

# HR

HURST-ROSCHE  
ENGINEERS, INC.

Hurst-Rosche Engineers, Inc.  
221 East Main St.  
Neosho, MO 64850  
Telephone 417 451-2727  
Fax 417 451-0802  
Web Page – hurst-rosche.com

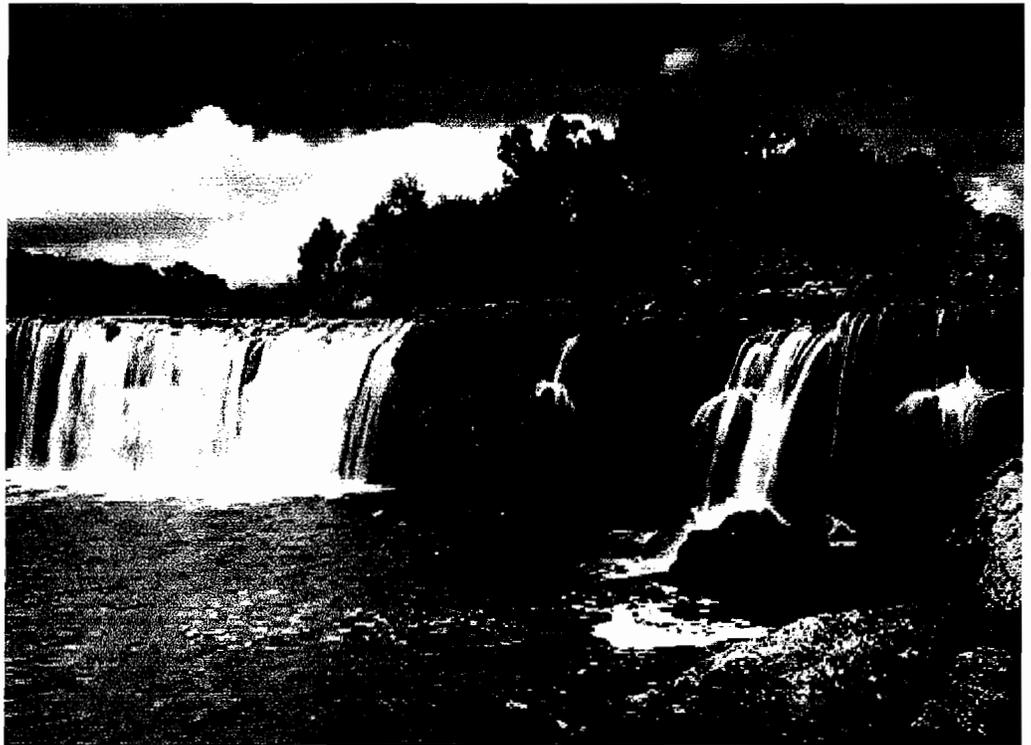
Hillsboro, Illinois  
East St. Louis, Illinois  
Marion, Illinois  
Springfield, Illinois  
Barnhart, Missouri

## Initial Submittal

## Storm Water Management Plan

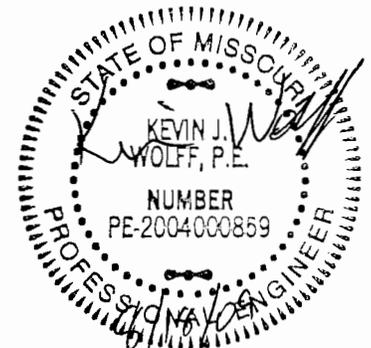
For

## Newton County



Project No. 625-3479

August 18, 2009



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**Newton County Commission Signature Page**



# NEWTON COUNTY COMMISSION

Newton County Courthouse · 101 S. Wood · Suite 201 · Neosho, MO 64850  
(417) 451-8223 · (417) 451-8201 · Fax: (417) 451-8289

**JERRY CARTER**  
Presiding Commissioner

**JERRY BLACK**  
Commissioner, District 1

**JACK SANDERS**  
Commissioner, District II

August 18, 2009

Robert K. Morrison, P.E., Chief  
Water Pollution Control Branch  
Missouri Department of Natural Resources  
P.O. Box 176  
Jefferson City, Missouri 65102

**RE: Final Stormwater Permit Application**

Dear Mr. Morrison:

I certify under penalty of law this document and attachments were prepared under my directions or supervision in accordance with a system designed to assure qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Very truly yours,

**NEWTON COUNTY COMMISSION**

  
Jerry Carter  
Presiding Commissioner

JC/kjt

**Insert 2**

**Form K – Application for Individual Small MS4 General Permit**



MISSOURI DEPARTMENT OF NATURAL RESOURCES  
 WATER PROTECTION PROGRAM, WATER POLLUTION BRANCH  
 PO BOX 176, JEFFERSON CITY, MO 65102  
**FORM K - APPLICATION FOR INDIVIDUAL SMALL MS4 GENERAL PERMIT (FORM M MUST ALSO BE SUBMITTED)**

FOR AGENCY USE ONLY	
CHECK NUMBER	
DATE RECEIVED	FEE SUBMITTED

**THIS IS FOR A STORMWATER ONLY DISCHARGE PERMIT.**

1.00  
 a. This municipality/area is now operating a separate storm sewer system under Missouri Operating Permit Number (NPDES) MO- \_\_\_\_\_ or  
 b. This is a new permit;

2.00 NAME OF MUNICIPALITY/AREA MS4  
**Newton County**

2.10 ADDRESS (HEADQUARTERS PHYSICAL LOCATION)	STREET	CITY	STATE	ZIP CODE
101 South Wood, Suite 201		Neosho	MO	64850

3.00 OWNER

NAME	TELEPHONE NUMBER
Newton County	(417) 451-8223

ADDRESS	STREET	CITY	STATE	ZIP CODE
101 South Wood, Suite 201		Neosho	MO	64850

4.00 CONTINUING AUTHORITY

NAME	TELEPHONE NUMBER
Newton County	(417) 451-8223

ADDRESS	STREET	CITY	STATE	ZIP CODE
101 South Wood, Suite 201		Neosho	MO	64850

5.00 MUNICIPALITY/AREA CONTACT

NAME	PHONE
Gary Roark	(417) 451-4357
	FAX
	(417) 451-8260

TITLE  
**Emergency Management Director**

6.00 FOR EACH KNOWN STORMWATER OUTLET GIVE LEGAL DESCRIPTION (ATTACH ADDITIONAL SHEETS AS NECESSARY)  
 Stormwater Outlet Number \_\_\_\_\_ 1/4 \_\_\_\_\_ 1/4 \_\_\_\_\_ Sec \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_ County \_\_\_\_\_  
 Lat \_\_\_\_\_, Long \_\_\_\_\_  
**(Multiple Stormwater Outlets, See Attached Sheets)**

6.10 FOR EACH KNOWN STORMWATER OUTLET LIST THE NAME OF THE RECEIVING WATER

Outlet Number	Receiving Water
(Multiple Stormwater Outlets, See Attached Sheets)	(Multiple Stormwater Outlets, See Attached Sheets)
_____	_____
_____	_____

7.00 ATTACH A USGS 1" - 2000' SCALE MAP SHOWING THE LOCATION OF THE MUNICIPALITY/AREA IN RELATION TO THE LOCAL ROAD SYSTEM. INDICATE ON THE MAP THE MUNICIPALITY/AREA BOUNDARIES, THE RECEIVING STREAM(S); ALL KNOWN STORMWATER OUTLETS; AND THE MAP SECTION, TOWNSHIP, AND RANGE.

8.00 I CERTIFY THAT I AM FAMILIAR WITH THE INFORMATION CONTAINED IN THE APPLICATION, THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF SUCH INFORMATION IS TRUE, COMPLETE AND ACCURATE, AND IF GRANTED THIS PERMIT, I AGREE TO ABIDE BY MISSOURI CLEAN WATER LAW AND ALL RULES, REGULATIONS, ORDERS AND DECISIONS, SUBJECT TO ANY LEGITIMATE APPEAL AVAILABLE TO AN APPLICANT UNDER THE MISSOURI CLEAN WATER LAW OF THE MISSOURI CLEAN WATER COMMISSION.

