

# Discovery Report

Upper Marais Des Cygnes River Watershed, HUC 10290101

**Anderson, Coffey, Douglas, Franklin, Linn, Lyon, Miami, Osage, Wabaunsee  
Counties, KS**

**Report Number 02**

**9/29/2017**





# Project Area Community List

Community Name
<i>Anderson County</i>
Anderson County Unincorporated Areas
City of Garnett
City of Greeley
City of Westphalia
<i>Coffey County</i>
Coffey County Unincorporated Areas
City of Lebo
City of Waverly
<i>Couglas County</i>
Douglas County Unincorporated Areas
City of Baldwin City
<i>Franklin County</i>
Franklin County Unincorporated Areas
City of Lane
City of Ottawa
City of Pomona
City of Princeton
City of Rantoul
City of Richmond
City of Wellsville
City of Williamsburg

Community Name
<i>Lyon County</i>
Lyon County Unincorporated Areas
City of Admire
City of Allen
City of Reading
<i>Miami County</i>
Miami County Unincorporated Areas
City of Osawatomie
<i>Osage County</i>
Osage County Unincorporated Areas
City of Burlingame
City of Lyndon
City of Melvern
City of Olivet
City of Osage City
City of Overbrook
City of Quenemo
City of Scranton
<i>Wabaunsee County</i>
Wabaunsee County Unincorporated Areas
City of Eskridge
City of Harveyville

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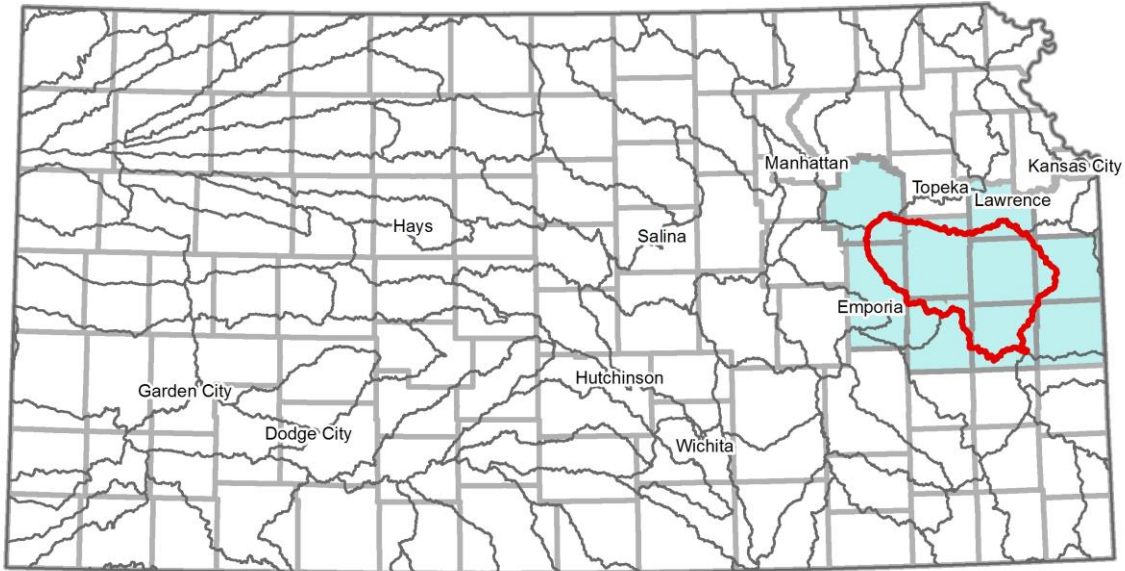
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## I. General Information

The purpose of this Discovery Report is to provide a foundation for potential future Federal Emergency Management Agency (FEMA) flood risk projects. The Discovery process is part of the FEMA Risk Mapping, Assessment and Planning (RiskMAP) program, which is considered on a watershed basis (developed from HUC-8 boundaries) rather than a community or county-wide basis. The RiskMAP program is designed to reduce flood risk by working with stakeholders to deliver quality data, increase public awareness of flood risk, and encourage local/regional actions. To qualify for a RiskMAP project, a watershed must first go through the Discovery process. Discovery provides for the exchange of information between local, state, federal, and private-sector stakeholders. The Discovery process includes meetings with stakeholders to better understand the watershed, to decide whether a flood risk project is appropriate, and if so, to collaborate on the specifics of project planning. This report, along with the Discovery map, summarizes the information gathered as part of the Discovery process, the challenges and issues the watershed and communities face, and the products or actions that would be useful or necessary for the community to reduce their flood risk.

