

**STATE OF TENNESSEE  
DEPARTMENT OF ENVIRONMENT AND CONSERVATION**

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<b>IN THE MATTER OF:</b>	)	<b>DIVISION OF WATER RESOURCES</b>
<b>NPDES PERMIT NO. TNS000000</b>	)	
<b>PETITION FOR STATUTORY</b>	)	<b>CASE NUMBER WPC16-0106</b>
<b>PERMIT APPEAL</b>	)	
	)	
<b>TENNESSEE CLEAN WATER</b>	)	
<b>NETWORK, ET AL., AND</b>	)	<b>DOCKET NUMBER 04.30-140893J</b>
	)	
<b>HOME BUILDERS ASSOCIATION</b>	)	<b>JUDGE LEONARD POGUE</b>
<b>OF TENNESSEE,</b>	)	
	)	
<i>Petitioners,</i>	)	
	)	
<b>v.</b>	)	
	)	
<b>TENNESSEE DEPARTMENT OF</b>	)	
<b>ENVIRONMENT AND</b>	)	
<b>CONSERVATION,</b>	)	
<i>Respondent.</i>	)	

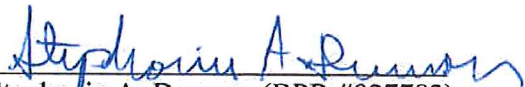
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**FIRST AMENDMENT TO SETTLEMENT AGREEMENT**

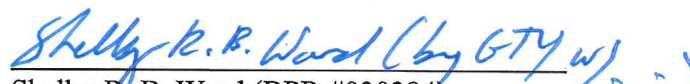
The Department of Environment and Conservation, the Tennessee Clean Water Network, the Sierra Club, the Tennessee Environmental Council, the Obed Watershed Community Association, and the Home Builders Association of Tennessee, entered into a Settlement Agreement on October 8, 2018. The “Final Agreed Exhibit A” attachment of permit revisions to the original Settlement Agreement contained typographical errors and omissions. Accordingly, this First Amendment to Settlement Agreement attaches a revised “Final Agreed Exhibit A 10-26-18” that replaces the prior “Final Agreed Exhibit A” in its entirety. All other terms and provisions of the original Settlement Agreement remain in full force and effect.

This First Amendment to Settlement Agreement is agreed to by and through the undersigned counsel.


Signed this 30<sup>th</sup> day of October, 2018.

  
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- Pre-construction meetings with construction-site operators for priority construction activities;
- Inspections by the permittee of priority construction sites at least once per month; and
- Documentation of procedures, including related meetings and inspections.

#### 4.2.5. Permanent Stormwater Management at New Development and Redevelopment Projects

##### 4.2.5.1 Program Requirements

The permittee must implement a permanent stormwater management program focused on removing pollutants from stormwater discharges through management practices, control techniques and systems, design and engineering methods implemented to the maximum extent practicable (MEP).

The program requirements apply to all new and redevelopment projects that disturb equal to or greater than one acre, or less than one acre if part of a larger common plan of development or sale (hereinafter "New Development Projects"), and that discharge into the permittee's small MS4.

The program must consist of plans review, site inspection, and a means to ensure permanent stormwater control measures (SCMs) are adequately operated and maintained. The permittee shall identify ~~and make information available for~~ a suite of SCMs to be used in various situations. Information relevant to identified SCMs should be made readily available. Application of innovative SCMs is encouraged. If the permittee decides to significantly limit the number of SCM options, it must document in the SWMP how the performance standards in section 4.2.5 can be met with the limited set of control measures that are allowed.

Permittees must develop and implement, or modify as necessary, an ordinance or other regulatory mechanism to address permanent stormwater pollutant management for New Development Projects. ~~It is recommended that permittees include a mechanism for administrative appeal of site-specific stormwater determinations.~~

Permittees must submit an implementation plan for a permanent stormwater management program within 90 days of ~~coverage under the effective date of this permit, including a schedule for any required updates of existing programs. For permittees that have already implemented a permanent stormwater program in compliance with the 2010 general permit, the implementation plan may consist of a written statement that all components of the program have been implemented.~~ The implementation plan shall otherwise include a brief description of the main aspects of the permanent stormwater management program and a timeline to develop and implement the program. Typical aspects of the program are expected to include:

- a) codes and ordinance implementation;
- b) procedures for plans review and criteria for approval;
- c) procedures for conducting and tracking site inspections; and
- d) SCM operation and maintenance policies.



