

From: Hunt, Michael (WS) <Michael.Hunt@nashville.gov>

Sent: Monday, April 11, 2022 12:09 PM

To: Karina Bynum <Karina.Bynum@tn.gov>

Subject: [EXTERNAL] Small MS4 Draft

Hi Karina, Hope you are doing well these days. I know you all are probably thrilled to finally have the Small MS4 Draft permit out on public notice. I do have one (very) preliminary question after an initial scan of it.

Is the allowance for municipal plan review licensed engineers to let their PE substitute for TNEPSC Level 2 going away? I didn't see the PE substitution mentioned in the draft.

Thanks, Michael

From: [Ariel Wessel-Fuss](#)
To: [Liz Campbell](#)
Subject: FW: comments on the new MS\$ permit
Date: Monday, April 25, 2022 8:13:11 AM

From: David Carver <dcarver@seviercountyttn.org>
Sent: Monday, April 25, 2022 8:02 AM
To: Ariel Wessel-Fuss <Ariel.Wessel-Fuss@tn.gov>
Subject: [EXTERNAL] comments on the new MS\$ permit

1. 4.2.2 – The Stormwater Management Program – is a program of implementing a plan. This plan was and is developed as a type of Standard Operating Procedure. The general public should not have any comment on how the plan is developed for government office to conduct its procedures which are already under TDEC revision. This is redundant and an unnecessary.
2. 4.2.3 – The Management Measure requires the permittee to “coordinate with these agencies to develop a program that minimizes the potential for their response to spills of chemicals or hazardous materials to cause pollutants to enter waters. – These agencies are trained in hazardous spill response as first responders. Would this type of training and program not be better regulated and prioritized through FEMA and TEMA and the FIRE and EMS first responder training programs? This is asking untrained responders to coordinate with TRAINED first responders about how to better do their job.
3. 4.2.4 – Annual Report Requirements column – Why are we entering in the # of last years active permits on this years annual report when the data is in last years annual report? It is a good thing TDEC has specified that non priority construction sites only require 10% inspection, 11 different numbers to be documented and tracked for illicit discharges, four different details to be tracked for each of nine different public education events, four different details to be reported for each of the six engineering and development public education events, four different details for each of the nine different public involvement events, four details of each of the six different public involvement events for commercial and development folks – MS4 people are going to spend the rest of the year tracking data for the annual report (harsh I know) but consider reducing the trivial or repetitious data to be required in the new annual report please.
4. 4.4.1.2 – This requirement opens up MS4’s to law suits by groups who question internal policies and procedures when TDEC has always given regulations and specified that the MS4 tell TDEC how they will apply the regulations within each jurisdiction. This is overreaching. TDEC is the auditing agency. Let TDEC review and comment in the minor or major SWMP changes since all historical MS4’s already have copies of these documents on file.
5. 4.2.6 – Option 2 is a great tool devised by TDEC

From: Ariel Wessel-Fuss
Sent: Tuesday, April 26, 2022 4:59 PM
To: Liz Campbell
Subject: FW: [EXTERNAL] Draft Small MS4 General Permit Questions and Comments

Please add to the MS4 Comment Document.

Thanks,

Ariel

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We value your feedback! Please complete our customer satisfaction survey.

From: Bradly Jordan <bradly.jordan@townofsmyrna.org>
Sent: Tuesday, April 26, 2022 4:50 PM
To: Ariel Wessel-Fuss <Ariel.Wessel-Fuss@tn.gov>; Water Permits <Water.Permits@tn.gov>
Cc: Greg Upham <greg.upham@townofsmyrna.org>
Subject: [EXTERNAL] Draft Small MS4 General Permit Questions and Comments

Hi,

Find below a list of comments and questions regarding the Draft Small MS4 General Permit on the behalf of the Town of Smyrna Stormwater Department.

1. Can a single event count as both education and outreach (4.2.1.1.) and public involvement (4.2.2.1) if all criteria are met? For example, if we pass out educational brochures and talk about the effects of littering during a public involvement stream clean-up.
2. In section 4.2.1.3. the target audience specifies that public employees must be educated "dependent on job function and duty location." However, in the table on the next page, it says that "permittees must train all employees..." Please reflect the table to only require relevant employees to be trained.
3. In the same section (4.2.1.3.) we believe that it is only necessary to train new relevant employees once upon hiring instead of all employees annually.
4. In section 4.2.2.2. it seems excessive to have as many commercial and development community public involvement events as are listed. We believe the minimum numbers would be better capped at 4 for a population over 50,001 to allow for more focus and attention on the more impactful general public events.

Bradly Jordan
Environmental Technician

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Ped Public Hearing Comments

Draft sMS4 GP

April 26, 2022

Good evening. I'm Paul Davis. I'm a licensed professional environmental engineer. I was with Tennessee's water pollution agency for 38 years and was director of Water Pollution Control for 24 of those years. Since 2012, I've prepared and delivered over 150 stormwater classes from New Mexico to Maine, plus a number of on-line classes, through National Stormwater Center. I've had staff from hundreds of MS4s along with federal and state agency staff, consultants, industries, water advocates and citizens in those classes.

I'd like to start with a reminder of what was said about MS4 discharges in the State of Tennessee's 2018 document, TNH2O, Natural Resource Chapter. Here's that quote - "MS4 discharges are by far the leading pollution source in Tennessee that is subject to regulation." It was true in 2018 and it's true today. So this is one of the most important permits TDEC will ever issue. It's important to Tennessee that we get it right.

I'll make just 3 comments now and add more when I send written comments for the record.

First Comment

On March 3rd TDEC's permit writer for this permit attended a TNSA meeting in Murfreesboro and spoke about the changes we could expect to see. One of those was how each of the 6 Minimum Control Measures would be broken down into tasks and for each task the permit would establish measurable goals and annual reporting requirements.

That's just what she did. The result is permit requirements that are much more clear, specific and measurable in terms of what's to be done, how many and when, and how they're to be reported - significantly improving the permit. I see this change as helpful to MS4s and useful to the public. It's an important step toward cleaner urban waters.

I've seen lots of state MS4 permits in the last decade, but none better in this regard.

And there are other improvements in this draft. So thanks for all of those.

Second Comment

Some other parts of this draft I'm less grateful for.

The section titled Permanent Stormwater Standards at Part 4.2.5.2.c., on page 33, has these words "Uncontaminated roof runoff may be excluded from the WQTV." (meaning Water Quality Treatment Volume) So the permit would allow designers of post-construction stormwater control measures to pretend that some portion, even the major portion, of impervious surface area simply doesn't produce runoff when it rains.

It's illogical, it goes against principles of water engineering, and it violates the federal requirement for control of post-construction discharges to the maximum extent practicable.

Consider these 6 points:

1. Section 4.2.5 says it's about post-construction/permanent stormwater management. In urban settings, no runoff from impervious surfaces, including roofs, is uncontaminated, much less permanently uncontaminated. Contaminants – solid and dissolved - come from a range of deposition sources like dust, pollen, fallout from combustion, from wildlife... as well as from weathering and decomposition of the roof itself. A Google search will bring up several confirming studies. So the qualifier "uncontaminated" effectively negates that whole roof exclusion sentence.
2. Design precedes construction. As that sentence is written, excluding roof area would require that the designer somehow know before the roof is constructed that its runoff would be uncontaminated – and since these are permanent controls it would need to be permanently uncontaminated. Of course, that's not possible.
3. No other state I've prepared for has such an exclusion, no Tennessee border state, no state where EPA retains permit authority... I don't believe there is any state, tribe or territory where roofs are excluded from post-construction control requirements. For any reason. So why is that? Green roofs and blue roofs are stormwater control measure themselves – and a whole different subject.

4. Several MS4s in Tennessee, including those operating under individual as well as general permits, have for a decade or more required post-construction controls. None have allowed exclusion of roof area. So it's entirely practicable to design, construct and maintain stormwater control measures for the whole impervious area. That's happened in Tennessee for years.
5. Roofs may be as much as 90% or more of the impervious surface at new development or redevelopment sites. A stormwater treatment measure whose design is based on less impervious drainage area than it will actually receive will be proportionally undersized. That's less control, certainly not control to the Maximum Extent Practicable.
6. It's not fair to Tennessee cities and counties to put them in the position of defending their water protection programs against this provision in the state permit.

Third Comment

It's well-accepted that the best control for post-construction runoff is for it to infiltrate into suitable soil or media.

Stormwater people know that one of the keys to effective infiltration is to keep the infiltration area from getting blanketed with silt. That's just what can happen when high water events flood the buffer. That's why Metro Stormwater and other MS4s I'm familiar with don't allow it.

But the new draft at Parts 4.2.5.4.b and c, on pages 36 and 37, explicitly allows infiltration-based stormwater control measures in the riparian buffer.

Yes, cities and counties could require through ordinances that infiltration must be located so as to protect effectiveness. But I know now after 10 years of hearing from Tennessee MS4s and hundreds of MS4 staff from across the country just how hard it is for them to require protection beyond what their state says is sufficient. Inviting placement of infiltration-based controls in riparian buffers is not sufficient protection. So please take another look at that language to see if the concerns you've heard can be resolved.

I appreciate your attention.

Questions/Comments for TDEC on the Draft Small MS4 General Permit

Submitted on behalf of Knox County Engineering and Public Works 4/26/22

Construction Site Stormwater Runoff Control Questions

1. In Section 4.2.4., page 29, item g.: Please clarify the meaning of “*receiving and considering comments*”. How does TDEC intend the MS4 to show that they are “*considering comments*”?

Post Construction/Permanent Storm Water Management in New Development and Redevelopment Questions

1. Please add a definition for “Stormwater Control Measures (SCMs)”, specifically covering how the term pertains to section 4.2.5 of the draft permit.
2. Are the requirements for SCMs established in this permit applicable to SCMs installed from the start date of this permit forward or are they to be retroactively applied to previously installed SCMs?
3. Section 4.2.5.2, page 33, item b. Please clarify “information relevant” and “readily available” in the following statement: “*Information relevant to identified SCMs should be made readily available.*”
4. Section 4.2.5.2, page 33, item b.: Please define “Significantly limit” as it pertains to the following statement: “*If the permittee decides to significantly limit the number of SCM options it must be documented in the stormwater management program how the performance standards of Tennessee Rule 0400-40-10-.04 can be met with the limited set of control measures that are allowed.*”
5. Section 4.2.5.2, page 33, item c.: Please define “*Uncontaminated roof runoff*”.
6. Section 4.2.5.4., page 36, Please add the following definitions in the permit: “*establish*”, “*protect*”, and “*maintain*”, specifically covering how those terms pertain to water quality riparian buffers.