The Upper Marais Des Cygnes Watershed was selected for Discovery due to its increasing population, identified flood risks, identified mitigation projects, and identified mapping needs. The watershed is located in East Central Kansas. It is approximately 2,176 square miles and includes (at least partially) 9 counties and 29 communities. Portions of Anderson, Coffey, Douglas, Franklin, Linn, Lyon, Miami, Osage, and Wabaunsee Counties in Kansas are located in the watershed. The Cities of Admire, Allen, Burlingame, Eskridge, Garnett, Greeley, Harveyville, Lane, Lyndon, Melvern, Olivet, Osage City, Ottawa, Pomona, Princeton, Quenemo, Rantoul, Reading, Richmond, Scranton, Waverly, Westphalia, and Williamsburg are entirely located in the watershed. Portions of the Cities of Baldwin City, Lebo, Osawatomie, Overbrook, and Wellsville are located in the watershed.

The main river in the watershed is the Marais Des Cygnes River, which flows in a Southeasterly direction into the Lower Marais Des Cygnes Watershed. The Upper Marais Des Cygnes Watershed includes all of the upstream drainage area of the Marias Des Cygnes River to the confluence with the Pottawatomie Creek. The Marias Des Cygnes River is a major flooding source for the watershed. Several tributaries flow directly into the Upper Marias Des Cygnes River and contribute to flooding in the area, including Pottawatomie Creek, Hundred and Ten Mile Creek, and Salt Creek. There are two major lakes in this watershed. Pomona Lake is located northwest of the City of Pomona. Its dam is on the Hundred and Ten Mile Creek, just downstream of the confluence with Dagoon Creek. Melvern Lake is located west of the City of Melvern. Its dam is on the Marais Des Cygnes River. Both lakes are located in Osage County.



**Figure 1: Upper Marais Des Cygnes Watershed**

Communities within the Marais Des Cygnes Watershed have each experienced unique increases or decreases in population. According to the 2010 Census, five of the counties in the watershed experienced an increase in population from 2000 to 2010, while the others experienced a decrease in population. Douglas, Franklin, Linn, Miami and Wabaunsee Counties increased in population, with 10.9 percent, 4.9 percent, 0.9, 15.6 and 2.4 percent increases, respectively. The Kansas state average growth was 6.1 percent. Anderson County showed little change, with -0.1 percent growth. Coffey, Lyon and Osage Counties decreased in population by -3.0, -6.2 and -2.6 percents, respectively. Several cities in the watershed experienced an increase in population from 2000 to 2010 that was equal to or greater than the state average. Notably, the City of Baldwin City grew by 32.8 percent, and the City of Wellsville grew by 15.6 percent. The eleven counties have a combined population of 253,002.

Information about the flood study needs in the state of Kansas was gathered from the Coordinated Needs Management Strategy (CNMS) database. The purpose of CNMS is to assess the need to revise and update flood hazard information. The CNMS process determines whether existing flood hazard studies are valid by evaluating natural and man-made changes that affect the floodplain. Analysis is performed on gages, modeling methodology, new or removed flood control and hydraulic structures, channel reconfiguration, channel fill and scour, rural versus urban regression equations, land use changes, the availability of better topography, and significant storms. Requests by communities or other interested parties are also noted. CNMS analysis is a useful tool for prioritizing the greatest needs and planning how these needs may be met.

There are approximately 3,152 total stream miles in the CNMS database in the watershed. This includes streams with a drainage area of at least one square mile. There are five categories

of streams in this watershed. The categories are Verified and Unverified. Table 1 lists stream miles per category per county for the watershed.

