

What is TMC Chapter 17.10?

TMC Chapter 17.10 is currently Topeka's stream buffer code chapter. It regulates the land use, protection, restoration and long term maintenance of the land adjacent to a stream in order to protect long term water quality. It does this through requiring specific set back distances from the stream.

Regulations are common and are in place throughout the nation and the state. Some Kansas communities that have stream buffer regulations include Gardner, Johnson County, Lenexa, Olathe, Overland Park, and Platte County. These communities have adopted ordinances that protect the stream buffer by requiring setbacks and protection.

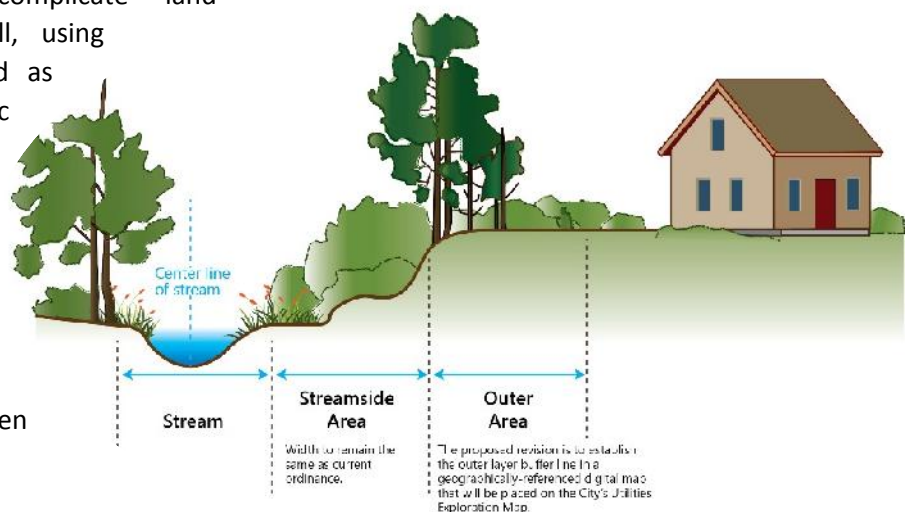
What is a stream buffer and why is it important?

A stream buffer, also called riparian buffer/area/zone, is the vegetated area next to and along a stream. Buffers generally have a mix of native trees, plants, and grasses, and can be restricted from development or encroachment. The trees, plants, and grasses in a stream buffer protect water quality by filtering out pollutants that are carried by stormwater runoff, such as sediment, bacteria, fertilizers and pesticides. Stream buffers also preserve wildlife habitat by allowing stream channels to meander naturally, providing shade that keeps the water cool, and holding the banks in place during high flows.



Why does Topeka need to revise TMC Chapter 17.10?

The basic current requirements of TMC Chapter 17.10 are shown in the table below. Note that the table indicates the two areas of a stream buffer: the **streamside area**; and the **outer area**. Note also that the ordinance requires adjustments to the Outer Area width of a stream buffer based on steep slopes, erodible soils, and other physical conditions that can influence stream flow. These adjustments can be confusing and tend to complicate land development designs. As well, using these adjustments is outdated as they are not based on scientific analysis of the stream. With advances in stream modeling, we know that streams will change as land is developed and they encounter higher and faster flows after storms. These changes can impact property as streambanks widen toward buildings and roadways.



	Streamside Area	Outer Area
Width	Width requirement ranges from 15ft to 50ft depending on stream size	Width requirement ranges from 15ft to 50ft depending on stream size Width adjustments based on slope, erodible soils, and physical conditions
Vegetation	Native plants only	Native plants or managed lawn depending on stream type
Uses	Flood control, utility corridors, foot paths, road crossings	Biking/hiking paths, flood control, detention/retention structure, utility corridors, stormwater BMPs, residential yards, landscaped areas
Function	Protect the physical & ecological integrity of the stream ecosystem	Protect key components of the stream, filter & slow velocity of stormwater runoff

What revisions to TMC Chapter 17.10 are proposed?

Computer models of Topeka's streams were developed in 2019 using a Kansas Department of Agriculture grant awarded to Topeka Utilities. After the models were determined to accurately reflect Topeka's streams, they were used to predict streambank movement as land in the City of Topeka continues to develop in the future. This prediction allows us to determine a boundary for the Outer Area that is based on the science of stream flow and the expected growth in Topeka over the next several years.

Topeka Utilities proposes to revise TMC Chapter 17.10 to use the stream buffer boundary predicted by the computer models to set the boundary of the Outer Area of the stream buffer. This changes the uppermost righthand box in the table, which will be provided by the City. The width of the streamside area (the left side of the table) will remain the same as it is defined currently. This change eliminates the confusion and often baseless adjustments in the current code chapter. As a result, we strongly believe the use of these models to regulate stream buffers in Topeka will prevent property loss and economic impacts that otherwise would result from expanding streams.

There are other minor revisions to Chapter 17.10 to clarify nomenclature and definitions, align buffer requirements with other City code, and establish easement and code variance conditions.

Will developers and site designers need to run models to design a stream buffer?

No. The stream widths are already predicted by the model. Topeka Utilities will provide the stream buffer line in a geographically-referenced digital map that will be placed on the City's Utilities Exploration Map for easy access and use by site designers. In fact, this approach will eliminate confusion on buffer adjustments by providing the required buffer boundary for designers.

Was the design community involved in the update?

Yes. Topeka Utilities held meetings with land development design stakeholders in December 2019 and August 2020 to gauge their opinion about the above updates. The proposed revision was well received by the meeting participants.