Education and Outreach on Storm Water Impacts & Public Involvement/Participation Questions:

1. Please define “*activity*” as it pertains to the minimum number of activities the MS4 must conduct each reporting year (Pare 15; Section 4.2.1.1 & other sections)
2. What level of involvement distinguishes collaborating from sponsoring in a MCM1/MCM2 activity? Is collaboration between 2 or more MS4’s considered a sponsored event?
3. Please explain the differences between “Public Education and Outreach”, and “Public Involvement/ Participation”.
4. Knox County administers an Adopt-A-Stream program with multiple unique creek clean up events conducted throughout the year; we consider each Adopt-A-Stream event to have multiple *activities* within it, a *Public Education and Outreach “activity”* and a *Public Involvement/ Participation “activity”* each achieving multiple management measures. Can one event have multiple “*activities*” within it and thus achieve the requirements of both *Public Education and Outreach* and *Public Involvement/ Participation* as discussed in section 4.2.1 & 2.2.2?

5. Is tabling at an event where the public are invited to participate in an aspect of the SWMP considered a *Public Education and Outreach* activity, a *Public Involvement/ Participation* activity or both?
6. On Page 20 (4.2.2) the Annual report requirement asks for “% of comments received from the public on construction site projects”. What is the denominator used to find this percentage? Please clarify this requirement or consider removing the requirement.

Illicit Discharge Detection and Elimination Questions

1. Comment about Section 4.2.3, Page 24, # 7: All septic system failures in Knox County are given 30 days to respond to the health department’s notice, therefore all septic system failures that constitute a MS4 illicit discharge will be required to have a “*Corrective Action Plan*”. Is this TDEC’s intent?
2. Section 4.2.3, Page 24, # 7: Please define “*Corrective Action Plan*”
3. Section 4.2.3, Page 24, # 7: If an owner/operator does not provide a corrective action plan even when required by the MS4 what course of action does TDEC require the MS4 to take?
4. Section 4.2.3, Page 24, # 7: Please explain what is meant by the last sentence in this section “*The ERP shall include remedies to address failures by the owner/operator to complete the corrective action plan and eliminate the illicit discharge.*” Does TDEC intend the MS4 to enforce the corrective action plan and the MS4 to also eliminate the illicit discharge if the owner/operator fails to do so?
5. Section 4.2.3, Page 24, d.: Please define “*Significant*” as it pertains to this section.
6. 4.2.3 Page 25: Please elaborate on how to comply with the annual reporting requirements of “% of non-stormwater discharges or flow investigated as a significant contributor of pollutants to the MS4”. What denominator is used to find this percentage? Also please define “significant” as it pertains to this section.

Pollution Prevention/Good Housekeeping Questions

1. Section 4.2.6 Page 43, third paragraph: Please add a definition for “*in a timely manner.*”

Monitoring Questions:

1. Section 4.6.1.1.1 On Page 55 the draft states “*Adopt existing survey protocols such as the ones available through the Natural Resources Conservation Service, State of Maryland Department of Natural Resources, and/or the State of Tennessee Habitat Assessment Protocol and related Stream Survey Field Sheets; or...*”. **Please provide references to the survey protocols listed here.**
2. Section 4.6.1.1.1 on page 55 the draft states that the permittee may Develop their own protocol which must address 14 Visual Survey Assessment elements: (*Channel Condition, Hydrologic Alteration, Bank Condition, Riparian Area Condition, Canopy Cover, Water Appearance, Nutrient Enrichment, Animal Or Human Waste Presence, Pools, Barriers, Fish Habitat Complexity, Invertebrate Habitat, Invertebrate Community, Riffle Embeddedness, Other as defined by the permittee*) **Must all 14 elements listed above be assessed in each stream?**
3. Section 4.6.1.1.2 on page 56 please clarify the statement (item e.) “*Utilize Division protocols identified above in Option 1 or protocols approved by the Division for instream monitoring.*” Which protocols in option is TDEC referring to?

4. Please clarify Section 4.6.1.1.2 on page 57 item h: *“Provisions for an administratively continued small MS4 general permit.”* If the MS4’s monitoring plan is for one permit cycle could the provisions for an administratively continued permit be “ensure the monitoring is complete for the permit cycle”?
5. Please provide a definition for *“wet weather screening”* as it pertains to section 4.6.2 item b. (Page 59).

Mary Halley's Comment Topics for TDEC Public Hearing – April 26, 2022

My name is Mary Halley. I'm a Senior Associate Consultant working for Wood Environment and Infrastructure Solutions in Knoxville Tennessee. I've worked in municipal stormwater management consulting since the late 1990's. My career since 2003 has been providing MS4 permit consulting services to both large and small MS4s, both in Tennessee and throughout the United States east of the Rocky Mountains. I have extensive experience with Tennessee MS4 permits and permittees.

Tonight, I will speak on 4 issues in the draft permit I feel are most impactful to small MS4 permittees. I appreciate the opportunity to be heard tonight.

1. **Documentation and reporting** – The level of documentation, tracking, and reporting on compliance activities in the draft permit is significantly increased compared to past permits. It is my understanding that some of this is due to the remand rule, which was explained in the last hour. My thoughts on this change are as follows:
 - a. This shifts the focus of stakeholders, including TDEC and permittees, away from compliance based on BMP quality and effectiveness to compliance based-on activity reporting, tracking, and accounting
 - b. To many permittees, what the draft permit includes for documentation and reporting is NOT as simple as prompting a new query in a database. Depending on their resources, permittees use a variety of documentation, tracking, and reporting tools – from hard copy logbooks, to spreadsheets, to MS4-focused software, and municipal asset management software. Based on my experience, I'd say that very few permittees have access to reporting focused software. Very few, if any, are single tool that addresses every BMP. BMP reporting is also done by a wide variety of municipal staff in different departments. In addition to all of this, most permittees are NOT tracking BMPs to the level and degree of specificity of the draft permit. Thus, the draft permit's requirements translate to a considerable increase in administrative burden placed on permittees for the purpose of compliance BMP accounting and paperwork, rather focusing on the work of BMP effectiveness and water quality protection.
 - c. Many permittee programs are underfunded already. Getting and sustaining additional funds to provide resources for permit accounting, reporting, and documentation will be difficult at best.
 - d. I suggest TDEC revisit the draft permit, looking for areas of documentation redundancies (there are many), and needless specificity in activity tracking and reporting.
 - e. In addition, there are no timeframes for implementation of increased documentation and reporting requirements, implying these requirements are to be met within the permit's first year. I suggest the draft permit be revised to give permittees ample time to modify their programs and implement changes or addition to documentation, tracking, and reporting methods. Judging from the level of paperwork discussed in the draft permit, this will require at least 3 fiscal years (1st to budget, 2nd to plan & budget, 3rd to implement). However, I suggest TDEC provide the entire five-year permit period, with gradual annual increases in documentation and reporting requirements.
2. **Public education & outreach and Public Involvement/Participation** – The level of effort required of permittees for these two control measures is increased significantly in the draft permit when compared to past permits, especially for permittees with populations greater than 25,000.
 - a. This shifts the focus of TDEC and permittees away from public education and public involvement activity quality and effectiveness to the # of activities and how they are reported. I'd be interested to know how TDEC came up with these numbers.

Population	Annual PIE Activities	Annual Pub Inv. Activities
≤ 25,000	4	4
25,001 and 50,000	9	9
> 50,000	15	15

- b. There is no question that public education and public involvement is a critical component of stormwater pollution prevention and water quality protection. These control measures can go a long way in preventing nonpoint source pollution in the first place and reducing the need for enforcement of permittee stormwater requirements. With regards to these control measures in the State of Tennessee, my observations as an experienced municipal stormwater consultant are two-fold:

- First, generally speaking, Tennessee permittees should and could do a better job of focusing on these control measures as important features of their compliance programs. That is not to say some Tennessee permittees don't have effective public education and involvement BMPs. Some do. But overall – Tennessee Ms4s are struggling to identify and implement a cohesive suite of BMPs. I believe this is primarily related to available funding/resources at the local level, and traditional “norms” of elected officials that engineering and public works departments shouldn't be doing anything other than engineering and public works. That is, they aren't sold on the need to emphasis education and involvement.
- In the past, TDEC has not pushed permittees to improve the quality and effectiveness of their BMPs for these control measures. Neither through the MS4 permits to date, nor through audits and enforcement. There has been no carrot or stick to move permittees in the direction of implementing effective public education and public involvement activities.

So, in Tennessee, we are where we are with respect to these control measures. However, the draft permit does nothing to improve either of those issues. A higher number of activities may translate into a clear path for compliance and enforcement by TDEC. It's just about accounting for the numbers. But it does not necessarily translate to improved quality and effectiveness of BMPs. I know this through my own experience as a consultant.

- c. Instead of just “upping” the number of activities for these control measures, TDEC should write and enforce a permit that places emphasis on public education and public involvement activity content, quality, and effectiveness. This will ensure that these two control measures are given the consideration they are due, and that permittee's will spend their time and resources on quality activities rather than just checking boxes.

3. **Uncontaminated Roof Runoff** – The sentence allowing permittees to exclude uncontaminated roof runoff from the WQTV must be deleted from the draft permit.

Scientific data is generally limited and does not support the position that roof runoff is uncontaminated (i.e., contains no other substances than rain/storm water). Common sense does not support the position that roof runoff is uncontaminated. Wind, air, birds, and even sometimes the roofing materials themselves, are sources of contaminants. A roof may have few pollutants during one storm event, but a flock of birds flies over it, and it could discharge a considerable level of pollutants in the next storm event. In some areas, rainfall itself is contaminated.

Throughout the comment and adoption of the recent Tennessee Rule, TDEC has defended this sentence verbally by stating that the sentence is permissive, meaning the permittee can choose to exclude uncontaminated roof runoff or not. However, this is a very short-sited view and places ownership of a big problem in the hands of the individual permittees themselves. Creating a permissive authority for this particular issue causes undo complexity at the local level to defend the issue.