**Table 1: CNMS categorized stream mileage**

<b>Anderson County, FIPS: 20003</b>	
Unverified	745 miles
<b>Coffey County, FIPS: 20031</b>	
Unverified	90 miles
<b>Douglas County, FIPS: 20045</b>	
Verified	20 miles
Unverified	81 miles
<b>Franklin County, FIPS: 20059</b>	
Verified	264 miles
Unverified	621 miles
<b>Lyon County, FIPS: 20111</b>	
Verified	50 miles
Unverified	270 miles
<b>Osage County, FIPS: 20139</b>	
Verified	378 miles
Unverified	483 miles
<b>Wabaunsee County, FIPS: 20197</b>	
Unverified	150 miles

## II. Watershed Stakeholder Coordination

Watershed Stakeholder Coordination is a vital component of the Discovery Process. Once local Discovery meetings were scheduled, the project team telephoned invitees' to verify and update their contact information, to inform them of meeting schedules, to answer questions, to provide an overview of the RiskMAP and Discovery process, and to discuss the invitees potential ability to provide useful data to the project. When possible, meeting invitations were sent via email. When email was not an option, invitations were sent via mail.

The project team started the Discovery process by compiling contact information for communities and stakeholders in the watershed. The contact information was compiled from the web using FEMA's Community Information System (CIS) website, the Kansas League of Municipalities website, and all available local community or county websites. Calls were made to communities as needed to verify contact information.

A survey was created to assess flooding concerns and preparedness in the watershed. The survey was created online using Survey Monkey and sent to stakeholders via email. The survey results are available in an excel spreadsheet in Appendix A. Meeting invites and a contact sheet from the initial watershed-wide Discovery meeting are also located in Appendix A.



### III. Data Analysis

A listing of the data collected during the Discovery Process can be found in Table 2. It includes the Data Type and Source. The data analyses are divided into two groups: 1) Those that can be used for Flood Risk Products (regulatory and non-regulatory) such as topography and 2) other Data and Information that can be used for future mitigation planning and projects.

**Table 2: Data Type and Source Collected for the Upper Marais Des Cygnes Watershed**

Data Types	Source
Flood Insurance Study & DFIRM Database	FEMA Map Service Center
Community Rating System	FEMA CIS
Population Data	U.S. Census Bureau
Insurance Policies	FEMA CIS
Hazard Mitigation Plans	KDA Mitigation Officer
Repetitive Loss	KDA Mitigation Officer
Flood Insurance Claims	FEMA CIS
Letters of Map Change (LOMCs)	KDA Mapping Coordinator
Hazards	Hazard Mitigation Plan
Boundaries: Community, Transportation and County	Effective DFIRM Database
Boundaries: Watershed	DASC website <a href="http://www.kansasgis.org/index.cfm">http://www.kansasgis.org/index.cfm</a>
Boundaries: Drainage Districts	Digitized from “Special Water Districts in Kansas” report dated September, 1967
Levee Locations	USACE national file – provided by FEMA R-VII Regional Support Center
Scour Data	National Bridge Inventory
Dams	Water Structure Inventory provided by KDA
Study Needs	CNMS Database
Topographic Data - LiDAR	DASC website <a href="http://www.kansasgis.org/index.cfm">http://www.kansasgis.org/index.cfm</a>
NAIP Imagery	DASC website <a href="http://www.kansasgis.org/index.cfm">http://www.kansasgis.org/index.cfm</a>
Local imagery	Provided by county or community
USGS Estimation of Peak Flows	<a href="http://pubs.usgs.gov">http://pubs.usgs.gov</a>

## i. Data that can be used for Flood Risk Products

### Topographic Data

#### LiDAR DEM

LiDAR (Light Detection and Ranging) data is collected using ultraviolet, visible and near infrared light to image a wide range of targets with high resolution. This data is used to create a digital elevation model (DEM). LiDAR DEMs are currently available for the entire watershed.

