



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

## MINUTES OF THE STORMWATER COMMISSION September 6, 2022

**Call to Order.** The twenty-fifth meeting of the Stormwater Commission (Commission) was called to order at 6:34 PM by Chair Todd Thompson via zoom.

1. **Attendance-Roll Call.** The following Commission members were present at the Community Center: Garry Aronberg, Robert Criss, Mark Holly, Eric Karch, Todd Thompson, Eric Stein. Also in attendance were Tim Cusick, Councilman; Darren Dunkle, Director of Parks, Forestry, and Recreation and Acting Director of Public Works; Gene Kuelker Project Manager in Publics Works; John Mulligan, City Attorney.
2. **Agenda.** The Following Agenda was approved by voice vote (motion and second: Messrs. *Aronberg, Holly*): Roll Call; Approval of Agenda; Approval of Minutes; Announcements by Commissioners; Citizen Comments New Business – flood elevation; Old Business; Committee Reports; Council Liaison Comments; Adjournment. Approved.
3. **Minutes.** The minutes of the August 2, 2022, Commission meeting were approved with changes: spelling of Staudt needs correction in two places (Messrs. Holly, Criss, voice vote approval).
4. **Announcements from the Commissioners.**
  - Dr. Criss reported that in-stream sensors performed well and remain in place working well.
  - Mr. Holly commended Messrs. Criss and Stein for installing in-stream depth sensors.
  - Mr. Stein learned during a conversation with fireman that Haefner Court Apartment rescues were very difficult because people were pulled out in nearly 6 feet of water depth. He commended emergency responder outstanding work.
  - Mr Stein asked where are our archival data is stored: dropbox or gmail or Criss' WU web page. Following a discussion a motion was passed - **Motion: By letter prepared by Secretary Aronberg, request Mr. Dunkle to begin the process shortly to establish a web site link and storage procedure for storage of commission data. Passed (Aronberg, Holly).**
  - Mr. Thompson: YouTube and Facebook have many items posted about the storm and interviews with City officials.
5. **Citizen Comments.**
  - Ms. Carol Horth, Birch Lane near Wilson Ave: The Horth house had six ft of water in the basement. She urged City to resolve flooding problem soon by buyouts. She is frustrated that FEMA floodplain was changed years ago without notification of property owners. Mr. Dunkle reported that substantial evaluation of 200 homes occurring now and developing notice of interest to FEMA for buyouts.
  - Mr. Adam Staudt 7369 Melrose: Mr. Staudt had contacted Mr. Daly about street flooding. Since Mr. Daly is no longer with the City, Mr. Staudt now inquired who he should contact with complaint of street drainage flowing across his sidewalk and driveway. Mr. Dunkle responded that Mr. Staudt should contact Mr. Dunkle.
  - Mr. Jake Hertenstein in 7011 of Dartmouth urged buyouts and he is frustrated with no direct communication from the City.
  - Patricia Saddler, 1131 Wilson, encourages buyouts. People are confused regarding whether to repair or wait for a buyout. She is frustrated that she relied on report that her first floor was above the floodplain, but she was flooded several feet above the FEMA 100-yr elevation.



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**6. New Business.**

- Dr. Criss presented flood elevation data and a flood inundation map based on extensive surveying of highwater marks and evaluation of U. City depth sensors in River des Peres.
  - Hafner Court 1 ft deeper than 2008 and 6 ft deep.
  - Wilson nearly 2 ft this storm.
  - 6900 Dartmouth about 5 ft deeper than 2008 – tunnel did not seem to take its capacity.
  - Has inundation map – shows extended east of tube opening.
  - Improve communication & monuments showing flood levels.
  - Detention basins would have not helped much in the July 26 storm.
  - Advocates floodproofing.
  - Wants access to MSD rain gauges.
  - Bob will make a list of needs from MSD and send it to Dunkle.