- a. First, it places the responsibility of defining uncontaminated roof runoff on the permittee, without the safety of permit coverages for these discharges, a precedence for similar exclusions from other permits in the state or country or a successful legal defense of challenge to such an exclusion, or a basis in science and engineering that allows permittees to confidently craft and qualify criteria for defining uncontaminated roof runoff.
- b. Second, even with these arguments against including this sentence in local programs, many permittees will not be able to withstand political pressure to allow the exclusion from land development stakeholders seeking to weaken local stormwater quality standards. As we have seen in recent years, such challenges are often decided by politics as opposed to scientific understanding, environmental permit compliance liabilities, municipal resource needs and balancing, or even water quality protection goals.
- c. Finally, many Tennessee permittees are small local governments who do not have the resources internally or through consultants to evaluate these types of issues clearly. They will copy and paste the permit's design standard right into their ordinance without really understanding the implications and liabilities of this particular statement. This is one of the most common mistakes I see MS4 permittees make, both in Tennessee and throughout the country. However, land developers do have the money to search through local ordinances and find the least expensive pathway to plan approval for their development. Just using Google, I've found that the average under roof square footage of one of the super doper market big box stores is about 180,000 sq.ft. That's over 4 acres of rooftop. When this development comes to the small MS4 that copied and pasted the permit, it is highly likely the developer will be successful in eliminating their 180,000 sq. ft. rooftop from water quality treatment.

By including the sentence pertaining to uncontaminated roof runoff in the final permit, the Division will place permittees in jeopardy of allowing polluted discharges under the guise of a permitted non-point source discharges that will be difficult to defend.

4. **Water Quality Buffers** – Clarity is needed for several aspects of this portion of the permit.

The first sentence states that permittees must have requirements that “establish, protect, and maintain” water quality buffers. However, the remainder of the permit is a mashup of directive and permissive language that makes it difficult for permittees to understand exactly how to implement this requirement.

- a. The buffer widths in the draft permit are directive – and, I believe, easy to understand and implement. However, statements pertaining to buffer vegetation are permissive – predominant vegetation “should be” trees; remaining buffer “may be” herbaceous cover. These statements need to be aligned with and explicitly referenced to the definition of a water quality buffer to provide clarity and boundaries to their permissiveness. The same goes with permissive statements pertaining to land uses and

activities within the buffer. Explicitly reference with the buffer definition or bring the definition into the body of the permit to help permittees avoid conflicting buffer rules at the local level.

- b. During listening sessions and on one-on-one calls, TDEC has been asked by stakeholders to define or provide further explanation regarding the requirements for permittees to “protect and maintain” water quality buffers. Thus far, a clear answer has not been provided, although I have heard third-hand that TDEC does not believe buffers should be protected with the same intensity as SCMs, and that an easement will be sufficient to meet these requirements. However, looking at the definitions of these words:

Protect means “keep safe from harm or injury” and “preserve or guarantee by means of formal or legal measures”

Maintain means “cause or enable a condition to continue”

Thus, the requirement for permittees to “protect and maintain” water quality buffers means buffers must remain compliant with the permit’s definition of buffers (that is, specific widths, vegetation types, and limited uses) once they are established. So, for most local governments, an easement isn’t going to be sufficient. Similar to my earlier comment on uncontaminated roof runoff, TDEC’s lack of clarity on this issue creates difficulties for permittees. It is difficult to implement, fund, and defend local buffer requirements based on strong words in a permit that are weakly supported by TDEC. Permittees will be unlikely to implement protection and maintenance activities as they can be considerably resource intensive and unpopular. On the flip side, weak implementation of “protect and maintain” on the part of a permittee can create difficulties when landowners call to tattle on their neighbor who cut down their trees in the buffer.

TDEC could assist permittees greatly by either eliminating or further defining expectations for water quality buffer protection and maintenance.

From: Ariel Wessel-Fuss
Sent: Thursday, April 28, 2022 4:25 PM
To: Liz Campbell
Subject: FW: [EXTERNAL] Small MS4 Permit

From: jpatterson@stjohnengineering.com <jpatterson@stjohnengineering.com>
Sent: Thursday, April 28, 2022 3:36 PM
To: Ariel Wessel-Fuss <Ariel.Wessel-Fuss@tn.gov>
Subject: [EXTERNAL] Small MS4 Permit

Ariel,

I have a comment concerning the Draft Small MS4 Permit that I think the Division should consider. I see that the Division is proposing to change the Buffer Zone requirements to better line up with the CGP requirements. I applaud this change and have argued for this for some time. However, I think the Division should consider eliminating the current buffer zone requirements that are based on the size of the drainage area altogether. I just looked at an area within an MS4 that contains wetlands that would only require a 30' permanent buffer zone based on the size of the drainage area. If this MS4 were to adopt the new permit language then this area would require a 60' buffer zone because the wetland is located in a watershed designated as having unavailable parameters for sedimentation. I believe this discretion will be fairly common and will become a pressure point with the regulated community pressuring the MS4s not to adopt the new requirements or to go back to the previous requirements once the difference becomes apparent.

Thanks,

Jim Patterson, TN-QHP
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From: Ariel Wessel-Fuss
Sent: Friday, April 29, 2022 3:15 PM
To: Liz Campbell
Subject: FW: Small MS4 General Permit Public Comment

MS4 Comment

From: Adam Meadors <ameadors@mtjuliet-tn.gov>
Sent: Friday, April 29, 2022 1:59 PM
To: Ariel Wessel-Fuss <Ariel.Wessel-Fuss@tn.gov>
Subject: [EXTERNAL] Small MS4 General Permit Public Comment

Ariel,

Thanks for taking some time to review comments for the new permit. I really like your approach for reorganizing the way the permit reads and the way you have it organized. My major comment are in Minimum control Measures 4.2.1.1, 4.2.1.2, 4.2.2.1, and 4.2.2.2. I hope the division would consider reducing the minimum number of activities conducted each year. I would suggest cutting activities in half or more. As an MS4 education and participation are valuable teaching tools but would dominate much of the time MS4's have during the week planning, securing and executing the events. With such a high number I fear other areas of our programs would suffer. Additionally more events require more funds and most MS4's are well into budget planning processes, and quite frankly did not see it coming and may not be able to fully comply in the first year. I do like the way that the permit is handling SCM inventory, and program management. For MS4's that don't have firm handle on SCM's this portion will take up a lot of manpower creating a program and researching historical files for information. Perhaps this is another reason to reduce the number of education and outreach events yearly.

Thanks,

Adam Meadors
City of Mt. Juliet
Stormwater

From: [Ariel Wessel-Fuss](#)
To: [Liz Campbell](#)
Subject: FW: [EXTERNAL] Comments on TNS000000 permitting
Date: Monday, May 9, 2022 7:55:37 AM
Attachments: [PG40DA.pdf](#)

From: Anthony Wheeler 1831 Lewis Mine Rd. Signal Mountain, TN 37377 423-580-3433
<awhee17625@aol.com>

Sent: Saturday, May 7, 2022 7:31 AM

To: Ariel Wessel-Fuss <Ariel.Wessel-Fuss@tn.gov>

Cc: dawsonwheeler00@gmail.com; dfisher@hbagc.net; dreuter@chattanooga.gov;
krennich@chattanooga.gov; leslie@agcetn.org; slrmurdock@yahoo.com; chuckpreutt@gmail.com;
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Subject: [EXTERNAL] Comments on TNS000000 permitting

***** This is an EXTERNAL email. Please exercise caution. DO NOT open attachments or click links from unknown senders or unexpected email - STS-Security. *****

Dear Ariel,

There is great concern over the redefinition of stormwater as defined in the TNS00000 section 2.4.5.2 proposed permitting as describe by the attached comments by Paul Davis. The "quality" of the water is not what the stormwater control process is designed to regulate, but rather the quantity of runoff necessary to protect streams and communities from the damage due to erosion, siltation, natural drainage structures, and damage to infrastructure caused by ever increasing impermeable surfaces and rain fall. Water quality does not affect the quantity of runoff.

Home builders and contractors may benefit from this change, but communities and municipalities will pay the penalty for undersized stormwater management. Please remove this part of 2.4.5.2 in the interest of public safety and the environment.

Tony Wheeler
Environmental Representative
Mountain Planning Group
Walden's Ridge, Tennessee

4.2.5.2. **Permanent Stormwater Standards.**

- a. The permanent stormwater management program must require new development and redevelopment projects to be designed to reduce pollutants to the MEP, as set forth herein. Compliance with permanent stormwater standards for new development and redevelopment projects is determined by designing and installing SCMs as established by Tennessee Rule 0400-40-10-.04 and complying with other requirements of Tennessee Rule 0400-40-10-.04. For design purposes, total suspended solids (TSS) may be used as the indicator for the reduction of pollutants.
- b. 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 or redevelopment project. The permittee shall identify 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 be documented in the stormwater management program how the performance standards of Tennessee Rule 0400-40-10-.04 can be met with the limited set of control measures that are allowed.

Approx 3.5" middle TN

- c. The water quality treatment design storm is a 1-year, 24-hour storm event as defined by Precipitation-Frequency Atlas of the United States. Atlas 14. Volume 2. Version 3.0. U.S. Department of Commerce. National Oceanic and Atmospheric Administration (NOAA), National Weather Service, Hydrometeorological Design Studies Center, Silver Springs, Maryland or its digital product equivalent. The water quality treatment volume (WQTV) is a portion of the runoff generated from impervious surfaces at a new development or redevelopment project by the design storm, as set forth below. Uncontaminated roof runoff may be excluded from the WQTV. 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, as established in the following table:

From a Google search...
What is the difference between contaminated and polluted?
Contamination is simply the presence of a substance where it should not be or at concentrations above background. Pollution is contamination that results in or can result in adverse biological effects to resident communities.



The "uncontaminated roof" exclusion should not have been in the rule or this permit.

