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## Introduction

The document contained herein provides the specifications that will outline Barrow County, Georgia's plan to address the requirements of the National Pollutant Discharge Elimination System (NPDES) Phase II Municipal Separate Storm Sewer System (MS4) program. The activities shown herein are collectively known as Barrow County's (County) Stormwater Management Program (SWMP) to address the requirements of the State of Georgia (State) Department of Natural Resources (DNR) Environmental Protection Division (EPD) General NPDES Stormwater Permit No. GAG610000 (permit). The County has developed this SWMP in close consultation with the permit and believes that the SWMP will serve as a valuable means of addressing the requirements of the permit as well as addressing water pollution control in the County's streams and rivers. Please note this SWMP is designed to address the requirements of the permit within the urbanized unincorporated area of Barrow County and does not represent the entirety of the County's overall Stormwater Management Program.

This SWMP has been divided into eight (8) major sections. The first six sections of the SWMP focus on the six minimum control measures that form the core of the NPDES Phase II MS4 program. They are as follows:

- Public Education and Outreach
- Public Involvement
- Illicit Discharge Detection and Elimination (IDDE)
- Construction Site Stormwater Runoff Control
- Post-Construction Stormwater Management
- Pollution Prevention / Good Housekeeping

Each minimum control measure contains multiple Best Management Practices (BMPs) or activities that will serve as the County's compliance strategy for meeting the requirements of the permit.

The final two sections of the SWMP focus on the County's Enforcement Response Plan and Impaired Waters monitoring / implementation plan.

## Public Education and Outreach on Stormwater Impacts

**Permit 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.

**Response:** Barrow County has developed several Best Management Practices (BMPs) based on reaching the community through a number of methods to provide information on the impacts of stormwater discharges on water bodies and the steps that the public can take to reduce pollutants in stormwater runoff. It is the County's belief that the mix of BMPs will ensure that a majority of the businesses and residents will be reached at least once each year. The following pages outline each BMP and the goals / implementation schedules applicable to each activity.

## **Best Management Practice (BMP) #A1 – Stormwater Website**

### **1. Target Audience:**

For the purposes of this BMP, the target audience will be the citizens of Barrow County.

### **2. Description of BMP:**

The County maintains a website for disseminating information to the public. Included on the County's official website is a Stormwater page. This page will be maintained to include information about the County's Stormwater Management Program, Stormwater Utility, and other pertinent information. A citizen complaint contact number(s) will be listed and a link provided so that citizens can report illicit discharges, water quality issues, and erosion and sedimentation (E&S) violations. Additionally, an electronic link for reporting water quality and E&S violations will be included as well.

The website will be updated on an annual basis to provide new stormwater related information and links. The County's Information Technology Department tracks website 'hits' so that the County will be able to determine how many people visited the site.

The website address for the County Stormwater Management Program is noted below:

<http://www.barrowga.org/departments/storm-water.aspx>

### **3. Measurable Goal(s):**

- Each year of the permit the webpage will be updated on July of each year.
- Each year the number of hits will be reported to monitor usage of the webpage.

### **4. Documentation to be submitted with each Annual Report:**

- Screenshot of the updated stormwater webpage.
- Number of hits the webpage received during the reporting period.

### **5. Schedule:**

- a. Interim Milestone Dates (if applicable): N/A
- b. Implementation Date (if applicable): 2018
- c. Frequency of Actions (if applicable):
  - Annual Updates
- d. Month / Year of Each Action (if applicable):
  - 2018 – Webpage Update
  - 2019 – Webpage Update
  - 2020 – Webpage Update
  - 2021 – Webpage Update
  - 2022 – Webpage Update

**6. Person (Position) responsible for overall management and implementation of the BMP:**

Matt Treeter (Stormwater Manager)

**7. Rationale for choosing BMP and setting measurable goal(s):**

The County believes that a large portion of the population of Barrow County has access to the internet and providing information digitally provides an efficient and cost effective means of assisting residents and businesses in acquiring information about the County's Stormwater Management Program and efforts. By updating the website annually, the addition of updated materials will ensure that new "hits" on the website each year result in the dissemination of new material on an on-going basis even if an individual visits the website several times over the course of the permit.

**8. How you will determine whether this BMP is effective in reducing pollution to stormwater in accordance with Part 5.1.4 of the Permit:**

The County will report the number of website "hits" for each permit year as part of the County's annual report due on February 15<sup>th</sup> of each year the permit is in effect. Although not a direct indicator of water quality in the streams and rivers of the County, it is believed that education will have an intangible benefit on water quality and recording the number of "hits" will identify the effectiveness and efficiency of disseminating information to the public. For the purposes of this SWMP, the BMP will be deemed to be effective if the website is updated with new information each year.

## **Best Management Practice (BMP) #A2 – Stormwater Education in Schools**

### **1. Target Audience:**

For the purposes of this BMP, the target audience will be the school children of Barrow County.

### **2. Description of BMP:**

The County will continue to work with local schools and education facilities to implement educational programs that will reach school children in Barrow County from elementary grades up to High School. Educational programs will likely include stream walks, presentations and other opportunities as they are identified in consultation with the schools and education facilities.

### **3. Measurable Goal(s):**

- The County will strive to conduct at least two education events per school year. As part of the annual report each year, the County will include a description of the events and estimated number of participating students.

### **4. Documentation to be submitted with each Annual Report:**

- Material or presentations used for the educational programs presented to the school children.

### **5. Schedule:**

- a. Interim Milestone Dates (if applicable): N/A
- b. Implementation Date (if applicable): 2018
- c. Frequency of Actions (if applicable):
  - Semi-Annual education events
- d. Month / Year of Each Action (if applicable):
  - 2018 – Semi-Annual Education Events
  - 2019 – Semi-Annual Education Events
  - 2020 – Semi-Annual Education Events
  - 2021 – Semi-Annual Education Events
  - 2022 – Semi-Annual Education Events

### **6. Person (Position) responsible for overall management and implementation of the BMP:**

Matt Treeter (Stormwater Manager)

**7. Rationale for choosing BMP and setting measurable goal(s):**

The County believes education of school aged children is an effective means of developing long term awareness of activities that can threaten water quality in local water ways. The dates for the BMP were established based on the school calendar as well as anticipated weather patterns (i.e. not too hot or cold) that would allow the potential for field visits to local streams and water bodies.

**8. How you will determine whether this BMP is effective in reducing pollution to stormwater in accordance with Part 5.1.4 of the Permit:**

The County will report the number of school aged children that attended the events for each permit year as part of the County's annual report due on February 15<sup>th</sup> of each year the permit is in effect. Although not a direct indicator of water quality in the streams and rivers of the County, it is believed that education will have an intangible benefit on water quality and recording the number of students reached will identify the effectiveness and efficiency of disseminating information to the public. For the purposes of this SWMP, the BMP will be deemed to be effective if at least two educational events are conducted with school children during the school year.



## **Best Management Practice (BMP) #A3 – Stormwater Educational Brochures**

### **1. Target Audience:**

For the purposes of this BMP, the target audience will be the citizens of Barrow County.

### **2. Description of BMP:**

Approximately 500 educational brochures related to the impacts of stormwater are mailed to local residents annually. Additionally, the County occasionally distributes brochures in the form of door hangers as well as distribute materials at select civic events.

### **3. Measurable Goal(s):**

- Approximately 500 educational brochures will be mailed to local residents annually.

### **4. Documentation to be submitted with each Annual Report:**

- Copy of the educational brochure distributed during the reporting period.
- The number of brochures distributed will be tracked by the County and reported to EPD in the Annual Report.

### **5. Schedule:**

- a. Interim Milestone Dates (if applicable): N/A
- b. Implementation Date (if applicable): 2018
- c. Frequency of Actions (if applicable):
  - Annual update of educational brochures
  - Mail Educational Brochure
- d. Month / Year of Each Action (if applicable):
  - 2018 – Mail Educational Brochure
  - 2019 – Mail Educational Brochure
  - 2020 – Mail Educational Brochure
  - 2021 – Mail Educational Brochure
  - 2022 – Mail Educational Brochure

### **6. Person (Position) responsible for overall management and implementation of the BMP:**

Matt Treeter (Stormwater Manager)

**7. Rationale for choosing BMP and setting measurable goal(s):**

The County believes education of the public is an effective means of developing long term awareness of activities that can threaten water quality in local water ways. The County believes that this BMP will assist in the distribution of educational materials to residents and businesses that don't access the County's digital resources as described in other BMPs.

**8. How you will determine whether this BMP is effective in reducing pollution to stormwater in accordance with Part 5.1.4 of the Permit:**

The County will report the number of brochures distributed as part of the County's annual report due on February 15<sup>th</sup> of each year the permit is in effect. Although not a direct indicator of water quality in the streams and rivers of the County, it is believed that education will have an intangible benefit on water quality and recording the brochures distributed will identify the effectiveness and efficiency of disseminating information to the public. Recording the number of brochures distributed will identify the effectiveness and efficiency of disseminating information to the public.

## **Best Management Practice (BMP) #A4 – Stormwater Facebook Page**

### **1. Target Audience:**

For the purposes of this BMP, the target audience will be the citizens of Barrow County.

### **2. Description of BMP:**

Given the popularity of Facebook.com, the County has established a stormwater page on Facebook to assist in distributing information and updating the public on the activities of the County's Stormwater Management Program. The County will update the Facebook page a minimum of one time (1x) per month with messages about the program, photos of stormwater issues around the county, stormwater projects that the County has completed, etc.

### **3. Measurable Goal(s):**

- The County will update the Barrow County Stormwater Facebook page a minimum of one time (1x) per month.

### **4. Documentation to be submitted with each Annual Report:**

- Screenshot of the County's Facebook wall for the reporting period.
- The number of Facebook page updates will be tracked by the County and reported to EPD in the Annual Report.

### **5. Schedule:**

- a. Interim Milestone Dates (if applicable): N/A
- b. Implementation Date (if applicable): 2018
- c. Frequency of Actions (if applicable):
  - Monthly updates of the Barrow County Stormwater Facebook page
- d. Month / Year of Each Action (if applicable):
  - Monthly updates throughout the permit period

### **6. Person (Position) responsible for overall management and implementation of the BMP:**

Matt Treeter (Stormwater Manager)

### **7. Rationale for choosing BMP and setting measurable goal(s):**

The County believes education of the public is an effective means of developing long term awareness of activities that can threaten water quality in local water ways. Additionally, with the popularity of Facebook, the BMP will provide an additional means of distributing information about the impacts of stormwater on local water resources via social media. Given the fact that Facebook does not provide usage statistics on how often the page is viewed, the County will utilize updates as a means of measuring the effectiveness of the BMP. Given that

every update will automatically show up in the news feed of a person who has “liked” the page, this will ensure that it is viewed by users.

**8. How you will determine whether this BMP is effective in reducing pollution to stormwater in accordance with Part 5.1.4 of the Permit:**

The County will report the number of updates to the page as part of the County’s annual report due on February 15<sup>th</sup> of each year the permit is in effect. Although not a direct indicator of water quality in the streams and rivers of the County, it is believed that education will have an intangible benefit on water quality. For the purposes of this SWMP, the BMP will be deemed to be effective if the County updates their Facebook page a minimum of one time (1x) per month and those updates are tracked and reported.

## Public Involvement / Participation

**Permit Requirement:** The permittee must, at a minimum, comply with State and local public notice requirements when implementing a public involvement / participation program. The permittee is encouraged to make the approved SWMP publicly accessible electronically or by other means.

**Response:** Barrow County has developed several Best Management Practices (BMPs) based on providing avenues for the community through a number of methods to provide input on the impacts of stormwater discharges on water bodies and the steps that the public can take to comment on the County's SWMP. As part of this effort, the County will include a copy of the EPD approved SWMP on the County's stormwater webpage as well as comply with all Open Records requests for viewing and / or obtaining a copy of the SWMP. The following pages outline each BMP and the goals / implementation schedules applicable to each activity.

## **Best Management Practice (BMP) #B1 – Great American Cleanup**

### **1. Target Audience:**

For the purposes of this BMP, the target audience will be the citizens of Barrow County.

### **2. Description of BMP:**

Barrow County organizes an annual Great American Cleanup day annually.

The Great American Cleanup is a month long cleanup event coordinated statewide by Keep America Beautiful and all of their State and local affiliates. This cleanup event asks volunteer groups to pick up litter in their neighborhoods and local areas. The County organizes one major cleanup event in April in honor of this event. In order to track the number of participants, the County will be using a traffic counter to record how many people participate in the event.

