



# Town of Thunderbolt, Georgia

## Stormwater Management Program (SWMP)

National Pollutant Discharge & Elimination System (NPDES)  
Phase I Medium Municipal Separate Storm Sewer System (MS4) Permit 2022  
Permit #GAS000211

*Submitted to:*  
Environmental Protection Division  
Georgia Department of Natural Resources

*Revised September 2022*

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## ACRONYMS/DEFINITIONS

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BMPs	Best Management Practices
CIP	Capital Improvement Project
CSS	Coastal Stormwater Supplement
DoA	Georgia Department of Agriculture
E&S	Erosion & Sedimentation
EPD	Georgia Environmental Protection Division
GESA	Georgia Erosion & Sedimentation Act
GI/LID	Green Infrastructure/Low Impact Development
GIS	Geographic Information System
GSMM	Georgia Stormwater Management Manual
GSWCC	Georgia Soil & Water Conservation Commission
HazMat	Hazardous Materials
HVPS	Highly Visible Pollution Source
IDDE	Illicit Discharge Detection and Elimination
IGP	Industrial General Permit
LDA	Land Disturbance Activity
LEED	Leadership in Energy and Environmental Design
LIA	Local Issuing Authority
LID	Low Impact Development
MS4	Municipal Separate Storm Sewer System
MSDS	Materials Safety Data Sheet
NPDES	National Pollutant Discharge & Elimination System
PFH	Pesticides, Fertilizers & Herbicides
ROW	Right-of-Way
SOP	Standard Operating Procedure
SWMP	Stormwater Management Program
SWP3	Stormwater Pollution Prevention Plan

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## **EXECUTIVE SUMMARY**

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The Town of Thunderbolt renewed coverage under the 2022 – 2027 National Pollutant Discharge and Elimination System (NPDES) Phase I Municipal Separate Storm Sewer System (MS4) Permit (GAS000211) on April 12, 2022, as required by provisions of the Georgia Water Quality Control Act and the Federal Clean Water Act. A copy of the Town’s Permit and Notice of Intent form are included in Appendix A. This permit requires the development of a Stormwater Management Program (SWMP), to address the following program elements, as stipulated in CFR 122.26(d)(2)(iv)(A) through 122.26(d)(2)(iv)(D):

- Structural and Source Control Measures
- Illicit Discharge Detection and Elimination Program
- Industrial Facility Stormwater Discharge Control
- Construction Site Management
- Highly Visible Pollutant Sources
- Enforcement Response Plan
- Impaired Waterbodies
- Municipal Employee Training
- Public Education
- Public Involvement
- Post-Construction Stormwater Controls
- Green Infrastructure/Low Impact Development (GI/LID)

The Stormwater Management Program described within this document demonstrates the commitment of the Town of Thunderbolt to water resources protection.

### **SWMP IMPLEMENTATION RESPONSIBILITY**

The Town of Thunderbolt shares responsibility for BMP permit implementation with two other entities – Chatham County & the City of Savannah. Chatham County performs some canal maintenance in Thunderbolt in accordance with its Intergovernmental Agreement, which is included in Appendix B. The City of Savannah assists the Town with wastewater treatment, a copy of which is included in Appendix B.

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## **1. STRUCTURAL & SOURCE CONTROL MEASURES**

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*Permit Section 3.3.1: Structural and Source Control Measures, Table 3.3.1*

### **1.1. MS4 STRUCTURE INVENTORY AND MAP**

#### **1.1.1. Description**

The Town of Thunderbolt's MS4 is made up of the structures and facilities that are used for collecting, conveying, storing and/or treating stormwater from the source drainage area to the point of final outlet. The Town's NPDES Phase I Medium MS4 Permit defines the MS4 as follows:

"Municipal Separate Storm Sewer System (MS4) means a conveyance or system of conveyances including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains, owned or operated by a municipality or other public body, designed or used for collecting or conveying storm water runoff and is not a combined sewer or part of a Publicly Owned Treatment Works."

Thunderbolt's stormwater system is comprised of the following structures that are regulated by the Town's MS4 Permit:

- Catch Basins
- Pipes/Storm Drain Lines
- Ditches
- Municipal Detention / Retention Ponds
- Water Quality Vaults

The Town of Thunderbolt has completed a Geographic Information System (GIS) inventory and map of the MS4. The MS4 inventory map and table are included in Appendix C. The Town will continue to maintain and update this inventory on an annual basis. This will be accomplished through review of new development as-built maps as well as field inspections.

#### **1.1.2. Measurable Goals:**

- Update the inventory and map of MS4 control structures each reporting period.
- Include the number and/or length of MS4 structures (catch basins, ditches, pipes/storm drain lines, detention/retention ponds, and water quality vaults) added or deleted during the reporting period and the total number and/or length of structures in the inventory.

#### **1.1.3. Schedule:**

- Annual, 2022 – 2027: Maintain and update inventory.

**1.1.4. Annual Report Documentation:**

- An updated inventory and map of the MS4 structures, including the number and/or length of MS4 structures added or deleted during the reporting period and the total number and/or length of structures in the inventory.



## **1.2. MS4 INSPECTION AND MAINTENANCE PROGRAM**

### **1.2.1. Description**

The Town has adopted a five (5) zone approach to inspections and maintenance of the MS4 that allows for these activities to address 100% of the MS4 over five (5) years. The Town has divided the MS4 into five operational zones to create a balance of structures and MS4 outfalls across each zone. The Town will perform inspections of the MS4 structures within one zone per year, rotating the zones each year. The five zones are described below, and a map illustrating these zones is included in Appendix C.

- Zone 1 (West): This area covers north of Sunset Blvd, south of East Victory Drive, and west of Whatley Avenue, which includes the high school and some of the commercial area.
- Zone 2 (South): This area primarily covers the area south of Sunset Blvd, Woodlawn Drive, Owens Street, and Bannon Avenue, which includes residential neighborhoods and the nursing home.
- Zone 3 (Central): This area is bounded by Zone 5 on the north, Zone 1 on the west, Zone 2 on the west and south, and Zone 4 on the east. It is primarily residential development.
- Zone 4 (East): This area covers everything east of the Wilmington River, Isle of Armstrong, as well as a portion of downtown. The downtown section was included to create a balance of structures and MS4 outfalls.
- Zone 5 (North): This area covers most of the area that is north of East Victory Drive and west of Wilmington River.

#### Inspection Procedures:

The Town will visually inspect the MS4 within each maintenance zone in accordance with the following procedures:

- Inspections will generally include a condition assessment of the various system elements including catch basins, storm drain lines, ditches, and stormwater controls (i.e. detention/retention ponds and water quality vaults), and will include a visual evaluation of the structure that addresses structural condition and maintenance need.
- Storm drain lines will be visually inspected where they outfall into a structure or open drainage way, unless access is restricted due to obstructions.
- Visible areas of stormwater quality vaults, such as where stormwater enters or outfalls, will be visually inspected; underground components that are not visible without entry will not be inspected.
- Inspections will be documented through a field collection application that is downloaded on Town-owned smart phones and/or tablets and will be recorded within the Town's GIS layer. Information from the paper checklists will be uploaded into the Town's GIS layer in the office. The field collection application and paper inspection checklist contain the same questions.

- A table listing the information that will be collected and documented during site inspections within a GIS database is provided in Appendix D.
- Upon completion of an inspection, the Town shall make a determination of the need for maintenance based on the results of the inspection and the maintenance criteria.

Maintenance Procedures:

The Town will perform maintenance of the MS4 based upon inspection findings. During inspection, the Town will determine if maintenance of the various elements is needed. The Town will also prioritize maintenance needs based on their potential impact to the functionality of the public MS4. Maintenance shall be prioritized and performed in general accordance with the following standards:

- The Town shall schedule appropriate maintenance as needed and in accordance with available Town resources.
- The Town shall respond to all citizen complaints related to MS4 structures, and will perform maintenance as needed.
- All stormwater management structures shall be maintained such that they function in general accordance with their design and the standards, criteria, and information presented in the latest edition of the Coastal Stormwater Supplement and Georgia Stormwater Management Manual.
- Sediment shall be removed before 50% of the capacity of the structure has been lost.
- Trash and debris will be removed from structures.
- Manmade and natural objects that are causing or could potentially cause a blockage to the system will be removed.
- Excess emergent vegetation will be removed.
- Bank side vegetation and vegetation in the maintenance right-of-way will be mowed or trimmed, but not removed to protect against erosion.
- Ditches not draining properly shall be re-graded to match existing pipe invert grades, to the greatest extent possible.
- Materials removed from the MS4 during maintenance shall be properly disposed of by the Town’s solid waste contractor.
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*Table 1: MS4 Inspection & Maintenance Criteria*

<b>Structure</b>	<b>Standard for Maintenance</b>
Catch Basins	Sediment fills up to the lowest invert
Ditches	50% filled with sediment
Pipes	50% filled with sediment
Detention Ponds	50% filled with sediment
Water Quality Vaults	50% filled with sediment

Chatham County will inspect and maintain the following major canal within the Town of Thunderbolt's municipal limits:

- Placentia – 1.67 miles
- Downing N – 0.14 miles
- Downing S – 0.10 miles

This responsibility has been formally established through a 2020 Intergovernmental Agreement, as described in the SWMP Implementation Responsibility Section on Page 1 of this plan. This agreement is included in Appendix B, and it outlines the canal maintenance procedures.

**1.2.2. Measurable Goals:**

- Conduct inspections of the MS4 structures within one maintenance zone (minimum of 5% of total structures) per year so that 100% of the structures are inspected within the five-year period.
- Conduct maintenance on MS4 structures as needed.

**1.2.3. Schedule:**

*MS4 Inspections*

- March 31, 2023 – Complete Inspections in Zone 1
- March 31, 2024 – Complete Inspections in Zone 2
- March 31, 2025 – Complete Inspections in Zone 3
- March 31, 2026 – Complete Inspections in Zone 4
- March 31, 2027 – Complete Inspections in Zone 5

*MS4 Maintenance*

- Ongoing, 2022 – 2027.

