



Storm Water Task Force
6801 Delmar Boulevard, University City, Missouri 63130,
Phone: (314) 505-8560, Fax: (314) 862-0694

MINUTES OF THE STORMWATER COMMISSION September 2, 2025

1. **Call to Order.** The fifty-fifth meeting of the Stormwater Commission (Commission) was called to order at 3:40 PM by Chair Todd Thompson.

Attendance-Roll Call. The following Commission members were present at the Community Center: Susan Armstrong, Garry Aronberg, Phil Eastin, Mark Holly, Eric Karch, Todd Thompson. Also in attendance were John Tieman (Councilperson), Mirela Celaj (Director of Public Works), Commissioner Criss and City Attorney Mulligan could not attend.

Visitors: 37 visitors had signed a visitors list, attached. Reporters and camera technicians from the press were present (Channel 5 KSDK, Channel 2 Fox; KMOV, KWMU radio). Planning Commission members were also present during the public comment period. Director of Planning and Development Wagner was present.

2. **Agenda.** The following agenda was accepted by motion made by Commissioners Aronberg and second by Commissioner Holly (Aronberg, Holly): *Roll Call; Approval of Agenda; Approval of Minutes; Citizen Participation; New Business; Old Business; Subcommittee Reports; Council Liaison Comments; Adjournment.*
3. **Minutes.** Approval of August 5, 2025, minutes were tabled until review of audio could be reviewed regarding the wording of the motion regarding review of Enclaves development.
4. **Citizen Comments.**
 - a. Comments to the Commission were made by 18 people – all related to the proposed Enclaves development on the undeveloped western 11 acres of the United Hebrew Cemetery northwest of Canton Avenue at North & South Road.
 - i. Timothy Schroeder, Chair of Urban Forestry Commission stated Next Urban Forestry Commission meeting will take up Enclaves at Canton development: permit for private property development requires review of the existing trees. If development goes forward, evaluation of which trees are kept vs removed. Trees removal require payment into a fund. Forestry Commission will collect information for the Council to help make decisions. Recommends Stormwater Commission conduct themselves similarly.
 - ii. Shelly Welsch, former mayor, spoke about the importance of keeping green space to minimize flooding. The City has tools to preserve the wooded and lawn green space and prevent unnecessary removal of trees and prevention of clear cutting.
 - iii. Connie Mueller, Green Practices Commission member, identified that existing woods is not optimal – too much undergrowth but there is still value in the trees to reduce runoff and offset the extensive impervious area of University City.
 - iv. Nicole Baumgarten, member of the Green Practices Commission, identified green spaces as an environmental good: reduced runoff, reduce heat island impact, improved mental health.
 - v. Peter Burgess spoke about the value of mature trees are better than smaller trees for storm runoff control.