NAME AND OFFICIAL TITLE (TYPE OR PRINT)	PHONE
Jerry Carter, Commissioner	(417) 451-8223

SIGNATURE	DATE SIGNED
<i>Jerry Carter</i>	August 18, 2009

## OUTFALL POINTS AND INFLOW POINTS NEWTON COUNTY, MISSOURI

### OUTFALL 001

Water Body: Shoal Creek  
Legal Description: NW 1/4, SW 1/4, Sec. 26, T 27 N, R 34 W, Newton County  
Lat: N37°02'00.63" Long: W094°37'05.40"

### OUTFALL 002

Water Body: Jones Creek  
Legal Description: NW 1/4, NE 1/4, Sec. 24, T 27 N, R 31 W, Newton County  
Lat: N37°03'11.14" Long: W094°16'02.40"

### OUTFALL 003

Water Body: Jenkins Creek  
Legal Description: NW 1/4, NW 1/4, Sec. 22, T 27 N, R 30 W, Newton County  
Lat: N37°03'05.29" Long: W094°12'03.30"

### OUTFALL 004

Water Body: Motley Branch  
Legal Description: NE 1/4, NW 1/4, Sec. 24, T 27 N, R 30 W, Newton County  
Lat: N37°03'02.16" Long: W094°09'41.02"

### OUTFALL 005

Water Body: Center Creek  
Legal Description: NW 1/4, NW 1/4, Sec. 22, T 27 N, R 29 W, Newton County  
Lat: N37°02'56.20" Long: W094°05'40.39"

### INFLOW 006

Water Body: Center Creek  
Legal Description: SE 1/4, NE 1/4, Sec. 23, T 27 N, R 29 W, Newton County  
Lat: N37°02'32.40" Long: W094°03'33.88"

### INFLOW 007

Water Body: Dry Valley Branch  
Legal Description: SE 1/4, SE 1/4, Sec. 26, T 27 N, R 29 W, Newton County  
Lat: N37°01'24.04" Long: W094°03'36.84"

### INFLOW 008

Water Body: Clear Creek  
Legal Description: NE 1/4, SE 1/4, Sec. 26, T 26 N, R 29 W, Newton County  
Lat: N36°56'21.03" Long: W094°03'45.95"

### INFLOW 009

Water Body: Capps Creek  
Legal Description: SE 1/4, NE 1/4, Sec. 11, T 25 N, R 29 W, Newton County  
Lat: N36°53'52.78" Long: W094°03'50.72"

**INFLOW 010**

Water Body: Shoal Creek  
Legal Description: SE 1/4, SE 1/4, Sec. 14, T 25 N, R 29 W, Newton County  
Lat: N36°52'37.23" Long: W094°03'53.63"

**OUTFALL 011**

Water Body: South Indian Creek  
Legal Description: NW 1/4, NW 1/4, Sec. 1, T 23 N, R 30 W, Newton County  
Lat: N36°44'59.57" Long: W094°07'30.19"

**INFLOW 012**

Water Body: South Indian Creek  
Legal Description: SE 1/4, SW 1/4, Sec. 33, T 24 N, R 30 W, Newton County  
Lat: N36°45'05.95" Long: W094°10'37.93"

**OUTFALL 013**

Water Body: Indian Creek  
Legal Description: SW 1/4, SW 1/4, Sec. 34, T 24 N, R 31 W, Newton County  
Lat: N36°45'16.78" Long: W094°16'26.02"

**OUTFALL 014**

Water Body: Bullskin Creek  
Legal Description: SW 1/4, SW 1/4, Sec. 35, T 24 N, R 32 W, Newton County  
Lat: N36°45'27.59" Long: W094°21'42.21"

**OUTFALL 015**

Water Body: Buffalo Creek  
Legal Description: SE 1/4, SE 1/4, Sec. 32, T 24 N, R 33 W, Newton County  
Lat: N36°45'46.62" Long: W094°30'34.81"

**OUTFALL 016**

Water Body: Sycamore Creek  
Legal Description: NW 1/4, SW 1/4, Sec. 17, T 24 N, R 34 W, Newton County  
Lat: N36°48'58.93" Long: W094°37'06.54"

**OUTFALL 017**

Water Body: Lost Creek and Little Lost Creek  
Legal Description: SW 1/4, SW 1/4, Sec. 35, T 25 N, R 34 W, Newton County  
Lat: N36°50'21.09" Long: W094°37'06.01"

**OUTFALL 018**

Water Body: Warren Branch  
Legal Description: SW 1/4, NW 1/4, Sec. 26, T 26 N, R 34 W, Newton County  
Lat: N36°57'02.21" Long: W094°37'05.24"

**OUTFALL 019**

Water Body: Five Mile Creek and Rock Branch  
Legal Description: NW 1/4, NW 1/4, Sec. 14, T 26 N, R 34 W, Newton County  
Lat: N36°59'00.01" Long: W094°37'05.28"

**Insert 3**

**Form M – Application for Storm Water Permit**



9. SUMMARIZE THE MEASURES FROM THE SWMP THAT WILL BE USED FOR POST CONSTRUCTION STORM WATER MANAGEMENT. (ATTACH ADDITIONAL SHEETS IF NECESSARY)

Review proposed subdivision plans for on-going maintenance documentation and requirements in subdivision

covenants.

10. SUMMARIZE THE MEASURES FROM THE SWMP THAT WILL BE USED FOR POLLUTION PREVENTION AND GOOD HOUSEKEEPING. (ATTACH ADDITIONAL SHEETS IF NECESSARY)

Parks - Inspect drainage of all county parks for erosion and proper flow. Reduce usage and select alternative environmentally friendly products when

available. Utilize proper storage and disposal of chemicals in the appropriately friendly manner. Public Works - Sweep after winter and prior to pavement

stripping. Sweep after seal coating roads. Store salt inside buildings. Calibrate salt spreaders as necessary. Store lubricants in tank within a

containment area. Dispose of used lubricants with approved vendor. Absorbent materials used on spills as opposed to hosing down. Waste materials

stored in proper, leak proof containers. Used tires disposed of at an approved tire shredder. Maintain Adopt-A-Road Program on County Roads.

11. THE MUNICIPALITY/AREA(S) IS WITHIN 100 FEET OF: (CHECK EACH THAT APPLIES) FOR THOSE IDENTIFIED AS PRESENT, PLEASE IDENTIFY THEIR LOCATION IN AN ATTACHMENT.

WATER CLASSIFIED IN CSR 20-7.031 WATER QUALITY STANDARD AS A PUBLIC DRINKING WATER SUPPLY LAKE (L1), OUTSTANDING NATIONAL OR STATE RESOURCE WATERS, OR STREAMS DESIGNATED FOR COLD-WATER SPORT FISHERY; OR

STREAMS, LAKES, OR RESERVOIRS IDENTIFIED AS CRITICAL HABITAT FOR ENDANGERED SPECIES AS DETERMINED BY THE MISSOURI DEPARTMENT OF CONSERVATION AND/OR THE US FISH AND WILDLIFE SERVICE.

12. IS THE DISCHARGE FROM THE MS4 WITHIN 100 FEET OF WATERS CLASSIFIED AS MAJOR RESERVOIRS (L2) OR PERMANENT FLOW STREAMS (P), EXCEPT THE MISSOURI AND MISSISSIPPI RIVERS, OR WITHIN TWO STREAM MILES UPSTREAM OF BIOCRITERIA REFERENCE LOCATIONS AS DEFINED IN 10 CSR 20, CHAPTER 7?

YES  NO

IF YES, PLEASE LIST THESE RECEIVING WATERS IN AN ATTACHMENT.

13. IS ANY PART OF THE AREA(S) DEFINED AS WETLAND?

YES  NO

NOTE: A CLEAN WATER ACT, SECTION 404 PERMIT MAY BE REQUIRED FOR THE DEVELOPMENT IN WETLAND AREA(S) FROM THE US ARMY CORPS OF ENGINEERS.

14. DOES ANY OF THE STORM WATER DISCHARGE TO A SINKHOLE, LOSING STREAM, OR ANY OTHER TOPOGRAPHICAL FEATURE THAT WOULD BE A DIRECT CONDUIT TO GROUND WATER?

YES  NO

IF YES, PLEASE IDENTIFY THE LOCATION(S) OF THESE GEOLOGIC FEATURES IN AN ATTACHMENT.

15. I CERTIFY THAT I AM FAMILIAR WITH THE INFORMATION CONTAINED IN THIS APPLICATION, THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF, SUCH INFORMATION IS TRUE, COMPLETE AND ACCURATE, AND IF GRANTED THIS PERMIT, I AGREE TO ABIDE BY MISSOURI CLEAN WATER LAW AND ALL RULES, REGULATIONS, ORDERS AND DECISIONS, SUBJECT TO ANY LEGITIMATE APPEAL AVAILABLE TO AN APPLICANT UNDER THE MISSOURI CLEAN WATER LAW OF THE MISSOURI CLEAN WATER COMMISSION (ATTACH ADDITIONAL PAGES IF ADDITIONAL SIGNATURES ARE REQUIRED FOR A CO-PERMIT).