**1.2.4. Annual Report Documentation:**

- Summary of MS4 Inspections, including the number and percentage of total structures inspected during the reporting period.
- Documentation of inspections conducted, such as a table of individual inspection reports with a record for each structure inspected, and the findings of that inspection.
- Number and/or length and percentage of the total MS4 structures maintained during the reporting period.
- Documentation of maintenance conducted during the reporting period, such as copies of work orders and/or summary of maintenance activities.

### **1.3. PLANNING PROCEDURES**

#### **1.3.1. Description**

##### *1.3.1.A. Comprehensive Plan*

The Town of Thunderbolt's Comprehensive Plan outlines goals and specific policies that are designed to protect the local quality of life. The Comprehensive Plan, updated in 2016 and again in 2021, guides future land use, provides the framework for Thunderbolt's Zoning Ordinance, addresses natural resource protection and open space preservation, and recommends stormwater infrastructure improvements. Specific to the stormwater system, the Comprehensive Plan recommends completing a needs assessment to establish repair and replacement priorities, budget, and funding sources.

The Town adopted the Comprehensive Plan to meet planning goals through the year 2036, and it can be viewed at the following weblink:

[http://www.thunderboltga.org/Portals/Thunderbolt/Comprehensive%20Plan/Thunderbolt\\_Comp\\_Plan\\_Final\\_rd.pdf](http://www.thunderboltga.org/Portals/Thunderbolt/Comprehensive%20Plan/Thunderbolt_Comp_Plan_Final_rd.pdf)

#### **1.3.2. Measurable Goals:**

- Review and update the Comprehensive Plan, as needed.

#### **1.3.3. Schedule:**

- Annual, 2022 – 2027: Review planning procedures.

#### **1.3.4. Annual Report Documentation:**

- A description of any changes made to the Comprehensive Plan or planning procedures.

## **1.4. STREET MAINTENANCE**

### **1.4.1. Description**

#### *1.4.1.A. Street Sweeping Program*

The Town implements a street sweeping program to reduce polluted runoff originating from streets with curb and gutter systems. The Town does not own a street sweeper, so the current method involves street sweeping by hand. Overall, the Town only has three major roads with a curb and gutter – Whatley Avenue, River Drive, and E. Victory Drive. Street sweeping is performed at least once per year, and at additional times throughout the year on an as-needed basis. Litter and debris collected is hauled to the landfill by the Town’s waste management contractor.

The Town will continue to perform manual street sweeping for curb and gutter roads, with a minimum of at least one mile swept during each reporting period. Records of street sweeping activities will be maintained by the City and submitted in the Annual Report.

#### *1.4.1.B. Roadside Ditch Maintenance*

Roadside ditches that are located within the Town Right-of-Way (ROW) are considered part of the public MS4 and are inspected and maintained by the Public Works Department to ensure effective operation. The Town of Thunderbolt currently maintains approximately 1.5 miles of ditches. These ditches will be inspected as part of the “MS4 Inspection and Maintenance Program,” described in Section 1.2. Roadside ditch maintenance procedures are also described in the Town’s SOP for Stormwater Maintenance in Appendix D. Depending on the size and access, maintenance is either performed mechanically or by hand. When roadside ditch inspections indicate that emergent vegetation is interfering with normal flow, excess emergent vegetation will be removed by hand or machinery to ensure proper functioning of the ditches. Roadside ditches are cleaned if accumulated sediment or other deposits exceed the design depth.

The Town mows and removes trash in ROWs and at Town Parks annually, and maintains documentation.

#### *1.4.1.C. De-icing Procedures*

De-icing is not often necessary in coastal Georgia, and the Town of Thunderbolt does not maintain a stockpile of any material for this purpose.

#### *1.4.1.D. Roadway Repair/Construction Erosion & Sedimentation Control*

The Public Works Department is responsible for ensuring that all minimum measure BMPs required by the Georgia Erosion and Sedimentation Act are implemented for Town of Thunderbolt road repair/construction projects, where appropriate.

#### **1.4.2. Measurable Goals:**

- Conduct routine street sweeping activities for streets with curb and gutters, with a minimum of at least 1 mile of streets swept during the reporting period.
- Conduct roadside ditch maintenance annually through mowing and litter removal activities.

#### **1.4.3. Schedule:**

- Ongoing, 2022 – 2027.

#### **1.4.4. Annual Report Documentation:**

- Provide documentation of street sweeping activities, including length of streets swept.
- Summary of trash and debris removal activities in roadside ditches, including length of ditches where litter was removed.

## **1.5. FLOOD MANAGEMENT PROJECTS**

### **1.5.1. Description**

#### *1.5.1.A. New/Proposed Flood Management Projects*

The Town of Thunderbolt currently requires developers to comply with the Stormwater Management Ordinance, which detail the rules and regulations governing post-development stormwater management practices for new development and redevelopment. The regulations require developers to submit a stormwater site plan for all developments that are not specifically exempted within the ordinance. Site stormwater management plans must address water quality and water quantity issues in accordance with the requirements of the NPDES Phase I MS4 Permit, the Coastal Stormwater Supplement, and applicable local development regulations.

The stormwater site plan is reviewed by a Georgia-registered Professional Engineer (contracted or Town staff) and approved by the Town before a Development Permit is issued and construction can begin.

The Town will ensure that all new/proposed flood management projects are assessed for water quality impacts during the design phase. For the purposes of this BMP, the Town interprets “Flood Management Projects” to refer to detention/retention ponds and water quality vaults. All new developments will be required to comply with the Town’s Post-Construction Runoff Control requirements addressed in the Stormwater Management Ordinance, which require that stormwater management controls address water quality as well as water quantity protection.

#### *1.5.1.B. Existing Flood Management Projects*

The Town developed Water Quality Assessment Procedures to ensure that existing Town-owned flood management projects (i.e., detention/retention ponds and water quality vaults) are assessed for potential retrofitting to address water quality impacts. These Procedures were approved by the Georgia EPD during the last permit period for other coastal MS4s and meet the requirements of the Town’s new MS4 permit. The Town’s Water Quality Assessment Procedures for Existing Flood Management Projects are provided in Appendix D.

The Town or a third-party contractor will perform Water Quality Assessments for 100% of all Town-owned detention / retention ponds and water quality vaults during the 5-year permit period to assess the potential to retrofit these publicly-owned structures to incorporate additional control measures to improve water quality treatment. If more than five flood management structures are listed on the inventory, the Town will inspect at least one of the flood management structures annually. If, however, an assessment was previously performed on an existing flood management structure using the 2016 GSMM, prior to the effective date of this permit, then an additional assessment does not need to be performed. Inspections of

flood management structures will be documented through a field collection application that is downloaded on Town-owned smart phones and/or tablets and recorded within the Town's GIS layer or using a paper checklist. The field collection application and paper inspection checklist contain the same questions. A table listing the information that will be collected and documented during site inspections within a GIS database and a copy of a paper inspection checklist are provided in Appendix D.

Retrofitting activities will be conducted as funding becomes available for their implementation. If retrofitting activities are conducted during the reporting period, the Town will maintain documentation showing the status of the retrofitting and information about what retrofitting activities were conducted.

**1.5.2. Measurable Goals:**

- Ensure 100% of new/proposed flood management projects (i.e., detention/retention ponds and water quality vaults) comply with the Town's Stormwater Management Ordinance.
- Perform Water Quality Assessment for 100% of Town-owned detention / retention ponds and water quality vaults within the 5-year permit period (unless a previous assessment was conducted using the 2016 GSMM and the Town has documentation, in which case the assessment does not need repeated).
- Evaluate potential retrofitting, if applicable and as funding permits.

**1.5.3. Schedule:**

- Annually, 2022 – 2027.

**1.5.4. Annual Report Documentation:**

- Number of plans reviewed where new/proposed flood management projects were assessed for water quality impacts during the reporting period.
- Documentation of all water quality assessments of existing flood management control structures that occurred during the reporting period and status of any retrofitting activities.
- Documentation of any water quality assessments conducted prior to April 12, 2022 of existing flood management control structures and status of any retrofitting activities (with the 2022 – 2023 Annual Report).
- For each reporting period after 2022-2023, a table listing the date and results of the assessment and the status of any retrofitting activities.



## **1.6. MUNICIPAL FACILITIES**

### **1.6.1. Description**

Thunderbolt has developed a municipal facility inventory to document the location of each facility owned and/or maintained by the Town with the potential to cause pollution, excluding any facilities that are addressed in Section 3.1 (Industrial Facilities). A copy of the Town's Municipal Facility Inventory is provided in Appendix C. The inventory will include any municipal facilities owned by the Town that are located in another jurisdiction that have the potential to cause pollution, if applicable. This inventory will be updated at least annually. The following list constitutes the Town's inventory of municipal facilities with the potential to cause pollution.

- Thunderbolt Public Works, 423 Bonaventure Rd.
- Thunderbolt Fire Department, 2702 Mechanics Ave.

Town staff or their designated representatives will inspect 100% of inventoried municipal facilities within the 5-year permit period and at least one inspection will be conducted each reporting period. If more than five (5) municipal facilities are listed on the inventory, the Town will inspect at least 5% of the municipal facilities annually. The Facility Stormwater Site Inspection Checklist, found in Appendix D, will be used for municipal site inspections, and records shall be maintained on problems found and actions taken. If sites are found to need improvements, the appropriate department will be notified of the problem. Town staff will then perform a re-inspection, after the stipulated timeframe or request follow up documentation from the facility, if deemed necessary, to ensure that proper action has been taken.

### **1.6.2. Measurable Goals:**

- Update the municipal facilities inventory annually.
- Inspect 100% of inventoried municipal facilities listed in the municipal facilities inventory such that 100% of all the facilities are inspected every 5 years.
- Document site inspections using the Stormwater Site Inspection Checklist provided in Appendix D.

### **1.6.3. Schedule:**

- Annually, 2022 – 2027.

### **1.6.4. Annual Report Documentation:**

- Copy of the updated municipal facility inventory.
- Copy of the completed inspection checklist(s) for each municipal facility or a table summarizing the results of each site inspection.
- Summary and/or documentation of any activities conducted to address issues identified during the site inspection.

