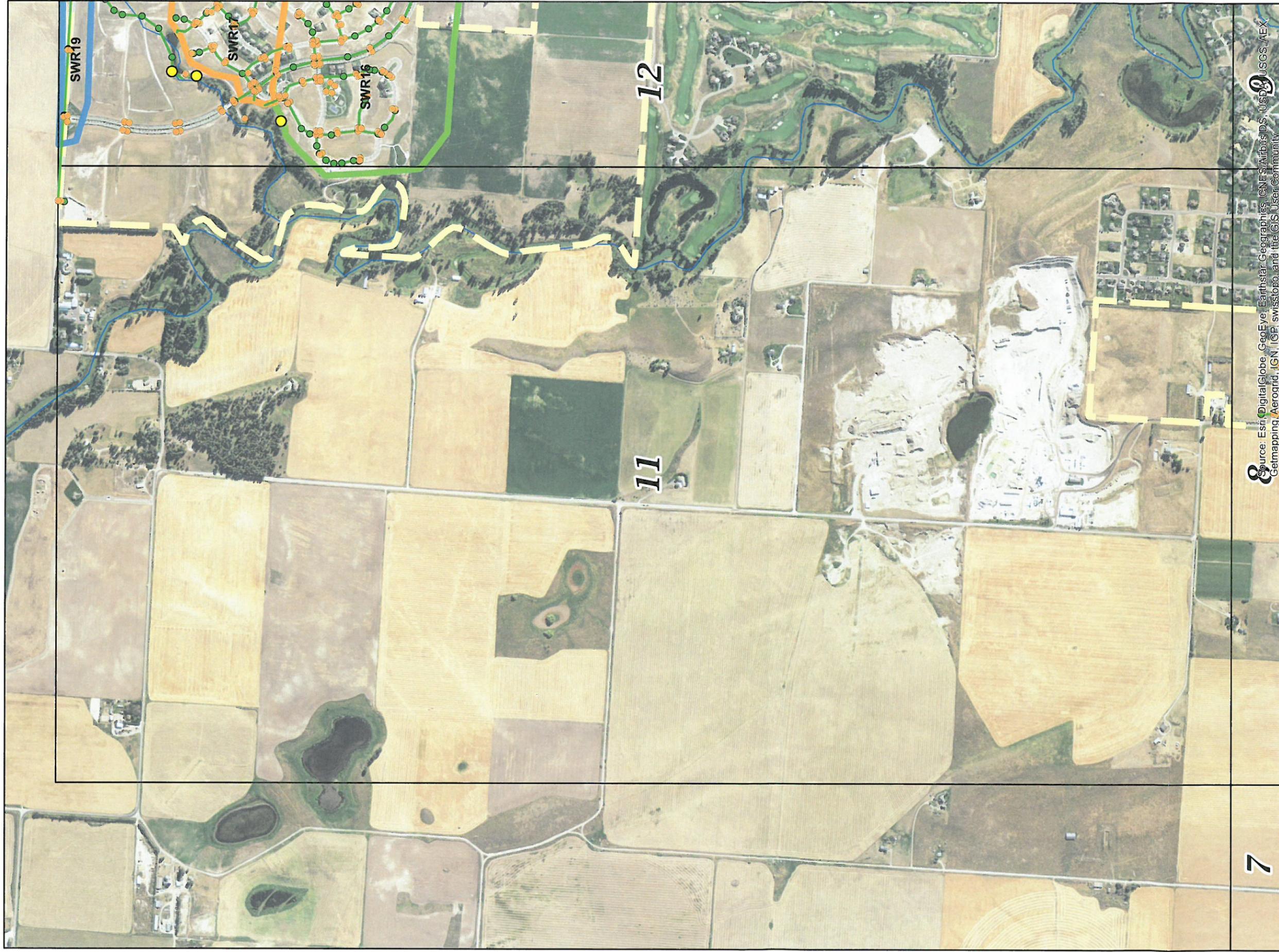


**Kalispell, MT**  
**Outfall Map**  
**MPDES No. MTR040005**

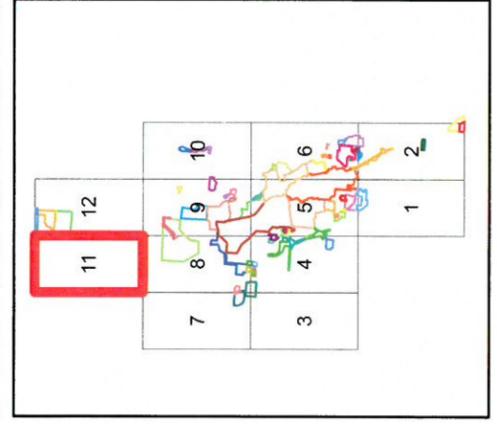
**Legend**

-  Outfall
-  Stormwater Catch Basins
-  Storm Water Manholes
-  Stormwater Mains
-  CB2
-  CB3
-  SWR10
-  WFR1
-  City Limits



