



COUNCIL COMMITTEE REPORT

OPEN SPACE, ENVIRONMENT AND SUSTAINABILITY COMMITTEE

Date: September 23 2015

Agenda Item #: 4

Agenda Item: Shoal Creek riparian restoration in the vicinity of 45th and Bull Creek, including The Grove at Shoal Creek Planned Unit Development.

Vote No vote taken.

Sponsors/Department: CM Pool; Watershed Protection Department

Summary of Discussion

Mateo Scoggins briefly defined riparian zones and the negative impacts of urbanization on watersheds such as water quantity, erosion, and water quality. Scoggins explained that a solution to these issues would be more healthy riparian areas and wider buffers. Chuck Lesniak then explained stream buffers in terms of watershed classifications, critical water quality zones, and water quality transition zones. Lesniak also spoke briefly on the regulatory criteria in terms of the proposed Grove at Shoal Creek PUD. Scoggins concluded with a presentation on a vegetative restoration of riparian zones.

Following the presentation, council members posed the following questions and concerns about Shoal Creek riparian restoration in the vicinity of 45th and Bull Creek, including The Grove at Shoal Creek Planned Unit Development.

- *CM Garza asked for clarification relating to the rule that one must not flood their downstream neighbor, but when there is large impervious cover sometimes that is not necessarily true or possible. She further added that people believed that the impervious cover in South Park Meadows contributed to the Halloween floods.*

Mr. Lesniak explained that until the 1970s, the City did not require any kind of detention; prior to that the City has about 150 years of development that did not address detention at all. Staff has learned a lot about detention over the last 40 years, but even with detention requirements today, new development is required not to make the situation any worse. It is about depth of water, not about volume or velocity of water. The problems with erosion and flooding, and more so with erosion, is that it gets exacerbated by additional volume and velocity, but through good engineering design, the City can prevent that from getting deeper, but the water may be moving faster and moving longer. Historical problems pertaining to flooding were created by development, where there was no detention or requirements to prevent downstream flooding. Staff is trying to correct problems that were created by a hundred years or more of development. Mr. Scoggins then added that that the magnitude of flood events that occur in Austin will, at

some point, overwhelm all of the City's regulations, no matter how hard we try. Austin gets big flood events and it does not matter how much impervious cover there is.

- *CM Garza asked for clarification about on-site detention ponds controlling the velocity of the water.*

Mr. Lesniak explained peak saving and that flooding generally is caused by an increase in that peak over what the peak is today. The use of detention is to prevent the peak from getting higher than what it is right now. If an area is already having flooding problems, and a property is redeveloped, new development under current regulations is required not to make the peak any worse than it is today. If historical development is under capacity and if there was already flooding occurring, the City's current regulations are not intended to fix that problem. Mr. Lesniak then added that staff is looking into current regulation and the Flood Mitigation Task Force is tasked with researching how the City can mitigate problems caused by historical development and inadequate infrastructure.

- *CM Zimmerman asked if the City has plans to tear down downtown because it is the biggest offender with approximately 95% impervious cover.*

Mr. Lesniak explained that there are no plans to tear down impervious cover downtown. In fact, in the urban watersheds we have smaller buffer zones because those are historically highly developed areas. Mr. Lesniak concurs with CM Zimmerman explaining that water that runs off of downtown which may be up to 100% impervious cover has a large volume of runoff, but because the downtown areas are at the bottom of these watersheds there is no impact on the creeks. In addition, Lady Bird Lake functions as a very large detention pond, and so there is very little impact on Lady Bird Lake itself from the high impervious cover downtown. It is important to note that there are localized impacts.

- *Mayor Pro Tem Tovo asked if parkland in the Grove at Shoal Creek PUD interferes with the wetlands.*

Mr. Lesniak explained that dedicated parkland can interfere with the wetlands, especially if the land was used for recreational fields. Lesniak further explained that the Parks and Recreation Department is looking at how much credit they get towards their parkland requirements and open space requirements, in terms of that wetland. Staff would not want to put a trail through it because it really becomes a visual green amenity and not an active use space. In addition, Mr. Lesniak explained that the wetland is a critical environmental feature (CEF) and the City requires buffers for CEF's, which vary in width. Staff is working with the applicant to define the buffer and what is allowed within that buffer. CM Pool also mentioned that if it cannot be used as a park or development then it should not count toward the superior rating that would be looked for in a PUD. CM Garza pointed out that Council has not approved the Grove at Shoal Creek PUD. Mr. Lesniak confirmed that this is a proposed PUD request that is under review and has not been approved by Council.

- *CM Pool commented on the riparian zones in Brentwood within her district.*

CM Pool explained that with the new FEMA maps, red zones have been identified, which are sustained neighborhoods that have never been anywhere near a 25-year or 100-year floodplain. She also shared that Kevin Shunk with Watershed Protection gave an educational presentation to

Brentwood residents to answer as many questions as possible. CM Pool said that they talked about moving away from channelizing and speeding the velocity of water rather than slowing it down, absorbing it on-site, and spreading it around so that we don't have the impact of flooding. It's better for the areas if the water can remain on-site and seep in, which can better stabilize flood blanks such as in natural systems, which work really well, according to Lesniak. He further added that there are times when capital projects are necessary particularly in the central city, where it is estimated to have over \$2 billion worth of severe erosion problems in the creeks that will take structural repairs. Lesniak also noted that the City of Austin is a national leader in natural stream restoration and recreating engineered but natural appearing and functioning streams.

Public Comments

None

Direction

None

Recommendation

None