



Meeting Notes

Meeting Date: September 13, 2017 **Time:** 9:00 - 11:00 am
Meeting Location: Johnson County Transit Facility, 1701 W Old Hwy 56, Olathe, KS 66061

Attendees:

Flood Damage Reduction Sub-Committee Lauren Garwood – City of Overland Park Kevin Bruemmer – City of Merriam Tom Jacobs – City of Lenexa Matt Kapfer – City of Olathe Charles McAcllister – JC Wastewater Brian Kelly – USGS Les Barnt - GBA John Denlinger – HDR John Parker – Burns and McDonnell	JC SMP Lee Kellenberger Heather Schmidt Sarah Smith	Consultant Team Patti Banks – Vireo Triveece Penelton – Vireo Andrew Smith – B&V Pablo Gonzalez – Quesada – B&V Justina Gonzalez – B&V
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Agenda Objectives
Discuss revisions to JC SMP Flood Problem Rating Table
Discuss NOAA Atlas 14 revisions and whether impacts should be assessed

Handouts: Agenda
 JC SMP Flood Problem Rating Table 1999
 JC SMP Flood Problem Rating Table 2017 - DRAFT
 Depth – Velocity Flood Danger Curves

Notes

Introduction / Update of Implementation Status / 4th Meeting Goals

- Andrew of B&V welcomed attendees to the fourth meeting of the flood damage reduction sub-committee. He provided a quick update of SMP strategic plan implementation to date.
 - **Strategic Plan Implementation Progress:** As a refresher for where we are in the process, the system management and water quality sub-committees have presented future strategies and have finished meeting for the time being. The funding approach sub-committee has had their first meeting which was primarily to inform them of all of the activity that has been done. The watershed-based organization sub-committee will reconvene soon and then a pilot watershed will be implemented likely in 2018.
 - **Flood Damage Reduction Sub-Committee 3rd Meeting Review:** At the previous meeting, the sub-committee further discussed the preferred direction for the flood damage reduction component of

the SMP. The majority of the meeting was spent discussing the details of the Flood Problem Rating Table and how to modify it to better meet the needs of the County. The sub-committee looked at the inclusion of a home buyout program, modifications to multiple home and street flooding, and whether the 100 point minimum threshold should still apply. Public safety is the key objective of the program and the Rating Table needs to be a tool that effectively addresses that.

- Consultants outlined the agenda and goals of the fourth flood damage reduction meeting.
 - **Flood Damage Reduction Sub-Committee 4th Meeting Goals:** During the fourth meeting, the sub-committee will continue discussions on the Flood Problem Rating Table. Consultants have provided a draft revised Rating Table for review. The revised Rating Table takes into consideration comments from the last meeting and the sub-committee will have an opportunity to see if there are additional changes that need to be made. The second goal of the fourth meeting is to consider the revisions to NOAA Atlas 14 and if the impact of that should be further assessed. Once the sub-committee decides on a path forward, then consultants want to provide an opportunity to discuss challenges and opportunities in implementation. This may be the last meeting if adequate progress is made or further meetings may be necessary to ensure that all concerns are addressed.
- Consultants called for possible comments or questions on the strategic plan implementation.
- Lee of JC SMP made note that the Rating Table will likely become a secondary process for the SMP. The sub-committee can have an initial discussion during this meeting of what it may look like. But the Strategic Plan really gave a directive for the SMP to pursue **regional solutions** via the watershed organizations. The County will be pursuing regional investments which are likely another level up than what the Rating Table provides. The SMP needs feedback from this sub-committee as to what that higher level will be and what the new, broader system should include. The sub-committees are setting the direction for what will be the next 25 years for the program.
 - Sub-committee members had the following comments on the **regional approach**:
 - The SMP and watershed organizations should be focusing on the floodplain as the priority rather than the Rating Table. The sub-committee should consider if the area of priority is the FEMA floodplain or beyond that.
 - Regional solutions will allow the program to be more proactive in looking beyond present flooding to future flooding, which may result from further development or increased severe storm events. But presently, the Rating Table does not allow regional solutions to score high enough to receive funding.
 - One of the challenges with regional solutions is that the projects are much bigger and require much more funding. Such solutions will also be helping water quality and system management so project scoring should include those multi-benefits. Defining a dollar value for water quality is particularly difficult.
 - Under the watershed approach, there will be six organizations that will be receiving funds and perhaps even competing. The SMP will need a coordinated, comprehensive way for project prioritization across the organizations. A revised Rating Table could still be used for regional projects. It may be particularly applicable for the areas in watershed organization 1 (NE Johnson County).
 - A Rating Table may not even be necessary if an organization is given a defined amount of money. The organization itself may be best to decide priorities and what projects to pursue.
 - If the Rating Table is no longer the driver for the program, then the watershed plans become the driver which may give different results.
 - The Rating Table could still be a tool to assist the watershed for project comparisons. Keep in mind that the previous Rating Table has been limited on the number of houses and streets that were counted. The revised Rating Table allows a larger scale and we can now better quantify a regional approach.

