

2018 Stormwater Management Plan



Murray County, GA
Phase II MS4

Prepared By:



CWWC
Chatsworth Water Works Commission

This Stormwater Management Plan (SWMP) has been prepared by Chatsworth Water Works Commission (CWWC) on behalf of Murray County, Georgia, a Phase II MS4, per the Georgia Department of Natural Resources Environmental Protection Division General NPDES Stormwater Permit Number GAG610000.

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NPDES Permit Expiration Date: December 6, 2022

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SWMP Expiration Date: June 4, 2023

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SWMP Revision Date	Description

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STATE OF GEORGIA DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

Stormwater Management Program (SWMP)

General NPDES Permit No. GAG610000 for
Small Municipal Separate Storm Sewer Systems (MS4)

1. **General Information**

- A. Name of small MS4: Murray County
- B. Name of responsible official: Greg Hogan
Title: Sole Commissioner
Mailing Address: P.O. Box 1129
City: Chatsworth State: Georgia Zip Code: 30705
Telephone Number: 706-517-1400
- C. Designated stormwater management program contact:
Name: Stephen Smith
Title: General Manager, Chatsworth Water Works Commission
Mailing Address: P.O. Box 100
City: Chatsworth State: Georgia Zip Code: 30705
Telephone Number: 706-695-3132
Email Address: steves@chatsworthwater.com

2. **Sharing Responsibility**

- A. Has another entity agreed to implement a control measure on your behalf?
Yes No (If no, skip to Part 3)

Control Measure or BMP:

1. Name of entity: Chatsworth Water Works Commission
2. Control measure or component of control measure to be implemented by entity on your behalf:
See Memorandum of Agreement (Attachment 1)

- B. Attach an additional page if necessary to list additional shared responsibilities. **It is mandatory that you submit a copy of a written agreement between your MS4 and the other entity demonstrating written acceptance of responsibility.**

3. Minimum Control Measures and Appendices

- A. Public Education
- B. Public Involvement/Participation
- C. Illicit Discharge Detection and Elimination (IDDE)
- D. Construction Site Stormwater Runoff Control
- E. Post-Construction Stormwater Management
- F. Pollution Prevention/Good Housekeeping for Municipal Operations
- G. Appendix – Enforcement Response Plan (ERP)
- H. Appendix – Impaired Waters

4. Certification Statement

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 gathered and evaluated the information submitted. Based upon my inquiry of the person or 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.

Printed Name: Greg Hogan Date: _____

Signature: _____ Title: Sole Commissioner

Public Education

40 CFR Part 122.34(b)(1) Requirement: The permittee must implement a public education program to distribute educational materials to the community and/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.

See Table 4.2.1(a) of the Permit

Public Education

A. Best Management Practice (BMP) #1 – Website

1. Target audience: general public, employees, developers and schools
2. Description of BMP: The website is used to provide information, resources and contact information about stormwater and erosion control in Murray County. The home page provides general education for the general public. The community page provides resources for citizens, links to local programs and ordinances, and a section used to report stormwater issues. The development page provides developers with links to manuals, checklists, applications, ordinances, etc. for local and state requirements. The resources page provides additional links to stormwater and erosion control related websites, publications and programs, as well as a section of resources specifically for students and educators.
3. Measurable goal(s): Evaluate the website to ensure that it meets the needs of the target audience. Update the website when necessary.
4. Documentation to be submitted with each annual report: A report of the annual visitors to the website will be provided for each reporting period. The website can be viewed at www.chatsworth-eton-murraystormwater.com
5. Schedule:
 - a. Interim milestone dates (if applicable): N/A
 - b. Implementation date (if applicable): January 2015
 - c. Frequency of actions (if applicable): Annually
 - d. Month/Year of each action (if applicable): Varies
6. Person (position) responsible for overall management and implementation of the BMP: Stormwater Coordinator, Chatsworth Water Works Commission
7. Rationale for choosing BMP and setting measurable goal(s): This BMP and measurable goal are a requirement per Part 4.2.1 of the Permit. A website is the best way to educate a variety of people, on a broad scale, and provide a central location to direct people with questions or concerns about stormwater and/or erosion control.

8. How you will determine whether this BMP is effective in accordance with Part 5.1.4 of the Permit: If the website report shows that the website is being used frequently, and the website has been evaluated to ensure that it meets the needs of the target audience, then this BMP will be considered effective.

Public Education

B. BMP #2 – Presentation to Government Officials

1. Target audience: government officials and general public
2. Description of BMP: Commissioner's meetings are held each month in which the commissioner, employees and the general public discuss county business. During at least one of these meetings, a stormwater presentation will be given. The presentation can include educational material, program updates, issues, finances and/or regulatory changes.
3. Measurable goal(s): The commissioner, and other government officials who attend the commissioner's meetings, will receive at least one briefing on the county's stormwater program each year.
4. Documentation to be submitted with each annual report: A copy of the meeting minutes for the stormwater program presentation will be provided.
5. Schedule:
 - a. Interim milestone dates (if applicable): N/A
 - b. Implementation date (if applicable): November 2014
 - c. Frequency of actions (if applicable): Annually
 - d. Month/Year of each action (if applicable): Varies
6. Person (position) responsible for overall management and implementation of the BMP: Land Use Administrator, Murray County
7. Rationale for choosing BMP and setting measurable goal(s): This BMP and measurable goal are a requirement per Part 4.2.1 of the Permit. A presentation is a great way to inform about and build support for the stormwater program.
8. How you will determine whether this BMP is effective in accordance with Part 5.1.4 of the Permit: If at least one stormwater briefing is given at a Commissioner's meeting, this BMP will be considered effective.

Public Education

C. BMP #3 – Newspaper Article

1. Target audience: general public
2. Description of BMP: A newspaper article will be used to educate the general public about stormwater-related topics such as good housekeeping, IDDE, construction site inspections and GI/LIDs.
3. Measurable goal(s): At least one newspaper article will be published, in the local newspaper, in order to educate the general public about stormwater-related topics.
4. Documentation to be submitted with each annual report: A copy of the newspaper article will be provided.
5. Schedule:
 - a. Interim milestone dates (if applicable): N/A
 - b. Implementation date (if applicable): 2018
 - c. Frequency of actions (if applicable): Annually
 - d. Month/Year of each action (if applicable): Varies
6. Person (position) responsible for overall management and implementation of the BMP: Land Use Administrator, Murray County
7. Rationale for choosing BMP and setting measurable goal(s): This BMP and measurable goal are a requirement per Part 4.2.1 of the Permit. A newspaper article is a good way to reach a large number of people at a reasonable cost.
8. How you will determine whether this BMP is effective in accordance with Part 5.1.4 of the Permit: If at least one stormwater-related newspaper article is published, this BMP will be considered effective.

Public Education

D. BMP #4 – Brochure Rack

1. Target audience: general public
2. Description of BMP: A rack containing stormwater related educational material will be displayed for and made available to the general public in the Murray County Land Use Office. See Attachment 2 for the educational material that will be used. The material will be evaluated each year to ensure that it is useful to the people who visit the Land Use Office.
3. Measurable goal(s): Resupply the rack with educational material at least once each year. Evaluate that the material distributed meets the needs of the general public.
4. Documentation to be submitted with each annual report: If new educational material is used that differs from the material submitted with this SWMP, then a copy will be submitted.
5. Schedule:
 - a. Interim milestone dates (if applicable): N/A
 - b. Implementation date (if applicable): November 2014
 - c. Frequency of actions (if applicable): Annually
 - d. Month/Year of each action (if applicable): Varies
6. Person (position) responsible for overall management and implementation of the BMP: Land Use Administrator, Murray County
7. Rationale for choosing BMP and setting measurable goal(s): This BMP and measurable goal are a requirement per Part 4.2.1 of the Permit. Educational handouts are a great way to provide stormwater education and resources in Murray County to those citizens who visit the Land Use Office.
8. How you will determine whether this BMP is effective in accordance with Part 5.1.4 of the Permit: If the brochure rack is evaluated and resupplied at least one time during the reporting period, this BMP will be considered effective.

Public Involvement/Participation

40 CFR Part 122.34(b)(2) Requirement: The permittee must, at a minimum, comply with State and local public notice requirements when implementing a public involvement/participation program.

