

Introduced by _____

First Reading _____

Second Reading _____

Ordinance No. _____

Council Bill No. B 187-12

AN ORDINANCE

amending Chapter 12A of the City Code as it relates to stormwater management; and fixing the time when this ordinance shall become effective.

BE IT ORDAINED BY THE COUNCIL OF THE CITY OF COLUMBIA, MISSOURI, AS FOLLOWS:

SECTION 1. Chapter 12A of the Code of Ordinances of the City of Columbia, Missouri, is hereby amended as follows:

Material to be deleted in ~~strikeout~~; material to be added underlined.

Sec. 12A-5. Definitions.

(a) For the purposes of this chapter, the following words and phrases shall have the meaning given herein.

...

Attached single-family residence. A building containing two (2) attached dwelling units that share a common wall at the lot line and that are on separate lots.

...

Development. Any manmade changes to real estate, including, but not limited to, construction, filling, grading, paving or excavation ~~1) The improvement of property for any purpose involving construction; 2) the preparation of land for construction; or, 3) land disturbance that requires the issuance of a land disturbance permit.~~

...

Redevelopment. Any reconstruction, rehabilitation, addition or other improvement of a property (exclusive of R-1 and R-2 zoned properties) the cost of which equals or exceeds fifty (50) percent of the market value of the structure before the start of construction of the improvement. ~~Development that:~~

- (1) Expands or replaces any development; and
- (2) Is on a site that has not been subdivided after August 20, 2012; and
- (3) Is on a site that is either:
 - a. One (1) acre or more that has an impervious surface of more than twelve percent (12%) of the site; or
 - b. Less than one (1) acre that has any impervious surface.

Site. The total area of the parcel(s), tract(s), or lot(s) ~~or ownership~~ of land upon which development or land disturbance is proposed irrespective of the actual limits or size of the proposed development or land disturbance activity.

Storm drain. A closed conduit or open ditch, natural or specifically constructed, for conducting or conveying collected storm water. Conduits and paved open ditches are termed "improved"; unpaved ditches are termed "unimproved".

~~*Storm drainage design manual.* A City manual intended primarily for use by land developers in the design of minor storm drainage systems, such as a storm drains, relatively small culverts, associated streets and gutter flow hydraulics, natural drainage swales, storm inlets and detention facilities. The manual includes drainage policy to be followed, standard design methods, computation forms, and City standards.~~

Storm drainage system. All drainage facilities used for collecting and conducting storm water to, through and from drainage areas to the points of final outlet including, but not limited to, the following: Conduits and appurtenant features, canals, ditches, streams, gullies, flumes, culverts, streets, gutters, and pump stations.

Stormwater. Any surface flow, runoff, and drainage consisting entirely of water from any form of natural precipitation, and resulting from such precipitation including snowmelt.

Stormwater management and water quality manual. The manual described in section 12A-91.

Stormwater management facilities. This term includes measures, primarily structural, which are determined to be the most effective, practical means of preventing or reducing point source or non-point source pollution inputs to stormwater runoff and subsequently into water bodies. These facilities are also used to control volume and peak rates of runoff from development and redevelopment sites.

...

Subdivide. To divide land into smaller parts.

...

Watershed. All the land area which drains to a given body of water.

(b) This chapter shall be construed in conformity with the provisions of state and federal law.

...

Sec. 12A-32. Permit required.

A land disturbance permit is required for any land disturbance activity including streets and utilities construction on any site ~~in excess of that results in a disturbed area one (1) acre or more in size~~. All applications for land disturbance permits shall be submitted on forms issued by the director and shall contain all information required by the director. The applicant for the permit shall be responsible for field verifying to the city the actual area being disturbed by staking the area to be disturbed prior to the disturbance. If the development requires the submission of site plans, the area to be disturbed shall be depicted on the site plan. Redevelopment of tracts less than one (1) acre does not exempt the developer from the provisions of this chapter if that activity is part of a larger common plan of development or sale. Phased development of tracts larger than one (1) acre does not exempt the developer from the provisions of this chapter.

Sec. 12A-33. Site development plan.

(a) Applications for land disturbance permits for any area ~~greater than one (1) acre or more~~ shall be accompanied by a detailed site development plan which shall include, a tree preservation plan, a landscaping plan, a soil erosion control plan, and a storm water management plan conforming to the provisions of this chapter. Where practical, drawings may be combined to contain all of the required plans.

...

Sec. 12A-35. Exemptions.

(a) A land disturbance permit shall not be required for sites less than one (1) acre or less or for individual lots in R-1 and R-2 zoned development except that erosion control provisions, grading limits, low floor elevation, and storm drainage work, including piping, swaling, and ditching, shall be shown on the plot plan and approved prior to issuance of a building permit. All land disturbance activity on such property shall conform to the provisions of the approved plot plan.

(b) Agricultural activities are exempted from the provisions of this chapter except that a land disturbance permit is required for the mechanized clearing or removal of trees on sites ~~in excess of~~ one (1) acre or more.

...

Sec. 12A-49. Clearing of trees; permit required.

(a) The mechanized clearing of trees, logging of trees or clear-cutting of trees by any means on tracts of land ~~over~~ of one (1) acre or more shall be unlawful unless done in compliance with a land disturbance permit.

...

Sec. 12A-87. Applicability.

(a) This article shall apply to all developments ~~and redevelopments~~ that alter the surface of the land with the exceptions and exemptions set forth in subsections (b), (c), (d) and (e)., including but not limited to, ~~pavement, buildings and structures with the following exceptions:~~

- ~~(1) Single family and two family lots within an approved preliminary plat;~~
- ~~(2) Logging activity performed with a city approved logging plan; and~~
- ~~(3) Additions or modifications to single family and two family structures.~~

(b) ~~Stormwater detention is not required for redevelopment within the central business district. Attached and detached single-family residences, farmland and domestic gardens are exempt from the provisions of this article.~~

(c) The following exceptions apply to this article when the development of the site results in a land disturbance of less than one (1) acre and is not a part of a larger common plan of development or sale that would disturb one (1) acre or more:

- (1) Lots within an approved preliminary plat or final plat used for single-family and two-family residences and land disturbance on an individual residential building lot;
- (2) Land disturbances of less than ten thousand (10,000) square feet that do not create more than five hundred (500) square feet of additional impervious surface;
- (3) Maintenance and repair of impervious surface, including gravel and stone impervious surfaces; and

(4) Redevelopment of a site less than one (1) acre.

