

# RESOLUTION

## ROCK COUNTY BOARD OF SUPERVISORS

Board of Health Committee  
INITIATED BY



Rick C. Wietersen  
DRAFTED BY

Board of Health Committee  
SUBMITTED BY

November 14, 2018  
DATE DRAFTED

**RECOMMENDING MODIFICATIONS TO MADISON METROPOLITAN SEWERAGE DISTRICT'S WASTEWATER POLLUTION DISCHARGE ELIMINATION SYSTEM PERMIT TO IMPROVE SURFACE WATER QUALITY AND ADDRESS PUBLIC HEALTH CONCERNS WHEN SEWAGE IS NOT REQUIRED TO BE DISINFECTED SEASONALLY**

1 **WHEREAS**, the Wisconsin Department of Natural Resources (WDNR) allows through administrative  
2 rule NR 210.06 and an individual permit to the Madison Metropolitan Sewerage District (MMSD) that  
3 sewage wastewater discharge to the Badfish Creek does not have to be disinfected from October 15  
4 through April 15<sup>th</sup> each year; and

5  
6 **WHEREAS**, sewage discharged without disinfection can have E. coli levels of around 10,000 colony  
7 forming units per 100 milliliters of water which poses a significantly greater public health risk than  
8 sewage wastewater that is disinfected; and

9  
10 **WHEREAS**, E. coli is a serious public health concern and efforts to minimize E. coli and other  
11 communicable diseases from surface waters used for recreational purposes is a significant step toward  
12 improving public health; and

13  
14 **WHEREAS**, the Madison Metropolitan Sewerage District discharges about 40 million gallons of  
15 effluent each day into the Badfish Creek which account for over 50% of the total flow in this water  
16 body and this discharge eventually ends up downstream in the Yahara River and the Rock River; and

17  
18 **WHEREAS**, winter base flow water testing by the Rock County Public Health Department over  
19 several years has consistently indicated high levels of E. coli in the Badfish Creek and Yahara River  
20 during periods of non-disinfection of wastewater; and

21  
22 **WHEREAS**, the Badfish Creek and Yahara River are popular recreational water bodies that receive  
23 significant recreational use that result in potential human exposure during the periods of non-  
24 disinfection of sewage wastewater; and

25  
26 **WHEREAS**, the ultraviolet (UV) disinfection technology utilized by MMSD could be utilized for  
27 extended periods of time, or year-round, to significantly improve the water quality of the Badfish  
28 Creek and Yahara River and reduce potential adverse public health impacts; and

29  
30 **WHEREAS**, the MMSD Wastewater Pollution Discharge Elimination System permit criteria is  
31 currently open for public comment until December 14<sup>th</sup>, 2018.

32  
33 **NOW, THEREFORE, BE IT RESOLVED**, that the Rock County Board of Supervisors duly  
34 assembled this 13<sup>th</sup> day of December, 2018, in accordance with Wisconsin State Statute 32.05,  
35 does hereby approve forwarding recommendation comments to the Wisconsin Department of Natural  
36 Resources on increasing the period of required disinfection required in the Madison Metropolitan  
37 Sewerage District Wastewater Pollution Discharge Elimination System permit to address potential  
38 public health impacts that occur when recreational waters are receiving non-disinfected sewage  
39 wastewater, with specific concerns being the Badfish Creek and Yahara River which receive a high ratio  
40 of wastewater to normal base flows.

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Respectfully submitted,

BOARD OF HEALTH

*Louis Peer*

Louis Peer, Chair

*Connie Winter DDS*

Dr. Connie Winter, DDS, Vice Chair

Vijaya Somaraju, MD, MPH

*Katlyn Meyers*

Dr. Katlyn Meyers, DVM, MPH, FACP

*Judith Wade*

Judith Wade, WHNP

*Eric Gresens*

Eric Gresens, R.Ph

*Vicki L Brown*

Vicki Brown

*Danette Rynes*

Danette Rynes

Craig Gramke

ADMINISTRATIVE NOTE:

Recommended.

*Josh Smith*

Josh Smith  
County Administrator

FISCAL NOTE:

This resolution is advisory only and has no direct fiscal impact on Rock County operations in and by itself.

*Sherry Oja*

Sherry Oja  
Finance Director

LEGAL NOTE:

Advisory only.

*Richard Greenlee*  
Richard Greenlee  
Corporation Counsel

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- EXECUTIVE SUMMARY -

The Wisconsin Department of Natural Resources (WDNR) Wastewater Pollutant Discharge Elimination System (WPDES) permit for the Madison Metropolitan Sewerage District (MMSD) does not require that sewage wastewater be disinfected from October 15<sup>th</sup> through April 15<sup>th</sup> each year. When recreational waters such as the Badfish Creek and Yahara River receive non-disinfected wastewater in large volumes compared to the normal stream flow, water quality impacts from E. coli bacteria and other communicable diseases are likely. The Badfish Creek receives over 40 million gallons of sewage wastewater each day which is more than the normal base-flow of that stream. The Rock County Public Health Department has confirmed through routine testing over several years that E. coli levels in the Badfish Creek and Yahara River are significantly elevated in these periods of non-disinfection of sewage, resulting in potential health impacts for recreational users of these waters.

The Badfish Creek and Yahara River have become increasingly popular for recreational activities such as canoeing, kayaking, fishing, and hunting. The level of these activities has grown annually and do occur throughout the year, not just from April 15<sup>th</sup> to October 15<sup>th</sup>.

The ultraviolet disinfection technology utilized by MMSD could be utilized for longer periods of time, or even year-round, resulting in a significant reduction in potential exposure of recreational water users to communicable diseases, including E. coli.

This resolution recommends that the Wisconsin Department of Natural Resources per criteria in NR210.06(3) take into consideration bacteria indicator data, proximity of the wastewater discharge to recreational activities, the quality of the wastewater being discharged, and the dilution and mixing characteristics of the wastewater with the receiving water in order to reduce potential adverse impacts that not disinfecting sewage discharge has on the water quality of the Badfish Creek and the Yahara River, and that they take steps to reduce this impact to acceptable public health standards by extending the period in which sewage is required to be disinfected per the MMSD WPDES permit renewal.