See Table 4.2.2 (a) of the Permit

Public Involvement/Participation

A. BMP #1 – Amnesty Day

1. Target audience/stakeholder group: General public
2. Description of BMP: Amnesty Day is an event held each year in which citizens have the opportunity to recycle and/or properly dispose of waste, free of charge, at the landfill. Citizens are allowed to recycle used tires, appliances, motor oil and batteries. Citizens are also allowed to dispose of their additional waste that would normally cost them to bring to the landfill.
3. Measurable goal(s): At least one recycling event will be held each year in which citizens have the opportunity to participate.
4. Documentation to be submitted with each annual report: A copy of the report from the Murray County Landfill of the totals of recycled materials and waste collected during the event, and the total number of participants, will be provided. If pictures or a newspaper article are available, they will be included.
5. Schedule:
 - a. Interim milestone dates (if applicable): N/A
 - b. Implementation date (if applicable): Before MS4 designation
 - c. Frequency of actions (if applicable): Annually
 - d. Month/Year of each action (if applicable): April
6. Person (position) responsible for overall management and implementation of the BMP: Land Use Administrator, Murray County
7. Rationale for choosing BMP and setting measurable goal(s): This BMP and measurable goal are a requirement per Part 4.2.2 of the Permit. This event has had successful community participation in the past and is a great way to rid the community of waste and recyclable materials that may otherwise not have been disposed of properly.
8. How you will determine whether this BMP is effective in accordance with Part 5.1.4 of the Permit: If at least one recycling event, in which citizens have the opportunity to participate, is held, this BMP will be considered effective.

Public Involvement/Participation

B. BMP #2 – Report a Problem

1. Target audience/stakeholder group: General public
2. Description of BMP: The municipal website includes a section for reporting stormwater problems. At the bottom of the “Community” web page is the “Report a Problem” section. Within this section of the website is a button “County Stormwater Form”. Once the form is filled out, it is automatically recorded on a spreadsheet and an email confirmation is sent to the stormwater email account. See Attachment 3.
3. Measurable goal(s): Evaluate the “Report a Problem” section of the website to ensure that it meets the needs of the target audience and update when necessary.
4. Documentation to be submitted with each annual report: A log sheet of the problems submitted through the website will be provided.
5. Schedule:
 - a. Interim milestone dates (if applicable): N/A
 - b. Implementation date (if applicable): December 28, 2016
 - c. Frequency of actions (if applicable): Annually
 - d. Month/Year of each action (if applicable): Varies
6. Person (position) responsible for overall management and implementation of the BMP: Land Use Administrator, Murray County
7. Rationale for choosing BMP and setting measurable goal(s): This BMP and measurable goal are a requirement per Part 4.2.2 of the Permit. Having a way for citizens to report stormwater issues directly to county staff is essential to improving the MS4.
8. How you will determine whether this BMP is effective in accordance with Part 5.1.4 of the Permit: If the “Report a Problem” section of the website meets the needs of the citizens, then this BMP will be considered effective.

Public Involvement/Participation

C. BMP #3 – Adopt-A-Highway

1. Target audience/stakeholder group: General public and schools
2. Description of BMP: Volunteer groups have the opportunity to adopt at least a one-mile stretch of highway and agree to remove litter from both sides of the road at least four times a year for a two-year period. Volunteer groups can include local businesses, individual citizens, government organizations and schools.
3. Measurable goal(s): Organize volunteer groups for the Adopt-A-Highway program and record clean-up events.
4. Documentation to be submitted with each annual report: A report of clean-up events that occur during each reporting period will be submitted.
5. Schedule:
 - a. Interim milestone dates (if applicable): N/A
 - b. Implementation date (if applicable): Before MS4 designation
 - c. Frequency of actions (if applicable): Annually
 - d. Month/Year of each action (if applicable): Varies
6. Person (position) responsible for overall management and implementation of the BMP: Land Use Administrator, Murray County
7. Rationale for choosing BMP and setting measurable goal(s): This BMP and measurable goal are a requirement per Part 4.2.2 of the Permit. Adopt-A-Highway is a proven and established program for removing litter from highways.
8. How you will determine whether this BMP is effective in accordance with Part 5.1.4 of the Permit: If volunteer groups clean their assigned highways and record their activities, this BMP will be considered effective.

Public Involvement/Participation

D. BMP #4 – Conasauga River Watershed Clean-up

1. Target audience/stakeholder group: General public
2. Description of BMP: Murray County sponsors and citizens participate in the Conasauga River Watershed Clean-up events. Two clean-up events are held each year, one in the spring and another in the fall. During these events, volunteers remove litter from within and around the Conasauga River and its tributaries.
3. Measurable goal(s): Murray County will sponsor the Conasauga River Watershed Clean-up events and keep track of the events that occur within Murray County.
4. Documentation to be submitted with each annual report: A report of the number of volunteers and results from each clean-up event, within the reporting period, will be provided.
5. Schedule:
 - a. Interim milestone dates (if applicable): N/A
 - b. Implementation date (if applicable): Before MS4 Designation
 - c. Frequency of actions (if applicable): Bi-annually
 - d. Month/Year of each action (if applicable): Varies
6. Person (position) responsible for overall management and implementation of the BMP: Land Use Administrator, Murray County
7. Rationale for choosing BMP and setting measurable goal(s): This BMP and measurable goal are a requirement per Part 4.2.2 of the Permit. The Conasauga River Watershed Clean-up events are proven events with great citizen participation.
8. How you will determine whether this BMP is effective in accordance with Part 5.1.4 of the Permit: If Murray County sponsors and keeps track of the results from these clean-up events, this BMP will be considered effective.

Illicit Discharge Detection and Elimination (IDDE)

40 CFR Part 122.34(b)(3) Requirement: The permittee must develop, implement and enforce a program to detect and eliminate illicit discharges into your small MS4. You must:

- A) Develop, if not already completed, a storm sewer system map, showing the location of all outfalls and the names and location of all waters of the State that receive discharges from those outfalls;
- B) Effectively prohibit, through ordinance, or other regulatory mechanism, non-stormwater discharges into your storm sewer system and implement appropriate enforcement procedures and actions;
- C) Develop and implement a plan to detect and address non-stormwater discharges, including illegal dumping, to your system; and
- D) Inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste.

See Table 4.2.3 (a) of the Permit

Illicit Discharge Detection and Elimination (IDDE)

A. BMP #1 – IDDE Ordinance

1. Description of BMP: The IDDE ordinance is the local governing authority that enables the county to prohibit non-stormwater discharges to the MS4 through legal compliance and enforcement. See Attachment 4.
2. Measurable goal(s): Evaluate, and if necessary, modify the existing ordinance.
3. Documentation to be submitted with each annual report: If the ordinance is revised during the reporting period, an updated copy of the ordinance will be provided.
4. Schedule:
 - a. Interim milestone dates (if applicable): N/A
 - b. Implementation date (if applicable): January 2015
 - c. Frequency of actions (if applicable): Annually
 - d. Month/Year of each action (if applicable): Varies
5. Person (position) responsible for overall management and implementation of the BMP: Land Use Administrator, Murray County
6. Rationale for choosing BMP and setting measurable goal(s): This BMP and measurable goal are a requirement per Part 4.2.3 of the Permit. Adequate enforcement authority is essential in providing a means to eliminate non-stormwater discharges to the MS4.
7. How you will determine whether this BMP is effective in accordance with Part 5.1.4 of the Permit: This BMP will be determined to be effective through evaluation of enforcement and compliance throughout the reporting period.

Illicit Discharge Detection and Elimination (IDDE)

B. BMP #2 – Outfall Map and Inventory

1. Description of BMP: A gis map of the MS4 is used to inventory the outfalls. Location, name and waters of the State to which outfalls discharge are collected and recorded, as part of the inventory, when new outfalls are discovered. See Attachment 5 for the map and Attachment 6 for the inventory.
2. Measurable goal(s): Maintain an updated map and an inventory showing the location of all outfalls from the MS4 and the names and locations of all waters of the State that receive discharges from those outfalls. Provide the number of outfalls added during the reporting period and the total number of outfalls in each annual report.
3. Documentation to be submitted with each annual report: If new outfalls are discovered and added, the updated map and inventory will be provided.
4. Schedule:
 - a. Interim milestone dates (if applicable): N/A
 - b. Implementation date (if applicable): January 2015
 - c. Frequency of actions (if applicable): As Required
 - d. Month/Year of each action (if applicable): Varies
5. Person (position) responsible for overall management and implementation of the BMP: Stormwater Coordinator, Chatsworth Water Works Commission
6. Rationale for choosing BMP and setting measurable goal(s): This BMP and measurable goal are a requirement per Part 4.2.3 of the Permit. A gis map is a proven way to keep an inventory of outfalls and is a great tool for identification and tracking of illicit discharges.
7. How you will determine whether this BMP is effective in accordance with Part 5.1.4 of the Permit: If the outfall map and inventory are updated as new outfalls are discovered, this BMP will be proven effective.

