Ann Arbor Comprehensive Stormwater Management Plan
Stormwater Advisory Group (SWAG) Meeting Minutes
Session 4 – August 13th, 2025

Attendees:

The following individuals attended the in-person meeting on August 13th:

Michelle Bennet
Troy Baughman
Don Carpenter
Vince Caruso
Dan Christian
Bradley Cossins
Miekyn Cotton
Erin Donnelly
Gretchen Driskell
Omar Gates
Jerry Hancock
Jillian Hesler
Craig Hupy
Jasmine Isaac-Ofori
Larissa Larsen
Jen Lawson
Melissa Menerey
Sara Nedrich
Richard Norton
Andrea Paine
Skye Stewart
Dana Wilkinson
Dean Wozniak

Meeting Agenda:

The meeting consisted of the following components:

1. Welcome and Introductions
2. Focus Group Discussion
3. Technical Memo #4 – Stormwater Drainage
4. Closing and Adjournment

The PowerPoint slides presented to the SWAG have been attached. A summary of current and upcoming action items for SWAG members is available at the end of the meeting minutes section below.

Meeting Minutes:

1. Welcome and Introductions

Don Carpenter first led a round of introductions where attendees shared their names and relationship to both the project and to stormwater management. To give everyone sufficient time to review, the minutes from SWAG meeting #3 will not be formally approved until the next SWAG meeting (October 8).

2. Focus Group Discussion

Don Carpenter led a discussion surrounding the project's upcoming focus groups. There are currently three focus groups planned – two conducted by the consultant team and one led by an independent external consultant.

The project consultant team will focus on the orchestration of focus groups targeting:

1. commercial interests, developers, and business owners and

2. the University of Michigan planning and development organizations (and possible academic representation).

The third focus group is for the public at-large, where an external consultant will coordinate a paid focus group with participants comprised of a representative cross section of the community. The groups are not the only stakeholders relevant to the project, but rather they represent three key stakeholders for the City – the public/residents, UM, and businesses. The focus groups will be held at Gallup Park.

Potential key topics to be addressed within the focus groups:

- Defining flooding
- Conceptual understanding
- Outreach/educational practices
- NBS implementation
- Local stormwater practices and regulations

The purpose of the focus groups is multifold; the focus groups aim to inform the audiences on the comprehensive stormwater management plan while also gaging their current understanding to better inform outreach and planning efforts.

A handout including potential focus group themes and questions was distributed and tabletop discussions were held. After roughly 20 minutes, the group reconvened and reported their table-wide findings.

The group first provided feedback on how the questions and discussion should be tailored to each group.

- From the perspective of the public, accessibility is crucial. They recommended not starting with "how do you define flooding." They suggested a question defining stormwater first and easing in with questions that gradually increase in complexity before addressing the definition of flooding.
- There is potential value in asking the same questions in order to compare answers across the different groups.
    - There could be baseline questions across all groups with additional, tailored questions specific to each group.
- One group condensed the 5 initial topics to the following three:
    - Understanding flooding
    - Responding to flooding
    - Outreach and education
- As written, it was noted that it feels more like a survey than a discussion. It was also noted that the handout distributed to the SWAG will not be the format used to facilitate the focus groups themselves.
- It was noted that not all builders and developers that will impact Ann Arbor are local to Ann Arbor – outreach will need to be at a bit more of a statewide/national level
- Need to consider the role of outreach throughout: how can we use these focus groups as outreach/education in addition to gathering information?

It seemed that at least two groups collapsed the five topics into fewer, and the group provided feedback on the topics next.

- There was a general agreement on condensing the topics for clarity.
- NBS considerations could fall under "response to flooding"

Next, the attendees discussed if there were any additional key groups that needed to be considered.

- Ann Arbor public schools should be incorporated, could potentially be added to the University focus group, both have MS4 permits
- Parks are a key landowner, but are represented through the City team in the SWAG
- Churches
    - Could this be included in the general public focus group?
- Realtors could potentially be added to the business/commercial focus group
    - Could add insight to what people want to know when buying property
    - Could reach out to the Ann Arbor board of realtors
- Homeowners' associations/neighborhood representatives

The SWAG participants were then asked to share any last thoughts on the focus group topics and questions.

- It was noted that it will be useful to gauge understanding first

- Groups may need a primer/introduction to key topics between the assessment of their understanding and further conceptual input. Before getting specific feedback, fill in any educational gaps identified in the understanding portion of the discussion.
    - It was also noted that the project team should be careful not to steer answers with education – provide context but do not overexplain or bias the group.