In 2010, the U.S. Army Corps of Engineers – Kansas City District, USGS, NRCS-KS, KDA, and Kansas GIS Policy Board partnered to provide LiDAR for Coffey, Franklin, Miami and Osage County. The project was contracted through the U.S. Army Corps of Engineers – St. Louis District – Center of Expertise for Photogrammetric Mapping and flown by Surdex Corporation. The accuracy of this LiDAR is 0.6 meters, which supports one-foot contours.

In 2011, KDA, the Kansas Water Office, the Kansas GIS Policy Board, the Kansas Information Technology Office, the Harvey County Commission, the NRCS, the USGS, and the U.S. Fish and Wildlife Service partnered to acquire LiDAR data for an additional 15 counties in Kansas. That project area included Lyon County. The horizontal accuracy of this LiDAR is 0.6 meters, which supports one-foot contours.

In 2012, KDA, KDOT, the USACE, Bourbon County, Crawford County, Wyandotte County, the NRCS, and the USGS partnered to acquire LiDAR data for 34 counties in Kansas. That project area included Linn and Wabaunsee counties. The horizontal accuracy of the this LiDAR is 0.6 meters, which supports one-foot contours.

In 2013, KDA, the Kansas GIS Policy Board, the NRCS, and the USGS partnered to acquire LiDAR data for 10 counties in Kansas. That project area included Anderson county. The horizontal accuracy of this LiDAR is 0.6 meters which supports two-foot contours.

In 2015, KDA, the NRCS, and the USGS partnered to acquire LiDAR data for 11 counties in Kansas. That project area included Douglas county. The horizontal accuracy of this LiDAR is 0.6 meters, which supports one-foot contours.

The LiDAR data is available on the Kansas Data Support Center (DASC) <http://www.kansasgis.org/index.cfm>.

### Hydrologic Data

Stream gages measure the water surface elevation (stage) and/or discharge (flow) along streams. These measurements are used in the detailed analysis of streams and floodplain

determinations. Peak-flow data is available from fifteen USGS gage sites in the watershed area. The stream gages in the Upper Marais Des Cygnes are shown in Table 3.

**Table 3: Upper Marais Des Cygnes Watershed Gages with Peak Flow**

Source	Site Number	Site Name	Drainage Area (mi <sup>2</sup> )	Peak-flow data begin date	Peak-flow data end date	Peak-flow data count
USGS	<a href="#">6910800</a>	MARAIS DES CYGNES R NR READING, KS	177	06/27/1969	05/24/2015	47
USGS	<a href="#">6911000</a>	MARAIS DES CYGNES R AT MELVERN, KS	351	09/05/1940	06/10/2015	37
USGS	<a href="#">6911490</a>	SALT C AT LYNDON, KS	97.8	12/09/1999	05/24/2015	16
USGS	<a href="#">6911500</a>	SALT C NR LYNDON, KS	111	05/21/1940	11/02/1998	60
USGS	<a href="#">6911900</a>	DRAGOON C NR BURLINGAME, KS	114	06/26/1946	05/24/2015	56
USGS	<a href="#">6912300</a>	DRAGOON C TR NR LYNDON, KS	3.76	07/10/1957	05/16/1990	34
USGS	<a href="#">6912500</a>	HUNDRED AND TEN MILE C NR QUENEMO, KS	322	05/21/1940	06/15/2015	76
USGS	<a href="#">6913000</a>	MARAIS DES CYGNES R NR POMONA, KS	1040	06/11/1923	05/24/2015	62
USGS	<a href="#">6913500</a>	MARAIS DES CYGNES R NR OTTAWA, KS	1250	07/06/1895	06/05/2015	108
USGS	<a href="#">6913600</a>	ROCK C NR OTTAWA, KS	10.2	07/10/1957	06/18/1977	21
USGS	<a href="#">6913700</a>	MIDDLE C NR PRINCETON, KS	52	1951	06/01/1989	34
USGS	<a href="#">6914000</a>	POTTAWATOMIE C NR GARNETT, KS	334	11/17/1928	06/06/2001	63
USGS	<a href="#">6914100</a>	POTTAWATOMIE C NR SCIPIO, KS	343	05/25/2002	05/24/2015	14