## **1.7. PESTICIDE, FERTILIZER, & HERBICIDE (PFH) APPLICATION**

### **1.7.1. Description**

#### *1.7.1.A. Commercial Pesticide Applicator & Distributor Certification Program*

The Town of Thunderbolt relies on the Georgia Department of Agriculture (DoA) to address requirements for Pesticide Applicator/Distributor Training and Certification. The DoA requires commercial applicators of restricted use pesticides (including herbicides, insecticides, fungicides, plant growth regulators, and defoliant) to obtain and retain a “Commercial Pesticide Applicators License.” The DoA also requires that distributors of restricted pesticides obtain and retain a “Pesticide Dealer’s License.” Continuing education units are required each year to maintain the license.

Prior to issuing a business license, the Town of Thunderbolt will require applicants who are likely to require a commercial pesticide applicators license to provide proof that they hold the appropriate State license.

#### *1.7.1.B. Municipal PFH Program*

No restricted use pesticides, fertilizers, or herbicides (PFHs) are used by Town staff to maintain the Town’s roadside ditches, canals, parks, and right-of-ways. Vegetative maintenance is performed manually or mechanically, and includes the use of over-the-counter products that are not deemed “restricted use” chemicals, conservatively and as needed. All chemicals are stored inside at Public Works. These efforts by the Town are protective of water quality and demonstrate the Town’s commitment to PFH reduction.

While not required, the Town has opted to provide general training to its employees regarding safe and sustainable practices for landscape maintenance. If maintenance activities will include any of the before-mentioned restricted use materials, the Town will ensure that all employees conducting maintenance in the Town’s parks and right-of-ways will have the appropriate certifications/DoA license.

A PFH Standard Operating Procedure (SOP) has been prepared to guide Thunderbolt employees in the event that Town staff are responsible for PFH application in the future. This SOP consists of operational best management practices (BMPs) developed to minimize or prevent the discharge of chemicals into the Town’s stormwater drainage system by promoting proper storage and application of chemicals during landscape maintenance activities. These procedures are critical steps that must be included in every landscape maintenance activity that includes chemical application to either control weeds and pests or to provide adequate fertilization.

The Town’s SOP for PFH application is as follows:

1. Conduct chemical application only during days when it is not windy or raining, and when rain is not predicted in the immediate forecast.
2. Consult the Material Safety Data Sheet (MSDS), if available, or package directions for each chemical to ensure all storage, handling, and application precautions are taken.
3. Follow label directions when storing, handling, mixing, recycling and disposing of chemicals and empty containers; properly calibrate application equipment, if applicable, to ensure proper amount of chemicals are applied.
4. DO NOT transfer, pour or dispose of chemicals outdoors, near or in storm drains, or drainage areas; transfer over impervious surface so spills can't seep into ground.
5. Have spill cleanup materials available and ready to go in case of spill; clean up chemical spills promptly, with DRY methods, if possible.
6. When watering landscaped area after fertilizer application, take care to not allow water to runoff into streets or other conduits to waterways.
7. Recycle or dispose of all spent or excess chemicals properly and promptly.
8. Keep all PFHs in leak proof shelters away from elements to help prevent contamination of the stormwater system.
9. Keep unused containers closed tightly; use a tight-fitting lid; label containers.
10. The Town will comply with the GDoA Program, as needed and appropriate, with regards to training and certification of staff. A Commercial Pesticide Applicator License may be required for Town employees that apply restricted use pesticides (i.e., pesticides that are not available to the general public).

**1.7.2. Measurable Goals:**

- Continue to utilize DoA Program to certify commercial applicators and distributors within the Town.
- Continue to adhere to the PFH Chemical Application SOP above when performing any landscape chemical application within the Town.

**1.7.3. Schedule:**

- Ongoing, 2022 – 2027.

**1.7.4. Annual Report Documentation:**

- Documentation of any program activities during the reporting period related to the chemical application of PFHs.

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## **2. ILLICIT DISCHARGE DETECTION & ELIMINATION (IDDE)**

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*Permit Section 3.3.2: Illicit Discharge Detection and Elimination Program (IDDE), Table 3.3.2*

### **2.1. LEGAL AUTHORITY**

#### **2.1.1. Description**

The Town of Thunderbolt has established adequate legal authority through Chapter 5, Article III, in the Stormwater Management Ordinance of the Thunderbolt Code of Ordinances (specifically in “Sec 5-318. Illicit Discharge Prohibition—General Provisions”), to prohibit illicit discharges and conduct an illicit discharge detection and elimination program. This ordinance, last updated in February 8, 2012, prohibits illicit discharges & connections to the public MS4, grants the Town the authority to enter private property to investigate suspected illicit discharges, and provides the Town with the means to enforce violations of this ordinance. A copy of the ordinance is included in Appendix B.

#### **2.1.2. Measurable Goals:**

- Annually evaluate the Illicit Discharge and Illicit Connection provision of the Town’s Stormwater Management Ordinance to determine if revisions are required.

#### **2.1.3. Schedule:**

- Annual, 2022 – 2027.

#### **2.1.4. Annual Report Documentation:**

- If revisions are required, submit a copy of the revised ordinance to EPD in the Annual Report.

## **2.2.   OUTFALL INVENTORY & MAP**

### **2.2.1.   Description**

The Town of Thunderbolt has developed an outfall inventory and a map showing the location of all outfalls from the MS4 and the names and location of all waters of the State that receive discharges from those outfalls. In addition, the Town has identified those outfalls that are continuously “wet” due to tidal activity or surcharge of the system. A “wet” designation means that the invert of the outfall is below the mean high tide or static water level causing the drainage system to be flooded daily.

The map and inventory of the MS4 Outfalls are available in the Illicit Discharge Detection and Elimination (IDDE) Plan, which is included in Appendix E. Each year, the Town will update the map to reflect the addition of outfalls from new infrastructure projects or developments and remove from the inventory any outfalls that have been reclassified or removed. The updated outfall inventory and map will be included with the Annual Report.

### **2.2.2.   Measurable Goals:**

- The Town will maintain and update a map showing the location of all outfalls from the MS4, which outfalls are “wet,” and the names and location of all waters of the State that receive discharges from those outfalls.
- The Town will maintain and update a database inventory of all outfalls from the MS4 within the Town Limits.

### **2.2.3.   Schedule:**

- Annually, 2022 – 2027: Update MS4 Outfall Map and Inventory.

### **2.2.4.   Annual Report Documentation:**

- An updated inventory and map of the MS4 outfalls, identifying which MS4 outfalls are “wet,” with the names and locations of all waters of the State that receive discharges from those outfalls.

## **2.3. IDDE PLAN**

### **2.3.1. Description**

The Town of Thunderbolt's IDDE Plan consists of a "wet" and "dry" MS4 outfall inventory and map; outfall reconnaissance inventory and field screening procedures (i.e., dry weather screening); a proactive IDDE inspection program; source tracing through field sampling, visual inspections, site inspections, upstream sampling, and/or dye testing; source removal; and data collection and reporting. The IDDE Plan, included in Appendix E, will be used to determine if upstream facilities/connections are discharging non-stormwater flows to the drainage system and to eliminate all identified illicit discharges. An Outfall Reconnaissance Inventory Form and Source Tracing Form are provided in Appendix A of the Town's IDDE Plan.

The Town will perform inspections and/or dry weather screening of the MS4 outfalls within its current inventory in accordance with the procedures outlined in the IDDE Plan. The Town will investigate any potential illicit discharges in accordance with the procedures in the IDDE Plan. Suspect or obvious illicit discharges require follow-up actions and activities, as specified in the IDDE Plan to determine the specific source(s) of contamination. Should the Town positively identify any illicit discharges, the Town will perform enforcement actions as dictated by the Town's Stormwater Management Ordinance, IDDE Plan, and Enforcement Response Plan (ERP) to remove positively identified illicit discharges. A copy of the Town's ERP is included in Appendix F.

The Town has established five (5) dry weather screening zones, each of which encompasses approximately 20% of the Town's MS4. The Town will complete the screening of outfalls in one zone per year so that 100% of the inventory of MS4 outfalls is screened over a five-year period. A map of the Town's dry weather screening zones is included in the IDDE Plan in Appendix E.

### **2.3.2. Measurable Goals:**

- Dry weather screen 100% of all MS4 outfalls over a five-year period (complete screening of outfalls in one zone per year).
- Investigate and perform source tracing for 100% of suspected illicit discharges.
- Enforce the Illicit Discharge prohibition of the Stormwater Management Plan, IDDE, and ERP for 100% of positively identified illicit discharges.

### **2.3.3. Schedule:**

- March 2023 – Complete Screening in Zone 1.
- March 2024 – Complete Screening in Zone 2.
- March 2025 – Complete Screening in Zone 3.
- March 2026 – Complete Screening in Zone 4.
- March 2027 – Complete Screening in Zone 5.
- Ongoing, 2022 – 2027: Perform source tracing as needed.

- Ongoing 2022 – 2027: Enforce Illicit Discharge provision of the Stormwater Management Ordinance as needed.

**2.3.4. Annual Report Documentation:**

- Number and percentage of MS4 outfalls inspected during the reporting period.
- Documentation of inspections and dry weather screening, such as a table of individual inspection reports with a record for each outfalls inspected and the findings of that inspections, or a copy of the completed dry weather screening forms (Outfall Reconnaissance Inventory Form) for all MS4 Outfalls screened within the reporting period.
- Records of any source tracing or enforcement activities conducted as a result of the dry weather screening activities, including copies of Source Tracing Forms.

## **2.4. SPILL RESPONSE PROCEDURES**

### **2.4.1. Description**

All new Town of Thunderbolt staff that work with potentially hazardous materials are trained within one year of the start of employment on proper use, storage, and disposal of commonly used hazardous or potentially polluting materials. Current staff received the training at the outset of the program. This training occurs during an in-house Safety Meeting conducted by the Public Works Department. Hazardous materials addressed by this training program include oil and other petroleum products and any other material for which a Materials Safety Data Sheet (MSDS) is provided. The Town also has spill kits, and checks for spill kits when conducting HVPS Inspections. The Town has an SOP on Spill Prevention and Control which outlines written procedures for spill response and recommendations to avoid spills. This SOP is made available to Town staff, and it is included in Appendix D.