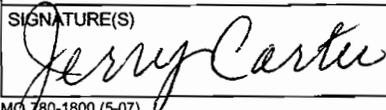
NAME(S) AND OFFICIAL TITLE(S)

Jerry Carter, Commissioner

TELEPHONE NUMBER(S)

(417) 451-8223

SIGNATURE(S)



DATE SIGNED

August 18, 2009

**WATERS DESIGNATED FOR COLD-WATER FISHERY  
NEWTON COUNTY, MISSOURI**

<b>Water Body</b>	<b>Miles</b>	<b>From</b>	<b>To</b>
Capps Creek	4.0	Mouth	S17, T25N, R28W
Cedar Creek	1.0	S21, T26N, R32W	S28, T26N, R32W
Hickory Creek	4.5	S13, T25N, R31W	S28, T25N, R31W
S. Indian Creek	9.0	S24, T24N, R31W	S1, T23N, R30W
Shoal Creek	7.0	S9, T25N, R29W	S16, T22N, R21W

## STREAM CLASSIFICATIONS AND USE DESIGNATIONS NEWTON COUNTY, MISSOURI

Water Body	Class	Miles	From	To
Baynham Branch	P	4.0	Mouth	S17, T26N, R31W
Beef Branch	P	2.5	Mouth	S11, T26N, R33W
Buffalo Creek	P	5.5	S5, T23N, R33W	S14, T24N, R33W
Buffalo Creek	C	1.5	S14, T24N, R33W	S12, T24N, R33W
Bullskin Creek	P	3.0	Mouth	S26, T24N, R32W
Capps Creek	P	4.0	Mouth	S17, T25N, R28W
Tributary to Capps Creek	P	1.0	Mouth	S14, T25N, R29W
Carver Branch	P	2.0	Mouth	S13, T26N, R32W
Cedar Creek	P	2.5	Mouth	S28, T26N, R32W
Center Creek	P	22.0	S34, T28N, R31W	S23, T27N, R29W
Center Creek	P	3.0	S23, T27N, R29W	S17, T27N, R28W
Tributary to Center Creek	C	1.0	Mouth	S21, T27N, R29W
Clear Creek	P	9.0	Mouth	S28, T26N, R28W
Dry Valley Branch	P	1.0	Mouth	S26, T27N, R29W
Dry Valley Branch	C	2.0	S26, T27N, R29W	S25, T27N, R29W
Elm Spring Branch	C	1.0	S6, T24N, R31W	S7, T24N, R31W
Five Mile Creek	P	5.0	State Line	S21, T26N, R33W
Harrison Branch	P	1.0	Mouth	S15, T24N, R33W
Harrison Branch	C	1.5	S15, T24N, R33W	S23, T24N, R33W
Hickory Creek	P	4.5	Mouth	S28, T25N, R31W
Indian Creek	P	26.0	Mouth	S24, T24N, R31W
Jacobs Branch	P	1.0	Mouth	S2, T26N, R33W
Jenkins Creek	C	4.0	S7, T27N, R30W	S27, T27N, R30W
Tributary to Jenkins Creek	C	1.5	S7, T27N, R29W	S19, T27N, R29W
Jones Creek	P	7.0	Mouth	S30, T27N, R30W
L. Lost Creek	P	4.5	Mouth	S28, T25N, R33W
Lost Creek	P	8.5	State Line	S14, T25N, R33W
Mason Springs Valley	P	1.0	State Line	S21, T24N, R34W
Middle Indian Creek	P	2.5	Mouth	S16, T24N, R30W
Middle Indian Creek	C	3.0	S16, T24N, R30W	S12, T24N, R30W
N. Indian Creek	P	5.0	S24, T24N, R31W	S36, T25N, R30W
Tributary to N. Indian Creek	P	1.5	Mouth	S19, T24N, R30W
Newtonia Branch	P	1.0	Mouth	S36, T26N, R30W
Rock Branch	P	2.0	State Line	S12, T26N, R34W
S. Indian Creek	P	9.0	S24, T24N, R31W	S1, T23N, R30W
Shoal Creek	P	43.5	State Line	S10, T25N, R29W
Shoal Creek	P	0.5	S10, T25N, R29W	Capps Creek
Shoal Creek	P	13.5	Capps Creek	S12, T23N, R29W
Tributary to Shoal Creek	P	1.0	Mouth	S10, T26N, R32W
Silver Creek	P	2.5	Mouth	S25, T27N, R33W
Thurman Creek	P	2.5	Mouth	S30, T27N, R32W
Warren Branch	P	1.5	State Line	S36, T26N, R34W
Warren Branch	C	1.5	S36, T26N, R34W	Highway 43
Willow Branch	P	1.5	Mouth	S2, T25N, R33W

## LOSING STREAMS NEWTON COUNTY, MISSOURI

<b>Water Body</b>	<b>Miles</b>	<b>From</b>	<b>To</b>
Buffalo Creek	4.0	SW, SE, NE, S16, T24N, R32W	NW, NW, NE, S14, T24N, R33W
Bullskin Creek	2.0	NE, NE, NW, S23, T24N, R32W	SW, SW, SW, S35, T24N, R32W
Elm Spring Branch	4.0	SE, SE, NW, S19, T24N, R31W	NE, NE, NE, S33, T25N, R31W
Five Mile Creek	1.0	NW, NE, NW, S34, T26N, R33W	NE, NE, NW, S28, T26N, R33W
Tributary to Hickory Creek	2.0	S3, T24N, R32W	SW, NW, NE, S30, T25N, R31W
Jones Creek	2.5	NE, SW, NE, S24, T27N, R31W	SW, NE, SE, S2, T27N, R31W
L. Lost Creek	4.0	NE, NW, SW, S31, T25N, R32W	SW, NE, NE, S32, T25N, R33W
Lost Creek	2.0	SE, NE, NW, S27, T25N, R32W	SE, NE, SW, S20, T25N, R32W
Middle Indian Creek	2.0	NW, NW, SW, S8, T24N, R29W	NE, NW, SW, S12, T24N, R30W
Rock Branch	2.0	SW, SE, NE, S5, T26N, R33W	SE, SE, NE, S12, T26N, R34W
S. Indian Creek	2.0	NE, SW, NE, S33, T24N, R29W	NW, NW, SE, S31, T24N, R29W
Spring Creek	1.5	SE, NE, SW, S4, T26N, R33W	NE, SW, SE, S34, T27N, R33W
Thurman Creek	3.0	NW, SE, S21, T27N, R32W	SE, SE, NW, S31, T27N, R32W
Unnamed Tributary	3.0	NW, SE, SW, S35, T25N, R33W	SE, SE, NE, S32, T25N, R33W
Unnamed Tributary	3.0	NE, SE, NW, S27, T27N, R32W	NW, NW, NE, S31, T27N, R32W

**Section 1**  
**Background on EPA Phase II**

## Section 1 – Background on EPA Phase II

The purpose of this Storm Water Management Plan (SWMP) is to provide Newton County with a means for addressing issues pertaining to current and future water resources for their Municipal Separate Storm Sewer System (MS4) as a part of EPA's Phase II Storm Water Program. As documented by the EPA,

“Phase I of the U.S. Environmental Protection Agency's (EPA) stormwater program was promulgated in 1990 under the CWA. Phase I relies on National Pollutant Discharge Elimination System (NPDES) permit coverage to address stormwater runoff from:

- (1) “medium” and “large” municipal separate storm sewer systems (MS4s) generally serving populations of 100,000 or greater,
- (2) construction activity disturbing 5 acres of land or greater, and
- (3) ten categories of industrial activity.”

The EPA issued in 2003, the Stormwater Phase II Final Rule. According to the EPA, “The Stormwater Phase II Final Rule is the next step in EPA's effort to preserve, protect, and improve the Nation's water resources from polluted stormwater runoff. The Phase II program expands the Phase I program by requiring additional operators of MS4s in urbanized areas and operators of small construction sites, through the use of NPDES permits, to implement programs and practices to control polluted stormwater runoff.”

Missouri Department of Natural Resources (MDNR) is the organization in Missouri that enforces the Phase II program. Part of the program involves development of an Storm Water Management Plan (SWMP). This plan's purpose is to demonstrate the County's ability to reduce the pollutants to the Maximum Extent Practicable. In order to meet the MEP requirement, the County will be required to meet six Minimum Control Measures (MCM's) and identify under each MCM their selection of Best Management Practices (BMP's).

**Section 2**  
**Background on Newton County**

## **Section 2 – Background on Newton County**

Newton County is located in the south west corner of the state. The population was approximately 54,000 in 2004. The county was organized in 1838 and named for John Newton, hero of the Revolutionary War. Its county seat is Neosho. Adjacent counties include Jasper, Lawrence, Barry, McDonald, Ottawa (Oklahoma), and Cherokee (Kansas). Newton County has two major urbanized areas, the southern portion of the City of Joplin, and the City of Neosho.