**7. Old Business.** None

**8. Subcommittee Reports.**

- Early warning. Worked well: 3.5 hours before peak and 53 minutes before flooding of overbanks. See attached committee report.

**9. Councilman Cusick Comments.**

- Development at Olive @ I-170 proceeding quickly.
- There is an Open commissioner slot for stormwater commission.

**10. Adjournment. Motion to adjourn made at 8:46 PM (Stein, Aronberg) motion passed.**

Minutes Preparation. Minutes were prepared by Garry Aronberg.

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### **Attachment A**

## **Revised Summary of Flood Warning System Performance in Recent Events**

(Eric Stein for 8/6/2022 Storm Water Commission Meeting)

### **July 26:**

- U City FWS warning issued at 1:40 am.
- RDP at dangerous level (16 ft at gauge 22) at 2:33 am. (Flood stage is 14 ft.)
- Gauge 22 crest (19.3 ft) at 5:10 am.
- Summary: FWS correct call 53 minutes before dangerous level (16 ft) and 3.5 hrs before peak.

### **July 28:**

- U City FWS warning at 3:05 pm.
- RDP peak (14.9 ft) at 3:40 pm.
- Summary: FWS correct call 35 minutes before peak. A peak of 14.9 ft. is normally not especially dangerous but because of saturation from previous day, it caused significant additional damage.

### **Aug 3:**

- U City FWS warning at 10:50 pm.
- RDP peak (14.59 ft) at 11:25 pm.
- Summary: FWS correct call 35 minutes before peak.

### **Aug 4:**

- No U City FWS warning due to insufficient rainfall intensity over our basin.
- RDP did not reach flood stage. It peaked at 13.56 ft at 8:25 am.
- Summary: FWS correct call of no flood warning.

It is very important to understand the difference in criteria between an NWS issued warning vs. our FWS issued warning.

- The NWS warnings are based on estimates of rainfall intensity over the entire metropolitan area and the average response of streams within that area.
- The U City warnings are custom-made based on actual measured rainfall within our RDP basin (9 sq. miles) and the known response of the U City RDP channel.

So, NWS warnings indicate that flash floods will likely occur on many urban streams in the area but do not necessarily predict what the RDP will do, while our warning indicates that one is almost certainly imminent on the RDP. I am trying very hard to get the CodeRED people to understand this difference because right now, they present the NWS warning as though it is specifically for U City, as opposed to the St. Louis area. If we are going to carry both warnings on our CodeRED system, this is going to cause lots of confusion and seriously degrade the effectiveness of our warnings unless we either carry only our warnings or change the wording that CodeRED uses for NWS warnings to make the distinction clear. Chief Hinson and I are working with the Code red people.



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Commissioners,

Here is a recap of the performance of our flood warning system (FWS) during the recent events.

Eric S

**July 26:**

- U City FWS warning issued at 1:40 am (I didn't see it because I had retired).
- NWS first warning at 2:04 am.\*
- RDP at dangerous level (16 ft at gauge 22) at 2:33 am.
- Gauge 22 crest (19.3 ft) at 5:10 am.

**July 28:**

- U City FWS warning at 3:05 pm (I called 911. That took 3-4 minutes due to a problem with my phone)
- NWS first warning at 2:52 pm.\*
- RDP peak (14.9 ft) at 3:40 pm.

Just one week before these floods, Bob and I met with Chief Hinson to start the process of interfacing our warnings with Code Red. As the public becomes more aware of this system, we must make clear the distinction between our warnings and those of the NWS, which is:

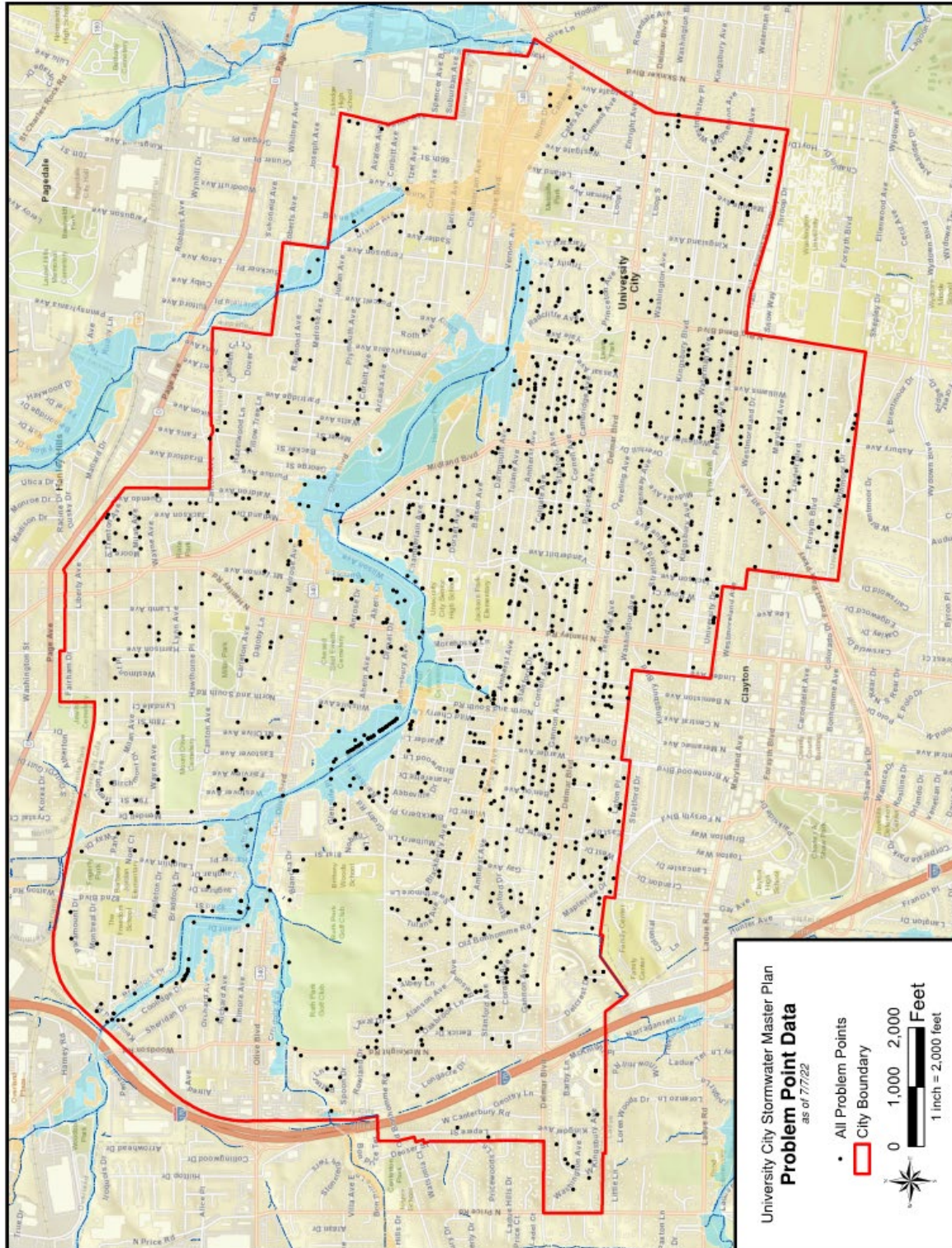
1. The NWS warnings are based on estimates of rainfall intensity over the entire metropolitan area and the average response of streams within that area.
2. The U City warnings are custom-made based on actual measured rainfall within our RDP basin (9 sq. miles) and the known response of the U City RDP channel.