Attendees were encouraged to share the notes they took on their focus group handout with the project team for further review and incorporation.

3. Technical Memo #4 –Stormwater Drainage

Dan Christian presented on the fourth technical memorandum on stormwater drainage. He began by recapping some key policies from the policy memorandum:

- Stormwater design standards
- Urban drainage resilience
- Proactive asset management
- Lifecycle based infrastructure development,
- Integrated capital improvement planning

Some supporting policies were also noted:

- Climate resilient stormwater infrastructure
- Stormwater adaptation for extreme weather events
- Stormwater conscious redevelopment standards
- Data driven planning and decision making
- Hydraulic model maintenance and updates

Three key focus areas were provided for discussion:

- Setting a vision for system performance – single vs. tiered standards
- Managing stormwater risk in an uncertain future
- Enabling infill and redevelopment without compromising drainage goals

Regarding the first topic, "setting a vision for system performance – tiered vs single standards," it was noted that the City currently designs with a single design storm and has no formal policy regarding system performance during extreme storms. Technical memo four proposes a tiered standard, where different flooding outcomes are associated with different storms. Tiers could also consider things like roadway hierarchy and functional criticality. Discussion was focused on the large picture framework provided by a tiered system, not the details of the specific tiered standards.

Discussion questions were provided for each focus area. After tabletop discussions, the following feedback was provided relative to each question.

Question1: Should the City move toward a tiered stormwater performance framework? Why?

- There was general support for the implementation of a tiered stormwater performance framework.
- It was noted that a tiered stormwater performance framework could be provided for maintenance and rehabilitation projects, not just development/redevelopment.
- A tiered system also should consider future land development.
- There will be a lot of public education required.
    - No one wants to experience any flooding even if an area was flooded to spare more critical infrastructure
- The framing should shift from "standards" to "targets" or "goals," existing issues won't be fixed all at once.
    - How it is framed will be crucial.
- It was noted that this session is focused on flooding, but water quality will not be disregarded and will have its own technical memorandum and discussion session.

Question 2: Would a tiered approach help clarify long-term expectations for system behavior and capital planning?

- People generally agreed but noted the increased need for precise public outreach and education.

Question 3: What challenges or benefits do you foresee with a shift to tiered system?

- Some benefits of a tiered system include a better prepared infrastructure system, potential reduction in flood damage expenses, transparency, and accountability.
- Challenges noted included clearly communicating how and why choices are being made, areas falling downstream of conveyance, and that things can't be fixed all at once. It will be crucial to explain decisions to those still experiencing flooding. Cost is also a substantial barrier to implementation.

The second key focus area for discussion was "managing stormwater risk in an uncertain future." The City currently relies on historical rainfall data. Technical memo four proposes the incorporation of future rainfall projections. Atlas 14 data is available, and Atlas 15 is anticipated in 2026.

Discussion questions were provided for each focus area. After tabletop discussions, the following feedback was provided relative to each question.

Question 1: Should the City adopt a policy to account for future rainfall conditions and climate uncertainty in stormwater planning and design? Why?

- There was general agreement that yes, the City should account for future rainfall in policy

Question 2: Would this help guide infrastructure decisions and investment priorities over the long term?

- It was noted that introducing additional uncertainty may also complicate prioritization in some ways.

Question 3: What challenges or benefits do you foresee if the City shifts in this direction?

- Some challenges include the cost and the educational challenge of building a broad understanding that infrastructure needs to plan beyond current need. There will need to be careful consideration of how costs are allocated (between the public, developers, etc). Want to ensure all options are considered, reducing cost where possible and diversifying the stormwater infrastructure system. The educational component will be substantial, as designing areas for flooding warrants thorough explanation.

The final focus area was "drainage planning for infill and development." Realistically, most of the City's growth will occur within a limited footprint, so enabling infill and redevelopment will need to happen in coordination with stormwater goals. The goal is to ensure that new infill and development can be incorporated without sacrificing stormwater goals.

Question 1: Should the City develop targeted drainage policies for dense infill and redevelopment sites (e.g., alleys, constrained lots, areas with limited storm infrastructure)? –

- This will involve complicated implementation. It will be different from past development standards, how will this be incentivized/explained?
- From a stormwater perspective, the system should target site specific design standards that aim to improve the overall system.
- Generally, the need was recognized, but implementation will be challenging. Having different standards for different sites may be hard to explain.
- There will be a need for compatibility with zoning plans.

Question 2: Are current policies adequate to support redevelopment while effectively managing stormwater runoff?

- There was general agreement that current policies have room for improvement and are not adequate for redevelopment.