- In urban settings, no runoff from impervious surfaces, including roofs, is uncontaminated.
- The proposed exclusion would directly violate NPDES rules requiring control of post-construction discharges to the Maximum Extent Practicable. Several existing TN MS4s have for years required post-construction controls to be designed for all impervious drainage. Same for other state SMS4 general permits as well as states where EPA retains NPDES permit authority. Tennessee cannot now propose less control and claim to protect its waters to the Maximum Extent Practicable.
- As reported by the 2018 TNH2O project, "MS4 discharges are by far the leading pollution source in Tennessee that is subject to regulation." Reducing post-construction stormwater control measures would unjustifiably lower protection for urban communities and waters in our state.
- Webster definition of "uncontaminated" - "not soiled, stained or corrupted by contact with something else"

**COUNTY OF RUTHERFORD
OFFICE OF COUNTY ENGINEER**

**One Public Square South
Murfreesboro, TN 37130
PHONE: (615) 898-7732**

**Mike Hughes, P.E.
County Engineer**

**Shelia Huffmire, P.E.
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**Taylor Hill
Engineering Tech**

**John Cortez
Stormwater Inspector**

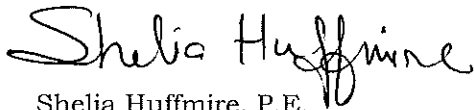
May 10, 2022

Tennessee Department of Environment and Conservation, Division of Water Resources
Attention: Ariel Wessel-Fuss
312 Rosa L. Parks Avenue, 11th Floor
Nashville, Tennessee 37243

Dear Ms. Wessel-Fuss,

This letter provides comments to the draft State of Tennessee NPDES small Municipal Separate Storm Sewer System (MS4) Permit (draft permit) published on March 22, 2022. These comments are submitted on behalf of the Rutherford County, TN.

Kind regards,



Shelia Huffmire, P.E.
Assistant County Engineer
Email: shuffmire@rutherfordcountyttn.gov

NPDES Draft Permit Comments – Rutherford County – Shelia Huffmire 5/10/2022

NPDES Draft Permit: – Public Meeting April 26, 2022, 5-6pm question and answer & 6-7 pm formal meeting

Written comments are extended until May 23rd.

Comments for Public Hearing:

1. Pg 12. Implementation Plan - Submit implementation plan for permanent stormwater management program 90 days from the Effective Date on the Notice of Coverage. Please make it line up with when our annual reports are due so that we can put them through the same process with our annual report for public meeting. – Recommendation is to say 90 days or when our annual report is due, whichever is later. General comment- the deadlines throughout this permit are very tight.
2. We would like to have an example of an implementation plan.
3. Why are there so many different timeframes and confusion throughout the permit. It would be much simpler if we had either 18 months or 24 months to get everything in place. One section we have 180 days for our SWMP, but what is the point if we haven't even finished our ordinances and subdivision regulations to support the permit language? Once again, the 18 and 24 month deadline is tight for accomplishing everything in a program.
4. Can TDEC put together a spreadsheet to help with the timeframe confusion?
5. Pg 13 - 4.1.2 Changes to regulatory mechanisms and implementation into the construction site runoff pollutant control program within 18 months of the reissuance of the construction general permit. Clearly identify or state which date is correct. It states 18 months on Pg 13 and 12 months on page 30 and clearly says that anything with legal authority can take up to 24 months. This is very confusing.
6. 4.2 Public Education is unattainable for most Phase II MS4s and the language is very confusing.
 - Parts: 4.2.1 Public Education and Outreach on Storm Water Impacts; 4.2.2 Public Involvement/Participation
Location: Pages 14 through 22, all sections of 4.2.1 and 4.2.2
Comment: What constitutes an "activity" and how are activities measured? For example, is having/using a social media account for stormwater education considered a single activity or can each post (or series of posts) on a different topic considered a single activity?
 - Part: 4.2.2 Public Involvement/Participation
Location: Pages 18 through 22

Comment: This entire section is confusing. The list of elements a through i. on page 18 does not seem to directly correspond to the management measures table on pages 19 and 20. Further these two permit elements do not seem to correspond well with the additional management measures tables on pages 21 and 22. Some requirements seem stated more than once, but in somewhat different ways making it difficult to clearly understand if these are separate requirements or the same. Suggest revising the control measure to the format used for the Public Education MCM, where the PIE plan provided the required activities, and the management measures tables outlined the activity minimums and reporting requirements.

- Part: 4.2.1.1 and 4.2.2.1 General Public

Location: Pages 14 through 22, 1st paragraph in both subparts

Comment: For both the public education and public involvement/participation control measures, the permit identifies the public as the target audience in subsections 4.2.1 and 4.2.2.1, and then further categorizes sub audiences under each subsection. It is unclear whether these sub-audiences are required targets or just suggested targets. Please clarify the required targets for both the public education and public involvement/participation activities. Suggested audiences should be moved to the rationale, so Division staff don't inadvertently include them as requirements during audits.

7. Pg 15 – 4.2.1.1 It would make more sense to combine Management Measures
c. Awareness on the proper storage, use, and disposal of pesticides, herbicides, and fertilizers and
d. Awareness on the proper storage, use, and disposal of oil and other automotive-related fluids into one measure.
8. Pg 15 – 4.2.1.1 It would make more sense for the chart on page 15 to say a., b., c. d. or e. instead of all must meet the 9X5=45 public outreach numbers. The MS4 can develop their PIE plan around these numbers and type of measures. It would make more sense for the MS4s to pick from the items available and create their PIE plan for the total number of activities to pick from all instead of multiplying each measure by the goal number.
9. 4.2.2 Public Involvement and Participation seems unattainable for most Phase II MS4s. The timeframe to implement this is too quick and not reasonable. This outline for education and outreach does not resemble what most MS4s are currently doing. I would hate to see the general education dissolve due to the new outline and requirements.
10. Pg 21 – 4.2.2.1 Based on the current measures and goals, the normal size MS4 would have to host 36 public participation events just in the general public section. To participate and host events with the public is usually on the weekends, this would mean 70% of weekends out of the year would have to be spent hosting a public participation event. This is not attainable.

11. Pg 21 – 4.2.2.1 It would make more sense for the chart on page 21 to say a., b., c., or d. instead of all must meet the 36 events. Then the MS4 can develop their PIE plan around these numbers and type of measures.
12. Page 29 - 4.2.4 g. Mechanisms or plans for public access to information on projects and receiving and considering comments from the public on those projects. – Define what is meant by project or construction project.
13. Page 38 - 4.2.5.6. Development Project Plan Review, Approval, and Enforcement
A verification process to document 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 enforcement procedures to bring noncompliant projects into compliance, which shall be detailed in the enforcement response plan. – 90 days from installation does not seem like a rational number. I would have the permit read something like – each MS4 must have a process in place for their SCM verification process and completion of as-builts.
14. Page 42 - Establish a time frame for review of all plans and review 100% of all plans within that timeframe – I don't know why TDEC should make MS4s set a timeframe for plans review process for our communities. This is completely unnecessary and each MS4 should be able to decide how their process works. If a process is in place, then the MS4 is meeting the intent. Does the Federal Register state that this is a requirement?
Past small MS4 permits have already resulted in local government processes that eliminate (or severely limit) the commencement of land disturbance activities without an approved plan for construction site stormwater runoff control. This control is clear, effective, and implementable. Thus, it is difficult to understand the Division's desire in this permit to require specification, or even address the topic, of a timeframe for construction site plan reviews in this draft permit. Forcing permittees to specify plan review timeframes solely for purposes of permit compliance is unnecessary for water quality protection and an overstepping of the Division into individual local government land development processes to the benefit primarily of land developers. Plan review timeframes can vary widely, depending on a local government's land development process, the role(s) of other departments involved (e.g., planning, codes enforcement, etc.), matters unrelated to permit compliance, legal issues surrounding a specific land development, the completeness and quality of the submitted plan, and other factors. Additionally, It can also unnecessarily complicate local government land development processes, potentially resulting in activity ineffectiveness.

General Comments:

- The draft permit seems to apply a “one size fits all” approach in that it prescribes BMPs, measurable goals, and reporting deliverables. This is a significant divergence from past permits, which allowed permittees to craft their SWMP around their local stream impairments, citizen

complaints, water quality priorities, and water quality goals. This approach does not recognize that inherent differences exist among local governments and their individual capabilities to determine and ensure which BMPs are effective. **The Division should refrain from prescribing BMP descriptions and the types, number, and measurable goals for MCMs and instead focus on compliance minimums.**

- The draft permit includes a considerable increase in the level and specificity of required documentation and reporting. Numerous procedures, processes, and plans are identified, as well as an annual solicitor's certification, SWMP Evaluation Report, and the annual reporting deliverables identified in management measure tables. Some of these items seem unnecessary or redundant (detailed comments will follow). This increase in the level and specificity of required documentation and reporting will require substantially more permittee resources to implement and maintain at a time when permittees are resource-stressed already. The changes will force permittees to focus on getting paperwork done and keeping it updated each year rather than meaningful permit compliance and water quality protection. The Division should re-examine the level and specificity of required documentation and reporting in the draft permit and seek ways to reduce the administrative burden on permittees. For most of the new sub-plans, reports, procedures, and annual reporting requirements in the draft permit, a deadline for implementation is not provided. Does this mean permittees are required to step-up administratively immediately when the permit becomes effective? Given the substantial increase in documentation required by this permit and the potential need to secure additional staff or outside resources to prepare these items, permittees will need significant additional time to budget, plan, and prepare the new plans, reports, and procedures. This is especially true for the upgrade in compliance tracking required in the annual report. This change alone will require permittees to revisit current methods of compliance tracking, determine the changes needed to meet the new permit, coordinate with the departments affected, and allocate funding/resources required to upgrade. As well, the new permit could become effective near the beginning of a municipal fiscal year (July 2022) for many permittees. For these permittees, their FY22-23 budgets do not include funding to deal with such a substantial increase in the permit's administrative needs. As a result, at least three years from the effective date of the permit may be needed for permittees to budget, plan, and then implement the necessary changes.
- Part 5 of the Rationale is clear that acronym "SWMP" now means Stormwater Management Program in this permit. However, there are numerous statements pertaining to documentation in the SWMP or in the program that imply there are additional written elements required by the Division beyond the NOI and annual reports previously required. It is not always clear when something is required as a written element, and when it is not. The explanation of a SWMP in the rationale (i.e., the 3-ring binder sitting on a file cabinet) does not clarify the Division's expectations. Examples of confusing statements relevant to the SWMP are provided below.

3.1 Discharges to Waterbodies with Unavailable Parameters, 1st sentence, specifically the phrase and bolded words “the permittee **must document in its SWMP how** the BMPs will address the discharge of these pollutants”. While the remainder of the paragraph goes on to state that compliance with the requirement is demonstrated through monitoring, it is unclear how monitoring once every permit period demonstrates **how** BMPs address pollutants. Are monitoring results alone sufficient or must permittees extrapolate conclusions from monitoring results as they relate to BMP effectiveness? It is suggested the permit clearly identify how the permittees must “document in their SWMP **how**” or that the sentence be revised to something like “the permittee’s SWMP must address the discharge of these pollutants”.

