City of Gallatin

Post-Construction/ Permanent Stormwater Program Plan



ENGINEERING - STORMWATER CLEAN WATER | HEALTHY COMMUNITIES

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I. Introduction

The City of Gallatin has developed a post-construction/ permanent stormwater program plan to satisfy requirements for the State of Tennessee's National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges from Municipal Separate Storm Sewer Systems (MS4), TNS000000 (Permit), Section 4.2.5. This plan was developed with the goal to reduce pollutants in stormwater discharges through management practices, control techniques, and systems, design, and engineering practices implemented to the maximum extent practicable (MEP).

The program is applicable to all new development and redevelopment projects within the City's MS4 that disturb either one acre or more of land or less than once acre if part of a larger common plan of development.

II. Post-Construction / Permanent Stormwater Program Requirements

The State of Tennessee's NPDES General Permit for Discharges from Small Municipal Separate Storm Sewer Systems (MS4), effective September 2022, states that the MS4 Permittees shall implement a post-construction/ permanent stormwater program. The program must focus on developing and implementing a program that includes plan review, site inspections, and a means to ensure that permanent stormwater control measures (SCMs) are adequately operated and maintained.

The Permit requires the City of Gallatin to develop a post-construction/ Permanent Stormwater Plan within 90 days of permit coverage. This plan shall outline a Permanent Stormwater Program.

The program must include the following:

- a. The permanent stormwater management program shall include plans review, site inspections, and a means to ensure that permanent stormwater control measures (SCMs) are adequately operated and maintained.
- b. An ordinance or other regulatory mechanism to address permanent stormwater management at new development and redevelopment projects.
- c. Procedures for conducting and tracking site inspections.
- d. SCM operation and maintenance policies.
- e. Timeline to develop and implement the program.

III. Summary of Post Construction Activities in the City of Gallatin

In accordance with section 4.2.5.1, each section describes how the City plans to maintain compliance throughout the current permit cycle.

Codes and Ordinance Development and Implementation

The City of Gallatin has addressed Post-Construction requirements in Chapter 18 of the Gallatin Municipal Code. The City meets the requirements set forth by Rule 0400-40-10-.04 with one Exception, Section 4.2.5.4. The City plans to update the ordinance to include the provisions set forth specifically for Exceptional Tennessee Waters (ETWs) and waters with unavailable parameters for siltation or habitat alteration by August 1st, 2024. See **Appendix B** for the existing language.

Procedures for Plans Review and Criteria for Approval

The City Stormwater Utility Manager or Stormwater Project Manager will review plans to ensure compliance with Section 4.2.5 of the Permit.

- Initial submittal of plans.
- Plans review by Department of Engineering staff
 - Verification of 80% TSS Removal or acceptable use of Reduction Runoff Method.
 - Verify that Stormwater Control Measures (SCM's) are designed in accordance with the Tennessee Permanent Stormwater Design Manual.
- Approval of permanent Stormwater plans and documents.
- All reviewed and approved projects will be tracked by the Stormwater Group within Engineering using Excel spreadsheet or other equivalent tracking mechanism.
- Upon project completion, As-built plans, Stormwater Maintenance Agreements, and PE Certification of SCM installation will be required within 90 days of the permanent SCM installation.
- City staff will conduct a site inspection the verify installation of Permanent SCM's as shown on the approved construction plans or equivalent approved planning Final Master Development/Site Plan. Inspections will be tracked via spreadsheet or similar tracking mechanism.
- Prior to release of the Land Disturbance Surety, the City will require documentation of the recorded Permanent Stormwater Inspection and Maintenance Plan.

Procedures for Conducting and Tracking Site Inspections

The City of Gallatin will track each reviewed and approved SCM and track all associated inspections. The City uses and will continue to use an Excel spreadsheet or other similar tracking mechanism.