To solicit volunteer participation in these events the County advertises for the event on their website and Facebook page. The event is also advertised at local government buildings.

### **3. Measurable Goal(s):**

- Advertise for Great American Cleanup
- Hold Great American Cleanup
- Record amount of trash/litter removed as part of this event
- Use traffic counter to record number of participants

### **4. Documentation to be submitted with each Annual Report:**

- Copy of advertisements for the Great American Cleanup Day
- Table of amount of trash/litter removed
- Report on number of participants

### **5. Schedule:**

- a. Interim Milestone Dates (if applicable): N/A
- b. Implementation Date (if applicable): 2018
- c. Frequency of Actions (if applicable):
  - Annual event
- d. Month / Year of Each Action (if applicable):
  - 2018 – Hold Great American Cleanup Event
  - 2019 – Hold Great American Cleanup Event
  - 2020 – Hold Great American Cleanup Event
  - 2021 – Hold Great American Cleanup Event
  - 2022 – Hold Great American Cleanup Event

**6. Person (Position) responsible for overall management and implementation of the BMP:**

Matt Treeter (Stormwater Manager)

**7. Rationale for choosing BMP and setting measurable goal(s):**

Litter is a major source of stormwater pollution in Barrow County. By involving the public in litter cleanups, the County not only removes a great deal of litter from local waterways, but also teaches the public about the problem and hopefully prevents litter from finding its way onto the ground in the first place.

**8. How you will determine whether this BMP is effective in reducing pollution to stormwater in accordance with Part 5.1.4 of the Permit:**

By measuring the amount of litter collected at each clean up event that could have entered the County's streams and rivers, a direct reduction in gross pollutants can be determined and shown as an improvement in water quality. For the purpose of this SWMP, the BMP will be deemed to be effective if the County continues to advertise for the Great American Cleanup event as well as keep track of all trash/litter removed as part of the event.

## **Best Management Practice (BMP) #B2 – Adopt-A-Road Program**

### **1. Target Audience:**

For the purposes of this BMP, the target audience will be citizens of Barrow County.

### **2. Description of BMP:**

The Adopt-A-Road program is an ongoing program in Barrow County administered by the Keep Barrow Beautiful program. The purpose of the program is to provide an organized program to remove litter from public rights-of-way within the County via volunteer groups. Litter is collected by volunteers and placed in County provided trash bags. Following collection of the litter, the bags are then placed along the roadway and County personnel collect and properly dispose of the litter.

### **3. Measurable Goal(s):**

- The County will continue to support the Adopt-A-Road Program.
- The County will submit a current list of participants and roads adopted with the February 15, 2019 Annual Report.
- The County will update the list of participants and roads adopted during the permit year.
- The County will report the number of clean up events conducted during the permit year as part of the County's annual report due on February 15<sup>th</sup> of each year the permit is in effect.
- The County will estimate the amount of litter removed from the road rights-of-way during the permit year as part of the County's annual report due on February 15<sup>th</sup> of each year the permit is in effect.

### **4. Documentation to be submitted with each Annual Report:**

- Existing list of current Adopt-A-Road program participants and/or roads adopted to be submitted with the February 15, 2019 Annual Report.
- Updated list of current Adopt-A-Road program participants and/or roads adopted to be submitted with future reports.

### **5. Schedule:**

- a. Interim Milestone Dates (if applicable): N/A
- b. Implementation Date (if applicable): 2018
- c. Frequency of Actions (if applicable):
  - On-going
- d. Month / Year of Each Action (if applicable):
  - 2018 – Update list of current participants and/or roads adopted
  - 2019 – Update list of current participants and/or roads adopted
  - 2020 – Update list of current participants and/or roads adopted
  - 2021 – Update list of current participants and/or roads adopted
  - 2022 – Update list of current participants and/or roads adopted



**6. Person (Position) responsible for overall management and implementation of the BMP:**

Matt Treeter (Stormwater Manager)

**7. Rationale for choosing BMP and setting measurable goal(s):**

The Adopt-A-Road program has been in place for a number of years in Barrow County and serves as a valuable tool for reducing litter in the community as well as providing an effective means of reducing the amount of trash and debris that enters the County's MS4. As a result of the volunteers' efforts, County resources can be more effectively utilized in other areas of need within the Stormwater Management Program.

**8. How you will determine whether this BMP is effective in reducing pollution to stormwater in accordance with Part 5.1.4 of the Permit:**

Given that much of the County's rights-of-way include ditches and drainage systems (i.e. MS4 components), removal of litter from the right-of-way prevents gross pollutants from entering the MS4 and being discharged to streams and rivers. By measuring the amount of litter removed from the roads, the amount of pollution that would have entered the County's streams and rivers can be determined. For the purposes of this SWMP, the BMP will be deemed to be effective if the County continues to support the Adopt-A-Road Program and the volume of litter picked up is reported for the reporting period.

## **Best Management Practice (BMP) #B3 – Barrow County Recycling Program**

### **1. Target Audience:**

For the purposes of this BMP, the target audience will be the citizens of Barrow County.

### **2. Description of BMP:**

The Keep Barrow Beautiful program currently manages in-house recycling programs for the County residents. At the time of this SWMP development, the recycling program offered recycling for glass, plastic, paper, cans, cardboard, and tin. The County believes that this program provides a meaningful way of collecting trash to avoid disposal in landfills as well as reduce the potential that such materials will end up as litter in the County's MS4 program. Currently, recycling is collected at the County Annex and then picked up by Waste Management (a local commercial recycling company) on a weekly basis.

### **3. Measurable Goal(s):**

- The County will continue to provide for recycling opportunities to the public via a collection site at the County Annex.
- The County will estimate the amount of recyclables collected during the permit year as part of the County's annual report due on February 15<sup>th</sup> of each year the permit is in effect.

### **4. Documentation to be submitted:**

- Database with estimate of recyclables collected during the reporting period.

### **5. Schedule:**

- a. Interim Milestone Dates (if applicable): N/A
- b. Implementation Date (if applicable): 2018
- c. Frequency of Actions (if applicable):
  - On-going
- d. Month / Year of Each Action (if applicable):
  - On-going

### **6. Person (Position) responsible for overall management and implementation of the BMP:**

Matt Treeter (Stormwater Manager)

### **7. Rationale for choosing BMP and setting measurable goal(s):**

The Recycling Program has been in place for a number of years in Barrow County and serves as a valuable tool for reducing litter in the community as well as providing an effective means of reducing the amount of trash and debris that enters the County's MS4 as well as landfills. As a

result of the volunteers' efforts, County resources can be more effectively utilized in other areas of need within the Stormwater Management Program.

**8. How you will determine whether this BMP is effective in reducing pollution to stormwater in accordance with Part 5.1.4 of the Permit:**

Given that much of the County's rights-of-way include ditches and drainage systems (i.e. MS4 components), removal of potential litter from the right-of-way prevents gross pollutants from entering the MS4 and being discharged to streams and rivers. By measuring the amount of litter collected at the recycling collection point, the amount of pollution that could have entered the County's streams and rivers can be determined. For the purposes of this SWMP, the BMP will be deemed effective if the County continues to provide recycling opportunities to the public via a collection site at the County Annex.

## **Best Management Practice (BMP) #B4 – Public Complaint Stormwater Reporting**

### **1. Target Audience:**

For the purposes of this BMP, the target audience will be the citizens of Barrow County.

### **2. Description of BMP:**

Barrow County provides multiple avenues for the public to contact the stormwater management program with complaints and concerns regarding MS4 infrastructure issues, water quality concerns, and erosion and sediment control violations. At this time, the County receives complaints via telephone call, email, website referrals, and letters. The County will maintain a database of all complaints received by the public. The database will include the following information:

- Date of Complaint
- Address of Complaint
- Complaining Party Name
- Problem (MS4, water quality, E&S, misc)
- Resolution (i.e. work order generated, field investigation, phone call discussion, etc.)

Additionally, the County has developed step-by-step procedures for receiving complaints, investigating the complaints, and taking enforcement. A copy of the complaint procedures and an example of the complaint log have been included in Appendix I.

### **3. Measurable Goal(s):**

- The County will maintain a database of complaints received via various methods and provide a copy of the database as part of the County's annual report due on February 15<sup>th</sup> of each year the permit is in effect.
- County staff addresses 100% of complaints received.
- County staff takes appropriate action for 100% of complaints that require it.

### **4. Documentation to be submitted with each Annual Report:**

- Updated database of complaints received during the reporting period.

### **5. Schedule:**

- a. Interim Milestone Dates (if applicable): N/A
- b. Implementation Date (if applicable): 2018
- c. Frequency of Actions (if applicable):
  - On-going
- d. Month / Year of Each Action (if applicable):
  - On-going

**6. Person (Position) responsible for overall management and implementation of the BMP:**

Matt Treeter (Stormwater Manager)

**7. Rationale for choosing BMP and setting measurable goal(s):**

The County relies heavily on residents and businesses to supplement in house staff resources to identify stormwater management issues throughout the County. As such, maintenance of the database will provide a valuable tool to the program to ensure that citizen complaints and concerns are addressed in a timely and efficient manner to the extent practical.

**8. How you will determine whether this BMP is effective in reducing pollution to stormwater in accordance with Part 5.1.4 of the Permit:**

By measuring the number of complaints and tracking the responses to the complaints, the County will be able to demonstrate either directly or indirectly how water quality issues are addressed. For the purposes of this SWMP, the BMP will be deemed to be effective if the County responds to all complaints where appropriate.

## Illicit Discharge Detection and Elimination (IDDE)

**Permit Requirement:** The permittee must develop, implement and enforce a program to detect and eliminate illicit discharges (as defined in 40 CFR Part 122.26(b)(2)) into its MS4. The permittee must:

- Develop, if not already completed, a storm sewer map, showing the location of all outfalls and the names and location of all waters of the State that receive discharges from those outfalls;
- Prohibit through ordinance, or other regulatory mechanisms, non-storm water discharges into the MS4 and implement appropriate enforcement procedures and actions;
- Develop and implement a plan to detect and address non-storm water discharges including illegal dumping to the MS4;
- Inform public employees, businesses, and the general public of the hazards associated with illegal discharges and improper disposal of wastes; and
- Address the following categories of non-stormwater discharges or flows only if they are identified as significant contributors of pollutants to the MS4:
  - Water line flushing
  - Landscape irrigation
  - Diverted stream flows;
  - Rising ground waters
  - Uncontaminated ground water infiltration (as defined in 40 CF Part 35.2005(20));
  - Uncontaminated pumped ground water;
  - Discharges from potable water sources;
  - Foundation drains;
  - Air conditioning condensation;
  - Irrigation water;
  - Springs;
  - Water from crawl space pumps;
  - Footing drains;
  - Lawn watering;
  - Individual residential car washing;
  - Flows from riparian habitats and wetlands;
  - Swimming pool discharges;
  - Street wash water; and
  - Flows from firefighting activities.

**Response:** Barrow County has developed a program for identifying and eliminating illicit discharges through the use of structural and non-structural Best Management Practices (BMPs). Please note that the County previously adopted an Illicit Discharge Prohibition ordinance during a previous permit period. A copy of the ordinance has been included with this SWMP in Appendix C. Additionally, the County has previously completed a drainage system inventory and outfall map and included the outfall / state waters map as Appendix C. The remainder of the requirements of the permit have been addressed in the following BMPs.

## **Best Management Practice (BMP) #C1 – Legal Authority**

### **1. Description of BMP:**

Barrow County will maintain an illicit discharge prohibition ordinance within Barrow County's Code of Ordinances meeting the requirements of the NPDES Phase II MS4 permit as well as the requirements of the Metropolitan North Georgia Water Planning District. If the requirements of the aforementioned programs conflict, the more stringent requirement will be maintained. Please note that the ordinance was adopted in a previous permit year and a copy of the ordinance can be found in Appendix C.

### **2. Measurable Goal(s):**

- The County will maintain an illicit discharge prohibition ordinance within Barrow County's Code of Ordinances at all times during the course of the permit. Each year, the County will evaluate the ordinance to determine if revisions are required. If revisions are required, the County will submit a copy of the revised ordinance to EPD to be included in the SWMP.

### **3. Documentation to be submitted with each Annual Report:**

- Current or updated illicit discharge prohibition ordinance.

