

Jasper County, Missouri
Storm Water Management Plan
Small MS4 Permit MO-R040048

THIRD PERMIT TERM
2013-2018

JASPER COUNTY, MISSOURI
STORM WATER MANAGEMENT PLAN
SMALL SM4 PERMIT NO. MO-R40048
THIRD PERMIT TERM 2013 - 2018

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JASPER COUNTY, MISSOURI STORM WATER MANAGEMENT PLAN OVERVIEW

The Jasper County Storm Water Management Plan has been developed to implement the minimum control measures (MCM) required by the National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Phase 2 Program. The six MCM that are required for the program are:

1. Public Education and Outreach
2. Public Involvement / Participation
3. Illicit Discharge Detection and Elimination
4. Construction Site Runoff Control
5. Post Construction Storm Water Management
6. Pollution Prevention / Good Housekeeping Practices for Municipal Operations

The Phase 2 Storm Water Program for Jasper County covers the urbanized unincorporated areas of the County. These are typically areas outside the incorporation limits of municipalities in Jasper County (Joplin, Webb City, Carl Junction, Carthage, Oronogo, Cartersville, etc.) where the population density exceeds a certain level. The total area within the current urbanized unincorporated area (2010 census data) regulated by the program is 8689 acres (13.6 square miles).

The primary county agency responsible for implementing the program is the Jasper County Health Department, 105 Lincoln Street, Carthage, Mo. 64836. The Health department is assisted by other county agencies and consultants.

There are four major receiving waters within the county's program area: Shoal Creek, Turkey Creek, Center Creek and Spring River.

There are critical habitats within the program area where threatened or endangered species could be found. The species, status and the critical habitat are listed in the following table.

The following subsections outline the best management practices (tasks), measurable goals and implementation schedule for each of the six control measures proposed by the County for the next permit term.

The purpose of the program is to educate and involve the public and other groups (businesses, developers, industrial, educational, and institutional entities) to consider the impact their behavior has on storm water runoff and what the positive benefits are to becoming better stewards of our environment.

CRITICAL HABITATS

SPECIES	STATUS	HABITAT
Gray Bat (Myotis Grisescens)	Endangered	Caves
Arkansas Darter (Etheostoma cragini)	Candidate	Rivers
Neosho Madtom (Noturus Placidus)	Threatened	Rivers
Ozark Cave Fish	Threatened	Caves in the Boone and Burlington formations of the Ozark Mountains

Minimum Control Measure #1: Public Education and Outreach

The county's public education and outreach program uses many different means to inform and educate the public on the steps they can take to reduce pollutants in storm water runoff and the impact that storm water runoff can have on water bodies in the county.

The county works in cooperation with the city of Joplin on press releases, TV interviews, public service announcements, newspaper articles, and other educational materials for distribution to the public.

The city has published several brochures and pamphlets for use by homeowners, developers and businesses which are available to county residents.

Posters and brochures have been placed at the courthouse and the county Health Dept. for people to view and obtain.

The county also maintains a website: www.jaspercounty.org. The health department's webpage contains education information on the various environmental services the county provides.

Table 1.1 lists the pollutants and the various audiences which will be the subjects of the education and outreach program. The county has targeted these in cooperation with the city of Joplin and the other cities in the county.

The county also coordinates its Illicit Discharge Educational Program with the city of Joplin to inform the public on the impact of illicit discharges on water quality.

The county maintains an active stream monitoring program with 21 sampling sites monitoring E Coli levels in the Turkey Creek, Center Creek, and Spring River watersheds. The results of the monitoring program are available for review by the public.

Table 1.2 lists the Public Education and Outreach program tasks (BMP's) with measurable goals.