SCM Operations and Maintenance Policies

The City reviews City-owned SCM's annually. An inspection held by Stormwater staff from within the Engineering Department will inspect each City-owned SCM annually. Additionally, there are Standard Operating Procedure (SOP) manuals for each City owned facility.

Public Works regularly maintains Right of Ways (ROW), road crossings, City infrastructure, and City-owned SCM's.

Additionally, each department maintains their own facilities while complying with recommendations made by the Stormwater Utility Manager or Stormwater personnel assigned on an annual basis.

Timeline for implementation

City staff estimate it will take approximately 24 months (Sept 2022 – August 2024) to implement the required changes. Three milestones have been identified and shown in the table below.

Overall Goal: Compliance with Permanent Stormwater MCM					
Milestone 1: Finalize Draft Ordinance	8/30/2023				
Milestone 2: Complete Process Updates and Guidance Document Preparation	1/31/2024				
Milestone 3: Ordinance Approval and Program Implementation	8/31/2024				

APPENDIX A

Private SCM's Tracked – Excerpt

Site	Address	Facilities
879 Greenlea (Old Perkins Drugs)	879 GreenLea	bioretention
AA Mini Storage Addition	184 Factory Street	Bioretention - not in yet
ABC Tech Expansion	400 ABC Blvd	Underground Storage
·		
Addition to Station Camp Middle School	281 Big Station Camp	Detention Pond
		permanent stream buffer, detention
Aintree Apartments	270 Douglas Bend Rd	pond, 6 small bio ponds
Airport Road Warehouse (537 Airport Road)	537 Airport	bioretention and underground WQ filter
Airport Self Storage	700 Airport Rd	Detention Pond
American Colors Inc.	1385 Gateway Blvd	Detention Pond
Archer Datacenters	Gateway Drive	Swale, detention ponds, level spreader
	,	
Axem Distributing Inc	1424 Gateway Dr	Bioretention pond
	1468 Tulip Poplar	
Bakers Crossing	Drive	Bioretention/detention (combined?)
Developed Deinte 44 and 40	Currente a rete a Cirele	2 detention basing
Baywood Pointe 4A and 4B Beretta	Summerstar Circle 1399 Gateway Drive	3 detention basins detention pond
	Blythe Ave (across	
Blessings Estates	from 709 Blythe)	5 bioretention
Blue Grass Vet	390 Devon Chase	bioretention
	840 North Blue Jay	
Blue Jay Way Retail Center	Way	bioretention
Boise Cascade	560 Airport Road	
Cairo Estates Phases I & II	Harper Dean Way	Tree Planting Area, Stream buffer
Carellton	Carellton Drive	2 detention ponds and stream buffers
		Constructed wetlands, detention pond,
		level spreader, stream buffer, two level I
Carellton 4	Carellton Drive	infiltration trench
Carellton 6	Carellton Drive	Stream relocation
Carellton 7	Carellton Drive	bioretention

Carellton Amenity Center	Ferdinand Drive	2 bioretention ponds
Chandler Apartments Phase 1	299 Harris Ln	Detention and bioretention
Charles C Parks	500 Belvedere Dr N	detention pond
Cumberland Place North	Mesa Verde Place	Stream Buffers and an RSC behind 4.2
		5 Bio, one detention/wet pond, wetland
Cumberland Point	1142 HWY 25 West	
		area
D&S Industries (Mohawk)	1381 Gateway Drive	
Doc Enterprises/GLB	120 Goodview Way	5 bioretentions and 2 detention ponds
Dollar General Airport Rd	1789 Airport Rd	detention pond
Dollar General Albert Gallatin	142 Albert Gallatin	Bioretention Pond
Dollar General GreenLea	1620 Green Lea Blvd	
Double Dogs	1620 Nashville Pike	bio retention
Edison Apartments	1137 GreenLea Blvd	Permeable Pavers, bioretention
Elk Acres	1030 Ryan Court	Detention Pond
Enoch Hills Phase 1	Enoch Way	Detention Pond
Enoch Hills Phase 2	Hutch Court	2 bioretention
Express Oil Change (Savannah Marketplace)	2063 Nashville Pike	Bioretention
Facebook	1432 Gateway Dr	
Fairway Farms 3_1C, 2_4 and 2_7	Goodman Drive	Detention pond
First Baptist Church	205 E Main	bioretention
Foxland Crossing 12A	Percival Drive	Stream Buffer; Detention pond
Foxland Crossing 14	Keeley Drive	
	, .	
		Retention/wet Pond- Apartments- 1391
Foxland Crossing, Phase 1 & 2	1391 Foxland Blvd	Foxland Blvd
Freedom Church Santuary Addition	1010 Freedom Church	detention pand
Freedom Church Santuary Addition	1010 Freedom Church	detention pond

