

STORMWATER MANAGEMENT PLAN

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CITY OF DUQUESNE, MISSOURI

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MAY 16 2013

WATER PROTECTION PROGRAM



FOR JULY 2013-JUNE 2018
MS4 PERMITTING CYCLE

PREPARED BY:
ALLGEIER, MARTIN AND ASSOCIATES, INC.
MAY 7, 2013

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Stormwater Management Plan
City of Duquesne, Missouri
May 7, 2013

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APPENDICES

Figure 1: Sinkhole Map

Figure 2: Outfall Map

City Code – Chapter 501 Articles I-V – Illicit Discharge

City Code – Chapter 500 Article III – Stormwater Management Design Manual (adoption thereof)

City Code – Chapter 500 Article IV – Maintenance of Permanent Stormwater Controls

Construction Inspection Form

Part I - Facility Information

A. GENERAL INFORMATION:

NPDES #: MOR040051
Facility Name: Duquesne Small MS4
Facility Mailing Address: 1501 S. Duquesne, Joplin, MO 64801

Owner's Name: City of Duquesne, Missouri
Owner's Address: 1501 S. Duquesne, Joplin, MO 64801

Primary Contact: Denny White, Mayor, person primarily responsible
Phone Number: (417) 781-5085 for SWMP
Secondary Contact: Terry Ingram, City Clerk
Phone Number: (417) 781-5085

Facility Region: Southwest Region
(Main Office in Springfield, Satellite Office in Neosho)
Facility County: Jasper County, MO

Facility Type: Small MS4
Facility SIC Code: 9511
Facility NAICS Code: 924110
Facility Description: Discharges from Regulated Small MS4
Total MS4 Area (acres): 1.86 sq. miles

B. ADJACENT WATERWAYS:

There are no major receiving waters within the permitted area.
The permittee is not within 100 feet of waters classified as major reservoirs.
The permittee discharges to sections of Turkey Creek, Sections MO_3216 and MO_3217, that are listed as Impaired on the 303(d) List. Pollutants include Zinc, Cadmium and Lead. (See Table 1 below.) There are no Approved TMDLs and the MS4 has not been assigned to Wasteload Allocation (WLA). The sources of the pollutants have been determined to be the Tristate Abandoned Mine Lands and Rural NPS.
The permittee does not discharge to any Wild and Scenic Riverways or Outstanding State Resource Waters, therefore the permittee is implementing no additional specific provisions for their continued integrity.
Some of the Permittee's areas, only farm ponds and strip mine ponds, are defined as wetlands in the National Wetlands Inventory.
Stormwater from Duquesne discharges to 3 sinkholes. See attached Sinkhole Map.

Table 1. 303(d) Listed Waters to which Duquesne Discharges

Water Body	WBID	Pollutant	Source
Turkey Creek	3216	Cadmium (S)	Tri-State Mining District
		Cadmium (W)	Tri-State Mining District
		Escherichia coli (W)	Rural and suburban NPS
		Lead (S)	Tri-State Mining District
		Zinc (S)	Tri-State Mining District
Turkey Creek	3217	Cadmium (2)	Tri-State Mining District
		Escherichia coli (W)	Rural and suburban NPS
		Lead (S)	Tri-State Mining District
		Zinc (S)	Tri-State Mining District

C. CRITICAL AREAS:

There are threatened or endangered species in the area. (See Table 2 below.) The Permittee has met eligibility criteria for protection of threatened or endangered species.

There are critical habitats in the area. (See Table 2 below.) The Permittee has met eligibility criteria for protection of critical habitats.

There are no historic properties in the area.

Table 2. Endangered Species/Critical Habitats

County	Species	Status	Habitat
Jasper	Gray Bat (<i>Myotis grisescens</i>)	Endangered	Caves
Jasper	Arkansas Darter (<i>Eteostoma cragini</i>)	Candidate	Rivers
Jasper	Neosho Madtom (<i>Noturus placidus</i>)	Threatened	Rivers
Jasper	Ozark Cavefish	Threatened	Caves in the Boone & Burlington limestone formations of the Ozark Mountains

Part II – Outfalls

A. OUTFALL MAPPING

A map of representative outfalls is attached to this document.

B. LIST OF OUTFALLS

Outfall #001

Legal Description: SE 1/4, SE 1/4, Sec. 6, T 27N, R 32W, Jasper County
Lat 37° 05' 14" N, Long 94° 27' 37" W NAD83
UTM Coordinates: X=370227, Y=4105530 (Easting, Northing, respectively)
Receiving Stream: Tributary to Turkey Creek 2, Unclassified
First Classified Stream and ID: Turkey Creek, Class P
HUC-8 Watershed_Sub-watershed: 11070207_0901

Outfall #002

Legal Description: SW 1/4, SW 1/4, Sec. 5, T 27N, R 32W, Jasper County
Lat 37° 05' 15" N, Long 94° 27' 19" W NAD83
UTM Coordinates: X=370676, Y=4105556 (Easting, Northing, respectively)
Receiving Stream: Tributary to Turkey Creek, Unclassified
First Classified Stream and ID: Turkey Creek, Class P
HUC-8 Watershed_Sub-watershed: 11070207_0901

Outfall #003

Legal Description: NE 1/4, NE 1/4, Sec. 17, T 27N, R 32W, Jasper County
Lat 37° 04' 00" N, Long 94° 26' 38" W NAD83
UTM Coordinates: X=371485, Y=4103130 (Easting, Northing, respectively)
Receiving Stream: Tributary to Turkey Creek, Unclassified
First Classified Stream and ID: Turkey Creek, Class P
HUC-8 Watershed_Sub-watershed: 11070207_0901

Outfall #004

Legal Description: SE 1/4, NW 1/4, Sec. 16, T 27N, R 32W, Jasper County
Lat 37° 03' 49" N, Long 94° 26' 10" W NAD83
UTM Coordinates: X=372340, Y=4102901 (Easting, Northing, respectively)
Receiving Stream: Tributary to Turkey Creek, Unclassified
First Classified Stream and ID: Turkey Creek, Class P
HUC-8 Watershed_Sub-watershed: 11070207_0901

Outfall #005

Legal Description: SE 1/4, NW 1/4, Sec. 16, T 27N, R 32W, Jasper County
Lat 37° 03' 49" N, Long 94° 26' 00" W NAD83
UTM Coordinates: X=372579, Y=4102897 (Easting, Northing, respectively)

Receiving Stream: Tributary to Turkey Creek, Unclassified
First Classified Stream and ID: Turkey Creek, Class P
HUC-8 Watershed_Sub-watershed: 11070207_0901

Outfall #006

Legal Description: SE 1/4, SE 1/4, Sec. 18, T 27N, R 32W, Jasper County
Lat 37° 03' 18" N, Long 94° 27' 40" W NAD83
UTM Coordinates: X=370101, Y=4101958 (Easting, Northing, respectively)
Receiving Stream: Tributary to Silver Creek, Unclassified
First Classified Stream and ID: Silver Creek, Class P
HUC-8 Watershed_Sub-watershed: 11070207_0805

Outfall #007

Legal Description: NE 1/4, SE 1/4, Sec. 18, T 27N, R 32W, Jasper County
Lat 37° 03' 35" N, Long 94° 27' 48" W NAD83
UTM Coordinates: X=369915, Y=4102496 (Easting, Northing, respectively)
Receiving Stream: Tributary to Silver Creek, Unclassified
First Classified Stream and ID: Silver Creek, Class P
HUC-8 Watershed_Sub-watershed: 11070207_0805

Outfall #008

Legal Description: NW 1/4, NE 1/4, Sec. 18, T 27N, R 32W, Jasper County
Lat 37° 04' 00" N, Long 94° 28' 08" W NAD83
UTM Coordinates: X=369417, Y=4103280 (Easting, Northing, respectively)
Receiving Stream: Tributary to Joplin Creek, Unclassified
First Classified Stream and ID: Turkey Creek, Class P
HUC-8 Watershed_Sub-watershed: 11070207_0901

Outfall #009

Legal Description: NE 1/4, SW 1/4, Sec. 7, T 27N, R 32W, Jasper County
Lat 37° 04' 37" N, Long 94° 28' 21" W NAD83
UTM Coordinates: X=369123, Y=4104415 (Easting, Northing, respectively)
Receiving Stream: Tributary to Turkey Creek, Unclassified
First Classified Stream and ID: Turkey Creek, Class P
HUC-8 Watershed_Sub-watershed: 11070207_0901

Outfall #010

Legal Description: SW 1/4, SE 1/4, Sec. 6, T 27N, R 32W, Jasper County
Lat 37°05' 14" N, Long 94° 28' 02" W NAD83
UTM Coordinates: X=369599, Y=4105554 (Easting, Northing, respectively)
Receiving Stream: Tributary to Turkey Creek, Unclassified
First Classified Stream and ID: Turkey Creek, Class P
HUC-8 Watershed_Sub-watershed: 11070207_0901

Part III – Minimum Control Measures

Part III contains the 6 Minimum Control Measures (MCM) listed below:

MCM#1: Public Education and Outreach on Stormwater Impacts

MCM#2: Public Involvement and Participation

MCM#3: Illicit Discharge Detection and Elimination

MCM#4: Construction Site Stormwater Runoff Control

MCM#5: Post-Construction Stormwater Management in New Development & Redevelopment

MCM#6: Pollution Prevention/Good Housekeeping for Municipal Operations

MCM#1: Public Education and Outreach (PEO) Program

A. REGULATORY REQUIREMENT

40 CFR 122.34 (b)(1) – Implement a public education program to distribute educational materials to the community of contact, equivalent outreach activities about the impacts of storm water discharges on water bodies and the steps the public can take to reduce pollutants in storm water runoff.

Section 4.2.1.2 of the general MS4 permit requires the following elements in this program:

Plans to inform individuals and households about the steps they can take to reduce stormwater pollution;

Plans to inform individuals and groups on how to become involved in the stormwater program;

Identification of target audiences who are likely to have significant stormwater impacts (including commercial, industrial and institutional entities);

Identification of the target pollutant sources the program is designed to address; and

An outreach strategy, including the mechanisms (e.g. printed brochures, newspapers, media, workshops, etc.) that will be used to reach target audiences and the number of people this strategy is expected to reach.

B. STATEMENT OF MINIMAL NEED

There is minimal need for the City of Duquesne to implement measures for Public Education and Outreach. The City of Joplin provides educational brochures for Duquesne to print and distribute. Duquesne shares local media with Joplin and Joplin provides public service announcements, newspaper articles, press releases and other educational opportunities regarding local stormwater issues. A library of stormwater information is available at Duquesne City Hall and Duquesne will continue to send out newsletters for public education that include stormwater quality issues and notification of opportunities provided by Joplin.

C. TARGET POLLUTANTS

Duquesne developed their stormwater Public Education and Outreach program in cooperation with other jurisdictions in the region. The target pollutants were identified and

prioritized. The following is a list of the possible leading pollutants, experienced in the permitted area, that are carried by stormwater runoff into water bodies. Duquesne has designed the PEO program to encompass all the major pollutants, and will revise the program as needed.

1. Suspended Solids
2. Nutrients
3. Pesticides
4. Priority Toxic Organic Chemicals (Household Hazardous Waste Pesticide/Herbicide)
5. Floatables
6. Salinity (Salt)
7. Habitat Alterations
8. Oil and Grease

D. TARGET POLLUTANT SOURCES

Duquesne developed their stormwater Public Education and Outreach program in cooperation with other jurisdictions in the region. Once the target pollutants were identified and prioritized, the actions that impact the target pollutants were identified. The PEO program was designed to impact the actions identified. The following is a list of potential sources of pollutants that are experienced in the permitted area, in order of priority:

1. Construction activities (sediment, construction chemicals and debris, solid and sanitary wastes);
2. Overapplication of fertilizer, herbicides, pesticides;
3. Improper disposal of waste oil, grease, and gasoline disposal;
4. Improper disposal of paint and household hazardous chemicals;
5. Pet waste contamination;
6. Snow removal (salt, sand and snow disposal);
7. Spills from roadway accidents or fires;
8. Trash, debris, and illegal dumping;
9. Detergents washed into drains;
10. Sanitary sewer overflows;
11. Infiltration from cracked sanitary sewers;
12. Failing septic tanks;
13. Sewer service connections to storm drainage systems;
14. Foundation drains connected to storm drainage system;
15. Downspouts connected to storm drainage systems;
16. Lake or water body used for motor boating;
17. Connected impervious areas covering large acreages (such as malls, institutions with large parking areas);
18. Stream bank erosion.

E. TARGET AUDIENCES

The following target audiences were selected as corresponding to the target pollution sources and because changing their behavior would have a significant stormwater quality impact on the target pollutants. The target audiences for the PEO program are:

1. Citizens
2. Developers and Home Builders
3. Service Station and Oil/Lube Business Owners and Operators
4. Other Local Businesses and Industries
7. Elected Officials
8. City Staff (will be the focus of the Good Housekeeping program)

F. SELECTED BMPS FOR PUBLIC EDUCATION AND OUTREACH

The goal of Duquesne's Public Education and Outreach program is to accomplish the following:

Inform individuals and households in the community about the steps they can take to reduce stormwater pollution; and

Inform individuals and groups on how to become involved in the stormwater program.