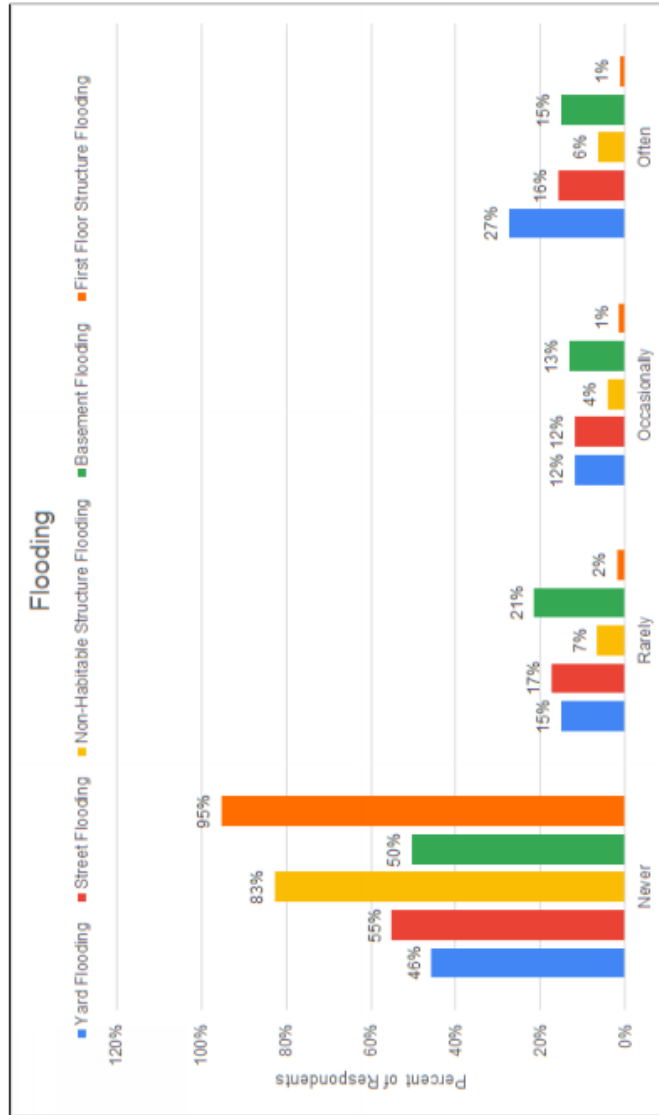
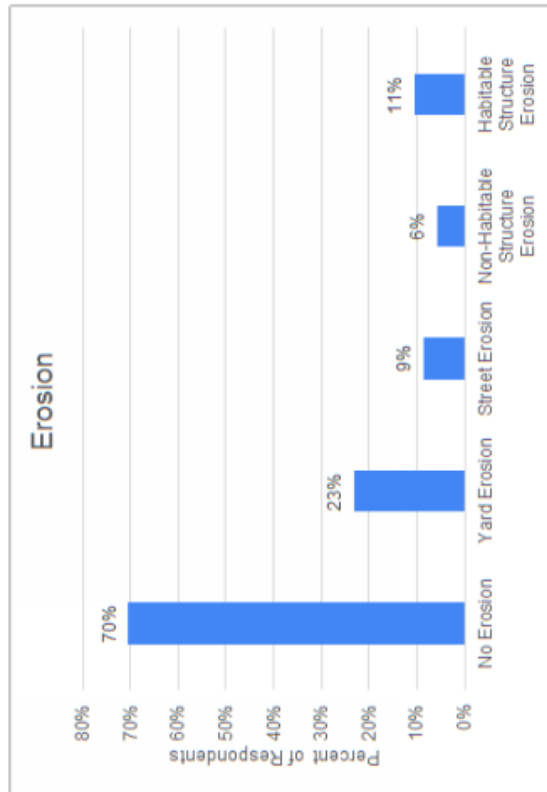
Thus, our warnings can vary somewhat with respect to those of the NWS depending on what is happening in the U City RDP basin versus their assumptions and estimates for the larger area.



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Progress: Stormwater Master Plan Questionnaire Data Gathering Data Unreviewed by Staff







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