### **4. Schedule:**

- a. Interim Milestone Dates (if applicable): N/A
- b. Implementation Date (if applicable): 2018
- c. Frequency of Actions (if applicable):
  - Annual Review of Illicit Discharge Prohibition Ordinance
- d. Month / Year of Each Action (if applicable):
  - 2018 – Annual Review of Illicit Discharge Prohibition Ordinance
  - 2019 – Annual Review of Illicit Discharge Prohibition Ordinance
  - 2020 – Annual Review of Illicit Discharge Prohibition Ordinance
  - 2021 – Annual Review of Illicit Discharge Prohibition Ordinance
  - 2022 – Annual Review of Illicit Discharge Prohibition Ordinance

### **5. Person (Position) responsible for overall management and implementation of the BMP:**

Matt Treeter (Stormwater Manager)

### **6. Rationale for choosing BMP and setting measurable goal(s):**

Maintenance of the legal authority to investigate illicit discharges is required under the permit and provides a means of eliminating illicit discharges to Waters of the State.

**7. How you will determine whether this BMP is effective in reducing pollution to stormwater in accordance with Part 5.1.4 of the Permit:**

The ability to cease discharges of pollutants from non-exempt illicit dry weather discharges is critical to reducing the pollutant loading of local streams and water bodies. As such, this BMP will be determined to be effective if the County maintains an illicit discharge prohibition ordinance throughout the duration of this permit. Additionally, the County will evaluate the ordinance once per year and revise the ordinance if deemed ineffective.



## **Best Management Practice (BMP) #C2 – Outfall Map and Inventory**

### **1. Description of BMP:**

Barrow County has created a map of all regulated outfalls within the unincorporated urbanized area of the County. The urbanized area was determined based off the latest 2010 Census data. Each year, the County will update the map and inventory to reflect the addition of outfalls from new infrastructure projects or developments. The map and inventory will show 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. Additionally, the County will also remove outfalls that have been reclassified or removed. An overall outfall map and inventory table have been included in Appendix C.

### **2. Measurable Goal(s):**

- The County will maintain a map of all MS4 outfalls within the unincorporated urbanized area of Barrow County and provide a copy of the map as part of the County's annual report due on February 15<sup>th</sup> of each year the permit is in effect.
- The County will maintain a database inventory of all MS4 outfalls within the unincorporated urbanized area of Barrow County.

### **3. Documentation to be submitted with each Annual Report:**

- Updated MS4 Outfall Map and inventory list of outfalls within the unincorporated urbanized area of Barrow County.
- Provide number of outfalls added and total number of outfalls within the unincorporated urbanized area of Barrow County.

### **4. Schedule:**

- a. Interim Milestone Dates (if applicable): N/A
- b. Implementation Date (if applicable): 2018
- c. Frequency of Actions (if applicable):
  - Annual
- d. Month / Year of Each Action (if applicable):
  - 2018 – Update MS4 Outfall Map and Inventory
  - 2019 – Update MS4 Outfall Map and Inventory
  - 2020 – Update MS4 Outfall Map and Inventory
  - 2021 – Update MS4 Outfall Map and Inventory
  - 2022 – Update MS4 Outfall Map and Inventory

### **5. Person (Position) responsible for overall management and implementation of the BMP:**

Matt Treeter (Stormwater Manager)

**6. Rationale for choosing BMP and setting measurable goal(s):**

Awareness of discharge points of the County's MS4 is required under the permit and provides a significant awareness of where pollutants can be discharged to Waters of the State. Maintenance of the map is critical to accurately reflect changes to the County's regulated outfalls due to new developments, MS4 infrastructure projects, and other changes to the County's outfalls.

**7. How you will determine whether this BMP is effective in reducing pollution to stormwater in accordance with Part 5.1.4 of the Permit:**

Determining where outfalls discharge is critical to preventing illicit discharges to Waters of the State and is a key component of screening (to be addressed in a separate BMP). Through knowledge of the system, the County believes that illicit discharges can be more effectively identified and addressed. This BMP will be determined to be effective if the County maintains an updated map of all known MS4 outfalls on an annual basis as demonstrated through submittal of a new map each year in the annual report due on or before February 15<sup>th</sup> documenting the previous year's activities

## **Best Management Practice (BMP) #C3 – Dry Weather Screening Program**

### **1. Description of BMP:**

Barrow County's dry weather screening program consists of inspecting outfalls and sampling any dry weather flow to determine if upstream facilities/connections are discharging non-stormwater flows to the drainage system. The County will be screened on a geographic area basis. The unincorporated urbanized area of the County has been divided into 5 areas and will be screened such that each area will be screened once and the entire regulated area of the County will be screened over the course of the permit. If there is a dry weather flow, the County will initiate sampling and a source tracing and removal program. A copy of the County's dry weather screening procedures has been included in Appendix C. Also, a copy of the County's dry weather screening sector area map has been included in Appendix C.

If an outfall is added to the urbanized area of the County during the course of a permit year through a new infrastructure project or development project, the outfall will be screened in that year if:

- The outfall is located in the sector to be screened in that year
- Or the outfall is located in a previously screened sector

Please note that outfalls added to the County after the dry weather screening for that year has been completed, will be dry weather screened the following year if located in a previously screened area.

County outfalls that are found to have a dry weather flow, regardless of their sector, will be screened that year and appropriate action taken as outlined in the approved dry weather screening procedures and Enforcement Response Plan.

### **2. Measurable Goal(s):**

- Provide a map and completed dry weather screening forms for all dry weather screened outfalls completed within the permit year in each year's annual report.
- Dry weather screen all outfalls in designated sector annually.
- 100% of suspected illicit discharges investigated.
- 100% of identified illicit connections removed.
- All investigations will be reported in each year's annual report.

### **3. Documentation to be submitted with each Annual Report:**

- Map and completed dry weather screening forms for outfalls screened in the sector for that permit year.
- Documentation on any source tracing activities conducted on illicit discharges found during the reporting period.
- Documentation on all eliminated discharges and any enforcement action taken during the reporting period.

**4. Schedule:**

- a. Interim Milestone Dates (if applicable): N/A
- b. Implementation Date (if applicable): 2018
- c. Frequency of Actions (if applicable):
  - Annual
- d. Month / Year of Each Action (if applicable):
  - 2018 – Dry Weather Screen Sector 1
  - 2019 – Dry Weather Screen Sector 2
  - 2020 – Dry Weather Screen Sector 3
  - 2021 – Dry Weather Screen Sector 4
  - 2022 – Dry Weather Screen Sector 5

**5. Person (Position) responsible for overall management and implementation of the BMP:**

Matt Treeter (Stormwater Manager)

**6. Rationale for choosing BMP and setting measurable goal(s):**

Dry Weather Screening is required under the permit and provides a means of determining if connections to the MS4 are discharging pollutants to the County's streams and rivers. A geographic approach to dry weather screening over 5 years ensures that outfalls are screened in an efficient manner limiting the possibility that an outfall could be missed.

**7. How you will determine whether this BMP is effective in reducing pollution to stormwater in accordance with Part 5.1.4 of the Permit:**

The County believes that identifying and eliminating illicit discharges of pollutants will reduce the pollutant loading of the County's streams and rivers. This BMP will be determined to be effective if the County screens one sector of the County per year such that over the course of the permit every MS4 outfall is inspected a minimum of once. Also, this BMP will be determined to be effective if the County source traces and takes corrective action for all identified non-exempt dry weather flows.

## Best Management Practice (BMP) #C4 – Education

### 1. Description of BMP:

The County maintains a website for disseminating information to the public. Included on the County's official website is a Stormwater page. This page will be maintained to include information about the County's Stormwater Management Program, Stormwater Utility, illicit discharge education and other pertinent information. A citizen complaint contact number(s) will be listed and a link provided so that citizens can report water quality as well as erosion and sedimentation (E&S) violations. Additionally, an electronic link for reporting water quality and E&S violations will be included as well.

The website will be updated on an annual basis to provide new illicit discharge education and links. The County's Information Technology Department tracks website 'hits' so that the County will be able to determine how many people visited the site.

The website address for the County Stormwater Management Program is noted below:  
<http://www.barrowga.org/departments/storm-water.aspx>

### 2. Measurable Goal(s):

- Each year of the permit the webpage will be updated on July of each year.
- Each year the number of hits will be reported to monitor usage of the webpage.
- Include screen shot of updated education materials on illicit discharges in annual report.

### 3. Documentation to be submitted with each Annual Report

- Screenshot of updated education materials on illicit discharges.
- Number of hits the webpage received during the reporting period.

### 4. Schedule:

- a. Interim Milestone Dates (if applicable): N/A
- b. Implementation Date (if applicable): 2018
- c. Frequency of Actions (if applicable):
  - Annual Updates
- d. Month / Year of Each Action (if applicable):
  - 2018 – Webpage Update
  - 2019 – Webpage Update
  - 2020 – Webpage Update
  - 2021 – Webpage Update
  - 2022 – Webpage Update

### 5. Person (Position) responsible for overall management and implementation of the BMP:

Matt Treeter (Stormwater Manager)

**6. Rationale for choosing BMP and setting measurable goal(s):**

The County believes that a large portion of the population of Barrow County has access to the internet and providing information digitally provides an efficient and cost effective means of assisting residents and businesses in acquiring information about the County's stormwater management program and efforts. By updating the website annually, the addition of updated materials will ensure that new "hits" on the website each year result in the dissemination of new material on an on-going basis even if an individual visits the website several times over the course of the permit.

**7. How you will determine whether this BMP is effective in reducing pollution to stormwater in accordance with Part 5.1.4 of the Permit:**

The County will report the number of website "hits" for each permit year as part of the County's annual report due on February 15<sup>th</sup> of each year the permit is in effect. Although not a direct indicator of water quality in the streams and rivers of the County, it is believed that education will have an intangible benefit on water quality and recording the number of "hits" will identify the effectiveness and efficiency of disseminating information to the public. For the purposes of this SWMP, the BMP will be deemed to be effective if the website is updated with new information each year.

## **Best Management Practice (BMP) #C5 – Illicit Discharge Complaint Response**

### **1. Description of BMP:**

Barrow County provides multiple avenues for the public to contact the stormwater management program with complaints and concerns regarding illicit discharges and water quality concerns. At this time, the County receives complaints via telephone call, email, website referrals, and letters. The County will maintain a database of all complaints received by the County. The database will include the following information:

- Date of Complaint
- Address of Complaint
- Complaining Party Name
- Problem (MS4, water quality, E&S, misc)
- Resolution (i.e. work order generated, field investigation, phone call discussion, etc.)

Additionally, the County has developed step-by-step procedures for receiving complaints, investigating the complaints, and taking enforcement. A copy of the complaint procedures and an example of the complaint log have been included in Appendix I.

### **2. Measurable Goal(s):**

- The County will maintain a database of complaints received via various methods and provide a copy of the database as part of the County's annual report due on February 15<sup>th</sup> of each year the permit is in effect.

### **3. Documentation to be submitted with each Annual Report:**

- Updated database of complaints received during the reporting period

### **4. Schedule:**

- a. Interim Milestone Dates (if applicable): N/A
- b. Implementation Date (if applicable): 2018
- c. Frequency of Actions (if applicable):
  - On-going
- d. Month / Year of Each Action (if applicable):
  - On-going

### **5. Person (Position) responsible for overall management and implementation of the BMP:**

Matt Treeter (Stormwater Manager)

### **6. Rationale for choosing BMP and setting measurable goal(s):**

The County relies heavily on residents and businesses to supplement in house staff resources to identify stormwater management issues throughout the County. As such, maintenance of the database will provide a valuable tool to the program to ensure that citizen complaints and concerns are addressed in a timely and efficient manner to the extent practical.

**7. How you will determine whether this BMP is effective in reducing pollution to stormwater in accordance with Part 5.1.4 of the Permit:**

By measuring the number of complaints and tracking the responses to the complaints, the County will be able to demonstrate either directly or indirectly how water quality issues are addressed. For the purpose of this SWMP, the BMP will be deemed to be effective if the County responds to all complaints where appropriate.



## Construction Site Stormwater Runoff Control

**Permit 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 the construction activity is part of a larger common plan of development or sale that would disturb one acre or more. The permittee must develop and implement a construction site stormwater runoff control program that contains the following elements:

- An ordinance or other regulatory mechanism to require erosion and sediment (E&S) controls, as well as sanctions to ensure compliance, to the extent allowable, under State or local law;
- Requirements for construction site operators to implement E&S control best management practices;
- Requirements for construction site operators to control waste such as discharged building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse water quality impacts;
- Procedures for site plan review that incorporate consideration of potential water quality impacts;
- Procedures for receipt and consideration of information submitted by the public; and
- Procedures for site inspection and enforcement of control measures.