4.1 Requirements, 1st paragraph, 3rd sentence “The elements of the Program **must be documented** by the permittee in a Storm Water Management Program”. The sentence does not make sense (i.e., documenting program elements in a program). Since a written stormwater management plan does not seem to be required, the Division needs to identify how (or in what ways) the permittee must document in writing elements of the program. It is suggested that it may be more appropriate to say the elements of the Program must be documented in the permittee’s NOI, annual reports, and other compliance tracking or reporting tools or documents used by the permittee and kept on file.

4.1 Requirements, 3rd paragraph “The SWMP must include the following information documented in a plan for each of the program elements ...”. The text in bold is confusing if a written plan is not required.

MEMORANDUM

TO: Ariél Wessel-Fuss, DWR Water-Based Systems Unit

FROM: Bryan Carter, DWR Johnson City Environmental Field Office

RE: Draft TNS000000 Small MS4 General Permit Review Comments

DATE: May 13, 2022

I have reviewed the public noticed draft of the Small MS4 general permit and noted the following items. Please note that I did not exhaustively review the draft for grammatical issues but have noted some of the more obvious ones. Let me know if you have questions or wish to discuss these comments further.

1. Permit part 1.3.1.e. references “part 0 of this permit”. However, there is no part 0 contained in the permit.
2. Permit part 3.1.2. appears to be missing a space between “3.1” and “as” in the first sentence.
3. Subpart c. in permit part 3.2.1.1.1. appears to be misplaced because it falls in the middle of the sentence describing subpart b. It appears subpart d. should instead be c., and d. should not exist.
4. Permit part 3.2.1.1.2. contains an italicized word, “*Either*”. It is unclear whether this is intentional. If it is, I recommend also italicizing the word “or” as it introduces the alternative for compliance.
5. Permit part 3.2.1.2.b. references co-permittee liability for “Implementing the six minimum measures...”. However, this appears to be the first time this term appears in the permit and it is unclear what it represents. It appears to be a reference to the Minimum Control Measures required later in permit part 4.2. If this is the case, I recommend that 3.2.1.2.b. be revised to reference part 4.2. for clarity.
6. It is unclear why permit part 3.2.1.1. designates subparts using Arabic numerals but later parts 3.2.1.2 and 3.2.2. designate subparts beginning with lowercase letters. This appears to be an inconsistency in permit formatting.
7. Permit part 3.2.1.2. contains two subparts a. and b. This is confusing and makes it difficult to clearly reference the applicable portion of the permit when identifying compliance deficiencies.
8. Part 3.2.2.b. appears to be missing a space between “5” and “of” in the fourth sentence.

9. I recommend the second paragraph of part 4.1. be revised to insert the word “from” (i.e., “...violations of State water quality criteria of the receiving streams in stormwater runoff *from* the MS4 system.”[Emphasis added]).
10. Permit part 4.2.1.1.b. includes the acronym, SCM, but this abbreviation is not defined until later in permit part 4.2.5.1.b. It is more customary to define terms the first time they appear in a document.
11. Permit part 4.2.3.a. references map requirements in “subpart 0”; however, there is no such subpart in the permit. It appears this should instead reference part 4.2.3.1.
12. The table in permit part 4.2.3. contains a reference to “IDDE” near the bottom of page 25. However, this acronym is not defined until permit part 6.3. Clarity would be improved by defining the acronym where it first appears in the permit.
13. The table in part 4.2.3. contains the following Measurable Goal, “Initiate 100% of all potential illicit discharges investigated within 7 days...” For improved clarity, I recommend changing “investigated” to “investigations”.
14. The table in part 4.2.3. contains the following Measurable Goal, “Permittees must conduct or sponsor a at least one activity each reporting year that foster interagency coordination for hazardous waste or material spills response and cleanup every reporting year.” I recommend the following revisions (noted in red) to this statement, “Permittees must conduct or sponsor ~~a~~ at least one activity each reporting year that fosters interagency coordination for hazardous waste or material spills response and cleanup every reporting year.”
15. The table in part 4.2.4. contains an Annual Report Requirement of “% Priority Construction Activities inspected at a frequency of less than once per calendar month.” The way this is worded, a site inspected once per calendar month would not be counted in the annual report percentage but would comply with the associated Measurable Goal. It would be more consistent to word the reporting requirement the same as the goal (i.e., “% Priority Construction Activities inspected at least once per calendar month.”).
16. As written, permit part 4.2.5.2.c. does not allow for use of more recent (than Atlas 14, Volume 2, Version 3.0) precipitation-frequency data if such data become available during the term of the permit. If newer data become available, the permit should allow for its use in stormwater control measure design.
17. Permit part 4.2.5.2.c. allows for exclusion of uncontaminated roof runoff from the required water quality treatment volume (WQTV) required for permanent stormwater management. However, the permit provides no rationale for excluding this runoff volume or criteria for evaluation and determination of whether it is “uncontaminated”, which does not appear to be implicit for the runoff source.

18. Permit part 4.2.5.3.a. includes the statement, “Procedures and requirements in the offsite mitigation and payment in lieu programs should be documented as part of the stormwater management program and available for review.” However, “should” needs to instead be “shall” if this documentation is considered a compliance requirement. This same comment applies to the use of “should” in part 4.2.5.3.b. The last paragraph of that subsection contains requirements for payment amounts into a public stormwater fund; thus, it is implicit that it is intended that such a fund shall be used to fund public mitigation projects.
19. Part 4.2.5.4.d. provides alternatives for average riparian buffer width but does not do so for the minimum riparian buffer widths specified in part 4.2.5.4.b. The permit needs to clearly specify whether reduction in the specified minimum riparian buffer width is allowed in any case and, if so, when and how a reduction is acceptable.
20. Part 4.3.1.b. contains a typographic error. The final sentence should read, “...portions of the ordinance or regulatory mechanism that **are** directly relevant...”
21. Part 4.3.2.d. contains a reference to form CN-1440 and a link to the QLP program website for a copy. However, the QLP website does not contain a direct link to the form in question. It is instead directly linked on the division’s CGP website.
22. Parts 4.4.1.1. and 4.4.1.2. contain requirements regarding minor and major modifications to the stormwater management program and state that public notice is not required. I would expect the need for public notice to be somewhat dependent upon the local legal authority for each small MS4.
23. Part 4.4.1.2. contains typographic errors in the introductory sentences. The first sentence should state, “Major Modifications”, and the third sentence should state, “addressed”.
24. It is unclear why the actions discussed in permit part 4.5.2.a. are only presented as optional (*i.e.*, “should”, “may”). If subpart a. does not contain actual compliance requirements, why is its inclusion in the permit necessary?
25. The heading of the table in part 4.5.5. is not consistently in boldface font.
26. Even though permit part 4.6. and its subparts contain multiple references to publications available online, they do not contain hyperlinks to the cited resources as with other parts of the permit. Providing links to the applicable materials would aid permittees in ensuring compliance.
27. The third paragraph of part 4.6.1.1.1. contains the following statement, “This does not preclude permittees from sampling additional stream segments if designated during the permit term.” However, the final paragraph of the part states, “...the permittee is only required to monitor the stream segments that were designated as unavailable conditions for nutrients, pathogens, and siltation by the Division upon the effective date of this

permit.” The first statement implies that additional segments might be added to monitoring requirements if additional unavailable parameters waterbody segments are identified during the term of the permit; however, the second statement indicates this is not the case. It is unclear whether the second statement is meant to apply only to the visual stream survey requirements in the part or if it also applies to the bacteriological monitoring requirements discussed earlier in this part of the permit.

28. The table in part 4.6.1.4. does not contain any Measurable Goals. Either one or more goals need to be added to the table or that column of the table removed to avoid confusion. The Measurable Goals could be related to actual performance of the required monitoring.
29. The final sentence in part 4.6.1.3. should reference “Electronic Data Deliverable~~s~~”.
30. The final introductory sentence in part 4.7. contains an extraneous permit after the word “permittees”.
31. Permit part 6.1. contains the acronym “NOT”, but this abbreviation is not clearly defined in the permit. This appears to be a reference to Notice of Termination related to coverage under the permit.
32. Parts 6.2., 7.16.2., and Rationale parts 6.1. and 6.2. reference pertinent federal regulations using the acronym, “C.F.R.”. However, the remainder of the permit formats this acronym as “CFR”. The formatting used in the permit should be consistent.
33. The introductory sentence to part 7.19. contains a typographical error which changes the meaning of the sentence. Either the list of authorized representatives is missing an entry or the sentence contains an extraneous “, or,” (“or an authorized representative of the commissioner of TDEC, ~~or~~, upon the presentation of credentials and other documents...”). This needs to be addressed, because, as presented, it alters the intended meaning of the sentence.
34. Part 8.1. does not contain a definition of “1-year 24-hour” even though that is the design storm for water quality treatment imposed in permit part 4.2.5.2.c.
35. The definition of “clearing” in part 8.1. appears to contain a typographical error. The term “cold planning” should instead be “cold planing”.
36. The definition provided for “Terminated” “QLP Status” in part 8.1. does not appear to be contextually accurate. It is related more to a terminated permit coverage than terminated status as a QLP.
37. The definition of “unavailable parameters” in part 8.1. incorrectly limits the permit’s applicability to siltation. However, other portions of the permit indicate broader applicability than only siltation. For example, nutrients from MS4 discharges could be of concern regarding permit compliance.

38. The terms “Tennessee Fundamentals of Erosion Prevention and Sediment Control, (Level 1) And Tennessee Erosion Prevention and Sediment Control Design Course (Level 2)” are indented more so than other entries in permit part 8.3.
39. Rationale parts 5.2. and 5.3. each contain grammatical errors, such as apparent missing words or misplaced punctuation, which negatively impact clarity and readability.
40. Rationale part 6.2. item a. under the “Potential Activities for the Commercial/Industrial Community” heading contains an apparent spelling error. “Suppling materials...” should instead be “Supplying materials...”
41. Rationale part 6.6.1. appears to intermingle discussion of pollution prevention/good housekeeping control measures and management practices with requirements for employee training on these program aspects. It may be beneficial to separate this discussion into subparts to improve clarity.
42. Rationale part 8. references “Part 0” of the permit. However, there is no such part in the body of the permit.
43. The Notice of Intent (NOI) form included as Appendix 1 to the permit includes a purpose statement identifying applicable entities for whom the form is intended. It is unclear whether this is supposed to be an exhaustive list of applicable facilities and, if so, whether it sufficiently incorporated all forms of non-traditional small MS4 entities. This may lead to confusion on the part of some non-traditional entities as to whether this NOI form applies to them.

