

# WATER

*the future is clear*



## STREAM SETBACK ORDINANCE FACT SHEET

Kansas City is considering a stream setback as part of its Zoning Ordinance and Subdivision Regulation Update to keep homes, businesses and other built infrastructure away from stream banks. This fact sheet describes the proposed stream setback and answers key questions that the public may ask.

### What is a Stream Setback Ordinance?

Stated simply, a Stream Setback ordinance is a regulation that creates a “buffer zone” between a river, creek, or stream, by specifying where construction of buildings and other infrastructure is or is not permitted.

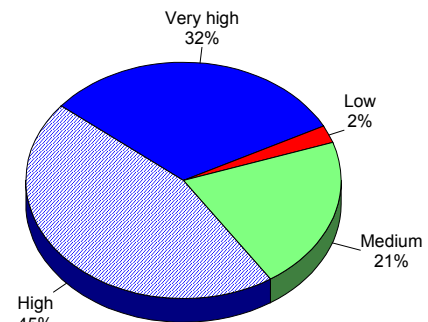
### Why is Kansas City Considering Adopting a Stream Setback Ordinance?

More than half of Kansas City, Missouri is yet to be developed. A Stream Setback Ordinance will help avoid future liabilities by protecting new development and infrastructure from flood damage, while saving natural resources that provide multiple benefits. Limiting development near stream banks will also improve Kansas City’s water quality, reduce erosion and sedimentation, prevent infrastructure damage, and protect riparian corridor habitat and greenways.

Stream protection is a high priority for Kansas Citians. In 2005, the Wet Weather Solutions Program conducted a random sample survey of Kansas City households (see results at right) and found that 77% of those that responded placed a “high” to “very high priority” on maintaining and protecting streams. When asked about support for a stream setback ordinance, 87% said they would be “somewhat supportive” to “very supportive” with the overwhelming majority (70%) of that number stating that they would be “very supportive.”

Overall, what priority do you think Kansas City leaders should place on maintaining and protecting streams?

by percentage of respondents

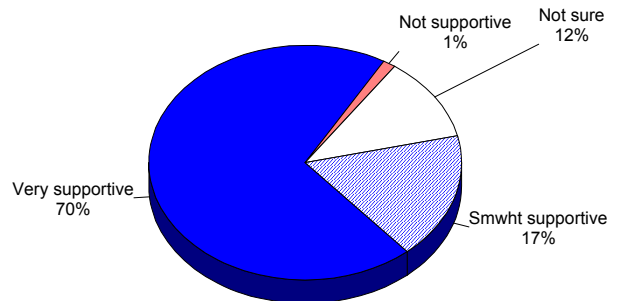


**Very High + High = 77%  
Low Priority = Just 2%**

Source: ETC Institute [ALL BASINS]

Kansas City is considering adopting an ordinance that would require developers to protect streams and stream corridors when land is developed. How supportive would you be of adoption of such an ordinance?

by percentage of respondents



**Total Support = 87%**

Source: ETC Institute [ALL BASINS]

Source: Wet Weather Solutions Public Opinion Survey—Statistically Valid Random Sample of All Kansas City Missouri Households in 2005

## What are the Benefits of a Stream Setback Ordinance?

There are many community benefits resulting from setting back from the streams. Stream assessments in Kansas City and across the region have shown that well vegetated streams are one of our best stormwater management options. Through this ordinance, Kansas City will:

**Reduce flood damage and loss of life** - Keeping trees and plants along the stream and keeping buildings a safe distance away reduces the amount of stormwater entering streams and helps reduce flooding; protects buildings and occupants from flood hazards, and reduces long-term costs.

**Stabilize stream banks and protect infrastructure** – Root systems from trees and plants along a stream help the stream to function as nature intended, preserving the stream’s natural character. Buffers help prevent erosion that threatens infrastructure such as bridges and utilities, reducing future capital and maintenance costs.

**Allow streams to meander or move as they would naturally** – A stream will change course as it responds to impacts from natural and manmade forces; protecting riparian corridors allows streams to change naturally without damage to buildings and infrastructure.

**Maintain and improve water quality** – Vegetation along stream banks filters fertilizer, pesticides, herbicides, other chemicals, and sediment before they reach the stream where they can damage aquatic plants and wildlife.

**Provide recreation and education** – Riparian corridors are excellent places for walking, running, and biking trails. A connection with nature improves health, quality of life, and academic achievement.

**Provide wildlife habitat** – Vegetated stream buffers create a network of wildlife habitat corridors. 71% of Kansas City respondents said wildlife habitat is important to protect.

**Increase property values** – throughout the Kansas City region, the Midwest, and the nation, property values are higher adjacent to and near protected stream corridors and green spaces.

## What are the Costs a Stream Setback Ordinance?

A stream setback ordinance controls the location of development. The ordinance Kansas City is considering would limit development in about 9% of the land inside the city. Of that nine percent, approximately 2/3rds is in the 100-year floodplain. Incentives such as greater density in less sensitive areas, and increased property values, may offset these costs or provide a net gain for developers.

## What are the specifics of the proposed Stream Setback Ordinance?

The proposed Kansas City ordinance is based on stream order (location in the watershed) and stream quality. Both of these stream characteristics drive the level of protection needed for the stream. The more protection provided to a water resource, the less impact to that system and watershed.

**Stream Order** - The location of the stream in the watershed dictates the setback width or "buffer width." Where the streams "begin" in the watershed is called the headwaters. These are first order streams. They flow into a second order stream and on to a third order, fourth order and so on.