When a spill occurs in Town of Thunderbolt, the first responders are either Public Works staff, the Fire Department, or the Police Department. Town staff will initially contain the spill and will call Savannah HazMat team or a private contractor to respond and address cleanup, if needed.

Town of Thunderbolt staff will maintain records of any spills that occur that may discharge to the MS4 and how those spills were resolved. Those records will be summarized and included in the Annual Report.

### **2.4.2. Measurable Goals:**

- Maintain documentation on any spill occurrences and cleanup performed.

### **2.4.3. Schedule:**

- Annually, 2022 – 2027.

### **2.4.4. Annual Report Documentation:**

- Documentation on any spill occurrences and cleanup performed.



## **2.5. PUBLIC REPORTING PROCEDURES**

### **2.5.1. Description**

The Town of Thunderbolt maintains a link on the Town's official website that allows for citizens and visitors to electronically report concerns, including illicit discharges and illegal dumping. The link to this page can be found on the Town's homepage at: <http://www.thunderboltga.org/Contact-Us>. This website also provides a telephone number for Town residents to contact the Town by phone for any purpose, including to report stormwater issues such as illicit discharges illegal dumping in the storm sewer system. Information received through the website will be referred to the appropriate department. The Town promotes this website as a part of other public education initiatives (Town Newsletter and Stormwater website, etc.).

The Town of Thunderbolt has established procedures for encouraging and addressing citizen complaints about water quality and reports of illicit discharges/illegal dumping. Town administrative staff is responsible for receiving citizen complaints electronically or by phone calls. The complaint is then sent to the Public Works Department, which is responsible for taking action to address calls that relate to water quality, generally within three to five business days. The Public Works staff will record actions taken to address the complaint and include any applicable documentation (i.e., work order database, site follow-up letter, notice of violation, etc.). The Public Works Department maintains a file of all finished work orders/follow-ups to citizen complaints.

### **2.5.2. Measurable Goals:**

- Promote phone number and Town of Thunderbolt's website to encourage the public to report illicit discharges/illegal dumping in the storm sewer system.
- Investigate 100% of all water quality complaints received.
- Take appropriate action for 100% of complaints requiring action.
- Record IDDE complaints and actions taken.

### **2.5.3. Schedule:**

- Annually, 2022 – 2027: Perform at least one formal notification per reporting period to inform the public on methods to report an observed illicit discharge.
- Annually, 2022 – 2027: Ensure stormwater webpage lists proper telephone number and contains a working link for electronic reporting of stormwater issues.
- Ongoing, 2022 – 2027: Update Work Order Database as calls are received.
- Ongoing, 2022 – 2027: Record/take action for complaints received, as appropriate.

### **2.5.4. Annual Report Documentation:**

- Copy of formal notification used to inform the public on methods to report an observed illicit discharge or illegal dumping in the storm sewer system.
- Documentation of citizen complaints, investigations, actions taken during the reporting period, and status of the complaint.

## 2.6. PROPER MANAGEMENT & DISPOSAL OF USED OIL & TOXIC MATERIALS

### 2.6.1. Description

#### 2.6.1.A. Hazardous Material Public Education

The Town performs activities to promote the proper management and disposal of used oil and toxic materials by the public, including maintaining an informational webpage(s) with relevant links and educational materials. The Town's Stormwater Webpage titled "Stormwater Management" at <http://www.thunderboltga.org/Community/Stormwater-Management> features downloadable electronic educational brochures that provide information about proper waste management & disposal of hazardous household wastes and other wastes commonly generated by automobile maintenance, gas stations, and restaurants & food service entities. The Town also maintains a link on the Town's webpage to the Chatham County Resource Conservation Education Center. This site provides information on its website to help citizens of the County, including those in Thunderbolt, to dispose of hazardous and nonhazardous household waste properly. The website also includes a listing of facilities and businesses that will accept waste oil, hard to recycle materials, toxic wastes, and recyclables from the public. The links can be found at the Town's following web address: <http://www.thunderboltga.org/Community/Stormwater-Management>.

The Town of Thunderbolt will maintain a link on the Town's "Stormwater Management" and "Utilities – Water, Sewer, and Garbage" websites for this information.  
<http://www.thunderboltga.org/Community/Stormwater-Management>  
<http://www.thunderboltga.org/Administration/Utilities>

Additionally, Thunderbolt maintains an inventory of commercial businesses and facilities that are considered to be HVPSs as well as industrial sites. HVPSs and industrial facilities are routinely inspected by the Town, and industry-specific educational literature, including literature about proper waste management and disposal, is supplied at the time of the site inspection or as part of the follow-up to the site inspection on an "as-needed" basis.

#### 2.6.1.B. Recycling Program

The Town of Thunderbolt operates a single-stream, curbside recycling program for all Town residents. Recyclables are picked up once a week when placed in specialized recycling bins, provided by the Town. The Town contracts with a private professional hauler to collect recyclable materials and dispose of them properly at a recycling facility. The items collected by the Town for recycling include:

- Plastics #1 & #2
- All Paper (newspapers, magazines, junk mail)
- Cardboard
- Metal Cans

**2.6.2. Measurable Goals:**

- Promote proper management and disposal of used oil and toxic materials by maintaining a web link to the Chatham County Resource Conservation website.
- Provide industry-specific educational literature, including literature about proper waste management and disposal, during HVPS and Industrial Site inspections on an “as-needed” basis.
- Operate the curbside recycling program.

**2.6.3. Schedule:**

- Ongoing, 2022 – 2027.

**2.6.4. Annual Report Documentation:**

- Details of any activities performed during the reporting period, including screenshot and web link for the Chatham County Resource Conservation Education Center.
- Summary of and/or copies of industry-specific educational literature, including literature about proper waste management and disposal, distributed during HVPS and Industrial Site inspections.

## **2.7. SANITARY SEWER INFILTRATION CONTROLS**

### **2.7.1. Description**

The Town of Thunderbolt maintains the sanitary sewer system via an IGA with the City of Savannah to perform preventative maintenance (at least quarterly), and coordinates with a third-party for electrical preventative maintenance. The IGA deems the City of Savannah responsible for various controls including those related to samples/labwork/illicit discharges/inspections of lift stations etc. on the Town's sanitary sewer system. A copy of the IGA with the City of Savannah is included in Appendix B. The electrical component, currently satisfied by a third-party, includes annual inspection and preventative maintenance to submersible pumps at all the Town's lift stations (3 total). The Town does not currently have a contract with Goforth Williamson, but will include invoices for any inspection and preventative maintenance performed to the sewer system by a third-party with each Annual Report. The Town still assists with additional lift station inspections and preventative maintenance such as wet well drawdown, float cleaning, etc., as needed. Inspections of the sanitary sewer system are also conducted based on complaints or any abnormal findings during dry weather screening inspections.

### **2.7.2. Measurable Goals:**

- Inspect 100% of suspected sewage spills from the sanitary sewer system reported to or by the Town of Thunderbolt.
- Work with the City of Savannah to resolve 100% sanitary sewer overflows or cross connections.
- Record and maintain information on all sanitary sewer spills in a database.
- Perform at least one maintenance activity for the sewer system each year to ensure the system is functioning effectively and/or to prevent spills.

### **2.7.3. Schedule:**

- Ongoing, 2022 – 2027.

### **2.7.4. Annual Report Documentation:**

- Documentation of sanitary sewer spills and cleanup activities performed.
- Documentation of lift station inspections and/or maintenance performed during the reporting period by the Town or a third-party entity.

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### **3. INDUSTRIAL FACILITIES STORMWATER DISCHARGE CONTROL**

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*Permit Section 3.3.3: Industrial Facility Stormwater Discharge Control, Table 3.3.3*

#### **3.1. INDUSTRIAL FACILITY INVENTORY**

##### **3.1.1. Description**

The Town of Thunderbolt currently maintains an Industrial Facility Inventory (Appendix C). This inventory is based on the Georgia EPD's database that identifies facilities that have applied for coverage under the Industrial Storm Water General Permit (IGP), and/or submitted a No Exposure Exclusion (NEE) for permit exemption. The Town of Thunderbolt reviews the most recent listing of industrial sites posted to EPD's website and updates the Industrial Facility Inventory accordingly with each Annual Report. A copy of EPD's database may be accessed at the following webpage:

[https://epd.georgia.gov/sites/epd.georgia.gov/files/related\\_files/site\\_page/Industrial%20Storm%20Water%20Permits%20In%20Effect%2020170531.xlsx](https://epd.georgia.gov/sites/epd.georgia.gov/files/related_files/site_page/Industrial%20Storm%20Water%20Permits%20In%20Effect%2020170531.xlsx)

The Town of Thunderbolt will continue to modify and update this list on an annual basis in accordance with the informational sources listed above. The Town will include any changes to the inventory in the Annual Report.

##### **3.1.2. Measurable Goals:**

- Annually review EPD database of industrial facility permittees and update Industrial Facility Inventory.

##### **3.1.3. Schedule:**

- Annually, 2022 – 2027.

##### **3.1.4. Annual Report Documentation:**

- Copy of updated Industrial Facility Inventory.

## **3.2. INDUSTRIAL STORMWATER INSPECTION PROGRAM**

### **3.2.1. Description**

The Town of Thunderbolt will inspect 100% of the facilities listed on the Town's Industrial Facility Inventory over the course of the five (5) year permit period (2022 – 2027), with a minimum of at least one industrial inspection conducted each reporting period. If more than five (5) industrial sites are listed on the Town's inventory, the Town will inspect a minimum of 5% of the industrial facilities each year.

