



A3 Problem Solving December 2014

Concern/Problem	<p>Flooding in the Smoky Hill River has scoured away the embankment and damaged the scour key structure to a point that it is endangering public infrastructure including streets, utilities, and the water supply.</p>
Identify those departments, divisions, or units that may be impacted	<p>Public Works and Utilities</p>
Record the date the problem was identified	<p>The embankment problem was first identified in May 2007, and has escalated since then.</p> <p>The scour key problem was first identified in 2012.</p>
Originator	<p>Wayne Nelson, Martha Tasker, Mike Fraser</p>
Contacts	<p>Wayne Nelson, Martha Tasker, Dan Stack, Jim Teutsch</p>
Problem Solving Team	<p>Wayne Nelson, Martha Tasker, Mike Fraser</p>
Describe Current Situation	<p>Flooding in the Smoky Hill River has scoured away the embankment, which is endangering public infrastructure, including streets and utilities. The flooding has also damaged the scour key. The scour key structure acts as a dam that provides water to draw from for the water treatment plant intake.</p>
Analyze	<p>The problem with the bank stabilization was first identified in May 2007. At that time Public Works staff set up a monitoring program to track the bank movement. They measured that this bank eroded more than 14 inches between Jan 2008 and June of 2009. Engineering continued to monitor its movement over the next several years. During this time the City worked with the Corps of Engineers to find a way to develop a plan and secure funding to stabilize this portion of the river bank. The Corps provided a reconnaissance study and subsequent preliminary design plans. Public Works share of the total \$1,056,000 project was to be \$335,000. Because of a lack of funds, the project was put on hold while the City developed a plan to set aside sufficient funds to cover these costs.</p> <p>The Utilities Department identified a structural problem with the scour key structure in 2012 and developed a photographic record of its condition over time. Utilities worked with a local engineer and contractor to develop a project plan which resulted in an estimated project cost of \$400,000.</p> <p>Subsequently, Salina had a flood event on July 13, 2013, that caused additional significant damage to the scour key. With a river gage reading officially above flood stage, the City requested assistance from the Corps on August 27, 2013. On Oct 30, 2013, the Corp of Engineers met with City staff for an onsite visit to discuss details and inspect the damaged areas.</p> <p>City staff argued that the bank stabilization project and the scour key repair did not meet conditions specified under Section 14, which requires a 63/35 cost share, but rather that they should be considered under the Flood Control Act of 1954, pursuant to 33 U.S.C. 701n. This act requires the government to repair and restore any project that the Corps of Engineers participated in constructing and had been damaged due to flooding. The Corps was the original builder of the levee, the cut-off channels from the Smoky Hill River, and the scour key.</p> <p>The Corps evaluated the damage and determined that the bank stabilization project could be included in the same project with the scour key, and that both projects would be paid for 100% by the federal government. This eliminated the need for the City to provide any funding for either project. These projects waited for funding to be approved by Congress, which was approved in 2014. While waiting for their funding to be approved, the Corps did an additional assessment to update all information needed and developed new plans for themselves. A cooperation agreement between</p>

	the City and the Corps of Engineers was signed on 21 November 2014.
Recommendation	(identify the actions required in order to solve this concern/problem and prevent it from happening again) Agreement was signed on 21 November 2014 between the City and the Corp of Engineers
Labor and Cost Savings	
	<u>Equipment purchase costs or other expense:</u> None <u>Annual dollar savings:</u> <ul style="list-style-type: none"> ■ Based on the original costs estimate for the bank stabilization the City has reduced its share of this project by \$335,000, which would have come out of the Public Works Budget. There was an additional cost avoidance of \$400,000 from Utilities for replacement of the Scour Key structure.
	<u>Annual hours of increased capacity:</u> <ul style="list-style-type: none"> • None
	<u>Use bullet points to identify customer service or employee benefits:</u> <ul style="list-style-type: none"> • This is a serious problem that could affect property values in the area of the erosion. • This is a serious problem that endangers the water supply to the City of Salina.
Implementation Plan	NA
Attachments	None
Approval Process	
Supervisor's Review and others in the Chain of Command	Instructions: This form is submitted through the chain of command to the Director <u>Date:</u> <u>Name:</u> <u>Comments:</u>
Director's Approval	Instructions: Approval authority is delegated to each Director for all recommendations that result in \$5,000 or less in annual savings, or 250 hours or less of annual increased capacity. <u>Date:</u> 12-31-14 <u>Name:</u> Martha Tasker <u>Approved/Denied:</u> <u>Comments:</u>
Process Improvement Director's Approval	<u>Date:</u> 12-31-14 <u>Approved/Denied:</u> <u>Comments:</u>
City Manager's Approval	Instructions: Final sign off for all recommendations that exceed \$15,000 in annual savings, or 250 hours of annual increased functional capacity is by the City Manager, who also signs off on any plans to convert hours to budgetary savings. The CMO Executive Assistant converts the approved form into a .pdf file that is saved on the P drive and in Laserfiche. <u>Date:</u> <u>Approved/Denied:</u> <u>Comments:</u>