Gallatin Honda	2109 Nashville Pike	2 bioretention areas
Gallatin Subaru	1395 Nashville Pike	bioretention/swale
Goddard School of Gallatin	1059 Kennesaw	
Goodview Properties Lot 7	149 Goodview	2 bioretention
Guild School	1018 S Water	Dry Pond
Habitat for Humanity (Pafford Place)	599 Eastland	detention pond
Holloman Warehousing (579 Airport Rd)	579 Airport Rd	bioretention
		Bioretention, forebay and a detention
Holston Gases	1209 Longleaf	basin
Hope Court Lot #4	473 Hope Court	bioretention
Humters Point (Lorts 3 &4) Beatty Blvd	Beatty Blvd	
Hunters Pointe (The Trails)	Beatty Blvd	
Infact Corporation	1283 Gateway Dr	Filter Swale & Berm
iStorage	465 N Belvedere Dr N	Detention Pond
Leaving a Deale	La deve en deve en Maria	
Jennings Park	Independence Way	bioretention
Kendra Place Apartments for Lot 3 of the Crossings	South Water	bioretention and WQ Device
Kenneaw Farms 6.2	Payton Lane	detention pond and bio retention
Kennesaw Farms 6.1	Appaloosa Way	detention pond and 30' stream buffer
Kennesaw Farms 6.3	Payton Lane	water quality swale and bioretention
Kennesaw Farms Phase 7	Thorne Boulevard	
Kensington Downs Phase 1	GreenLea Blvd	riparian buffer
Kensington Downs Phase 2	GreenLea Blvd	
Kensington Row	GreenLea Blvd	
Langford farms	244 Old Douglas	
langley Estates	Coles Ferry	detention pond
Learning Zone	350 N Belvedere	detention
Lenox Place	Devon Chase Hill	Detention Pond
Liberty Creek	Harris Lane	2 bioretention
Lock 4 Rd (Restaurant & Retail - Panera & ATT)	921 Nashville Pike	Detention Pond
Macon Bank and Trust	683 Nashville Pike	UIC and bioretention
Mariners Cove	1144 Lock 4 Road	bioretention
McCains Station Commercial	Provine Blvd	Stream Buffer (relocation), wetland
McCAins Station Residential	Clendening Drive	
Meadow Glen at Fairway Farms Section 3&4	North of Wassil Drive	Riparian Buffer
Meadow Glen at Fairway Farms, Section 1	Grassy Glen Drive	bioretention
Miracle Ford Dealership	1394 Nashville Pike	detention pond
NAR Steel	1200 Longleaf	