TABLE 1.1
 TARGET AUDIENCE FOR EDUCATIONAL PROGRAM

AUDIENCE	Fertilizers: Nutrients	Pesticides; Herbicides	Yard Wastes	Oils and Grease	Sediment: Construction Debris	Illicit Discharge	Heavy Metals
Homeowners; Citizens	X	X	X	X		X	X
Commercial; Business Owners	X	X	X	X		X	
Developers; Home Builders	X	X		X	X	X	X
Industrial	X	X		X	X	X	
Institutional (Elected Officials; County Staff)	X	X		X	X	X	
Educational (Teachers, students)	X	X	X	X	X	X	X

**TABLE 1.2
TASKS AND MEASURABLE GOALS**

TASK	MEASURABLE GOALS	IMPLEMENTATION SCHEDULE
Establish / Maintain Storm Water Program on Health Dept. webpage	Establish webpage; track number of hits on webpage	January 31, 2014
Maintain supply of Storm Water brochures at Health Department and Courthouse to distribute to public	Replenish Supply twice a year	Annual
Issue Press Releases concerning Storm Water Issues	Track number of hits on website	Annual
Advertise Disposal of Household Hazardous wastes	Provide link to City of Joplin's Webpage	Annual
Advertise Development of Storm Water Management Program in local Newspaper	Track number of hits on webpage	Annual
Develop questionnaire and conduct on-line survey for testing public's knowledge of storm water issues	Prepare questionnaire; track number of hits on webpage; post results of survey	January 31, 2015

Minimum Control Measure 2: Public Involvement and Participation

The county will encourage public involvement and participation by using methods outlined in the Public Education and Outreach measures to advertise the participation activities.

The public will be encouraged to participate in the development of the storm water management plan by advertising in local newspapers and holding a public hearing at the county commission. The public will be encouraged to review a summary of the plan on the Health Department's webpage.

Table 2.1 lists the Public Involvement and Participation program tasks (BMP's) with measurable goals.

**TABLE 2.1
TASKS AND MEASURABLE GOALS**

TASK	MEASURABLE GOALS	IMPLEMENTATION SCHEDULE
Illicit Connection / Illegal Dumping Notification system by e-mail or phone calls	Document number of calls; track number of hits on webpage	Annual
Advertise Summary of Storm Water Management Plan	Track number of hits to website	Annual
Advertise Household Hazardous Waste Collection	Track number of hits on webpage	Annual
Participate in local storm water committee	Document number of meetings	Annual

MCM 3: Illicit Discharge Detection and Elimination

The county has developed a storm sewer map showing the location of all outfalls with the names of the receiving stream. The map will be updated on an annual basis.

The county has adopted an ordinance regulating illicit discharges within the program areas of the county (Ordinance 2010-02). The ordinance provides for monitoring for illicit discharges, enforcement actions and addresses non-storm water discharges.

The county will perform dry weather screening of all the outfalls on an annual basis. The personnel will investigate any dry weather flows for potential illicit discharges and investigate evidence of pollution or illegal dumping. The county will also rely on public participation by responding to complaints filed through the online complaint form or by phone or other personal communications.

The county maintains a website: www.jaspercounty.org. The county maintains a countywide GIS map with parcel mapping. The program areas are included as an overlay to make tracking construction activities and plan coordination easier between the different county departments.

Jasper County Health Department webpage on the county's website contains information concerning the environmental services the county provides. An online form for reporting complaints is available for county residents use.

The county maintains an active stream monitoring program with sampling sites monitoring E Coli levels in the Turkey Creek, Center Creek, and Spring River watersheds.

The county works in cooperation with the city of Joplin for providing education materials for addressing illicit discharges and overall goals of the storm water program. The city has prepared brochures and other educational material for distribution. The city also provides training for staff and other interested stakeholders concerning illicit discharges.

The city of Joplin has implemented a recycling program for household hazardous waste which is available to all county residents.

A Storm Water Management Manual was prepared for county health department field staff for use during their normal duties. This manual provides the staff with copies of the county outfall location maps; copies of adopted storm water ordinances; copies of inspection forms and other information needed to implement the county's storm water program.

The county has determined that the following categories of non-storm water discharges (illicit discharges) are not significant pollutants to their program:

- | | |
|---|---------------------------------------|
| Water line flushing | Landscape Irrigation |
| Diverted stream flows | Rising ground waters |
| Uncontaminated ground water infiltration (as defined in MOCSR 20-6.200) | Discharges from Potable Water sources |
| Uncontaminated pumped ground water | Air conditioning condensation |
| Foundation Drains | Water from crawl space pumps |
| Springs | Lawn watering |
| Footing drains | Street water wash |
| Flows from riparian habitats and wetlands | Swimming pools (if de-chlorinated) |
| Discharges or flows from fire fighting activities | |
| Non-commercial washing of vehicles | |

Table 3.1 lists the Illicit Discharge Detection and Elimination program tasks (BMP's) with measurable goals.

