

July 12, 2023

MEMORANDUM

To: Watershed Erosion Task Force Members

From: Department of Planning and Parks

Re: Status of Detention/Retention Basin Studies by Wilson Hydro, Wagner and Associates, L.L.C., and Doering Engineering [Survey Work] (Wards Two, Three, Four, Seven, and Eight)

Cc: The Honorable James R. Bowlin, Mayor
Thomas Lee, Interim City Administrator
John A. Young, City Attorney
Rick Brown, P.E. and P.T.O.E., Director of Public Works
Melanie Rippetoe, Assistant Director of Planning and Parks
Travis Newberry, Senior Planner

BACKGROUND INFORMATION >>> As the Members will recall, collectively, the task force recently defined a project that was intended to address the causes of the erosion that is leading to the issues in certain watersheds, which was determined to be retrofitting existing, and older, detention/retention basins to function at current standards, which are much improved and provide a higher level of protection of downstream properties. This type of project was encouraged by the members, given that such did not have the significant cost considerations, as the critical locations have exhibited.

NEXT STEPS >>> The Departments have continued to work with the consultants on these basin locations. At the July 10, 2023 City Council meeting, its members were presented with a proposal from Doering Engineering to complete the needed survey work of the seven (7) basin locations that have been identified as having the greatest potential for success, if retrofitted. Todd Wagner, Wagner and Associates, L.L.C., the City's consultant, requested the necessary survey work be undertaken, which is critical to understanding the current conditions of these selected basins, both along their perimeters, inside them, and their respective depths. The considerations in this survey work are noted below, as provided by Mr. Wagner:

The specific information being requested of your surveyor at the detention pond locations in residential subdivisions is listed below. The commercial ponds close to City Hall would not need Nos. 3, 4, 5, 6, 12, and 14. I would like to also include the Lake Chesterfield main lake since there may be some impacts that we would want to check against surveyed data, if that is acceptable.

- 1. Two (or more, if required) line-of-sight control points with referenced coordinates and elevations at each detention pond site.
- 2. Elevations, dimensions, digital photos, and sketches of outlet structures, including discharge pipes and culverts. Include flowline, crest, and spillway elevations.
- 3. Low point location (coordinates) and elevation along each individual lot line adjacent to the detention pond.
- 4. Coordinates of property corners adjacent to the detention ponds.
- 5. The lowest adjacent grade of all potentially impacted structures on lots adjacent to each detention pond.
- 6. Lowest floor elevation of all structures on lots adjacent to each detention pond. In the case of below grade basements, obtain the elevation of basement windowsills and the basement floor if possible.
- 7. Obtain the elevation of each dam crest with a profile of the crest whether it is a grass yard or a roadway profile. The profile of a roadway crest should be of the highest point such as the top of curb.
- 8. Obtain the elevation of the flowline at both ends of the culvert through the dam or roadway if possible.
- 9. Note the horizontal and vertical datum used.
- 10. Elevations on concrete/rigid structures shall be to the nearest 0.02 feet.
- 11. Elevations on grass/earth shall be to the nearest 0.1 feet.
- 12. Representative elevations of the rock riprap bank lining if present.
- 13. Location of marked underground utilities, as well as underground storm water facilities, pond aerator controls and power, yard irrigation systems, etc.
- 14. Location and description of other surface facilities and features such as slabs, benches, monuments, etc.

The City Council was asked to approve the contract at an amount of approximately fifty thousand dollars (\$50,000.00) for this list of provided services. If the bill is approved by City Council, the survey work would begin as early as August. Again the locations that are scheduled for the survey work and potential retrofits are as follows:

#	TERRASPEC ID Number	MSD Facility ID Number	Subdivision and Plat	Homeowners Association's (HOA) Actions
1.	NE11-B1	23U1-0230D	Westglen Farms – Plat	HOA agreed to allow additional access
			3	
2.	SE44-B2	24U1-0366D	Harbors at Lake Chesterfield	HOA agreed to allow additional access
3.	SE72-B1	24V2-0294D	Dierbergs Wildwood –	This location are commercial basins,
	(three (3)		Lot 4 and Wildwood	which are located behind B & B Theatre,
	total basins		Town Center	of which the City already has access
	under one			rights to it, and the facilities on portions
	(1)			of the Dierbergs Town Center
	identifier)			development.
4.	SE38-B1	24U2-0305D	Copper Lakes – Plat 3	HOA agreed to allow access to the two
	SE38-B2			(2) selected basins.

OTHER AND CONTACT INFORMATION >>> If any of the Task Force Members should have any questions or comments regarding this information, please feel free to contact the Department of Planning at (636) 458-0440. A presentation is planned on these items at tonight's meeting. Thank you for your review of this information and input on the same.