NASTC	2054 Nashville Pike	WQ Structure
Newmans Crossing Commercial	377 Big Station camp	2 Bioretention ponds
		6 Bioretention and 2 detention and a
Newmans Crossing Residential	Breaking Pen Road	level spreader
NHC Place Sumner Phase I & II PMDP/FMDP	140 Thorne Blvd	WQ Swales
Nichols Place	287 Nichols lane	
Noble Park Townhomes	210 Coles Ferry	
O'Reillys Auto Parts Store	447 E Broadway	2 bioretention and 2 detention
Overlook Apartments	311 Hancock	bioretention
Oxford Station	114 Offit Drive	2 bioretention
Paddock 1A, 2A, 3A, 4A	Kenneseaw Blvd at Thorne Blvd	12 Bioretention and permanent stream buffer
Patriot Angels	262 Harris Lane	2 forebays, bioretention pond, detetion pond; protected wetland area
Patterson Farms	Westgate Dr	4 detention, 4 bioretention
Pinnacle	1534 Noah Lane	2 Bioretention, Permeable Pavers
Platinum Storage	1724 Nashville Pike	bioretention
Preston Park	Hardwick lane	2 Detention, 4 bioretention
Race Trac	1592 Nashville Pike	2 bioretention
Ray Dorris Building	1233 longleaf Dr	detention pond
Ray Estates	Odie Ray	Detention Ponds
Red River Housing Authority	Womack Circle	2 bioretention, 2 detention
Revere at Hidden Creek	2067 Springdale Lane	2 Dry Ponds and mitigation area (riparian Buffer)
Revery Point at Foxland Harbor	Club View Drive	Underground Chamber system
Savannah Marketplace Day Care Center	2063 Nashville Pike	Detention pond (for whole site?)
Second Generation Warehouse	500 National Drive	detention Pond
Shoppes of Payne Phase 1	624 Davis Drive	Bioretention pond
Shoppes of Payne Phase 2 (GBT Properties)	1115 Nashville Pike	
Shart Eusa Trusk	744 Airport Dd	Detention Dond
Short Fuse Truck	744 Airport Rd	Detention Pond
Sleep Inn	983 Village Green	bioretention
St. Blaise Retreat Section 3	Montrose Dr	Stream Buffer
St. Thomas MOB		Bioretention
Stormaxx		Bioretention

Stratford Park, Phase 2		Detention Pond
	1845 Nashville Pike	
	(corner of Douglas	
Sudden Service	Bend)	suntree nutrient separating baffle box
Sumner County Admin Bldg	355 N Belvedere	bioretention
Sumner County Courhouse	155 E Main	Pavers and WQ Unit?
Sumner County Jail Pods	117 W Smith Street	bioretention pond
Sumner Gardens	923 S Westland Ave,	3 Bioretention Ponds
	1710 Nashville Pike,	
Sumner Pediatric Dentistry	Suite 102	Underground detention
Taco Bell Lot 3 Savannah marketplace	807 Nashville Pike	bioretention
The Knoll at Farvue	352 Madeira Place	2 bioretention
The Reserve at Cambridge	1009 Kirkwood lance	multiple bioretention and detention
The Residences	199 Albright Farms Dr	6 bioretention and WQ Detention
The Retreat at Fairvue, Phase 1, Section 1	230 Glennister Ct	Water Quality Area/wet pond
	HWY 31/Old Scottsville	
Tomkins Farm	Pike	
Toyota of Gallatin	1435 Nashville Pike	Underground detention
Twice Daily	1101 Long Hollow Pike	hioretention
	1101 Long Hollow Pike	Enhanced Wetlands &
Twin Eagles 9B,11 12B	503 Beck Place	Detention/Retention
Twin Eagles 4.4,	Wildcat Run	Bioretention pond and detention pond
Twin Eagles14A&B,	Wildcat Run	2 wetland areas
Twin Eagles 4.2 and 4.3	Wildcat Run	Detention Pond
	1256 Clear Lake	
United Church	Meadows	Detention Pond
VA Clinic	419 Steam Plant Rd	bioretention
Villas on the Green	1689 Nashville Pike	Permeable pavers
	120 Vintage Foxland Drive	6 bioretention, one detention, one section of permeable pavers
Vintage Foxland Harbor	DIIVC	
Vintage Foxland Harbor Volunteer State Bank	554 W Main St	bioretention and detention pond