Source	Site Number	Site Name	Drainage Area (mi <sup>2</sup> )	Peak-flow data begin date	Peak-flow data end date	Peak-flow data count
USGS	<a href="#">6914250</a>	SF POTTAWATOMIE C TR NR GARNETT, KS	0.35	03/04/1963	09/15/2010	46
USGS	<a href="#">6914500</a>	POTTAWATOMIE C AT LANE, KS	513	09/14/1961	05/25/2015	26

## ii. Other Data and Information

### Average Annualized Loss (AAL)

Nationwide AAL data is available. This data was created using 2000 census data at the census block level. The AAL data was created using the FEMA HAZUS program. The modeling was completed for streams that have 10-square-miles or greater of drainage area. This data can be enhanced by using a smaller drainage area and/or more detailed land tracts, such as parcel data or building footprints.

### Community Rating System (CRS)

CRS is a voluntary program within the National Flood Insurance Program (NFIP) that rewards pro-active communities with discounted flood insurance premium rates. The program encourages community floodplain management beyond the NFIP minimum standards. Douglas County and Lyon County is the only community in the watershed enrolled in the CRS program.

### Mitigation Plans & Mitigation Projects

Multi-Hazard Mitigation Plans (MHMPs) have been adopted by, or completed for, unincorporated and incorporated communities within the watersheds. The MHMPs for communities in this watershed are regional MHMPs developed in Kansas. Anderson, Coffey, Franklin, Linn, Miami, and Osage Counties and the incorporated communities within these counties are part of the East Central (Region J) MHMP. Douglas County and the incorporated communities within this county are part of the Northeast (Region I) MHMP. Wabaunsee County and the incorporated communities within this county are part of the North Central (Region I) MHMP.

The purpose of each MHMP is twofold. First, plans ensure that each participating community is eligible to obtain federal funding under the Hazard Mitigation Grant Program,

Pre-Disaster Mitigation Program and the Flood Mitigating Assistance Program. Additionally, MHMPs enable communities to determine the hazards affecting their area, determine the risks these hazards present to the respective communities, develop mitigation goals, and identify mitigation actions for the participating entities. MHMPs include mitigation strategies intended to promote flood-resilience among participating communities. The project team reviewed the mitigation strategies listed in the relevant MHMPs to determine which mitigation strategies, if any, were relevant for the Discovery Process. Appendix B summarizes the flood-related mitigation actions in the plans and from the Discovery meeting.

## IV. Discovery Meeting

One Discovery meetings was held in the Upper Marais Des Cygnes watershed and are listed in Table 4.

**Table 4: Upper Marais Des Cygnes Discovery Meetings**

Location	Time, Date	Address
Ottawa	1:30 PM, February 21, 2017	Neosho Community College Auditorium 900 E. Logan St. Ottawa, KS 66067

A PowerPoint presentation was created for the meetings. This presentation provided an overview of the RiskMAP program and the Discovery process, and included specific information about the watershed. Discovery maps were also created for the meeting. These maps displayed the initial proposed stream study scope for notes and markups. Tables were set up for different areas in the watershed. Meeting facilitators discussed flooding issues, study needs and mitigation needs. Their findings were recorded on Mitigation Action Identification Sheets. The meeting materials are included in Appendix C of this report.

## V. RiskMAP Project Proposed Scope

The Upper Marais Des Cygnes Watershed is scheduled for a RiskMAP project. Funding is expected to start the project in Fiscal Year 2017, with work completed in late 2017 and 2018. A preliminary scope of work is listed in Table 5. The studies are also depicted graphically in the Discovery Map, located in Appendix C. The studies listing in Table 5 will be included in the Flood Risk Products. Descriptions of the Flood Risk Products that will be created are listed after the table. This was developed based on needs identified through the Discovery process.