According to the U.S. Census Bureau, the county has a total area of 627 square miles, of which, 626 square miles of it is land and 0.2 square miles of it (0.04%) is water. Total lake area is 2,573 acres (Neutonia Lake and Thurman Lake); total river area is 361 acres with lengths of 70 miles.

## **Section 3**

# **Background on Newton County Watersheds**

## **Section 3 – Background on Newton County Watersheds.**

### **3.1 Shoals Creek Watershed**

Shoals Creek Watershed is the main watershed in Newton County. The headwaters of Shoals Creek Watershed is located in Barry County and drains west into Newton County. According to a Fact Sheet by MDNR, dated 5/2000, “The water shed is used for livestock, wildlife, aquatic life, and industrial processes. The creek provides public drinking water for over 56,000 people in the cities of Neosho and Joplin.”

The watershed is approximately 251,843 acres.

Portions of Shoals Creek are currently on the MDNR 303(d) list or the impaired water list due to fecal bacteria levels. It is anticipated that the cause of the high fecal bacteria is from poultry and livestock farms.

### **3.2 Upper Lost Creek Watershed**

The headwaters of Upper Lost Creek Watershed is located in Newton County and drains west into Ottawa County, Oklahoma. 65% of the land is used for Grassland and Grazing purposes.

The watershed is approximately 96,905 acres.

### **3.3 Center Creek Watershed**

The headwater of Center Creek Watershed is located in Lawrence County and drains west through Newton County into Jasper County. According to a fact sheet by MDNR, dated 10/2006, “The Beneficial uses of Center Creek are Livestock and Wildlife Watering, Protection of Aquatic Life (Warm-Water Fishery), Human Health Protection (Fish Consumption), Cool-Water Fishery, Whole Body Contact Recreation, Secondary Contact Recreation, Irrigation, and Industrial.”

The watershed is approximately 192,047 acres.

Portions of Center Creek are currently on the MDNR 303(d) list or the impaired water list due to fecal bacterial levels.

### **3.4 Clear Creek Watershed**

The headwater of Clear Creek Watershed is located in Barry County and drains west through Lawrence County into Newton County. According to a fact sheet by MDNR, dated 8/2004, “The Beneficial uses of Clear Creek are Livestock and Wildlife Watering, Protection of Warm Water Aquatic Life, and Protection of Human Health associated with Fish Consumption.”

The watershed is approximately 47,796 acres.

Portions of Center Creek are currently on the MDNR 303(d) list or the impaired water list due to fecal bacterial levels, dissolved oxygen levels, and nutrient levels. It is anticipated that the cause of the dissolved oxygen levels, and nutrient levels are due to recurring mechanical problems at The Monett Wastewater Treatment Plant (WWTP).

### 3.5 Turkey Creek Watershed

The headwater of Turkey Creek Watershed is located in Newton County and drains west through Jasper County and into Cherokee County, Kansas. Turkey Creek drains the northern portion of the City of Joplin, it is approximately 67 percent crop and pastureland, 14 percent forested land and 17 percent urban land. Three percent is open water.

The watershed is approximately 61,820 acres.

### 3.6 Upper Five Mile Creek Watershed

The headwater of Upper Five Mile Creek Watershed is located in Newton County and drains west into Cherokee County, Kansas.

The watershed is approximately 38,206 acres.

### 3.7 Upper Buffalo Creek Watershed

The headwater of Upper Buffalo Creek Watershed is located in Newton County and drains southwest into McDonald County.

The watershed is approximately 72,462 acres.

### 3.8 Upper Indian Creek Watershed

The headwater of Upper Indian Creek Watershed is located in Newton County and drains southwest into McDonald County.

The watershed is approximately 128,252 acres.

Portions of Upper Indian Creek are currently on the MDNR 303(d) list or the impaired water list due to fecal bacterial levels.

**Section 4**  
**Storm Water Management Program and Plan**

## **Section 4 - Storm Water Management Program and Plan**

The following report is provided to meet the following requirements of the Missouri State Operating Permit – General Permit MO-04000, Section 4 – Storm Water Management Programs and Plans. All items shown in quotes are provided directly from Section 4 of said General Permit with Newton County’s response in bold.

### **4.1 Requirements**

“The permittee shall develop, implement and enforce a storm water management program and plan (SWMP) designed to reduce the discharge of pollutants from the permittee’s regulated small MS4 to the maximum extent practicable, to protect water quality, and to satisfy the appropriate water quality requirements of the Missouri Clean Water Law. The SWMP should include best management practices; control techniques and system, design, and engineering methods; and such other provisions as the permitting authority determines appropriate for the control of such pollutants. The permittee’s SWMP document shall include the following information for each of the six minimum control measures described in Section 4.2 of this permit:”

### **Development of SWMP**

**Newton County (County) has contracted with Hurst-Rosche Engineers, Inc. to assist with the development of an SWMP to meet the requirements of the General Permit. The SWMP will continue to be modified to meet the needs of the County and the requirement of the Missouri Clean Water Law.**

### **Implement SWMP**

**Part of the County’s responsibilities as a part of this SWMP is assigning staff to implement the SWMP. Due to the size of the Newton County, it is anticipated that the County will need the following staff:**

- 1. SWMP Administrator.**
- 2. SWMP Inspectors.**
- 3. Administrative Staff.**

**It is anticipated that all of these staff will come from existing County staffing. Careful determination should be made of roles and how much time should be allocated to each of the Minimum Control Measures (MCM’s) as addressed in Section 4.2. Additional responsibilities may need to be contracted out such as legal and engineering services, plan review, inspection, development of ordinances, rules and regulations, accounting, etc. depending on available staffing and qualifications of existing personnel.**

### **Enforcement of SWMP**

**Finally, the County will be responsible for enforcement of the SWMP as required by the General Permit. Ordinances should be developed and passed to incorporate penalties for illicit discharge of pollutants. Enforcement action shall be carried out by County personnel and County Prosecutors in accordance with all applicable laws.**

**There are six Minimum Control Measures (MCM's) that shall be developed in accordance with the development, implementation, and enforcement (when applicable) strategy. These are listed in detail in Section 4.2 and in Appendix A. In addition, to the six MCM's the following shall be developed/implemented/enforced as required by the General Permit:**

4.1.1 "A description of the best management practices (BMPs) that the permittee will implement for each storm water minimum control measures;" (General Permit)

**See Section 4.2.**

4.1.2 "The measurable goals for each of the BMPs including, as appropriate, the months and years in which the permittee will implement for each of the storm water minimum control measures;"

**See Section 4.2.**

4.1.3 "The person primarily responsible for the SWMP, and the person(s) responsible for each minimum control measure if different from the primary responsible person." (General Permit)

**See Section 4.2.**

4.1.4 "The permittee shall implement a program designed to protect water quality in potentially affected waters and ensure that the permitted activities do not cause a violation of the Water Quality Standards;" (General Permit)

**Newton County shall implement a Storm Water Management Program to protect water quality to the maximum extent practicable (MEP). This includes making an effort to protect the quality of existing impaired watersheds.**

**There are several listed 303(d) watershed or impaired watershed within Newton County. See Appendix B for the 303(d) list for Newton County taken from the 2009 303(d) list on MDNR's website. See the attached watershed map Attachment 1 for the location of the watershed. Additional information can be found at <http://www.dnr.mo.gov/env/wpp/waterquality/303d/50609cwc-approvedlist.pdf>.**

4.1.5 "Discharges to waters of the state shall not cause a violation of water quality standards rule under 10 CSR 20-7.031, including both specific and general criteria; and"

**Newton County shall to the maximum extent practicable develop, implement, enforce laws and regulations to meet the water quality standards rule 10 CSR 20-7.031. Said rule may be found by going to <http://www.sos.mo.gov/adrules/csr/current/10csr/10c20-7.pdf> or by going to MoDNR's website.**

4.1.5.1 “The following general water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:

4.1.5.1.1 “Waters shall be free from substance in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;”

**Newton County will investigate the development adoption, and implementation of water quality requirements by way of a County Ordinance in order keep water free from aforesaid substances to the maximum extent practicable. See Section 4.2.3.**

4.1.5.1.2 “Water shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;

**Newton County will investigate the development adoption, and implementation of water quality requirements by way of a County Ordinance in order keep water free from oil, scum and floating debris to the maximum extent practicable. See Section 4.2.3.**

4.1.5.1.3 “Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;

**Newton County will investigate the development adoption, and implementation of water quality requirements by way of a County Ordinance in order keep water free from turbidity and offensive odor to the maximum extent practicable. See Section 4.2.3.**

4.1.5.1.4 “Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;

**Newton County will investigate the development adoption, and implementation of water quality requirements by way of a County Ordinance in order keep water free from turbidity and offensive odor to the maximum extent practicable. See Section 4.2.3.**

4.1.5.1.5 “There shall be no significant human health hazard from incidental contact with the water;”

**Newton County will investigate the development adoption, and implementation of water quality requirements by way of a County Ordinance in order keep water free from turbidity and offensive odor to the maximum extent practicable. See Section 4.2.3.**

4.1.5.1.6 “There shall be no acute toxicity to livestock or wildlife watering;”

**Newton County will investigate the development adoption, and implementation of water quality requirements by way of a County Ordinance in order keep water free from acute toxicity to livestock or wildlife watering to the maximum extent practicable. See Section 4.2.3.**

4.1.5.1.7 “Waters shall be free from physical, chemical, or hydrologic changes that would impair the natural biological community; and”

**Newton County will investigate the development adoption, and implementation of water quality requirements by way of a County Ordinance in order keep water free from physical, chemical, or hydrologic changes to the maximum extent practicable. See Section 4.2.3.**

4.1.5.1.8 “Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri’s Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.