- The sub-committee should focus on possible contents of the master plans which will tell the watersheds where to really give attention. The revised Rating Table would then be a third tool for planning purposes.
 - Even under a regional approach, cities still have the ability to invest in stormwater to the degree they see fit. Savvy communities will look at the watershed plans and see where they can integrate to get the most value for their dollars. But what is called for in the Strategic Plan is for the County to look at more regional, multi-purpose projects to provide benefits on a larger scale.
- Lee then asked the sub-committee as to what should be the defining **limit** for where to cut-off **flooding analysis**. Lee asked if the limit should be at the FEMA floodplain or some other limit that area stakeholders may consider more applicable. He also stated that considering a solution like attenuation, for example, may not be possible in the Rating Table but should be an available solution in the program.
 - Sub-committee members had the following summarized comments:
 - Speaking from city perspective, not much has really changed in regards to the major, systemic flooding issues. It would be great if the SMP were to pursue regional detention. Leveraging the significant funding required and dealing with the accompanying bureaucracy, however, has been the obstacle.
 - The regional, systemic issues are causing situations on private property and these constituents are looking for public means to address these problems. Having the SMP take a broader approach can potentially help in that area.
 - The watershed organizations could be allowed to identify regional projects and the limit they want to pursue.
 - The watershed plans will look at neighborhood and regional solutions. The hope is that the sub-committee can develop a tool, such as the revised Rating Table, that planners can use. If the planners come back and say that such a tool doesn't work for their watershed that could later be considered. Right now, though, the goal is to be as robust as possible in providing a way for the County to evaluate projects.
 - Each watershed will need well calibrated models so that organizations are not implementing solutions that may not work.
 - The County does have some of the best calibrated watershed models in the nation with a list of projects connected with those models. In considering how much watershed modeling costs, it's probably not worth it to pursue FEMA updates. The funding available through the SMP is just not enough to warrant that re-work.
- Patti Banks of Vireo asked the sub-committee what are the big, **impactful solutions** or **actions** that SMP funding could help finance for flooding on the watershed scale. Members stated:
 - The SMP should consider buying up floodplain land and developing parks in watershed areas 3, 4, and 5 that are currently less developed.
 - Partnerships could be formed with outside groups where there are common goals, such as buying and preserving stream corridors. That could help generate additional outside funding.
 - Attenuation solutions should be available, even possibly underground solutions with commercial developers in the more developed watersheds.
 - Typically there is more value for your money with preservation projects. The SMP should try to get ahead of development where possible. Preservation of stream corridors is multi-benefit whereas the Rating Table focuses more on brick and mortar capacity.
 - The watershed organizations could consider proposed changes to design criteria or ordinances.
 - The watershed plans may be able to identify areas of re-development where partnerships could be leveraged and funding could be applied.

- Patti questioned the group if project criteria should consider if partners are involved. She asked if having **multiple partners** involved in flood damage reduction would be something the SMP would want to prioritize. Members stated:
 - Inclusion of multiple partners should be prioritized. One such example is that Johnson County Wastewater is doing sewer studies. Their studies should be concurrent with the watershed plans.
 - The watershed-based organization sub-committee talked extensively about the need to include outside entities, such as NGOs, so that more can be accomplished.
 - Having multiple partners could help in justifying the need for increased funding for stormwater, particularly when explaining the consequences of these issues. It could help in explaining the importance of protecting these assets for a community.
 - Communities in the County should be working now on justifying increases in funding. With the recent hurricane events there will be many studies done demonstrating the flooding impacts and the role of planning.

NOAA Atlas 14 Revisions

- Consultants continued a discussion on the latest **revisions of NOAA Atlas 14**. The revisions were briefly discussed during the second meeting. Consultants noted that assessing the revisions is an issue that communities across the nation are dealing with and asked the sub-committee for their suggestions on a possible path forward. Dr. Bryan Young and Dr. Bruce McEnroe of KU did a previous analysis of the new data and precipitation impacts in the KC metro area.
- Pablo of B&V explained that existing flood studies used a Johnson County calibrated method that matched the 100 yr storm event to the 100 yr flood by changing antecedent moisture conditions (AMC). He explained that in order to make comparisons of the revised precipitation data that the Johnson County method will have to be re-calibrated as part of that analysis. The FEMA stance is that if there are hydrological changes then it is incumbent upon local partners to evaluate the changes. They have a methodology for defining if changes in flow or base flood elevations are significant. But if changes are deemed marginal then they don't want revisions submitted. Currently, planners just don't know the significance of the NOAA Atlas 14 revisions beyond precipitation changes.
 - Sub-committee members had the following summarized comments:
 - The sub-committee should discuss if there is any historical evidence that the limits on the flooding maps are not accurate. City staff would immediately know if there are any properties outside those limits.
 - Historically, the flooding maps in Lenexa, for instance, are accurate.
 - From recent storm events, flooding maps are conservative. For planning purposes, cities would rather have them that way.
 - As a homeowner, the term "conservative" is in the eye of the beholder. Homeowners at least want to be alerted if they need flooding insurance.
 - Planners realize that storms are getting more intense and the County has recently experienced that. It may be logical to assess Indian Creek due to the high flow events that have occurred.
 - Assessing the impacts in a watershed would mainly require hydrology updates and re-calibration. Models are already prepared so it would not be as big of an effort as doing a new flood study.
 - The County could check models to confirm that we are accurate enough to not make changes. If impacts are significant then it would be up to communities from there to decide how to act.
- Andrew noted that the KC Metro Chapter of APWA is also considering the issue of the NOAA Atlas 14 revisions. Sub-committee members should look for any changes that APWA may propose.

Closing / Next Steps:

- The meeting concluded with Consultants stating that the next meeting will delve further into the revised Rating Table and potential changes that could provide a more regional approach. At the next meeting, Consultants will offer a summary of key points made and will ask the sub-committee to validate the recommendations.
- The next meeting is scheduled for October 11th at the same time, same place.
- SMP and consultants thanked participants for their time and effort.