~~For permittees that have not yet fully implemented a permanent stormwater management program, t~~The schedule must indicate completion as soon as feasible but no later than 24 months from the ~~date of coverage under effective date of~~ this permit. Further, if implementation will take longer than 12 months, the plan must include interim milestones. Implementation plans must be submitted to the appropriate Environmental Field Office (see sub-part 1.2).

#### 4.2.5.2 Permanent Stormwater Standards

The permanent stormwater management program must require New Development Projects to be designed to ~~remove-reduce~~ pollutants to the MEP.

~~SCMs that rely on infiltration, evapotranspiration, or capture/reuse of the water quality treatment volume (WQTV), as defined in sub-section 4.2.5.2.2, are practices that approach 100% pollutant removal and constitute MEP where site specific conditions allow.~~

~~If site specific limitations as described in sub-section 4.2.5.2.1 do not allow infiltration, evapotranspiration, or capture/reuse of the entire WQTV, then a combination of SCMs must be selected to maximize pollutant removal consistent with site specific limitations and, at a minimum, be designed to achieve an overall treatment efficiency of 80% TSS removal.~~

Compliance with permanent stormwater standards for New Development Projects is determined by meeting design criteria and other permit requirements in this part, 4.2.5. For design purposes, total suspended solids may be used as the indicator for the removal of pollutants (such as sediment, nutrients, and pathogens). SCMs must be designed to provide full treatment capacity within 72 hours following the end of the preceding rain event for the life of the New Development Project.

~~The design storm is a 1-year, 24-hour storm event. The Water Quality Treatment Volume (WQTV) is a portion of the runoff generated from impervious surfaces at a New Development Project by the design storm, as set forth below. SCMs must be designed, at a minimum, to achieve an overall treatment efficiency of 80% TSS removal from the WQTV. The quantity of the WQTV depends on the type of treatment provided. The following table establishes the WQTV for each treatment type.~~

**Comment [A1]:** The rationale will indicate that MS4s may offer these four options.

Water Quality Treatment Volume and the Corresponding SCM Treatment Type for the 1-year 24-hour design storm		
WQTV	SCM Treatment Type	Clarifications
first 1 inch of the design storm	infiltration, evaporation, transpiration, reuse	
first 1.25 inches of the design storm	biologically active filtration, with an underdrain	biologically active filtration must provide minimum of 12 inches of internal water storage
first 2.5 inches of the design storm	sand or gravel filtration, settling ponds, extended detention ponds, wet	Ponds must provide forebays comprising a minimum of 10% of the

	<u>ponds,</u>	<u>total design volume.</u> <u>Existing regional</u> <u>detention ponds are not</u> <u>subject to the forebay</u> <u>requirement.</u>
<u>maximum flowrate of the</u> <u>design storm</u>	<u>flow-through</u> <u>manufactured treatment</u> <u>devices</u>	<u>e.g., hydrodynamic</u> <u>separators with NJCAT</u> <u>verification</u>

**Comment [A2]:** The rationale will indicate that this option is generally expected to be used at dense, urban sites.

The permittee may also develop a mitigation program and/or system of payment into a public stormwater fund as described in sub-section

4.2.5.2.14.2.5.2.14.2.5.2.14.2.5.2.3.