The outreach strategy is to implement a variety of methods to reach a number of different target audiences multiple times. To change behavior, repetition is important. The City plans to use the following Best Management Practices to accomplish these goals (see also Table MSM1):

- ❖ KEEP RECORDS OF EVERY PUBLIC EDUCATION AND OUTREACH ACTIVITY, every article, brochures handed out or mailed, etc.;
- ❖ Make a copy of this SWMP available for public viewing and comment at City Hall;
- ❖ Mail newsletter containing stormwater information, including, but not limited to, the following: hotline numbers, reminder of right-of-way maintenance responsibilities of owners, dates and times of other opportunities available through City of Joplin, and websites for further education/information;
- ❖ Distribute brochures and/or flyers containing stormwater pollution prevention information by mail and/or bill insert (may be in conjunction with newsletter);
- ❖ Maintain the City's stormwater information library at City Hall, containing brochures/flyers pertaining to stormwater pollution prevention;
- ❖ Mail stormwater information brochures to new business licensees;
- ❖ Distribute erosion/sediment control BMP literature to bidders for development projects requiring a Grading Permit;
- ❖ Mail Waste/Recycling Guide brochure to all of the City's postal customers;
- ❖ Issue press releases regarding local stormwater issues;
- ❖ Show stormwater information on local TV station;
- ❖ Publish stormwater-related articles in local newspaper; and
- ❖ Show Public Services announcement on local TV station.

G. OUTREACH PARTNERS

As stated in Section A, Duquesne partners with other governmental and non-governmental entities to execute the public education and outreach strategy. The idea is to share information and resources so duplication does not occur. The following entities will be assisting with the effort:

1. City of Joplin
2. Other Communities in the Region
3. County Extension
5. MDNR
6. EPA
7. Other: Missouri Southern State University and Local Schools

H. MEASURABLE GOALS

The measurable goals for each BMP are shown in Table MCM1. The BMPs selected were chosen because of the evidence that they will have a positive impact on the target pollutants identified as a concern for Duquesne. The public education and outreach BMPs were also selected because many have been effective methods of communicating with the public for our community. Success of the Public Education and Outreach program and its effect on water quality will be determined by the listed measurable goals.

I. RESPONSIBLE PARTIES

The person ultimately responsible for the overall management and implementation of the permittee's stormwater Public Education and Outreach program is the **Mayor**. The persons responsible for the individual PEO program activities are listed in Table MCM1.

Table MCM1. Public Education and Outreach Program BMPs

Stormwater Goal (BMP)	Target* Audience	Target Pollutant Source**	Implementation Date	Update Frequency	Responsible Party	Measurable Goal	Target Number
<u>KEEP RECORDS OF ALL BMPs</u>	8	All	Ongoing	EVERY activity	City Clerk	% of activities recorded	100%
Make SWMP Document Available at City Hall for Public Viewing and Comment	2-8	Various	7/1/2013	As needed	City Clerk	Completion	1
Mail Newsletter Containing SW News and Information, Including SW Brochures/Flyers.	1-4	2, 3	2013	As needed	City Clerk	# Brochures and/or flyers	300/year
		4, 5	2014				
		8, 9	2015				
		14, 15, 17	2016				
		TBD	2017				
Mail SW brochure to new business licensees	2, 3, 4	Various	Ongoing	Quarterly	City Clerk	% sent brochures	100%
Distribute Erosion/Sediment Control BMP Literature to Bidders for Development Projects	2	1	Ongoing	As needed	Public Works Director	% of bidders receiving literature	100%
Waste/Recycling Guide Mailed to All Postal Customers	2-6	3, 5-7	Each Fall	Yearly	City Clerk	# per year	300/year
Maintain SW Info Library at Community Center	Various	Various	Ongoing	Quarterly	City Clerk	# Brochures/ flyers taken	30/year
Issue Press Releases Regarding Local SW Issues	Various	Various	As needed	As needed	City Clerk	# Press Releases	As needed
Show SW information on local TV station	Various	Various	(fulfilled by City of Joplin)	n/a	(fulfilled by City of Joplin)	(fulfilled by City of Joplin)	(fulfilled by City of Joplin)
Publish SW-related Articles in Local Newspaper	Various	Various	(fulfilled by City of Joplin)	n/a	(fulfilled by City of Joplin)	(fulfilled by City of Joplin)	(fulfilled by City of Joplin)
Show Public Services Announcement on Local TV	Various	Various	(fulfilled by City of Joplin)	n/a	(fulfilled by City of Joplin)	(fulfilled by City of Joplin)	(fulfilled by City of Joplin)

* Target Audience Codes listed in Section E. ** Target Pollutant Source Codes listed in Section D. TBD = To Be Determined by City.

MCM#2: Public Involvement and Participation (PIP) Program

A. REGULATORY REQUIREMENT

40 CFR 122.34 (b)(2) – At a minimum, comply with state, tribal, and local public notice requirements when implementing a public involvement/participation program. *EPA recommends that the public be included in developing, implementing, and reviewing your stormwater management program and that the public participation process should make efforts to reach out and engage all economic and ethnic groups.*

Section 4.2.2.2 of the general MS4 permit requires the following elements in this program:

Involvement of the public in the development and submittal of the permit application and stormwater management program;

Plans to actively involve the public in the development and implementation of the public involvement/participation program;

Identification of target audiences; and

Identification of the types of public involvement activities.

Duquesne will comply with State and Local public notice requirements when implementing the Public Involvement and Participation program.

B. PUBLIC INVOLVEMENT IN DEVELOPING SWMP SUBMITTAL

Duquesne has put this document on public notice at City Hall. Any comments from the public were received at the next City Council meeting or at City Hall. Comments have been addressed and changes to the SWMP made accordingly.

C. TARGET AUDIENCES

The target audiences for the permittee's Public Involvement and Participation program are:

1. Citizens (Homeowners)
2. Mass Media
3. Local Elected Officials
4. Business Leaders
5. Contractors, Home Builders, and Developers

The City of Duquesne, having small population and limited ethnic diversity, will not focus the PIP program on any particular ethnic or economic groups.

D. SELECTED BMPS FOR PUBLIC INVOLVEMENT AND PARTICIPATION

The goal of Duquesne's Public Involvement and Participation program is to accomplish the following:

Involve the public in the development and submittal of the permit application and stormwater management program;

Actively involve the public in the development and implementation of the Public Involvement and Participation program.

The strategy is to implement a variety of different methods that were selected because they are existing effective methods used by Duquesne or because of EPA guidance documents that list these BMP's as effective public involvement methods. The City plans to use the following Best Management Practices to accomplish these goals (see also Table MSM2):

- ❖ KEEP RECORDS OF EVERY PUBLIC INVOLVEMENT AND PARTICIPATION ACTIVITY;
- ❖ Make a copy of this SWMP available at City Hall for public viewing and comment;
- ❖ Receive public comments on the SWMP at City Council meetings and at City Hall;
- ❖ Maintain Community Hotline;
- ❖ Hold annual public meetings/stakeholder meeting on stormwater issues; and
- ❖ Send out Stormwater Surveys to homeowners, and possibly businesses, to assess attitudes and public education needs..

E. MEASURABLE GOALS

The measurable goals for each BMP are shown in Table MCM2. The BMPs selected were chosen because of the evidence that they will have a positive impact on the target pollutants identified as a concern for Duquesne. The Public Involvement and Participation BMPs were also selected because many have been effective methods of involving the public in our community. Success of the Public Involvement and Participation program and its effect on water quality will be determined by the listed measurable goals.

F. RESPONSIBLE PARTIES

The person ultimately responsible for the overall management and implementation of the permittee's Public Involvement and Participation program is the **Mayor**. The persons responsible for the individual PIP program activities are listed in Table MCM2.

Table MCM2. Public Involvement and Participation Program BMPs

Stormwater Goal (BMP)	Target* Audience	Target Pollutant Source**	Implementation Date	Update Frequency	Responsible Party	Measurable Goal	Target Number
<u>KEEP RECORDS OF ALL BMPs</u>	n/a	All	Ongoing	EVERY activity	City Clerk	% of activities recorded	100%
Make SWMP Document Available at City Hall for Public Viewing and Comment	1-5	Various	7/1/2013	As needed	Public Works Director	Completion	1
Receive Public Comments at City Council Meeting & City Hall	1-5	Various	7/1/2013	n/a	Mayor/Board of Aldermen	% of Received comments addressed	100%
Maintain Community Hotline	1-5	Various	Ongoing	n/a	City Clerk	% of Received concerns addressed	100%
Hold Annual Public Mtg./ Stakeholder Mtg. on SW issues	1-5	Various	Fall each year	Yearly	Mayor/Board of Aldermen	Attendance #	100/year
Send Out Stormwater Survey to Homeowners and Process Results	1	Various	2/1/2015	n/a	City Clerk	# Surveys Distributed/ % Response	300 surveys/ 20% response

* Target Audience Codes listed in Section C. ** Target Pollutant Source Codes listed in MCM#1 Section D.

MCM#3: Illicit Discharge Detection and Elimination (IDDE) Program

A. REGULATORY REQUIREMENT

40 CFR 122.34 (b)(3) – Develop, implement, and enforce a program to detect and eliminate illicit discharges into your small MS4. Develop a storm sewer system map, showing the location of all outfalls and the names and locations of all water of the U.S. that receive discharges from those outfalls. To the extent allowable under state, tribal or local law, effectively prohibit, through ordinance, or other regulatory mechanism, non-stormwater discharges into your storm sewer system and implement appropriate enforcement procedures and actions. Develop and implement a plan to detect and address non-stormwater discharges including illegal dumping to your system. Inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste. Address categories listed in 122.34(b)(3)(D)(iii) if you determine they are significant contributors of pollutants to MS4.

Section 4.2.3.1 of the general MS4 permit requires the following elements in this program:

A storm sewer system map showing the locations of all outlets and the names and location of all waters of the State that receive discharges from those outlets;

An ordinance or other regulatory mechanism to effectively prohibit non-stormwater discharges into the permittee’s storm sewer system, with appropriate enforcement procedures and actions;

A plan to detect and address non-stormwater discharges, including illegal dumping, to the permittee’s system;

Methods to inform public employees, business and the general public of hazards associated with illegal discharges and improper disposal of waste;

Plans to address the thirteen categories of non-stormwater discharges or flows, identified in Section 4.2.3.1.6 of the permit, only if the permittee identifies any of them as significant contributors of pollutants to the permittee’s small MS4; and

A list, subject to the conditions in Section 4.2.3.1.7 of the permit, of other similar occasional incidental non-stormwater discharges that the permittee has determined will not be addressed as illicit discharges.

B. MAPPING

Duquesne has developed an outfall map, showing the location of outfalls and the names and location of all waters of the State that receive discharges from those outfalls. The map was developed using storm sewer mapping and piping schematics. Updates to the map will be made on an as-needed basis.

C. REGULATORY MECHANISM

Duquesne currently uses an ordinance (Ordinance No. 153, adding CH 501 Articles I through V City Building Code, adopted 2010, copy included) to effectively prohibit illicit discharges to the MS4. This regulatory mechanism was selected because ordinances are commonly used by Duquesne to establish laws and set forth enforcement mechanisms. The ordinance establishes legal authority for the City to do the following:

Regulate the contribution of pollutants to the municipal separate storm sewer system (MS4) of stormwater discharges by any use;

Prohibit illicit connections and discharges to the MS4, including illegal dumping; and

Carry out all inspections, surveillance monitoring, and enforcement procedures necessary to ensure compliance.

D. INSPECTION PROGRAM

Duquesne has implemented an IDDE Inspection program that utilizes dry-weather and wet-weather field screening to detect and address non-stormwater discharges, including discharges from illegal dumping and spills. Each outfall is inspected a minimum of twice per year, once during dry weather and once during wet weather, and also upon complaint. Procedures for inspection are contained within the City's "Illicit Discharge Detection & Elimination Field Investigation Guide," dated 2013. A copy of the Guide is available upon request. The following are some of the items contained in the guide:

Procedures for dry- and wet-weather field screening;

Procedures for evaluating land use to determine priority areas and activities with higher likelihood of illicit connections (e.g. areas with older sanitary sewer lines or where on-site sewage disposal is more prevalent);

Procedures for field tests/observations of physical parameters (e.g. flowrate, color, odor, turbidity, surface scum, outfall damage);

Procedures for evaluating biological indicators (e.g. vegetation, algae, bacteria, fish kills, presence or absence of aquatic life);

Procedures for field tests of selected chemical parameters (e.g. temperature, pH, detergent, etc.);

Field investigation examples (with photos);

Procedures for tracing the source of an illicit discharge, including stormwater network investigation methods, methods to use with intermittent discharges, as well as on-site investigation methods;

Important contact numbers; and

Plants and snakes to avoid (with photos).