(d) Redevelopment on a site of one (1) acre or more is eligible for partial exceptions from the requirements of this article, as set out in the stormwater manual, if the redevelopment:

(1) Does not have an adverse impact on any mapped critical downstream location; and

(2) Incorporates water quality protection.

The director shall track, map, add and remove known critical downstream locations and make this information available to the public. The director shall set forth criteria in the stormwater manual that details the partial exemption under this subsection.

(e-e) Stormwater management shall be provided in accordance with the conceptual stormwater management plan for land in zoning districts PUD, O-P, C-P, M-R and M-P, for which a conceptual stormwater management plan was approved before September 4, 2007, or land in any other zoning district for which a site plan was approved before September 4 2007, unless a revision to the plan for the site is requested which adversely impacts the storm water discharge from the site. An "adverse impact" is one that significantly increases the volume of stormwater discharge from the site, decreases the water quality of the storm water discharge, or redirects the storm water discharge in a manner that results in downstream stormwater drainage impacts that would not have occurred with the original plan. Approvals for stormwater plans approved before August 20, 2012 shall expire on January 1, 2016 for sites on which the planned work has not commenced. Approval of all stormwater plans approved on or after August 20, 2012 shall expire seven (7) years after the date of approval if the planned work has not commenced in accordance with the approved conceptual stormwater management plan or in accordance with this article.

...

Sec. 12A-95. Maintenance and repair of stormwater management facilities.

~~(a) Before approval of a stormwater management plan, the property owner must execute an easement in favor of the city allowing the city access to all stormwater management facilities on the property for inspection and, if the facility is to be maintained by the city, for maintenance.~~

(b-a) Maintenance of all stormwater management facilities shall be ensured through the creation of a formal maintenance covenant, which must be approved by the director before final plat or plan approval and subsequently be recorded by the city with the Boone County Recorder of Deeds. The covenant will include a schedule for maintenance of

the facilities to insure proper function of each stormwater management facility. The covenant shall also include a schedule for inspections of each facility to ensure proper function of each stormwater management facility between scheduled maintenance functions.

. . .

(e-b) All stormwater management facilities shall be inspected at least once each year, during the period beginning on March 1 and ending on May 31, to document maintenance and repair needs and to ensure compliance with this article. The facilities should also be inspected after each heavy rainfall and any necessary maintenance should be performed such as removal of silt, litter and debris from all catch basins, inlets, pipes and outlet structures.

. . .

~~(d-c) City inspections may be routine, random or complaint driven. The director may inspect any stormwater management facility as set forth in section 12A-192.~~ Inspections may involve full evaluation of the physical structure and condition of the facility; review of the prior inspection, repair and maintenance records; and sampling of the surface water, discharges and groundwater as deemed necessary.

(e-d) Persons responsible for the operation and maintenance of stormwater management facilities shall make records of the inspection, repair, maintenance and any modifications to the facilities and shall retain these records for a minimum of five (5) years. These records shall be made available to the director during inspection of the facility or at any time upon request. Inspection and maintenance records shall be submitted to the director by June 1 of each year. Any failure to submit these records shall be unlawful and subject to the penalties of section 12A-11.

~~(f-e)~~ Failure to properly maintain a stormwater management facility is hereby declared a nuisance and may be abated under the procedures set forth in section 12A-202.

. . .

Sec. 12A-110. Variances.

(a) Any property owner may petition the board of adjustment for a variance from strict compliance with the requirements of this chapter. The petition shall be in writing and shall state the grounds for the petition and all facts relied upon by petitioner. The petition shall include a written detailed explanation of all burdens or hardships and how all options available in the stormwater manual or under this chapter have been exhausted. The petition shall address in detail how the petitioner is in compliance with subsections (b)(1)-(4) and (c) of this section; shall include all evidence and support that no adverse downstream impacts exist; and shall list all reasonable mitigation measures.

...

SECTION 2. For a six month period beginning on August 20, 2012, stormwater management shall be provided, at the option of the property owner, either under the provisions of this article then in effect or under the provisions of this article as they existed on August 19, 2012.

SECTION 3. This ordinance shall be in full force and effect from and after it's passage.

PASSED this _____ day of _____, 2012.

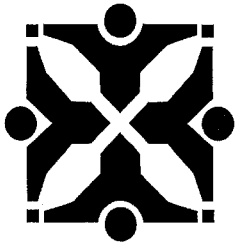
ATTEST:

City Clerk

Mayor and Presiding Officer

APPROVED AS TO FORM:

City Counselor



Source: Public Works

Agenda Item No:

To: City Council
From: City Manager and Staff

Council Meeting Date: Aug 6, 2012

Re: Proposed Changes to Chapter 12A - Stormwater Rules

EXECUTIVE SUMMARY:

Staff has prepared for Council consideration an ordinance amending Chapter 12A of the City Code relating to stormwater rules and regulations.

DISCUSSION:

At the May 21, 2012 Council meeting, Council denied proposed changes to Chapter 12A of the City Code (see attached documents). Staff has since met with members of the development community to work out our differences, and jointly propose the ordinance amendment introduced on May 7, 2012 per Council Bill 109-12 (attached) with the following modifications.

1. We have included the agreed to council amendments from the May 21, 2012 Council meeting.
 - a) Definition of "Single Family Attached Housing"
 - b) Sec 12A-87 (b) attached and detached single-family residences, farmland and domestic gardens are exempt from the provisions of this article.
 - c) Sec 12A-87 (c) pertaining to linear construction or maintenance operations and re-lettering the remaining subsections.
 - d) Sec 12A-87 (e) the dates were updated.
2. We have stricken "maximum extent practicable" from 12A-87(d)(2). A variance is available through the Director or the Board of Adjustment. Variances are also reported to Council each month.
3. Definition of subdivided has been added.
4. We have amended the dates to reflect when the ordinance will go into affect.

FISCAL IMPACT:

There is no direct fiscal impact to the City, although the ordinance changes are expected to allow for more efficient use of staff time.

VISION IMPACT:

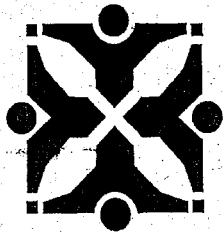
<http://www.gocolumbiamo.com/Council/Meetings/visionimpact.php>

Columbia and its neighboring communities will be a place where the air, water, land and natural aesthetic qualities of our environment shall be protected by a combination of conservation strategies including, but not limited to regulations and ordinances, conservation incentives, education programs, and smart growth planning.