Illicit Discharge Detection and Elimination (IDDE)

C. BMP #3 – IDDE Plan

1. Description of BMP: The IDDE Plan includes procedures for outfall dry-weather screening and inspections, sampling, investigation and follow-up for identified illicit discharges, and enforcement actions for eliminating the illicit discharges. See Attachment 7 for outfall screening procedures. See Attachment 8 for compliant response procedures. See Attachment 36 for enforcement procedures.
2. Measurable goal(s): Implement the IDDE Plan below to detect and address non-stormwater discharges to the MS4. The components of the IDDE Plan are as follows: 1) Conduct dry weather screening (DWS) inspections on 100% of the total outfalls within the 5-year permit term or use an alternate method approved by EPD. At a minimum, the permittee must conduct DWS inspections on 5% of the outfalls annually, or if the inspections are done by a geographical area, then one area or sector must be inspected each year, so that inspections are performed during each reporting period. The permittee must document and report the number of outfalls screened using each method (e.g. dry weather screening, stream walks, alternate approved method). Provide the number of outfall inspections conducted during the reporting period and documentation of the outfall inspections in each annual report. 2) Implement investigative and follow-up procedures when the results of the DWS indicate a potential for an illicit discharge, including the sampling and/or inspection procedures described in the IDDE Plan. If the source of the illicit discharge is identified as deriving from an adjacent MS4, the permittee must notify that MS4. Provide information on any illicit discharge detection activities performed during the reporting period in each annual report. 3) Ensure any identified illicit discharges are eliminated. If necessary, implement enforcement procedures described in the Enforcement Response Plan (ERP) in Part 4.3 of the Permit. Provide information on any eliminated discharges or on any enforcement actions taken to eliminate illicit discharges, such as through a spreadsheet or table, during the reporting period in each annual report.
3. Documentation to be submitted with each annual report: If the IDDE Plan is revised during the reporting period, a copy will be submitted. Outfall DWS inspection, sampling and lab result information will be provided for the outfalls screened during the reporting period. Information for any identified illicit discharges and the actions taken to eliminate them will be provided for the reporting period in which they were resolved.
4. Schedule:

- a. Interim milestone dates (if applicable): N/A
 - b. Implementation date (if applicable): October 2014
 - c. Frequency of actions (if applicable): Annually
 - d. Month/Year of each action (if applicable): Varies
5. Person (position) responsible for overall management and implementation of the BMP: The Stormwater Coordinator, Water/Wastewater Superintendent, and the Lead Wastewater Plant Operator for Chatsworth Water Works Commission are responsible for sampling. A Wastewater Plant Operator for Chatsworth Water Works Commission is responsible for testing of the samples and recording the data. The Land Use Administrator for Murray County is responsible for the IDDE Plan, inspections and IDDE identification and elimination procedures.
6. Rationale for choosing BMP and setting measurable goal(s): This BMP and measurable goal are a requirement per Part 4.2.3 of the Permit. An IDDE Plan will help to make the IDDE procedures more consistent and unbiased.
7. How you will determine whether this BMP is effective in accordance with Part 5.1.4 of the Permit: If discovered illicit discharges are identified and eliminated, this BMP will be proven effective.

Illicit Discharge Detection and Elimination (IDDE)

D. BMP #4 – IDDE Education

1. Description of BMP: For the general public, IDDE educational material is posted on the website and will be updated as needed. The website can be viewed at www.chatsworth-eton-murraystormwater.com. For businesses, an IDDE educational insert (See Attachment 9) will be included with yearly business tax notifications. For government employees, IDDE education will be included with the government employee stormwater training (see Pollution Prevention/ Good Housekeeping BMP #5). Each of these educational opportunities will be made available on an annual basis.
2. Measurable goal(s): Continue to implement a program to educate the public, businesses, and government employees about hazards of illicit discharges as described in the SWMP. Conduct an educational activity for each target audience at least annually.
3. Documentation to be submitted with each annual report: The website can be viewed at www.chatsworth-eton-murraystormwater.com. Documentation used for IDDE education, such as newsletters, brochures, other inserts, sign-in sheets, training notes, etc., will be provided, depending upon what is used during each reporting period.
4. Schedule:
 - a. Interim milestone dates (if applicable): N/A
 - b. Implementation date (if applicable): January 2015
 - c. Frequency of actions (if applicable): Annually
 - d. Month/Year of each action (if applicable): Varies
5. Person (position) responsible for overall management and implementation of the BMP: Land Use Administrator, Murray County
6. Rationale for choosing BMP and setting measurable goal(s): This BMP and measurable goal are a requirement per Part 4.2.3 of the Permit. Education is a key preventative measure for reducing non-stormwater pollution.
7. How you will determine whether this BMP is effective in accordance with Part 5.1.4 of the Permit: If educational materials are distributed, and if resources and training are provided, to the general public, businesses and government employees, this BMP will be deemed effective.

Illicit Discharge Detection and Elimination (IDDE)

E. BMP #5 – IDDE Complaint Response

1. Description of BMP: IDDE complaints should be followed by an investigation and tracked until the issue is either resolved, proven to be outside of the County’s jurisdiction, or proven to not be a problem. Complaints can be received online, by going to www.chatsworth-eton-murraystormwater.com and clicking the “Report a Problem” button, by phone, or by word of mouth from employees or citizens. Complaints received online are automatically recorded. Complaints received by phone or word of mouth will be manually recorded. Investigations will be tracked and recorded, and, when complete, a report of the process will be created. See Attachment 8 for complaint response procedures.
2. Measurable goal(s): Implement the EPD approved procedures for receiving, investigating, and tracking the status of illicit discharge complaints. Provide a report on each illicit discharge related complaint received and investigated during the reporting period (e.g. complaint date, type of complaint, complaint status) in each annual report.
3. Documentation to be submitted with each annual report: A report for each illicit discharge related complaint received, investigated and/or resolved during the reporting period will be provided.
4. Schedule:
 - a. Interim milestone dates (if applicable): N/A
 - b. Implementation date (if applicable): January 2015
 - c. Frequency of actions (if applicable): As Required
 - d. Month/Year of each action (if applicable): Varies
5. Person (position) responsible for overall management and implementation of the BMP: Land Use Administrator, Murray County
6. Rationale for choosing BMP and setting measurable goal(s): This BMP and measurable goal are a requirement per Part 4.2.3 of the Permit. The complaint response procedure is an important part of eliminating illicit discharges as they are discovered.
7. How you will determine whether this BMP is effective in accordance with Part 5.1.4 of the Permit: Complaint response will be proven effective if

reported illicit discharge issues are resolved and recorded, as they are discovered.

Construction Site Stormwater Runoff Control

40 CFR Part 122.34(b)(4) Requirement: The permittee must develop, implement, and enforce a program to reduce pollutants in any Stormwater runoff to the MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. Stormwater discharges from construction activity disturbing less than one acre must be included in the permittee's program if that construction activity is part of a larger common plan of development or sale that would disturb one acre or more. The program must include:

- A) An ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions to ensure compliance;
- B) Requirements for construction site operators to implement appropriate erosion and sediment control best management practices;
- C) 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;
- D) Procedures for site plan review which incorporate consideration of potential water quality impacts;
- E) Procedures for receipt and consideration of information submitted by the public; and
- F) Procedures for site inspection and enforcement of control measures.

See Table 4.2.4 (a) of the Permit

Construction Site Stormwater Runoff Control

A. BMP #1 – E&S Ordinance

1. Description of BMP: The Erosion and Sedimentation (E&S) ordinance enables the County to ensure proper disposal of construction waste and management of sediment through legal compliance and enforcement. See Attachment 10 for the ordinance and Attachment 11 for the most recent amendment to the ordinance.
2. Measurable goal(s): Evaluate, and if necessary, modify the existing E&S ordinance for compliance with the Permit. Ensure either the E&S or litter ordinance requires construction site operators to control waste at the construction site, such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste.
3. Documentation to be submitted with each annual report: If the ordinance is revised during the reporting period, an updated copy of the adopted ordinance will be submitted.
4. Schedule:
 - a. Interim milestone dates (if applicable): N/A
 - b. Implementation date (if applicable): Before MS4 Designation
 - c. Frequency of actions (if applicable): Annually
 - d. Month/Year of each action (if applicable): Varies
5. Person (position) responsible for overall management and implementation of the BMP: Land Use Administrator, Murray County
6. Rationale for choosing BMP and setting measurable goal(s): This BMP and measurable goal are a requirement per Part 4.2.4 of the Permit. Adequate enforcement authority is essential in providing a means to eliminate improper disposal of construction waste and sediment issues.
7. How you will determine whether this BMP is effective in accordance with Part 5.1.4 of the Permit: This BMP will be determined to be effective through evaluation of enforcement and compliance throughout the reporting period.