- Town staff will first determine whether the industrial facility discharges to the Town MS4. If the facility does not discharge to the Town MS4, it will be removed from the Industrial Facility Inventory.
- Town staff will check to ensure that the facility has submitted a Notice of Intent to be covered under the NPDES Industrial General Permit (IGP), if it is required.
- Town staff will perform a cursory review of the implementation status of the facility's associated SWP3.
- Industrial site inspections will typically be documented through a field collection application that is downloaded on Town-owned smart phones and/or tablets and will be recorded within the Town's GIS layer.
- For Town staff that do not have the field collection application available and/or in situations when a field collection application cannot be used for other reasons, a paper copy version of the inspection checklist may be used to record the inspections. The field collection application and paper inspection checklist contain the same questions.
- A table listing the information that will be collected and documented during site inspections within a GIS database and a copy of a paper inspection checklist is provided in Appendix D.
- Should an inspection reveal a potential threat to water quality in the MS4, Town staff will notify the industry or business, provide them with a copy of the inspection checklist and/or relevant information. If deemed necessary, the Town will perform a re-inspection to ensure that all necessary corrections were made.
- Enforcement of any identified illicit discharges will be handled in accordance with the Town's Stormwater Management Ordinance and Enforcement Response Plan.
- If the violation is not corrected, EPD will be notified of the problem. The Town will also notify the EPD if assistance is needed for enforcement of the NPDES IGP or if there is a threat to Waters of the State. The Town of Thunderbolt may elect to perform water quality monitoring to monitor stormwater runoff and/or use monitoring data provided by the industrial facility in order to secure evidence to support the alleged violation.
- The Town will maintain records of inspections results, problems found, and actions taken.

**3.2.2. Measurable Goals:**

- Inspect 100% of industrial facilities in the Town’s inventory over the 5-year permit period. Inspect at least one industrial site each reporting period, or if there are more than five sites listed on the Town’s inventory, inspect at least 5% of the industrial facilities in the inventory annually.
- Document site inspections and recommended corrective actions/violations.
- Enforce the Stormwater Management Ordinance, IDDE, and ERP as needed.
- Conduct water quality monitoring at industrial facilities if deemed necessary by the Town and/or obtain water quality monitoring data from the industrial facility.

**3.2.3. Schedule:**

- Annually, 2022 – 2027.

**3.2.4. Annual Report Documentation:**

- Documentation of inspections, such as a table of individual inspection reports with a record for each site inspected and the findings of that inspection, or a copy of the completed site inspection checklist for each Industrial facility inspected during the reporting period and any available follow-up documentation.
- Number and percentage of facilities inspected.
- Water quality monitoring results, if monitoring is conducted.

### **3.3. ENFORCEMENT PROCEDURES**

#### **3.3.1. Description**

If an illicit discharge is identified during an industrial site inspection, the Town will initiate enforcement procedures as outlined in the Town's Enforcement Response Plan (Appendix F) and maintain documentation.

If an illicit discharge has not taken place but practices on-site indicate a high probability that such a discharge could occur, then the Town will discuss with the property owner and/or the operator of the site the issues uncovered by the inspection and recommend corrective actions to address the potential issue. The Town will also make the owner/operator aware of the Georgia Stormwater Management Manual and the Coastal Stormwater Supplement, which address pollution prevention and good housekeeping practices.

#### **3.3.2. Measurable Goals:**

- Implement enforcement procedures when illicit discharge violations are discovered during inspections of industrial facilities.
- Document enforcement actions taken in violation/enforcement action log and/or other appropriate written documentation (letter to facility, copy of warning and/or Notice of Violation, etc.).

#### **3.3.3. Schedule:**

- Ongoing, 2022 – 2027.

#### **3.3.4. Annual Report Documentation:**

- Documentation of enforcement action taken during the reporting period.



### **3.4. EDUCATIONAL ACTIVIITIES**

#### **3.4.1. Description**

The Town will distribute the EPD's informational handout on the requirements of the NPDES IGP or other industrial stormwater best practices educational information to industrial facilities during industrial stormwater site inspections.

#### **3.4.2. Measurable Goals:**

- Provide educational information to facilities during industrial site inspections.

#### **3.4.3. Schedule:**

- Annually, 2022 – 2027.

#### **3.4.4. Annual Report Documentation:**

- Copy of educational information distributed to industrial facilities.

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## 4. CONSTRUCTION SITE MANAGEMENT

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*Permit Section 3.3.4: Construction Site Management, Table 3.3.4*

### 4.1. LEGAL AUTHORITY

The Town of Thunderbolt is currently not a Local Issuing Authority (LIA) for LDA Permits as defined by the GESA. The EPD has determined that those local governments that do not have issuing authority for LDA Permits are not required to implement requirements of 122.26(d)(2)(iv)(D) that require construction site structural and non-structural programs nor are the local governments required to adopt the most current version of the State's model Soil Erosion, Sedimentation and Pollution Control Ordinance (E&S Ordinance). In these locations, the Georgia EPD is responsible for regulating, permitting, and enforcing the Georgia Erosion and Sedimentation Act (GESA) for land disturbing activities.

However, the Town of Thunderbolt does include E&S language and minimal requirements in Section 15-710.15 of its adopted Design Standards Ordinance:

*Chapter 15 - Article VII. Sec. 15-710.15. – Erosion and sediment control.*

*Erosion and sedimentation controls shall be required on all sites adjacent to waterbodies or drainage ways in which one-half contiguous acre or more of land surface is to be uncovered. The applicant shall show erosion and sediment control measures between the uncovered areas and adjacent waterbodies or drainage ways on plans submitted for approval. (See The State of Georgia "Manual for Erosion and Sedimentation Control" for details). The owner must apply for a land disturbing activity permit in accordance with the requirements of the Erosion and Sedimentation Act of 1975 and the Rules of the Georgia Department of Natural Resources as amended.*

If Thunderbolt does regain its LIA status, the Town will adopt the most current version of the State's model E&S Ordinance.

#### 4.1.1. Measurable Goals:

- Annually evaluate if the Town wishes to receive its Issuing Authority, and if so, adopt the most current version of the E&S Ordinance.

#### 4.1.2. Schedule:

- Annually, 2022 – 2027.

#### 4.1.3. Annual Report Documentation:

- If the Town becomes an LIA and an E&S Ordinance is adopted, then submit a copy of the updated ordinance.

## **4.2. SITE PLAN REVIEW PROCEDURES**

### **4.2.1. Description**

The EPD and NRCS are responsible for reviewing all ES&PC plans for qualifying land development projects. ES&PC plans will be reviewed by the EPD and NRCS for compliance with the Manual for Erosion and Sedimentation Control in Georgia “Green Book”.

### **4.2.2. Measurable Goals:**

- All qualifying developments within Thunderbolt will have their ES&PC plans reviewed by EPD and NRCS.

### **4.2.3. Schedule:**

- Ongoing, 2022 – 2027.

### **4.2.4. Annual Report Documentation:**

- A list of the development projects that had ES&PC plans approved by NRCS and EPD.
- Explanation that the activity is implemented by EPD as long as the Town remains without LIA status.

### **4.3. INSPECTION PROCEDURES**

#### **4.3.1. Description**

The Town is not a Local Issuing Authority (LIA), and therefore the Georgia EPD is responsible for construction site inspections and enforcement of soil erosion and sedimentation (E&S) requirements at construction sites located within the Town of Thunderbolt. The EPD will conduct inspections of construction sites and enforce E&S requirements. All qualified projects with an active NPDES Construction Permits should be periodically inspected for compliance with the Georgia Erosion and Sedimentation Control Act and in general accordance with GESA and the Town's E&S Ordinance by EPD staff.

If the Town does regain its LIA status, the Town will implement its own inspection program in accordance with permit requirements.

#### **4.3.2. Measurable Goals:**

- 100% of active development sites with ongoing land disturbance activities will be periodically inspected by EPD staff.

#### **4.3.3. Schedule:**

- Ongoing, 2022 – 2027.

#### **4.3.4. Annual Report Documentation:**

- A list of active construction sites.
- Explain that inspections of construction sites and enforcement of E&S requirements are implemented by the EPD.

#### **4.4. ENFORCEMENT PROCEDURES**

##### **4.4.1. Description**

Thunderbolt is not an Issuing Authority and is therefore not responsible for enforcing NPDES Construction Permits or GESA on qualifying sites in Thunderbolt. If Thunderbolt receives a citizen complaint or is otherwise made aware of a potential E&S violation that requires enforcement, the Town will notify the EPD of said potential violations within 72 hours.

If the Town does regain its LIA status, the Town will enforce E&S requirements in accordance with its permit.

##### **4.4.2. Measurable Goals:**

- Notify EPD of any potential E&S violations within 72 hours.

##### **4.4.3. Schedule:**

- Ongoing, 2022 -2027.

##### **4.4.4. Annual Report Documentation:**

- Documentation of any notifications made to EPD regarding potential violations.
- Explain that NPDES Construction Permits and GESA enforcement procedures are implemented by the EPD.

## **4.5. CERTIFICATION**

### **4.5.1. Description**

GESA requires all local government employees involved with plan review, site inspections, or E&S Ordinance enforcement, as well as construction site operators to comply with the certification requirements of the Georgia Erosion and Sedimentation Act and the rules adopted by the GSWCC. However, since the Town is not an Issuing Authority, Town staff are not required to receive this training and certification. If the Town were to become an LIA, applicable Town staff would receive the training.

### **4.5.2. Measurable Goals:**

- If Thunderbolt receives its Issuing Authority status, the Town will ensure that MS4 staff involved in construction activities subject to the Construction General Permits (CGPs) are trained and certified in accordance with the rules adopted by the Georgia Soil and Water Conservation Commission.

### **4.5.3. Schedule:**

- Ongoing, 2022 – 2027.

### **4.5.4. Annual Report Documentation:**

- Explain that the activity is currently implemented by the EPD.

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## **5. HIGHLY VISIBLE POLLUTION SOURCES (HVPS)**

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*Permit Section 3.3.5: Highly Visible Pollution Sources, Table 3.3.5*

### **5.1. HVPS FACILITY INVENTORY**

#### **5.1.1. Description**

The Town maintains an inventory of commercial businesses and facilities that are considered to be highly visible pollutant sources (HVPS). A copy of the Town's most current HVPS inventory is provided in Appendix C. For the 2022 – 2027 permit period, the Town considers the following types of businesses to be HVPS:

- Marine Related Businesses
- Auto Repair / Maintenance Facilities
- Gas Stations
- Car Washes
- Landscape and Garden Related Businesses

The Town's HVPS inventory is reviewed and updated each reporting period based on changes to the business license database.