Western Reflections	261 Commerce Way	Bioretention Pond
	Big Station Camp	
	across from Rogers	
Westfield	Quarry	multiple bioretention and detention
Whitts BBQ	604 Long Hollow Pike	Detention Pond
Windsong Commercial	HWY 109/South Water	bioretentin , detention
		4 Bioretention, 4 detention, wetlands,
Windsong Residential	HWY 109/South Water	permanent stream buffer
		5 underground detention and pervious
Woods Common Restaurant Oscars bar & Grill -	971 Memory Lane	concrete
Workforce Essentials Inc	1598 GreenLea	bioretention and detention pond

APPENDIX B

<u>Stormwater Ordinance Chapter 18 Article 6 – Stormwater Management</u> <u>Performance Standards</u>

Article 6 Stormwater Management Performance Standards

(1) General

In order to address stormwater management for new development and redevelopment and to prevent or minimize water quality impacts, performance standards are set forth comprising of runoff reduction, pollutant removal, and runoff quantity requirements. Stormwater shall be managed such that post development hydrology does not exceed the pre-development hydrology at the site, in accordance with the performance standards contained in this section.

(2) Applicability

The following stormwater performance standards apply to all new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development.

(3) MS4 Stormwater Design and BMP Manuals

- (a) The City adopts as its MS4 stormwater design and best management practices (BMP) manuals the following publications, which are incorporated by reference in this ordinance as if fully set out herein:
 - (i) City of Gallatin Design and Construction Manual
 - (ii) City of Nashville Stormwater Management Manual
 - (iii)Tennessee Permanent Stormwater Management and Design Guidance Manual

(4) <u>Runoff Reduction Performance Criteria</u>

The following performance criteria shall be addressed for stormwater management at all applicable sites effective upon June 9, 2015 utilizing methods outlined in the BMP Manuals referenced above:

- (a) Site must, in combination or alone, implement management measures that are designed, built, and maintained to infiltrate, evapotranspire, harvest and/or use, at a minimum, the first inch of every rainfall event preceded by 72 hours of no measurable precipitation. This first inch of rainfall must be 100% managed with no discharge to surface waters. Any alternative to addressing this requirement shall be obtained as outlined in Article 4 of this ordinance, unless the project falls under the incentive standards for re-developed sites.
- (b) Incentive Standards for re-developed sites: a 10% reduction in the volume of rainfall to be managed by runoff reduction for any of the following types of development. Such credits are additive such that a maximum reduction of 50% of the standard in the paragraph above is possible for a project that meets all 5 criteria:
 - (i) Redevelopment;
 - (ii) Brownfield redevelopment;
 - (iii)High density (>7 units per acre);
 - (iv)Vertical Density, (Floor to Area Ratio (FAR) of 2 or >18 units per acre)
 - (v) Mixed use and Transit Oriented Development (within ½ mile of transit)
- (c) Limitations to the application of runoff reduction requirements include, but are not limited to:
 - (i) Where a potential for introducing pollutants into the groundwater exists, unless pretreatment is provided;

- (ii) Where pre-existing soil contamination is present in areas subject to contact with infiltrated runoff;
- (iii)Presence of sinkholes or other karst features.
- (d) Pre-development infiltrative capacity of soils at the site must be taken into account in selection of runoff reduction management measures.

(5) <u>Runoff Reduction Performance Criteria Alternative Options</u>

For projects that cannot meet 100% of the runoff reduction requirement, unless subject to the incentive standards, alternative stormwater management measures shall be obtained as outlined in Article 4. For consideration of alternative, the following options are available:

- (a) The remainder of the stipulated amount of rainfall must be treated prior to discharge with a technology documented to remove 80% total suspended solids (TSS). The treatment technology must be designed, installed and maintained to continue to meet this performance standard.
- (b) The Runoff reduction measures are installed off-site within the same USGS 12-digit hydrologic unit code (HUC) as the original project. Off-site mitigation must be a minimum of 1.5 times the amount of water not managed on site. The off-site mitigation location and runoff reduction measures must be approved by the Engineering Division. The mitigation location shall be in a priority area identified by the Engineering Division. Mitigation can be used for retrofit or redevelopment projects, but should be avoided in areas of new development.
- (c) For projects that cannot meet the 100% runoff reduction, 80% TSS, and cannot provide for off-site mitigation, the applicant can make payment into the City's Stormwater Management Fund. Payment must be a minimum of 1.5 times the estimated cost of onsite runoff reduction controls as estimated by the Engineering Division.

