

MEMORANDUM - MARCH 8, 2022

To: City of Madison Transportation Commission
City of Madison Engineering Division
Jim Wolfe, Janet Schmidt, Greg Fries

Subj: Call to provide improved stormwater management plan for Lake Mendota Drive

Plans for the reconstruction of Lake Mendota Drive (LMD) call for a stormwater collection system using curbs and gutters with buried pipes that will discharge street runoff directly into Lake Mendota. This collection and discharge system continues a 75-year-old practice of piping runoff directly into the lake by the shortest route possible.

Because LMD currently has no curbs, a large portion of stormwater runs onto the shoulders of the street and into ditches and depressions. Replacing this system with curbs and gutters will channel almost the total amount of street runoff directly into the lake where water quality is in decline.

The justification for direct discharge has been to minimize infiltration of road salt into the city's water supply aquifer. But road salt on LMD is only a minor source of salt pollution reaching the well14 aquifer. More serious are the number and toxicity of total contaminants pouring into the lake. That list includes soil and sediment, fecal bacteria, trash, nitrogen and phosphorus, oil and other petroleum products, pesticides and herbicides, road salt, and toxic metals.

Decline in water quality, along with invasive species, is affecting the reproduction and growth of freshwater mussels and daphnia, the principal freshwater algae eaters. Pollution is directly affecting water clarity, and in turn, the recreational value of the lake.

A new stormwater drainage plan is now required, one that provides for surface drainage with infiltration basins and swales along the full length of LMD. A number of potential sites are already available with more possible. Stormwater pipes to feed the basins and handle the overflow will still be required while recognizing that water quality from overflow will be significantly improved.

Basins, swales and rain gardens are constructed with permeable bottom and organic soils planted with wet adapted plants and grasses. Engineered basins and swales trap soil and sediment and provide biologically active conditions that bind and temporarily lock up toxic compounds including sodium and chloride. The overall goal is to minimize direct discharge of street runoff and contaminants into the lake while improving both ground water and lake water.

This is a call to the Madison Transportation Commission to require a revised stormwater plan providing for at least 50 percent basin, swale and surface infiltration of stormwater on LMD. Nineteen-fifties drainage systems are no longer adequate for addressing 21st century challenges now facing Lake Mendota and the city's drinking water supply.

Sincerely,

Herman Felstehausen, UW-Environmental Planning
Nancy Ellison, SHNA Lake Steward
Faith Fitzpatrick
Mark Redsten
Jeffrey C. Bauer, PhD, FAANP
Charles Dunning
Kristen Slack *[All are residents of Spring Harbor Neighborhood]*

cc: Alder Furman, SHNA Aaron Crandall, Neighborhood residents

Norman Way Stormwater Drain - discharges next to Spring Harbor swimming beach. This drain is a public health hazard and a contributor to water pollution in Lake Mendota.

Drain should be phased out and closed as part of Lake Mendota Drive project.