Question 3: Would establishing guidance now help clarify expectations for developers and reduce future drainage risks?

- The need for clear communication was reiterated, as having site-based standards may feel arbitrary if motivation is unclear.

Question 4: Should the City use system-level modeling to help plan shared or public stormwater solutions for major redevelopment areas?

- There was not a large amount of group-wide discussion focused on the use of system-level modeling.

4. <u>Closing and Adjournment</u>

Jasmine Isaac-Ofori led with closing event updates. The project has a table at the farmer's market on the fourth Wednesday of the month. Focus group dates have been determined, please send along any recommendations for attendees. There will be a public works open house this fall.

Action Items:

Current action items include the following:

- Please reach out to the project team if you are aware of any individuals, you believe should be contacted for participation in the upcoming focus groups.

Upcoming action items include:

- The next SWAG meeting will be held on Wed 10/8/2025



Stormwater
ANN ARBOR WATER

Stormwater Advisory Group
Session 4

Wednesday, August 13th, 2025

TETRA TECH

DRUMMOND CARPENTER
engineering + research

Agenda

- Welcome & Introductions
  - Approve SWAG Meeting Minutes of June 11
- Focus Group Discussion
- Engagement and Feedback Updates
- Stormwater Drainage (TM #4)
  - Related Policies
  - Major Themes
- Next Steps
- Closing and Adjournment

Focus Group Discussion

Focus Group Discussion Topics

1. Defining flooding
2. Conceptual understanding
3. Outreach/educational practices
4. NBS Implementation
5. Local Stormwater Practices and Regulations

Focus Group Discussion Topics

Content

- *What is missing? What is included unnecessarily?*

Invitees

- *Who should be invited?*
  - *UM Planning, Facilities, Academic*
  - *Business, Commercial, Land Development*
  - *General Public (external consultant recruitment)*

Format/Logistics

- *Thoughts on focus group format?*
  - *Cobblestone*

Engagement and Feedback Updates

Engagement and Feedback Updates

- Past Events
- Upcoming Events
  - Wednesday Farmer's Markets (Aug 20, Sept 17)

Remaining Scheduled 2025 SWAG Group Meetings:

October 8, December 10

(2026 Meetings To Be Determined)

Technical Memo #4 – Stormwater Drainage





Primary Applicable Policies

draft policy wording

Topic	Policy
1.1 Stormwater Design Standards	The City will define and maintain stormwater design standards that ensure **systems are appropriately sized and configured** to manage flow rate and volume of runoff from current and future conditions.
1.2 Urban Drainage Resilience	The City will implement a comprehensive **strategy to mitigate urban (pluvial) flooding** through targeted infrastructure upgrades, green infrastructure, and land use coordination.
1.3 Proactive Asset Management	The City will operate a data-driven asset management program to monitor infrastructure conditions, prioritize repairs, and **guide reinvestment based on risk and performance**.
1.4 Lifecycle Based Infrastructure Investment	The City will **apply lifecycle cost planning** to stormwater capital projects to ensure sustainable, cost-effective, and climate-resilient investments.
1.5 Integrated Capital Improvement Planning	Stormwater infrastructure will be planned in **coordination with other City-owned asset improvements** to optimize construction efficiency, reduce costs, and enhance environmental outcomes.

Supporting Policies

draft policy wording

Topic	Policy
4.1 Climate Resilient Stormwater Infrastructure	The City will design, upgrade, and maintain stormwater and flood management systems to **mitigate against future climate conditions**, including higher-intensity rainfall, rising temperatures and uncertain hydrology.
4.2 Stormwater Adaptation for Extreme Weather Events	The City will apply a **risk-based approach to evaluate vulnerabilities and prioritize** stormwater investments that reduce damage from extreme precipitation and flash flooding.
6.3 Stormwater Conscious Redevelopment Standards	The City will **require or incentivize stormwater retrofits in redevelopment projects**, especially in areas with aging infrastructure or high runoff volumes.
8.1 Data Driven Planning & Decision Making	The City will use **data analysis and modeling tools** to guide stormwater planning, risk assessment, and investment prioritization.
8.3 Hydraulic Model Maintenance & Updates	The City will maintain and periodically update its **citywide hydraulic stormwater model** to reflect current conditions and guide systemwide planning.

