

## **Key Points of Discussion to the Proposed Stormwater Ordinance**

### ***Tennessee Clean Water Network Knox County Clean Water Alliance January 18, 2006 Meeting***

The following comments are based upon our discussions in the meeting and your responses to our questions, and NOT on our review of the materials that were provided to us. We assume for the purposes of this commentary that your representations are consistent with the information that you provided to us.

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1. **In-Stream Compliance / Performance Monitoring** – Contrary to Knox County's belief, in-stream performance and compliance monitoring is required to measure compliance with the Phase II MS4 permit, to demonstrate compliance with the Total Maximum Daily Load (TMDL), to protect streams that are already on the 303(d) list of impaired waters, to protect waters that are designated as high quality waters, and to protect other waterways from future impairment (see Section 3.1 of the MS4 permit and Section 8.1.4 of the Fort Loudon Siltation / Habitat Alteration TMDL).

2. **Construction Site Stormwater Management** - Knox County's proposed approach for managing, inspecting, and monitoring construction sites is inadequate. The County's sole reliance of the conditions of the Tennessee General Permit for Stormwater Discharges from Construction Activities is not stringent enough to be protective of impaired and high quality waters and other streams in the County, as evident by the current list of streams on Tennessee's 303(d) impaired waterbody list and the commonality of the sources of pollution (sediment and urbanization) for those streams. More stringent requirements beyond the six minimum control measures of the MS4 permit and the TMDL waste load allocations for the appropriate pollutants and watersheds must be implemented.

3. **Post-Construction BMPs** - Knox County's position regarding construction site BMP performance monitoring is not protective of waterbodies. Given that most stream impairments occur during construction, the current and the proposed ordinance afford no meaningful program to reduce construction pollutant reductions because the proposed ordinance includes no construction site analytical monitoring or any mechanism to demonstrate construction site pollutant reductions. Further, the post-construction site program proposed by the County offers no demonstrated degree of BMP pollutant reduction performance – just arbitrary, assigned values for effectiveness based on what BMP is used. Your ordinance also assumes that BMPs are effective in perpetuity and that proper maintenance of the BMPs will be implemented. The best way to

demonstrate true BMP performance is to implement an in-stream analytical monitoring program.

**4. Reliance on the Tennessee General Construction Stormwater Permit for Construction Activities** - Knox County's default reliance on the conditions of the Tennessee Construction General Permit (CGP) to regulate construction site activities does not comply with the MS4 Permit. Knox County's existing MS4 permit clearly states that the County has the responsibility to create, implement, and enforce its *own* program based upon specific local conditions, specific TMDL requirements, and specific impaired and high quality stream designations. This MS4 permit requires that Knox County implement Tennessee's watershed TMDLs for pollutants of concern associated with discharges to impaired and high quality watersheds, requires special Best Management Practice (BMP) considerations to strengthen the design standards for site plans, requires strengthening preconstruction BMP requirements, requires reduction of waste loadings in stormwater runoff beyond the norm for construction sites, requires increased site inspections, requires the modification of the site stormwater pollution prevention plan, and requires the County to demonstrate pollutant reductions through an effective analytical monitoring program, among other requirements (see Sections 3.1 and 4.2.4 of the MS4 permit and Section 8.1.3 of the Fort Loudon Siltation / Habitat Alteration TMDL). Construction site operators are required by the Tennessee Department of Environment and Conservation to meet the requirements of both the CGP and the local County MS4 ordinance.

Further, the Tennessee CGP clearly states that the permit does not authorize any discharge that adds loadings of a pollutant that is identified as causing or contributing to the impairment of a water body on the 303(d) list of impaired waters (see Section 1.3 e.) of the CGP). Knox County has 35 existing streams that represent almost 360 river miles on the 303(d) list of impaired waters, and most of those impairments are due to siltation and MS4 discharges. Further, the Tennessee GCP clearly states that discharges of a pollutant to waters of the state are not eligible for coverage under the CGP unless measures or controls are consistent with the assumptions and requirements of an approved TMDL and are incorporated into individual site storm water pollution prevention plans (SWPPPs) and the County's stormwater management program (see Section 1.3 k.) of the CGP)

**5. Current Violations of Water Quality Standards** - We know you are aware that the current Knox County permit does not allow for any violation of a water quality standard, even with the implementation of the six minimum control measures. The permit states that Knox County cannot contribute to any in-stream exceedence of a water quality standard (see Section 1.5.6 of the MS4 permit). Further, your reliance on the conditions of the Tennessee CGP as being mechanism to control construction site runoff, means that the proposed ordinance should not allow for any discharge that has visible solids, high turbidity, an objectionable color contrast to the receiving stream, nor any floating

matter (see Section 4.3.2 of the CGP). Also, such conditions are clear violations of the Tennessee Water Quality Control Act and the Clean Water Act. Yet, the photographs passed around the table (during our meeting) of discolored, stormwater discharges leaving construction sites in Knox County, reveal clear, supportable evidence that runoff from Knox County construction sites is currently violating the MS4 Permit, the CGP, Tennessee's anti-degradation policy, and causing the receiving streams to not meet water quality standards.