**Newton County will investigate the development adoption, and implementation of water quality requirements by way of a County Ordinance in order keep water free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri’s Solid Waste Law to the maximum extent practicable. See Section 4.2.3.**

4.1.6 “For facilities under the control of the permittee good housekeeping practices shall be maintained to keep solid waste from entry into waters of the state to the maximum extent practicable;”

**See Section 4.2.6.**

4.1.7 “All fueling facilities under the control of the permittee shall adhere to applicable federal and state regulations concerning underground storage, above ground storage, and dispensers, including spill prevention, control and counter measures;”

**See Section 4.2.6.**

4.1.8 “Substances regulated by federal law under the Resource Conservation and Recovery Act (RCRA) or the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) that are transported, stored, or used for maintenance, cleaning or repair by the permittee shall be managed according to the provisions of RCRA and CERCLA;”

**See Section 4.2.6.**

4.1.9 “All paint, solvents, petroleum products and petroleum waste products (except fuels) under the control of the permittee shall be stored so that these materials are not exposed to storm water. Sufficient practices of spill prevention, control, and/or management shall be provided to prevent any spills of these pollutants from entering a water of the state. Any containment system used to implement this requirement shall be constructed of materials compatible with the substances contained and shall also prevent the contamination of groundwater;”

**See Section 4.2.6.**

4.1.10 “In addition to the requirements listed above, the permittee shall document the decision process for each minimum control measure and include rationale statements for each BMP and measurable goal defined;”

**See Section 4.2.**

4.1.11 “The permittee shall inspect any structures that function to prevent pollution of storm water or to remove pollutants from storm water and the facility in general to ensure that all BMPS are continually implemented and effective, and a monitoring schedule shall be specified in the SWMP document;”

**See Section 4.2.5.**

4.1.12 “The SWMP document shall include interim milestones, measurable goals, an implementation schedule and measures for success; and”

**See Section 4.2.5.**

4.1.13 “The permittee shall develop and fully implement each minimum control measure within five (5) years of receipt of its first MS4 permit. At each reissuance of this MS4 permit, the permittee shall comply with new or revised standards as soon as practicable, but no later than 5 years from the date of reissuance.”

**See Section 4.2.**

4.2 “Minimum Control Measures”

“The six (6) minimum control measures that shall be included in the permittee's SWMP document are:”

4.2.1 “Public Education and Outreach on Storm Water Impacts”

4.2.1.1 “Permit requirement. The permittee shall implement a public education program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of storm water discharges on water bodies and steps the public can take to reduce pollutants in storm water runoff. As part of the SWMP, the public education and outreach program shall include the following information, at a minimum:”

**Newton County’s public education program will distribute education materials through brochures, newspapers, with materials deemed appropriate by the pollutants found in the creek and based on inspection and laboratory testing. Newton County will incorporate a storm water booth at the Newton County Fair.**

4.2.1.1.1 “The target pollutant sources the permittee's public education program is designed to address;”

**Newton County is made up of two major metropolitan areas Neosho and the southern portion of Joplin. Since both of these cities are included in the MS4 program, therefore, the target audience for the public education program will be rural residents and in particular poultry and livestock farms. Target pollutants based on the 303(d) list are fecal bacteria. Note that the source of the instances of low Dissolved Oxygen (D.O.) and high nutrients is the Monet Waste Water Treatment Plant and outside of Newton County.**

4.2.1.1.2 “Identification of target audiences for the permittee's education program who are likely to have significant storm water impacts (including commercial, industrial and institutional entities);”

**Outside of Joplin and Neosho, there are limited commercial, industrial, and institutional entities therefore, new development within the County would be the most likely source of additional impermeable surfaces and the most significant cause for new storm water impacts. Educational outreach materials would target residential developers.**

4.2.1.1.3 “A plan to inform individuals and households about steps they can take to reduce storm water pollution;”

**The County will provide newsletters/brochures regarding various storm water pollutants, septic system maintenance, and other common pollution concerns.**

4.2.1.1.4 “A plan to inform individuals and groups on how to become involved in the SWMP (with activities such as local stream and lake restoration activities);”

**Included in the newsletters/brochures, would be information on how to become involved.**

4.2.1.1.5 “The permittee's outreach strategy, including the mechanisms (e.g., printed brochures, newspapers, media, workshops, etc.) to reach target audiences, and how many people expected to be reached over the permit term; and”

**Public hearings would be advertised in local newspapers.**

4.2.1.1.6 “A plan to evaluate the success of this minimum control measure.”

4.2.2 “Public Involvement/Participation”

4.2.2.1 “Permit requirement. The permittee shall implement a public involvement/participation program that complies with State and local public notice requirements, and involve the public in the development and oversight of the SWMP's policies and procedures. As part of the SWMP document, the public involvement/participation program shall include the following information, at a minimum:”

4.2.2.1.1 “How the permittee has involved the public in the development and submittal of the application and SWMP document;”

**Newton County will hold a public hearing regarding the development of the final SWMP.**

4.2.2.1.2 “The target audiences for the permittee's public involvement program, including a description of the types of ethnic and economic groups engaged. The permittee is encouraged to actively involve all potentially affected stakeholder groups, including commercial and industrial businesses, trade associations, environmental groups, homeowners associations, and educational organizations, among others; and”

**As previously stated, the targeted audience will be mainly farmers and ranchers. In addition, developers, and all County residents will be welcome.**

4.2.2.1.3 “The types of public involvement activities included in the permittee's program. Where appropriate, the permittee must consider the following types of public involvement activities:”

**Clean-up and restoration activities conducted with the Shoal Creek Watershed Partnership, Joplin, Neosho and other organizations.**

4.2.2.1.4 “Citizen representatives on a storm water management panel;”

**The County Commissioners will act as the storm water management panel.**

4.2.2.1.5 “Public hearings;”

**In addition to public hearings regarding the SWMP, Newton County will involve the public regarding storm water ordinances and regulations.**

4.2.2.1.6 “Working with citizen volunteers willing to educate others about the program; and”

**Newton County will seek to form partnerships with organizations within Newton County to assist with public education and outreach. Likely partners will include the following:**

**City of Joplin**

**City of Neosho**

**Shoal Creek Watershed Partnership**

**Missouri Department of Conservations**

**U.S. Fish and Wildlife**

4.2.2.1.7 “Volunteer monitoring or stream/lake clean-up activities.”

**Shoal Creek is the major water body in Newton County and will receive most of the attention. Newton County along with Shoal Creek Watershed Partnership will sponsor clean-up activities aimed at creek restoration.**

4.2.2.1.8 “The permittee's plan to actively involve the public in the development and implementation of their program; and”

**Newton County will provide a public hearing with regards to the development and implementation of their program.**

4.2.2.1.9 “The method for evaluating success of this minimum control measure.”