Construction Site Stormwater Runoff Control

B. BMP #2 – Site Plan Review

1. Description of BMP: Plans for proposed projects that disturb 1 acre or more are reviewed for compliance with Georgia Soil and Water Conservation Commission (GSWCC) requirements by the local National Resources Conservation Service (NRCS) representative and by the Local Issuing Authority (LIA). A plan review flow chart can be used for guidance through this process (See Attachment 12). A project can be put on hold during this process until all requirements are satisfied. GSWCC semi-annual reports, which show the number of plans reviewed, approved and/or denied, will be used to report plan reviews (See Attachment 13).
2. Measurable goal(s): Implement the site plan review procedures in accordance with the Georgia Soil and Water Conservation Commission (GSWCC) requirements. Provide a list of the site plans received and the number of site plans reviewed, approved, or denied during the reporting period in each annual report.
3. Documentation to be submitted with each annual report: The GSWCC semi-annual reports will be provided for each reporting period.
4. Schedule:
 - a. Interim milestone dates (if applicable): N/A
 - b. Implementation date (if applicable): Before MS4 designation
 - c. Frequency of actions (if applicable): As Required
 - d. Month/Year of each action (if applicable): Varies
5. Person (position) responsible for overall management and implementation of the BMP: Local Issuing Authority, Murray County
6. Rationale for choosing BMP and setting measurable goal(s): This BMP and measurable goal are a requirement per Part 4.2.4 of the Permit. Plan reviews on proposed projects ensure compliance with all ordinances and requirements before a certificate of occupancy is issued.
7. How you will determine whether this BMP is effective in accordance with Part 5.1.4 of the Permit: If projects with reviewed and accepted plans are completed in accordance with all ordinances and requirements, this BMP will be proven effective.

Construction Site Stormwater Runoff Control

C. BMP #3 – Site Inspections

1. Description of BMP: Construction site inspections are performed per GSWCC requirements. These inspections are performed to ensure that BMPs are properly installed and maintained throughout construction, and that the BMP schedule is followed. A construction site inventory will be used to keep track of contact information, plan review dates, inspection dates, enforcement actions and overall status (See Attachment 14). A site inspection form will be used during site visits (See Attachments 15).
2. Measurable goal(s): Implement the construction site inspection procedures in accordance with the GSWCC requirements. The purpose of the inspections is to ensure that structural and non-structural BMPs at construction sites are properly designed and maintained and that construction site waste is properly controlled. Provide a list of active construction sites and any inspections conducted during the reporting period in each annual report.
3. Documentation to be submitted with each annual report: The construction site inventory will be provided for each reporting period.
4. Schedule:
 - a. Interim milestone dates (if applicable): N/A
 - b. Implementation date (if applicable): Before MS4 designation
 - c. Frequency of actions (if applicable): As Required
 - d. Month/Year of each action (if applicable): Varies
5. Person (position) responsible for overall management and implementation of the BMP: Land Use Administrator, Murray County
6. Rationale for choosing BMP and setting measurable goal(s): This BMP and measurable goal are a requirement per Part 4.2.4 of the Permit. Construction site inspections are necessary to ensure compliance with ordinances and requirements.
7. How you will determine whether this BMP is effective in accordance with Part 5.1.4 of the Permit: This BMP will be determined to be effective through evaluation of compliance and enforcement throughout the reporting period.

Construction Site Stormwater Runoff Control

D. BMP #4 – Enforcement Procedures

1. Description of BMP: If ordinances and/or GSWCC requirements are violated, enforcement procedures, such as a Notice of Violation or a Stop Work Order, will be used to maintain or achieve compliance. These procedures are described in the Enforcement Response Plan (ERP) (See Attachment 36). All enforcement actions will be recorded in the construction site inventory (See Attachment 14). A notice of violation form (See Attachment 16) will be used to notify the permittee of non-compliance. A stop work order form (See Attachment 17) will be used in the event of continued violation.
2. Measurable goal(s): Implement enforcement procedures for E&S violations documented at construction sites during the reporting period as described in the ERP required by Part 4.3 of the Permit. Provide documentation of any enforcement actions taken during the reporting period in each annual report, including the number and type (e.g. Notice of Violation, Stop Work Order) and status (e.g. pending, resolved).
3. Documentation to be submitted with each annual report: The construction site inventory, which includes any enforcement activities required, will be provided for each reporting period.
4. Schedule:
 - a. Interim milestone dates (if applicable): N/A
 - b. Implementation date (if applicable): Before MS4 designation
 - c. Frequency of actions (if applicable): As Required
 - d. Month/Year of each action (if applicable): Varies
5. Person (position) responsible for overall management and implementation of the BMP: Land Use Administrator, Murray County
6. Rationale for choosing BMP and setting measurable goal(s): This BMP and measurable goal are a requirement per Part 4.2.4 of the Permit. Adequate enforcement authority is essential in providing a means to maintain compliance with ordinances and requirements.
7. How you will determine whether this BMP is effective in accordance with Part 5.1.4 of the Permit: This BMP will be determined to be effective

through evaluation of enforcement and compliance throughout the reporting period.

Construction Site Stormwater Runoff Control

E. BMP #5 – Complaint Response

1. Description of BMP: Construction site complaints should be followed by an investigation and tracked until the issue is either resolved, proven to be outside of the county’s jurisdiction, or proven to not be a problem. Complaints can be received online, by going to www.chatsworth-eton-murraystormwater.com and clicking the “Report a Problem” button, by phone, or by word of mouth from employees or citizens. Complaints received online are automatically recorded. Complaints received by phone or word of mouth will be manually recorded. Investigations will be tracked and recorded, and, when complete, a report of the process will be created. See Attachment 8 for complaint response procedures. All complaints will be recorded in the construction site inventory (See Attachment 14).
2. Measurable goal(s): Implement the EPD approved E&S complaint receipt, investigation, response, and tracking procedures developed as part of the SWMP. Provide information on complaints received and investigated during the reporting period (e.g. complaint date, type of complaint, complaint status) in each annual report.
3. Documentation to be submitted with each annual report: The construction site inventory, which includes any complaints received, will be provided for each reporting period.
4. Schedule:
 - a. Interim milestone dates (if applicable): N/A
 - b. Implementation date (if applicable): January 1, 2015
 - c. Frequency of actions (if applicable): As Required
 - d. Month/Year of each action (if applicable): Varies
5. Person (position) responsible for overall management and implementation of the BMP: Land Use Administrator, Murray County
6. Rationale for choosing BMP and setting measurable goal(s): This BMP and measurable goal are a requirement per Part 4.2.4 of the Permit. It is important to follow up on construction site complaints in order to resolve the issues as they are discovered.

7. How you will determine whether this BMP is effective in accordance with Part 5.1.4 of the Permit: Complaint response will be proven effective if reported construction site issues are resolved.

Construction Site Stormwater Runoff Control

F. BMP #6 – Certification

1. Description of BMP: All employees involved in land disturbing related activities must, at a minimum and dependent on their level of involvement, meet education requirements per the GSWCC requirements. Attachment 18 for current certifications and licenses.
2. Measurable goal(s): Ensure that any MS4 staff involved in construction activities subject to the Construction General Permits (CGPs) are trained and certified in accordance with the rules adopted by the GSWCC. Provide the number and type of current certifications held by MS4 staff in each annual report.
3. Documentation to be submitted with each annual report: When certifications and/or licenses are renewed, added or removed, and differ from the document submitted with this SWMP, the revised document will be submitted with the annual report.
4. Schedule:
 - a. Interim milestone dates (if applicable): N/A
 - b. Implementation date (if applicable): Before MS4 designation
 - c. Frequency of actions (if applicable): As Required
 - d. Month/Year of each action (if applicable): Varies
5. Person (position) responsible for overall management and implementation of the BMP: Land Use Administrator, Murray County
6. Rationale for choosing BMP and setting measurable goal(s): This BMP and measurable goal are a requirement per Part 4.2.4 of the Permit. GSWCC training and certification is essential to remain current on requirements and compliance procedures.
7. How you will determine whether this BMP is effective in accordance with Part 5.1.4 of the Permit: If all employees involved in land disturbing related activities remain current with required GSWCC certifications, this BMP will be considered effective.