SUGGESTED COUNCIL ACTIONS:

Approve the ordinance amending Chapter 12A of the City Code.

FISCAL and VISION NOTES:					
City Fiscal Impact Enter all that apply		Program Impact		Mandates	
City's current net FY cost	\$0.00	New Program/ Agency?	No	Federal or State mandated?	No
Amount of funds already appropriated	\$0.00	Duplicates/Expands an existing program?	No	Vision Implementation impact	
Amount of budget amendment needed	\$0.00	Fiscal Impact on any local political subdivision?	No	Enter all that apply: Refer to Web site	
Estimated 2 year net costs:		Resources Required		Vision Impact?	Yes
One Time	\$0.00	Requires add'l FTE Personnel?	No	Primary Vision, Strategy and/or Goal Item #	9.1
Operating/ Ongoing	\$0.00	Requires add'l facilities?	No	Secondary Vision, Strategy and/or Goal Item #	
		Requires add'l capital equipment?	No	Fiscal year implementation Task #	



Source: Public Works

To: City Council
From: City Manager and Staff

Council Meeting Date: May 7, 2012

Agenda Item No:

B109-12

COPY

Re: Proposed Changes to Chapter 12A - Stormwater Rules

EXECUTIVE SUMMARY:

Staff has prepared for Council consideration an ordinance amending Chapter 12A of the City Code relating to stormwater rules and regulations.

DISCUSSION:

City staff has prepared revisions to Chapter 12A of the City code. The proposed revisions deal primarily with the topic of redevelopment.

On September 6, 2011, staff presented a report (REP149-11) to Council regarding these proposed 12A ordinance revisions and the Stormwater Advisory Commission (SWAC) comments (copy of report is attached for reference, Attachment 1).

On November 21, 2011, an ordinance (B328-11) was introduced on the Council agenda to amend Chapter 12A (copy of memo and draft ordinance is attached for reference). During the Council meeting, council removed the proposed ordinance from the agenda in order to provide stakeholders more time to provide input to City staff. Since the November Council meeting, staff has presented the proposed ordinance revisions to the Energy and Environment Commission and discussed these revisions with members of the SWAC, Chamber of Commerce and the Central Missouri Development Council (Attachment 2).

On February 14, 2012, the Chair of the Stormwater Advisory Commission (SWAC) sent a proposed ordinance, with SWAC's recommendations, to the City Manager and staff (see Attachment 3).

On April 24, 2012, the Chair of the Environment and Energy Commission (EEC) sent a letter with their recommendation (see Attachment 4).

City staff has reviewed all recommendations concerning changes to the ordinance; and the following paragraphs highlight the proposed ordinance revisions:

Section 12A-5 - Definitions

Definition of Development is being revised in order to make definition more clear.

Redevelopment is being re-defined as a subset of development. In order to be considered redevelopment, the following three part test must be satisfied.

- Expands or replaces development
- The site has not been subdivided after this ordinance change
- The site is either 1 acre or larger with more than 12% impervious surface or less than one acre with any impervious surface.

Section 12A-32 - Permit required

Proposed language clarifies that land disturbance permits are required for activities that disturb more than one acre, and that the applicant is responsible for staking the area to be disturbed prior to the disturbance. In addition, the applicant is to show the proposed disturbed areas on their site plans.

Section 12A-87 - Applicability

- Proposed language modifies the existing exemption of R2 Lots, removes the detention exemption for the central business district and removes the exemption for logging activities.

- Proposed language will provide blanket exemptions for single family residences, farmland and domestic gardens.

- Proposed language will provide exceptions for developments that disturb less than one acre and partial exceptions for redevelopments that disturb more than one acre. All redevelopment under one acre is an exception.

Section 12A-95 - Maintenance and repair of stormwater management facilities

Proposed language will require owners of privately owned best management practices (BMPs) to submit annual inspection and maintenance records to the Director of Public Works. The property owner no longer must execute an easement.

Section 12A-110 Variances

Proposed language clarifies that a variance petition is to include a detailed explanation of all burdens or hardships and how all options available in the stormwater manual have been exhausted. The petition is to explain how the petitioner is in compliance with other portions of Chapter 12A and shall demonstrate that no adverse downstream impacts exist, and list all reasonable mitigation measures.

FISCAL IMPACT:

There is no direct fiscal impact to the City, although the ordinance changes are expected to allow for more efficient use of staff time.

VISION IMPACT:

<http://www.gocolumbiamo.com/Council/Meetings/visionimpact.php>

Columbia and its neighboring communities will be a place where the air, water, land and natural aesthetic qualities of our environment shall be protected by a combination of conservation strategies including, but not limited to regulations and ordinances, conservation incentives, education programs, and smart growth planning.

SUGGESTED COUNCIL ACTIONS:

Approve the ordinance amending Chapter 12A of the City Code.

FISCAL and VISION NOTES:					
City Fiscal Impact Enter all that apply		Program Impact		Mandates	
City's current net FY cost	\$0.00	New Program/ Agency?	No	Federal or State mandated?	Yes
Amount of funds already appropriated	\$0.00	Duplicates/Epands an existing program?	No	Vision Implementation impact	
Amount of budget amendment needed	\$0.00	Fiscal Impact on any local political subdivision?	No	Enter all that apply: Refer to Web site	
Estimated 2 year net costs:		Resources Required		Vision Impact?	Yes
One Time	\$0.00	Requires add'l FTE Personnel?	No	Primary Vision, Strategy and/or Goal Item #	9.1
Operating/ Ongoing	\$0.00	Requires add'l facilities?	No	Secondary Vision, Strategy and/or Goal Item #	
		Requires add'l capital equipment?	No	Fiscal year implementation Task #	

Introduced by _____

First Reading _____

Second Reading _____

Ordinance No. _____

Council Bill No. B 109-12

AN ORDINANCE

amending Chapter 12A of the City Code as it relates to stormwater management; and fixing the time when this ordinance shall become effective.

BE IT ORDAINED BY THE COUNCIL OF THE CITY OF COLUMBIA, MISSOURI, AS FOLLOWS:

SECTION 1. Chapter 12A of the Code of Ordinances of the City of Columbia, Missouri, is hereby amended as follows:

Material to be deleted in ~~strikeout~~; material to be added underlined.

Sec. 12A-5. Definitions.

(a) For the purposes of this chapter, the following words and phrases shall have the meaning given herein.