**Response:** Barrow County is currently operating as its own Local Issuing Authority (LIA). Erosion Sedimentation and Pollution Control Plans (ESPCP) submitted to the County are sent to the National Resources Conservation Service (NRCS) to review for compliance with the requirements of the Georgia Erosion and Sediment Control Act (GESA). Compliance with the requirements outlined in the NPDES Phase II permit will utilize many of the same activities required under GESA. Please note that the County previously adopted an Erosion and Sediment Control ordinance during a previous permit period. A copy of the ordinance has been included with this SWMP in Appendix D. The remaining requirements of the permit have been addressed in the following BMPs.

## **Best Management Practice (BMP) #D1 – Legal Authority**

### **1. Description of BMP:**

Barrow County will maintain an erosion and sediment control ordinance within Barrow County's Code of Ordinances meeting the requirements of the NPDES Phase II MS4 permit as well as the requirements of the Georgia Erosion & Sedimentation Act (GESA). If the requirements of the aforementioned programs conflict, the more stringent requirement will be maintained. Please note that the erosion and sediment control ordinance was adopted in a previous permit year and a copy of the ordinance can be found in Appendix D.

### **2. Measurable Goal(s):**

- The County will maintain an erosion and sediment control ordinance and a debris and waste control environmental ordinance within Barrow County's Code of Ordinances at all times during the course of the permit. Each year, the County will evaluate the ordinance to determine if revisions are required. If revisions are required, the County will submit a copy of the revised ordinance to EPD to be included in the SWMP.

### **3. Documentation to be submitted with each Annual Report:**

- Current or updated erosion and sediment control ordinance.
- Current or updated debris and waste control environmental ordinance.

### **4. Schedule:**

- a. Interim Milestone Dates (if applicable): N/A
- b. Implementation Date (if applicable): 2018
- c. Frequency of Actions (if applicable):
  - Annual Review of Erosion & Sediment Control Ordinance
- d. Month / Year of Each Action (if applicable):
  - 2018 – Annual Review of Erosion & Sediment Control Ordinance and Debris and Waste Control Ordinance
  - 2019 – Annual Review of Erosion & Sediment Control Ordinance and Debris and Waste Control Ordinance
  - 2020 – Annual Review of Erosion & Sediment Control Ordinance and Debris and Waste Control Ordinance
  - 2021 – Annual Review of Erosion & Sediment Control Ordinance and Debris and Waste Control Ordinance
  - 2022 – Annual Review of Erosion & Sediment Control Ordinance and Debris and Waste Control Ordinance

### **5. Person (Position) responsible for overall management and implementation of the BMP:**

Rebecca Whiddon (Planning Manager)

**6. Rationale for choosing BMP and setting measurable goal(s):**

Maintenance of the legal authority to require erosion and sediment control measures is required under the permit and provides a means of reducing the potential for erosion and sedimentation impacts to Waters of the State.

**7. How you will determine whether this BMP is effective in reducing pollution to stormwater in accordance with Part 5.1.4 of the Permit:**

The ability to require construction site operators to design, implement and maintain erosion and sedimentation controls on active construction sites is critical to protecting local streams and water bodies. As such, this BMP will be determined to be effective if the County maintains an erosion and sediment control ordinance and a debris and waste control ordinance throughout the duration of this permit. Additionally, the County will evaluate the ordinances once per year and revise the ordinances if deemed ineffective.

## **Best Management Practice (BMP) #D2 – Site Plan Review**

### **1. Description of BMP:**

Barrow County is its own Issuing Authority, and remains in compliance with Georgia Erosion and Sediment Control Act (GESA) of 1975 as amended. Accordingly, all developers are required to comply with the local E&S Ordinance and obtain a land disturbance permit prior to the start of any land disturbing activities that will disturb one (1.0) or more acres of land within the unincorporated area of the County.

ESPCP plans submitted to the County are sent to the National Resources Conservation Service (NRCS) to review for compliance with the requirements of GESA. Plans must meet the requirements of GESA and the Barrow County E&S Ordinance, which includes the requirement to control turbidity in the site runoff, control impacts on receiving streams and the implementation of the minimum control measures. County staff also reviews the site plan to ensure that the stormwater management plan meets requirements for water quality and water quantity treatment as described in the Stormwater Ordinance. County staff will work with a developer to improve a plan until it meets all applicable requirements. Once a plan is approved by Barrow County, the developer is issued a Land Disturbing Activities Permit and can commence with land disturbing activities.

Barrow County's E&S Ordinance requires that local developers pay permit fees of \$40.00 per disturbed acre to the County. Since GESA contains requirements for these fees to be paid, The County is notifying developers of this requirement and collecting the associated fees.

### **2. Measurable Goal(s):**

- Review 100% of ESPCPs for compliance with GESA and the Barrow County E&S Ordinance and grant Land Disturbance Permit only after ESPCP is approved
- Provide a list of 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:**

- List of site plans received and the number of site plans reviewed, approved, or denied during the reporting period.

### **4. Schedule:**

- a. Interim Milestone Dates (if applicable): N/A
- b. Implementation Date (if applicable): 2018
- c. Frequency of Actions (if applicable): On-going
- d. Month / Year of Each Action (if applicable): On-going

### **5. Person (Position) responsible for overall management and implementation of the BMP:**

Rebecca Whiddon (Planning Manager)

**6. Rationale for choosing BMP and setting measurable goal(s):**

As a local issuing authority, the County is required to implement this BMP under GESA as well as the permit.

**7. How you will determine whether this BMP is effective in reducing pollution to stormwater in accordance with Part 5.1.4 of the Permit:**

It is the intent of this BMP to protect existing water quality. By ensuring that no land disturbing projects are authorized without first developing a plan to meet the requirements of GESA and the local E&S ordinance, the County believes that this BMP will provide a significant safeguard against potential water quality impacts. For the purposes of this SWMP, the BMP will be deemed effective if no land disturbance permits are issued without first meeting the requirements of the County's E&S ordinance through the design of site specific structural and non-structure best management practices.

## **Best Management Practice (BMP) #D3 – E&S Inspection Program**

### **1. Description of BMP:**

Barrow County currently inspects all active construction projects within the unincorporated area of the County that maintain Land Disturbance Permits. Sites are inspected for compliance with their approved ESPCP plan. All construction sites are inspected shortly after land disturbing activities have commenced to ensure that all E&S BMPs are in place. Regular inspections will take place after that based on the following priorities:

- Evidence of erosion or sediment leaving the site
- History of non-compliance with ESPCP plan and E&S regulations
- Citizen complaints
- Proximity to local waterways

Throughout the length of the project, the E&S certified person responsible for the ESPCP implementation onsite is responsible for submitting weekly reports to Barrow County on status of that implementation. All construction sites are inspected after construction activity has ceased to ensure that the site has been properly stabilized. A checklist has been developed so that all inspections are uniform, and also to provide the County and the Land Disturbance Permit holder with a written record of the inspection findings. An example of the inspection form has been included in the SWMP as Appendix D. A log is maintained by Barrow County of all E&S inspection records.

During inspections, County staff will check for compliance with the approved ESPCP, the County's Erosion & Sedimentation Ordinance, and with the illicit discharge provisions of the Stormwater Ordinance. Staff will ensure that BMP's are in place to control truck washout, chemicals, litter, fuels, etc.

### **2. Measurable Goal(s):**

- 100% of Construction Sites with LDA permits to be inspected at the start of land disturbing activities.
- 100% of Construction Sites with LDA permits to be inspected during construction
- 100% of Construction Sites with LDA permits to be inspected at the close of land disturbing activities.
- 100% of records from inspections entered into County E&S log

### **3. Documentation to be submitted with each Annual Report:**

- Copies of inspections performed on 100% of construction sites with LDA permits.
- E&S log containing number of sites and site inspections.

**4. Schedule:**

- a. Interim Milestone Dates (if applicable): N/A
- b. Implementation Date (if applicable): 2018
- c. Frequency of Actions (if applicable): On-going
- d. Month / Year of Each Action (if applicable): On-going

**5. Person (Position) responsible for overall management and implementation of the BMP:**

Rebecca Whiddon (Planning Manager)

**6. Rationale for choosing BMP and setting measurable goal(s):**

As a local issuing authority, the County is required to implement this BMP under GESA as well as the permit.

**7. How you will determine whether this BMP is effective in reducing pollution to stormwater in accordance with Part 5.1.4 of the Permit:**

It is the intent of this BMP to protect existing water quality. By ensuring that land disturbing projects are inspected regularly to confirm compliance the requirements of GESA, the local E&S ordinance, and the site E&S plans, the County believes that this BMP will provide a significant safeguard against potential water quality impacts.

## **Best Management Practice (BMP) #D4 – E&S Enforcement Procedures**

### **1. Description of BMP:**

If upon inspection, a site is found to be in non-compliance, the Land Disturbance Permit holder will be notified. The contractor is provided with a copy of the inspection report and will be given a timeline for compliance (not to exceed five days). County E&S inspectors then re-inspect the site to ensure that the appropriate measures have been implemented. Following the third and each subsequent violation, an immediate stop-work order shall be issued. No work shall be allowed on the site except to address those deficiencies identified in the inspection and subsequent re-inspections.

Stop work orders shall be issued immediately without prior warnings if any of the following are identified on a site:

- Regulated land disturbing activities are being undertaken without a Land Disturbance Permit
- Failure to maintain a stream buffer
- Significant amounts of sediment as determined by the local issuing authority or by the director or his or her designee, have been or are being discharged into state waters and where best management practices have not been properly designed, installed, and maintained

For a more detailed description of enforcement procedures regarding E&S violations, the reader is directed to the Erosion and Sediment Control ordinance included in Appendix D and Enforcement Response Plan included in Appendix G.

### **2. Measurable Goal(s):**

- Follow enforcement procedures outlined in the County's E&S ordinance and ERP.
- Provide a log of all violations and enforcement procedures undertaken 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:**

- Log of violations and enforcement procedures undertaken during the reporting period.

### **4. Schedule:**

- a. Interim Milestone Dates (if applicable): N/A
- b. Implementation Date (if applicable): 2018
- c. Frequency of Actions (if applicable): On-going
- d. Month / Year of Each Action (if applicable): On-going

### **5. Person (Position) responsible for overall management and implementation of the BMP:**

Rebecca Whiddon (Planning Manager)



**6. Rationale for choosing BMP and setting measurable goal(s):**

As a local issuing authority, the County is required to implement this BMP under GESA as well as the permit.

**7. How you will determine whether this BMP is effective in reducing pollution to stormwater in accordance with Part 5.1.4 of the Permit:**

It is the intent of this BMP to protect existing water quality. By ensuring that land disturbing projects conform to the requirements of GESA, the local E&S ordinance, and the site E&S plans, the County believes that this BMP will provide a significant safeguard against potential water quality impacts. For the purposes of this SWMP, this BMP will be deemed effective if construction sites are meeting the requirements of the County's E&S ordinance and site specific erosion, sedimentation and pollution control plan. Sites found not to be in compliance will be cited (either verbally or in writing) and appropriate actions taken. A copy of the enforcement procedures implemented each permit year will be included in the annual report.

## **Best Management Practice (BMP) #D5 – Public E&S Complaint Stormwater Reporting**

### **1. Description of BMP:**

Barrow County provides multiple avenues for the public to contact the stormwater management program with complaints and concerns regarding MS4 infrastructure issues, water quality concerns, and erosion and sediment control violations. At this time, the County receives complaints via telephone call, email, website referrals, and letters. The County will maintain a database of all E&S complaints received by the County. The database will include the following information:

- Date of Complaint
- Address of Complaint
- Complaining Party Name
- Location of E&S Issue
- Results of Complaint (i.e. verbal warning, citation issued, stop work order issued, etc.)

Additionally, the County has developed step-by-step procedures for receiving complaints, investigating the complaints, and taking enforcement. A copy of the complaint procedures and an example of the complaint log have been included in Appendix I.

### **2. Measurable Goal(s):**

- The County will maintain a database of complaints received via various methods and provide a copy of the database as part of the County's annual report due on February 15<sup>th</sup> of each year the permit is in effect.

### **3. Documentation to be submitted with each Annual Report:**

- Updated database of complaints received during the reporting period.

### **4. Schedule:**

- a. Interim Milestone Dates (if applicable): N/A
- b. Implementation Date (if applicable): 2018
- c. Frequency of Actions (if applicable): On-going
- d. Month / Year of Each Action (if applicable): On-going

### **4. Person (Position) responsible for overall management and implementation of the BMP:**

Matt Treeter (Stormwater Manager)

### **5. Rationale for choosing BMP and setting measurable goal(s):**

The County relies heavily on residents and businesses to supplement in house staff resources to identify stormwater management issues throughout the County. As such, maintenance of the database will provide a valuable tool to the program to ensure that citizen complaints and

concerns are addressed in a timely and efficient manner to the extent practical as well as serve to ensure that the County's E&S regulations are complied with.