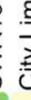
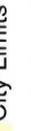


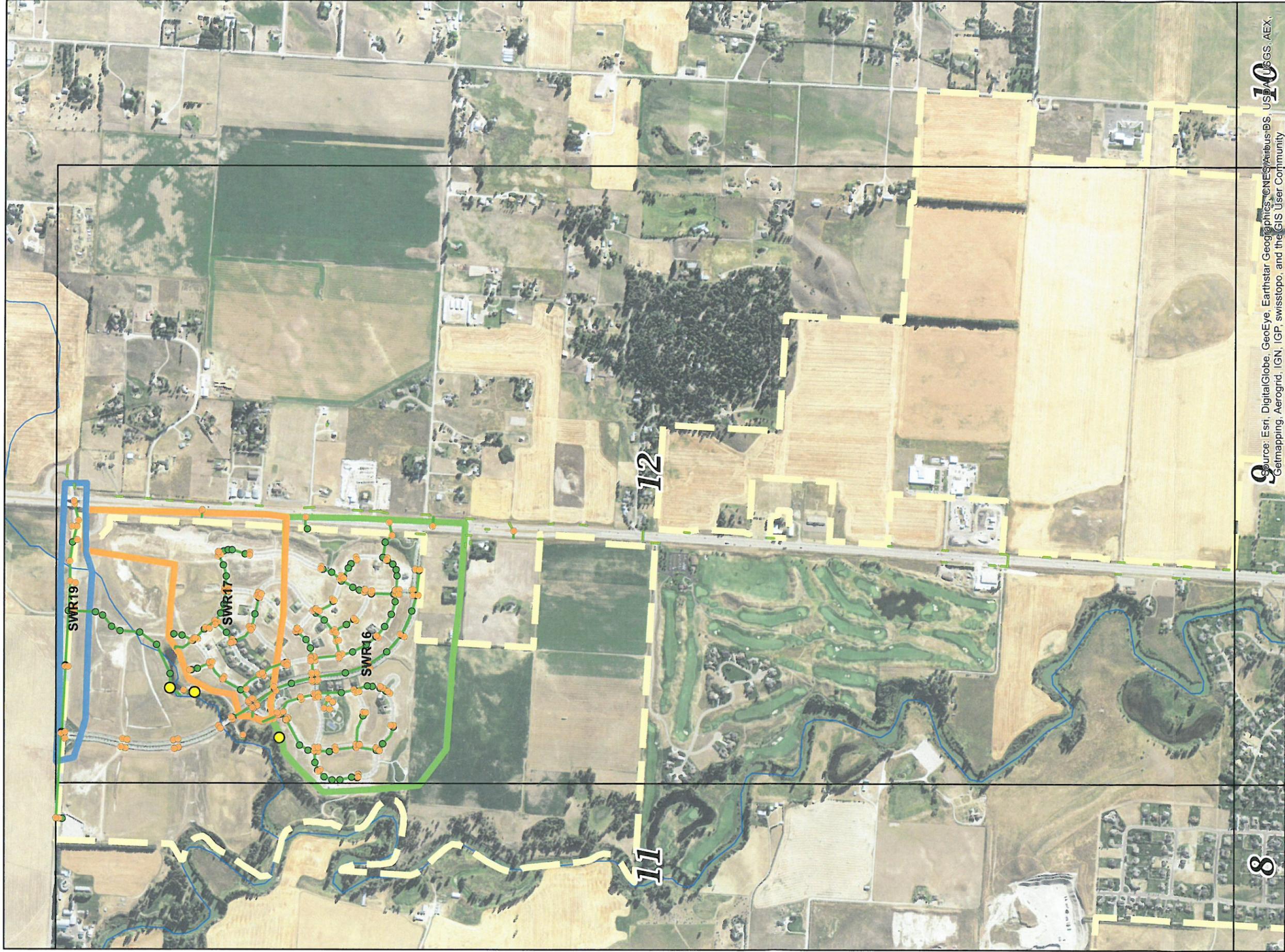
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, IGP, swisstopo, and the GIS User Community



**Kalispell, MT**  
**Outfall Map**  
**MPDES No. MTR040005**

**Legend**

-  Stormwater Catch Basins
-  Storm Water Manholes
-  Stormwater Mains
-  SWR16
-  City Limits



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA/USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

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# Kalispell, MT Outfall Map MPDES No. MTR040005

## Legend

-  City Limits
-  Outfall
-  Stormwater Catch Basins
-  Storm Water Manholes
-  Stormwater Mains
-  SWR16
-  SWR17
-  SWR19