May 16, 2022

Paul E. Davis, PE
pedh2o@gmail.com

By email to Mrs. Ariel Wessel-Fuss
Ariel.Wessel-Fuss@tn.gov

Re: General NPDES Permit for discharges from Small Municipal Separate Storm Sewer Systems
Permit Number TNS100000

Following are my comments for the public record on TDEC's Draft General NPDES Permit for Discharges from Small Municipal Separate Storm Sewer Systems (sMS4s). I appreciate this opportunity to participate and look forward to continuing discussions with agency staff and other interested persons after which I may have further comments.

This is one of the most important permits TDEC will ever issue

It's appropriate to start with a reminder of what was said about MS4 discharges in TDEC's landmark 2018 document, [TNH2O, Tennessee's Roadmap To Securing The Future Of Our Water Resources](#). To quote from page 17 of the Natural Resources Chapter, "MS4 discharges are by far the leading pollution source in Tennessee that is subject to regulation." That was true in 2018 and it's true today.

So it's not surprising that in a recent publication on the condition of Tennessee's waters, TDEC reported 61% of assessed urban waters to be impaired.

This permit will direct our MS4s' implementation of structural and non-structural control measures that reduce pollution from stormwater discharges. It will be in effect for five years. For much of the state, there's every reason to expect much new development and redevelopment during those five years. So it's one of the most important permits TDEC will ever issue. It's vital to Tennessee's future that we get it right.

Post-construction/permanent control requirements need to be strengthened

Substituting impervious roofs, roads, parking areas, walkways and more in place of natural vegetation degrades urban streams. Pollutants wash in and stream channels erode. We've understood for decades that post-construction/permanent controls are our only hope to offset the expansion of the built environment we're now seeing in so many Tennessee cities and counties.

These comments deal mainly with the biggest problem I see in the draft: allowing designers to reduce the volume of water to be treated by post-construction/permanent stormwater control measures.

Pretending roofs don't discharge stormwater

The section titled Permanent Stormwater Standards at Part 4.2.5.2.c., on page 33, contains this sentence: "Uncontaminated roof runoff may be excluded from the WQTV." WQTV stands for Water Quality Treatment Volume, the volume of runoff that must be treated to a certain level. Treatment methods vary in terms of effectiveness, and recognizing that, TDEC's table on page 34 assigns larger WQTVs to the less effective SCMs. The intent, as explained in TDEC's responses to Comments 65 and 80, is to "provide equivalent overall treatment efficiency" between the types of treatment.

By permitting "uncontaminated roof runoff" to be excluded from the WQTV, TDEC allows designers of post-construction stormwater control measures to pretend that some roof area, quite possibly representing much or most of the impervious area at a new development or redevelopment project, simply doesn't produce runoff when it rains.

The roof exclusion seems to have grown out of Comment 63 in [Rule Chapter 0400-40-10, National Pollutant Discharge Elimination System General Permits, Concise Statement of the Principal Reasons for Rulemaking](#). Comment 63 posits that TSS generated by parking lots and roofs are not necessarily the same. It hypothesizes that if 95% of TSS at a development comes from parking lots, then 80% TSS removal for the whole development could be achieved by 84% removal of parking lot TSS and no treatment of roof runoff. That's mathematically correct, a simple mass balance statement dealing exclusively with TSS from two different sources. No other pollutants figured into the commenter's analysis.

With no further explanation and no consideration of other pollutants or the relative volumes of the contributing sources, TDEC responded: "The final rule has been revised to allow permittees to exclude uncontaminated roof runoff from the WQTV calculation." (That sentence is also part of TDEC's responses to Comments 64 and 80.)

The 80% TSS removal standard is a presumptive standard, meaning 80% removal is presumed to be achieved if the SCM is designed, constructed and maintained strictly in keeping with certain recognized specifications. Assuming rain falls evenly, and that the commenter's roofs and parking lots drain in the same direction, excluding impervious roof runoff from the design volume would reduce WQTV, and thus SCM size, by the same fraction (or percentage) that the roof area is of the total impervious area. For example, if the roof area is half of the impervious area at a new development, the SCM would be half the size it would have been but for the exclusion. Even though it receives all the runoff.

Still, provided that it's designed in accordance with specs, Part 4.2.5.2.a. of the permit deems this SCM to reduce pollutants to the Maximum Extent Practicable and to be in compliance with Tennessee's standards for permanent stormwater control. No measure of actual removal of TSS or any other pollutant applies.

Of interest is TDEC's answer to Comment 80. This comment says we're all about TSS removal so why fuss with SCMs that target any other parameters. TDEC's response in this case correctly explains: "TSS removal is not the sole performance criterion. The federal requirement, as reflected in this rulemaking, is to maximize removal of all pollutants to the extent practicable."

It's well understood that, depending on the particular pollutant, coincident pollutant removal is provided by some of the SCMs. Infiltration, for example, results in full removal and biologically active filtration removes a range of pollutants. This explanation would have helped with Comment 63.

We want pollutants in runoff from all impervious surfaces to be removed to the Maximum Extent Practicable. That requires controls that account for all the impervious area.

There is no "uncontaminated roof runoff" in an urban setting

The term "uncontaminated" has a clear meaning: not contaminated. "Contaminated," according to Merriam-Webster, means "soiled, stained, corrupted, or infected by contact or association."

The National Institutes of Health's PubMed web site has an article titled "[Determining when contamination is pollution - weight of evidence determinations for sediments and effluents.](#)" That article differentiates between "contamination" and "pollution" this way: "Contamination is simply the presence of a substance where it should not be or at concentrations above background. Pollution is contamination that results in or can result in adverse biological effects to resident communities."

Roofs are permanently exposed impervious surfaces. In urban settings, no runoff from exposed impervious surfaces, including roofs, is uncontaminated, much less permanently uncontaminated.

Contaminants – solid and dissolved – come from a range of deposition sources like dust, pollen, wildlife and fallout from combustion, as well as from weathering and decomposition of the roof itself. A Google search will bring up confirming studies such as the following:

An article in the September/October 2008 issue of [Journal of Irrigation and Drainage Engineering](#) titled [Roofing Materials' Contributions to Storm-Water Runoff Pollution](#) reported the results of leaching tests and field studies of several roofing materials. It concluded: "Roofs do not simply collect atmospheric deposition and transport it to the drainage system. They also may, depending on the material's composition and ability to degrade and release pollutants, be a significant source of pollutants in urban runoff."

A 2017 University of Tennessee doctoral dissertation titled "[Drivers of Stormwater Runoff Characteristics from Non-Point Source Urban Pollution](#)" found that bacterial contamination is

common in rooftop runoff. Here's the third among its conclusions: "Bacterial contamination was found to be consistent over the course of a storm for rooftop runoff, especially in the form of *E. coli* and heterotrophic bacteria. This finding elicits a need for rooftop runoff to be treated prior to reuse."

Since uncontaminated roof runoff functionally does not exist, TDEC's proposed draft does not, in fact, allow any roof runoff to be excluded from the volume to be treated. The agency should say so.

The roof exclusion is unworkable

Design precedes construction. Excluding roof area requires that the project designer know in advance that its runoff will be uncontaminated. And since these are to be permanent controls, the designer must know that will be true forever. It's simply not possible.

No other MS4 permit allows exclusion of roofs

I can find no other state, tribe or territory where roofs are allowed to be categorically excluded from post-construction control requirements. No explanation has been offered for Tennessee to authorize significantly less protection of our urban waters than that required by any other permit authority in the country.

Tennessee knows how to protect urban waters

Several MS4s in Tennessee, including those operating under individual as well as general permits, have for a decade or more required post-construction controls. None have allowed exclusion of roof area. Successful implementation in those MS4s, as well as hundreds more in other states, proves that it's entirely practicable to design, construct and maintain stormwater control measures for the whole impervious area. It's already happening.

In 2014 the University of Tennessee produced a design manual, [Tennessee Permanent Stormwater Management and Design Guidance Manual](#), through contract with TDEC, Division of Water Resources. Its stated purpose is "to serve as design guidance and technical reference for designated and non-designated (unregulated) MS4 communities in Tennessee." This is a well-respected reference.

Nothing in that design manual suggests that designers should exclude roof runoff from treatment volume. To the contrary, Section 4.4, titled "Runoff Treatment Volume" (page 52), makes clear that runoff from rooftops is part of the volume that must be treated: "The treatment volume is any runoff generated from the first inch of rainfall from site elements that can potentially contribute pollutants. These areas include impervious surfaces (such as rooftops, pavements, dirt roads, etc.). This is equivalent to the minimum treatment volume for the performance-based criteria for 80% TSS removal. In order to be compliant with treatment requirements, this volume must run through an SCM that is approved for treatment."

The word “uncontaminated” appears nowhere in the entire manual.

The roof exclusion would impermissibly violate EPA rules

The permit rationale accompanying the draft explains at Part 6.5, on Page R-14, that Permit Part 4.2.5, the post-construction/permanent stormwater control part of the permit, incorporates newly adopted rules. That’s true. But it’s my understanding that those rules are not yet fully effective.

It’s also true that this will be an NPDES permit issued under authorization from EPA and it cannot violate federal rules.

EPA rules at 40 CFR 122.34 require that MS4 permits require, at minimum, that MS4s “reduce the discharge of pollutants from [their] discharges to the maximum extent practicable.” And at Part (5) of that section the rule requires that small MS4 permits “must ensure that controls are in place that would prevent or minimize water quality impacts.”

Roofs account for a significant fraction – 90% or more at some sites – of the impervious surface at any new development or redevelopment project. A stormwater treatment measure whose design is based on less impervious drainage area than it will actually receive would be proportionally undersized. That’s less control – 90% less or even worse at some sites – and certainly not control to the Maximum Extent Practicable. And it’s not control that will “prevent or minimize water quality impacts.”

Infiltration-based control measures should not be allowed in the riparian buffer

A second issue with the draft is that it invites placement of controls in infiltration-based riparian buffers.