**The level of involvement of residences, and other organizations will determine the success of the public participation MCM.**

4.2.3 “Illicit Discharge Detection and Elimination”

4.2.3.1 “Permit requirement. The permittee shall develop, implement and enforce a program to detect and eliminate illicit discharges (as defined in 10 CSR 20-6.200) into the permittee's regulated small MS4. As part of the SWMP document, the permittee's illicit discharge detection and elimination program shall include the development and implementation of, at a minimum;”

- 4.2.3.1.1 “A storm sewer map showing the location of all outfalls and the names and location of all receiving waters of the state that receive discharges from those outfalls. The permittee shall describe the sources of information used for the map(s), and how the permittee plans to verify the outfall locations with field surveys. If already completed, the permittee shall describe how the map was developed and how the map will be regularly updated. The permittee shall make the map information available to the department upon request;”

**The Watershed Map (Attachment 1) for Newton County was developed from material available on Missouri Department of Natural Resources website, the MSDIS <http://msdis.missouri.edu/data/datahelp2.htm> website, and USGS topoquad maps. The outfall locations were plotted on this map and are numbered to correspond with Appendix A.**

- 4.2.3.1.2 “To the extent allowable under State, or local law, effectively prohibit, through ordinance, or other regulatory mechanism, non-storm water discharges into the permittee's storm sewer system and implement appropriate enforcement procedures and actions. The permittee shall identify the mechanism (ordinance or other regulatory mechanism) the permittee will use to effectively prohibit illicit discharges into the MS4. If the permittee needs to develop this mechanism, describe the permittee's plan and implementation schedule. If the permittee's ordinance or regulatory mechanism is already developed, include a copy of the relevant sections with the permittee's program; and”

**The County is in the process of developing new ordinances to deal with the following items:**

1. **Development Standards (Schedule 9/1/09 – 6/1/10)**
2. **Storm Water Design (Schedule 9/1/09 – 6/1/10)**
3. **Erosion Control (Schedule 9/1/09 – 6/1/10)**
4. **Illicit Discharge of Pollutants (Schedule 9/1/09 – 6/1/10)**

**It is likely that some of the standards will be based on nearby cities such as Joplin or Neosho in which meets the needs of the community and protect the quality of the watershed.**

**See Section 4.3 and Section 4.4.**

- 4.2.3.1.3 “A plan and implementation schedule to detect and address non-storm water discharges, including discharges from illegal dumping and spills, to the permittee's system. The permittee's plan shall include dry weather field screening for non-storm water flows and field tests of selected chemical parameters as indicators of discharge sources. The plan shall also address on-site sewage disposal systems that flow into the permittee's storm drainage system. The permittee's description shall address the following, at a minimum:”

**The County or agent contracted by the County will provide field testing of creeks to detect for non-storm water discharges. The County goals will focus attention on Shoals Creek being the primary creek as well as the source of drinking water for Joplin and Neosho.**

**In addition, a visual inspection of the outfalls for Newton County will be conducted by the County or agent of the County. An inspection report will be provided along with testing of the major outfalls.**

- 4.2.3.1.3.1 Procedures for locating priority areas which include areas with higher likelihood of illicit connections (e.g., areas with older sanitary sewer lines, for example) or ambient sampling to locate impacted reaches;

**Newton County will place their initial focus on Shoal Creek due to the use as a drinking water source.**

- 4.2.3.1.3.2 Procedures for tracing the source of an illicit discharge, including the specific techniques the permittee will use to detect the location of the source;

**Newton County will provide yearly visual inspection of areas likely to be subject to illicit discharge.**

- 4.2.3.1.3.3 “Procedures for removing the source of the illicit discharge;”

**Newton County will develop ordinances for removal of sources of illicit discharge.**

- 4.2.3.1.3.4 “A plan to ensure through appropriate enforcement procedures, including fines, and actions that the permittee's illicit discharge ordinance (or other regulatory mechanism) is implemented;”

**Said illicit discharge ordinances will include enforcement procedures, and set fines for common illicit discharges such as oil, paints, etc.**

- 4.2.3.1.3.5 “A plan to inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste. The permittee shall describe how this plan will coordinate with their public education minimum measure and the pollution prevention/good housekeeping minimum measure programs; and”

**Newton County will inform public employees, businesses, and the general public of hazards associated with illegal discharges through brochures/newsletters. It is anticipated that providing this information will meet with the Public Education MCM as well as the Good Housekeeping MCM.**

4.2.3.1.3.6 “Procedures for program evaluation and assessment of this minimum control measure.”

**Newton County will develop procedures for evaluation and assessment of the Illicit Discharge Ordinance.**

4.2.3.1.4 “Address the following categories of non-storm water discharges or flows (i.e., illicit discharges) only if the permittee identifies them as significant contributors of pollutants to the permittee's regulated small MS4: landscape irrigation, rising ground waters, uncontaminated ground water infiltration (as defined in 10 CSR 20-6.200), uncontaminated pumped ground water, discharges from potable water sources, foundation drains, air conditioning condensation, springs, water from crawl space pumps, footing drains, lawn watering, flows from riparian habitats and wetlands, and street wash water (discharges or flows from emergency fire fighting activities are excluded from the effective prohibition against non-storm water and need only be addressed where they are significant sources of pollutants to waters of the state).”

**Newton County's Illicit Discharge Ordinance shall address the aforesaid non-storm water discharges.**

4.2.3.1.5 The permittee may also develop a list of other similar occasional incidental non-storm water discharges (e.g. non-commercial or charity car washes, etc.) that will not be addressed as illicit discharges. These non-storm water discharges shall not be reasonably expected (based on information available to the permittees) to be significant sources of pollutants to the MS4, because of either the nature of the discharges or conditions the permittee has established for allowing these discharges to the permittee's MS4 (e.g., a charity car wash with appropriate controls on frequency, proximity to sensitive waterbodies, BMPS on the wash water, etc.). The permittee shall document in their SWMP any local controls or conditions placed on the discharges. The permittee shall include a provision prohibiting any individual non-storm water discharge that is determined to be contributing significant amounts of pollutants to the permittee's MS4.

**Newton County is predominantly rural and have very limited occasional incidental non-storm water discharges. Charity car washes are generally relegated to Neosho and Joplin municipal areas and fall under their jurisdiction.**

4.2.3.1.6 “The permittee should inventory, inspect and have enforcement authority for industries and commercial enterprises within their boundary that may contribute pollutants via storm water to the MS4.”

**Newton County will compile a list of industries and commercial enterprises within their boundary that may contribute pollutants via storm water to the MS4.**

4.2.4 “Construction Site Storm Water Runoff Control”

4.2.4.1 “Permit requirement. The permittee shall develop, implement, and enforce a program to reduce pollutants in any storm water runoff to their regulated small MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. Reduction of storm water discharges from construction activity disturbing less than one acre shall be included in the program if that construction activity is part of a larger common plan of development or sale that would disturb one acre or more. As part of the SWMP, the permittee's construction site storm water runoff control program shall include the development and implementation of, at a minimum:”

4.2.4.1.1 “An ordinance or other regulatory mechanism:”

**Newton County will develop an Erosion Control Ordinance for construction development.**

4.2.4.1.1.1 “To require operators to implement erosion and sediment control BMPS at construction sites;”

**Newton County will require developers/operators to implement erosion and sediment control BMPS as required by land disturbance activities in accordance with MDNR requirements and the specific development Storm Water Pollution Prevention Plan (SWPPP) as required by the MDNR Land Disturbance permit.**

4.2.4.1.1.2 “To include sanctions to ensure compliance, to the extent allowable under State or local law; and”

**Newton County will seek advice from the County Attorney regarding recommendations for sanctions to ensure compliance as allowed by State and local law.**

4.2.4.1.1.3 “If the permittee needs to develop this mechanism, the permittee shall describe the plan and scheduled implementation. If the permittee's ordinance or regulatory mechanism is already developed, the permittee shall include a copy of the relevant sections with the permittee's SWMP.”

**The ordinance/mechanism is not in place currently. It is anticipated that the ordinance will be developed in accordance with the following documents:**

**Storm Water Management for Construction Activities: Developing Pollution Prevention Plans and Best Management Practices**, (Document No. EPA 832-R-92-005) published by the U.S. Environmental Protection Agency (USEPA) in September 1992.

**Protecting Water Quality:** A field guide to erosion, sediment and storm water best management practices for development sites in Missouri, published by Missouri Department of Natural Resources in November 1995.

<http://www.dnr.mo.gov/env/wpp/wpcp-guide.htm>

- 4.2.4.1.2 “Requirements for construction site operators to control construction-site waste that may cause adverse impacts to water quality, such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste;”

**The ordinance will include requirements for additional construction related materials.**

- 4.2.4.1.3 “Procedures for the permittee to consider and review all pre-construction site plans for potential water quality impacts.”

**The ordinance shall provide procedures for Newton County or an agent of Newton County to review all site plans including the SWPPP pre-construction.**

- 4.2.4.1.4 “Procedures for the permittee to receive and consider information submitted by the public, including coordination with the permittee's public education program;”

**Newton County will develop procedures for public comment with regard to development plans. This may include notification of neighboring property of the proposed development with the allowance for public comment.**

- 4.2.4.1.5 “Procedures for the permittee to inspect sites and enforce control measures, including prioritization of site inspections;”

**Newton County will develop procedures within the ordinance to inspect the site and enforce the BMP's in accordance with the SWPPP and the NPDES permit.**

- 4.2.4.1.6 “A plan to ensure compliance with the permittee's erosion and sediment control regulatory mechanisms including the sanctions and enforcement mechanisms the permittee will use to ensure compliance and procedures for when certain sanctions will be used. Possible sanctions include non-monetary penalties (such as stop work orders), fines, bonding requirements, and/or permit denials for non-compliance; and”

**Newton County will provide notification to MDNR regarding non-compliance to the NPDES permit and allow MDNR to regulate in accordance with MDNR land disturbance requirements.**

- 4.2.4.1.7 “A description of how the permittee will evaluate the success of this minimum control measure.”