#### **5.1.2. Measurable Goals:**

- Update the HVPS Inventory on an annual basis.

#### **5.1.3. Schedule:**

- Annually, 2022 – 2027.

#### **5.1.4. Annual Report Documentation:**

- Updated HVPS Inventory.

## **5.2. HVPS STORMWATER INSPECTION PROGRAM**

### **5.2.1. Description**

The Town of Thunderbolt will inspect 100% of the facilities listed on the Town's HVPS Inventory over the course of the five (5) year permit period (2022 – 2027), with a minimum of at least one HVPS inspection conducted each reporting period. If more than five (5) HVPS facilities are listed on the Town's inventory, the Town will inspect a minimum of 5% of the HVPS facilities each year.

A Town inspector, or qualified authority designated by the Town, will visit the HVPS site and assess the condition and presence of stormwater pollutants on-site. Town staff will inspect the site for evidence of stormwater pollution in the following areas, and determine if there is any evidence of illicit Discharge:

- Areas around machinery and/or equipment
- Areas prone to leaks and spills
- Outdoor storage and handling areas
- Waste generation, storage, treatment and disposal areas
- Vehicle wash-down areas
- Fueling areas
- Loading and unloading areas

The following procedures will be followed during HVPS inspections and as follow-up to the inspections:

- All HVPS inspections will be documented. HVPS inspections will typically be documented through a field collection application that is downloaded on Town-owned smart phones and/or tablets and will be recorded within the Town's GIS layer. For Town staff that do not have the field collection application available and/or in situations when a field collection application cannot be used for other reasons, a paper copy version of the HVPS inspection checklist may be used to record the inspections. The field collection application and paper inspection checklist contain the same questions. A table listing the information that will be collected and documented during site inspections within a GIS database and a copy of a paper inspection checklist is provided in Appendix D.
- Educational literature, including literature about proper waste management and disposal and other relevant topics, may be supplied at the time of the site inspection or as part of the follow-up to the site inspection if needed.
- Should an inspection reveal a potential threat to water quality in the MS4, Town staff will notify the industry or business, and provide them with a copy of the inspection checklist and/or written notification of the issue if deemed necessary. The Town may request follow-up documentation and/or perform a re-inspection to ensure that all necessary corrections were made if deemed necessary.



- Enforcement of any identified illicit discharges will be handled in accordance with the Town's Illicit Discharge prohibition in the Stormwater Management Ordinance, IDDE, and ERP.
- If the violation is not corrected, the EPD will be notified of the problem. The Town will also notify the EPD if assistance is needed for enforcement or if there is a threat to Waters of the State. The Town may, during the investigation of a violation of the Town's IDDE prohibition in the Stormwater Management Ordinance, complete or require monitoring of a suspected HVPS, in order to secure evidence to support the alleged violation.
- The Town will maintain records of inspections results, problems found, and actions taken.

**5.2.2. Measurable Goals:**

- Inspect 100% of HVPS facilities in the Town's inventory over the 5-year permit period. Inspect at least one HVPS site each reporting period, or, if there are more than five sites listed on the Town's inventory, inspect at least 5% of the HVPS facilities in the inventory annually.
- Document site inspections and recommended corrective actions/violations.
- Enforce the Stormwater Management Ordinance, IDDE, and ERP as needed.

**5.2.3. Schedule:**

- Annually, 2022 – 2027.

**5.2.4. Annual Report Documentation:**

- The total number of HVPS facilities and the number and percentage of inspections conducted during the reporting period.
- Documentation of inspections, such as a table of individual inspection reports with a record for each site inspected and the findings of that inspection, or a copy of the completed site inspection checklist for each HVPS facility inspected during the reporting period and any available follow-up documentation.

### **5.3. ENFORCEMENT PROCEDURES**

#### **5.3.1. Description**

If an illicit discharge is identified during an HVPS site inspection, the Town will initiate enforcement procedures as outlined in the Town's Enforcement Response Plan (Appendix F) and maintain documentation.

If an illicit discharge has not taken place but practices onsite indicate a high probability that such a discharge could occur, then the Town will discuss with the property owner and/or the operator of the site the issues uncovered by the inspection and recommend corrective actions to address the potential issue. The Town will also make the owner/operator aware of the Georgia Stormwater Management Manual and the Coastal Stormwater Supplement, which address pollution prevention and good housekeeping practices.

#### **5.3.2. Measurable Goals:**

- Implement enforcement procedures for violations noted during HVPS inspections, as specified in the ERP.
- Document enforcement actions taken in violation/enforcement action log and/or other appropriate written documentation (letter to facility, copy of warning and/or Notice of Violation, etc.).

#### **5.3.3. Schedule:**

- Ongoing, 2022 – 2027.

#### **5.3.4. Annual Report Documentation:**

- Documentation of enforcement actions taken on HVPS sites during the reporting period.

## **5.4. EDUCATIONAL ACTIVITIES**

### **5.4.1. Description**

The Town's Stormwater website contains information to inform HVPS owners/operators how to control stormwater pollution according to their specific commercial activities. Two categories of HVPS that are currently targeted through this educational effort are automotive/boat repair/maintenance businesses and gas stations, which are the predominant types of HVPS in the Town of Thunderbolt. The website also includes a link to Volume 3 of the GSMM – Pollution Prevention Guidebook. This guidebook provides information on pollution prevention and control measures for residential, commercial, industrial, institutional, and municipal users/operations. The Town is currently in the process of updating its website, and may make changes as deemed appropriate in the future to educate the public and commercial businesses about proper stormwater pollution prevention practices.

In addition to posting educational information on the website, Town staff will have a face-to-face meeting with a manager or staff person during or immediately following site inspections to provide information and tips on pollution prevention control measures at their facility. The Town staff will also distribute educational materials during HVPS inspections as needed.

### **5.4.2. Measurable Goals:**

- Maintain HVPS educational material on Town's website.
- Distribute HVPS educational material during facility inspections.
- Conduct face-to-face meeting with manager of facility inspected.

### **5.4.3. Schedule:**

- Ongoing, 2022 – 2027: Maintain educational materials on Town's website.
- Annually, 2022 – 2027: Meet with manager/staff of facility during HVPS inspections and distribute educational materials.

### **5.4.4. Annual Report Documentation:**

- Weblink for HVPS educational materials on Town's website.
- Copy of educational material distributed during HVPS inspections.

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## **6. ENFORCEMENT RESPONSE PLAN (ERP)**

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### *Permit Section 3.3.6: Enforcement Response Plan (ERP)*

#### **6.1. ERP IMPLEMENTATION**

##### **6.1.1. Description**

The Town of Thunderbolt's Enforcement Response Plan (ERP) describes the actions taken for violations associated with the NPDES Permit and the SWMP. The ERP, a copy of which is located in Appendix F, details the Town's response(s) to any noted stormwater violations, including escalating enforcement responses to address repeat and continuing violations. The plan details the ordinances providing legal authority, types of enforcement mechanisms available, escalation of enforcement, time frames for investigation, and the method to be used to track instances of non-compliance. The Town performed a comprehensive update of the ERP in April 2020 that was approved by the EPD in May 2020. A copy of the Town's ERP is provided in Appendix F.

The Town will review the ERP annually and make revisions as necessary. If the ERP is revised, the Town will submit it to EPD for review.

##### **6.1.2. Measurable Goals:**

- Review the ERP annually and update as needed.
- Take enforcement actions, as needed and appropriate.

##### **6.1.3. Schedule:**

- Ongoing, 2022 – 2027: Take enforcement actions, as needed and appropriate.
- Annually, 2022 – 2027: Review and update ERP, if necessary.

##### **6.1.4. Annual Report Documentation:**

- Copy of ERP if revised during the reporting period.

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## **7. MONITORING FOR DISCHARGES TO IMPAIRED WATER BODIES**

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### *Permit Section 3.3.7: Impaired Waterbodies*

At this time, the most recent approved Georgia 305(b)/303(d) List of Waters303(d) list of coastal streams shows that there are no waterways currently designed as “impaired” that are located within the jurisdictional boundary of Thunderbolt. Therefore, an Impaired Waters Plan (IWP) is not required.

The Town will annually review Georgia EPD’s updated 305(b)/303(d) list to identify waters not supporting their designated use within the jurisdiction. If any impaired waters are identified, the Town will prepare a revised IWP for the pollutant(s) of concern and submit a copy of the document to EPD for approval. Following approval of the IWP, the Plan will be implemented and a copy will be incorporated into the SWMP.

#### **7.1.1. Measurable Goals**

- Conduct annual review of the most recently-approved 305(b)/303(d) list, and prepare IWP, if required.

#### **7.1.2. Schedule**

- Annually, 2022-2027.

#### **7.1.3. Annual Report Documentation**

- Copy of Plan (if required to develop).
- Summary of monitoring data, any water quality trends, and plan implementation activities conducted during the previous reporting period (if a plan is developed).

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## **8. MUNICIPAL EMPLOYEE TRAINING**

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### *Permit Section 3.3.8: Employee Municipal Training*

#### **8.1.1. Description**

The Town will conduct annual employee training for employees responsible for implementation of the SWMP. Training may be provided via powerpoint presentations or videos or, alternatively, the City may send employees offsite to an applicable training course. City employees will be trained during each permit period on stormwater topics that are necessary for that employee to do their job, including such topics as good housekeeping, IDDE, industrial and HVPS inspections, E&S inspections, Green Infrastructure/Low Impact Development (GI/LID) and/or pollution prevention procedures. The City will keep records of the training including the training agenda and/or materials, training date(s), as well as a list of attendees.

#### **8.1.2. Measurable Goals:**

- Provide annual stormwater training for applicable employees.
- Document stormwater training activities.