**Table 5: Fiscal Year 2017 Scope of Work**

Study Area/Flooding Source	Total Miles	Description of Level of Study
Upper Marais Des Cygnes / Crystal Lake	2.0	AE with lettered cross sections, no floodway developed
Upper Marais Des Cygnes / Lake Garnett	1.4	AE with lettered cross sections, no floodway developed
Upper Marais Des Cygnes / Pottawatomie Creek	9.3	AE with lettered cross sections, no floodway developed
Upper Marais Des Cygnes / Rock Creek	4.3	AE with Floodway and lettered cross sections and/or BFEs
Upper Marais Des Cygnes / Salt Creek Tributary 17	1.4	AE with lettered cross sections, no floodway developed
Upper Marais Des Cygnes / Salt Creek Tributary 17.2	0.8	AE with lettered cross sections, no floodway developed
Upper Marais Des Cygnes / South Fork Pottawatomie Creek	1.3	AE with lettered cross sections, no floodway developed
Upper Marais Des Cygnes / Switzler Creek	3.0	AE with lettered cross sections, no floodway developed
Upper Marais Des Cygnes / Tauy Creek East Fork	4.7	AE with Floodway and lettered cross sections and/or BFEs

Study Area/Flooding Source	Total Miles	Description of Level of Study
Upper Marais Des Cygnes / Tauy Creek East Fork Tributary	1.8	AE with Floodway and lettered cross sections and/or BFEs
Upper Marais Des Cygnes / Tauy Creek East Fork Tributary A	0.6	AE with Floodway and lettered cross sections and/or BFEs
Upper Marais Des Cygnes / Tauy Creek East Fork Tributary B	0.2	AE with Floodway and lettered cross sections and/or BFEs
Upper Marais Des Cygnes / Tauy Creek East Fork Tributary C	0.6	AE with Floodway and lettered cross sections and/or BFEs
Upper Marais Des Cygnes / Zone As	2,970	A for most streams in the watershed that are not studied at a higher level of detail. Zone A streams in Douglas and Miami Counties are not scheduled to be updated. The mileage includes streams in Anderson County outside of the watershed to allow for a countywide update.
Upper Marais Des Cygnes/ Hundred and Ten Mile Creek	1.0	Redelineation of existing Zone AE study on LiDAR topography.
Upper Marais Des Cygnes/ Marais Des Cygnes River	45.8	Redelineation of existing Zone AE study on LiDAR topography.
Upper Marais Des Cygnes/ Nugent Creek	4.7	Redelineation of existing Zone AE study on LiDAR topography.
Upper Marais Des Cygnes/ Walnut Creek	4.2	Redelineation of existing Zone AE study on LiDAR topography.
Upper Marais Des Cygnes/ Walnut Creek Tributary	0.7	Redelineation of existing Zone AE study on LiDAR topography.

### Flood Depth Grids

Flood Depth Grids are rasters that show the depth of the water in a given area. Depth is calculated as the difference in feet between the water surface elevation and the ground



elevation. Depth grids will be available for 10-, 4-, 2-, 1-, 1-plus- and 0.2-percent-annual-chance flooding events.

### **Water Surface Elevation Grids**

Water Surface Grids are rasters that show the elevation of each modeled flood events. Elevations will be extracted from the new studies' models. These grids will be available for 10-, 4-, 2-, 1-, 1-plus-, and 0.2-percent-annual-chance flooding events.

### **Percent Annual Chance of Flooding Grid**

These grids represent the percent annual chance of flooding for locations along a flooding source. This data supplements the Special Flood Hazard Area map features by indicating the probability of flooding in a given year for a given area.

### **Percent Chance of Flooding over a 30-year Period Grid**

These grids represent the percent chance that a flood will occur in any thirty year period for locations along a flooding source. This data is intended to show the probability of flooding during the life of the average mortgage.

### **Areas of Mitigation Interest**

The Areas of Mitigation Interest (AOMI) dataset provides an understanding of factors that affect flood risk. This data is a series of points that include information on mitigation needs and successes.