(6) Channel Protection Performance Criteria

- (a) To protect stream channels from degradation, specific channel protection criteria shall be provided, including meeting the Qcp requirement as prescribed in the City of Gallatin Design and Construction Manual. This standard requires that the runoff volume from the 1-year frequency, 24-hour storm be captured and discharged over no less than a 24-hour period. In the design of the channel protection control, the 24-hour release period shall be measured from the approximate center-of-mass of inflow to the approximated center-of-mass of outflow.
- (b) Downstream channel protection provided by an alternative approach may be considered in lieu of controlling the Qcp, provided that sufficient hydrologic and hydraulic analysis shows that the alternative approach will offer adequate channel protection from erosion. Downstream channel protection provided by an alternative approach must be approved by the City Engineer.

(7) Downstream Flooding Performance Criteria

- (a) To prevent downstream flooding, post development flow rates for the **2-year thru 10-year 24-hour storm events** must be controlled to release at rates less than that of predevelopment flows, with an emergency overflow capable of handling the 100-year discharge as prescribed in the City of Gallatin Design and Construction Manual.
- (b) Downstream flood protection provided by an alternative approach may be considered in

lieu of controlling the 2-year thru 10-year 24 hour storms; provided that sufficient hydrologic and hydraulic analysis shows that the alternative approach will offer adequate flooding protection for downstream properties. Flooding protection provided by an alternative approach must be approved by the City Engineer.

(8) General Performance Criteria

- (a) Stormwater discharges to critical areas with sensitive resources (i.e., cold water fisheries, shellfish beds, swimming beaches, recharge areas, water supply reservoirs) may be subject to additional performance criteria, or may need to utilize or restrict certain stormwater management practices.
- (b) Stormwater discharges from hot spots may require the application of specific structural BMPs and pollution prevention practices.
- (c) If hydrologic or topographic conditions warrant greater control than that provided by these performance standards, the Engineering Division may impose any and all additional requirements deemed necessary to control the volume, timing, rate, and treatment of runoff.

(9) Water Quality Buffers

A permanent water quality buffer zone (setback measured from the top of water body bank) shall be required along all wetlands, streams, and sinkholes as defined in this ordinance, for new development and redevelopment projects as outlined below:

- (a) Drainage areas less than 1 square mile: Minimum of 30' width
- (b) Drainage areas greater than 1 square mile: Minimum of 60' width. The 60' width can be established on an average width basis at a project, as long as the minimum width of the buffer zone is more than 30' at any measured location
- (c) For redevelopment projects that have existing encroachments into the prescribed buffer, the portion of the existing encroachment that contains a footprint within the buffer is exempt, if no modification to the existing use of the encroachment is to occur and does not violate the objectives of Article 4 (2). If modification to the existing use of the encroachment is to occur, buffer widths outlined above shall apply.
- (d) If existing encroachment is to remain in use, the encroachment amount shall be factored into the average buffer width in determining the buffer width.
- (e) Work within the Water Quality Buffer is allowable for the following types of work:
 - (i) Work covered and approved by an ARAP or CGP permit approved by TDEC.
 - (ii) Construction/maintenance of greenways and parks.
- (f) Any alternative stormwater management measure requested in lieu of the water quality buffer requirements shall be presented to the Gallatin Stormwater Design Appeals Board as outlined in Article 4 (3) for their decision.