Post-Construction Stormwater Management

40 CFR Part 122.34(b)(5) Requirement: The permittee must develop, implement, and enforce a program to address Stormwater runoff into the MS4 from new development and redevelopment projects, including projects less than one acre if they are part of a larger common plan of development or sale. You must:

- A) Develop and implement strategies which include a combination of structural and/or non-structural BMPs appropriate for your community;
- B) Use an ordinance or other regulatory mechanism to address post-construction runoff from new development or redevelopment projects; and
- C) Ensure adequate long-term operation and maintenance of BMPs.

See Table 4.2.5 (a) of the Permit

Post-Construction Stormwater Management

A. BMP #1 – Post-Construction Stormwater Ordinance

1. Description of BMP: The post-construction stormwater ordinance enables the County to ensure proper on-site management of stormwater through legal compliance and enforcement. See Attachment 19.
2. Measurable goal(s): Evaluate, and if necessary, modify the existing ordinance.
3. Documentation to be submitted with each annual report: If the ordinance is revised during the reporting period, an updated copy of the adopted ordinance will be submitted.
4. Schedule:
 - a. Interim milestone dates (if applicable): N/A
 - b. Implementation date (if applicable): January 2015
 - c. Frequency of actions (if applicable): Annually
 - d. Month/Year of each action (if applicable): Varies
5. Person (position) responsible for overall management and implementation of the BMP: Land Use Administrator, Murray County
6. Rationale for choosing BMP and setting measurable goal(s): This BMP and measurable goal are a requirement per Part 4.2.5 of the Permit. Adequate enforcement authority is essential in providing a means to ensure proper on-site management of stormwater.
7. How you will determine whether this BMP is effective in accordance with Part 5.1.4 of the Permit: This BMP will be determined to be effective through evaluation of enforcement and compliance throughout the reporting period.

Post-Construction Stormwater Management

B. BMP #2 – Inventory

1. Description of BMP: An inventory of previously identified and newly constructed post-construction stormwater management structures will be maintained, as required. The inventory will include the location, type and owner of the structures. See Attachment 20.
2. Measurable goal(s): Annually update an inventory of all publicly-owned post-construction stormwater management structures (e.g. detention/retention ponds, water quality vaults) and only those privately-owned structures designed after the December 9, 2008 deadline for adoption of the GSMM (i.e. new structures). The inventory shall include information on the number and type of structures, and ownership (i.e. publicly-owned, privately-owned).
3. Documentation to be submitted with each annual report: If the inventory is revised, an updated inventory will be submitted.
4. Schedule:
 - a. Interim milestone dates (if applicable): N/A
 - b. Implementation date (if applicable): January 2015
 - c. Frequency of actions (if applicable): Annually
 - d. Month/Year of each action (if applicable): Varies
5. Person (position) responsible for overall management and implementation of the BMP: Land Use Administrator, Murray County
6. Rationale for choosing BMP and setting measurable goal(s): This BMP and measurable goal are a requirement per Part 4.2.5 of the Permit. An inventory is essential to manage the condition and maintenance of all post-construction stormwater management structures.
7. How you will determine whether this BMP is effective in accordance with Part 5.1.4 of the Permit: If the inventory is kept up-to-date, this BMP will be considered effective.

Post-Construction Stormwater Management

C. BMP #3 – Inspection Program

1. Description of BMP: Post-construction stormwater management structures will be inspected, per the Permit requirements, for compliance with maintenance agreement terms and ordinances. The inspection procedures are included in the Inspection, Operations and Maintenance (IOM) Procedures document (See Attachment 21). An inspection form from the 2016 Georgia Stormwater Management Manual (GSMM), specific to the structure type, will be used for the inspections (See Attachment 22). The date of inspections, and any comments, will be recorded in the post-construction stormwater inventory (See Attachment 20).
2. Measurable goal(s): Conduct inspections of all post-construction stormwater management structures included on the inventory required in BMP #2 above, so that 100% of the structures are inspected within the 5-year permit term. At a minimum, the permittee must conduct inspections on 5% of the structures annually, or if inspections are done by geographical area, then one entire area or sector must be inspected each year.
3. Documentation to be submitted with each annual report: The post-construction stormwater inventory, which includes the inspection date, will be submitted.
4. Schedule:
 - a. Interim milestone dates (if applicable): N/A
 - b. Implementation date (if applicable): January 2015
 - c. Frequency of actions (if applicable): Annually
 - d. Month/Year of each action (if applicable): Varies
5. Person (position) responsible for overall management and implementation of the BMP: Land Use Administrator, Murray County
6. Rationale for choosing BMP and setting measurable goal(s): This BMP and measurable goal are a requirement per Part 4.2.5 of the Permit. Inspections are essential to manage the performance and maintenance of post-construction stormwater management structures.

7. How you will determine whether this BMP is effective in accordance with Part 5.1.4 of the Permit: If inspections are conducted and proper records are kept, this BMP will be considered effective.

Post-Construction Stormwater Management

D. BMP #4 – Maintenance Program

1. Description of BMP: Maintenance will be performed, based on either the designer or manufacturer recommendations, on post-construction stormwater management structures owned by the County. See Attachment 21 for maintenance procedures. The structures which are maintained and the maintenance activities performed will be recorded. The date of maintenance will be included in the post-construction stormwater inventory (See Attachment 20). All other structures should be maintained by the owner, or owner's representative, based on the maintenance agreements. Maintenance agreements are required for privately-owned structures during the plan review phase (See Attachment 23).
2. Measurable goal(s): At a minimum, the maintenance program must address all permittee-owned structures, those publicly-owned structures by other entities (e.g. Board of Education), and those privately-owned structures with construction completed after the effective date of the previous permit iteration (December 6, 2012). The maintenance may be performed by the owner/operator of the structure. Maintenance must be performed to the maximum extent practicable. For permittee-owned structures, provide a list of structures maintained and type of maintenance performed, including documentation of maintenance activities performed during the reporting period with each annual report. For publicly-owned structures owned by other entities and those privately-owned structures with construction completed after the December 6, 2012 date, the permittee must either conduct maintenance or require maintenance agreements. If the permittee conducts the maintenance, provide a list of structures maintained and the type of maintenance performed, including documentation of maintenance activities performed during the reporting period in each annual report. If maintenance is to be performed by an owner/operator in accordance with a maintenance agreement, the permittee must retain copies of maintenance agreements finalized after December 6, 2012, and submit a summary list of these agreements with each annual report.
3. Documentation to be submitted with each annual report: Active maintenance agreements will be recorded in the post-construction stormwater inventory (BMP #2 above). Maintenance logs with activities conducted by the County for maintenance of County-owned structures, and which structures have been maintained, will be submitted.
4. Schedule:

- a. Interim milestone dates (if applicable): N/A
 - b. Implementation date (if applicable): January 2015
 - c. Frequency of actions (if applicable): Annually
 - d. Month/Year of each action (if applicable): Varies
5. Person (position) responsible for overall management and implementation of the BMP: Land Use Administrator, Murray County
6. Rationale for choosing BMP and setting measurable goal(s): This BMP and measurable goal are a requirement per Part 4.2.5 of the Permit. Maintenance of post-construction stormwater management structures is necessary for the structures to remain effective and to prolong the life of the structures.
7. How you will determine whether this BMP is effective in accordance with Part 5.1.4 of the Permit: If publicly-owned structures are maintained properly and maintenance agreements are attained for privately-owned structures, this BMP will be proven effective.

Post-Construction Stormwater Management

E. BMP #5 – GI/LID Structure Inventory

1. Description of BMP: GI/LID structures will be included in the post-construction stormwater inventory (BMP#2 above). The inventory will include the location, type and owner of the structures. See Attachment 20.
2. Measurable goal(s): Annually update an inventory of water quality related GI/LID structures located within the permitted area and at a minimum, constructed after December 6, 2012, including the total number of each type of structure (e.g. bioswales, pervious pavement, rain gardens, cisterns, and green roofs). The inventory must, at a minimum, include permittee-owned GI/LID structures, those publicly-owned structures owned by other entities, and privately-owned non-residential GI/LID structures. Track the addition of new water quality-related GI/LID structures through the plan review process and ensure the structures are added to the inventory. Provide an updated inventory, including those structures added during the reporting period, in each annual report.
3. Documentation to be submitted with each annual report: If the inventory is revised, an updated inventory will be submitted.
4. Schedule:
 - a. Interim milestone dates (if applicable): N/A
 - b. Implementation date (if applicable): January 2015
 - c. Frequency of actions (if applicable): Annually
 - d. Month/Year of each action (if applicable): Varies
5. Person (position) responsible for overall management and implementation of the BMP: Land Use Administrator, Murray County
6. Rationale for choosing BMP and setting measurable goal(s): This BMP and measurable goal are a requirement per Part 4.2.5 of the Permit. An inventory is essential to manage the condition and maintenance of all GI/LID structures.
7. How you will determine whether this BMP is effective in accordance with Part 5.1.4 of the Permit: If the inventory is kept up-to-date, this BMP will be considered effective.