The first and second order streams drain about 80 to 85% of any watershed. These streams are the most important to protect. According to the Center for Watershed Protection, "as the headwaters go, so goes the watershed."

**Stream Type - Kansas** City surveyed all of its streams and typed each stream according to its existing conditions or quality. Type 1 and 2 are the highest quality, Type 3 most common, Type 4 and 5 lowest quality. The proposed setback is based in part on stream quality; the highest quality streams would receive the most protection.

**Zones** - Three zones are proposed, with more restrictions nearer to the stream. They are:

**1. Streamside Zone**

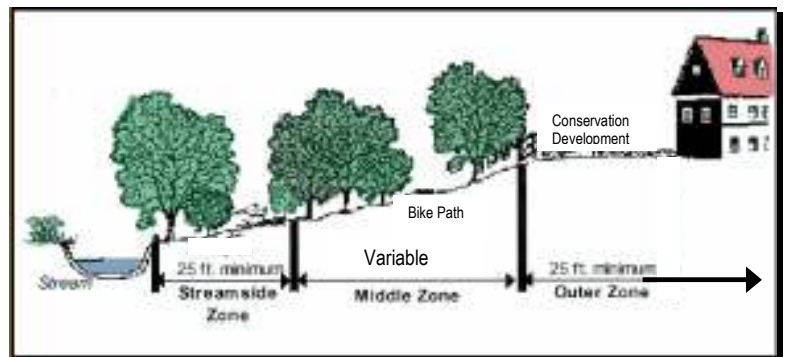
- a. 25 feet wide, each side of stream
- b. Allows utility crossings only

**2. Middle Zone**

- a. Variable
- b. Includes 100-year floodplain and wetlands where determined
- c. Allows utility and recreational corridors

**3. Outer Zone**

- a. Extends a minimum of 25 feet outside of Middle Zone
- b. Includes steep slopes and adjacent wildlife habitat areas
- c. Allows Conservation Development



The floodplain is the core of the proposed "buffer zone" (Streamside and Middle Zones, below) and would be a no-build zone. The outer zone includes vegetation that protects the stream and provides habitat. Conservation Development would be allowed by right in the Outer Zone, and developers will be allowed an equal or greater number of lots as currently, but minimum lot sizes would be reduced to protect the majority of the important vegetation.

Stream Buffer Minimum Widths Based on Stream Size and Type

Stream Size	Type 1 and 2 Streams (High Quality)	Type 3 Streams (Restorable)	Type 4 and 5 Streams (Low quality)	APWA Section 5600
Smallest	300 ft	250 ft	200 ft	60 ft
To	250 ft	200 ft	150 ft	100 ft
	200 ft	150 ft	100 ft	120 ft
Largest	150 ft	100 ft	50 ft	

Kansas City currently has minimum stream setback requirements implemented through the American Public Works Association (APWA) Section 5600 standard adopted in October 2006. The table above lists the proposed new minimum buffer widths by stream size for each type and compares it to the current regulations (APWA Section 5600.) A map of each watershed in the city will show the boundaries of the proposed stream setback.

## Who else has adopted a Stream Setback Ordinance?

Cities and counties in the Kansas City Metro Area are beginning to adopt Stream Setback Ordinances to protect their communities from flooding, to improve water quality, and to preserve some of Kansas City's natural resources. The following communities have taken the lead and adopted a Stream Setback Ordinance. The following table describes the current ordinance requirements.

Community	Year Adopted	Buffer Width
Belton, MO	1993	80'
Cass County, MO	2005	100'( 3 zones: 25' from bank; 50' middle zone; 25' outer zone)
Clay County, MO	2003	75' (2 zones: 50' from bank, 25' outer zone)
Gardner, KS	2006	40-160 acres: high water+60'; 160+ acres: Johnson Co. floodplain; steep slopes: 25'
Independence, MO	2006	85'-200'
Jackson County, MO	2005	100' from stream centerline
Leawood, KS	2004	Less than 40 acres: 40 feet; 40 – 160 acres: 60 feet; 160 – 5000 acres: 100 feet; 5000+: 120 feet.
Lenexa, KS	2002	100'-300' + FEMA flood plain and slope>15%
Liberty, MO	2005	Streamside buffer = 25'; Riparian edge buffer = additional 50' or 100-year floodplain ; 100' from perennial stream
Olathe, KS	2002	25'+Johnson Co. ultimate floodplain
Overland Park, KS	2002	For streams draining: 25-40 acres=30'; 40-160 acres=60'; 160-5000 acres =100'; >5000 acres=120'
Riverside, MO	1998	50'
Shawnee, KS	2000	1. No habitable structure within 90' of 25-year storm level; 2. No structure closer than 30' from 100-year storm level. Stricter one applies.

The following communities are considering or in the process of adopting a Stream Setback Ordinance:

- Blue Springs, MO
- Johnson County, KS
- Platte County, MO
- Raymore, MO
- Raytown, MO
- Sugar Creek, MO
- Unified Government Wyandotte County and Kansas City, Kansas

## Who to contact?

To find out more about Kansas City, Missouri's prospective Stream Setback ordinance you can contact Patty Noll, Project Manager, Zoning Ordinance & Subdivision Regulations Revision, City Planning & Development Department, 816-513-2864 or [Patty.Noll@kcmo.org](mailto:Patty.Noll@kcmo.org).