Stormwater people know that the best control for post-construction runoff is for it to infiltrate into suitable soil or media. They also know that one of the keys to effective infiltration is to prevent the infiltration area from getting blanketed with silt. That’s exactly what can happen when high-water events flood the buffer. And that’s why Metro Stormwater and other MS4s I’m familiar with don’t allow infiltration-based stormwater controls in the buffer area.

But the new draft explicitly allows infiltration-based stormwater control measures in the riparian buffer. In a discussion of preferred vegetation in the buffer zone, Part 4.2.5.4.b. (page 36) states that “riparian buffers may be composed of ... infiltration-based SCMs”; while Part 4.2.5.4.c. (page 37) notes that permittees “may establish permissible land uses or activities within the buffer, [including] infiltration-based SCMs.”

These provisions would lead at best to increased maintenance requirements and more likely to ineffective post construction/permanent controls.

TDEC should support its clean water partners - Tennessee cities and counties

It's not fair to Tennessee cities and counties to put them in the position of defending protective water programs against weak parts of the state permit.

Yes, the roof exclusion is permissive rather than mandatory. And yes, cities and counties could require through local ordinances that infiltration must be located so as to maintain effectiveness. But a decade of hearing from Tennessee MS4s and hundreds more MS4 staff all across the country tells me just how hard it is for them to require protection beyond what their state says is sufficient. Allowing treatment volume to be reduced and inviting placement of infiltration-based controls in riparian buffers do not provide the protection that Tennessee's streams and Tennessee's MS4s deserve.

Other Comments

I've suggested to TDEC (by a separate communication) several minor edits that don't need to be repeated here. The following items, however, I do want to include:

Part 1.3.3.2 – The list of allowable non-stormwater discharges includes “Dechlorinated swimming pool discharges” but makes no mention of saltwater pools. Salt is mentioned as a pollutant of concern at other places in the permit. The permit should make clear that discharges from saltwater pools are not among those allowed.

Part 4.2.4.j. – The term “immediately upstream” needs clarification.

Part 4.2.5.4.e. – I don't think of “top of bank” as being the same as “ordinary high water mark.”

Definitions – The definition of “Waters with unavailable parameters” on page 84 should be modified to align with [Rule 0400-40-03-.06\(2\)](#): “Unavailable parameters exist where water quality is at, or fails to meet, the levels specified in water quality criteria in Rule 0400-40-03-.03, even if caused by natural conditions.”

And finally, I appreciate living in a country where government welcomes critical opinion. I'll be happy to discuss.

Paul E. Davis, PE

TDEC Retiree, 40+ years service

Water Pollution Control Director, 1988-2012

National Stormwater Center Instructor, 2012-Present

Tennessee Stormwater Association Member, 2014-Present



Memorandum

*To: Tennessee Department of Environment and Conservation
Division of Water Resources
Attention: Ariel Wessel-Fuss*

From: Tennessee Stormwater Association

Date: May 23, 2022

Subject: Compilation of TNSA Member Comments Submitted on Proposed Draft Small MS4 General Permit

The TNSA Policy Committee solicited review comments from TNSA members on the Proposed Draft Small MS4 General Permit. The comments received are provided below and are submitted here on behalf of our large and diverse membership. Should you have any questions or wish to discuss these comments with TNSA, please do not hesitate to contact us.

GENERAL COMMENTS

- The draft permit seems to apply a “one size fits all” approach in that it prescribes BMPs, measurable goals, and reporting deliverables. This is a significant divergence from past permits, which allowed permittees to craft their SWMP around their local stream impairments, citizen complaints, water quality priorities, and water quality goals. This approach does not recognize that inherent differences exist among local governments and their individual capabilities to determine and ensure which BMPs are effective. The Division should refrain from prescribing BMP descriptions and the types, number, and measurable goals for MCMs and instead focus on compliance minimums.
- The draft permit includes a considerable increase in the level and specificity of required documentation and reporting. Numerous procedures, processes, and plans are identified, as well as an annual solicitor’s certification, SWMP Evaluation Report, and the annual reporting deliverables identified in management measure tables. Some of these items seem unnecessary or redundant (detailed comments will follow). This increase in the level and specificity of required documentation and reporting will require substantially more permittee resources to implement and maintain at a time when permittees are resource-stressed already. The changes will force permittees to focus on getting paperwork done and keeping it updated each year rather than meaningful permit compliance and water quality protection. The Division should re-examine the level and specificity of required documentation and reporting in the draft permit and seek ways to reduce the administrative

burden on permittees. For most of the new sub-plans, reports, procedures, and annual reporting requirements in the draft permit, a deadline for implementation is not provided. Does this mean permittees are required to step-up administratively immediately when the permit becomes effective? Given the substantial increase in documentation required by this permit and the potential need to secure additional staff or outside resources to prepare these items, permittees will need significant additional time to budget, plan, and prepare the new plans, reports, and procedures. This is especially true for the upgrade in compliance tracking required in the annual report. This change alone will require permittees to revisit current methods of compliance tracking, determine the changes needed to meet the new permit, coordinate with the departments affected, and allocate funding/resources required to upgrade. As well, the new permit could become effective near the beginning of a municipal fiscal year (July 2022) for many permittees. For these permittees, their FY22-23 budgets do not include funding to deal with such a substantial increase in the permit's administrative needs. As a result, at least three years from the effective date of the permit may be needed for permittees to budget, plan, and then implement the necessary changes.

- There are many different, overlapping compliance timeframes in the permit. Can TDEC put together a compliance timeline/checklist for permittees to follow to help avoid the confusion?
- Throughout the permit, remove the words “all”, “any” and 100% as it is all-inclusive and suggests that missing any one element or partial element of the permit, no matter how small or insignificant, would put the permittee at risk for violation of the permit. Specifically, the phrase “100% of all” is used frequently in the “Measurable Goals” column of the permit compliance tables.

HOT BUTTON TECHNICAL ISSUES

- Section 4.2.5.2.c., on page 33, notes “Uncontaminated roof runoff may be excluded from the WQTV.” This sentence should be removed from the permit. If included, the permit would allow designers of post-construction stormwater control measures to pretend that some portion, even the major portion, of impervious surface area simply doesn't produce runoff when it rains. In urban settings, no runoff from impervious surfaces, including roofs, is uncontaminated, much less permanently uncontaminated. Contaminants – solid and dissolved - come from a range of deposition sources like dust, pollen, fallout from combustion, from wildlife... as well as from weathering and decomposition of the roof itself. A Google search will bring up several confirming studies. If maintained, TDEC should provide in the rationale clear scientific evidence that roofs do not contribute detrimentally to runoff and do not deliver pollutants to streams/rivers.
- Section 4.2.5.4.b and c, on pages 36 and 37, explicitly allows infiltration-based stormwater control measures in the riparian buffer. It is well-accepted that the best control for post-construction runoff is for it to infiltrate into suitable soil or media. Creekside stream buffer

areas may be the worst location for infiltration-based stormwater control measures. First, the water table adjacent to a stream would likely prevent any meaningful infiltration, particularly during a storm event. Second, one of the keys to effective infiltration is to keep the infiltration area from getting blanketed with silt. High stormwater flows in buffer areas will surely deliver silt to these practices which will quickly render them ineffective. The permit should not speak to the allowance of these practices in riparian buffers and the local governments should have complete discretion regarding where infiltration-based stormwater practices may be placed.

DETAILED COMMENTS

- Section 3.1: This section states that TDEC may require an MS4 to create a Corrective Action Plan if stormwater discharges from the MS4 are determined to cause or contribute to an in-stream exceedance of water quality standards. The permit must include the criteria and methodology by which an MS4 can quantitatively determine if its stormwater discharges contribute to an exceedance of the water quality standards that presently are defined only for in-stream water conditions. There are presently no promulgated standards in Tennessee regulating MS4 stormwater discharges for the parameters specified in this section (i.e. nutrients, pathogens, siltation).
- Section 3.1.1: This section requires the permittee to implement stormwater pollutant reductions consistent with any applicable Waste Load Allocations (WLA) in a TMDL. The permit must include the acceptable methodology by which an MS4 can quantitatively determine how an MS4's stormwater discharges would impact the in-stream pollutant levels to be reduced according to the WLA TMDL requirements. The WLA in TMDLs are specified only for in-stream concentrations and there are presently no promulgated standards in Tennessee regulating MS4 stormwater discharges for the parameters that could be the subject of a TMDL.
- Section 3.1.2: This section requires the permittee to implement stormwater pollutant reductions for waters with unavailable parameters that are not subject to a TMDL. The permit must include the acceptable methodology by which an MS4 can quantitatively determine if its MS4 stormwater discharges are significant (i.e. not de minimis) contributors to the impairment. Impairments are defined only for in-stream concentrations and there are presently no promulgated standards in Tennessee limiting MS4 stormwater discharges for possible unavailable parameters.
- Section 4.1.1, Pg 12. Implementation Plan - Submit implementation plan for permanent stormwater management program 90 days from the Effective Date on the Notice of Coverage. Please make it line up with when our annual reports are due so that we can put them through the same process with our annual report for public meeting. – Recommendation is to say 90 days or when our annual report is due, whichever is later.

- Section 4.1.1, Pg 12. Implementation Plan – can the State provide a framework or outline of what is expected to be provided in such an implementation plan?
- Section 4.1.2, Pg 13 The table in this section notes the permit has 18 months to implement changes to regulatory mechanisms. However, the Table in Section 4.2.4, Page 30 gives a 12 month timeline for changes to regulatory mechanisms. This is inconsistent and should be corrected.
- Section 4.2.1 Public Education & Outreach. Holistic comment on this section. For multiple permit cycles, MS4s have implemented locally derived public education and outreach plans that have been compliant with the NPDES program. This permit is a significant leap forward in the prescriptive nature of the permit, defining very specifically numerous management measures and very specific (but arbitrary) numbers of activities. This approach will likely require a complete overhaul of local government outreach programs to ensure compliance with every single element of these sections. Is that TDECs intent? If not, can this section be structured such that local governments have more flexibility to continue implementing programs that already cover these management measures more broadly? TDEC still maintains the authority to review the PIE and make adjustments through audits to verify that the intent of the permit is being met without burdening all permittees with a very prescriptive list of requirements.
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- Section 4.2.1 and 4.2.2 Related to Public Outreach and Public Involvement, can one event have multiple “activities” within it and thus achieve the requirements of both Public Education and Outreach and Public Involvement/ Participation as discussed in section 4.2.1 & 4.2.2?
- Section 4.2.3, Page 24, d.: Please define “Significant” as it pertains to this section.