**TABLE 3.1
TASKS AND MEASURABLE GOALS**

TASK	MEASURABLE GOALS	IMPLEMENTATION SCHEDULE
Maintain Outfall / Storm Drainage System Map	Maintain and Update Map	Annual
Distribute brochure on proper disposal of waste and hazards of illicit discharges	Track number of hits on webpage; Replenish supply semi-annually	Annual
Issue Building Permits for on-site wastewater treatment systems	Document number of permits issued	Annual
Perform inspections for restaurants and other food service operations	Document number of inspections performed.	Annual

Minimum Control Measure 4: Construction Site Storm Water Runoff Control

The county maintains a countywide GIS map including parcel mapping. The unincorporated urbanized areas regulated by the county Phase 2 program included as an overlay. The map is used by county staff for administrative purposes to track storm water permits and coordinate between the different county agencies.

The County has passed an Erosion and Sediment control ordinance (2007-xx) regulating construction activities for areas of one acre or larger within the unincorporated urbanized areas of the county. As part of the ordinance, the county will review all development plans presented for review and approval.

The County has prepared a Storm Water Management Manual for Health department field staff for use during their normal duties. This manual provides the staff with copies of the county outfall location maps; copies of adopted storm water ordinances; copies of inspection forms and other information needed to implement the county's storm water program.

Table 4.1 lists the Construction Site Storm Water Runoff Control program tasks (BMP's) with measurable goals.

**TABLE 4.1
TASKS AND MEASURABLE GOALS**

TASK	MEASURABLE GOALS	IMPLEMENTATION SCHEDULE
Review Site Plans and permits for construction Projects	Review all plans	Annual
Conduct inspections of active construction sites within jurisdictions	Inspect all active sites in jurisdiction	Annual
Advertise through webpage for citizens to register complaints concerning construction projects	Track number of hits on webpage; document response to all complaints	Annual
Promote training sessions for developers and staff	Document number of training sessions; document number of participants at sessions	Annual

Minimum Control Measure 5: Post-Construction Storm Water Management

The county maintains a countywide GIS map including parcel mapping. The areas regulated by the county under the storm water ordinance are included as an overlay to make tracking construction activities and plan coordination easier between the different county departments. The map is used for administration and tracking storm water permits, inspections and outfall locations.

The county has passed an ordinance (Ordinance 2010-01) regulating post construction storm water management for site development within the unincorporated urbanized areas of the county.

A Storm Water Management Manual was prepared for county health department field staff for use during their normal duties. This manual provides the staff with copies of the county outfall location maps; copies of adopted storm water ordinances; copies of inspection forms and other information needed to implement the county's storm water program.

Table 5.1 lists the Post Construction Storm Water Management program tasks (BMP's) with measurable goals.

**TABLE 5.1
TASKS AND MEASURABLE GOALS**

TASK	MEASURABLE GOALS	IMPLEMENTATION SCHEDULE
Review site plans for post construction maintenance operations	Review all site plans	Annual
Conduct inspection of developments for post construction operation and maintenance within jurisdiction	Inspect all sites within jurisdiction	Annual
Advertise training sessions with developers and staff for proper post construction operation and maintenance activities	Participate in training sessions; document attendance	Annual

Minimum Control Measure 6: Pollution Prevention/Good Housekeeping

The county continues to work with the city of Joplin for assistance in completing some of the permit obligations for public education, public involvement as well as coordinating training exercises for county employees.

The city also provides training for employees and other interested stakeholders concerning illicit discharges and for good housekeeping activities.

Table 6.1 lists the Pollution Prevention Good Housekeeping tasks (BMP's) with measurable goals.

**TABLE 6.1
TASKS AND MEASURABLE GOALS**

TASK	MEASURABLE GOALS	IMPLEMENTATION SCHEDULE
Review flood plain development applications for water quality impacts	Review all applications	Annual
Advertise training session for staff on proper methods for pollution prevention	Participate in training session; document attendance	Annual