#### **8.1.3. Schedule:**

- Annually, 2022 – 2027.

#### **8.1.4. Annual Report Documentation:**

- Documentation of training activities, including a summary of training materials or training agenda.
- Copy of sign-in sheets or other documentation showing the name and number of training attendees and the date of training.

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## 9. PUBLIC EDUCATION

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### *Permit Section 3.3.9: Public Education*

#### **9.1. STORMWATER WEBSITE**

##### **9.1.1. Description**

The Town maintains a website for disseminating information to the public. The stormwater website is linked to the Town's main homepage (<http://www.thunderboltga.org/>), and can be accessed from <http://www.thunderboltga.org/Community/Stormwater-Management>. The Town is planning to modify its stormwater website in the future and this link may change.

The Town's stormwater webpage currently includes information on stormwater runoff; proper stormwater management practices and how to prevent stormwater pollution; stormwater pollution solutions; adverse effects of stormwater pollution on plants, fish, animals and people; a "Contact Us" hyperlink embedded in the stormwater webpage that can be used to report illegal dumping, illicit discharges, and other stormwater problems; information and weblinks regarding hard to recycle materials; and proper handling and disposal of hazardous wastes. The most recent copies of the SWMP and Annual Reports are posted to the Stormwater website after they are approved by EPD. The Town also has a "Contact Us" tab, accessible from its homepage, where water quality issues related to illegal dumping and illicit discharges can be reported.

The Town will promote this website as a part of other public education initiatives. Website updates are conducted annually as more information becomes available about innovative design methodologies, including low impact development, green infrastructure and LEED for New Construction Sustainable Sites. The Town maintains a "counter" feature on the website so that it can determine how many visits or "hits" there have been for the stormwater webpage during each reporting period.

##### **9.1.2. Measurable Goals:**

- Update stormwater webpage annually.
- Record the number of webpage hits using a tracker, such as Google Analytics or other comparable counting mechanism.

##### **9.1.3. Schedule:**

- Annually, 2022 – 2027.

##### **9.1.4. Annual Report Documentation:**

- Screenshot of updated stormwater webpage or summary of webpage changes.
- Number of webpage views recorded by the website counter.

## **9.2. PUBLIC INFORMATION BROCHURES**

### **9.2.1. Description**

The Town will distribute brochures designed to address stormwater pollution prevention and other water resources related topics at Town Hall and during Town Events. These brochures will topics such as:

- Stormwater Pollution Prevention
- Public Education and Awareness
- Picking Up After Your Pet
- Proper Handling and Disposal of Hazardous Waste
- Construction BMPs
- Septic System Maintenance
- Flood Information
- Importance of Green Infrastructure

Brochures will be reviewed on an annual basis and new brochures may be chosen and distributed. Brochures will be restocked as they run out. If available, electronic versions of the brochures will be posted on the website.

### **9.2.2. Measurable Goals:**

- Review brochures to be distributed on an annual basis.
- Restock brochures at Town Hall as they run out.

### **9.2.3. Schedule:**

- Annually, 2022 – 2027.

### **9.2.4. Annual Report Documentation:**

- Copies of any brochures distributed during the reporting period.
- Number of brochures distributed during the year.



### **9.3. TOWN NEWSLETTER**

#### **9.3.1. Description**

The Town of Thunderbolt produces newsletters that address issues within Thunderbolt such as household garbage, zoning issues, water and sewer bills, current and future Public Works projects, annual drinking water quality report, and advertisements for public education events. The newsletters are directly mailed to all Town residents with residential utility bills.

Each reporting period, the Town will include information in at least one newsletter about stormwater and water resource issues and/or advertise local educational and outreach related opportunities and events. Example topics that may be addressed within the newsletter include:

- Proper disposal of household hazardous waste
- Contact number(s) for citizens to report water quality violations
- Proper application, storage, and disposal of landscape chemicals
- Impacts of stormwater pollution
- Tips for stormwater pollution prevention
- Picking Up After Your Pet
- Septic System Maintenance
- Promotion of Public Involvement Activities
- Recycling and waste disposal information and updates
- Importance of Green Infrastructure

#### **9.3.2. Measurable Goals:**

- Produce and distribute a Town Newsletter once/reporting period that includes stormwater and water resource-related topics.

#### **9.3.3. Schedule:**

- Annually, 2022 – 2027.

#### **9.3.4. Annual Report Documentation:**

- Copy of Newsletter distributed during the reporting period.
- Number of newsletters distributed.

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## **10. PUBLIC INVOLVEMENT**

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### *Permit Section 3.3.10: Public Involvement*

#### **10.1. PUBLIC INPUT ON SWMP**

##### **10.1.1. Description**

The Town of Thunderbolt will invite the public to provide input on the SWMP by posting this document as well as the most recently approved Annual Report on the Town's Stormwater website.

<http://www.thunderboltga.org/Community/Stormwater-Management>

The website contains a link that allows the public to submit comments to the Town on the best management practices included within the SWMP as well as on the activities summarized in the Annual Report. These most recent versions of these documents will be posted to the Town's website (when the documents are submitted as draft to EPD) in order to ensure the information is posted in a timely manner.

##### **10.1.2. Measurable Goals:**

- Post the Town's most recent SWMP update on the website.
- Post the most recent Annual Report on the website.

##### **10.1.3. Schedule:**

- Annually, 2022 – 2027.

##### **10.1.4. Annual Report Documentation:**

- Comments received by the Town on the SWMP or Annual Report and a description of how they were addressed.

## **10.2. PUBLIC REPORTING PROCEDURES**

### **10.2.1. Description**

The Town of Thunderbolt has established procedures for encouraging and addressing citizen complaints about water quality and reports of illicit discharges/illegal dumping. The Town maintains a link on the Town's official website that allows for citizens and visitors to electronically report concerns, including illicit discharges and illegal dumping. The link to this page can be found on the Town's homepage at: <http://www.thunderboltga.org/Contact-Us>. This website also provides a telephone number for Town residents to contact the Town by phone for any purpose, including to report stormwater issues such as illicit discharges illegal dumping in the storm sewer system. Information received through the website will be referred to the appropriate department. The Town promotes this website at least annually as a part of other public education initiatives (Town Newsletter and Stormwater website).

Town administrative staff is responsible for receiving citizen complaints electronically or by phone calls. The complaint is then sent to the Public Works Department, which is responsible for taking action to address calls that relate to water quality within two business days. The Public Works staff will record actions taken to address the complaint and include any applicable documentation (i.e., work order database, site follow-up letter, notice of violation, etc.). The Public Works Department maintains a file of all finished work orders/follow-ups to citizen complaints and provides monthly reports to Council.

### **10.2.2. Measurable Goals:**

- Promote phone number and Town of Thunderbolt's website to encourage the public to report illicit discharges/illegal dumping in the storm sewer system.
- Investigate 100% of all water quality complaints received.
- Take appropriate action for 100% of complaints requiring action.
- Record IDDE complaints and actions taken.

### **10.2.3. Schedule:**

- Annually, 2022 – 2027: Perform at least one formal notification per reporting period to inform the public on methods to report an observed illicit discharge.
- Annually, 2022 – 2027: Ensure stormwater webpage lists proper telephone number and contains a working link for electronic reporting of stormwater issues.
- Ongoing, 2022 – 2027: Update Work Order Database update as calls are received.
- Ongoing, 2022 – 2027: Record/take action for complaints received, as appropriate.

### **10.2.4. Annual Report Documentation:**

- Copy of formal notification used to inform the public on methods to report an observed illicit discharge or illegal dumping in the storm sewer system
- Documentation of citizen complaints, investigations, actions taken during the reporting period, and status of the complaint.

### **10.3. PUBLIC INVOLVEMENT OUTREACH**

#### **10.3.1 Description**

The Town provides many opportunities to solicit citizen input and encourage the public to help protect stormwater quality and reduce nonpoint source pollution thru City events and participation in community programs. Public involvement outreach activities may include hosting community events open to the public, community clean-up events (such as Thunderbolt Tidy and Clean events), and/or participating in a native plant or tree sale that is open to Town residents.

The Town will conduct at least one dedicated public stormwater involvement outreach activity from the list below in Section 10.3.2 each reporting period to involve the public with administration of the Town's stormwater program. The Town will advertise the event thru the Town's website, social media, or other methods, and maintain documentation that the event was held.

#### **10.3.2 Measurable Goals:**

- Perform at least one of the following public involvement outreach activities each reporting period:
  - a. Operate a recycling / waste collection event (for hard-to-recycle items such as printer ink cartridges and/or batteries, etc.) at a Town-sponsored event open to the general public or at Town Hall.
  - b. Host a clean-up event within the Town that is open to citizen participation.
  - c. Participate in a Native Plant Sale to encourage Town residents to plant native vegetation and reduce water use.
  - d. Participate in a Tree Sale to encourage Town residents to plant more trees.

#### **10.3.3 Schedule**

- Annually, 2022-2027.

#### **10.3.4 Annual Report Documentation**

- For the waste collection or clean-up event in 10.3.2.a & b above: Documentation of the event advertisement to Town residents (such as a screenshot and/or copy of the press release or event flier) and proof that the event was held (such as photographs and/or sign-in sheet; the quantity of wastes/recyclables collected at the event; landfill receipt, etc.).
- For the Native Plant Sale or Tree Sale in 10.3.2.c & d above: Documentation of the event advertisement to Town residents (such as a screenshot and/or copy of the press release or event flier) and proof that the event was held (such as photographs and/or sign-in sheet/raffle ticket information; the number of native plants or trees sold, etc.). If possibly, the Town will attempt to quantify how many Town residents were in attendance at the event.

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## **11. POST CONSTRUCTION**

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### *Permit Section 3.3.11: Post-Construction*

#### **11.1. POST-CONSTRUCTION STORMWATER CONTROLS**

##### **11.1.1. Description**

The Town of Thunderbolt has established adequate legal authority through the Town's Code of Ordinances, *Chapter 5, Article III: Stormwater Management*(specifically in "Sec 5-319. Post Construction Stormwater Runoff—General Provisions" and "Sec 5-324. Post-Construction Stormwater Management Criteria") to address stormwater runoff into the MS4 from new development and redevelopment projects, ensure controls are in place to prevent or minimize water quality impacts, and pursue enforcement. A copy of the Town's Stormwater Management Ordinance, last updated in 2012, is provided in Appendix B.