- Section 4.2.3 Page 25: Please elaborate on how to comply with the annual reporting requirements of “% of non-stormwater discharges or flow investigated as a significant contributor of pollutants to the MS4”. What denominator is used to find this percentage? Also please define “significant” as it pertains to this section.
- Section 4.2.3 Illicit Discharge Detention and Elimination. Page 26. Multiple boxes in this Table speak to compliance in 100% of all circumstances. Based on the experience of implementing an IDDE program, a permittee may not always be able to determine the source and discharger for a confirmed illicit discharge. So, being able to initiate enforcement and/or receive corrective action plans for 100% of confirmed issues may not always be possible. The table should be modified to allow for exceptions when due diligence is performed so that the permittee does not have compliance liability if they can not readily identify a source or discharger.
- Section 4.2.5 Please add a definition for “Stormwater Control Measures (SCMs)”, specifically covering how the term pertains to section 4.2.5 of the draft permit.
- Section 4.2.5.2, page 33, item b. Please clarify “information relevant” and “readily available” in the following statement: “Information relevant to identified SCMs should be made readily available.”
- Section 4.2.5.2, page 33, item b.: Please define “Significantly limit” as it pertains to the following statement: “If the permittee decides to significantly limit the number of SCM options it must be documented in the stormwater management program how the performance standards of Tennessee Rule 0400-40-10-.04 can be met with the limited set of control measures that are allowed.
- Section 4.2.5.6. TDEC should not be dictating the specific elements of the Plan Review and installation verification process, as the process is different across all communities and varies widely based on the size of the community, the resources/staff available, amount of development occurring, etc. The permit needs to only say “each MS4 must document the process for performing plan review and verification of appropriate installation.”
- Section 4.2.5.9, Page 42 - Establish a time frame for review of all plans and review 100% of all plans within that timeframe – I don’t know why TDEC should make MS4s set a timeframe for plans review process for our communities. This is completely unnecessary and each MS4 should be able to decide how their process works. If a process is in place, then the MS4 is meeting the intent. What regulation gives TDEC the authority to regulate the time frame for local governments to perform plan reviews?
- Section 4.6.1.1.1 On Page 55 the draft states “Adopt existing survey protocols such as the ones available through the Natural Resources Conservation Service, State of Maryland Department of Natural Resources, and/or the State of Tennessee Habitat Assessment Protocol and related

Stream Survey Field Sheets; or...". Please provide references to the survey protocols listed here.

- Section 4.6.1.1.1 on page 55 the draft states that the permittee may Develop their own protocol which must address 14 Visual Survey Assessment elements: (Channel Condition, Hydrologic Alteration, Bank Condition, Riparian Area Condition, Canopy Cover, Water Appearance, Nutrient Enrichment, Animal Or Human Waste Presence, Pools, Barriers, Fish Habitat Complexity, Invertebrate Habitat, Invertebrate Community, Riffle Embeddedness, Other as defined by the permittee) Must all 14 elements listed above be assessed in each stream?
- Section 4.6.1.1.2 on page 56 please clarify the statement (item e.) "Utilize Division protocols identified above in Option 1 or protocols approved by the Division for instream monitoring." Which protocols in option is TDEC referring to?
- Please clarify Section 4.6.1.1.2 on page 57 item h: "Provisions for an administratively continued small MS4 general permit." If the MS4's monitoring plan is for one permit cycle, could the provisions for an administratively continued permit be "ensure the monitoring is complete for the permit cycle"?
- Please provide a definition for "wet weather screening" as it pertains to section 4.6.2 item b. (Page 59).



BUILDING AND CODES DEPARTMENT

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5/18/2022

RE: Proposed Small MS4 General Permit Comments

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19. Section 4.2.3 Illicit Discharge Detention and Elimination. Page 26. Multiple boxes in this Table speak to compliance in 100% of all circumstances. Based on the experience of implementing an IDDE program, a permittee may not always be able to determine the source and discharger for a confirmed illicit discharge. So, being able to initiate enforcement and/or receive corrective action plans for 100% of confirmed issues may not always be possible. The table should be modified to allow for exceptions when due diligence is performed so that the permittee does not have compliance liability if they cannot readily identify a source or discharger.
20. Section 4.2.5: Please add a definition for "Stormwater Control Measures (SCMs)", specifically covering how the term pertains to section 4.2.5 of the draft permit.
21. Section 4.2.5.2, page 33, item b. Please clarify "information relevant" and "readily available" in the following statement: "Information relevant to identified SCMs should be made readily available."
22. Section 4.2.5.2, page 33, item b.: Please define "Significantly limit" as it pertains to the following statement: "If the permittee decides to significantly limit the number of SCM options it must be documented in the stormwater management program how the performance standards of Tennessee Rule 0400-40-10-.04 can be met with the limited set of control measures that are allowed."
23. Section 4.2.5.6. TDEC should not be dictating the specific elements of the Plan Review and installation verification process, as the process is different across all communities and varies widely based on the size of the community, the resources/staff available, amount of development occurring, etc. The permit needs to only say "each MS4 must document the process for performing plan review and verification of appropriate installation."

24. Section 4.2.5.9, Page 42 - Establish a time frame for review of all plans and review 100% of all plans within that timeframe – I don't know why TDEC should make MS4s set a timeframe for plans review process for our communities. This is completely unnecessary and each MS4 should be able to decide how their process works. If a process is in place, then the MS4 is meeting the intent. What regulation gives TDEC the authority to regulate the time frame for local governments to perform plan reviews?
25. Section 4.6.1.1.1 On Page 55 the draft states "Adopt existing survey protocols such as the ones available through the Natural Resources Conservation Service, State of Maryland Department of Natural Resources, and/or the State of Tennessee Habitat Assessment Protocol and related Stream Survey Field Sheets; or..." . Please provide references to the survey protocols listed here.
26. Section 4.6.1.1.1 on page 55 the draft states that the permittee may Develop their own protocol which must address 14 Visual Survey Assessment elements: (Channel Condition, Hydrologic Alteration, Bank Condition, Riparian Area Condition, Canopy Cover, Water Appearance, Nutrient Enrichment, Animal Or Human Waste Presence, Pools, Barriers, Fish Habitat Complexity, Invertebrate Habitat, Invertebrate Community, Riffle Embeddedness, Other as defined by the permittee) Must all 14 elements listed above be assessed in each stream?
27. Section 4.6.1.1.2 on page 56 please clarify the statement (item e.) "Utilize Division protocols identified above in Option 1 or protocols approved by the Division for instream monitoring." Which protocols in option is TDEC referring to?
28. Please clarify Section 4.6.1.1.2 on page 57 item h: "Provisions for an administratively continued small MS4 general permit." If the MS4's monitoring plan is for one permit cycle, could the provisions for an administratively continued permit be "ensure the monitoring is complete for the permit cycle"?
29. Please provide a definition for "wet weather screening" as it pertains to section 4.6.2 item b. (Page 59).

Respectfully Submitted,



John H. Doss, MA, CPESC, CFM
Stormwater Coordinator
Montgomery County, TN

Comments on Small MS4 General Permit (NPDES Permit TNS000000)

Submitted by: Urban Stormwater Control Measures Workgroup of the Tennessee Nutrient Reduction Taskforce

The Urban Stormwater Control Measures Workgroup suggests making modifications to section ***“4.2.5.8 Inventory and Tracking of Permanent Stormwater Control Measure Assets”*** to enable the collection of additional data for future assessment of potential nutrient reduction by permanent stormwater control measures (SCMs). The recommended modifications are indicated below:

1. It is recommended that TDEC include specific language to indicate that the inventory and tracking system shall be a searchable electronic database that retrieves SCM information by location or other similar identification. A searchable electronic geodatabase is preferred. Paper-based database cannot be effectively used to the evaluation SCM performance.
2. Location of SCMs should include latitude and longitude.
3. Under “.....the system should include information and records the permittee will use to demonstrate that SCMs are properly maintained, including but not limited to:”, it is recommended to consider the addition of the following information:
 - Drainage area of each SCM
 - Design criteria used for designing/sizing each SCM. Reference to manuals or design documents can be accepted.
 - Name of receiving stream or HUC unit (12 or 8) for each SCM
 - Summary of monitoring data or SCM water quality data, if any
 - Planned inspection and maintenance schedule of each SCM
 - Description of maintenance procedure
4. Under section ***“4.2.6 Pollution Prevention/Good Housekeeping”***, it is recommended that TDEC receive information from permittees where street sweeping is performed. Data on miles of lanes swept, loads of leaves collected, and frequency of street sweeping shall be made available to TDEC for evaluation.
5. It is recommended that TDEC receive available information pertaining to fertilizer use to maintain SCMs such as location and frequency of fertilizer use, type of fertilizer, and amount of fertilizer used.

From: [Ariel Wessel-Fuss](#)
To: [Liz Campbell](#)
Subject: FW: [EXTERNAL] Small MS4 General Permit Comment
Date: Tuesday, May 17, 2022 4:29:50 PM

From: Mary Beth Sutton <marybeth@mywaterways.org>
Sent: Tuesday, May 17, 2022 2:54 PM
To: Ariel Wessel-Fuss <Ariel.Wessel-Fuss@tn.gov>
Subject: [EXTERNAL] Small MS4 General Permit Comment

***** This is an EXTERNAL email. Please exercise caution. DO NOT open attachments or click links from unknown senders or unexpected email - STS-Security. *****

Hi Ariel,

I would like to comment on two particular pieces of the proposed Small MS4 permit.

"Uncontaminated roof runoff may be excluded from the WQTV." First, No rainwater coming off a roof is completely uncontaminated. Would YOU drink it? . It also contributes immensely to stormwater runoff issues, CAUSING contamination. Removing it from calculations of runoff volume will only exacerbate issues caused by stormwater runoff in our streams. That line should be deleted.

In addition, allowing "infiltration-based stormwater control measures in the riparian buffer" will simply not work. They will not function correctly. The riparian buffer is the area where the water table is the highest and therefore additional water will not infiltrate. These areas are also likely to be flooded and blanketed with silt. The silt will clog any infiltration based SCM which will then cease to function at all. SCM's based on infiltration should not be allowed in flood prone, riparian zones.

Please let me know if you have any questions.

Respectfully,

--

Mary Beth H. Sutton
Executive Director
(423)413-0471



mywaterways.org