...

Development. Any manmade changes to real estate, including, but not limited to, construction, filling, grading, paving or excavation ~~1) The improvement of property for any purpose involving construction; 2) the preparation of land for construction; or, 3) land disturbance that requires the issuance of a land disturbance permit.~~

...

Redevelopment. ~~Any reconstruction, rehabilitation, addition or other improvement of a property (exclusive of R-1 and R-2 zoned properties) the cost of which equals or exceeds fifty (50) percent of the market value of the structure before the start of construction of the improvement.~~ Development that:

- (1) Expands or replaces any development; and
- (2) Is on a site that has not been subdivided after May 21, 2012; and

(3) Is on a site that is either:

a. One (1) acre or more that has an impervious surface of more than twelve percent (12%) of the site; or

b. Less than one (1) acre that has any impervious surface.

Site. The total area of the parcel(s), tract(s), lot(s) or ownership of land upon which development or land disturbance is proposed irrespective of the actual limits or size of the proposed development or land disturbance activity.

Storm drain. A closed conduit or open ditch, natural or specifically constructed, for conducting or conveying collected storm water. Conduits and paved open ditches are termed "improved"; unpaved ditches are termed "unimproved".

~~*Storm drainage design manual.* A City manual intended primarily for use by land developers in the design of minor storm drainage systems, such as a storm drains, relatively small culverts, associated streets and gutter flow hydraulics, natural drainage swales, storm inlets and detention facilities. The manual includes drainage policy to be followed, standard design methods, computation forms, and City standards.~~

Storm drainage system. All drainage facilities used for collecting and conducting storm water to, through and from drainage areas to the points of final outlet including, but not limited to, the following: Conduits and appurtenant features, canals, ditches, streams, gullies, flumes, culverts, streets, gutters, and pump stations.

Stormwater. Any surface flow, runoff, and drainage consisting entirely of water from any form of natural precipitation, and resulting from such precipitation including snowmelt.

Stormwater management and water quality manual. The manual described in section 12A-91.

Stormwater management facilities. This term includes measures, primarily structural, which are determined to be the most effective, practical means of preventing or reducing point source or non-point source pollution inputs to stormwater runoff and subsequently into water bodies. These facilities are also used to control volume and peak rates of runoff from development and redevelopment sites.

...

Watershed. All the land area which drains to a given body of water.

(b) This chapter shall be construed in conformity with the provisions of state and federal law.

...

Sec. 12A-32. Permit required.

A land disturbance permit is required for any land disturbance activity including streets and utilities construction on any site ~~in excess of that results in a disturbed area one~~ (1) acre ~~or more in size~~. All applications for land disturbance permits shall be submitted on forms issued by the director and shall contain all information required by the director. The applicant for the permit shall be responsible for field verifying to the city the actual area being disturbed by staking the area to be disturbed prior to the disturbance. In the event the development requires the submission of site plans, the area to be disturbed shall be depicted on the site plan. Redevelopment of tracts less than one (1) acre does not exempt the developer from the provisions of this chapter if that activity is part of a larger common plan of development or sale. Phased development of tracts larger than one (1) acre does not exempt the developer from the provisions of this chapter.

Sec. 12A-33. Site development plan.

(a) Applications for land disturbance permits for any area ~~greater than of one~~ (1) acre or more shall be accompanied by a detailed site development plan which shall include, a tree preservation plan, a landscaping plan, a soil erosion control plan, and a storm water management plan conforming to the provisions of this chapter. Where practical, drawings may be combined to contain all of the required plans.

...

Sec. 12A-35. Exemptions.

(a) A land disturbance permit shall not be required for sites less than one (1) acre ~~or less~~ or for individual lots in R-1 and R-2 zoned development except that erosion control provisions, grading limits, low floor elevation, and storm drainage work, including piping, swaling, and ditching, shall be shown on the plot plan and approved prior to issuance of a building permit. All land disturbance activity on such property shall conform to the provisions of the approved plot plan.

(b) Agricultural activities are exempted from the provisions of this chapter except that a land disturbance permit is required for the mechanized clearing or removal of trees on sites ~~in excess of one~~ (1) acre or more.

...

Sec. 12A-49. Clearing of trees; permit required.

(a) The mechanized clearing of trees, logging of trees or clear-cutting of trees by any means on tracts of land ever of one (1) acre or more shall be unlawful unless done in compliance with a land disturbance permit.

...

Sec. 12A-87. Applicability.

(a) This article shall apply to all developments ~~and redevelopments~~ that alter the surface of the land with the exceptions and exemptions set forth in subsections (b), (c), (d), (e) and (f)., including but not limited to, ~~pavement, buildings and structures with the following exceptions:~~

- (1) ~~Single family and two family lots within an approved preliminary plat;~~
- (2) ~~Logging activity performed with a city approved logging plan; and~~
- (3) ~~Additions or modifications to single family and two family structures.~~

(b) ~~Stormwater detention is not required for redevelopment within the central business district.~~ Single family residences, farmland and domestic gardens are exempt from the provisions of this article.

(c) Linear, strip, or ribbon construction or maintenance operations within existing city and state right-of-way that are approved by the director and in compliance with state and federal law are exempt from the provisions of this article.

(d) The following exceptions apply to this article when the development of the site results in a land disturbance of less than one (1) acre and is not a part of a larger common plan of development or sale that would disturb one (1) acre or more:

- (1) Lots within an approved preliminary plat or final plat used for single-family and two-family residences and land disturbance on an individual residential building lot;
- (2) Land disturbances of less than ten thousand (10,000) square feet that do not create more than five hundred (500) square feet of additional impervious surface;
- (3) Maintenance and repair of impervious surface, including gravel and stone impervious surfaces; and
- (4) Redevelopment of a site less than one (1) acre.

(e) Redevelopment on a site of one (1) acre or more is eligible for partial exceptions from the requirements of this article, as set out in the stormwater manual, if the redevelopment:

- (1) Does not have an adverse impact on any mapped critical downstream location; and
- (2) Incorporates water quality protection to the maximum extent practicable.

The director shall track, map, add and remove known critical downstream locations and make this information available to the public. The director shall set forth criteria in the stormwater manual that details the partial exemption under this subsection.

(e-f) Stormwater management shall be provided for land in zoning districts PUD, O-P, C-P, M-R and M-P, for which a conceptual stormwater management plan was approved before September 4, 2007 in accordance with the approved conceptual stormwater management plan or in accordance with this article.