The Town's Stormwater Management Ordinance requires the use of post-construction stormwater management and site planning and design criteria to protect stormwater from negative impacts associated with land development, including the stormwater design criteria established in the Coastal Stormwater Supplement (CSS) to the Georgia Stormwater Management Manual (GSMM). The design criteria and performance standards listed in the Town's Ordinance are consistent with the latest version of the GSMM and CSS, and the requirements of Section 3.3.11(a)(2) of the Town's MS4 permit. The Ordinance applies to new development and redevelopment that creates or adds more than 5,000 square feet of impervious surface or that involves land disturbing activities of 1 acre or more, including projects less than 1 acre if they are part of a larger common plan of development or sale.

The Town will apply their adopted performance standards during the design of Town-construction projects, with the possible exception of linear projects. If the Town designs a linear construction project, for which it would be impossible to apply the performance standards, the Town will develop a feasibility program which sets reasonable criteria for determining when implementing performance standards for linear projects is infeasible. This will be submitted to EPD, and applied to future linear construction projects only upon approval.

The Town will continue to review its Stormwater Management Ordinance annually and revise it as needed to ensure appropriate post-construction stormwater controls are in place.

##### **11.1.2. Measurable Goals:**

- Enforce the use of the Post Construction Runoff Control requirements in the Town's Stormwater Management Ordinance for applicable development and redevelopment.
- Annually evaluate the Stormwater Management Ordinance for post-construction runoff control requirements to determine if revisions are required.
- Update the Ordinance, if required.

- If and when needed, develop linear project feasibility program to apply to future linear projects.

**11.1.3. Schedule:**

- Ongoing, 2022 – 2027: Enforce the Stormwater Management Ordinance.
- Annually, 2022 – 2027: Review and update Stormwater Management Ordinance as needed.

**11.1.4. Annual Report Documentation:**

- Updated Stormwater Management Ordinance, if revised during the reporting period.
- If developed, linear project feasibility program.

## **11.2. GREEN INFRASTRUCTURE/LOW IMPACT DEVELOPMENT (GI/LID)**

*Permit Section 3.3.11: Post-Construction, Table 3.3.11(b)*

### **11.2.1. Legal Authority and Ordinance Review**

#### **11.2.1.A. Description**

The Town of Thunderbolt performed a comprehensive assessment of its existing codes in 2012 to determine if there were any codes that presented an obstacle to use of GI/LID practices for stormwater management. The Town utilized the Code and Ordinance Worksheet developed by the Center for Watershed Protection (CWP), and a copy of the Assessment is provided in Appendix G. Annual reviews were conducted thereafter as required by the Town's permit.

For the 2022-2027 permit period, the Town will annually 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, and document the assessment. The Town will assess those regulations governing residential and commercial development, road design, land use, and parking requirements. During the regulatory review, the Town will also consider the inclusion of incentives for use of GI/LID practices into the ordinance. The Town will perform a comprehensive review of building codes, ordinance, and other applicable regulations at least once during the 2022-2027 permit period using the most recent version of the Code and Ordinance Worksheet developed by the CWP, the Water Quality Scorecard developed by the Environmental Protection Agency (EPA) or another comprehensive code evaluation tool.

#### **11.2.1.B. Measurable Goals:**

- Annually review Town ordinances, building codes, and other regulations to determine if they impede GI/LID approaches. At least once during 2022-2027, perform comprehensive review using the most updated CWP's Code and Ordinance Worksheet, EPA Scorecard, or another comprehensive code evaluation tool.
- Document the review.

#### **11.2.1.C. Schedule:**

- Annual, 2022 – 2027.

#### **11.2.1.D. Annual Report Documentation:**

- Copies of any updated code(s), if revisions were made.
- Documentation of the regulatory review.

## **11.2.2. GI/LID Program**

### **11.2.2.A. Description**

The Town has developed and implemented a GI/LID Plan that addresses procedures for evaluating the feasibility and site applicability of different GI/LID techniques, allowable GI/LID structures, and procedures for the inspection and maintenance of the GI/LID structures.

Revisions to the Town's GI/LID Plan were submitted to EPD during the former 2017-2022 permit period and approved by the EPD in February 2020. A copy of the Town's most recently revised GI/LID Plan is included in Appendix G. The Town will annually review the GI/LID Program and make changes as needed.

### **11.2.2.B. Measurable Goals:**

- Implement the approved GI/LID Plan.
- Review the GI/LID Plan annually and make updates as needed.

### **11.2.2.C. Schedule:**

- Annually, 2022 – 2027.

### **11.2.2.D. Annual Report Documentation:**

- Copy of updated GI/LID Plan, if revised.



### 11.2.3. GI/LID Structure Inventory

#### 11.2.3.A. Description

The Town will develop an inventory of privately-owned non-residential and publicly-owned water quality-related Green Infrastructure (GI) / Low Impact Development (LID) structures located within the Town of Thunderbolt once regulated structures are constructed. As of September 2022, there are no GI/LID structures within the Town of Thunderbolt.

The Town of Thunderbolt considers the following structures to be GI/LID structures:

- Bioretention Areas / Rain Gardens
- Dry Enhanced Swale (Bioswale)
- Green Roofs
- Rainwater Harvesting
- Vegetated Filter Strip
- Permeable pavement (pervious concrete, porous asphalt, concrete grid pavers, permeable interlocking pavers, plastic grid pavers, etc.)

The inventory will be reported in a table format that will include the following information:

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

Ownership categories listed on the inventory will include:

1. Town-owned structures and/or structures that are the operational responsibility of the Town;
2. Structures that are owned by a public entity other than the Town (such as the Board of Education and other entities not covered by an NPDES permit); and
3. Privately-owned, non-residential GI/LID structures.

In addition to the parameters listed above, the inventory table will also include a summary of the total number of each structure. New GI/LID structures will be identified through the plan review process and the Town will update the GI/LID inventory during each reporting period if new structures were added. The Town will also ensure that maintenance agreements are executed for all new non-permittee owned structures constructed after the effective date of the Town's current permit (April 12, 2022).

#### 11.2.3.B. Measurable Goals:

- Identify new GI/LID structures during site plan review.
- Update inventory with new GI/LID structures, if needed.
- Ensure maintenance agreements are executed for all new non-permittee owned GI/LID structures constructed after April 12, 2022.

**11.2.3.C. Schedule:**

- Annually, 2022 – 2027.

**11.2.3.D. Annual Report Documentation:**

- Most recent GI/LID Inventory including the type, ownership, and total number of structures.

## **11.2.4. Inspection and Maintenance Program**

### **11.2.4.A. Description**

Town staff or their designated representatives will inspect 100% of inventoried GI/LID structures within the 5-year permit period and at least one inspection will be conducted each reporting period. If more than five (5) GI/LID structures are listed on the inventory, the Town will inspect at least 5% of the structures annually.

Inspections will be documented using the inspection sheets included within the Town's GI/LID Plan (Appendix B), or through a field collection application that is downloaded on Town-owned smart phones and/or tablets and recorded within the Town's GIS layer. The field collection application and paper inspection checklist contain the same questions. A table listing the information that will be collected and documented during site inspections within a GIS database and copies of paper inspection checklists (contained within the GI/LID Plan) are provided in Appendix D and G, respectively.

### Maintenance

In order to ensure that private, non-residential GI/LID structures and publicly-owned structures owned by other entities are maintained by their owner in accordance with the CSS, the Town requires developers of privately-owned non-residential GI/LID structures to complete an Inspection & Maintenance Agreement with the Town, prior to the issuance of a LDA permit. The Inspection & Maintenance agreement, a model of which is included as an attachment to the GI/LID Plan in Appendix A, includes the following information:

- The person(s) responsible for carrying out the inspection and maintenance.
- A maintenance schedule stating when and how often routine inspection and maintenance will occur.
- Plans for annual inspections to ensure proper performance of the stormwater management system between scheduled maintenance.
- The Inspection & Maintenance agreement and plan is approved by the Town and recorded with the deed upon approval of the stormwater management design plan.

The Town will retain copies of maintenance agreements finalized after the effective date of the current permit (April 12, 2022) and develop a summary list of the new agreements. This list will also include any maintenance agreements that were obtained for GI/LID structures constructed in previous permit periods. The summary list will be reviewed and updated each reporting period.

During routine inspections, if the Town staff determine that the owner is not properly maintaining their non-residential GI/LID structures, they will enforce the provisions of the Inspection & Maintenance Agreement and the Stormwater Management Ordinance.

### **11.2.4.B. Measurable Goals:**

Once structures are added to the GI/LID Structure Inventory, the goals will be as follows:

- Inspect 100% of inventoried structures every 5 years, with at least one structure inspected annually. If there are more than five (5) structures on the inventory, 5% of the structures will be inspected annually.
- Document inspections on the Town's approved inspection checklists.
- Conduct maintenance of Town-owned structures as needed.
- Ensure maintenance of structures not owned by the Town is conducted in accordance with the Inspection & Maintenance Agreement.
- Enforce provisions of the Inspection & Maintenance Agreement and the Stormwater Management Ordinance.
- Retain copies of new maintenance agreements and maintain/update a summary list of maintenance agreements.

**11.2.4.C. Schedule:**

Once structures are added to the GI/LID Structure Inventory, the schedule will be as follows:

- Annually, 2022 – 2027.

**11.2.4.D. Annual Report Documentation:**

- Number and percentage of GI/LID structures inspected and maintained during the reporting period.
- Documentation of inspections conducted, such as a table of individual inspection reports with a record for each site inspected and the findings of that inspection, or a copy of the completed inspection checklist for each structure inspected during the reporting period.
- Summary and/or documentation of any maintenance and/or enforcement activities conducted to address issues identified during the GI/LID inspections.
- Updated summary list of Inspection & Maintenance Agreements.