- vi. Ross Hunt spoke that mature trees promote more runoff infiltration, pollution prevention, and soil stabilization than smaller trees.
- vii. Barb Chicherio spoke about flooding on Dartmouth near Pennsylvania Ave and the need to limit impervious surfaces throughout the City. Further, She doubts that detention works well; she cited poor effectiveness of raingardens at temporary police station. Further, she is concerned that excess runoff from the Enclaves at Canton development will enter the River Des Peres and increase flooding downstream.
- viii. Maxine Gail, Coalition for the Environment, stated that trees mitigate heat island impact, flooding, and runoff of pollutants. Further, wooded areas and riparian corridors provide needed wildlife habitat. Ecosystem costs are not calculated in decision making but are real and should be considered. She advocated for the City to acquire the property to make into a park.
- ix. Caroline Puffalt, a U. City resident and Sierra Club member, stated that the current Enclaves proposed development would be detrimental to the environment.
- x. Jerrold Tiers, former member of Traffic Commission, stated the proposed Enclaved site as-is without development requires improvement to address stormwater runoff / flooding. The project has the potential to reduce flooding, but not with the grading plans presented now. But the currently proposed steep slopes and increased imperviousness of the proposed site may not properly controlled runoff and the proposed detention may be inadequate.
- xi. Janet Nable, a Webster Groves resident, identified that flash flooding is poorly addressed by review agencies and she has been a victim of flash flooding. She encourages a post-development review to update stormwater handling at the site to reflect actual performance of the system.
- xii. Stephanie Todd, Amhurst, stated FEMA maps have not been updated since 2015. Project will remove mature trees and increase flooding. There are too many variables and assumptions to predict the stormwater outcome. Sewers backup because they cannot handle the water, and MSD has no intention of doing anything about it.. MSD reviews do not take the big picture into account.
- xiii. Jason Knopf, SLU professor of ecology, stated that wooded areas reduce heat island impacts and reduces runoff; but, wooded areas may be insufficient by itself. Intense storm frequency and volume are increasing.
- xiv. Rita Mauchenheimer stated that more tree removal at the Enclaves would worsen regional habitat loss caused by loss of trees during the recent tornado.
- xv. Arthur Wasserman, resident SE corner of Mendel Drive and Wayne Avenue and near west edge of proposed Enclave development, informed the Commission that ponding occurs 2 to 3 feet deep in the intersection of Mendel at Wayne several times a year and he fears that the proposed Enclaves will worsen the deep ponding. He identified that street gutter flow bypasses uphill inlets on Wayne Avenue and that there appears to be too few inlets. He encouraged the Enclaves to be placed elsewhere and to convert the undeveloped portion of the cemetery to permanent green space.
- xvi. Mark Harvey, Planning Commission member, stated that the Planning Commission has spent a great deal of time evaluating the Enclaves proposal. Flooding near the site is already a problem and improvements are necessary. Planning Commission recognizes that stringent stormwater control is required at the site. The site is one of the last last developable place in U City and in the 3rd Ward. Plan needs to be improved and Stormwater Commission needs to help improve it.
- xvii. Diane Roman encouraged offsets to compensate for loss of pervious area if site is redeveloped.



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- xviii. Don Fitz advocated for continued use of the site's green space: green space is beneficial to limit climate change and reduce the impact of stormwater runoff. Detention is an inadequate offset to loss of greenspace.
- xix. Linda Lapiear laments loss of trees and wildlife habitat if the site is developed as dense housing.

5. Announcements by Commissioners and Staff.

None

6. Committee Reports

- Monitoring: Subcommittee will present to Council need to renew subscription-like licenses for rainfall and CCTV data instrumentation and computer interface for early warning and River des Peres monitoring systems.
- Imperviousness Bill Hoc Committee: no updates

7. New Business

None

8. Old Business.

- a. Stormwater management plan.
 - i. Consulting Engineer, Garry Aronberg, stated that buyouts will be examined in detail and updated in the draft plan. Further, the Mendel and Wayne ponding will be added as project evaluation. Consultants look forward to additional suggestions from Commissioners.
 - ii. Mark Holly commended the plan and encouraged adoption by City.
 - iii. Public Works Director indicated that the plan is available on the City's website.
 - iv. Commissioner Armstrong said there is \$10.5 million in stormwater grants and a master plan is a key for getting access to that grant funding.
 - v.

b. Enclaves

Commissioner Karch identified that the City Staff is the plan review authority rather than the Commission. The review process is preliminary plan approval to allow the developer to present concepts to the City, appropriate changes, zoning changes, if necessary, plan review, and permits. City is authorized to consider impact on downstream and neighboring properties – and evaluate a board range of storms to determine full impact of ponding and flooding in the neighborhood. Planning for the site should consider redirecting runoff away from nearby homes. The staff should consider several identified concerns: safety of impounding water at west end of Enclaves site, steep relief between the proposed Enclaves site and neighbors to the west, maintenance of stormwater system, need to reduce stormwater flow to the Mendel area to reduce the ponding along Mendel, adequacy of existing street drainage. Consider a less dense development with more greenspace than proposed. Consider more intense design storm than 20-yr.



