

PROBLEMS FOR YOUR SANITARY SEWER SYSTEM – DISPOSABLE WIPES CAUSING CLOGS



Disposable wipe products are becoming increasingly popular due to their convenience. However, increased wipe usage is causing expensive problems for sanitary sewer systems. Even wipes labeled as “flushable” on the package do not break down enough to flow through the sanitary sewer, pumps and bar screens at wastewater treatment facilities. Disposable wipes are causing clogs which can damage pumps, cause premature failure of equipment and increase plant maintenance.

Most wipes on the market do not break down sufficiently to be considered dispersible and therefore; should not be flushed. However, manufacturers currently label products as “flushable” if they can pass through a home’s plumbing system. The Association of Nonwoven Fabrics Industry (INDA) passed new guidelines for flushability in June 2013. These guidelines require manufacturers to evaluate their wipes with a series of seven tests. Products not passing these tests will be repackaged with a “do not flush” logo by January 1, 2015. This is good news, but revised labels on wipes may not be enough to reduce clogging.

Many local agencies are distributing information in bill stuffers and posting fliers to get the word out to consumers that *only toilet paper should be flushed*. The Water Environment Federation recently posted a YouTube video by the City of Spokane Washington called “Will It Flush?” which demon-



Photo courtesy City of Vancouver, WA

strates how several common household objects fail to break down in laboratory testing <http://bit.ly/1ISwA27>. Is your treatment plant experiencing disposable wipe clogging? Consider sharing the video with residents on your website or in a bill stuffer.

Contact Lisa Lucht for additional information on this topic at 262.763.7834 or llucht@baxterwoodman.com

JUNE 2014

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New Options For Compliance

CLEAN WATERS, HEALTHY ECONOMY ACT

The Wisconsin Senate and Assembly passed the Clean Waters, Healthy Economy Act with overwhelming bipartisan support and the bill has been signed by Governor Walker. The intent of the bill is to provide a new and additional alternative to point source dischargers (i.e. wastewater treatment plants) for compliance with NR 217 regulating the discharge of phosphorus to waterways of the State.

As indicated by its title, this bill aims to protect the waterways of the State while reducing or delaying the potentially harsh financial consequences of compliance with effluent limits at or near criteria. This potentially extends compliance from 9 years to 20 years if the community is eligible for the variance contained in Act 378.

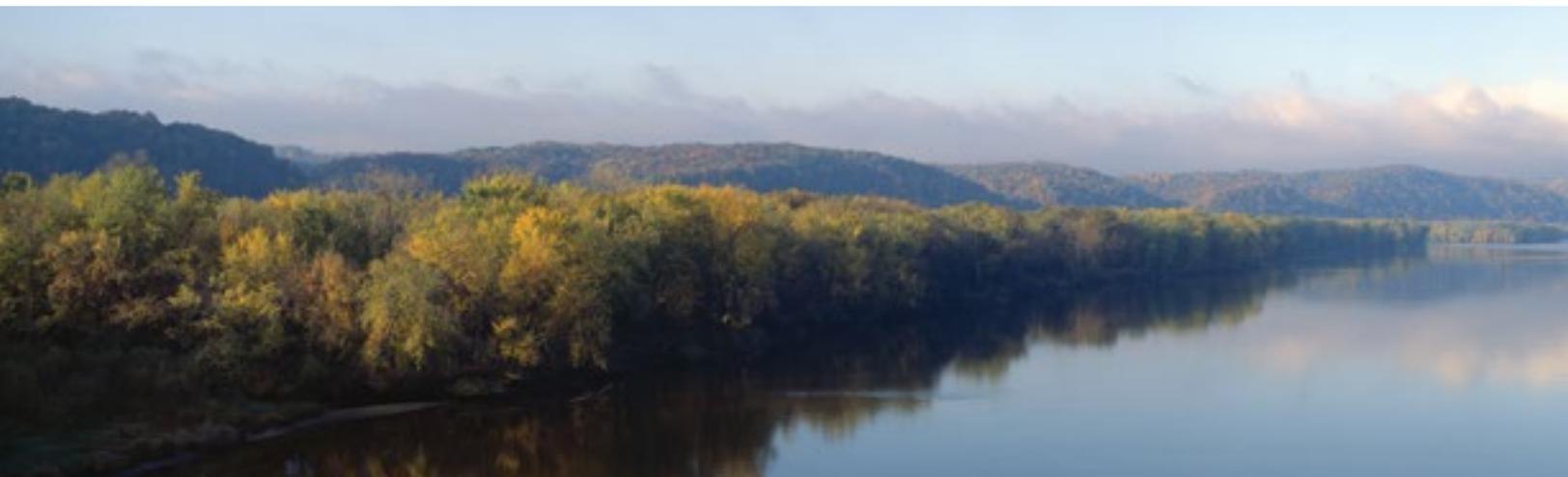
The Wisconsin Department of Administration by the provisions of the Act will complete their evaluation of whether the costs associated with implementation of the water quality criteria based approach to phosphorus limits contained in NR 217 are excessive by the end of 2014. It is expected that the Wisconsin DOA will determine those costs to be excessive. The Wisconsin DNR will then submit a request for a multi-discharger variance to the US EPA for approval.

