

Community concern or issue: *Stormwater Runoff impacts*

How does this issue impact citizen health or the environment?

Non-point source pollution in stormwater runoff is thought to be the major factor affecting surface water quality, whether urban or rural. As stormwater flows across asphalt roads and parking lots, agricultural croplands and livestock operations, dog parks, golf courses, and residential lawns, it can be contaminated by a variety of pollutants. These non-point source pollutants may be soil, bacteria from human or animal waste, trash, leaves or grass clippings, pesticides and fertilizers, oils from leaking motors, improperly constructed or maintained septic systems, or spills of fuels and chemicals. The contaminated runoff flows to rivers, lakes, or reservoirs that are public drinking water supplies and recreational areas for many Kansas citizens. Additionally, these contaminants also impact local ecosystems with detrimental impacts to wildlife and fisheries. In some instances, these waters become so polluted that they are not safe for human contact or cannot be used for drinking water.

Existing controls or standards

The federal Clean Water Act requires states to identify and assign “designated uses” (fishery, recreation, irrigation, or public drinking water supply, etc.) to all of its surface waters and to adopt criteria designed to protect the water for those uses. There are limits on pollutants such as bacteria, many chemicals, and physical conditions (temperature, suspended sediments, and pH). The Kansas Department of Health and Environment (KDHE) is the lead agency in Kansas to evaluate, report, and plan improvement measures for surface water quality.

How is this issue impacting Salina?

Stormwater drains go straight to the river and anything entering the drain is not treated. Children and adults may become ill due to contact with bacteria in surface water. The old Smoky Hill River channel has excessive trash and debris, contributed by more than

70 storm drains that collect runoff from five square miles of Salina (this is approximately one-fifth of the area of Salina). The channel will not support a healthy aquatic ecosystem. The city obtains a significant amount of its drinking water from the main channel of the Smoky Hill River. The more pollution in the river, the more treatment required downstream for drinking water, which increases costs.

What factors and behaviors contribute to this problem?

Impervious surfaces, such as roofs and paved areas, contribute to pollution and high runoff volume. Farming and urban development has resulted in a reduction of filtering and recharge areas such as wetlands and riparian areas that can help stabilize stream banks. Natural factors include geology of the watershed which affects the water chemistry. Community behaviors that may contribute to surface water pollution include construction site runoff, excessive lawn chemical use, pet wastes, car washing, excessive water use, litter, fluids from leaking vehicles, and hosing down business and residential parking areas and sidewalks.

Potential solutions – how can the community help with this issue?

The community could establish an urban stormwater awareness program to educate citizens and local producers about water quality and how to protect local water sources. Producers could implement more filter/buffer strips to protect riparian areas along streams and not plant right up to stream banks. Rain gardens could be installed in residential and commercial settings to minimize stormwater runoff. Citizens could adopt practices that reduce stormwater contaminants, including picking up trash and pet waste to prevent these from entering storm drains, not sweeping grass clippings or leaves into the street, and washing vehicles only at commercial washing facilities.