**6. How you will determine whether this BMP is effective in reducing pollution to stormwater in accordance with Part 5.1.4 of the Permit:**

By measuring the number of complaints and tracking the responses to the complaints, the County will be able to demonstrate either directly or indirectly how water quality issues are addressed. This BMP will be deemed to be effective if all complaints received by the County are investigated in a timely manner and appropriate action is taken to resolve the issue.

## **Best Management Practice (BMP) #D6 – E&S Certification**

### **1. Description of BMP:**

GESA, as amended, requires that all construction site operators and all local government staff involved with E&S inspections or ECPCP review receive training from the GWSCC on proper E&S control. Barrow County will require that all its E&S inspectors receive this training.

### **2. Measurable Goal(s):**

- Ensure that all MS4 staff involved in construction activities subject to the Construction General Permits (GCPs) are trained and certified in accordance with the rules adopted by the Georgia Soil and Water Conservation Commission.

### **3. Documentation to be submitted with each Annual Report:**

- Copies of certification cards held by MS4 staff.
- Provide the number and type of current certifications held by MS4 staff in each annual report.

### **4. Schedule:**

- a. Interim Milestone Dates (if applicable): N/A
- b. Implementation Date (if applicable): 2018
- c. Frequency of Actions (if applicable): On-going
- d. Month / Year of Each Action (if applicable): On-going

### **5. Person (Position) responsible for overall management and implementation of the BMP:**

Matt Treeter (Stormwater Manager)

### **6. Rationale for choosing BMP and setting measurable goal(s):**

As a local issuing authority, the County is required to implement this BMP under GESA as well as the permit.

### **7. How you will determine whether this BMP is effective in reducing pollution to stormwater in accordance with Part 5.1.4 of the Permit:**

It is the intent of this BMP to protect existing water quality. By ensuring that construction inspectors / operators are properly trained in E&S requirements, the County believes that this BMP will provide a significant safeguard against potential water quality impacts. For the purposes of this SWMP, this BMP will be deemed effective if County staff involved in land disturbing activities or approval of land disturbance permits maintain current certification with the GSWC.

## Post-Construction Stormwater Management in New Development and Redevelopment

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. The program must ensure that controls are in place that will prevent or minimize water quality impacts. At a minimum, the Post-Construction Stormwater Management in New Development and Redevelopment Program must contain the following requirements:

- Develop and implement strategies which include a combination of structural and/or non-structural BMPs appropriate for your community;
- Use an ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects to the extent allowable under State and local law; and
- Ensure adequate long-term operation and maintenance of the BMPs.

### 4.2.5.1 Stormwater Design Manual

The permittee must implement either the appropriate parts of the latest version of the Georgia Stormwater Management Manual (GSMM) or an equivalent or more stringent local design manual. All permittees must implement the GSMM to the maximum extent practicable. The permittee must provide documentation to EPD in the 2018 annual report to demonstrate the date of the adoption of the appropriate design manual(s).

At a minimum, the permittee shall apply the standards for new development and redevelopment to any site that meets one or more of the following criteria:

- New development that creates or adds 5,000 square feet or greater of new impervious surface area, or that involves land disturbing activity of one acre of land or greater.
- Redevelopment that creates, adds, or replaces 5,000 square feet or greater of new impervious surface area, or that involves land disturbing activity of 1 acre or more, including projects less than 1 acre if they are part of a larger common plan of development or sale.

For sites meeting the above criteria, the permittee shall ensure that the minimum performance standards are applied during the site plan preparation and/or review process. The performance standards must be implemented to the maximum extent practicable.

The performance standards to be implemented are as follows:

#### Stormwater Runoff Quality/Reduction:

Stormwater runoff shall be adequately treated prior to discharge.

1. From the issuance of the Permit until December 6, 2020, the permittee must address stormwater runoff using either Option (a) or Option (b) below:
  - a) The stormwater management system shall be designed to retain the first 1.0 inch of rainfall on the site, to the maximum extent practicable. The determination by the MS4

that it is infeasible to apply the stormwater runoff quality/reduction standard, on part or all of a project, must be documented with the site plan review documents. If the first 1.0 inch of rainfall can be retained onsite using runoff reduction methods, then additional water quality treatment is not required. If the 1.0 inch cannot be retained onsite, the remaining runoff from a 1.2 inch rainfall event must be treated to remove at least 80% of the calculated average annual post-development total suspended solids (TSS) load or equivalent as defined in the GSMM or in the equivalent manual.

- b) The stormwater management system shall be designed to remove 80% of the average annual post-development TSS load or equivalent as defined in the GSMM or in the equivalent manual. Compliance with this performance standard is presumed to be met if the stormwater management system is sized to capture and treat the water quality treatment volume, which is defined as the runoff volume resulting from the first 1.2 inches of rainfall from a site.

No later than December 6, 2020, all permittees must be using approach 1(a) above to achieve compliance with this performance standard. This timeframe is to allow sufficient study, training, and planning on the part of the municipality. All site plan reviewers, construction site inspectors, and other personnel whose duties involve post construction stormwater runoff are encouraged to receive training in the new GSMM and the runoff quality/reduction standard during that implementation phase. Pilot projects, advisory committees, and other programs intended to study and implement the runoff quality/reduction requirement are recommended.

Stream Channel/Aquatic Resource Protection:

Stream channel and/or aquatic resource protection shall be provided by using the following approaches: 1) 24-hour extended detention storage of the 1-year, 24-hour return frequency storm event; 2) erosion prevention measures such as energy dissipation and velocity control; and 3) preservation of the applicable stream buffer.

Overbank Flood Protection:

Downstream overbank flood protection shall be provided by controlling the post-development peak discharge rate to the predevelopment rate for the 25-year, 24-hour storm event.

Extreme Flood Protection:

Extreme flood protection shall be provided by controlling the 100-year, 24-hour storm event such that flooding is not exacerbated.

#### 4.2.5.2 Linear Transportation Projects

The performance standards in Part 4.2.5.1 of the permit must be applied during the design of all construction projects. However, the performance standards may be infeasible to apply, all or in part, for linear transportation projects being constructed by the permittee, local governments, or authorities. The permittee may develop a feasibility program which sets reasonable criteria for determining when implementing the performance standards in linear transportation projects is infeasible. The permittee may develop this feasibility program and submit it to EPD for review. Upon submittal to EPD, the permittee, local governments, and authorities may begin implementation of this feasibility program for linear transportation projects only.

#### 4.2.5.3 Green Infrastructure/Low Impact Development (GI/LID)

The permittee shall continue to review and revise, where necessary, building codes, ordinances, and other regulations to ensure they do not prohibit or impede the use of GI/LID practices, including infiltration, reuse, and evapotranspiration. 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 the regulatory documents.

**Response:** Barrow County has developed several Best Management Practices (BMPs) to address the permit conditions as well as ensure long-term mitigation of the impacts from development activities. The following pages outline each BMP and the goals / implementation schedules applicable to each activity. Please note that Barrow County previously adopted a Post Construction Stormwater Management ordinance during a previous permit period. A copy of the ordinance has been included with this SWMP in Appendix E.

## **Best Management Practice (BMP) #E1 – Legal Authority**

### **1. Description of BMP:**

Barrow County will maintain a post construction stormwater runoff control ordinance within Barrow County's Code of Ordinances meeting the requirements of the NPDES Phase II MS4 permit as well as the requirements of the Metropolitan North Georgia Water Planning District. If the requirements of the aforementioned programs conflict, the more stringent requirement will be maintained. Please note that the ordinance was adopted in a previous permit year and a copy of the ordinance can be found in Appendix E.

### **2. Measurable Goal(s):**

- The County will maintain a post construction stormwater runoff control ordinance within the Code of Ordinances at all times during the course of the permit. Each year, the County will evaluate the ordinance to determine if revisions are required. If revisions are required, the County will submit a copy of the revised ordinance to EPD to be included in the SWMP.

### **3. Documentation to be submitted with each Annual Report:**

- Current or updated post construction stormwater runoff control ordinance.

### **4. Schedule:**

- a. Interim Milestone Dates (if applicable): N/A
- b. Implementation Date (if applicable): 2018
- c. Frequency of Actions (if applicable):
  - Annual Review of Post Construction Control Ordinance
- d. Month / Year of Each Action (if applicable):
  - 2018 – Annual Review of Post Construction Stormwater Runoff Control Ordinance
  - 2019 – Annual Review of Post Construction Stormwater Runoff Control Ordinance
  - 2020 – Annual Review of Post Construction Stormwater Runoff Control Ordinance
  - 2021 – Annual Review of Post Construction Stormwater Runoff Control Ordinance
  - 2022 – Annual Review of Post Construction Stormwater Runoff Control Ordinance

### **5. Person (Position) responsible for overall management and implementation of the BMP:**

Matt Treeter (Stormwater Manager)

### **6. Rationale for choosing BMP and setting measurable goal(s):**

Maintenance of the legal authority to require post construction stormwater runoff control measures is required under the permit and provides a means of reducing the potential for water quality impacts from land development projects.



**7. How you will determine whether this BMP is effective in reducing pollution to stormwater in accordance with Part 5.1.4 of the Permit:**

The ability to require the design, construction and maintenance of best management practices to offset the impacts of development projects is critical to protecting local streams and water bodies. As such, this BMP will be determined to be effective if the County maintains a post construction stormwater runoff control ordinance throughout the duration of this permit. Additionally, the County will evaluate the ordinance once per year and revise the ordinance if deemed ineffective.

## **Best Management Practice (BMP) #E2 – Post-Construction Stormwater Management Structure Inventory**

### **1. Description of BMP:**

Barrow County has developed an inventory of all permittee-owned and publicly-owned structures owned by other entities (e.g. Board of Education) post-construction stormwater management structures (e.g. detention / retention ponds, water quality vaults, infiltration structures.) The County has also inventoried all private residential and non-residential post-construction stormwater management structures designed after December 9, 2008 within the urbanized area of Barrow County. The inventory includes information on the number and type of structures, and ownership (i.e. publicly-owned, privately-owned). Private residential will be defined as a common development consisting of individually owned detached single family residential homes. The existing inventory has been included in Appendix E. Annually, the inventory will be updated as new structures are completed or existing structures are identified that may have been missed in the previous inventory.

### **2. Measurable Goal(s):**

- Update the inventory database of all permittee/publicly-owned post-construction stormwater management structures and all private residential and non-residential post construction stormwater management structures designed after December 9, 2008

### **3. Documentation to be submitted with each Annual Report:**

- Updated inventory database to be submitted with all other reporting period Annual Reports.

### **4. Schedule:**

- a. Interim Milestone Dates (if applicable): N/A
- b. Implementation Date (if applicable): 2018
- c. Frequency of Actions (if applicable): Annual
- d. Month / Year of Each Action (if applicable): On-going
  - 2018 – Update the inventory database with new structures or existing structures identified in that year
  - 2019 – Update the inventory database with new structures or existing structures identified in that year
  - 2020 – Update the inventory database with new structures or existing structures identified in that year
  - 2021 – Update the inventory database with new structures or existing structures identified in that year
  - 2022 – Update the inventory database with new structures or existing structures identified in that year

**5. Person (Position) responsible for overall management and implementation of the BMP:**

Matt Treeter (Stormwater Manager)

**6. Rationale for choosing BMP and setting measurable goal(s):**

Identifying post-construction stormwater management control structures is required under the permit. These structures serve as critical infrastructure in the County's efforts to protect properties downstream of County facilities and private developments from water quality and flooding impacts. By updating the inventory at least once per year, the County will ensure that the inventory is kept up to date.

**7. How you will determine whether this BMP is effective in reducing pollution to stormwater in accordance with Part 5.1.4 of the Permit:**

Maintenance of stormwater management control structures is critical to ensuring long term operation of the structures. As such, identification will assist the County in protecting water quality in streams and rivers from the stormwater impacts of the developments that these structures service. For the purposes of this SWMP, this BMP will be deemed effective if the County can maintain awareness of all recently constructed post construction stormwater management structures via the maintenance of an inventory of all County owned structures and all private residential and non-residential structures designed after December 9, 2008. A copy of the updated inventory will be provided with the annual report each year.