Key Focus Areas

1. Setting a Vision for System Performance – Single vs. Tiered Standards
2. Managing Stormwater Risk in an Uncertain Future
3. Enabling Infill and Redevelopment without Compromising Drainage Goals

Focus Area #1
Tiered vs. Single Stormwater Performance Standards

The City currently uses a **single design storm** (10-year) for pipe sizing

There's no formal policy for how the system should perform in **larger storms**

TM4 proposes shifting to a **tiered performance framework**

This would **set expectations**, not specific designs, for different storm magnitudes

Typical tiered framework

- 10-year storm: No pavement flooding
- 25-year storm: Limited curb ponding acceptable; crown passable for emergency access
- 100-year: no building flooding; water contained within the ROW where feasible
- 500-year: Flow routed to minimize threats to public health and safety
- May consider:
  - Roadway hierarchy
  - Functional criticality

Focus Area #2
Managing Stormwater Risk in an Uncertain Future



1. Should the City move toward a tiered stormwater performance framework? Why?



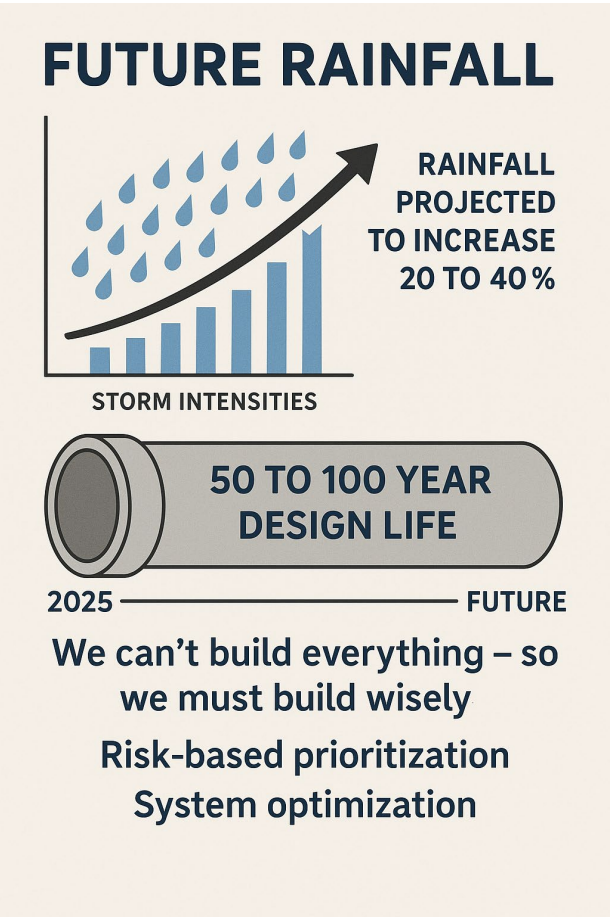
2. Would a tiered approach help clarify long-term expectations for system behavior and capital planning?



3. What challenges or benefits do you foresee if the City shifts in this direction?

Focus Area #2
Managing Stormwater Risk in an Uncertain Future

- Current design uses **historical rainfall data only**.
- **Future rainfall is expected to be more intense**, but there's no policy yet to account for this.
- TM4 suggests adopting a **forward-looking policy** to evaluate and plan for future risk and uncertainty.
- Several **credible tools** exist to support this shift. NOAA Atlas 15 is scheduled to be finalized in 2026.



Focus Area #2
Tiered vs. Single Stormwater Performance Standards



1. Should the City adopt a policy to account for future rainfall conditions and climate uncertainty in stormwater planning and design? Why?



2. Would this help guide infrastructure decisions and investment priorities over the long term?



3. What challenges or benefits do you foresee if the City shifts in this direction?

Focus Area #3
Drainage Planning for Infill & Redevelopment

- Future growth will occur mostly through **infill and redevelopment**.
- These sites often have **limited space** and connect to older infrastructure.
- TM4 recommends exploring **policy guidance** for dense development contexts (e.g., alleys, shared access).
- The goal is to ensure **new development and redevelopment can be integrated without creating drainage challenges** for surrounding areas or the public system.



Focus Area #3
Drainage Planning for Infill & Redevelopment



1. Should the City develop targeted drainage policies for dense infill and redevelopment sites (e.g., alleys, constrained lots, areas with limited storm infrastructure)?



2. Are current policies adequate to support redevelopment while effectively managing stormwater runoff?



3. Would establishing guidance now help clarify expectations for developers and reduce future drainage risks?



4. Should the City use system-level modeling to help plan shared or public stormwater solutions for major redevelopment areas?

Next Steps

Next Steps

- Action items for next meeting
- Assignments for documents to review before the next session
- Next meeting:
  - Wednesday October 8th, 2025, 7:30 AM – 10 AM Cobblestone Farm



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Thank you!

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