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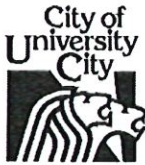
9. Council Liaison.
 - a. Councilperson Tieman, Council Liaison, thanked visitors for their thoughtful comments and insights regarding the proposed Enclaves Development.
 - b. Councilperson Tieman commended Commissioners Armstrong, Eastin, and Holly for informative presentation at recent Cool Cities meeting.

10. Adjournment: 5:37 (Aronberg, Holly).

11. Attachments: Visitors list.

Minutes Preparation. Minutes were prepared by Garry Aronberg.

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Stormwater Commission

Department of Public Works and Parks

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SIGN-IN SHEET

Stormwater Commission Meeting

Date: Sept. 2, 2025 3:30 pm

NAME	ADDRESS	Telephone/E-mail
Janet Nabel	333 North 30th W. B. St. & 30th	314 308-8680
Barbara Chicherio	6964 Antmuth Ave	314-308-6899
Peter Burgis	755 Radcliffe Ave	310-871-8471
Arthur Wasserman	1456 Mandell Dr	314-803-8500
Jason Knowlton	5102 Westmister Pl.	314-348-6600
Kivian Nieuwsma	849 Westgate Ave, Apt. 203	314-775-4135
Bryce Gray	Post-Dispatch	314-340-8307
Betsy Bussmann	757 Harvard Ave.	314 803-9018
Connie Mueller	869 Oakbrook Ln. 63132	314-497-0848
STEPHANIE TODD	7059 Amherst 63130	314-993-8286
Shirley J. McPherson	8429 Richard Ave. 63132	314 477 2951
Beth Skelton	7612 Stanford Ave. 63130	314-920-5276 bethskelton@sbcglobal.net



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SIGN-IN SHEET

Stormwater Commission Meeting

Date: _____ 3:30 pm

NAME	ADDRESS	Telephone/E-mail
Ed Shafer	7612 STANFORD AVE UCITY, MO 63130	314-486-6795 ESHAFER@SBCGLOBAL.NET
Ellen Bern	7001 Washington Ave 63130	314 ellendebbiebern@gmail
Matthew Hutchinson	9124 Wabaday Ave 63114	mshutchinson90@gmail
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Roma Trousdale	7600 Teasdale Ave u.city, mo 63130	314-721-6964 r.trousdale@sbcglobal.net
Shelley Welsch	714 Delmar Blvd. UCity, MO 63130	(314) 295-0397 shelleywelsch@ucitymo.com
Tom Sullivan	751 Swan 63130	314-727-2242
ROSS HUNT	10479 CENTER WAY, OVERLAND 63114	rhunt711@gmail.com
Rica Mauchenheimer	6029 Pershing 61112	(314) 862-8039 Ramauch@hotmail.com
Vickie SPENCER	7350 MILAN AVE. 63130	(314) 863-0706 (314) 651-5318(c) vickiespencer@sbcglobal.net
MARK HARVEY	761 HARVARD AVE. 63130	harveymk2222@gmail.com
Nova Fellow	8350 Delcrest Dr Apt 513 63124	

Next time please have working mikes



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Jane Pisoni	7500 Milan Ave. 63130	314-413 8817
Errol Tiers	7345 Champers Lane	314 882 6488
Craig Hughes	1523 Mendell Dr.	314-740-1092
Nicole Baumgarten	8111 Milan Ave	843-303-4042
Ellen Dooley	7642 Hawthorne	573 528 3918
HARRIS Charles	1531 Mundee	314-997 5712
David Wilner	7043 Tulare	314-497-6800
Millie Johnson	1408 Mendell Dr.	314-369-9566