...

Sec. 12A-95. Maintenance and repair of stormwater management facilities.

~~(a) Before approval of a stormwater management plan, the property owner must execute an easement in favor of the city allowing the city access to all stormwater management facilities on the property for inspection and, if the facility is to be maintained by the city, for maintenance.~~

(b-a) Maintenance of all stormwater management facilities shall be ensured through the creation of a formal maintenance covenant, which must be approved by the director before final plat or plan approval and subsequently be recorded by the city with the Boone County Recorder of Deeds. The covenant will include a schedule for maintenance of the facilities to insure proper function of each stormwater management facility. The covenant shall also include a schedule for inspections of each facility to ensure proper function of each stormwater management facility between scheduled maintenance functions.

...

(e-b) All stormwater management facilities shall be inspected at least once each year, during the period beginning on March 1 and ending on May 31, to document maintenance and repair needs and to ensure compliance with this article. The facilities should also be inspected after each heavy rainfall and any necessary maintenance should be performed such as removal of silt, litter and debris from all catch basins, inlets, pipes and outlet structures.

...

(d-c) ~~City inspections may be routine, random or complaint driven. The director may inspect any stormwater management facility as set forth in section 12A-192.~~ Inspections may involve full evaluation of the physical structure and condition of the facility; review of the prior inspection, repair and maintenance records; and sampling of the surface water, discharges and groundwater as deemed necessary.

(e-d) Persons responsible for the operation and maintenance of stormwater management facilities shall make records of the inspection, repair, maintenance and any modifications to the facilities and shall retain these records for a minimum of five (5) years. These records shall be made available to the director during inspection of the facility or at any time upon request. Inspection and maintenance records shall be submitted to the director by June 1 of each year. Any failure to submit these records shall be unlawful and subject to the penalties of section 12A-11.

(f-e) Failure to properly maintain a stormwater management facility is hereby declared a nuisance and may be abated under the procedures set forth in section 12A-202.

...

Sec. 12A-110. Variances.

(a) Any property owner may petition the board of adjustment for a variance from strict compliance with the requirements of this chapter. The petition shall be in writing and shall state the grounds for the petition and all facts relied upon by petitioner. The petition shall include a written detailed explanation of all burdens or hardships and how all options available in the stormwater manual or under this chapter have been exhausted. The petition shall address in detail how the petitioner is in compliance with subsections (b)(1)-(4) and (c) of this section; shall include all evidence and support that no adverse downstream impacts exist; and shall list all reasonable mitigation measures.

...

SECTION 2. For a six month period beginning on May 21, 2012, stormwater management shall be provided, at the option of the property owner, either under the provisions of this article then in effect or under the provisions of this article as they existed on May 20, 2012.

SECTION 3. This ordinance shall be in full force and effect from and after it's passage.

PASSED this _____ day of _____, 2012.

ATTEST:

City Clerk

Mayor and Presiding Officer

APPROVED AS TO FORM:

City Counselor

Source:

John Glascock

John

Agenda Item No. REP 149-11

FISCAL and VISION NOTES:

City Fiscal Impact Enter all that apply:	
\$0	City's current net FY cost.
\$0	Amount of Funds Already appropriated
\$0	Amount of budget amendment needed
\$0	Estimated 2 yr net costs:
\$0	One-time
\$0	Operating / On-going
Program Impact:	
N	New program/ agency (Y/N)
N	Duplicates/expands an existing program (Y/N)
N	Fiscal impact on any local political subdivision (Y/N)
Resources Required:	
N	Requires add'l FTE personnel? (Y/N)
N	Requires additional facilities? (Y/N)
N	Requires additional capital equipment? (Y/N)
Mandates:	
N	Federal or state mandated? (Y/N)
Vision Implementation Impact Enter Below All That Applies: Refer to Website:	
Y	Vision Impact? (Y/N or if N, go no further)
Item #9.1	Primary Vision, Strategy and/or Goal Item#
Item #	Secondary Vision, Strategy and/or Goal Item#
Task #	FY10/FY11 Implementation Task#

TO: City Council

FROM: City Manager and Staff

DATE: August 30, 2011

RE: Proposed Changes to Chapter 12A - Stormwater Rules

COPY

EXECUTIVE SUMMARY:

Staff has prepared for Council consideration a report concerning the Stormwater Advisory Commission (SWAC) recommendations for revisions to Chapter 12A.

DISCUSSION:

At Council's request, staff presented proposed ordinance revisions to Chapter 12A of the City Code to the SWAC. The revisions deal primarily with redevelopment. Attached are the proposed ordinance revisions along with a summary of the SWAC's recommendations and staff comments.

FISCAL IMPACT:

There is no direct fiscal impact to the City, although the changes are expected to allow for more efficient use of staff time.

VISION IMPACT:

Columbia and its neighboring communities will be a place where the air, water, land, and natural aesthetic qualities of our environment shall be protected by a combination of conservation strategies including, but not limited to, regulations and ordinances, conservation incentives, education programs, and smart growth planning.

SUGGESTED COUNCIL ACTIONS:

Staff suggests a work session to discuss final revisions to the Chapter 12A of the City Code.

SWAC Recommendations for Chapter 12A Revisions

Page 1 Section 12A-5

"...is on a site that is in compliance with all City zoning and subdivision laws and regulations"

The Commission recommends that this sentence be removed.

The commission recommends that the term "Site" be changed to "lot".

The Commission recommends that language be added/examined in this section to allow a lot to be subdivided or platted into a legal lot without automatically being ineligible for Redevelopment status.

Commissioners and Staff support changing the percentage of impervious surface referenced in 4(a) to 12%.

Page 3 Section 12A-32 and 12A-33

The Commission recommends that a permit be required based on the size of the area being disturbed rather than the size of the site, identical to MDNR requirements. Emphasizing that the burden of proof if called into question is on the property owner to verify that the disturbed area does not exceed that which would not require a permit.

Page 4 12A-87

The Commission recommends that single family attached homes be included in the exemption granted to single family detached homes and that the language of the ordinance specifies this.

The Commission recommends that language be added to include City and State right-of-way as an exempted area of a site.

The Commission recommends that the words "or sale" be removed from 12A-87 (c).

The Commission recommends that 12A-87 (3) be revised to read "Maintenance and repair of any and all impervious surfaces including gravel and stone surfaces"

The Commission recommends that the City staff work closely and cooperatively with area practitioners and engineers to revise the stormwater design manual and that this revision be made a high priority.