E. TRACING THE SOURCE, REMOVAL, AND ENFORCEMENT

Duquesne will trace the source of any suspected illicit discharge following procedures outlined in the IDDE Field Guide. Upon determination of the source of the illicit discharge, the City's IDDE ordinance allows the City to suspend access to the MS4 until the discharge is abated. The City may order compliance by written notice of violation. For removal and enforcement, the IDDE ordinance states the following:

SECTION 501.410 NOTICE OF VIOLATION.

Whenever the City finds that a person has violated a prohibition or failed to meet a requirement of this Article, the Director may order compliance by written notice of violation to the responsible person. Such notice may require without limitation:

- (a). The performance of monitoring, analysis, and reporting;
- (b). The elimination of illicit connections or discharges;
- (c). The violating discharges, practices, or operations shall cease and desist;
- (d). The abatement or remediation of storm water pollution or contamination hazards and the restoration of any affected property; and
- (e). Payment of a fine to cover administrative and remediation costs; and
- (f). The implementation of source control or treatment BMP's.

If abatement of a violation and/or restoration of affected property are required, the notice shall set forth a deadline within which such remediation or restoration must be completed. Said notice shall further advise that, should the violator fail to remediate or restore with the established deadline, the work will be done by the City or a contractor designated by the City and the expense thereof shall be charged to the violator...

Any notice of violation may be appealed as laid out in the ordinance. Also, according to the ordinance, if the violation continues, the violator will be liable to criminal prosecution and will be subject to criminal penalty of fines and/or imprisonment.

F. INFORMING THE PUBLIC

Duquesne will inform businesses and the general public of hazards associated with illegal discharges and improper disposal of waste using the BMPs listed under MCM #1 of this

document. Public employees will be informed during training provided by the City or another organization, such as MDNR or City of Joplin.

G. NOT SIGNIFICANT CONTRIBUTORS

The City of Duquesne has exempted the following in the IDDE ordinance because the City has not identified any of the following categories of non-stormwater discharges or flows (i.e. illicit discharges) as significant contributors of pollutants to their small MS4: potable water line flushing, landscape irrigation and lawn watering, diverted stream flows, rising groundwater, uncontaminated groundwater 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, foundation drains, footing drains; uncontaminated roof drains; flows from riparian habitats and wetlands; and street wash water (discharges or flows from firefighting activities are excluded from the effective prohibition against non-stormwater and will only be addressed where they are identified as significant sources of pollutants to waters of the State).

Duquesne's IDDE ordinance also specifically lists non-commercial washing of vehicles, discharge from swimming pools (if dechlorinated – typically less than one (1) PPM chlorine), and firefighting activities and other similar occasional incidental non-stormwater discharges that will not be addressed as illicit discharges because they are not reasonably significant sources of pollutants to the MS4. Should these occasional or incidental non-stormwater discharges be identified in the future as significant contributors, those entities responsible for discharging will be prohibited or conditions placed on them so as to minimize their discharge of pollutants.

H. SELECTED BMPS FOR ILLICIT DISCHARGE DETECTION AND ELIMINATION

The goal of Duquesne's Illicit Discharge Detection and Elimination program is to accomplish the following:

Effectively prohibit non-stormwater discharges into the permittee's storm sewer system through regulation and inspection, as well as enforcement when necessary;

Inform public employees, business and the general public of hazards associated with illegal discharges and improper disposal of waste;

The strategy is to implement methods that were selected because they are existing effective methods used by Duquesne or because of EPA guidance documents that list these BMP's as effective IDDE methods. The City plans to use the following Best Management Practices to accomplish these goals (see also Table MSM3):

- ❖ KEEP RECORDS OF EVERY ILLICIT DISCHARGE DETECTION AND ELIMINATION ACTIVITY;
- ❖ Enforce existing IDDE ordinance;

- ❖ Inspect each outfall at least four times a year, twice in dry weather and twice in wet weather;
- ❖ Fill out Inspection Field Sheet for each outfall inspected, each time it is inspected;
- ❖ Maintain community hotline for public to report suspected illicit discharges and dumping;
- ❖ Inspect as necessary upon complaint to community hotline;
- ❖ Inform businesses and the general public of hazards associated with illegal discharges and improper disposal of waste using the BMPs listed under MCM #1 of this document;
- ❖ Provide IDDE training to public employees involved in the IDDE program (training may be provided in cooperation with City of Joplin or other entity, such as MDNR); and
- ❖ Provide IDDE training to all public employees, including police, as part of the general Good Housekeeping training so our public employees can be our eyes and ears on the ground (training may be provided in cooperation with City of Joplin or other entity, such as MDNR).

I. MEASURABLE GOALS

The measurable goals for each BMP are shown in Table MCM3. The BMPs selected were chosen because of the evidence that they will have a positive impact on the target pollutants identified as a concern for Duquesne. Success of the Illicit Discharge Detection and Elimination program and its effect on water quality will be determined by the listed measurable goals.

J. RESPONSIBLE PARTIES

The person ultimately responsible for the overall management and implementation of the permittee's Illicit Discharge Detection and Elimination program is the **Mayor**. The persons responsible for the individual IDDE program activities are listed in Table MCM3.

Table MCM3. Illicit Discharge Detection and Elimination Program BMPs

Stormwater Goal (BMP)	Implementation Date	Update Frequency	Responsible Party	Measurable Goal	Target Number
KEEP RECORDS OF ALL BMPs	Ongoing	EVERY activity	City Clerk	% of activities recorded	100%
Enforce existing IDDE ordinance	Ongoing	As needed	Public Works Director	Completion	1
Dry-weather Inspection of Each Outfall	Twice Yearly	As needed	Public Works Director	# Outfalls inspected	10 outfalls twice per year
Wet-weather Inspection of Each Outfall	Twice Yearly	As needed	Public Works Director	# Outfalls inspected	10 outfalls twice per year
Fill Out Inspection Field Sheet for each Outfall Inspected	On day of inspection	As needed	Public Works Director	# Field Sheets Out Filled	10 outfalls four times per year
Maintain Community Hotline	Ongoing	As needed	City Clerk	% of complaints received that are recorded	100%
Inspect Upon Complaint	Ongoing	As needed	Public Works Director	% of Complaints addressed	100%
IDDE Information to Businesses and General Public	See MCM#1	See MCM#1	See MCM#1	See MCM#1	See MCM#1
IDDE Training for IDDE Inspectors	Fall 2013	Yearly or as needed	Public Works Director	# Employees Trained	1/year
Basic IDDE Awareness Training for All Municipal Employees as part of Good Housekeeping Training	Fall 2014	Yearly or as needed	Public Works Director	# Employees Trained	All

MCM#4: Construction Site Stormwater Runoff Control (CSSRC) Program

A. REGULATORY REQUIREMENT

40 CFR 122.34 (b)(4) – Develop, implement and enforce a program to reduce pollutants in any stormwater runoff to your small MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. Program must include: the development and implementation of (at a minimum) an ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions to ensure compliance, requirements for construction site operators to implement appropriated erosion and sediment control BMPs, requirements for construction site operators to control waste at the construction site, procedures for site plan review which incorporate consideration of potential water quality impacts, procedures for receipt and consideration of information submitted by the public.

Section 4.2.4.1 of the general MS4 permit requires the following elements in this program:

An ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions to ensure compliance, to the extent allowable under State or local law;

Requirements for construction site operators to implement appropriate erosion and sediment control best management practices;

Requirements for construction site operators to control waste such as discarded building materials, concrete truck washout, chemical, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality;

Procedures for site plan review which incorporate consideration of potential water quality impacts;

Procedures for receipt and consideration of information submitted by the public; and

Procedures for site inspection and enforcement of control measures.

B. REGULATORY MECHANISM

Duquesne has adopted a stormwater management ordinance (Ordinance No. 152, revising CH 500 Article III of City Code, adopted 2010, copy included) as the regulatory mechanism

requiring appropriate erosion and sediment controls on construction sites. The ordinance accomplishes the following:

Adopts the Stormwater Management Design Manual;

Lays out procedures for acquiring a Grading Permit;

This regulatory mechanism was selected because ordinances are commonly used by Duquesne to establish laws and set forth enforcement mechanisms.

Grading Permits are required for any construction activities that result in the disturbance of greater than or equal to one acre, and also for sites disturbing less than one acre if the site is part of a larger common plan of development or sale. Applications for Grading Permits must include an Erosion and Sediment Control Plan, to be reviewed and approved by the City before issuance of permit. Applicants must also provide a performance bond or other required security, as laid out in the Stormwater Criteria manual.

The Stormwater Management Design Manual includes all requirements for submittal of the Erosion and Sediment Control Plan. The manual also contains construction specifications and design standards for erosion and sediment control BMPs. A copy of the manual is available upon request.

The existing City Building Code has establishes legal authority for the City to:

Inspect permitted construction sites;

Enforce regulations through denial of permit, stop-work orders, revocation of permit, and criminal charges, with associated fines and other penalties.

C. INSPECTION PROGRAM

Duquesne has incorporated erosion and sediment control (ESC) measures into the City's Construction Inspection program. The City may inspect permitted construction sites for the purpose of determining overall effectiveness of the erosion and sediment control BMPs and the need for additional control measures. Under the Illicit Discharge ordinance, see MCM#3, the City also regulates and inspects for the wastes listed in Section E below. The City's construction inspection form, a copy of which is included with this document, has been modified to allow for recording of inspections of the erosion and sediment control measures. The sites may be inspected using a priority rating system, with the site with the most potential risk to the community on top of the priority list.

D. ENFORCEMENT

The City of Duquesne has legal authority to enforce erosion and sediment control regulations through the following escalating measures:

1. Denial of permit;
2. Stop-work order;
3. Revocation of permit; and
4. Criminal misdemeanor charges, with associated fines and other penalties.

Procedures for this enforcement process are laid out in the City Building Code.

E. WASTES TO BE CONTROLLED

The City Duquesne requires construction site operators to control wastes that may cause adverse impacts to water quality such as:

1. Discarded Building Materials
2. Sediment
3. Litter or Trash
4. Sanitary Waste

These wastes are controlled through the Illicit Discharge ordinance (see MCM#3). These wastes are also included in the Construction Inspection Program.

F. SITE PLAN REVIEW

Duquesne has implemented procedures in their design manual for site plan review, including the review of pre-construction plans, which will incorporate consideration of potential water quality impacts. Duquesne has implemented procedures and rationale for those sites that do not require site plan review. The estimated percentage of sites that will have a pre-construction site plan review is 100%.

G. RECEIPT & CONSIDERATION OF PUBLIC COMMENT

Construction plans are available at Duquesne's City Hall for review by the public. Any citizen of Duquesne may submit written comments relating to the plans. Comments are to be addressed by the City within 30 days of receipt. The public is notified of the availability of this process literature distributed by the City.

H. SELECTED BMPS FOR CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

The goal of Duquesne's Construction Site Stormwater Runoff Control program is to accomplish the following:

Effectively control erosion and sediment on construction sites through regulation and inspection, as well as enforcement when necessary;

Effectively control waste such as discarded building materials, concrete truck washout, chemical, litter, and sanitary waste at the construction site through regulation and inspection, as well as enforcement when necessary;

Review site plans for consideration of potential water quality impacts;

Receive and consider information submitted by the public; and

Inform developers, contractors and design professionals of proper erosion, sediment, and waste control measures for construction sites.

The strategy is to implement methods that were selected because they are existing effective methods used by Duquesne or because of EPA guidance documents that list these BMP's as effective CSSRC methods. The City plans to use the following Best Management Practices to accomplish these goals (see also Table MSM4):

- ❖ KEEP RECORDS OF EVERY CONSTRUCTION SITE STORMWATER RUNOFF CONTROL PROGRAM ACTIVITY;
- ❖ Enforce existing stormwater regulations;
- ❖ Review plans for compliance with erosion and sediment control regulations;
- ❖ Issue Grading Permits for approved construction plans;
- ❖ Inspect construction sites for compliance with erosion and sediment control regulations and approved construction plans;
- ❖ Make stormwater plans available to the public for viewing at City Hall.
- ❖ Receive written comments from the public and address them within 30 days.
- ❖ Distribute literature containing public comment procedures using BMPs listed under MCM #1 of this document;
- ❖ Inform developers, contractors and design professionals of proper erosion, sediment, and waste control measures for construction sites using the BMPs listed under MCM #1 of this document (training may be provided in cooperation with City of Joplin or other entity, such as MDNR); and
- ❖ Provide training to City reviewers and inspectors involved in the CSSRC program (training may be provided in cooperation with City of Joplin or other entity, such as MDNR).

I. MEASURABLE GOALS

The measurable goals for each BMP are shown in Table MCM4. The BMPs selected were chosen because of the evidence that they will have a positive impact on the target pollutants identified as a concern for Duquesne. Success of the Construction Site Stormwater Runoff

Control program and its effect on water quality will be determined by the listed measurable goals.