**Newton County will evaluate the success of this minimum control measure based on compliance of developers to the NPDES permit and the success of erosion control measures to protect Newton County watersheds.**

4.2.5 “Post-Construction Storm Water Management in New Development and Redevelopment”

4.2.5.1 “Permit requirement. The permittee shall develop, implement, and enforce a program to address the quality of long- term storm water runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, that discharge into the permittee's regulated small MS4. The permittee's program shall ensure that controls are in place that have been designed and implemented to prevent or minimize water quality impacts by reasonably mimicking pre-construction runoff conditions on all affected new development projects and by effectively utilizing water quality strategies and technologies on all affected redevelopment projects, to the maximum extent practicable. The permittee shall assess site characteristics at the beginning of the construction design phase to ensure adequate planning for storm water program compliance. The purpose for this approach is to arrive at designs and practices that provide for most effective water quality treatment through infiltration, flow rates and similar site-design opportunities. As part of the SWMP document, the post-construction runoff control program shall include the following information, at a minimum:”

4.2.5.1.1 A strategy to minimize water quality impacts, by reasonably mimicking pre-construction runoff conditions in affected new development and incorporating water quality protection in affected redevelopment projects to the maximum extent practicable, and include a combination of structural and/or non-structural BMPS appropriate for the permittee's community;

**Newton County will develop a strategy to minimize water quality impacts. The strategy will include development of ordinances that encourage minimizing the generation of stormwater and maximizing the pervious areas for stormwater treatment. This also includes providing ordinances to protect water quality by implementing non-structural and structural BMPs.**

**Non-structural BMPs will include County Planning to encourage development in areas away from creek boundaries, minimizing permeable surfaces, and encouraging open spaces.**

**Structural BMPs include Retention/Detention Basins, Infiltration Practices, and Vegetative BMPs.**

4.2.5.1.2 “An ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects to the extent allowable under State, or local law. If the permittee needs to develop a mechanism, the permittee shall describe the plan and a schedule for implementation. If the permittee's ordinance or regulatory mechanism is already developed, the permittee shall include a copy of the relevant sections with the SWMP document;”

**Newton County currently has no ordinance addressing post-construction runoff. Existing road standards for new development show a 20-foot roadway width with grass swales. Utilizing the minimal road width alongside grass swales provides a low-cost way to preserve as much pervious areas and eliminating the need funneling storm water and storm water pollutants into storm sewers. Additions to the Storm Water ordinances will include:**

- 1. Methods such as retention/detention and infiltration for flood protection.**
- 2. Minimizing imperviousness in new developments.**
- 3. Methods for pollutant removal.**

4.2.5.1.3 “A plan to ensure adequate long-term operation and maintenance of selected BMPS, including types of agreements between the permittee and other parties such as the post-development landowners or regional authorities;”

**It is anticipated that the property owner will maintain the BMPs.**

4.2.5.1.4 “Specific priority areas for this program; and”

**Development in Newton County is generally concentrated along Highway 71 between Joplin and Neosho. In addition, Shoal Creek runs nearby and may be affected by development along this corridor.**

4.2.5.1.5 “Any non-structural BMPS in the permittee's program, including, as appropriate:”

**Newton County and the Shoal Creek Watershed Partnership has met with an abundant amount of opposition to any riparian corridors along any stream corridor in the County. It is the County's intent to utilize other non-structural BMP's such as infiltration practices and County Planning to encourage those areas away from Shoal Creek or other streams in the County.**

4.2.5.1.6 “Policies and ordinances that provide requirements and standards to direct growth to identified areas, protect sensitive areas such as wetlands and riparian areas, maintain and/or increase open space (including a dedicated funding source for open space acquisition), provide buffers along sensitive water bodies, minimize impervious surfaces, and minimize disturbance of soils and vegetation;”

4.2.5.1.6.1 “Policies or ordinances that encourage infill development in higher density urban areas, and areas with existing storm sewer infrastructure, and redevelopment of Brownfield sites or grayfields which may include abandoned malls or similar properties;”

**Newton County contains no high-density urban areas outside of Joplin and Neosho. Since these are incorporated areas and have their own Storm Water**

**Management Program, it is anticipated that the County will not have any infill development policy at this time.**

4.2.5.1.6.2 “Education programs for developers and the public about project designs that minimize water quality impacts; and”

**Newton County will sponsor educational programs for developers and the public about project designs that minimize water quality impacts.**

4.2.5.1.6.3 “Other measures such as minimization of the percentage of impervious area after development, use of measures to minimize directly connected impervious areas, site designs that provide for integration of a variety of infiltration practices and source control measures often thought of as good housekeeping, preventive maintenance and spill prevention.”

**Newton County will consider these measures in the development of their Storm Water Ordinance.**

4.2.5.1.6.4 “Any structural BMPS in the permittee's program, including, as appropriate:”

**Newton County will adopt ordinances requiring flood protection.**

4.2.5.1.6.5 “Practices that provide infiltration, evapotranspiration or re-use such as grassed swales, bioretention cells, cisterns and green roofs; and”

**As discussed, Newton County currently encourages grassed swales. Utilization of infiltration practices such as infiltration ditches, and permeable pavements will be considered in the Development Standards and Storm Water Ordinances.**

4.2.5.1.6.6 “Redevelopment practices such as planter boxes, street retrofits, parking-lot infiltration and green roofs.”

**Newton County will evaluate the need for redevelopment of areas in the County to promote better storm water management. Practices such as incorporating permeable pavements will be considered.**

4.2.5.1.6.7 “How the permittee will evaluate the success of this minimum measure.”

**Newton County will measure the success of this program based on the changes made by developers in their development practices.**

4.2.6 “Pollution Prevention/Good Housekeeping for Municipal Operations”

4.2.6.1 “Permit requirement. The permittee shall develop and implement an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations. As part of the

SWMP, the pollution prevention/good housekeeping program shall include the following information, at a minimum:"

- 4.2.6.1.1 "A list of all municipal operations that are impacted by this operation and maintenance program. The permittee shall also include a list of industrial facilities the permittee owns or operates that are subject to NPDES permits for discharges of storm water associated with industrial activity that ultimately discharge to the permittee's MS4. The permittee shall include the permit number or a copy of the industrial application form for each facility;"

**Newton County municipal operations include county maintenance yards. The County does not operate any NPDES permits for industrial activities.**

- 4.2.6.1.2 "Maintenance BMPS, maintenance schedules, and long-term inspection procedures for controls to reduce floatables and other pollutants to the permittee's regulated small MS4;"

**Newton County has limited structural BMP's currently under their control. This is primarily due to the lack of any regulation regarding storm water management. Therefore, the maintenance schedule and inspection of the structural BMPs should be developed as the new developments are required to utilize the new requirements.**

- 4.2.6.1.3 "Controls for reducing or eliminating the discharge of pollutants from streets, roads, highways, municipal parking lots, maintenance and storage yards, waste transfer stations, fleet or maintenance shops with outdoor storage areas, and salt/sand storage locations and snow disposal areas the permittee operates;"

**The County will develop controls for reducing the discharge of pollutants. Salt and sand storage locations shall be kept as far from creeks and potential flood conditions as possible.**

- 4.2.6.1.4 "Controls described in Sections 4.1.5 through 4.1.8 of this permit;"

**Disposal of waste products will be incorporated into a new ordinance.**

- 4.2.6.1.5 "Procedures for the proper disposal of waste removed from the permittee's MS4 and area of jurisdiction, including dredged material, accumulated sediments, floatables, and other debris;"

**Newton County will develop procedures for removal of waste removed from Newton County's MS4 and streams.**

- 4.2.6.1.6 "Procedures to ensure that new flood management projects are assessed for impacts on water quality and existing projects are assessed for incorporation of additional water quality protection devices or practices;"

**Newton County will utilize professional engineers experience in regards to flood management projects and the impacts on water quality. Flood management projects such as channel widening or detention basin construction should be designed with the understanding of flow rates and velocities and with regards to flow rates and erosion control.**

- 4.2.6.1.7 “A government employee training program to prevent and reduce storm water pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and storm water system maintenance. The permittee shall describe any existing, available materials the permittee plans to use such as those available from EPA, State or other organizations. The permittee shall describe how this training program will be coordinated with the outreach programs developed for the public information minimum measure and the illicit discharge minimum measure; and”

**Newton County will incorporate training measures for County activities that can contribute to storm water pollution.**

- 4.2.6.1.8 “How the permittee will evaluate the success of this minimum control measure”