The multi-discharger variance is the new compliance alternative created by the Act. This alternative would

allow dischargers to temporarily delay full compliance with NR 217 through the acceptance of gradually tightened interim limits on phosphorus and payment of charges related to their level of treatment and discharge of phosphorus. In essence, these charges would equal 50 dollars for every pound of phosphorus released to WI waterways that are in excess of 0.20 mg/L at the monthly or annual average flow rate.

For additional information, please contact B&W's Jim Kleinschmidt at jkleinschmidt@baxterwoodman.com or 262.763.7834. Jim has assisted many communities with evaluating the strategies available for compliance with the new phosphorus rules including options for using the multi-discharger variance approach.

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Building Sustainable Communities

Baxter & Woodman introduces a new online newsletter with practical project solutions and case studies to help you plan, design, build, and operate more sustainable infrastructure in your community.

What Topics Will Be Featured?

Sustainability topics as they relate to Stormwater, Drinking Water Production and Distribution, Wastewater Treatment and Collection, Energy Conservation and Transportation Systems. Practical applications and project examples will help you build a roadmap to sustainable infrastructure systems for your community.

How Can I Use This Information?

As a municipal official or staff member, you are committed to being a steward of your community's resources. Finding the right balance between financial, environmental and social resources can be challenging. The newsletter will explore sustainable topics associated with municipal infrastructure and share examples and success stories from your neighbors. Featured articles will offer practical solutions and ideas for implementing sustainable projects.

Check out the first edition of **Building Sustainable Communities** focused on Water Main Lining at www.baxterwoodman.com/about/sustainability/

CLEAN WATERS, HEALTHY ECONOMY ACT Compliance Example

Anytown, WI is a fictitious community previously required to meet a phosphorus limit of 1 mg/L. Under the multi-discharger variance, Anytown would be required to meet interim limits of 0.8 mg/L, 0.6 mg/L, and 0.5 mg/L during their next three 5-year permit cycles. During those periods, the discharge of phosphorus in excess of 0.2 mg/L would be subject to the 50 dollar per pound charge.

For the Anytown WWTP operating at an average flow of 2 million gallon a day, these annual charges would equal approximately \$183,000 during the first 5-year permit term, \$122,000 during the second permit term, and \$91,000 during the third and fourth permit term. These annual charges are based on the assumption that Anytown just meets each successive interim limit. The total bill for the 20 years would be \$2,400,000.

If at the end of the third permit term, water quality in the receiving stream has not attained criteria, only then would a water quality based phosphorus limit of 0.100 mg/L for rivers or 0.075 mg/L for streams be imposed.

This approach provides additional time for communities to plan and budget properly for necessary future improvements, and allows the wastewater treatment industry increased opportunity to develop and demonstrate more cost-effective technologies to meet the future and very stringent requirements contained in NR 217 for phosphorus removal. This also provides the community time to assess the condition of their receiving water to determine if the designated use of the water body is being attained at concentrations higher than the statewide criteria.



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BIOLOGICAL FILTER USE FOR GROUNDWATER SUPPLY

Biological filters have been used for decades for treating “wastewater”, but only recently has the technology been viewed as a desirable alternative for treating “drinking water”.

As communities search for lower cost, safer, more sustainable solutions to traditional water treatment, biological filters have emerged as a viable option to chemical addition or other mechanical processes.

To address an issue with naturally occurring ammonia in their deep well water supply, the City of Elkhorn, WI recently reviewed biological filtration as an option to remove the ammonia versus the higher operational cost alternative of breakpoint chlorination. Like many Midwestern communities, Elkhorn was faced with an aging water infrastructure, large population growth potential, and limited funds. With this in mind, the City worked with Baxter & Woodman on a solution to their water



treatment improvement needs. A review of their infrastructure, water makeup and future needs led B&W engineers to recommend biological filtration as a unique component to their new water treatment facilities. The City agreed, preliminary approval from the WDNR was obtained, and a low interest loan applied for to help fund the project. Elkhorn will be one of the first WI communities to remove ammonia from their drinking water with a permitted biological filtration system.

To learn more about Biological Filtration, visit www.baxterwoodman.com/presentations or contact Jerry Groth at ggroth@baxterwoodman.com or 262.763.7834.