(10) <u>Sinkhole/Injection Well Policy</u>

- (a) A TDEC injection well permit is required for any use or modification of a sinkhole/injection well.
- (b) Drainage calculations shall be submitted for any development in or around sinkholes.
- (c) Minimum standards for flood management around sinkholes are based on the 100-year 24 hour design storm, assuming plugged conditions (zero cfs outflow) for the sinkhole.
- (d) A permanent water quality buffer of 30' shall be provided around the highest complete

contour around the sinkhole (also called the rim) and no structure or public infrastructure shall be built within 60' of the rim.

- (e) For any runoff draining to a sinkhole from a developed area, runoff reduction performance criteria must be met as outlined in this ordinance and the City of gallatin Design and Construction Manual.
- (f) Post developed flows and volume shall not exceed pre developed flows and volume entering into a sinkhole.
- (g) Any "capping" of a sinkhole shall be done under the direction and approval of the City Engineering Division. Drainage formerly entering the capped sinkhole shall be accounted for and meet the standards outlined in (10)c above.

Any alternative stormwater management measure requested in lieu of the sinkhole/injection well policy requirements shall be presented to the Gallatin Stormwater Design Appeals Board as outlined in Article 4 (3) for their decision

APPENDIX C

Stormwater Ordinance Chapter 18 Article 8 – Post Construction

Article 8 Post Construction

(1) General

To ensure the long term maintenance and effectiveness of stormwater facilities, a surety for completion, as-built plans, and maintenance and inspection programs are required for new and existing development.

(2) Surety

Depending on the type and size of the development, the City may hold a surety to insure the completion of the development to City Standards. The amount of the surety will be determined by the City Engineering Division based upon the cost to complete the stormwater facilities. All sureties must contain automatic renewal provisions in language satisfactory to the City Attorney. Before final release of the Surety; all stormwater, EPSC, and stabilization measures must be completed, stabilized, and functioning to the satisfaction of the City Engineer.

(3) As-Built Plans

Prior to release of the surety for completion of the stormwater facilities, As-Built Plans are to be submitted for any stormwater facilities after final construction is completed. The plan must show the final constructed facilities will function as approved to meet the performance standards outlined in this ordinance. Plans shall be stamped by a Tennessee licensed surveyor. Any discrepancy from the final constructed facilities and the approved design shall be noted on the As-Built Plan. Where required by the City Engineer, updated calculations stamped by a Tennessee licensed engineer shall be submitted and approved by the City Engineer, showing the as-constructed facilities will function adequately to meet the performance standards of the Stormwater Ordinance.

Both digital CAD and paper copies shall be provided in the Tennessee State Plane Coordinate system, NAD83, NAVD88. The following shall be shown in the plan:

- 1. Invert elevation, top of casting elevation, slope, location, and material of all pipes, drainage inlets/outlets, junctions, etc.
- 2. Size and material of all outlet dissipation pads.
- 3. Ditch size, slope, and materials.
- 4. Top of berm elevations on all drainage facilities.
- 5. Volume of all detention/retention facilities.
- **6.** Location and description of all permanent stormwater BMP's (i.e. rain garden, pervious pavement, buffer, etc.)

(4) New Stormwater Management Facilities Maintenance and Inspection

(a) Private Ownership: Prior to final approval of any site or subdivision subject to the performance standards outlined in Article 6 of this ordinance, an Inspection and Maintenance Agreement for Storm Water Facilities, which is available in the office of the City Engineer, must be executed between the City of Gallatin and owners of the property. Said agreement runs with the land, and operates as a deed restriction binding on the current property owners and all subsequent property owners and their lessees and assigns, including but not limited to homeowner associations or other groups or entities. Facilities

are subject to penalties as outlined in Article 12 of the Stormwater Ordinance.

(b) *Municipal Ownership:* The City shall be responsible for maintenance of all stormwater management facilities under Municipal Ownership as defined.