#### 4.2.5.2.1 — Site-Specific Limitations

Site-specific limitations to infiltration, evapotranspiration, or capture/reuse of the entire WQTV may include:

- a. Insufficient infiltration capacity of soils;
- b. A potential for introducing excessive pollutants into groundwater;
- c. Pre-existing soil contamination in areas subject to contact with infiltrated runoff;
- d. Presence of sinkholes or other karst features on the site or in close proximity;
- e. An extensive presence of shallow ground water table, shallow bedrock, or other restrictive layers;
- f. Presence of contractive or expansive soils in close proximity to structures; and
- g. Other conditions as identified by the permittee, submitted to the local EFO for review and authorization by the division in writing, and documented in the SWMP.

#### 4.2.5.2.2 — Water Quality Treatment Volume (WQTV)

The WQTV is defined as the runoff generated from impervious surfaces during the first inch of a rainfall event. A representative storm event or a volumetric runoff coefficient (Rv) can be used to review plans for the WQTV. Permittees may use other equivalent methods to evaluate treatment of the WQTV, with prior approval by the division.

The permanent Stormwater Management Program may allow for a reduction of the WQTV for a New Development Project up to 20% for any one of the following conditions, and up to a total maximum of 50% for a combination of the following conditions:

- a. Redevelopment projects (including, but not limited to, brownfield redevelopment);
- b. Vertical density (floor to area ratio of at least 2, or at least 18 units per acre); and
- c. Incentives as identified by the permittee, submitted to the local EFO and approved by the division in writing, and documented in the SWMP.

4.2.5.2.34.2.5.2.1 Off-site  
Stormwater Mitigation or Payment into Public Stormwater Fund

A permittee may choose to develop an offsite mitigation program or payment in lieu into a public stormwater fund to offset the portion of the WQTV that cannot be treated on site to the MEP. The program must ensure that off-site stormwater mitigation will be accomplished within the same USGS 12-digit hydrologic unit code (HUC) watershed as the New Development Project, if practicable, and will treat a minimum of 1.5 times the portion of the WQTV not treated on site. The permittee may identify priority areas within the watershed in which stormwater mitigation projects are to be completed. The program must have a mitigation project approval procedure, and all projects must meet all requirements in this permit. Procedures and requirements in the offsite mitigation and payment in lieu programs should be documented in the SWMP and available for review.

If the permittee allows payment into a public stormwater fund, the permittee assumes responsibility to provide the required mitigation projects. The public stormwater fund should be used to fund public mitigation projects. The payment amount into a public stormwater fund must be sufficient to design, install, and maintain the stormwater mitigation measures.

4.2.5.2.44.2.5.2.2 Water  
Quality Riparian Buffers

Permittees shall develop and implement a set of requirements to establish, protect and maintain permanent water quality riparian buffers to provide additional water quality treatment in riparian areas of New Development Projects that contain streams. Riparian buffers must meet the following minimum standards:

1. Stormwater discharges should enter the water quality riparian buffer as sheet flow, not as concentrated flow, where site conditions allow.
2. Water quality riparian buffers must have the following minimum widths, based upon drainage area of the receiving stream adjacent to the project, unless site specific conditions necessitate alternative widths, as described later in this subpart:



<b>Drainage area of stream (square miles)</b>	<b>Minimum total buffer width (ft.)</b>	<b>Minimum inner-zone (ft.)</b>
<del>&lt;1</del> <u>Waters with available parameters or unassessed waters</u>	30	<del>30</del>
<del>1-2</del>	<del>45</del>	<del>30</del>
<del>&gt;2</del> <u>Exception al Tennessee Waters or waters with unavailable parameters for siltation or habitat alteration</u>	60	<del>40</del>

~~The buffer requirement may be fulfilled with a combination of an inner and an outer zone. The predominant vegetation in the inner zone of the buffer (area adjacent to the stream) should be trees. The outer zone (adjacent to the development) of 45- or 60-foot-remaining riparian buffers may be composed of herbaceous cover or infiltration-based SCMs. The outer zone allows for more flexibility in the type of vegetation and placement of SCMs.~~