## **Best Management Practice (BMP) #E3 – Post-Construction Stormwater Management Structure Inspection**

### **1. Description of BMP:**

Barrow County will inspect 100% of the structures identified in the Post-Construction Stormwater Management Structure Inventory BMP (see BMP #E1) within the 5-year permit term. At a minimum, the County will inspect at least 5% of structures annually. A copy of the inspection form to be utilized in the inspection program has been included in Appendix E.

### **2. Measurable Goal(s):**

- Inspect, at a minimum, 5% of the County's (both public and private) Post Construction Stormwater Management Structures per year
- Inspect 100% of the County's Post Construction Stormwater Management Structures over the course of the permit
- Include a copy of the form for inspections performed in each Annual Report

### **3. Documentation to be submitted with each Annual Report:**

- Copy of inspections performed during the reporting period.

### **4. Schedule:**

- a. Interim Milestone Dates (if applicable): N/A
- b. Implementation Date (if applicable): 2018
- c. Frequency of Actions (if applicable): Annual
- d. Month / Year of Each Action (if applicable): On-going
  - 2018 – Inspect approximately 20% of the County's Post Construction Stormwater Management Structures
  - 2019 – Inspect approximately 20% of the County's Post Construction Stormwater Management Structures
  - 2020 – Inspect approximately 20% of the County's Post Construction Stormwater Management Structures
  - 2021 – Inspect approximately 20% of the County's Post Construction Stormwater Management Structures
  - 2022 – Inspect approximately 20% of the County's Post Construction Stormwater Management Structures

### **5. Person (Position) responsible for overall management and implementation of the BMP:**

Matt Treeter (Stormwater Manager)

**6. Rationale for choosing BMP and setting measurable goal(s):**

Inspecting post-construction stormwater management control structures is required under the permit. These structures serve as critical infrastructure in the County's efforts to protect properties downstream of County facilities and private developments from water quality and flooding impacts. By inspecting each facility at least once every 5 years, the County will ensure that the maintenance needs of the structures are identified.

**7. How you will determine whether this BMP is effective in reducing pollution to stormwater in accordance with Part 5.1.4 of the Permit:**

Maintenance of stormwater management control structures is critical to ensuring long term operation of the structures. As such, inspection will assist the County in protecting water quality in streams and rivers from the stormwater impacts of the developments that these structures service. For the purposes of this SWMP, this BMP will be deemed effective if the County can inspect every post construction stormwater management facility identified in BMP E2 within the 5 years of this permit. It is anticipated that the County will inspected approximately twenty-five percent (25%) of the structures per year starting in 2014. Documentation of the inspections will be included in each year's annual report for those years in which inspections were conducted.

## **Best Management Practice (BMP) #E4 – Post-Construction Stormwater Management Structure Maintenance**

### **1. Description of BMP:**

Barrow County will maintain all permittee-owned post-construction stormwater management control structures identified in the Post-Construction Stormwater Management Structure Inventory (see BMP #E2). Ponds owned by the Board of Education (BOE) will continue to be maintained by them. Additionally, the County will maintain all existing residential privately owned post construction stormwater management structures with construction having been completed after December 6, 2012 and before December 6, 2017. The County will not be maintaining any new residential ponds constructed after December 6, 2017. Private residential will be defined as a common development consisting of individually owned detached single family residential homes. Generally, maintenance will consist of vegetation maintenance (i.e. mowing, removal of invasive species, etc.) as appropriate as well as litter and trash removal. If structural deficiencies are identified in a structure, then a work order will be generated and maintenance scheduled. If the scope of the work is such that the work cannot be completed in a short period of time, then the project will be added to the County's capital improvements projects list.

All other private post construction stormwater structures (i.e. non-residential) will be maintained by the owner / operators of the site. Additionally, the County will also require a maintenance agreement for all new residential ponds constructed after December 6, 2017. A maintenance agreement will be referred to for the means by which a facility will be maintained. The County will retain copies of the maintenance agreements for all new structures and existing structures completed after December 6, 2012. A summary list of all the maintenance agreements will be included in each annual report. If a deficiency is noted during an inspection, then the County will notify the owner / operator of the results of the inspection and suggested actions to take.

### **2. Measurable Goal(s):**

- Maintain 100% of the County's permittee-owned post construction stormwater management structures over the course of the permit.
- Maintain 100% of residential privately owned post construction stormwater management structures built after December 6, 2012 and before December 6, 2017.
  - The County will prepare a summary table outlining maintenance activities undertaken over the course of each permit year and include it in the annual report due for that year.

### **3. Documentation to be submitted with each Annual Report:**

- The County will include a copy of all maintenance agreements recorded that permit year (and previous years') for all private residential and non-residential ponds within the urbanized area.
- The County will include a copy of a letter recommending maintenance activities for detention ponds inspected that year, which are privately maintained, if maintenance activities are required.

- Documentation on maintenance activities for all County owned and residential ponds constructed between December 6, 2012 and December 6, 2017.

**4. Schedule:**

- a. Interim Milestone Dates (if applicable): N/A
- b. Implementation Date (if applicable): 2018
- c. Frequency of Actions (if applicable): On-going
- d. Month / Year of Each Action (if applicable): On-going

**5. Person (Position) responsible for overall management and implementation of the BMP:**

Matt Treeter (Stormwater Manager)

**6. Rationale for choosing BMP and setting measurable goal(s):**

Maintenance of post-construction stormwater management control structures is required under the permit. These structures serve as critical infrastructure in the County's efforts to protect properties downstream of County facilities and private developments from water quality and flooding impacts.

**7. How you will determine whether this BMP is effective in reducing pollution to stormwater in accordance with Part 5.1.4 of the Permit:**

Maintenance of stormwater management control structures is critical to ensuring long term operation of the structures. As such, maintenance of these facilities will assist the County in protecting water quality in streams and rivers from the stormwater impacts of the developments that these structures service. For the purposes of this SWMP, this BMP will be deemed effective if the County maintains every post construction stormwater management facility identified in BMP E2 owned / maintained by Barrow County within the 5 years of this permit. Documentation of maintenance activities performed by the County on County owned ponds will be included in each year's annual report. Additionally, the County will include a summary of the maintenance agreements for those post construction stormwater management control facilities permitted in that year.

## **Best Management Practice (BMP) #E5 – GI/LID Structure Inventory**

### **1. Description of BMP:**

Currently the County does not have any GI/LID structures. In the event a GI/LID structure is constructed within the urbanized area an inventory will be started. The inventory will include at a minimum; bioswales, pervious pavements, rain gardens, cisterns, green roofs, and any other structure deemed appropriate by the Stormwater Manager. The initial inventory will be reported in a table format that will include the following information:

- Type of Structure
- Location of Structure (Latitude & Longitude)
- Date Constructed

In addition to the type and location of each structure, the table will also include a summary of the total number of each structure. Following development of the initial inventory, new structures will be identified through the plan development process.

### **2. Measurable Goal(s):**

- Update the inventory once per year of all GI/LID structures located in the urbanized portion of unincorporated Barrow County.

### **3. Documentation to be submitted with each Annual Report:**

- Updated inventory of GI/LID structures with all other reporting period Annual Reports.

### **4. Schedule:**

- Interim Milestone Dates (if applicable): N/A
- Implementation Date (if applicable): 2018
- Frequency of Actions (if applicable): Annual
- Month / Year of Each Action (if applicable):
  - 2018 – Update Inventory
  - 2019 – Update Inventory
  - 2020 – Update Inventory
  - 2021 – Update Inventory
  - 2022 – Update Inventory

### **5. Person (Position) responsible for overall management and implementation of the BMP:**

Matt Treeter (Stormwater Manager)



**6. Rationale for choosing BMP and setting measurable goal(s):**

Development and maintenance of an inventory of GI/LID structures is required under the permit. These structures serve as key means by which developments can protect properties as well as streams and river downstream of County facilities and private developments from water quality and flooding impacts.

**7. How you will determine whether this BMP is effective in reducing pollution to stormwater in accordance with Part 5.1.4 of the Permit:**

It is the intent of this BMP to protect existing water quality. By tracking the construction of these structures as well as ensuring the long term maintenance of these structures through maintenance agreements, the County believes that future impacts from development can be offset to a greater extent than historical development standards. For the purposes of this SWMP, this BMP will be deemed effective if the County maintains a map / database of every Green Infrastructure / Low Impact Development structure constructed in the County since December 9, 2012.

## **Best Management Practice (BMP) #E6 – GI/LID Program**

### **1. Description of BMP:**

The County will develop a program describing the GI/LID techniques and practices that have been developed by the County. The program shall include:

- procedures for evaluating the feasibility and site applicability of different GI/LID techniques and practices to be considered;
- the GI/LID structures allowed to be constructed within the permittee's jurisdiction;
- 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 (e.g. who inspects, who maintains, inspection and maintenance schedule, method of documentation of inspections and maintenance activities).

The GI/LID program must be submitted to EPD by February 15, 2020. The program must be included in the SWMP and must be implemented by the permittee.

### **2. Measurable Goal(s):**

- Evaluate the feasibility and site applicability of different GI/LID techniques and practices and various structures.
- The program will be submitted to EPD for review with the 2019 annual report, due February 15, 2020.

### **3. Documentation to be submitted with each Annual Report:**

- Submit initial GI/LID Program, Techniques, and Practices with the 2019 annual report, due February 15, 2020.

### **4. Schedule:**

- a. Interim Milestone Dates (if applicable): N/A
- b. Implementation Date (if applicable): February 15, 2020
- c. Frequency of Actions (if applicable): Annual
- d. Month / Year of Each Action (if applicable):
  - 2020 – Create and Submit GI/LID Program, Techniques, and Practices
  - 2021 – Review GI/LID Program, Techniques, and Practices and Resubmit any Changes
  - 2022 – Review GI/LID Program, Techniques, and Practices and Resubmit any Changes

### **5. Person (Position) responsible for overall management and implementation of the BMP:**

Matt Treeter (Stormwater Manager)

**6. Rationale for choosing BMP and setting measurable goal(s):**

Development of a GI/LID Program by February 15, 2020 is required under the permit. This program will contain the procedures in evaluating the feasibility of using GI/LID structures. Additionally, the program will contain inspection and maintenance procedures for all GI/LID structures.

**7. How you will determine whether this BMP is effective in reducing pollution to stormwater in accordance with Part 5.1.4 of the Permit:**

For the purposes of this SWMP, this BMP will be deemed effective if the County creates and submits a program by the February 15, 2020 deadline. Once created, the County will need to follow the program so that all existing and future GI/LID structures are effective in their ability to reduce pollution in stormwater.

## **Best Management Practice (BMP) #E7 – GI/LID Inspection and Maintenance Program**

### **1. Description of BMP:**

Beginning in 2020, the County will conduct inspections and/or ensure inspections are conducted on 100% of the GI/LID structures included in the inventory created in BMP E5, within a 5-year period. The inspections must be completed in accordance with the schedule submitted in the GI/LID program submitted in BMP E6. 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 structure 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 E6 for ensuring publicly-owned structures owned by other entities and privately-owned non-residential GI/LID structures are maintained as needed. Provide documentation of these activities in each annual report.

### **2. Measurable Goal(s):**

- Beginning in 2020, 100% of the structures will be inspected within a 5-year period.
- Conduct maintenance on the permittee-owned structures, as needed. Provide the number and percentage of the total structures maintained during the reporting period in each annual report.
- Implement maintenance procedures established in the GI/LID Program 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 checklists for GI/LID structures inspected.
- Documentation of maintenance activities of permittee-owned GI/LID structures.
- Documentation of maintenance activities of publicly-owned structures owned by other entities and privately-owned non-residential GI/LID structures.

### **4. Schedule:**

- a. Interim Milestone Dates (if applicable): N/A
- b. Implementation Date (if applicable): January 2020
- c. Frequency of Actions (if applicable): Annual
- d. Month / Year of Each Action (if applicable):
  - 2020 – Inspect 20% of GI/LID structures
  - 2021 – Inspect 20% of GI/LID structures
  - 2022 – Inspect 20% of GI/LID structures

**5. Person (Position) responsible for overall management and implementation of the BMP:**

Matt Treeter (Stormwater Manager)

**6. Rationale for choosing BMP and setting measurable goal(s):**

Inspecting and maintaining GI/LID structures is required by the permit. Inspecting 20% of all GI/LID structures every reporting period will ensure 100% of inspections are completed within the 5-year period.

**7. How you will determine whether this BMP is effective in reducing pollution to stormwater in accordance with Part 5.1.4 of the Permit:**

For the purposes of this SWMP, this BMP will be deemed effective if the County inspects 100% of GI/LID structures within the 5-year period. Additionally, the County will conduct maintenance on permittee-owned structures, as needed. The County will require that maintenance be completed on publicly-owned by other entities and privately-owned non-residential GI/LD structures. Inspections and as needed maintenance will ensure that these structures are operating efficiently so as to reduce pollution in stormwater.