(5) Existing Stormwater Management Facilities Maintenance and Inspection

The City may, to the extent authorized by state and federal law, enter and inspect private property for the purpose of determining if there are illicit non-stormwater discharges and to verify that all stormwater management facilities are functioning within design limits. These inspections may be performed randomly or in response to complaints or violations. The ownership of the facilities will be made aware of any violations as outlined in the City's Enforcement Response Plan and are subject to penalties as outlined in Article 12 of the Stormwater Ordinance.

APPENDIX D

City-owned SCM Checklist



City of Gallatin (INTERNAL INSPECTION) Engineering Division Post Construction BMP Maintenance Checklist

Site Name:		
Site Address:		
Date of Inspection:		
Name of Inspector:		
Site Contact Information (Email & Phone)		
Description of Stormwater Quantity and Quality Facilities:		

Per Section 4.2.5.7 of the State of Tennessee NPDES General Permit of Discharges from Small Municpal Separate Storm Sewer System (MS4), owners/operators of stormwater management systems are to perform routine inspections to ensure they are properly functioning.

This checlist is to be submitted to the City of Gallatin Engineering Division annually by February 1st per the terms of the above referenced *Inspection and Maintenance Agreement for Storm Water Facilities*. Any items noted as unsatifactory shall be addressed by the following March 1, at which time an inspection by the Engineering Division will be performed to evaluate compliance.

<u>Satisfactory</u>: Item/Issue is is in good condition functioning as designed in the approved site approval plans <u>Unsatisfactory</u>: Item/Issue is not in good condition, not functioning, broken, and/or needs maintenance <u>Not Applicable</u>: This Item/Issue does not apply to this site

Maintenance Item	Satisfactory	Unsatisfactory	Not Applicable	Comments/Action Required
			STI	RUCTURAL BMP'S
				Dry Pond
Clear of trash and debris				
Vegetation properly maintained				
Clear of Erosion/Sedimentation				
Inlet / outlet structures clear of sediment/debris, structurally sound, and functioning properly				
Accumulated sediment less than 5% of pond design capacity				
Spillway/Dam condition				
Miscellaneous				
	·	Wet	Pond	/ Constructed Wetlands
Clear of trash and debris				
Vegetation properly maintained				
Clear of Erosion/Sedimentation				
Inlet / outlet structures clear of sediment/debris, structurally sound, and functioning properly				
Sediment forebay less than 50% full				
Overflow structure condition				
Permanent pool elevation at design elevation				
Appearance of water (sheen, muddy, oily, alagae, etc.)				
Miscellaneous				

	I					
Maintenance Item	Satisfactory	Unsatisfactory	Not Applicable	Comments/Action Required		
Infiltration Facilities (Infiltra	tion tr	ench/	basin,	bioretention, rain garden, enhanced swale, sand filter, etc.)		
Clear of trash and debris						
Vegetation properly maintained						
Clear of Erosion/Sedimentation						
Inlet / outlet structures clear of sediment/debris, structurally sound, and functioning properly Sediment forebay less than 50% full Overflow structure condition						
Facility draining properly and no permanent water						
standing						
Appearance of water (sheen, muddy, oily, algae,						
etc.)						
Miscellaneous						
			Wa	ter Re-use System		
System functioning properly and regularly used						
Miscellaneous						
	Pervious Pavement					
Clear of trash and debris						
Structurally sound (cracking, rutting, etc)						
Surface infiltrating and draining properly						
No evidence of clogging of pores						
Miscellaneous						
Proprietary or Manufactured Systems						
Structurally sound						
Cleaned regularly of debris/trash/sedment buildup						
Inlet / outlet condition						
Miscellaneous			NON			
NON-STRUCTURAL BMP'S Conservation Areas, Stream Buffers, Vegetated Channels, Overland Flow Filtration/Infiltration Zones						
Conservation Areas, stre		11015,	vegel			
Vegetation properly maintained (Note buffer and conservation areas are to be left as "natural" as possible, so regular mowing, etc. is not allowed.)						