Post-Construction Stormwater Management

F. BMP #6 – GI/LID Program

1. Description of BMP: The GI/LID Program is currently under development. It will be submitted and implemented by February 15, 2020.
2. Measurable goal(s): For those permittees with a population exceeding 10,000 at the time of this permit issuance, develop a program describing the GI/LID practices (eg. better site planning techniques, better site design techniques) to be implemented by the permittee. The program shall include: 1) procedures for evaluating the feasibility and site applicability of different GI/LID techniques and practices to be considered; 2) the GI/LID structures allowed to be constructed within the permittee's jurisdiction; 3) procedures for the inspection and maintenance of the GI/LID structures, including permittee-owned structures, publicly-owned structures owned by other entities, and privately-owned non-residential (eg. who inspects, who maintains, inspection and maintenance schedule, method of documentation of inspection and maintenance activities). The GI/LID program must be submitted to EPD by February 15, 2020.
3. Documentation to be submitted with each annual report: If the GI/LID Program is revised during the reporting period, the revised program will be submitted with the annual report.
4. Schedule:
 - a. Interim milestone dates (if applicable): February 15, 2020
 - b. Implementation date (if applicable): 2020
 - c. Frequency of actions (if applicable): Annually
 - d. Month/Year of each action (if applicable): Varies
5. Person (position) responsible for overall management and implementation of the BMP: Land Use Administrator, Murray County
6. Rationale for choosing BMP and setting measurable goal(s): This BMP and measurable goal are a requirement per Part 4.2.5 of the Permit. Inspections are essential to manage the performance and maintenance of the GI/LID structures. Maintenance is necessary for the structures to remain effective and to prolong the life of the structures.

7. How you will determine whether this BMP is effective in accordance with Part 5.1.4 of the Permit: If the GI/LID Program is completed and implemented by the year 2020, this BMP will be effective.

Post-Construction Stormwater Management

G. BMP #7 – GI/LID Inspection and Maintenance Program

1. Description of BMP: GI/LID inspection and maintenance procedures will be implemented per the GI/LID Program (see BMP #6 above). The County will conduct inspections on the GI/LID structures so that 100% of the structures are inspected within the 5-year permit cycle. GI/LID structures will be inspected, per the Permit requirements, for compliance with maintenance agreement terms and ordinances. An inspection form from the GSMM, specific to the structure type, will be used for the inspections (See Attachment 22). Maintenance will be performed, based on either the designer or manufacturer recommendations, on GI/LID structures owned by the City. The structures which are maintained and the maintenance activities performed will be recorded. All other structures should be maintained by the owner, or owner's representative, based on the maintenance agreement. Maintenance agreements are required for privately-owned structures during the plan review phase. The GI/LID Inspection and Maintenance Program will begin in the year 2020.

2. Measurable goal(s): Beginning in 2020, conduct inspections and/or ensure inspections are conducted on 100% of the GI/LID structures included in the inventory created in BMP 5.a above, within a 5-year period. The inspections must be completed in accordance with the schedule submitted in the GI/LID program submitted in BMP 6 above. Provide documentation of the inspections conducted during the reporting period in each annual report. Conduct maintenance on the permittee-owned GI/LID structures, as needed. Provide the number of structures and percentage of the total structures maintained during the reporting period in each annual report. Implement the maintenance procedures in accordance with the GI/LID program submitted in BMP 6 above for ensuring publicly-owned structures owned by other entities and privately-owned non-residential GI/LID structures are maintained as needed.

3. Documentation to be submitted with each annual report: Inspection dates as well as active maintenance agreements will be recorded in the post-construction stormwater inventory (BMP #2 above). Maintenance logs with activities conducted by the County for maintenance of County-owned structures, and which structures have been maintained, will be submitted.

4. Schedule:
 - a. Interim milestone dates (if applicable): February 15, 2020
 - b. Implementation date (if applicable): 2020

- c. Frequency of actions (if applicable): Annually
- d. Month/Year of each action (if applicable): Varies
- 5. Person (position) responsible for overall management and implementation of the BMP: Land Use Administrator, Murray County
- 6. Rationale for choosing BMP and setting measurable goal(s): This BMP and measurable goal are a requirement per Part 4.2.5 of the Permit. Inspections are essential to manage the performance and maintenance of the GI/LID structures. Maintenance is necessary for the structures to remain effective and to prolong the life of the structures.
- 7. How you will determine whether this BMP is effective in accordance with Part 5.1.4 of the Permit: If inspections are conducted and proper records are kept, and if publicly-owned structures are maintained properly and maintenance agreements are attained for privately-owned structures, this BMP will be proven effective.

Post-Construction Stormwater Management

H. BMP #8 – GI/LID Compatibility Evaluation

1. Description of BMP: The Murray County building codes, ordinances and other regulations will be evaluated every 5 years to ensure that they do not prohibit or impede the use of GI/LID practices. The Code and Ordinance Worksheet (See Attachment 24) will be utilized as a guide to complete the evaluation. When complete, a report will be developed with the results from the evaluation and any plan of action necessary.
2. Measurable goal(s): At least once during the 5-year permit term, evaluate building codes, ordinances and other regulations to ensure that they do not prohibit or impede the use of GI/LID practices. At a minimum, the permittee shall assess those regulations governing road design and parking requirements. During the review, the permittee should consider the inclusion of incentives for use of GI/LID practices into regulatory documents.
3. Documentation to be submitted with each annual report: A report of the evaluation will be provided with the annual report for the reporting year in which it is completed. If the evaluation finds that regulation changes need to be made, a plan of action will be included within the report.
4. Schedule:
 - a. Interim milestone dates (if applicable): N/A
 - b. Implementation date (if applicable): 2016
 - c. Frequency of actions (if applicable): Every Permit Cycle (5 yrs)
 - d. Month/Year of each action (if applicable): Varies
5. Person (position) responsible for overall management and implementation of the BMP: Land Use Administrator, Murray County
6. Rationale for choosing BMP and setting measurable goal(s): This BMP and measurable goal are a requirement per Part 4.2.5.3 of the Permit. This evaluation is necessary to ensure that GI/LID practices are not impeded by local ordinances or building codes.
7. How you will determine whether this BMP is effective in accordance with Part 5.1.4 of the Permit: If at least one evaluation and report are completed every 5-year permit term, this BMP will be considered effective.

Pollution Prevention/Good Housekeeping for Municipal Operations

40 CFR Part 122.34(b)(6) Requirement: The permittee must develop and implement an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations. Using training materials available from the USEPA and other organizations as guidance, the permittee must, as a part of this program, include employee training to prevent and reduce Stormwater pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and Stormwater system maintenance.

See Table 4.2.6 (a) of the Permit

Pollution Prevention/Good Housekeeping for Municipal Operations

A. BMP #1 – MS4 Inventory and Map

1. Description of BMP: A gis map will be used to keep an inventory of all MS4 control structures. As new structures are added to the MS4, they will be shot with gps equipment and added to the map. As structures are removed or replaced, the map will be updated accordingly. At the end of each reporting period, a query will be used to determine the total number of structures in the MS4. See Attachment 25 for the current map and Attachment 26 for the inventory set up.
2. Measurable goal(s): Annually update an inventory and map of the MS4 control structures. At a minimum, the inventory and map must include catch basins, ditches (miles or linear feet), detention/retention ponds, and storm drain lines (miles or linear feet). Provide the updated map and inventory, the number of structures added during the reporting period, and the total number of structures in each annual report.
3. Documentation to be submitted with each annual report: If the map or inventory are revised, they will be submitted.
4. Schedule:
 - a. Interim milestone dates (if applicable): N/A
 - b. Implementation date (if applicable): January 2015
 - c. Frequency of actions (if applicable): Annually
 - d. Month/Year of each action (if applicable): Varies
5. Person (position) responsible for overall management and implementation of the BMP: Stormwater Coordinator, Chatsworth Water Works Commission
6. Rationale for choosing BMP and setting measurable goal(s): This BMP and measurable goal are a requirement per Part 4.2.6 of the Permit. A current map and inventory is a great way to manage the MS4 system.
7. How you will determine whether this BMP is effective in accordance with Part 5.1.4 of the Permit: If the map is updated to reflect any changes that are made to the MS4, during each reporting period, this BMP will be considered effective.