### **Average Annualized Loss**

The Average Annualized Loss (AAL) dataset contains loss information. The dataset was completed nationwide through the HAZUS program described above. This information shows the flood risk throughout the watershed and will be presented on an ordinal scale. The results of that study will be included in this dataset.

### **Changes Since Last FIRM**

The Changes Since Last FIRM (CSLF) are features that show polygon areas of mapped flood zone changes. This deliverable is produced for all new study areas that previously had a DFIRM. This product will show how and where the floodplain changed from the effective DFIRM to the new study.

### **Flood Risk Database**

The Flood Risk Database includes spatial data shown on the Flood Risk Map and tables that link to the Flood Risk Report. The database includes the AOMI, AAL, and CSLF datasets.

### **Flood Risk Map**

All of the spatial data included in the Flood Risk Database, including the AOMI, AAL, and CSLF dataset, will be shown on the Flood Risk Map.

## Flood Risk Report

All of the data described here will be compiled in a report, which summarizes the project level findings. The report will be prepared for the entire watershed, with community specific sub-sections.

## Regulatory Products

The Upper Marais Des Cygnes Watershed is scheduled to be funded in an additional funding year by FEMA to incorporate the newly developed studies into the regulatory mapping. It is anticipated funding will be available for Fiscal Year 2018, with work expected to be completed in late 2018 through 2020. The purpose of this additional funding will be to create and deliver regulatory products for official use. At this point, the project will begin to be more county and community specific to create the regulatory products, rather than watershed wide. The expected scope of work is listed in Table 6.

**Table 6: Regulatory Products Creation and Delivery**

Regulatory Products Creation and Delivery	
<b>Anderson County</b>	Preliminary Map Products will be created on a countywide basis. These products will include FIRMs, FIRM Database and a FIS Report. It is expected to be funded as part of the Upper Marais Des Cygnes Watershed project because most of the county is located within that watershed. The process will end with new effective regulatory products for the county and incorporated communities.
<b>Coffey County</b>	Preliminary Map Products will be created on a countywide basis. These products will include FIRMs, FIRM Database and a FIS Report. It is expected to be funded as part of the Neosho Headwaters Watershed, incorporating the areas developed in the Upper Marais Des Cygnes Watershed project. The process will end with new effective regulatory products for the county and incorporated communities.
<b>Douglas County</b>	Preliminary Map Products will be created on a countywide basis. These products will include revised FIRMs, FIRM Database and a FIS Report. Only those FIRM panels where mapping is being updated in the Upper Marais Des Cygnes watershed will be revised. The process will end with new effective regulatory products for the county and incorporated communities.
<b>Franklin County</b>	Preliminary Map Products will be created on a countywide basis. These products will include revised FIRMs, FIRM Database and a FIS Report. Only those FIRM panels where mapping is being updated in the Upper Marais Des Cygnes watershed will be revised. The process will end with new effective regulatory products for the county and incorporated communities.

**Regulatory Products Creation and Delivery**

**Lyon County**

Preliminary Map Products will be created on a countywide basis. These products will include FIRMs, FIRM Database and a FIS Report. It is expected to be funded as part of the Neosho Headwaters Watershed, incorporating the areas developed in the Lower Cottonwood and Upper Marais Des Cygnes Watershed projects. The process will end with new effective regulatory products for the county and incorporated communities.

**Osage County**

Preliminary Map Products will be created on a countywide basis. These products will include revised FIRMs, FIRM Database and a FIS Report. Only those FIRM panels where mapping is being updated in the Upper Marais Des Cygnes watershed will be revised. The process will end with new effective regulatory products for the county and incorporated communities.

**Wabaunsee County**

Preliminary Map Products will be created on a countywide basis. These products will include FIRMs, FIRM Database and a FIS Report. It is expected to be funded as part of the Middle Kansas Watershed project because most of the county is located within that watershed. The process will end with new effective regulatory products for the county and incorporated communities.

## VI. **Appendix and Tables**

Appendix A – Correspondence and Contact Information

Appendix B – Mitigation Actions Summary

Appendix C –Discovery Meeting Documentation