3. Permittees may establish permissible land uses or activities within the buffer, such as biking and walking trails, infiltration-based SCMs ~~in the outer zone~~, selective landscaping, habitat improvement, road and utility crossings or other limited uses as determined by the permittee. The permittee must have a process to review proposed activities within buffers to ensure the pollutant removal function of the buffer will be retained. Trails constructed within the buffer should prevent or minimize the generation of pollutants. If trails are constructed from impervious materials, runoff must either be directed to infiltration-based SCMs or the buffer width must be increased by the width of the trail.
- ~~4. Permittees may authorize buffer averaging as long as the minimum inner-zone width is maintained at any location. If the New Development Project encompasses both sides of a stream, buffer averaging can be applied to both sides, but must be applied independently.~~
- ~~5.4. Permittees may authorize alternative buffer widths for New Development Projects where water quality riparian buffers cannot be fully implemented on-site. In order to allow alternative widths, the permittee must develop and apply criteria for determining the circumstances under which required buffer widths cannot be achieved based on the type of project, existing land use, and physical conditions that restrict the use of water quality riparian buffers. Any such procedures and criteria for alternative buffer widths must ensure that implementing full buffer widths would be impracticable and that the maximum practicable buffer widths are required. Procedures and criteria for alternative~~

NPDES General Permit For Discharges from  
Small Municipal Separate Storm Sewer Systems (MS4)

buffer widths must be submitted to the local EFO, approved by the division in writing, and documented in the SWMP.

**Comment [A3]:** Rationale to state that alternative buffer widths can include buffer averaging consistent with the implementation of the construction general permit.

65. Water quality riparian buffer widths are measured from the top of bank also referred to as the “Ordinary high water mark”.

Existing ordinances and requirements for water quality riparian buffers that comply with the 2010 general permit are deemed to satisfy the conditions of this subpart.

#### 4.2.5.3 Codes and Ordinances Review and Update

Within one year of obtaining initial permit coverage, newly permitted programs shall review local codes and ordinances using the [EPA Water Quality Scorecard](#). A completed copy of the Scorecard shall be submitted with the subsequent annual report. Permittees who have completed the Scorecard in the past are not required to repeat this review.

Newly permitted programs shall update codes and ordinances or other legal instruments as necessary to comply with the permit within 24 months of coverage under this permit. Current permittees shall continue to implement the existing permanent Stormwater Management Program and update legal instruments according to the compliance schedule in sub-section [4.1.1](#).

#### 4.2.5.4 Development Project Plan Review, Approval and Enforcement

The permittee shall develop and implement project review, approval and enforcement procedures. The review, approval and enforcement procedures shall apply at a minimum to projects applicable to section 4.2.5. These procedures shall include:

- a. procedures for review and approval of development site plans, including inter-departmental consultations and a re-submittal process when modifications to the project require changes to an approved site development design plan;
- b. a plans review process that must ensure that [SCMs](#) are properly designed, installed, and maintained to meet the performance standards established in section 4.2.5. The process must also include a review of all applicable site-specific limitations (sub-section [4.2.5.2.1](#)) and incentives [4.2.5.2.2](#), along with appropriate water quality buffers ([4.2.5.2.4](#)). ~~For New Development Projects that were unable to approach 100% pollutant removal and meet the MEP standard, a review of optional SCMs considered but rejected during the design process must also be included;~~
- c. verification that SCMs have been installed per design specifications within 90 days of installation. Verification shall include submission of as-built plans to the permittee, permittee inspection, or inspection by a qualified design professional. The verification process shall include enforceable procedures for bringing noncompliant projects into compliance. The enforcement procedures shall be detailed in the [ERP](#) (sub-part 4.5).



#### 4.2.5.5 Maintenance of Permanent Stormwater Control Measure Assets

Permanent SCMs, including SCMs used at mitigation projects, must be installed, implemented, and maintained to meet the performance standards of sub-section 4.2.5.2 and provide full treatment capacity within 72 hours following the end of the preceding rain event. The permittee must develop and implement a program to ensure implementation of appropriate SCM maintenance procedures to sustain pollutant removal efficiency for the life of the New Development Project. The program must include at a minimum:

- a. The development and documentation of maintenance and inspection procedures and frequencies for approved SCMs which shall require all SCMs to be inspected at least once every five years by the permittee, a licensed professional engineer, a licensed landscape architect, or other qualified professional familiar with applicable SCM design and maintenance requirements;
- b. The development and documentation of the procedure the permittee will use to verify that SCMs are being inspected and maintained including any written reports from the responsible party;
- c. A clear, documented, legally binding agreement assigning SCM maintenance responsibility to the owner/operator, a third party, or the permittee as appropriate. For SCMs designed to manage stormwater from multiple properties, appropriate deed restrictions shall be recorded;
- d. An allowance or agreement for permittee personnel to access the SCMs for inspections and provide for enforcement action for failure to maintain SCMs according to agreement;

All procedures, reports and documentation must be maintained in the SWMP.

#### 4.2.5.6 Inventory and Tracking of Permanent Stormwater Control Measure Assets

Existing permittees must continue to implement and maintain a system to inventory and track the status of all public and private SCMs installed on New Development Projects. New permittees must implement the system within 24 months of coverage under this permit. The system must be a searchable database, either paper or electronic, that retrieves SCM information by location or other similar identification and must be made available to the division or to members of the public upon request. Other than the basic information of location and project identification, the system should include information and records that the permittee will use to ensure that SCMs are maintained appropriately, such as:

- a. A brief description of the type of SCM and basic design characteristics;
- b. The responsible party contact information;
- c. Inspection schedules (both permittee and responsible party);
- d. A brief description of or reference to maintenance procedures and frequency;
- d.e. Photographs of the installed SCMs; and
- e.f. And Maintenance and inspection records.

**STATE OF TENNESSEE  
DEPARTMENT OF ENVIRONMENT AND CONSERVATION**

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<b>NETWORK, ET AL., AND</b>	)	<b>DOCKET NUMBER 04.30-140893J</b>
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<b>TENNESSEE DEPARTMENT OF</b>	)	
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<b>CONSERVATION,</b>	)	
<i>Respondent.</i>	)	

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**SETTLEMENT AGREEMENT**

The Homebuilders Association of Tennessee (“HBAT”), the Tennessee Clean Water Network, Obed Watershed Community Association, Tennessee Chapter of the Sierra Club, and the Tennessee Environmental Council (the “Conservation Groups”), and the Department of Environment and Conservation (“Department”), by and through the undersigned counsel, hereby agree as follows:

1. The Department will publish a draft permit to modify National Pollutant Discharge Elimination System (“NPDES”) Permit No. TNS000000 with the version of Part 4.2.5, Permanent Stormwater Standards, set forth in Exhibit A hereto. This draft permit modification will be subject to all applicable public notice and comment

procedures established by the Tennessee Water Quality Control Act (the "Act") and the rules promulgated thereunder.

2. The parties agree that Part 4.2.5, Permanent Stormwater Standards, attached hereto as Exhibit A, complies with all provisions of the Act, including without limitation, with Tenn. Code Ann. § 69-3-108(s) and (t). The parties agree not to challenge Tennessee NPDES permits or rules of the Board of Water Quality, Oil, and Gas based on the terms of this settlement in any forum for a period of at least five (5) years following the date of execution of this agreement.

3. After completion of the public notice and comment period, the Department will determine whether to issue final permit modifying NPDES Permit No. TNS000000 as set forth in Exhibit A.

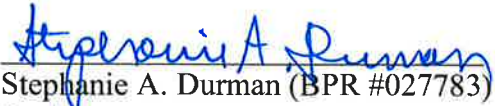
4. If the Department issues a final modified NPDES Permit No. TNS000000 in substantial conformity with Exhibit A, the HBAT and the Conservation Groups will voluntarily dismiss their permit appeals with prejudice no later than thirty (30) days after the issuance of the final permit.

This agreement is made subject to obtaining any required organizational approvals no later than November 12, 2018. If such approvals are not obtained by November 12, 2018, then this agreement is of no further force or effect.

The parties agree to continue the hearing in this matter to the earliest available hearing dates not earlier than December 3, 2018.



Signed this 8th day of October, 2018.



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