J. RESPONSIBLE PARTIES

The person ultimately responsible for the overall management and implementation of the permittee's Construction Site Stormwater Runoff Control program is the **Mayor**. The persons responsible for the individual CSSRC program activities are listed in Table MCM4.

Table MCM4. Construction Site Stormwater Runoff Control Program BMPs

Stormwater Goal (BMP)	Implementation Date	Update Frequency	Responsible Party	Measurable Goal	Target Number
<u>KEEP RECORDS OF ALL BMPs</u>	Ongoing	EVERY activity	City Clerk	% of activities recorded	100%
Enforce Existing Stormwater Management/ Erosion & Sediment Control Regulations	Ongoing	As needed	Public Works Director	Report # and type of enforcement actions	Annual Report
Review Plans for Compliance with Erosion & Sediment Control Regulations	Ongoing	As needed	Public Works Director	# projects reviewed	All
Issue Grading Permits for Approved Construction Plans	Ongoing	As needed	Public Works Director	# Permits issued	n/a
Inspect Active Construction Sites for Compliance with CSSRC Regulations	Ongoing	As needed	Public Works Director	# of Inspections	All
Make Stormwater Plans Available to the Public for Viewing at City Hall	Ongoing	As needed	Public Works Director	% of plans available for viewing	100%
Receive Written Comments from the Public and Address Them within 30 Days	Ongoing	As needed	Public Works Director	# of comments received & % of comments addressed	100%
Distribute Literature Containing Public Comment Procedures	See MCM#1	See MCM#1	See MCM#1	See MCM#1	See MCM#1
Inform Developers, Contractors and Design Professionals of Proper CSSRC BMPs	See MCM#1	See MCM#1	See MCM#1	See MCM#1	See MCM#1
CSSRC Training for City Reviewers and Inspectors	Fall 2013	Yearly or as needed	Public Works Director	# Employees Trained	1/year

MCM#5: Post-Construction Stormwater Management (PCSM) Program

A. REGULATORY REQUIREMENT

40 CFR 122.34 (b)(5) – Develop, implement and enforce a program to address stormwater runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects that are less than one acre that are part of a larger common plan of development or sale, that discharge into your small MS4. Develop and implement strategies which include a combination of structural and/or non-structural BMPs appropriate for your community. Use an ordinance or other regulatory mechanism to address post-construction runoff. Ensure adequate long-term operation and maintenance of BMPs.

Section 4.2.5.1 of the general MS4 permit requires the following elements in this program:

Development and implementation of strategies which include a combination of structural and/or non-structural BMPs appropriate for the permittee's community;

Use of 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;

Means to ensure adequate long-term operation and maintenance of BMPs;

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;

Policies or ordinances that encourage infill development in higher density urban areas and areas with existing stormwater infrastructure;

Education programs for developers and the public about project designs that minimize water quality impact; and

Other measures such as minimization of the percentage of impervious area after development, use of measures to minimize directly connected impervious areas and source control measures often thought of as good housekeeping, preventative maintenance and spill prevention.

Duquesne has developed, implemented, and is enforcing a program to address stormwater 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 or sale. The City accomplishes this goal through a stormwater management ordinance requiring any such development project to obtain a Grading Permit, discussed below, before construction may begin.

B. REGULATORY MECHANISMS - ORDINANCES

Duquesne has adopted a stormwater management ordinance (Ordinance No. 152, revising CH 500 Article III of City Code, adopted 2010, copy included) as the regulatory mechanism requiring appropriate post-construction stormwater controls for development and redevelopment. This stormwater ordinance accomplishes the following:

- Adopts the Stormwater Management Criteria manual;

- Lays out procedures for acquiring a Grading Permit;

The City is currently in the process of adding Article IV (copy included) to the code as a provision for long-term maintenance of permanent stormwater controls. For all entities requiring a Grading Permit and whose approved plans contain permanent stormwater BMPs, this addition to the stormwater code accomplishes the following:

- Requires designation of the entity responsible for long-term operation and maintenance of all permanent BMPs (usually the property owner or a homeowners' association);

- Establishes legal authority for the City to inspect all permanent stormwater BMPs;

- Establishes legal authority for the City to enforce the regulations through notices of violation, criminal charges, with associated fines and other penalties, and if necessary the City may perform maintenance work at the owner's expense.

These regulatory mechanisms were selected because ordinances are commonly used by Duquesne to establish laws and set forth enforcement mechanisms.

The existing City Building Code has establishes legal authority for the City to:

- Inspect permitted construction sites;

- Enforce regulations through denial of permit, stop-work orders, revocation of permit, and criminal charges, with associated fines and other penalties.

C. REGULATORY MECHANISMS – STORMWATER CRITERIA MANUAL

The Stormwater Management Design Manual, adopted in the above listed ordinance, contains construction specifications and design standards for permanent structural and non-structural BMPs to address post-construction runoff quality and quantity. The goal of these design standards is to minimize water quality impacts, by requiring reasonable mimicking of pre-construction runoff conditions in affected new development and incorporating water quality protection in affected redevelopment projects to the maximum extent practicable. At a minimum, Duquesne currently requires a water quality extended detention/retention basin for all land development on any site having a gross land area of one acre or more, including projects less than one acre that are part of a larger common plan of development or sale, unless waived by the city in accordance with the adopted stormwater regulations. Other structural BMPs listed in the manual include, but are not limited to, vegetative filter strips, grass swales, constructed wetlands, porous pavements, and sand filters. Non-structural BMPs addressed in the manual include minimizing disturbance of soils and vegetation, avoiding environmentally sensitive areas (e.g. streams, springs, sinkholes, lakes, wetlands), and disconnecting impervious area.

The design standards in the Stormwater Management Criteria manual require pre-construction runoff conditions in new development to be met for:

1. Certain flow volumes (e.g. Water Quality Control Volumes); and
2. Peak discharge rates.

The design standards and stormwater management ordinances allow or enable the following:

1. The location of bioretention areas, rain gardens, filter strips, swales, and constructed wetlands in required setback areas; and
2. Construction of low impact development, or LID, stormwater management techniques (bioretention, swales, filter strips) on land held in common.

The Stormwater Management Criteria manual requires Grading Permits for any construction activities that result in the disturbance of greater than or equal to one acre, and also for sites disturbing less than one acre if the site is part of a larger common plan of development or sale. Applications for Grading Permits to be reviewed and approved by the City, must include the following items:

1. Existing and proposed mapping and plans, which illustrate:
 - a. Existing and proposed topography;
 - b. Perennial and intermittent streams;
 - c. Mapping of predominant soils;
 - d. Boundaries of existing predominant vegetation and proposed limits of clearing.;
 - e. Location and boundaries of resource protection areas such as wetlands, lakes, ponds and other setbacks (e.g. stream buffers);
 - f. Grading plan with location of existing and proposed roads, buildings and other structures;

- g. Location of existing and proposed utilities and easements;
 - h. Flow paths;
 - i. Location of floodplain/floodway limits;
 - j. Location and dimensions of proposed channel modifications, including bridge or culvert crossings; and
 - k. Location, size, maintenance access and limits of disturbance of proposed structural stormwater management practices.
2. Narrative and supporting calculations describing:
- a. Site Impervious Area, if using effective disconnections;
 - b. Development phasing or implementation sequence;
 - c. Other supporting calculations for hydrologic and hydraulic design.

A copy of the Manual is available upon request.

D. SITE PLAN REVIEW

As discussed in MCM#4 Section F, Duquesne has implemented procedures in their design manual for site plan review, including the review of pre-construction plans, which will incorporate consideration of potential water quality impacts. Permanent structural and non-structural BMPs proposed in the submitted plans will be evaluated for suitability and effectiveness for the particular site, as well as compatibility with other existing and planned permanent BMPs.

E. SELECTED BMPS FOR CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

The goal of Duquesne's Construction Site Stormwater Runoff Control program is to accomplish the following:

Develop and implement strategies which include a combination of structural and/or non-structural BMPs appropriate for the permittee's community;

Address post-construction runoff from new development and redevelopment projects through use of an ordinance or other regulatory mechanism;

Ensure adequate long-term operation and maintenance of BMPs;

Adopt and/or maintain 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, provide buffers along sensitive water bodies, minimize impervious surfaces, and minimize disturbance of soils and vegetation;

Adopt and or maintain policies or ordinances that encourage infill development in higher density urban areas and areas with existing stormwater infrastructure;

Educate developers and the public about project designs that minimize water quality impact; and

Employment of other measures, such as minimization of the percentage of impervious area after development, use of measures to minimize directly connected impervious areas and source control measures often thought of as good housekeeping, preventative maintenance and spill prevention.

The strategy is to implement methods that were selected because they are existing effective methods used by Duquesne or because of EPA guidance documents that list these BMP's as effective CSSRC methods. The City plans to use the following Best Management Practices to accomplish these goals (see also Table MSM5):

- ❖ KEEP RECORDS OF EVERY CONSTRUCTION SITE STORMWATER RUNOFF CONTROL PROGRAM ACTIVITY;
- ❖ Enforce existing stormwater ordinance, recording all enforcement procedures;
- ❖ Evaluate legal impediments to green infrastructure using the "Code and Ordinance Worksheet" available for free from the Center for Watershed Protection;
- ❖ Use the above evaluation to create a prioritized list of recommended changes to policy, ordinances and building codes in order to implement green strategies in the community;
- ❖ Implement, at minimum, one of the recommended changes per year of this permit cycle;
- ❖ Create and maintain a map of all permanent BMPs, municipal and non-municipal, constructed under the Grading Permit system, listing entity responsible for operation and maintenance of said BMPs;
- ❖ Develop or adopt Inspection Checklists for each type of permanent BMP to be inspected;
- ❖ Inspect all constructed BMPs shown on BMP map, using Inspection Checklists, keeping records of each inspection;
- ❖ Mail BMP Inspection Checklists and associated maintenance information to owners/entities responsible for operation and maintenance of all non-municipal BMPs identified on the City's BMP map;
- ❖ Inform developers, contractors and design professionals of proper post-construction stormwater management measures using the BMPs listed under MCM #1 of this document (training may be provided in cooperation with City of Joplin or other entity, such as MDNR); and
- ❖ Provide training to City reviewers and inspectors involved in the PCSM program (training may be provided in cooperation with City of Joplin or other entity, such as MDNR).

F. MEASURABLE GOALS

The measurable goals for each BMP are shown in Table MCM5. The BMPs selected were chosen because of the evidence that they will have a positive impact on the target pollutants identified as a concern for Duquesne. Success of the Post-Construction Stormwater

Management program and its effect on water quality will be determined by the listed measurable goals.

G. RESPONSIBLE PARTIES

The person ultimately responsible for the overall management and implementation of the permittee's Post-Construction Stormwater Management program is the **Mayor**. The persons responsible for the individual PCSM program activities are listed in Table MCM5.

Table MCM5. Post-Construction Stormwater Management Program BMPs

Stormwater Goal (BMP)	Implementation Date	Update Frequency	Responsible Party	Measurable Goal	Target Number
KEEP RECORDS OF ALL BMPs	Ongoing	EVERY activity	City Clerk	% of activities recorded	100%
Enforce Existing Stormwater Management Ordinance	Ongoing	As needed	Public Works Director	Report # and type of enforcement actions	Annual Report
Evaluate Legal Impediments to Green Infrastructure using the "Code and Ordinance Worksheet" available for free from Center for Watershed Protection	2/1/2014	As needed	Public Works Director	# projects reviewed	All
Create Prioritized List of Recommended Changes to Ordinances and Building Codes, Determined During Evaluation above, to Implement Green Strategies	2/15/2014	As needed	Public Works Director	# Permits issued	n/a
Implement Yearly, a Minimum of 1 of the Recommended Changes listed above	4/1/2014	Yearly	Public Works Director	# Measures Implemented	1/year min.
Create and Maintain Map of All Constructed Permanent BMPs, Municipal and Non-Municipal	5/1/2014	As needed, when plans are approved	Public Works Director	% of plans available for viewing	100%
Develop or Adopt Inspection Checklists for Each Type of Structural BMP	5/1/2014	As needed	Public Works Director	Completion	Completion and updates as needed
Yearly Inspections All Constructed BMPs Shown on BMP Map. Keep Records of all Inspections.	5/15/2014	Yearly	Public Works Director	# Facilities Inspected/year	All
Mail BMP Inspection Checklists and Maintenance Information to All Non-Municipal Owners/ Responsible Entities Listed on BMP Map	10/1/2014	As needed	Public Works Director	Completion	Completion and updates as needed
Inform Developers, Contractors and Design Professionals of Proper PCSM BMPs	See MCM#1	See MCM#1	See MCM#1	See MCM#1	See MCM#1
PCSM Training for City Reviewers and Inspectors	Fall 2013	Yearly or as needed	Public Works Director	# Employees Trained	1/year

MCM#6: Pollution Prevention/Good Housekeeping (PPGH) Program for Municipal Operations

A. REGULATORY REQUIREMENT

40 CFR 122.34 (b)(6) – 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.

Section 4.2.6.1 of the general MS4 permit requires the program to specifically address the following areas:

Maintenance BMPs, maintenance schedules and long term inspection procedures for controls to reduce floatables and other pollutants to the permittee's MS4;

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;

Good housekeeping practices to keep solid waste from entry into waters of the state to the maximum extent practicable;

Adhere to all applicable federal and state regulations concerning underground storage, aboveground storage, and dispensers, including spill prevention, control, and countermeasures at all fueling facilities;

Manage RCRA and CERCLA regulated substances according to RCRA and CERCLA regulations when transported, stored, or used for maintenance, cleaning or repair;

Procedures for the proper storage of all paints, solvents, petroleum products and petroleum waste products (except fuels) so they are not exposed to stormwater;

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

Procedures to ensure that new flood management projects are assessed for incorporation of additional water quality protection devices or practices;

Training of employees in the prevention and reduction of stormwater pollution at municipal facilities and during municipal operations; and

Keep a list of all municipal operations which are impacted by the above listed requirements.