Page 4 12A-87 (1) The Commission recommends that the word "mapped" be inserted before "known critical downstream locations" and that further detail be inserted into the paragraph below (2) to require these maps to be updated by the City twice annually on specified dates.

Page 5 12A-87 (2). The Commission recommends that this item with the language "Incorporate water quality protection to the maximum extent practical" be removed from the ordinance.

The Commission recommends that language be included in this ordinance to exempt the Central Business District.

Page 5 item (c) The Commission recommends that all plan revisions, major or minor, to plans approved prior to September 4, 2007 be grandfathered in to the stormwater ordinance in effect on January 1st, 2007.

Page 6 second paragraph. The Commission recommends that the term "may" be replaced with "shall" and "properties" be changed to "lots"

Page 7 12A-110 Variances. The Commission recommends that changes be made to the Variances section to remove the adjectives "detailed", "unreasonable", and "in detail" as well as the phrases "available in the stormwater manual or under this chapter" and "that are acceptable and requested".

The Commission recommends that the Council review the sunset requirements for all plans, plats, and PUD's and make changes as deemed necessary.

Stormwater Advisory Commission (SWAC) Recommendation for Chapter 12A
Revisions with Staff comments

Section 12A-5, Definitions, *Redevelopment* Staff's proposed definition lays out a 4-part test for a project to be defined as *Redevelopment*. (Page 1 of the attached proposed ordinance revisions.)

SWAC Comment: The Commission recommends that "...is on a site that is in compliance with all City zoning and subdivision laws and regulations" be removed.

Staff Response: Staff disagrees. Staff believes it is correct to require that a site be compliant with City ordinances in order to do work that would require meeting stormwater regulations. When the site is compliant, the project can be considered redevelopment. For example, if a property owner wants to construct an addition to a building which is not on a legal lot, the site can be platted to be a legal lot and then can be considered redevelopment.

SWAC Comment: The Commission recommends that the term "Site" be changed to "lot".

Staff Response: Staff disagrees. Staff believe that the term "Site" should be used so that the City ordinance is consistent with State and Federal regulations, which use the term "Site".

SWAC Comment: The Commission recommends that language be added/examined in this section to allow a lot to be subdivided or platted into a legal lot without automatically being ineligible for Redevelopment status.

Staff Response: Staff agrees with the Commission but believes that the currently proposed (attached) language provides for this. Therefore, staff is recommending that the proposed ordinance language not be revised.

Under staff's current proposed ordinance language, an owner could plat to create a legal lot, and then improvements currently on the lot would determine whether the project qualifies as redevelopment. (ie, the work being done would determine how stormwater regulations apply).

Since the redevelopment of sites less than 1 acre are exempt in staff's proposed ordinance, staff does not support platting a property in order to divide it and still be considered redevelopment.

SWAC Comment: The Commission recommended (and Staff agreed) that a project on a site of an acre or more with an imperviousness of more than 12% should qualify as redevelopment.

Staff Response: Staff agrees and have incorporated recommendation into the proposed ordinance. Staff originally proposed 20%, and the SWAC felt 5% was more appropriate. Staff and SWAC compromised and have agreed on 12%.

Section 12A-32 and 12A-33, When a Permit is required and Site Development Plan requirements (Page 3 of the attached ordinance revisions.)

SWAC Comment: The Commission recommends that a permit be required based on the size of the area being disturbed rather than the size of the site, identical to MDNR requirements. Emphasizing that the burden of proof if called into question is on the property owner to verify that the disturbed area does not exceed that which would not require a permit.

Staff Response: Staff disagrees. Staff believes the current language is consistent with State and Federal regulations. In addition, staff believes that issuing land disturbance permits based upon area being disturbed rather than the size of the site would greatly increase the City's administrative (review, inspection, compliance) responsibility. This aspect is a significant concern to staff given the City's current limited resources.

Section 12A-87, Which developments/redevelopments do the rules apply to. (Page 4 of the attached ordinance revisions.)

SWAC Comment: The Commission recommends that single family attached homes be included in the exemption granted to single family detached homes and that the language of the ordinance specifies this.

Staff Response: Staff disagrees, "Single family attached" means duplexes or two-family structures, and state and federal regulations do not support an exemption for them. Therefore, staff's proposed language does not exempt single family attached homes.

SWAC Comment: The Commission recommends that language be added to include City and State right-of-way as an exempted area of a site.

Staff Response: Staff disagrees. This language would exempt a developer from providing stormwater management for streets and sidewalks (a large portion of the imperviousness) in a new development.

There was some discussion during Commission meetings as to whether City projects (especially street projects) should be exempt. These rules (Chapter 12A) are written for development and, while the City is committed to providing stormwater management on its projects, development rules are not the appropriate place to set forth requirements for City projects.

SWAC Comment: The Commission recommends that the words "or sale" be removed from 12A-87 (c).

Staff Response: Staff disagrees. In order to be consistent with State and Federal regulations, staff is proposing to include "or sale" in 12A-87 (c).

SWAC Comment: The Commission recommends that 12A-87 (3) be revised to read "maintenance and repair of any and all impervious surfaces including gravel and stone surfaces".

Staff Response: Staff disagrees – Staff does not feel the suggested language is needed. Staff believes that the current proposed ordinance language provides adequate protection to those maintaining and repairing gravel/stone surfaces.

SWAC Comment: The Commission recommends that the City staff work closely and cooperatively with area practitioners and engineers to revise the stormwater design manual and that this revision be made a high priority.

Staff Response: Staff agrees. This is a high priority for staff.

SWAC Comment: The Commission recommends that language be reinserted in this ordinance to exempt the Central Business District from detention requirements.

Staff Response: Staff disagrees. Staff has removed this exemption from the ordinance because staff does not believe this is a legal exemption.

12A-87 (d) (1) The partial exception for Redevelopment does not apply if there is a known downstream problem. (Page 4 of the attached ordinance revisions.)

The intent is to have a mapped list of critical downstream locations (An objective test is spelled out in 12A-5, Definitions for what constitutes a "Critical Downstream Location") so that, when a redevelopment is brought forward, if there is a stormwater related problem downstream on the mapped list, the redevelopment has to implement stormwater management with no partial exception. If there is a problem that has not been mapped yet (this will be a significant task for staff) then the redevelopment still receives a partial exception.

SWAC Comment: The Commission recommends that the word "mapped" be inserted before "known critical downstream locations" and that further detail be inserted into the paragraph below (2) to require these maps to be updated by the City twice annually on specified dates.