**The County will measure the success of this program by its ability to enact policies within the County’s departments that protect the quality of streams within the County.**

St. Pius X  
Peggy Rathmann  
210 South Williams  
Moberly, MO 65270

St. Joseph  
Gina Heckman  
123 E. Main St.  
Westphalia, MO 65085

Fatima  
Tina Paschal  
143 E. Main St.  
Westphalia, MO 65085

North Callaway-Hatton McCredie  
Kimberly Linhardt  
4171 County Road 241  
Kingdom City, MO 65262

Northeast R IV  
Brenda Roberts  
301 W. Martin  
Cairo, MO 65239

TOTALS

St. Pius X  
Peggy Rathmann  
210 S. William St.  
Moberly, MO 65270

Belle Elementary  
Bobbi Robertson  
P.O. Box 819  
Belle, MO 65013

St. Stanislaus  
Shelle Sandbothe  
6410 Rt. W  
Wardsville, MO 65101

Maries R-I Vienna  
Ida McClure  
P.O. Box 218  
Vienna, MO 65582

TOTALS

St. Joseph  
Gina Heckman  
123 E. Main St.  
Westphalia, MO 65085

**Appendix A**  
**Best Management Practices Summary**

### Appendix A: Best Management Practices Implementation Summary

BMP Description (4.1.1)	Measurable Goal (4.1.2)	Timeframe to Implementation (4.1.2)				Responsible Dept. (4.1.3)
		2010	2011	2012	2013	
<b>Public Education and Outreach</b>						
Have a storm water booth at the Newton County Fair.	Storm water booth at Newton County Fair.	X	X	X		
Develop informational fact sheets on Land Disturbance and Illicit Discharge and distribute	Land Disturbance and Illicit Discharge Fact Sheets		X			
Develop a Public education program	Public Education Program			X		
<b>Public Involvement and Participation</b>						
Continue to develop watershed plans for Newton County's 8 watersheds and sub watersheds	Develop watershed plans		X	X		
Facilitate watershed coalition meetings to continue on-going watershed activities( i.e. Shoal Creek Watershed Partnership)	Facilitate watershed meetings with on-going activities	X	X	X		
<b>Illicit Discharge Detection and Elimination</b>						
Visual inspection of all Phase II outlets from Newton County	Visual inspection of Phase II outlets		X			
Determine EPA/MoDNR water quality testing requirements & equipment required.	Determine water quality testing requirements & equipment	X				
List and perform visual inspection on 5 miles of stream orders 3 and above in Newton County.	Visual Inspection of 5 miles of stream order 3 and		X			
Adopt Ellicit Discharge Requirements		X				
<b>Construction Site Storm Water Runoff Control</b>						
Adopt Development Standards, Storm Water Design Requirements, and Erosion Control Standards.		X				
Train Staff on land disturbance and stormwater requirements associated with construction activity in accordance with Article 10	Train inspectors	X				
Prepare field manual for inspectors	Prepare BMP Manual for inspectors		X			
Review and approve Land Disturbance Permits and SWPPP's (Coordinate with DNR)	Review Land Disturbance Permits and SWPPP's		X	X	X	
<b>Post-Construction Storm Water Management</b>						
Review proposed subdivision plans for on-going maintenance documentation and requirements in subdivision covenants.	Review subdivision plans for on-going storm system maintenance		X			
<b>Pollution Prevention and Good Housekeeping - Parks</b>						
Inspect drainage of all county parks for erosion and proper flow	Park Drainage Inspection	X	X	X	X	
Reduce usage and select alternative environmentally friendly products when available	Herbicide Application, Athletic Field Liner Application	X	X	X	X	
Utilize proper storage and disposal of chemicals in the appropriately friendly manner	Chemical Storage	X	X	X	X	
<b>Pollution Prevention and Good Housekeeping - Public Works</b>						
Sweep after winter and prior to pavement striping. Sweep after seal coating roads.	Road Sweeping Program	X	X	X	X	
Store salt inside buildings. Calabrate salt spreaders as necessary.	Salt Storage	X	X	X	X	
Store lubricants in tank within a containment area. Dispose of used lubricants with approved vendor.	Lubricant Storage	X	X	X	X	
Absorbant materials used on spills as opposed to hosing down. Waste materials stored in proper, leak proof containers. Used tires disposed of at an approved tire shredder.	Vehicle and Equipment Repair	X	X	X	X	
Maintain Adopt-A-Road Program on County Roads	Adopt-A-Road Program	X	X	X	X	

**Appendix B**  
**303(d) List for Newton County**

**Appendix B: 303(d) List for Newton County**

Year	Waterbody Name	WBID	Cls	I. Size	WB Size	Units	Pollutant	Source	IU	OU	Up Lat	Up Long	Down Lat	Down Long	U/D County
2008	Center Cr.	3210	P	22	22	Mi.	Bacteria	Rural NPS	2	1,4,5,6,7	37.037	-94.0753	37.1053	-94.309	Newton/Jasper
2006	Clear Cr.	3238	P	9	9	Mi.	Bacteria		2	1,4	36.9422	-93.9997	36.9354	-94.1495	Barry/Newton
2006	Clear Cr.	3239	C	2	2	Mi.	Low D.O.	Monett WWTP	1	2,4	36.9204	-93.949	36.9422	-93.9997	Barry/Newton
2002	Clear Cr.	3239	C	2	2	Mi.	Nutrients	Monett WWTP	G	2,4	36.9204	-93.949	36.9422	-93.9997	Barry/Newton
2006	Hickory Cr.	3226	P	4.5	4.5	Mi.	Bacteria	Unknown	2	1,4	36.8524	-94.326	36.8938	-94.3707	Newton
2006	Lost Cr.	3278	P	8.5	8.5	Mi.	Bacteria	Rural NPS	2	1,4,5	36.8913	-94.5067	36.8397	-94.618	Newton
2008	M. Indian Cr.	3263	P	2.5	2.5	Mi	Bacteria	Rural NPS	2	1,4	36.8062	-94.1721	36.8182	-94.2036	Newton
2008	N. Indian Cr.	3260	P	5	5	Mi.	Bacteria	Rural NPS	2	1,4	36.838	-94.172	36.7949	-94.232	Newton
2008	Shoal Cr.	3222	P	43.5	43.5	Mi.	Bacteria	Rural NPS	2	1,3,4,5,6	36.8917	-94.0977	37.0328	-94.6179	Newton

**Key to List**

Yr= Year this water body/pollutant was added to the 303(d) List

WBID= unique water body identification number

I Size: Size of impaired portion of waterbody

WB Size: Size of the entire waterbody

CL= water body classification in state water quality standards: P= permanently flowing waters, C= intermittent streams, L1= Drinking water lakes, L2= large multi-purpose lakes, L3= other recreational lakes

Pollutants = reason the water is impaired. Cd=Cadmium, Ni= Nickel, Pb= Lead, Zn = Zinc, SO4 = sulfate, Cl= chloride, FC = fecal coliform bacteria, NVSS = non-volatile (mineral) suspended solids, D.O. = dissolved oxygen, pH= degree of acidity or alkalinity of water, Hydromod.= Hydromodification, which is typically related to the operation of dams. (W) pollutant is in the water, (S) pollutant is in the sediment, (T) pollutant is in fish tissue.

if none of these three options are shown, the pollutant is in the waterR.

Sources = the pollutant source causing the impairment. WWTP= wastewater treatment plant, PP= Power Plant, Unk.= Unknown, Aban. = Abandoned, Atmospheric Dep. = Atmospheric deposition (primarily rainfall), Mult.= Multiple, NPS= Non-point source, Pt.= Point Source, Rereg. Dam= Reregulation Dam - a low dam downstream of a larger hydroelectric dam.

IU = Impaired Beneficial Use(s). Those beneficial uses, assigned to this water in state water quality standards, that are not being met due to water pollution.

UU= Unimpaired Beneficial Use(s). Those beneficial uses assigned to this water in state water quality standard, that are not affected by the pollution.

Use codes for IU and UU columns are: G= General Criteria, 1G = General criteria pertaining to protection of aquatic life, 1= Protection of aquatic life, 2 = Whole Body Contact Recreation (swimming), 3= Public Drinking Water Supply, 4 = Livestock and Wildlife Watering, 5= Secondary Contact Recreation (Fishing and Boating), 6= Irrigation, 7= Industrial Water

Lat U = Latitude of upstream end of impaired water body (in decimal degrees)

Long U = Longitude of upstream end of impaired water body (in decimal degrees)

Lat D = Latitude of downstream end of impaired water body (in decimal degrees)

Long D = Longitude of downstream end of impaired water body (in decimal degrees)

County U/D = County the impaired segment is in. If the impaired segment is more than one county, the county of the upstream and downstream ends of the impaired segment are given.