B. OPERATION AND MAINTENANCE MANUAL

The City of Duquesne has developed, and is in the process of adopting, a municipal Operation and Maintenance (O&M) manual, with the ultimate goal of preventing or reducing pollutant runoff from municipal operations. The manual contains lists of all municipal facilities, namely City Hall, as well as pollution prevention and good housekeeping BMPs for municipal operations. The following activities, among others, have been addressed in the manual:

1. All public parks, ball fields, other recreational facilities and other open spaces;
2. All municipal construction activities, including those disturbing less than 1 acre²;
3. All municipal turf grass/landscape management activities;
4. All municipal vehicle fueling, operation and maintenance activities;
5. All public works, parks and other municipal maintenance yards;
6. All municipal waste handling and disposal areas; and
7. Other municipal operations.

The manual also addresses the following items:

1. Municipal industrial facilities subject to other NPDES permits;
2. Maintenance BMPs, maintenance schedules and inspection procedures;
3. Controls for reducing or eliminating the discharge of pollutants from
 - a. Streets, roads, highways, municipal parking lots,
 - b. Maintenance and storage yards,
 - c. Fleet or maintenance shops with outdoor storage areas, and
 - d. Salt/sand storage locations and snow disposal areas;
4. Keeping solid waste from entry into waters of the state from municipal facilities;
5. Municipal fueling facilities;
6. Management of substances regulated under RCRA or CERCLA;
7. Proper storage of all paints, solvents, petroleum products and petroleum waste products (except fuels);
8. Proper disposal of waste removed from the permittee's MS4 and area of jurisdiction;
9. Assessing new flood management projects for incorporation of additional water quality protection devices or practices; and
10. Training of municipal employees.

A copy of the municipal Operation and Maintenance manual is available upon request.

C. PPGH INSPECTIONS

The City of Duquesne has implemented a PPGH inspection program in which the City's only facility, City Hall, is to be inspected quarterly for compliance with BMPs listed in the O&M manual. An inspection forms is to be completed for each inspection and a copy is to be kept for later reference. Progress is to be measured by improvement in results from inspections. Additional training needs are also to be determined from inspection results.

D. TRAINING

Duquesne has implemented a program that provides municipal employee training in the prevention and reduction of stormwater pollution from municipal activities. All municipal employees are to receive general PPGH training. The O&M manual specifies which employees are to receive more detailed training. Refresher training will be offered and additional training needs are also to be determined from inspection results. Training may be provided in cooperation with City of Joplin or other entity, such as MDNR.

E. CONTRACTOR ACCOUNTABILITY

The City of Duquesne contracts out maintenance and City services. The Illicit Discharge ordinance (see MCM#3) contains a provision, in section 501.210, requiring all contractors for City services to sign a statement saying they will follow all applicable BMPs included in a Stormwater Quality Plan (SWQP) document. This document contains a list of representative activities and associated good housekeeping BMPs. The SWQP is being revised to also require contractors to implement all applicable BMPs from the City's new Operation and Maintenance Manual.

F. SELECTED BMPS FOR CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

The goal of Duquesne's Pollution Prevention/Good Housekeeping program is to accomplish the following:

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.

The strategy is to implement methods that were selected because they are existing effective methods used by Duquesne or because of EPA guidance documents that list these BMP's as effective PPGH methods. The City plans to use the following Best Management Practices to accomplish these goals (see also Table MSM6):

- ❖ KEEP RECORDS OF EVERY PPGH PROGRAM ACTIVITY;
- ❖ Distribute copies of new O&M manual to municipal employees and contractors for City services;
- ❖ Develop or adopt PPGH inspection form/BMP checklist for City Hall;
- ❖ Complete initial inspection of City Hall;
- ❖ Use initial inspection to determine major deficiencies (e.g. additional specialized training needed, spill kit labels/accessibility, need for posted standard operating procedures for certain activities, need to disconnect storm drains in problem areas, etc.);
- ❖ Prioritize initial deficiencies and address them accordingly;
- ❖ Perform regular quarterly inspections of City Hall;
- ❖ Provide general good housekeeping training to all municipal employees, including police, so our employees can be our eyes and ears on the ground (training may be provided in cooperation with City of Joplin or other entity, such as MDNR).; and
- ❖ Provide additional, specialized training to municipal employees as specified in the O&M manual, (training may be provided in cooperation with City of Joplin or other entity, such as MDNR).

G. MEASURABLE GOALS

The measurable goals for each BMP are shown in Table MCM6. The BMPs selected were chosen because of the evidence that they will have a positive impact on the target pollutants identified as a concern for Duquesne. Success of the Pollution Prevention/Good Housekeeping program and its effect on water quality will be determined by the listed measurable goals.

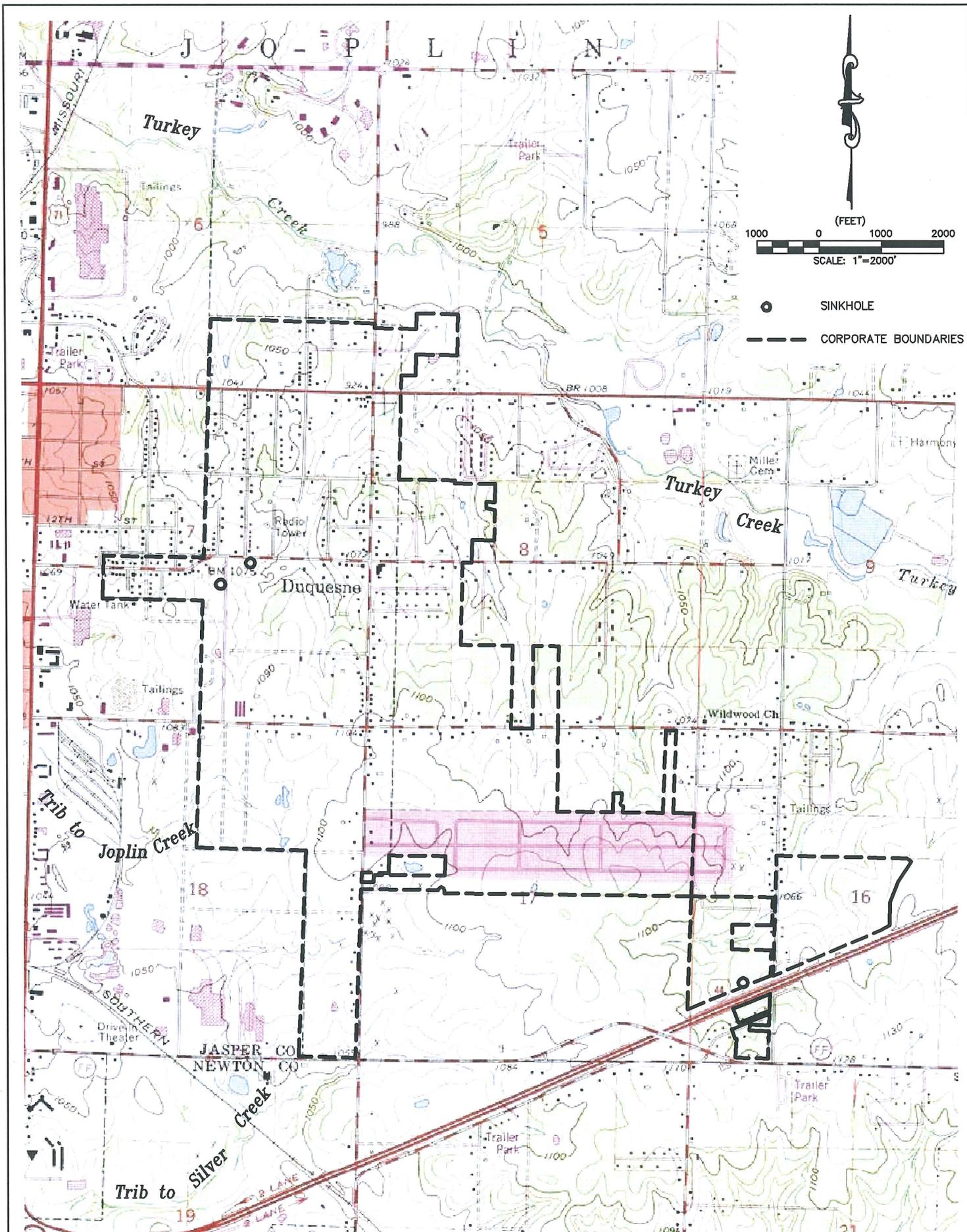
H. RESPONSIBLE PARTIES

The person ultimately responsible for the overall management and implementation of the permittee's Pollution Prevention/Good Housekeeping program is the **Mayor**. The persons responsible for the individual PCSM program activities are listed in Table MCM6.

Table MCM6. Pollution Prevention/Good Housekeeping Program BMPs

Stormwater Goal (BMP)	Implementation Date	Update Frequency	Responsible Party	Measurable Goal	Target Number
KEEP RECORDS OF ALL BMPs	Ongoing	EVERY activity	City Clerk	% of activities recorded	100%
Distribute Copies of O&M Manual to Municipal Employees and Contractors for City Services	8/1/2013	As needed	Public Works Director	Completion	1
Develop PPGH Inspection Form/BMP Checklist for City Hall	2/1/2014	As needed	Public Works Director	Complete	1
Complete Initial Inspection of City Hall	2/28/2014	n/a	Public Works Director	Completion	1
Use Initial Inspection to Determine Major PPGH Deficiencies	3/15/2014	As needed	Public Works Director	Completion	1
Prioritize Deficiencies and Begin to Address Them	3/15/2014	Ongoing	Public Works Director	# Items Addressed	All within 4 years
Regular Inspection of City Hall	2/28/2014	Quarterly	Public Works Director	# Inspections	4/year
General PPGH Training for All Municipal Employees (including Police)	Fall 2013	Yearly, or as needed	Public Works Director	# Employees Trained	2/year
Specialized PPGH Training for Municipal Employees, as specified in O&M manual	Fall 2013	Yearly or as needed	Public Works Director	# Employees Trained	1/year

APPENDICES



Township 27N, Range 32 W

Rev.	Description	Date

Designed: SMS
 Drawn: SMS
 Checked: SMS
 Duquesne City Limits.dwg

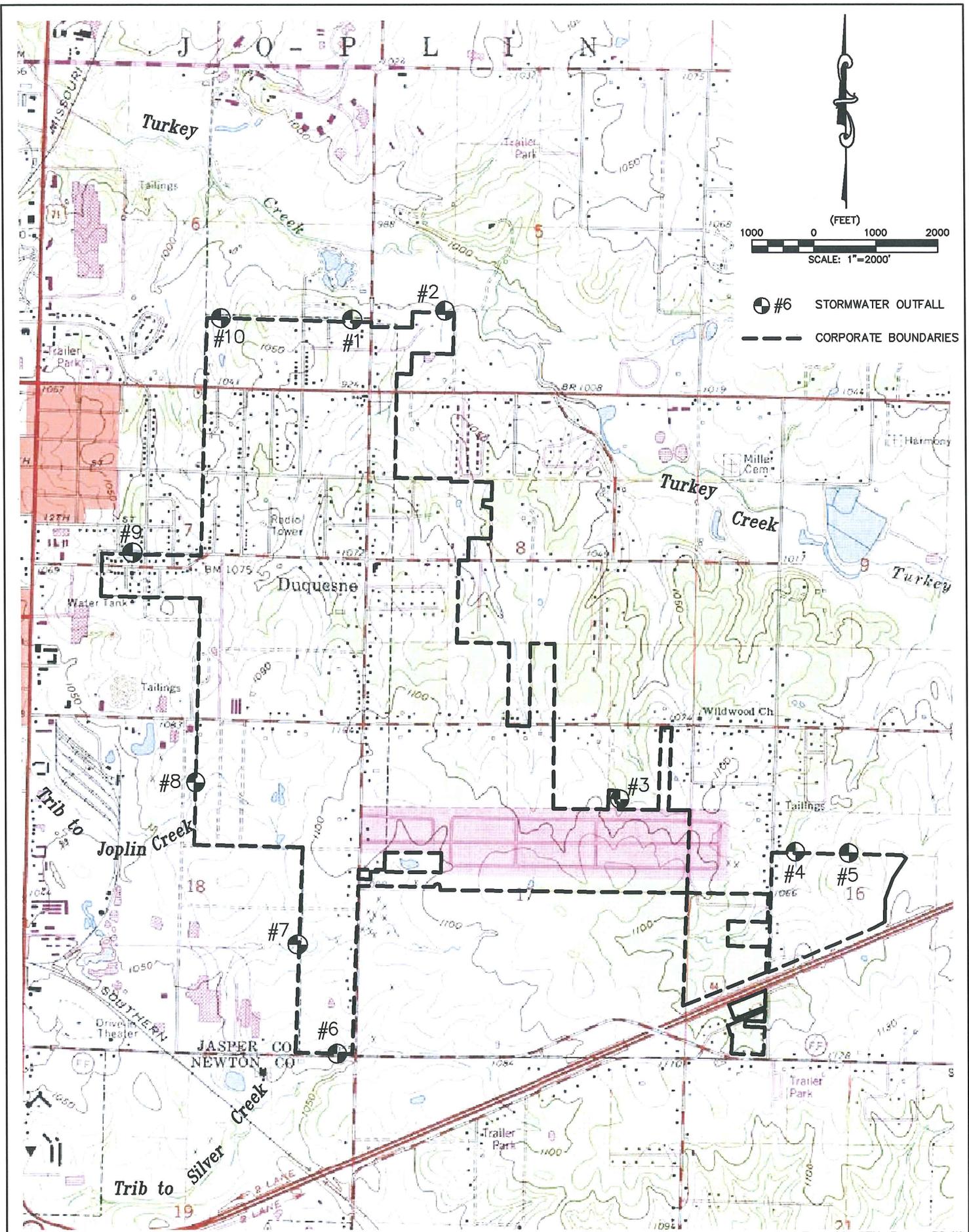
Date: 5-7-2013
 Scale: 1"=2000'
 Proj. No.: 7400213