Staff Response: Staff agrees and will incorporate these changes into the proposed ordinance language.

12A-87 (d) (2) Maximum Extent Practicable. (Page 5 of the attached ordinance revisions.)

SWAC Comment: The Commission recommends that this item with the language "Incorporate water quality protection to the maximum extent practical" be removed from the ordinance.

Staff Response: Staff disagrees. Staff believes that in order to be consistent with State and Federal Regulations, "Incorporate water quality protection to the maximum extent practical" must remain in the proposed ordinance revision.

12A-87 (e) Grandfathered Planned Developments. (Page 5 of the attached ordinance revisions.)

SWAC Comment: The Commission recommends that all plan revisions, major or minor, to plans approved prior to September 4, 2007 be grandfathered in to the stormwater ordinance in effect on January 1st, 2007.

Staff Response: Staff disagrees. This language would mean that even a very different plan than the one originally brought forth would not have to meet modern stormwater requirements. Staff does not believe this meets the spirit of the original grandfather language and therefore recommends leaving the language as it is in the attached revision.

SWAC Comment: The Commission recommends that the Council review the sunset requirements for all plans, plats, and PUD's and make changes as deemed necessary.

Staff Response: Staff agrees.

12A-95 (a) Maintenance responsibilities. (Page 5 of the attached ordinance revisions.)

SWAC Comment: The Commission recommends that the term "may" be replaced with "shall" and "properties" be changed to "lots".

Staff Response: Staff disagrees. Changing "may" to "shall" would require the stormwater utility to accept the maintenance responsibilities of all stormwater management facilities. Given the financial status of the stormwater utility, staff cannot support the proposed revisions. The utility does not have the resources to take on the additional maintenance responsibility at this time.

In addition, staff believes that changing "properties" to "lots" means that the storm utility could be required to maintain the facilities for one development owned by one person or entity. Staff does not believe that maintaining infrastructure for an individual property owner is the proper function of the storm utility.

12A-110 Variances. Spells out the process for getting a variance from the rules. (Page 6 of the attached ordinance revisions.)

SWAC Comment: The Commission recommends that changes be made to the Variances section to remove the adjectives "detailed", "unreasonable", and "in detail", as well as the phrases "available in the stormwater manual or under this chapter" and "that are acceptable and requested".

Staff Response: Staff disagrees. The goal of this ordinance is to protect properties from flooding and protect water quality by ensuring that developments/redevelopments manage stormwater on their own sites and minimize the risk to downstream properties.

To this end, the variance process is supposed to be difficult and should only be accessed when true hardship is encountered. The Board of Adjustment needs detailed information in order to make informed decisions about the merits of each case.

Staff believes the proposed language in the attached revisions is appropriate and should be left as it is.

Introduced by _____

First Reading _____

Second Reading _____

Ordinance No. _____

Council Bill No. _____

AN ORDINANCE

amending Chapter 12A of the City Code as it relates to stormwater management; and fixing the time when this ordinance shall become effective.

BE IT ORDAINED BY THE COUNCIL OF THE CITY OF COLUMBIA, MISSOURI, AS FOLLOWS:

SECTION 1. Chapter 12A of the Code of Ordinances of the City of Columbia, Missouri, is hereby amended as follows:

Material to be deleted in ~~strikeout~~; material to be added underlined.

Sec. 12A-5. Definitions and rules of construction.

(a) For the purposes of this chapter, the following words and phrases shall have the meaning given herein.

...
Development: Any man-made changes to real estate, including, but not limited to, construction, filling, grading, paving, or excavation. ~~1) The improvement of property for any purpose involving construction; 2) the preparation of land for construction; or, 3) land disturbance that requires the issuance of a land disturbance permit.~~

...
Redevelopment: Development that:

- (1) Expands or replaces any development; and
- (2) Is on a site that is in compliance with all City zoning and subdivision laws and regulations; and
- (3) Is on a site that has not been subdivided after (date of adoption of ordinance); and

(4) Is on a site that is either:

(a) One (1) acre or more that has an impervious surface of more than twenty percent (20/2%) of the site; or

(b) Less than one (1) acre that has any impervious surface.

~~Any reconstruction, rehabilitation, addition or other improvement of a property (exclusive of R-1 and R-2 zoned properties) the cost of which equals or exceeds fifty (50) percent of the market value of the structure before the start of construction of the improvement.~~

Site. The total area of the parcel(s), tract(s), lot(s) or ownership of land upon which development or land disturbance is proposed irrespective of the actual limits or size of the proposed development or land disturbance activity.

Storm drain. A closed conduit or open ditch, natural or specifically constructed, for conducting or conveying collected storm water. Conduits and paved open ditches are termed "improved"; unpaved ditches are termed "unimproved".

~~*Storm drainage design manual.* A City manual intended primarily for use by land developers in the design of minor storm drainage systems, such as a storm drains, relatively small culverts, associated streets and gutter flow hydraulics, natural drainage swales, storm inlets and detention facilities. The manual includes drainage policy to be followed, standard design methods, computation forms, and City standards.~~

Storm drainage system. All drainage facilities used for collecting and conducting storm water to, through and from drainage areas to the points of final outlet including, but not limited to, the following: Conduits and appurtenant features, canals, ditches, streams, gullies, flumes, culverts, streets, gutters, and pump stations.

Stormwater. Any surface flow, runoff, and drainage consisting entirely of water from any form of natural precipitation, and resulting from such precipitation including snowmelt.

Stormwater management and water quality manual. The manual described in section 12A-91.

...

Watershed. All the land area which drains to a given body of water.

(b) This chapter shall be construed in conformity with the provisions of state and federal law.

Sec. 12A-6. Administration and enforcement.

The provisions of this chapter shall be administered and enforced by the director of public works, who may receive assistance from the police department.

...
Sec. 12A-32. Permit required.

A land disturbance permit is required for any land disturbance activity including streets and utilities construction on any site in excess of that is one (1) acre or more. All applications for land disturbance permits shall be submitted on forms issued by the director and shall contain all information required by the director. Phased development of tracts larger less than one (1) acre does not exempt the developer from the provisions of this chapter if that activity is part of a larger common plan of development or sale.

Sec. 12A-33. Site development plan.

(a) Applications for land disturbance permits for any area greater than of one (1) acre or more shall be accompanied by a detailed site development plan which shall include, a tree preservation plan, a landscaping plan, a soil erosion control plan, and a storm water management plan conforming to the provisions of this chapter. Where practical, drawings may be combined to contain all of the required plans.