Pollution Prevention/Good Housekeeping for Municipal Operations

B. BMP #2 – MS4 Inspection Program

1. Description of BMP: Inspections of MS4 components, such as storm drains, ditches, curb & gutter, inlets, outlets and junctions, will be conducted so that 100% of the components are inspected within the 5-year permit cycle. At least one inspection will be conducted each year. See Attachment 21 for inspection procedures. Custom electronic inspection forms will be utilized (See Attachment 27). Each inspection will then be recorded in a spreadsheet (See Attachment 28). Inspection dates will also be included in the MS4 Inventory (See Attachment 26). Any problems discovered will be reported for further attention. At the end of each reporting period, the number of total inspections, as a number and percentage, will be calculated.
2. Measurable goal(s): Conduct inspections on the MS4 control structures so that 100% of the structures are inspected within a 5-year period. All permittees must conduct at least one inspection per year. The MS4 must develop an inspection schedule and include the schedule in the SWMP. Provide the number and percentage of structures inspected during the reporting period in each annual report.
3. Documentation to be submitted with each annual report: The MS4 Inventory, which includes the inspection date, will be submitted.
4. Schedule:
 - a. Interim milestone dates (if applicable): N/A
 - b. Implementation date (if applicable): January 2015
 - c. Frequency of actions (if applicable): Annually
 - d. Month/Year of each action (if applicable): Varies
5. Person (position) responsible for overall management and implementation of the BMP: Land Use Administrator, Murray County
6. Rationale for choosing BMP and setting measurable goal(s): This BMP and measurable goal are a requirement per Part 4.2.6 of the Permit. Inspections are essential to manage the performance and maintenance of MS4 infrastructure.
7. How you will determine whether this BMP is effective in accordance with Part 5.1.4 of the Permit: If MS4 control structures are inspected on an

annual basis and proper records are kept, this BMP will be considered effective.

Pollution Prevention/Good Housekeeping for Municipal Operations

C. BMP #3 – MS4 Maintenance Program

1. Description of BMP: MS4 structures and conveyances will be maintained as needed. See Attachment 21 for maintenance procedures. The type of structure or conveyance maintained and the maintenance activities performed will be recorded. The date a structure is maintained and any comments will be recorded in the MS4 Inventory (See Attachment 26).
2. Measurable goal(s): Conduct maintenance on the MS4 control structures as needed. Provide the number of each type of structure maintained during the reporting period in each annual report.
3. Documentation to be submitted with each annual report: The MS4 Inventory, which includes the maintenance date, will be submitted.
4. Schedule:
 - a. Interim milestone dates (if applicable): N/A
 - b. Implementation date (if applicable): January 2015
 - c. Frequency of actions (if applicable): Annually
 - d. Month/Year of each action (if applicable): Varies
5. Person (position) responsible for overall management and implementation of the BMP: Land Use Administrator, Murray County
6. Rationale for choosing BMP and setting measurable goal(s): This BMP and measurable goal are a requirement per Part 4.2.6 of the Permit. Consistent maintenance is essential for a MS4 to function properly.
7. How you will determine whether this BMP is effective in accordance with Part 5.1.4 of the Permit: If MS4 structures and conveyances are maintained properly and recorded, this BMP will be proven effective.

Pollution Prevention/Good Housekeeping for Municipal Operations

D. BMP #4 – Street and Parking Lot Cleaning

1. Description of BMP: Throughout each year, trash is removed from county roads by inmates from the county jail and community service workers. A record is kept by the Murray County Sheriff's Office (MCSO) with the date, road name, number of workers, number of bags of trash and pounds of trash collected. See Attachment 29.
2. Measurable goal(s): Implement trash/litter removal as the alternate method to street sweeping. Provide documentation of the litter removal activities conducted during the reporting period in each annual report.
3. Documentation to be submitted with each annual report: Log sheets with weight of trash and debris collected, and the date, will be provided.
4. Schedule:
 - a. Interim milestone dates (if applicable): N/A
 - b. Implementation date (if applicable): January 2015
 - c. Frequency of actions (if applicable): Annually
 - d. Month/Year of each action (if applicable): Varies
5. Person (position) responsible for overall management and implementation of the BMP: Land Use Administrator, Murray County
6. Rationale for choosing BMP and setting measurable goal(s): This BMP and measurable goal are a requirement per Part 4.2.6 of the Permit. Effective trash removal from the county roads will prevent these pollutants from entering the MS4.
7. How you will determine whether this BMP is effective in accordance with Part 5.1.4 of the Permit: If trash removal is continued by the MCSO and recorded throughout the year, this BMP will be considered effective.

Pollution Prevention/Good Housekeeping for Municipal Operations

E. BMP #5 – Employee Training

1. Description of BMP: A stormwater training will be held at least one time each year on various topics, including: good housekeeping, IDDE, construction site inspections and GI/LIDs. An invitation will be sent to various city departments. A sign-in sheet will be kept as a record of attendance (See Attachment 30).
2. Measurable goal(s): Implement the employee training program described in the SWMP. At a minimum, employee training must occur annually. The training should include such topics as good housekeeping at municipal facilities, illicit discharge detection, construction site inspections, and green infrastructure. Provide documentation of the educational activities conducted during the reporting period in each annual report.
3. Documentation to be submitted with each annual report: A sign-in sheet will be provided for each training event held during the reporting period. If a handout is used, a copy will be provided. If a video is used, a link to the video will be provided.
4. Schedule:
 - a. Interim milestone dates (if applicable): N/A
 - b. Implementation date (if applicable): January 2015
 - c. Frequency of actions (if applicable): Annually
 - d. Month/Year of each action (if applicable): Varies
5. Person (position) responsible for overall management and implementation of the BMP: Land Use Administrator, Murray County
6. Rationale for choosing BMP and setting measurable goal(s): This BMP and measurable goal are a requirement per Part 4.2.6 of the Permit. Education is a key preventative measure for reducing non-stormwater pollution.
7. How you will determine whether this BMP is effective in accordance with Part 5.1.4 of the Permit: If at least one training event occurs during each reporting period, this BMP will be considered effective.

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F. BMP #6 – Waste Disposal

1. Description of BMP: Trash collected from street cleaning (BMP #4 above) and maintenance activities (BMP #3 above) will be disposed of at the Murray County Landfill. Tickets from the landfill will be used to keep track of the weight and amount of trash and debris that the city disposes of at the landfill (See Attachment 31).
2. Measurable goal(s): Implement procedures regarding the proper disposal of waste removed from the MS4 as described in the SWMP. Provide documentation of activities performed during the reporting period in each annual report.
3. Documentation to be submitted with each annual report: Log sheets with weight of trash and debris disposed of, and the date, will be provided.
4. Schedule:
 - a. Interim milestone dates (if applicable): N/A
 - b. Implementation date (if applicable): January 2015
 - c. Frequency of actions (if applicable): Annually
 - d. Month/Year of each action (if applicable): Varies
5. Person (position) responsible for overall management and implementation of the BMP: Land Use Administrator, Murray County
6. Rationale for choosing BMP and setting measurable goal(s): This BMP and measurable goal are a requirement per Part 4.2.6 of the Permit. Proper waste disposal ensures that the collected waste becomes completely removed as a potential pollution source.
7. How you will determine whether this BMP is effective in accordance with Part 5.1.4 of the Permit: If waste is collected, properly disposed of and recorded, this BMP will be considered effective.