ALLGEIER, MARTIN and ASSOCIATES, INC.
 Consulting Engineers - Hydrologists - Surveyors

HYDRO DIVISION

MS4 Permit Renewal Application
 City of Duquesne, MO
 SINKHOLE MAP

Sheet No.:
1



- #6 STORMWATER OUTFALL
- CORPORATE BOUNDARIES

Township 27N, Range 32 W

Rev.	Description	Date

Designed: SMS Date: 5-7-2013
 Drawn: SMS Scale: 1"=2000'
 Checked: JPW Proj. No.: 7400213
 Duquesne City Limits.dwg

ALLGEIER, MARTIN and ASSOCIATES, INC.
 Consulting Engineers • Hydrologists • Surveyors

 HYDRO DIVISION

MS4 Permit Renewal Application
 City of Duquesne, MO
 OUTFALL MAP

Sheet No.:
2

AN ORDINANCE AMENDING THE MUNICIPAL CODE OF THE CITY OF DUQUESNE, MISSOURI, PASSED BY THE BOARD OF ALDERMEN ON THE 23RD DAY OF JUNE, 2004, BY ADDING NEW CHAPTER 501. ILLICIT DISCHARGE TO TITLE V. BUILDING CODE, TO ESTABLISH PROCEDURES FOR MONITORING, REGULATING AND ENFORCING ILLICIT DISCHARGE WITHIN THE CITY OF DUQUESNE, AND TO ESTABLISH REQUIREMENTS AND REGULATIONS THERETO.

BE IT ORDAINED BY THE BOARD OF ALDERMEN OF THE CITY OF DUQUESNE, MISSOURI, AS FOLLOWS:

SECTION 1. That the Municipal Code of the City of Duquesne, Missouri, passed on the 23rd day of June, 2004, be, and the same hereby is, amended by adding new Chapter 501. Illicit Discharge to Title V. Building Code, to establish procedures for monitoring, regulating and enforcing illicit discharge within the City of Duquesne and to establish requirements and regulations shall read as follows:

"CHAPTER 501: ILLICIT DISCHARGE

ARTICLE I. TITLE, PURPOSE AND GENERAL PROVISIONS

SECTION 501.010. TITLE.

This Article shall be known as the Duquesne, Missouri illicit discharge control regulations and may be cited as "illicit stormwater discharge control regulations" or "regulations."

SECTION 501.020. PURPOSE AND INTENT

The purpose and intent of this Article is to ensure the health, safety and general welfare of citizens, and protect and enhance the water quality of watercourses and water bodies in a manner pursuant to and consistent with the Federal Clean Water Act (33 U.S.C. §1251 et seq.) by reducing pollutants in storm water discharges to the maximum extent practicable and by prohibiting non-storm water discharges to the storm drain system.

SECTION 501.030. DEFINITIONS.

The terms used in this Article shall have the following meanings:

(a) Best Management Practices. Activities, practices, and procedures to prevent or reduce the discharge of pollutants directly or indirectly to the municipal storm drain

system and waters of the United States. Best Management Practices include but are not limited to: treatment facilities to remove pollutants from storm water; operating and maintenance procedures; facility management practices to control runoff, spillage or leaks of non-storm water, waste disposal, and drainage from materials storage; erosion and sediment control practices; and the prohibition of specific activities, practices, and procedures and such other provisions as the City determines appropriate for the control of pollutants.

(b) City. The City of Duquesne.

(c) Clean Water Act. The federal Water Pollution Control Act (33 U.S.C. § 1251 et seq.), and any subsequent amendments thereto.

(d) Construction Activity. Activities subject to NPDES Construction Permits. These include construction projects resulting in land disturbance of 1 acre or more. Such activities include but are not limited to clearing and grubbing, grading, excavating, and demolition.

(e) Hazardous Materials. Any material, including any substance, waste, or combination thereof, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may cause, or significantly contribute to, a substantial present or potential hazard to human health, safety, property, or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

(f) Illegal Discharge. Any direct or indirect non-storm water discharge to the storm drain system, except as exempted in ARTICLE II, Section 9 of this chapter.

(g) Illicit Connections. An illicit connection is defined as either of the following:

1. Any drain or conveyance, whether on the surface or subsurface, which allows an illegal discharge to enter the storm drain system including but not limited to any conveyances which allow any non-storm water discharge including sewage, process wastewater, and wash water to enter the storm drain system and any connections to the storm drain system from indoor drains and sinks, regardless of whether said drain or connection had been previously allowed, permitted, or approved by a government agency; or

2. Any drain or conveyance connected from a commercial or industrial land use to the storm drain system which has not been documented in plans, maps, or equivalent records and approved by the City.

(h) Industrial Activity. Activities subject to NPDES Industrial Permits as defined in 40 CFR, Section 122.26 (b)(14).

(i) Missouri Clean Water Law. RSMO Chapter 644 and any subsequent amendments thereto.

(j) National Pollutant Discharge Elimination System (NPDES) Storm Water Discharge Permit. A general, group, or individual permit issued by the U.S. Environmental Protection Agency (EPA) (or by a State under authority delegated pursuant to 33 USC § 1342(b)) that authorizes the discharge of pollutants to waters of the United States.

(k) Non-Storm Water Discharge. Any discharge to the storm drain system that is not composed entirely of storm water.

(l) Pollutant. Anything which causes or contributes to pollution. Pollutants may include, but are not limited to: paints, varnishes, and solvents; oil and other automotive fluids; non-hazardous liquid and solid wastes and yard wastes; refuse, rubbish, garbage, litter, or other discarded or abandoned objects, articles, and accumulations, so that same may cause or contribute to pollution; floatables; pesticides, herbicides, and fertilizers; hazardous substances and wastes; sewage, fecal coliform and pathogens; dissolved and particulate metals; animal wastes; wastes and residues that result from constructing a building or structure (including but not limited to sediments, slurries, and concrete rinsates); and noxious or offensive matter of any kind.

(m) Pollution. The human-made or human-induced alteration of the quality of waters by waste to a degree which unreasonably affects, or has the potential to unreasonably affect, either the waters for beneficial uses or the facilities which serve these beneficial uses.

(n) Premises. Any building, lot, parcel of land, or portion of land whether improved or unimproved including adjacent sidewalks and parking strips.

(o) Storm Drainage System. Publicly-owned facilities operated by the City by which storm water is collected and/or conveyed, including but not limited to any roads with drainage systems, municipal streets, gutters, curbs, inlets, piped storm drains, pumping facilities, retention and detention basins, natural and human-made or altered drainage channels, reservoirs, and other drainage structures which are within the City and are a part of a publicly owned treatment works as defined at 40 CFR Section 122.2.

(p) Storm Water. Any surface flow, runoff, and drainage consisting entirely of water from rain storm events.

(q) Waters of the United States. Surface watercourses and water bodies as defined at 40 CFR § 122.2. including all natural waterways and definite channels and depressions in the earth that may carry water, even though such waterways may only carry water during rains and storms and may not carry storm water at and during all times and seasons.

SECTION 501.040. APPLICABILITY.

This Article shall apply to all water entering the storm drainage system generated on any developed and undeveloped lands lying within the City of Duquesne including any amendments or revisions thereto.

SECTION 501.050. RESPONSIBILITY FOR ADMINISTRATION.

The City shall administer, implement, and enforce the provisions of this Article. Any powers granted or duties imposed upon the City may be delegated in writing by the City Council to persons or entities acting in the beneficial interest of or in the employ of the City.

SECTION 501.060. SEVERABILITY.

The provisions of this Article are hereby declared to be severable. If any provision, clause, sentence, or paragraph of this Article or the application thereof to any person,

establishment, or circumstances shall be held invalid, such invalidity shall not affect the other provisions or application of this Article.

SECTION 501.070. REGULATORY CONSISTENCY.

This Article shall be construed to assure consistency with the requirements of the Clean Water Act and the Missouri Clean Water Act and acts amendatory thereof or supplementary thereto, or any applicable implementing regulations.

SECTION 501.080. ULTIMATE RESPONSIBILITY OF DISCHARGER.

The standards set forth herein and promulgated pursuant to this Article are minimum standards; therefore this Article does not intend nor imply that compliance by any person will ensure that there will be no contamination, pollution, nor unauthorized discharge of pollutants into waters of the U.S. caused by said person. This Article shall not create liability on the part of the City of Duquesne, or any agent or employee thereof for any damages that result from any discharger's reliance on this Article or any administrative decision lawfully made thereunder.

ARTICLE II. DISCHARGE PROHIBITIONS

SECTION 501.110. PROHIBITION OF ILLEGAL DISCHARGES.

No person shall discharge or cause to be discharged into the municipal storm drainage system or watercourses any materials, including but not limited to pollutants or waters containing any pollutants that cause or contribute to a violation of applicable water quality standards, other than storm water.

The commencement, conduct or continuance of any illegal discharge to the storm drainage system is prohibited except as described as follows:

(a) Discharges from the following activities will not be considered a source of pollutants to the storm drainage system and to waters of the U.S. when properly managed to ensure that no potential pollutants are present, and therefore they shall not be considered illegal discharges unless determined to cause a violation of the provisions Clean Water Act, or this ordinance: potable water line flushing; uncontaminated pumped groundwater and other discharges from potable water sources; landscape irrigation and lawn watering; diverted stream flows; rising groundwater; groundwater infiltration to the storm drainage system; uncontaminated foundation and footing drains; uncontaminated water from crawl space pumps; air conditioning condensation; uncontaminated roof drains; springs; individual residential and mobile car washing; flows from riparian habitats and wetlands; dechlorinated swimming pool discharges; street wash waters; and flows from fire fighting.

(b) The prohibition shall not apply to any non-storm water discharge permitted under an NPDES permit, waiver, or waste discharge order issued to the discharger and administered by the State of Missouri under the authority of the Federal Environmental Protection Agency, provided that the discharger is in full compliance with all

requirements of the permit, waiver, or order and other applicable laws and regulations, and provided that written approval has been granted by the City of Duquesne for any discharge to the storm drainage system.

(c) The City of Duquesne may exempt in writing other non-storm water discharges which are not a source of pollutants to the storm drainage system or waters of the U.S.

SECTION 501.120. PROHIBITION OF ILLICIT CONNECTIONS.

(a) The construction, use, maintenance or continued existence of illicit connections to the storm drainage system is prohibited.

(b) This prohibition expressly includes, without limitation, illicit connections made in the past, regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection.

SECTION 501.130. WASTE DISPOSAL PROHIBITIONS.

No person shall throw, deposit, leave, maintain, keep, or permit to be thrown, deposited, left, or maintained, in or upon any public or private property, driveway, parking area, street, alley, sidewalk, component of the storm drainage system, or water of the U.S., any refuse, rubbish, garbage, litter, or other discarded or abandoned objects, articles, and accumulations, so that the same may cause or contribute to pollution. Wastes deposited in streets in proper waste receptacles for the purposes of collection are exempted from this prohibition.

SECTION 501.140. DISCHARGES IN VIOLATION OF INDUSTRIAL OR CONSTRUCTION ACTIVITY NPDES STORM WATER DISCHARGE PERMIT.

