

# Willow Creek Public Comments

## Village of Shorewood Hills

### Comment:

RE: Village of Shorewood Hills Comments on City of Madison Draft Willow Creek Watershed Study Final Report.

Dear Jim and Greg,

Please accept this letter as the Village of Shorewood Hills comments on the City of Madison's draft Willow Creek Watershed Study Final Report. (While I would have preferred to have the Village Board review and approve these comments, the Board will not meet until March 27 and the posted deadline for these comments is March 22.)

First of all, it is an outstanding report that catalogues past studies of the watershed, documents current challenges, and recommends potential solutions. This study will no doubt prove to be a useful resource for decades to come. Compliments to City Engineering staff, the City's consultant MSA Professional Services, and all involved in drafting the Report.

Secondly, the major continuous low point for the Willow Creek Watershed, the University Avenue corridor between Midvale Boulevard and University Bay Drive, straddles our two communities. The August 20, 2018, flash flood along that corridor caused in excess of \$10 million in public and private damages in the Village. It is therefore critically important that our two communities continue to work together in partnership to best alleviate the flash flooding challenges along that corridor. A good example of that is the joint City/Village reconstruction of University Avenue that is underway. That project is an enormous and expensive undertaking that includes the installation of a new 96" stormwater conduit between Shorewood Boulevard and Grand Avenue (the "missing stormwater link" in that corridor that has seen recent upgrades in throughput capacity to the east and west of that particular stretch).

Finally, we have three suggested corrections and an observation:

- **p.15, first paragraph:** the August 2018 flash flood was the first event in 20 years in which the flood water overtopped the Village flood wall along the north edge of University Avenue between Rose Place and Maple Terrace. Sixteen Garden Homes single family homes owned by a developer were demolished following the August 2018 flash flood event; of those 16 homes, three experienced basement wall cave ins. Other privately owned homes in the Garden Homes neighborhood that were impacted by that flood were either elevated or repaired.
- **p.15, fifth paragraph:** while the area around the Village Pool (e.g., the parking lot and various green spaces in that area) experiences shallow surface flooding from time to time, the Pool has only been overtopped twice in the last 30 years, once in the early 1990's and once in August 2018 (the latter resulting in three feet of stormwater in the Pool building's lobby and locker rooms).
- **p.20, last two paragraphs:** the Village jointly participated with payment and project management for the AE2S modeling effort and KL Engineering design of University Ave.
- **Appendix H (Green Infrastructure Assessment):** we believe that more study is warranted regarding detaining and retaining stormwater in the higher elevation areas of the watershed, so as to slow or limit the flash flooding that occurs in the lower elevations along the University Avenue corridor during heavy rain events. We believe that Green Infrastructure opportunities could serve this purpose.

Thank you for the opportunity to comment on the City's Draft Willow Creek Watershed Study Final Report.  
Dave Benforado, Village President

Response:

Thank you for your comment. The City has made the corrections on page 15 and page 20 of the report.

The City has completed additional [Green Infrastructure Effectiveness Analysis](#) on this and other watersheds in the City to evaluate the potential of Distributed Green Infrastructure (DGI) to address flooding issues. For this watershed specifically an additional DGI analysis included a review of the impact of installing DGI treating every impervious surface apart from streets. This would include every roof, sidewalk, driveway, parking lot etc. The model also assumed that the pervious area was also the highest infiltration soil (HSG A). With this amount of DGI, there is a significant amount of flood reduction, and it reduces structures within the City of Madison that flood in 1% chance flood when the solutions are built by ~50%. However, the assumptions used to generate those results were not realistic and building that amount of DGI is not possible. Additionally, a preliminary estimate of the cost to complete that work would be \$37,000,000 in 2023 dollars.

The City of Madison is committed to implementing DGI. We will continue to look to implement DGI and other detention in the upper watershed as opportunities arrive. However, since this watershed is fully developed with little open space the ability to do so is somewhat limited. Implementing DGI will incrementally help flooding but the locations are not yet known and so it was not included as a concrete solution in the report.