**6. "Priority Site" Identification and Management** – In our meeting, you clarified the existing definition of "Priority Sites" in the proposed ordinance as not being consistent with the County's watershed approach to stormwater management. We agree with your clarification in the meeting, that a "priority site" should be any stormwater activity that creates pollutants in the entire watershed for the impaired or high quality water, not just those sites immediately upstream or adjacent to the waterway. We appreciate your understanding that pollutants introduced anywhere in the stream's watershed have the potential to further pollute the impaired stream. As we also discussed in the meeting, TMDLs for pathogens, siltation, and habitat alterations exist for several Knox County streams and their watersheds. The TDML reports clearly identify streams that are afforded special protection because of their high quality or impaired conditions. Waste load allocations for MS4 discharges and those associated with construction sites are also clearly defined for those streams.

**7. Public Notice, Involvement and Participation** - The public must be allowed adequate time to review and make comment to the final proposed ordinance, including all components of the design manual. Presently, the County's proposed stormwater management program does NOT comply with Section 4.2.2.1 of the current MS4 Permit because it does not comply with the state's minimum regulations on public participation.

**8. Private Homeowner BMP Ownership/Responsibility** - Knox County's position that the ultimate homeowner or landowner is or becomes responsible for BMP management when the BMP associated with municipal stormwater management is located within a stormwater easement on private property; and the County's position that the ultimate homeowner or landowner is or becomes responsible also for identifying upstream illicit discharges, is untenable. Such an assertion is not consistent with the expected abilities of the public, not consistent with the intent of the MS4 permit and not consistent with interpretation of the Federal Clean Water Act and its storm water regulations. Moreover, it is a direct contravention of the Phase II MS4 Permit, Sections 6.8 and 6.9. The permit holder is Knox County, and Knox County cannot lawfully transfer its permit obligations to private landowners in order to escape the long term obligations imposed by the Permit. Likewise, Knox County is not at liberty to pick out the sections of the MS4 Permit it will comply with and ignore the remainder.

9. **Enforcement** - Knox County's position that the proposed Notice of Violation and associated penalty assessment portion of the proposed ordinance is strong enough to prevent and reduce future violations of the MS4 permit and Knox County's ordinance is clearly not supportable. As you are aware, the Knox County MS4 permit requires that you develop and enforce an ordinance that reflects localized needs to protect water quality. Given the current and past history of contractor non-compliance and persistence in not responding to Notices of Violation, the minimum penalty should be increased to reflect the serious nature of the violation and to represent the monetary impact of polluting and remediation of Knox County streams. Further, repeated violations by the same responsible party whether on the same job site or not, should increase the monetary penalty with each subsequent violation; and stop-work orders should be mandatory.

10. **Performance Bond** – Language in the proposed Knox County ordinance does not include stream remediation costs in determining the amount of the performance bond. Stream remediation is the end result of non-compliance and the existing ordinance does not include a monetary value to restore the stream to its previous, unimpaired state. Stream remediation should not be a cost to the citizens of Knox County via taxes when the damage to the stream is directly caused by contractor negligence or ignorance of stormwater control.

11. **Credit Program** – The use of non-structural stormwater “credits” is innovative, however, the proposed program is confusing because it allows for discretionary decisions to be made by Knox County, assumes that better site design criteria alone will be sufficient to reduce pollutants, and assumes that actual site conditions will be consistent with the design plans. Past history of Knox County construction sites, including present-day sites, frequently indicate that actual, post-construction conditions have not been consistent with site designs. Furthermore, the credit approach assumes that the site design will not be altered by the private landowner once the property is sold, and that the landowner will properly maintain the conditions to reduce pollutants. (See paragraph 8) Moreover, there exists a degree of mistrust by the public based upon past actions, where the County allows for discretionary site design alternatives and provides too much leeway to contractors when certain economic or political intentions override the technical requirements of the stormwater management program. The term “credit” is misleading because the term implies that for every conceptual stormwater pollutant reduction provided, allowances will be given elsewhere onsite to increase pollutant loadings.