Any person subject to an industrial or construction activity NPDES storm water discharge permit shall comply with all provisions of such permit. Proof of compliance with said permit may be required in a form acceptable to the City prior to or as a condition of a subarticle map, site plan, building permit, or development or improvement plan; upon inspection of the facility; during any enforcement proceeding or action; or for any other reasonable cause.

ARTICLE III. REGULATIONS AND REQUIREMENTS

SECTION 501.210. REQUIREMENT TO PREVENT, CONTROL, AND REDUCE STORMWATER POLLUTANTS.

(a) General Discharge. Dischargers shall provide, at their own expense, reasonable protection from accidental discharge of prohibited materials or other wastes into the storm drainage system. Further, any person responsible for a property or premises, which is, or may be, the source of an illicit or high-risk discharge or has an illicit connection, may be required to implement, at said person's expense, Best Management Practices to prevent the further discharge of pollutants to the storm drainage system. For those facilities covered by an NPDES permit, compliance with all terms and

conditions of a valid NPDES permit authorizing the discharge of stormwater associated with industrial activity, to the extent practicable, shall be deemed compliance with the provisions of this section.

(b) Contractors for City Services. The City will develop a *Stormwater Quality Plan* listing minimum Best Management Practices for all contractors for City services. With each contract for City services, the contractor will sign a statement of compliance saying they will implement all applicable BMPs in the *Stormwater Quality Plan* for any of the contractor's operations, premises, or facilities within the City Limits. Contractors for City services are also subject to Section 13(a).

SECTION 501.220. REQUIREMENT TO ELIMINATE ILLEGAL DISCHARGES.

Notwithstanding the requirements of ARTICLE IV, Section 20 herein, the City may require by written notice that a person responsible for an illegal discharge immediately, or by a specified date, discontinue the discharge and, if necessary, take measures to eliminate the source of the discharge to prevent the occurrence of future illegal discharges.

SECTION 501.230. REQUIREMENT TO ELIMINATE OR SECURE APPROVAL FOR ILLICIT CONNECTIONS.

(a) The City may require by written notice that a person responsible for an illicit connection to the storm drainage system comply with the requirements of this Article to eliminate or secure approval for the connection by a specified date, regardless of whether or not the connection or discharges to it had been established or approved prior to the effective date of this Article.

(b) If, subsequent to eliminating a connection found to be in violation of this Article, the responsible person can demonstrate that an illegal discharge will no longer occur said person may request City approval to reconnect. The reconnection or reinstallation of the connection shall be at the responsible person's expense.

SECTION 501.240. WATERCOURSE PROTECTION.

Every person owning property through which a watercourse passes, or such person's lessee, shall keep and maintain that part of the watercourse within the property reasonably free of trash, debris, excessive vegetation, and other obstacles originating from said property that would pollute, contaminate, or significantly retard the flow of water through the watercourse. If the City determines the trash, debris, excessive vegetation, and other obstacles are not being effectively removed, the City can take action to remediate. In addition, the owner or lessee shall maintain existing privately owned structures within or adjacent to a watercourse, so that such structures will not become a hazard to the use, function, or physical integrity of the watercourse. The owner or lessee shall not remove healthy bank vegetation beyond that actually necessary for maintenance, nor remove said vegetation in such a manner as to increase the vulnerability of the watercourse to erosion. The property owner shall be responsible for maintaining and stabilizing that portion of the watercourse that is within their property lines in order to protect against erosion and degradation of the watercourse originating

or contributed from their property.

SECTION 501.250. REQUIREMENT TO REMEDIATE.

Whenever the City finds that a discharge of pollutants is taking place or has occurred which will result in or has resulted in pollution of storm water, the storm drainage system, or water of the U.S., the City may require by written notice to the owner of the property and/or the responsible person that the pollution be remediated and the affected property restored within a specified time pursuant to the provisions of Sections 22 through 25 below.

SECTION 501.260. REQUIREMENT TO MONITOR AND ANALYZE.

The City may require by written notice of requirement that any person engaged in any activity and/or owning or operating any facility which may cause or contribute to storm water pollution, illegal discharges, and/or non-storm water discharges to the storm drainage system or waters of the U.S., to undertake at said person's expense such monitoring and analyses and furnish such reports to the City of Duquesne as deemed necessary to determine compliance with this Article.

SECTION 501.270. NOTIFICATION OF SPILLS.

Notwithstanding other requirements of law, as soon as any person responsible for a facility or operation, or responsible for emergency response for a facility or operation has information of any known or suspected release of materials which are resulting or may result in illegal discharges or pollutants discharging into storm water, the storm drainage system, or water of the U.S. from said facility, said person shall take all necessary steps to ensure the discovery, containment, and cleanup of such release. In the event of such a release of a hazardous material said person shall immediately notify emergency response officials of the occurrence via emergency dispatch services (911). In the event of a release of non-hazardous materials, said person shall notify the City in person or by phone or facsimile no later than 5:00 p.m. of the next business day. Notifications in person or by phone shall be confirmed by written notice addressed and mailed to the City within three business days of the phone notice. If the discharge of prohibited materials emanates from a commercial or industrial establishment, the owner or operator of such establishment shall also retain an on-site written record of the discharge and the actions taken to prevent its recurrence. Such records shall be retained for at least three (3) years.

ARTICLE IV. INSPECTION AND MONITORING

SECTION 501.310. AUTHORITY TO INSPECT.

Whenever necessary to make an inspection to enforce any provision of this Article, or whenever the City has cause to believe that there exists, or potentially exists, in or upon any premises any condition which constitutes a violation of this Article, the City's representative may enter such premises at all reasonable times to inspect the same and to inspect and copy records related to stormwater compliance. In the event the owner or occupant refuses entry after a request to enter and inspect has been made, the City

is hereby empowered to seek assistance from any court of competent jurisdiction in obtaining such entry.

SECTION 501.320. AUTHORITY TO SAMPLE, ESTABLISH SAMPLING DEVICES, AND TEST.

During any inspection as provided herein, the City's representative may take any samples and perform any testing deemed necessary to aid in the pursuit of the inquiry or to record site activities.

ARTICLE V. ENFORCEMENT

SECTION 501.410. NOTICE OF VIOLATION.

Whenever the City finds that a person has violated a prohibition or failed to meet a requirement of this Article, the Director may order compliance by written notice of violation to the responsible person. Such notice may require without limitation:

- (a) The performance of monitoring, analyses, and reporting;
- (b) The elimination of illicit connections or discharges;
- (c) That violating discharges, practices, or operations shall cease and desist;
- (d) The abatement or remediation of stormwater pollution or contamination hazards and the restoration of any affected property; and
- (e) Payment of a fine to cover administrative and remediation costs; and
- (f) The implementation of source control or treatment BMPs.

If abatement of a violation and/or restoration of affected property is required, the notice shall set forth a deadline within which such remediation or restoration must be completed. Said notice shall further advise that, should the violator fail to remediate or restore within the established deadline, the work will be done by the City or a contractor designated by the City and the expense thereof shall be charged to the violator pursuant to Section 24 below.

SECTION 501.420. APPEAL.

Notwithstanding the provisions of Section 26 below, any person receiving a Notice of Violation under Section 22 above may appeal the determination of the City. The notice of appeal must be received by the City Council within 10 days from the date of the Notice of Violation. Hearing on the appeal before the City Council or their designee shall take place within 30 days from the date of City's receipt of the notice of appeal. The decision of the City Council or designee shall be final.

SECTION 501.430. ABATEMENT BY CITY.

If the violation has not been corrected pursuant to the requirements set forth in the Notice of Violation, or, in the event of an appeal under Section 23, within 30 days of the decision of the City Council upholding the decision of the City, then the City or a contractor designated by the City shall enter upon the subject private property and is

authorized to take any and all measures necessary to abate the violation and/or restore the property. It shall be unlawful for any person, owner, agent or person in possession of any premises to refuse to allow the City or designated contractor to enter upon the premises for the purposes set forth above.

SECTION 501.440. CHARGING COST OF ABATEMENT/LIENS.

Within 30 days after abatement of the nuisance by City, the City shall notify the owner of the property of the cost of abatement, including administrative costs. The property owner may file a written protest objecting to the amount of the assessment with the City Clerk within 15 days. The City Clerk shall set the matter for public hearing by the City Council. The decision of the City Council shall be set forth by resolution and shall be final.

If the amount due is not paid within 10 days of the decision of the City Council or the expiration of the time in which to file an appeal under this Section, the charges shall become a special assessment against the property and shall constitute a lien on the property for the amount of the assessment. A copy of the resolution shall be turned over to the County Auditor so that the auditor may enter the amounts of the assessment against the parcel as it appears on the current assessment roll, and the tax collector shall include the amount of the assessment on the bill for taxes levied against the parcel of land.

SECTION 501.450. URGENCY ABATEMENT.

The City is authorized to require immediate abatement of any violation of this Article that constitutes an immediate threat to the health, safety or well-being of the public. If any such violation is not abated immediately as directed by the City, the City of Duquesne is authorized to enter onto private property and to take any and all measures required to remediate the violation. Any expense related to such remediation undertaken by the City of Duquesne shall be fully reimbursed by the property owner and/or responsible party. Any relief obtained under this section shall not prevent City from seeking other and further relief authorized under this Article.

SECTION 501.460. VIOLATIONS.

It shall be unlawful for any person to violate any provision or fail to comply with any of the requirements of this Article. A violation of or failure to comply with any of the requirements of this Article shall constitute a misdemeanor and shall be punished as set forth in Section 100.200 of the City Code.

SECTION 510.470 COMPENSATORY ACTION.

In lieu of enforcement proceedings, penalties, and remedies authorized by this Article, the City may impose upon a violator alternative compensatory actions, such as storm drain stenciling, attendance at compliance workshops, creek cleanup, etc.

SECTION 510.480. VIOLATIONS DEEMED A PUBLIC NUISANCE.

In addition to the enforcement processes and penalties herein before provided, any condition caused or permitted to exist in violation of any of the provisions of this Article is a threat to public health, safety, and welfare, and is declared and deemed a nuisance, and may be summarily abated or restored by the City at the violator's expense, and/or a civil action to abate, enjoin, or otherwise compel the cessation of such nuisance may be taken by the City.

**SECTION 510.490. ACTS POTENTIALLY RESULTING IN A VIOLATION OF THE FEDERAL
CLEAN WATER ACT AND/OR MISSOURI CLEAN WATER LAW.**

Any person who violates any provision of this Article or any provision of any requirement issued pursuant to this chapter, may also be in violation of the Clean Water Act and/or

the Missouri Clean Water Law and may be subject to the sanctions of those acts including civil and criminal penalties. Any enforcement action authorized under this Article shall also include written notice to the violator of such potential liability.

SECTION 510.500. REPEAL OF CONFLICTING ORDINANCES.

All ordinances and parts of ordinances in conflict herewith are hereby repealed.

SECTION 510.510. ADOPTION OF ORDINANCE.

This ordinance shall be in full force and effect 30 days after its final passage and adoption."

SECTION 2. This Ordinance having been available for public inspection prior to its consideration by the Board of Aldermen, and having been read by title twice prior to passage, shall become effective pursuant to Section 510.510 upon its passage by the Board of Aldermen.

APPROVED after final passage, this 22nd day of July 2010.



Dennis A. White
MAYOR

ATTEST:

Mary Ingram
CITY CLERK

AN ORDINANCE TO AMEND TITLE V. BUILDING CODE: CHAPTER 500 BY REVISING ARTICLE III. MISCELLANEOUS PROVISIONS SECTION 500.130: STORMWATER MANAGEMENT DESIGN MANUAL TO ADOPT THE UPDATED STORMWATER MANAGEMENT DESIGN MANUAL FOR THE CITY OF DUQUESNE.

BE IT ORDAINED BY THE BOARD OF ALDERMEN OF THE CITY OF DUQUESNE, MISSOURI, AS FOLLOWS:

SECTION 1. That Title V. Building Code, Chapter 500 be, and the same hereby is amended, by revising Article III. Miscellaneous Provisions, Section 500.130: Stormwater Management Design Manual to adopt the updated Stormwater Management Design Manual, so that revised Article III, Section 500.130 shall read as follows:

“ARTICLE III. MISCELLANEOUS PROVISIONS

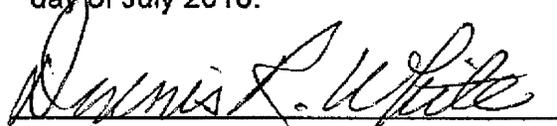
SECTION 500.130: STORMWATER MANAGEMENT DESIGN MANUAL

The City of Duquesne does hereby adopt as its stormwater management design manual, the stormwater management design manual set forth in the City of Duquesne, Missouri, Stormwater Management Design Manual, dated March 2010, a copy of which is on file in the office of the City Clerk.”

