

# City of Chattanooga Comments on Rulemaking

1. There is not a definition of a Water Quality Riparian Buffer in the document.
2. (4) Water Quality Riparian Buffer (b) and (c) allowing 'infiltration-based SCMs' inside the buffer. \* This would compromise the buffer, stream bank, and riparian cover, and the intent of the buffer.
3. (4) Water Quality Riparian Buffer (e)

\* There is no definition of "ordinary high water mark" in the document

\* Most Water Quality Buffers are defined by 'top of bank' which is not the same as 'ordinary high water mark'.

See information below discussing the '**ordinary high water mark**' in Corp of Engineer document:

## **Field Identification of Ordinary High Water Mark in Relationship to the Field Identification of Bankfull Stage for the Galveston District's Tiered Stream Condition Assessment Standard Operating Procedure**

*Bankfull stage is also statistically associated with a mean recurrence interval of 1.5 years. The mean recurrence interval is associated with perennially flowing, natural stream channels where precipitation is evenly distributed and is based on a nationwide dataset. In contrast, there is no hydrologic definition of **ordinary high water**, and the identification of **OHWM** relies entirely on physical features of streams.*

*"The term ordinary high water mark means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas."*

<https://www.swg.usace.army.mil/Portals/26/docs/regulatory/Streams/BFvOHWM.pdf>

Ordinary high water mark is a technical term with physical characteristics such as change in substrate, change in vegetation, development of a shelf, change in slope, presence/absence of litter, etc.

### **4) (2) Permanent Stormwater Standards:**

\* There is no definition in the document for ‘maximum extent practicable’

\* The rest of this section attempts to set out minimum requirements to satisfy the ‘standards’ for new development permanent stormwater design. So replacing ‘maximum extent practicable’ with something like ‘as outlined in this rule’ would be more prescriptive.

## 5) (7) Maintenance of Permanent Stormwater Control Measures Assets (b), 1.

\* SCMs must be maintained more often than every 5 years. A majority of them must be inspected and maintained quarterly and some more often to ensure they are functioning as designed and protecting water quality. This will save money to the owner because if you wait too long to do general regular maintenance, remedial maintenance could be more expensive and result in having to redo, replace, or redesign the system along with notice of violation from the MS4 and monetary penalty and/or court visit or cost.

\* It is good to have the requirement to also have ‘engineers and LAs’ inspect every 5 years to ensure that the devices still function per designed; it is NOT good to allow the ‘permittee’ to do the 5 year inspections unless they are an engineer or a LAs and familiar with design and maintenance requirements and have the credentials to ‘certify’ that the practices still accomplish the intended pollutant removal for the site design. Maybe the sentence could be rewritten:

*The development and documentation of maintenance and inspection procedures and frequencies for approved SCMs which shall require all SCMs to be inspected at least once every five years by a qualified professional familiar with applicable SCM design and maintenance requirements which could be the permittee, a licensed professional engineer or a licensed landscape architect and certify that the SCMs still function as designed;*

\* The permittee must develop a Certification process for all third party inspectors and qualified professionals.

- Need TSS defined (not listed in definitions).
- Need define regional pond

Regarding 0400-40-05-.15 2a) "Maximum extent practicable" phrase does not help the local government. It's opening propensity for argument. Please define.

Regarding 0400-40-05-.15 2b) Rework paragraph - hydrologically unclear

- Capacity is wrong word - "full treatment capacity within 72 hrs" - intent is to get to system & out in 72". Need to be clear.

- "72 hrs following end of the preceding rain event" - How to determine end of rain event?

- While this provides a standard (1 yr, 24 hr storm), continuous simulation could be an acceptable alternative with sufficient criteria.

Regarding 0400-40-05-.15 2c - pg 6 of 10)

- Next to last line to first paragraph. Treatment of 80% TSS - 80% of what? Please define particle size.

- 2nd item on WQTV chart - first 1.25 " of design storm - clarification of 12" internal water storage - could be designed without the internal water storage. Decreasing flexibility of designers. Don't have to have 12" of water storage to meet reqmts for biologically active filtration with underdrain.