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

**Permit Requirement:** The permittee must develop and implement an operation and maintenance program that includes a training component with the ultimate goal of preventing or reducing pollutant runoff from municipal operations. Using training materials available from the USEPA or 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.

**Response:** Barrow County has developed several Best Management Practices (BMPs) to address the permit conditions as well as ensure long-term mitigation of the impacts from municipal operations. The following pages outline each BMP and the goals / implementation schedules applicable to each activity.

## **Best Management Practice (BMP) #F1 – MS4 Control Structure Inventory & Map**

### **1. Description of BMP:**

Barrow County will continue to maintain a GIS based map and inventory of all MS4 components owned or maintained by the County within the urbanized, unincorporated portion of the County. At a minimum, the inventory and map will include all of the following:

- Catch Basins
- Storm Drain Pipes
- Ditches
- Detention / Retention ponds

As part of the inventory / map, the County will include a summary of the totals for each MS4 component. Each year, the County will update the inventory and map as new structures are added or existing structures are removed. A summary of the total number of structures added / removed each year will be included in the annual report for that permit year.

### **2. Measurable Goal(s):**

- Provide an updated MS4 Control Structure Inventory & Map with each annual report

### **3. Documentation to be submitted with each Annual Report:**

- Updated MS4 Control Structure Inventory & Map with all other reporting period Annual Reports.
- Include number of structures added during reporting period, along with a revised overall total.

### **4. Schedule:**

- a. Interim Milestone Dates (if applicable): N/A
- b. Implementation Date (if applicable): 2018
- c. Frequency of Actions (if applicable): Annual
- d. Month / Year of Each Action (if applicable):
  - 2018 – Update MS4 Control Structure Inventory & Map
  - 2019 – Update MS4 Control Structure Inventory & Map
  - 2020 – Update MS4 Control Structure Inventory & Map
  - 2021 – Update MS4 Control Structure Inventory & Map
  - 2022 – Update MS4 Control Structure Inventory & Map

### **5. Person (Position) responsible for overall management and implementation of the BMP:**

Matt Treeter (Stormwater Manager)

**6. Rationale for choosing BMP and setting measurable goal(s):**

Development and maintenance of a MS4 Control Structure Inventory & Map is required under the permit. Barrow County also utilizes the map / inventory as a critical management tool to addressing infrastructure needs within the Community.

**7. How you will determine whether this BMP is effective in reducing pollution to stormwater in accordance with Part 5.1.4 of the Permit:**

It is the intent of this BMP to protect existing water quality by ensuring that County staff is aware of infrastructure for which the County is responsible. This awareness will then aid the County in ensuring the long term maintenance of the system. For the purposes of this SWMP, this BMP will be deemed effective if the County maintains a map / database of every known MS4 control structure owned or maintained by the County. Each year, the County will submit of a copy of the map / database with the annual report beginning with the annual report due February 15, 2014.



## **Best Management Practice (BMP) #F2 – MS4 Inspection Program**

### **1. Description of BMP:**

Barrow County will continue to implement a MS4 inspection program. Please note that the County will be screened on a geographic area basis. The unincorporated urbanized area of the County has been divided into 5 areas and will be screened such that each area will be screened once and the entire regulated area of the County will be screened over the course of the permit. A copy of the County's MS4 inspection sector area map has been included in Appendix F. Generally, the MS4 will be inspected for evidence of sedimentation, debris, or structural damage. The County uses a GIS database to collect inspection data when performing MS4 structure inspections. The GIS database, containing the assets inspected for that year, will be included in each annual report. A copy of the GIS database and inspection protocols has been included in Appendix F.

Please note that MS4 control structures added to the County after the inspections for that year has been completed, will be inspected the following year if located in a previously screened area.

### **2. Measurable Goal(s):**

- The County will inspect the MS4 one sector per year such that the entire urbanized unincorporated area will be inspected over the course of the permit.

### **3. Documentation to be submitted with each Annual Report:**

- Map showing structures inspected during the reporting period.
- Provide database of structures inspected during the reporting period.

### **4. Schedule:**

- a. Interim Milestone Dates (if applicable): N/A
- b. Implementation Date (if applicable): 2018
- c. Frequency of Actions (if applicable): Annual
- d. Month / Year of Each Action (if applicable):
  - 2018 – Inspect all MS4 Control Structures in Sector 1
  - 2019 – Inspect all MS4 Control Structures in Sector 2
  - 2020 – Inspect all MS4 Control Structures in Sector 3
  - 2021 – Inspect all MS4 Control Structures in Sector 4
  - 2022 – Inspect all MS4 Control Structures in Sector 5

### **5. Person (Position) responsible for overall management and implementation of the BMP:**

Matt Treeter (Stormwater Manager)

**6. Rationale for choosing BMP and setting measurable goal(s):**

Development and implementation of a MS4 Inspection Program is required under the permit. By dividing the inspection area into 5 distinct areas of approximately equal numbers of MS4 structures, the County will ensure that over the course of the permit, the entire MS4 will be inspected.

**7. How you will determine whether this BMP is effective in reducing pollution to stormwater in accordance with Part 5.1.4 of the Permit:**

It is the intent of this BMP to protect existing water quality. Through inspection of the MS4, the County will likely identify structural issues, illicit discharges, illegal connections and other concerns that may affect water quality in downstream water bodies. For the purposes of this SWMP, this BMP will be deemed effective if the County inspects one sector of the County per year such that over the course of the permit, the County's MS4 has been completely inspected. Each year, the County will submit of a copy of the map / database with the annual report beginning with the annual report due February 15, 2014

## **Best Management Practice (BMP) #F3 – MS4 Maintenance Program**

### **1. Description of BMP:**

Barrow County will continue to implement an MS4 maintenance program. For the purposes of this permit, the area that this BMP will be reported on will consist of the urbanized unincorporated area of Barrow County. The program will be based on the results of the MS4 inspection program (see BMP #F2) as well as citizen complaints received via various reporting measures. The maintenance program will generally be implemented based on the maintenance protocols outlined in Appendix F and budget availability. Each year, the County will report the number of structures maintained during the permit year in the annual report due on February 15<sup>th</sup> of the following year.

### **2. Measurable Goal(s):**

- Barrow County will implement a MS4 maintenance program and report the number of structures maintained each year.

### **3. Documentation to be submitted with each Annual Report:**

- Summary table outlining maintenance activities undertaken during the reporting period

### **4. Schedule:**

- a. Interim Milestone Dates (if applicable): N/A
- b. Implementation Date (if applicable): 2018
- c. Frequency of Actions (if applicable): On-going
- d. Month / Year of Each Action (if applicable): On-going

### **5. Person (Position) responsible for overall management and implementation of the BMP:**

Matt Treeter (Stormwater Manager)

### **6. Rationale for choosing BMP and setting measurable goal(s):**

Development and implementation of a MS4 Maintenance Program is required under the permit. The number of structures maintained will serve to illustrate how the County is addressing potential flooding and water quality issues within the MS4.

**7. How you will determine whether this BMP is effective in reducing pollution to stormwater in accordance with Part 5.1.4 of the Permit:**

It is the intent of this BMP to protect existing water quality. The County believes that addressing known issues within the MS4 will help to ensure that pollutants and sediment are prevented from entering local streams and rivers. For the purposes of this SWMP, this BMP will be deemed effective if the County is able to resolve approximately 75% of the work orders generated for the MS4 system in that year.

## **Best Management Practice (BMP) #F4 – Street & Parking Lot Cleaning**

### **1. Description of BMP:**

Barrow County will continue to implement a trash / litter removal program for County maintained streets and parking lots. Barrow County detainees from the Sheriff's Office perform weekly road side pickups. For the purposes of this permit, the area that this BMP will be reported on will consist of the urbanized unincorporated area of Barrow County as well as County maintained parking lots within the urbanized incorporated areas of the County (i.e. within the cities). The program will generally be designed to remove litter from streets and parking lots in the urbanized area at a minimum of once per year. Each year, the County will report the estimated amount of litter and trash removed during the permit year in the annual report due on February 15<sup>th</sup> of the following year.

### **2. Measurable Goal(s):**

- Remove litter and trash from County maintained streets and parking lots within the urbanized area at least once per year and report the quantity removed each year in the annual report.

### **3. Documentation to be submitted with each Annual Report:**

- Summary table estimating amount of litter and trash removed during the reporting period.

### **4. Schedule:**

- a. Interim Milestone Dates (if applicable): N/A
- b. Implementation Date (if applicable): 2018
- c. Frequency of Actions (if applicable): On-going
- d. Month / Year of Each Action (if applicable): On-going

### **5. Person (Position) responsible for overall management and implementation of the BMP:**

Matt Treeter (Stormwater Manager)

### **6. Rationale for choosing BMP and setting measurable goal(s):**

Development and implementation of a street and parking lot cleaning program is required under the permit. The County has utilized this BMP in the past and has found it to be a cost effective means of removing litter and trash from the streets and public properties prior to it entering the MS4.

**7. How you will determine whether this BMP is effective in reducing pollution to stormwater in accordance with Part 5.1.4 of the Permit:**

It is the intent of this BMP to protect existing water quality. Given that much of the County's rights-of-way include ditches and drainage systems (i.e. MS4 components), removal of litter from the right-of-way and parking lots prevents gross pollutants (i.e. trash and litter) from entering the MS4 and being discharged to streams and rivers. By measuring the amount of litter removed from the roads, the amount of pollution that would have entered the County's streams and rivers can be determined. For the purposes of this SWMP, this BMP will be deemed effective if the County removes litter and trash from County maintained streets and parking lots on a quarterly basis and the quantities are reported each year in the annual report.

## **Best Management Practice (BMP) #F5 – Employee Training**

### **1. Description of BMP:**

Barrow County will hold annual training meetings for Public Works Department employees that will teach proper storage and disposal methods for potentially polluting materials commonly handled by the staff as well as common pollution prevention practices. The number of employees trained every year will be documented.

### **2. Measurable Goal(s):**

- Train County Public Works Department personnel once (1) per year on stormwater / pollution prevention topics.
- Provide a copy of hand-outs as well as a sign in sheet for the training event in each annual report during the permit period.
- Train all new Public Works Department employees at the beginning of their employment.

### **3. Documentation to be submitted with each Annual Report:**

- Copy of training materials used and sign in sheet for training event.

### **4. Schedule:**

- a. Interim Milestone Dates (if applicable): N/A
- b. Implementation Date (if applicable): 2018
- c. Frequency of Actions (if applicable): Annual
- d. Month / Year of Each Action (if applicable):
  - 2018 – Conduct annual training
  - 2019 – Conduct annual training
  - 2020 – Conduct annual training
  - 2021 – Conduct annual training
  - 2022 – Conduct annual training

### **5. Person (Position) responsible for overall management and implementation of the BMP:**

Matt Treeter (Stormwater Manager)

### **6. Rationale for choosing BMP and setting measurable goal(s):**

Development and implementation of an employee training program is required under the permit. The County believes that employee education and training is a key component to pollution prevention. Additionally, the County believes that pollution prevention is significantly more cost effective than pollution remediation. As such, training is considered a key component of the County's pollution control efforts.

**7. How you will determine whether this BMP is effective in reducing pollution to stormwater in accordance with Part 5.1.4 of the Permit:**

It is the intent of this BMP to protect existing water quality. Cleaning agents, oil and other substances not properly disposed will ultimately reach streams and water bodies by way of contaminating stormwater runoff. These substances could potentially have an adverse effect on aquatic life and plants. As such, while water quality improvements or protection cannot be directly measured, it is the County's belief that this BMP will aid in protecting existing water quality. For the purposes of this SWMP, this BMP will be deemed effective if County employees that come in contact with materials such as motor oil, solvents, pesticides, etc. are trained at least twice during the course of the permit. As part of the annual report submitted each year, the County will submit a copy of the training materials utilized in the permit year as well as a sign-in sheet listing the names of the employees which were trained that year.



## **Best Management Practice (BMP) #F6 – Waste Disposal**

### **1. Description of BMP:**

Barrow County will continue to implement a program to identify the amount of waste collected and disposed of during each reporting period. Additionally, the County will identify how each waste stream is disposed of. Generally, the waste stream will be broken into the following categories.