Cynthia Johnson 7876 Wayne Ave 314-201-2538
 Brandi Redmond 7876 Wayne Ave 314-295-7308
 Willie Stewart 1357 Westover A 314 518 6766
 Sandra A. Hewitt 6913 Roberts Ave 314 757-4210
 Diane E. Roman 7031 Lindell Blvd. 314-479-4939

Early Warning System Summary to Date

The Stormwater Commission, more specifically Dr. Bob Criss and Eric Stein, began creating an early warning system in 2019. Criss analyzed rain gage data provided by MSD and River Des Peres water level data provided by a USGS water level sensor (in Heman Park) and developed an algorithm that correlated river flood levels using rainfall intensity. Because the City did not have rain gages or water level sensors, and MSD would not provide access to real-time rainfall data, this was not an early warning system.

The City funded installation of three (3) rain gages and an online system (Fondriest WQ Data Live) that collects real time rainfall data and delivers an alert to Fire Chief Hinson. This is the state of the current early warning system. It simply issues the alert when the rainfall intensity meets the minimum criteria for major flooding (1.5 inches in 1 hour). It cannot tell the City EMS the actual flood level prediction.

Analysis of data shows that the prediction algorithm is functioning well. It predicts flood levels accurately (erring toward slight over-prediction) and provides 30 minutes of warning for large floods. Dr. Criss continues to tweak and improve the algorithm.

While it works well, the system lacks resolution (e.g. not enough water level sensors), USGS water level sensors are slow and do not report in real time, and has no real-time cameras which would give City EMS a visual of the river.

The City provided funding for water level sensors and cameras which are installed and functioning. However, this new equipment is not directly incorporated into the early warning system. Prediction of water level still requires manual input by Dr. Criss. The online (Fondriest WQ Data Live) system is currently incapable of incorporating all of this equipment and data into a single online and real-time system.

Early Warning System – Future Improvement

The Stormwater Commission developed a scope of work to address the identified shortcomings and solicited a proposal from a University City based company (iNeighborhoods). Today we present to you the costs to complete these improvements.

Phase 1	Transfer Fondriest WQ Data to i-Neighbor 4G platform	\$7,000 (one time)
Phase 2	Incorporate water level prediction algorithm to report water levels in real time	\$7,000 (one time)
Annual fees	For current Fondriest WQ Data Live System and i-Neighborhoods equipment and cell plans	\$6,470 (annual)
	Total	\$20,470

DETAILED BREAKDOWN

Phase I (RECOMMENDED)

- a) Use the WQData LIVE Data API to port data from the SWC Fondriest devices to the iNeighborhoods platform.
- b) Use the WQData LIVE Data API to port data from the adjacent USGS rain gauges to the iNeighborhoods platform.
- c) Change from 5 minute to 1-minute sampling rate if > SWC rain rate.
- d) Change from 1 minute to 5-minute sampling rate if < SWC rain rate.
- e) Data would be displayed in numerical or graphical format.
- f) Additional yearly cost for the WQData LIVE Data API - \$ 950.
- g) iNeighborhoods development cost ~ \$ 7K.

Phase II (RECOMMENDED)

- a) Implement the Bob Cris flood prediction algorithm.
- b) Data would be displayed in graphical format.
- c) Implement yellow alert status if > SWC yellow alert rain rate.
- d) Implement red alert status according to Cris prediction algorithm.
- e) iNeighborhoods development cost ~ \$ 7K

Additional Code Red Option (DO NOT RECOMMEND AT THIS TIME):

- a) Use the CodeRed API to send SWC RdP video and river-weather data alerts directly to resident's phones from the iNeighborhoods platform.
- b) SWC phone video and data could be displayed in a simpler format as needed.
- c) iNeighborhoods development Cost ~10K
- d) Additional cost for CodeRed API access – TBD. CodeRed quotes API services based upon requirements and community size.

Note: This summary is for budgetary purposes only and is subject to change. Monthly support costs extra.