- Are these equitable choices? Not clear in chart.

- Swap WQTV column & SCM Treatment Type columns (then last sentence in paragraph makes better sense.)

- Can apply SCM Treatment types for different part of project (and thus different WQTV)? Implies only one per site vs multiple SCMs on one site. Add new sentence as 2nd sentence in verbiage: All new dev projects must install one or more SCM types to retreat all runoff generated from impervious surfaces.

- Add clarification of what storm for extended detention.

- Last line of chart: Max flow rate of design storm? Flow at point where put device or max flow rate of the device you picked? Please clarify.
- Last line of chart: Clarification lists “hydrodynamic separators with NJCAT verification” could also include the acceptable particle distribution (micron sizes).

This puts communities that passed old MS4 permit in a very difficult position. TDEC should try to help out those communities who are just trying to comply with the permit (help handling the development community fall out).

Regarding 0400-40-05-.15 4b) The statement: “The remaining riparian buffers may be composed of herbaceous cover or infiltration-based SCMs. “ seems counter intuitive as it allows purposeful destruction of the existing vegetative buffer.

Definitions needed:

1. Maximum Extent Practicable: Please clarify, is the intent here to provide:

- What is **physically** achievable on a given parcel or site? Or, is it
- What is **financially** achievable on a given parcel or site, based on a development pro forma ?

2. Wetlands: Our current understanding of wetlands meets both of the following definitions:

a. (81)(86) "**Stream**" means a surface water that is not a wet weather conveyance.

(91)(95) "**Waters**" means any and all water, public or private, on or beneath the surface of the ground, which are contained within, flow through, or border upon Tennessee or any portion thereof except those bodies of water confined to and retained within the limits of private property in single ownership which do not combine or effect a junction with natural surface or underground waters.

- Definitions

- “New Development Project” is defined as both a new or re-development. Remove the confusion by just calling it a “development project” (remove the word New).
- Permanent Stormwater Standards
  - TSS is used as an indicator for the removal of pollutants. Remove the “such as sediment, nutrients, and pathogens”.
  - Why is WQTV only from impervious surfaces? Wouldn't it include all of the development/disturbed land area? Replacing a forest with a lawn will generate additional runoff and potentially more polluted runoff depending on how the lawn is used/treated.
  - Section e.3 - incentives should be required to show their environmental benefit
- Stormwater Mitigation and Public Stormwater Fund
  - Mitigation should be required at site with a pollutant loading equal to or greater than the design site. Example: It wouldn't work for a trucking company that expands its parking lot (high amounts of hydrocarbons) to perform offsite mitigation at a public park. The water quality benefit is lessened even if the volume mitigated is 1.5x the unmet volume.
  - Define “public mitigation project”. Could it include buying floodplain for conservation purposes? Or planting riparian buffers?
  - Mitigation sites should be given a time limit to be installed by.
  - The payment amount into a public stormwater fund must be sufficient to design, install, and maintain the stormwater mitigation measures... add “for the life of the development project” which is the same language used in section 2.b and 7.b.
- Water Quality Riparian Buffer
  - The 60' buffer is for streams with unavailable parameters for ONLY siltation and habitat alteration. Why doesn't the 60' buffer width apply to ALL streams with unavailable parameters?
  - Vegetation requirements in the buffer should reference native plants and require a canopy, subcanopy, and shrub species (Urban Riparian Handbook)
  - If a retrofit or redevelopment site had a buffer that was already impacted (parking lot, sidewalk, building, etc.) would it be permissible to place any type of SCM in the buffer?
  - Infiltration based SCMs should not be placed in a mapped floodway or an active floodplain. Active floodplain would need to be defined; some degraded, incised streams will never or rarely utilize the floodplain.
  - Remove reference to ordinary high water mark. Top of bank should be defined as the bankfull elevation or the incipient point of flooding, whichever is the greater width.