- Trash & Litter
- Debris from the MS4
- Oils and Chemicals
- Recycling Materials

Each year, the amount of materials disposed of will be documented as well as the manner in which it was disposed of. For example, the estimated cubic yards of trash and litter, gallons of oil, etc. will be determined as well as determining the disposal agency that accepted the waste stream. All results will be documented in the annual report for each reporting period.

### **2. Measurable Goal(s):**

- Provide an estimated amount of waste generated and the means of disposal for each waste stream in the annual report for that year.

### **3. Documentation to be submitted with each Annual Report:**

- Summary table outlining amount of waste generated during the reporting period.

### **4. Schedule:**

- a. Interim Milestone Dates (if applicable): N/A
- b. Implementation Date (if applicable): 2018
- c. Frequency of Actions (if applicable): On-going
- d. Month / Year of Each Action (if applicable): On-going

### **5. Person (Position) responsible for overall management and implementation of the BMP:**

Matt Treeter (Stormwater Manager)

### **6. Rationale for choosing BMP and setting measurable goal(s):**

Development and implementation of waste disposal procedures is required under the permit. The County believes that documentation of the waste stream amounts and disposal methods will demonstrate that waste is being properly disposed of.

**7. How you will determine whether this BMP is effective in reducing pollution to stormwater in accordance with Part 5.1.4 of the Permit:**

It is the intent of this BMP to protect existing water quality. Waste can ultimately reach streams and water bodies by way of contaminating stormwater runoff. These substances could potentially have an adverse effect on aquatic life and plants. As such, while water quality improvements or protection cannot be directly measured, it is the County's belief that this BMP will aid in protecting existing water quality. For the purposes of this SWMP, this BMP will be deemed effective if waste streams identified in this BMP are properly disposed of. As part of the annual report submitted each year, the County will provide an estimated amount of waste generated and the means of disposal for each waste.

## **Best Management Practice (BMP) #F7 – New Flood Management Projects**

### **1. Description of BMP:**

The County requires that all new developments comply with the Post Construction Stormwater Management ordinance which includes new County facilities. These requirements include provisions that mandate water quality enhancements be included within the design of the facility. The County will continue to comply with these requirements. Additionally, the County will assess all new flood management projects to determine if water quality will be impacted by the project and if water quality measures are warranted.

### **2. Measurable Goal(s):**

- Ensure all new flood management projects are assessed for water quality impacts.

### **3. Documentation to be submitted with each Annual Report:**

- The County will report the number of plans review during the reporting period.

### **4. Schedule:**

- a. Interim Milestone Dates (if applicable): N/A
- b. Implementation Date (if applicable): 2018
- c. Frequency of Actions (if applicable): On-going
- d. Month / Year of Each Action (if applicable): On-going

### **5. Person (Position) responsible for overall management and implementation of the BMP:**

Matt Treeter (Stormwater Manager)

### **6. Rationale for choosing BMP and setting measurable goal(s):**

Development and implementation of procedures for reviewing flood control facilities for water quality improvements is required under the permit. As such, ensuring that all new flood control facilities consider the impacts to downstream water quality will help the County to implement this BMP.

### **7. How you will determine whether this BMP is effective in reducing pollution to stormwater in accordance with Part 5.1.4 of the Permit:**

The County believes that including water quality components in flood control projects is prudent when permissible from a fiscal and regulatory perspective and which result in protection or improvement of downstream water quality. As such, the implementation of this BMP will enhance water quality when it results in construction of properly designed and constructed structural components to enhance water quality. For the purposes of this SWMP, this BMP will be deemed effective if 100% of all new flood control projects are assessed for water quality impacts and inclusion of water quality BMPs.

## **Best Management Practice (BMP) #F8 – Existing Flood Management Projects**

### **1. Description of BMP:**

Barrow County will select an existing County owned / maintained drainage flood control facility (i.e. detention pond) each year and conduct an assessment for potential retrofitting to address water quality impacts. To determine if the facility should be retrofitted, the County will utilize the checklist included in the SWMP in Appendix F. If a facility is determined to be suitable for retrofit, the facility will be added to the County's Capital Improvements Program needs list and programmed for funding as part of Barrow County's stormwater utility improvements/rehabilitation program.

### **2. Measurable Goal(s):**

- Review one existing flood control management project per year utilizing the checklist

### **3. Documentation to be submitted with each Annual Report:**

- Copy of completed flow chart and checklist for one existing flood management project per year.
- Provide information on any assessment and/or retrofitting activities conducted during the reporting period.

### **4. Schedule:**

- a. Interim Milestone Dates (if applicable): N/A
- b. Implementation Date (if applicable): 2018
- c. Frequency of Actions (if applicable): Annual
- d. Month / Year of Each Action (if applicable):
  - 2018 – Review one existing flood control facility
  - 2019 – Review one existing flood control facility
  - 2020 – Review one existing flood control facility
  - 2021 – Review one existing flood control facility
  - 2022 – Review one existing flood control facility

### **5. Person (Position) responsible for overall management and implementation of the BMP:**

Matt Treeter (Stormwater Manager)

### **6. Rationale for choosing BMP and setting measurable goal(s):**

Development and implementation of procedures for reviewing flood control facilities for water quality improvements is required under the permit. As such, ensuring that existing flood control

facilities consider the impacts to downstream water quality will help the County to implement this BMP.

**7. How you will determine whether this BMP is effective in reducing pollution to stormwater in accordance with Part 5.1.4 of the Permit:**

The County believes that including water quality components in flood control projects is prudent when permissible from a fiscal and regulatory perspective and which result in protection or improvement of downstream water quality. As such, the implementation of this BMP will enhance water quality when it results in construction of properly designed and constructed structural components to enhance water quality. For the purposes of this SWMP, this BMP will be deemed effective if at least one (1) existing flood control facility is assessed per year for water quality impacts and inclusion of water quality BMPs. As part of the annual report submitted each year, a copy of the water quality flow chart and design check list will be submitted for each analysis.

## **Best Management Practice (BMP) #F9 – Municipal Facilities**

### **1. Description of BMP:**

During the previous permit the County developed a municipal facility inventory of each facility owned and/or maintained by the County with the potential to cause pollution. As part of this BMP, the County will continue to implement an inspection program for the facilities to identify and address potential pollution sources. As part of the inventory, the County will establish an inspection date for each facility. It is the intent of this schedule to ensure that 100% of all County facilities are inspected prior to December 5, 2022. A copy of the inspection check list for each facility inspected in that reporting period will be included with the annual report for that year. An example of the inspection checklist is included in Appendix F.

### **2. Measurable Goal(s):**

- Annual update of inventory of all facilities owned and maintained by Barrow County which have the potential to cause pollution.
- Implement an inspection program for all Barrow County facilities such that 100% of the facilities are inspected according to the schedule established in the inventory and prior to December 5, 2022.

### **3. Documentation to be submitted with each Annual Report:**

- Updated municipal facility inventory.
- Copy of completed inspection check list for each municipal facility inspected during the reporting period.

### **4. Schedule:**

- Interim Milestone Dates (if applicable): N/A
- Implementation Date (if applicable): 2018
- Frequency of Actions (if applicable): Annual
- Month / Year of Each Action (if applicable):
  - 2018 – Inspect all County Facilities Scheduled for Inspection that Year
  - 2019 – Inspect all County Facilities Scheduled for Inspection that Year
  - 2020 – Inspect all County Facilities Scheduled for Inspection that Year
  - 2021 – Inspect all County Facilities Scheduled for Inspection that Year
  - 2022 – Inspect all County Facilities Scheduled for Inspection that Year

### **5. Person (Position) responsible for overall management and implementation of the BMP:**

Matt Treeter (Stormwater Manager)

**6. Rationale for choosing BMP and setting measurable goal(s):**

Development and implementation of a MS4 Inspection Program is required under the permit. The County believes that some County facilities represent a higher than average potential for pollutant discharges to downstream water bodies. As such, the County desires to ensure that these sites are inspected periodically to confirm that the facilities are not acting as pollutant sources.

**7. How you will determine whether this BMP is effective in reducing pollution to stormwater in accordance with Part 5.1.4 of the Permit:**

It is the intent of this BMP to protect existing water quality. Through inspections of County facilities, potential pollution sources can be identified and then appropriate actions taken to lessen the risk of causing downstream pollution. For the purposes of this SWMP, this BMP will be deemed effective if an inventory of all municipal facilities is updated annually and approximately 20% of the facilities are inspected each year thereafter such that 100% of all municipal facilities are inspected as part of this permit period. As part of the annual report submitted each year, a copy of the inventory and inspection reports will be provided for the preceding year.

## Enforcement Response Plan (ERP)

**Permit Requirement:** The permittee must develop and implement an ERP that describes the action to be taken for violations associated with this permit and the SWMP. The ERP will detail the permittee's responses to any noted stormwater violations, including escalating enforcement responses to address repeat and continuing violations. The plan must detail:

- Names of ordinances providing the legal authority to undertake enforcement, including citation of specific ordinance sections;
- Types of enforcement mechanisms available. The ERP should list the enforcement actions the permittee has the authority to use, including such actions as:
  - verbal warnings;
  - written notice of violations;
  - citations;
  - stop work orders;
  - withholding plan approval or other authorizations; and
  - any other available enforcement mechanisms.
- Description of when each enforcement mechanism will be employed, including the path of escalation;
- Time frames for each step, including investigation of noncompliance, sequence and use of enforcement mechanisms, corrective action plan by responsible party, re-inspection of site, etc.
- Description of the methods to be used to track, either manually or electronically, instances of noncompliance, including such items as:
  - name of the owner/operator of facilities and/or the location or address;
  - type of site (e.g. IDDE, construction);
  - description of non-compliance;
  - description of enforcement action(s) used;
  - time frames for each step (e.g. investigation, corrective action, re-inspection);
  - documentation of inspection and enforcement actions taken;
  - documentation of referral to other departments or agencies; and
  - date of violation resolution.

**Response:** Barrow County developed and submitted an ERP with the annual report due on February 15, 2014. EPD has approved the County's ERP; a copy of the document has been included in the SWMP in Appendix G.



## Impaired Waters

**Permit Requirement:** The permittee must identify any impaired waters located within its permitted area, using the latest approved 305(b)/303(d) List of Waters, which contain MS4 outfalls or are within one (1) linear mile downstream of MS4 outfalls. Also, the POC must be identified. For those impaired waters with or without an approved TMDL, the permittee shall propose a Monitoring and Implementation Plan (Plan) addressing each POC. The permittee must annually check whether an impaired water within its permitted area has been added to the latest 305(b)/303(d) list. Newly listed waters must be addressed in the Plan and the SWMP must be revised accordingly. The permittee must report on all monitoring activities in subsequent annual reports. If a TMDL containing a waste load allocation specific to one or more of the permittee's outfalls is approved, then the waste load allocation must be incorporated into the SWMP. All previous and newly approved TMDLs within the permitted areas must be included in either the proposed Plan or a revision to the existing Plan.

The Plan shall include:

- Sample location, whether samples are collected instream (i.e. upstream and downstream), from outfalls during wet weather events, or a combination of both locations. If the permittee chooses to conduct outfall sampling and there are multiple outfalls located on an impaired stream, then the permittee may choose representative outfalls for sampling in place of sampling all outfalls;
- Sample type, frequency, and any seasonal considerations;
- Implementation schedule to start monitoring for each POC;
- Map showing the location of the impaired waters, the monitoring location, and all identified MS4 outfalls located on the impaired waters or occurring within one linear mile upstream of these waters, or a schedule for confirming the location of these outfalls; and
- Description of proposed BMPs to be used to control and reduce the POCs.

Each Annual Report will include an assessment of the data trends for each POC. The assessment shall initially include a characterization of baseline conditions to determine the effectiveness of the BMPs employed and what, if any, additional adaptive BMP measures may be necessary to return the waters to compliance with State water quality standards. Following review and comment on the Plan by EPD, the permittee will incorporate any necessary changes into the Plan. For those waters where the permittee is conducting monitoring, the data must be made available to other MS4 permittees upon request. In the event that monitoring is performed in accordance with an EPD-approved Sampling Quality and Assurance plan, and a water is removed from the 303(d) list of impaired waters, then monitoring conducted under the Plan may cease. Monitoring for the purpose of de-listing an impaired water will benefit the permittee through reduced expenses associated with long-term testing.

**Response:** Previously, the County developed a plan for each of their impaired streams. The plans need to be revised, but the County is waiting on the upcoming 305(b)/303(d) list release. The release is expected summer of 2018. At that time, the plans will be revised and submitted to EPD for approval. Following approval, the plans will be included in the SWMP in Appendix H. At this time the County will continue to implement the existing plans.