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G. BMP #7 – New Flood Management Projects

1. Description of BMP: Proposed project plans that include flood management are reviewed for compliance with MS4 requirements and local ordinances. This is referred to as the “stormwater review”. A project can be put on hold during this process until all requirements are satisfied. A checklist is used for the plan review (See Attachment 32). Additional details are recorded in a plan review log (See Attachment 33).
2. Measurable goal(s): Ensure proposed flood management projects (e.g. detention and retention ponds) are assessed for water quality impacts during the design phase. Provide the number of plans reviewed where flood management projects were assessed for water quality impacts during the reporting period in each annual report.
3. Documentation to be submitted with each annual report: A plan review log with project names and dates that plans are received, approved or denied from the stormwater review will be provided with each annual report.
4. Schedule:
 - a. Interim milestone dates (if applicable): N/A
 - b. Implementation date (if applicable): January 2015
 - c. Frequency of actions (if applicable): Annually
 - d. Month/Year of each action (if applicable): Varies
5. Person (position) responsible for overall management and implementation of the BMP: Stormwater Coordinator, Chatsworth Water Works Commission
6. Rationale for choosing BMP and setting measurable goal(s): This BMP and measurable goal are a requirement per Part 4.2.6 of the Permit. Plan reviews on proposed projects ensure compliance with all ordinances and requirements before a certificate of occupancy is issued.
7. How you will determine whether this BMP is effective in accordance with Part 5.1.4 of the Permit: If proposed projects are reviewed and only approved when MS4 requirements and ordinances have been met, this BMP will be proven effective.

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H. BMP #8 – Existing Flood Management Projects

1. Description of BMP: No existing permittee-owned flood management projects have been identified to date. If there are any discovered, they will be assessed for potential retrofitting. A water quality evaluation flow chart (See Attachment 34) will be used for assessments. At least one structure must be assessed annually or if the permittee has less than five structures, then assess 100% within the 5-year permit cycle. After each assessment, a determination will be made on the plan of action for that particular structure. The plan of action can be to retrofit the structure, determined infeasible, or determined to be adequate as is. A summary of the assessment and the plan of action for each structure assessed will be recorded.
2. Measurable goal(s): Conduct an assessment of existing permittee-owned flood management projects (e.g. detention and retention ponds) for potential retrofitting to address water quality impacts and conduct any retrofitting activities. Assess at least 1 structure annually or if the permittee has less than 5 structures, then assess 100% within a 5-year period. Provide information on any assessment and/or retrofitting activities conducted during the reporting period in each annual report.
3. Documentation to be submitted with each annual report: A summary of the assessment and plan of action for each structure assessed, during the reporting period, will be submitted with the annual report.
4. Schedule:
 - a. Interim milestone dates (if applicable): N/A
 - b. Implementation date (if applicable): January 2015
 - c. Frequency of actions (if applicable): Annually
 - d. Month/Year of each action (if applicable): Varies
5. Person (position) responsible for overall management and implementation of the BMP: Land Use Administrator, Murray County
6. Rationale for choosing BMP and setting measurable goal(s): This BMP and measurable goal are a requirement per Part 4.2.6 of the Permit. Assessing existing flood management structures can help identify structures that may require additional water quality attention and help to prioritize where action is needed most.

7. How you will determine whether this BMP is effective in accordance with Part 5.1.4 of the Permit: If existing structures are identified and at least one structure is assessed each year, this BMP will be considered effective.

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I. BMP #9 – Municipal Facilities

1. Description of BMP: Municipal facility inspections will be conducted so that 100% of the facilities are inspected within the 5-year permit cycle. At least 5% of the total facilities must be inspected each year. See Attachment 35 for the municipal facilities inspection procedures and inspection checklists. Any problems discovered will be reported for further attention.
2. Measurable goal(s): Annually update an inventory of municipal facilities with the potential to cause pollution. The inventory must be submitted with each annual report. Conduct inspections on 100% of the municipal facilities within the 5-year period in accordance with the procedures described in the SWMP. At a minimum, the permittee must conduct inspections on 5% of the municipal facilities annually, or if inspections are done by geographical area, then one entire area or sector must be inspected. Provide documentation of the inspections conducted during the reporting period in each annual report.
3. Documentation to be submitted with each annual report: Completed inspection forms of the municipal facilities inspected will be provided.
4. Schedule:
 - a. Interim milestone dates (if applicable): N/A
 - b. Implementation date (if applicable): January 2015
 - c. Frequency of actions (if applicable): Annually
 - d. Month/Year of each action (if applicable): Varies
5. Person (position) responsible for overall management and implementation of the BMP: Land Use Administrator, Murray County
6. Rationale for choosing BMP and setting measurable goal(s): This BMP and measurable goal are a requirement per Part 4.2.6 of the Permit. Inspections are essential to manage the potential for non-stormwater pollution at municipal facilities.
7. How you will determine whether this BMP is effective in accordance with Part 5.1.4 of the Permit: If municipal facilities are inspected on an annual basis and proper records are kept, this BMP will be considered effective.

Appendix

Enforcement Response Plan (See Attachment 36)

1. The MS4 must develop and implement an Enforcement Response Plan (ERP) that describes the action to be taken for violations of the Stormwater Management Program. The ERP must be completed and submitted with the second annual report following permit issuance, February 15, 2014.

Final completion date: October 19, 2015

Date of submittal to EPD: October 30, 2015

2. In accordance with Part 4.3 of the NPDES Permit, the ERP must include escalating enforcement responses for repeat and continuing violations. At a minimum, the ERP must address the following categories (refer to Part 4.3 of the NPDES Permit for more detail):
 - Names of ordinances and citations;
 - Types of enforcement mechanisms;
 - Description of the use of these enforcement mechanisms;
 - Time frames; and
 - Description of the tracking and reporting mechanism.

Appendix

Impaired Waters (See Attachment 37)

1. Population based on the 2010 U.S. Census: 39,628

If the population is less than 10,000, then see items #2 and #3 below.

If the population exceeds 10,000, then see items #4 and #5 below.
2. If the population is less than 10,000, then the MS4 must develop an Impaired Waters Plan (see Part 4.4.1 of the NPDES Permit) including:
 - A list of impaired waters and the pollutant(s) of concern;
 - A map showing the location of the impaired waters and all identified MS4 outfalls located on the impaired waters or occurring within one linear mile upstream of the waters;
 - BMPs that will be implemented to address each pollutant of concern; and
 - A schedule for implementing the BMPs.
3. The Impaired Waters Plan must be submitted with the annual report due February 15, 2015.

Final completion date/date of submittal to EPD: N/A

4. If the population exceeds 10,000, then the MS4 must develop an Impaired Waters Plan/Monitoring and Implementation Plan (see Part 4.4.2 of the NPDES Permit) including:
 - A list of impaired waters and the pollutant(s) of concern.
 - A Monitoring and Implementation Plan, that includes:
 - a. Sample location;
 - b. Sample type, frequency, and seasonal considerations;
 - c. Monitoring implementation schedule;
 - d. A map showing the location of the impaired waters and all identified MS4 outfalls located on the impaired waters or occurring within one linear mile upstream of the waters or a schedule for confirming those outfalls; and
 - e. Description of proposed BMPs.
 - Description of the method used to annually assess data trends for each pollutant of concern.
5. The Impaired Waters Plan/Monitoring and Implementation Plan must be submitted with the annual report due February 15, 2015.

Final completion date/date of submittal to EPD: February 15, 2017

Appendix

Attachment Index (Provided CD contains all Attachments for this SWMP)

- 1 - Memorandum of Agreement
- 2 - Educational Material for Brochure Rack
- 3 - Report a Problem Web Page & Form
- 4 - Illicit Discharge and Illegal Connection Ordinance
- 5 - Outfall Map
- 6 - Outfall Inventory
- 7 - Outfall Screening Procedures
- 8 - Complaint Response Procedures
- 9 - IDDE Educational Info Sheet
- 10 - Erosion & Sedimentation Ordinance
- 11 - Amendment to Erosion & Sedimentation Ordinance
- 12 - Development Plan Review Flow Chart
- 13 - GSWCC Semi-Annual Reports
- 14 - Construction Site Inventory
- 15 - Site Inspection Form
- 16 - Notice of Violation
- 17 - Stop Work Order
- 18 - Certification Cards & Licenses
- 19 - Post-Development Stormwater Management Ordinance
- 20 - Post-Construction Stormwater Inventory
- 21 - IOM Procedures
- 22 - GSMM O&M Guidance Document
- 23 - Stormwater Maintenance Agreement
- 24 - Code and Ordinance Worksheet
- 25 - MS4 Map
- 26 - MS4 Inventory
- 27 - MS4 Inspections
- 28 - MS4 Electronic Inspection Forms
- 29 - MCSO Trash Detail Log
- 30 - Stormwater Training Sign-in Sheet
- 31 - Landfill Ticket
- 32 - CWWC Stormwater Plan Review Procedure & Checklist
- 33 - CWWC Plan Review Log
- 34 - Water Quality Evaluation for Existing MS4 Flood Control Structures
- 35 - Municipal Facilities Inspection Program
- 36 - Enforcement Response Plan
- 37 - Impaired Waters Monitoring and Implementation Plan