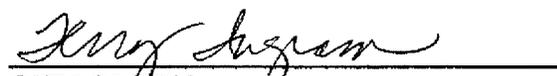
SECTION 2. This Ordinance having been available for public inspection prior to its consideration by the Board of Aldermen, and having been read by title twice prior to passage, shall become effective immediately upon its passage by the Board of Aldermen.

APPROVED after final passage, this 22nd day of July 2010.




MAYOR

ATTEST:


CITY CLERK

BILL NO. _____ - _____

ORDINANCE NO. _____

AN ORDINANCE TO AMEND TITLE V. BUILDING CODE: CHAPTER 500 BY ADDING ARTICLE IV. MAINTENANCE OF PERMANENT STORMWATER CONTROLS TO ESTABLISH LEGAL AUTHORITY FOR INSPECTION, PERFORMANCE OF NECESSARY WORK, AND ENFORCEMENT OF MAINTENANCE OF PERMANENT STORMWATER CONTROLS WITHIN THE CITY OF DUQUESNE, AND TO ESTABLISH REQUIREMENTS AND REGULATIONS THERETO.

BE IT ORDAINED BY THE BOARD OF ALDERMEN OF THE CITY OF DUQUESNE, MISSOURI, AS FOLLOWS:

SECTION 1. That Title V. Building Code, Chapter 500, be, and the same hereby is amended by adding ARTICLE IV. MAINTENANCE OF PERMANENT STORMWATER CONTROLS to establish legal authority for inspection, performance of necessary work, and enforcement of maintenance of permanent stormwater controls within the City of Duquesne, so that new ARTICLE IV, Sections 500.140 through 500.300 shall read as follows:

“ARTICLE IV. MAINTENANCE OF PERMANENT STORMWATER CONTROLS

SECTION 500.145: INTRODUCTION AND PURPOSE

Increased impervious area and compacted soils due to development can endanger water resources by increasing flow volumes in streams, causing stream degradation and downstream flooding, and by reducing water quality. The function of permanent stormwater controls is to reduce the negative effects of development. Permanent stormwater controls must be maintained to remain effective. The purpose of this ordinance is to safeguard persons, protect property, and prevent damage to the environment in Duquesne by establishing legal authority to carry out all inspection and work necessary to ensure compliance with this Article.

SECTION 500.150: DEFINITIONS

For the purposes of this Chapter, the following shall mean:

Best Management Practice (BMP): Structural device, measure, facility or activity that helps to achieve stormwater management control objectives at a designated site.

Erosion and Sediment Control Plan: A set of plans prepared by or under the direction of a licensed professional engineer indicating the specific measures and sequencing to be used to control sediment and erosion on a development site during and after construction.

Site: A parcel of land or a contiguous combination thereof, where grading work is performed as a single unified operation.

Grading Permit: A permit issued by the City of Duquesne for the construction or alteration of ground, improvements and structures for the control of erosion, runoff, and grading.

SECTION 500.160: APPLICABILITY

This Article shall apply to all entities requiring a Grading Permit from the City of Duquesne whose approved plans contain permanent stormwater BMPs, unless explicitly exempted by the City of Duquesne.

SECTION 500.170: RESPONSIBILITY OF ADMINISTRATION.

The City of Duquesne shall administer, implement, and enforce the provisions of this Article. Any powers granted or duties imposed upon the authorized enforcement agency may be delegated in writing by the administrator of the authorized enforcement agency to persons or entities acting in the beneficial interest of or in the employ of the agency.

SECTION 500.180: SEVERABILITY

The provisions of this Article are hereby declared to be severable. If any provisions, clause, sentence, or paragraph of this Article or the application thereof to any person, establishment, or circumstances shall be held invalid, such invalidity shall not affect the other provisions or application of this Article.

SECTION 500.190: ULTIMATE RESPONSIBILITY

The standards set forth herein and promulgated pursuant to this Article are minimum standards; therefore this Article does not intend nor imply that compliance by any person will ensure that there will be no increase in flow volumes in streams, stream degradation, downstream flooding, or reduction in water quality.

SECTION 500.200: MAINTENANCE OF BMPS

A. For any site requiring a Grading Permit, all stormwater BMPs shall be maintained according to the measures outlined in the most recent version of the City of Duquesne Stormwater Management Design Manual, and as per approved plans and any maintenance agreements.

B. The person(s) or organization(s) responsible for maintenance shall be designated in the plans. Options include:

1. Property owner.
2. Homeowner's association, provided that provisions for financing necessary maintenance are included in deed restrictions or other contractual agreements.
3. Other, as approved by City.

C. Any maintenance agreement shall specify responsibilities for financing maintenance.

D. If maintenance activities are not completed in a timely manner, or as specified in the plans, the City of Duquesne may complete the necessary maintenance at the owner's/operator's expense. The

SECTION 500.210: INSPECTION.

A. Applicability. This section applies to all entities requiring a Grading Permit from the City of Duquesne whose approved plans contain permanent stormwater BMPs, unless explicitly exempted by the City of Duquesne.

B. Access to Facilities.

1. The City of Duquesne shall be permitted to enter and inspect facilities subject to regulation under this Article as often as may be necessary to determine compliance with this Article. If a site has security measures in force which require proper identification and clearance before entry into its premises, the site owner shall make the necessary arrangements to allow access to representatives of the City of Duquesne.

2. Facility operators shall allow the City of Duquesne ready access to all parts of the premises for the purposes of inspection, examination and copying of records, performance of maintenance work, and the performance of any additional duties as defined by state and federal law.

3. Any temporary or permanent obstruction to safe and easy access to the facility for purposes of inspection or performing maintenance work shall be promptly removed by the operator at the written or oral request of the City of

Duquesne and shall not be replaced. The costs of clearing such access shall be borne by the operator.

4. Unreasonable delays in allowing the City of Duquesne access to facility are a violation of this Article.

5. If the City of Duquesne has been refused access to any part of the premises containing permanent stormwater BMPs, and he/she is able to demonstrate probable cause to believe that there may be a violation of this Article, or that there is a need to inspect and/or perform maintenance work as part of a routine inspection program designed to verify compliance with this Article or any order issued hereunder, or to protect the overall public health, safety, and welfare of the community, then the City of Duquesne may seek issuance of a search warrant from any court of competent jurisdiction.

SECTION 500.220: NOTIFICATION OF VIOLATION.

Whenever the City of Duquesne finds that a person has violated a prohibition or failed to meet a requirement of this Article, the City of Duquesne may order compliance by written notice of violation to the responsible person. Such notice may require without limitation:

1. The performance maintenance work;
2. The violating practices, or operations shall cease and desist;
3. Payment of a fine to cover administrative; and

If maintenance work is required, the notice shall set forth a deadline within which such work must be completed. Said notice shall further advise that, should the violator fail to perform the work with the established deadline, the work will be done by the City, a designated agency or a contractor and the expense thereof shall be charged to the violator.

SECTION 500.230: APPEAL OF NOTICE OF VIOLATION.

Any person receiving a Notice of Violation may appeal the determination of the City of Duquesne. The notice of appeal must be received within ten (10) days from the date of the Notice of Violation. Hearing on the appeal before the appropriate authority or his/her designee shall take place within fifteen (15) days from the date of receipt of the notice of appeal. The decision of the municipal authority or their designee shall be final.

SECTION 500.240: ENFORCEMENT MEASURES AFTER APPEAL.

If the violation has not been corrected pursuant to the requirements set forth in the Notice of Violation, or, in the event of an appeal, within fifteen (15) days of the decision of the municipal authority upholding the decision of the authorized enforcement agency, then representatives of the authorized enforcement agency shall enter upon the subject private property and are authorized to take any and all measures necessary to abate the violation and/or restore the property. It shall be unlawful for any person, owner, agent of person in possession of any premises to refuse to allow the City of Duquesne or designated agent or contractor to enter upon the premises for the purposes set forth above.

SECTION 500.250: COST OF ABATEMENT OF THE VIOLATION.

Within 30 days after abatement of the violation, the owner of the property will be notified of the cost of abatement, including administrative costs. The property owner may file a written protest objecting to the amount of assessment within 10 days. If the amount due is not paid within a timely manner, determined by the decision of the municipal authority or by the expiration of the time in which to file an appeal, the charges shall become a special assessment against the property and shall constitute a lien on the property for the amount of the assessment. Any person violating any of the provisions of this article shall become liable to the city by reason of such violation. The liability shall be paid in not more than 12 equal payments. Interest at the rate of percent per annum shall be assessed on the balance beginning on the 1st day following the discovery of the violation.

SECTION 500.260: INJUNCTIVE RELIEF.

It shall be unlawful for any person to violate any provision or fail to comply with any of the requirements of this Article. If a person has violated or continues to violate the provisions of this Article, the City of Duquesne may petition for a preliminary or permanent injunction restraining the person from activities which would create further violations or compelling the person to perform abatement or remediation of the violation.

SECTION 500.270: VIOLATIONS DEEMED A PUBLIC NUISANCE.

In addition to the enforcement processes and penalties provided, any condition caused or permitted to exist in violation of any of the provisions of this Article is a threat to public health, safety, and welfare, and is declared and deemed a nuisance, and may be summarily abated, or restored at the violator's expense, and/or a civil action to abate, enjoin, or otherwise compel the cessation of such nuisance may be taken.

SECTION 500.280: CRIMINAL PROSECUTION.

Any person that has violated or continues to violate this Article shall be liable to criminal prosecution to the fullest extent of the law, and shall be subject to

criminal penalty of \$500.00 dollars per violation per day and/or imprisonment for a period of time not to exceed 30 days.

The City of Duquesne may recover all attorneys' fees court costs and other expenses associated with enforcement of this Article, including sampling and monitoring expenses.

SECTION 500.290: REMEDIES NOT EXCLUSIVE.

The remedies listed in this Article are not exclusive of any other remedies available under any applicable federal, state, or local law and it is within the discretion of the City of Duquesne to seek cumulative remedies.

SECTION 500.300: ADOPTION OF ARTICLE.

This Article shall be in full force and effect immediately after its final passage and adoption. All prior ordinances and parts of ordinances in conflict with this Article are hereby repealed.

SECTION 2. This Ordinance having been available for public inspection prior to its consideration by the Board of Aldermen, and having been read by title twice prior to passage, shall become effective immediately upon its passage by the Board of Aldermen.

APPROVED after final passage, this ___ day of _____, 20__.

MAYOR

(City Seal)

ATTEST:

CITY CLERK

City of Duquesne

1501 S Duquesne Road • Joplin, MO 64801
(417) 781-5085 • Fax: (417) 781-4652

INSPECTION – PAGE 1

DATE: _____

PERMIT # _____

APPLICANT: _____ ADDRESS: _____

CONTRACTOR: _____ PHONE #'s: _____

BUILDING:	PASS:	FAIL:	DATE AND NOTES:
FOOTING	_____	_____	_____
FOUNDATION	_____	_____	_____
FLOOR FRAMING	_____	_____	_____
FRAMING	_____	_____	_____
STEM WALL	_____	_____	_____
FINAL	_____	_____	_____

ELECTRICAL:	PASS:	FAIL:	DATE AND NOTES:
TEMPORARY	_____	_____	_____
PERM INTERIOR	_____	_____	_____
UNDER SLAB	_____	_____	_____
ROUGH IN	_____	_____	_____
SERVICE	_____	_____	_____
METER BACK	_____	_____	_____
FINAL	_____	_____	_____

PLUMBING:	PASS:	FAIL:	DATE AND NOTES:
UG ROUGH	_____	_____	_____
ROUGH IN	_____	_____	_____
SEWER	_____	_____	_____
WATER	_____	_____	_____
GAS	_____	_____	_____
FINAL	_____	_____	_____

HVAC:	PASS:	FAIL:	DATE AND NOTES:
ROUGH IN	_____	_____	_____
FINAL	_____	_____	_____

City of Duquesne

1501 S Duquesne Road • Joplin, MO 64801
(417) 781-5085 • Fax: (417) 781-4652

INSPECTION – PAGE 2

DATE: _____

PERMIT # _____

STORMWATER:	PASS:	FAIL:	DATE AND NOTES:
CONSTRUCTION ENTRANCE (IN PLACE AND MAINTAINED)	_____	_____	_____ _____
EROSION/SEDIMENT CONTROLS (IN PLACE AND FUNCTIONING AS PER APPROVED PLANS)	_____	_____	_____ _____
NO DEBRI, SEDIMENT, WASTE OIL, TRASH, ETC. ON ROAD AND/OR LEAVING SITE	_____	_____	_____ _____
MATERIALS, WASTE RECEPTACLES, ETC. COVERED/SECURED	_____	_____	_____ _____
STORMWATER FINAL:			
VEGETATION ESTABLISHED (MIN. 70% COVERAGE ON 100% OF DISTURBED AREA)	_____	_____	_____ _____
PERMANENT STORMWATER CONTROLS (IN PLACE AND FUNCTIONING PER APPROVED PLANS)	_____	_____	_____ _____

When corrections have been made, call for re-inspection. There will be re-inspection fee.

DATE: _____ BUILDING INSPECTOR: _____

DATE: _____ CONTRACTOR/HOMEOWNER: _____