Baseflow Augmentation (Deep Well) for Badger Mill Creek

PROJECT TYPE
Baseflow Augmentation – Groundwater Pumping

START Winter 2024 **COMPLETION** Winter 2025

LOCATION
Upper Badger Mill Creek

DESCRIPTION

Based on the information presented by the WGNHS there is potential to draw water from the deep aquifer and provide water to BMC to supplement baseflow in low flow conditions without affecting the shallow aquifer that feeds groundwater to BMC.

It was calculated to replace the flow lost by stopping the effluent return would require an added 2,000 GPM. There are wells that can be drilled into the deep aquifer and provide that volume of water when needed to the stream during drought or low flow conditions when it is needed. Flow can be controlled using a VFD connected to a pump.

There are examples of using make up wells in streams by drawing from the deep aquifer. These types of wells have the potential to receive permits from the DNR. For example, MG&E has a make-up well in the area.

BACKGROUND
The Madison Metropolitan Sewerage District are members of the stakeholder group that put forward this project proposal to develop a baseflow augmentation project in the Badger Mill Creek Watershed.

PARTICIPATING STAKEHOLDERS
Lead Organization(s): None
Supporting Organization(s): MMSD, City of Madison

FUNDING
Cost: $1,100,000
It is anticipated that funding for this project would be contributed by MMSD.

RESOURCE LINKS
2016 Groundwater Flow Model for Dane County -
https://water.usgs.gov/GIS/dsdl/gwmodels/WGNHS2016-Dane_County/WGNHS_B110-report.pdf