12. **Threatened and Endangered Species** – Although Knox County's position that the process of determining the occurrence of threatened and endangered species may be confusing and troublesome, the County is not at liberty to ignore sections of the Permit that it finds burdensome. The methods and requirements for determining the occurrence of such species are clearly provided in the County's MS4 permit (see Sections 1.5.5 and 3.2 of the MS4 permit).

Stormwater runoff from MS4s and construction sites within the MS4 area cannot jeopardize the existence or alter the habitat of species. Our review of the list of threatened and endangered species in Knox County clearly indicates the presence of federally and state-protected species in the County. Some of these species are aquatic and many of those that are not, directly and indirectly rely on streams for their habitat and other purposes. Habitat alternation of streams is one reason stated by TDEC for known water quality impairments in Knox County. Further, TDEC admits that not every stream in Knox County has been surveyed for the presence of threatened and endangered species, and, therefore, the County cannot automatically assume that such species do not exist in any particular stream. Our experience has been that the United States Fish and Wildlife Service (USFWS) office in Cookeville, Tennessee is very competent and very helpful when approached in a reasonable manner for assistance.

13. **Peak Flow Concentration Design Approach** – The County’s position that the downstream impact analysis should only consider peak flow, not peak flow and volume, is irresponsible. Flooding is a common occurrence in Knox County due to increased volumes of runoff and the inability of the conveyance system (the development and downstream) to transport the peak flow and the volume. Per our discussions in the meeting, your proposed ordinance only requires developments in sinkhole drainage basins to include stormwater runoff volume design considerations during the site planning process. Your proposed ordinance should prioritize design and BMP measures to properly reduce the volume of runoff for both sinkhole and surface water drainage basins and to consider the negative effects of the duration of increased runoff onto private land. Stormwater retention requirements should be more prevalent in areas of existing flooding and stormwater runoff from new developments, in both the construction and post-construction phases, and they should be consistent with the hydraulic capabilities of the downstream conveyance system.

Stormwater runoff volume greatly affects the property rights of individuals in Knox County. Knox County’s MS4 permit does not convey any property right to the County nor does it authorize any injury to private property or the invasion of personal property rights (see Section 6.8 of the MS4 permit). The increased volume of stormwater runoff and flooding clearly and negatively affect individual property rights.

14. **Sinkhole Drainage** – Although this topic was a high priority on the meeting agenda, it was not discussed due to time constraints. We reserve comment on the sinkhole drainage ordinance components to a later date. In the meantime, Knox County should, however, carefully consider the effects of stormwater quality and volume to sinkholes. Increased volumes of surface water runoff to sinkhole drainage basins is known to increase the likelihood of future sinkhole collapses, not to mention increased flood hazards as described in #13 above. Moreover, surface runoff with large amounts of suspended solids is known to reduce the hydraulic capabilities of the underground drainage system. As with

any karst geologic system, surface runoff to the subsurface eventually emerges as a surface water body, thereby creating an eventual surface water quality issue. Both groundwater and surface water are considered in Tennessee to be “waters of the state”. Therefore, Knox County should consider the penalties associated with clear violations of water quality standards to surface water streams and to the localized groundwater and its emergence points.

**Conclusion** -The unique geology of Knox County, the number of 303(d) listed streams, and the frequent flooding occurring in many parts of the County, mandate that Knox County create a Phase II program that addresses these issues. The task at hand is to create your own program that is protective in ALL phases of construction, to meet all legal requirements and to be protective of water resources. Clearly, Knox County should recognize that the six minimum pollution control mechanisms required in the MS4 permit are just that – minimum control mechanisms. The Rationale Sheet for the MS4 permit is clear to state that each regulated MS4 system should consider its own characteristics and water quality needs when creating an effective stormwater management program. Opting out of a localized program by adopting the Tennessee CGP for the your ordinance’s construction runoff management program is not acceptable and not contemplated by either the Phase II Permit, nor EPA’s guidance, nor TDEC’s Rationale Sheet for Phase II, MS4 Permits. Furthermore, the post-construction phase must also take into consideration geology, hydrogeology, 303(d) listed streams and flooding problems in a manner that is protective of the resource and of public health and safety. If the County is going to continue to grow, the county must be willing to assume responsibility for maintaining BMPs which the federal and state regulatory agencies consider to be the permit holder’s responsibility, not that of the general public or private landowners. BMPs serve the public, not just the landowner and as such must be maintained by the County to retain their effectiveness, as is contemplated by Sections 6.8 and 6.9 of your MS4 permit.

The Permit frequently uses the words “you” or “your”, referring to the Permit holder. The County should re-read the definition of those words appearing on page 29 of the Phase II MS4 Permit.