...
Sec. 12A-35. Exemptions.

(a) A land disturbance permit shall not be required for sites one (1) acre or less less than one (1) acre or for individual lots in R-1 and R-2 zoned development except that erosion control provisions, grading limits, low floor elevation, and storm drainage work, including piping, swaling, and ditching, shall be shown on the plot plan and approved prior to issuance of a building permit. All land disturbance activity on such property shall conform to the provisions of the approved plot plan.

(b) Agricultural activities are exempted from the provisions of this chapter except that a land disturbance permit is required for the mechanized clearing or removal of trees on sites in of one (1) acre or more excess of one (1) acre. (Ord. No. 13019, § 1, 7-1-91; Ord. No. 13258, § 1, 3-2-92; Ord. No. 13859 § 1, 11-15-93; Ord. No. 17278, § 1, 5-6-02; Ord. No. 18164, § 1, 7-19-04)

...
Sec. 12A-49. Clearing of trees; permit required.

(a) The mechanized clearing of trees, logging of trees or clear-cutting of trees by

any means on tracts of land over of one (1) acre or more shall be unlawful unless done in compliance with a land disturbance permit.

Sec. 12A-87. Applicability.

(a) This article shall apply to all developments and redevelopments, with the exceptions and exemptions set forth in subsections (b), (c), (d) and (e), that alter the surface of the land, including but not limited to, pavement, buildings and structures with the following exceptions:

(b) Single family residences, farmland and domestic gardens are exempt from the provisions of this article.

(c) The following exceptions apply to this article when the development or redevelopment of the site results in a land disturbance of less than one (1) acre and is not a part of a larger common plan of development or sale that would disturb one (1) acre or more:

- (1) Lots within an approved preliminary plat or final plat used for single family and two-family residences lots within an approved preliminary plat;
- (2) Logging activity performed with a city approved logging plan; and
- (23) Additions or modifications to single family and two family structures. Land disturbances of less than five thousand (5,000) square feet that do not create more than five hundred (500) square feet of additional impervious surface;
- (3) Maintenance and repair of impervious surface
- (4) Redevelopment of a site less than one (1) acre.

(d) Redevelopment on a site of one (1) acre or more is eligible for partial exceptions from the requirements of this article, as set out in the stormwater manual, if the redevelopment:

- (1) Does not have an adverse impact on any known critical downstream location; and
- (2) Incorporates water quality protection to the maximum extent practicable.

The director shall track, map, add and remove known critical downstream locations and make this information available to the public. The director shall set forth criteria in the stormwater manual that details the partial exemption under this subsection.

~~(b) Stormwater detention is not required for redevelopment within the central business district.~~

~~(e-e) Stormwater management shall be provided for land in zoning districts PUD, O-P, C-P, M-R and M-P, for which a conceptual stormwater management plan was approved before September 4, 2007 in accordance with the approved conceptual stormwater management plan or in accordance with this article.~~

Sec. 12A-88. Stormwater management plan required.

(a) A stormwater management plan is required for all development and redevelopment projects subject to this article.

(b) A stormwater management plan must be submitted and approved by the director before issuance of a land disturbance or building permit and before approval of a final plat or a development plan. The stormwater management plan shall be prepared and certified by a registered professional engineer licensed in the State of Missouri.

Sec. 12A-95. Maintenance and repair of stormwater management facilities.

~~(a) Before approval of a stormwater management plan, the property owner must execute an easement in favor of the city allowing the city access to all stormwater management facilities on the property for inspection and, if the facility is to be maintained by the city, for maintenance.~~

(b-a) Maintenance of all stormwater management facilities shall be ensured through the creation of a formal maintenance covenant, which must be approved by the director before final plat or plan approval and subsequently be recorded by the city with the Boone County Recorder of Deeds. The covenant will include a schedule for maintenance of the facilities to insure proper function of each stormwater management facility. The covenant shall also include a schedule for inspections of each facility to ensure proper function of each stormwater management facility between scheduled maintenance functions.

The director, in lieu of a maintenance covenant, may accept dedication of stormwater management facilities for city maintenance based on specific criteria developed by the director and generally limited to those stormwater management facilities which serve multiple properties. Any stormwater management facility accepted by the city for maintenance must meet all the requirements of this article and include adequate access easements for inspection and regular maintenance.

~~(e-b)~~ All stormwater management facilities shall be inspected at least once each

year, during the period beginning on March 1 and ending on May 31, to document maintenance and repair needs and to ensure compliance with this article. The facilities should also be inspected after each heavy rainfall and any necessary maintenance should be performed such as removal of silt, litter and debris from all catch basins, inlets, pipes and outlet structures.

All maintenance needs must be addressed in a timely manner. The inspection and maintenance schedule may be modified for each facility based on results of the initial inspection program as deemed necessary to be fully compliant with the purpose of this article.

~~(d-c) City~~ The director may request to inspect inspections may be routine, random or complaint driven any stormwater management facility. Inspections may involve full evaluation of the physical structure and condition of the facility; review of the prior inspection, repair and maintenance records; and sampling of the surface water, discharges and groundwater as deemed necessary.

~~(e-d)~~ Persons responsible for the operation and maintenance of stormwater management facilities shall make records of the inspection, repair, maintenance and any modifications to the facilities and shall retain these records for a minimum of five (5) years. These records shall be made available to the director during inspection of the facility or at any time upon request. Inspection and maintenance records shall be submitted to the director by June 1 of each year. Any failure to submit these records shall be unlawful and subject to the penalties of section 12A-11.

~~(f-e)~~ Failure to properly maintain a stormwater management facility is hereby declared a nuisance and may be abated under the procedures set forth in section 12A-202.

...
Sec. 12A-110. Variances.

(a) Any property owner may petition the board of adjustment for a variance from strict compliance with the requirements of this chapter. The petition shall be in writing and shall state the grounds for the petition and all facts relied upon by petitioner. The petition shall include a written detailed explanation of all unreasonable burdens or hardships and state in detail how all options available in the stormwater manual or under this chapter have been exhausted. The petition shall address in detail how the petitioner complies with subsections (b)(1)-(4) and (c) of this section, including all evidence and support that no adverse downstream impacts exist; and a list of all reasonable mitigation measures that are acceptable and requested.

(b) The board of adjustment shall not grant a variance from the requirements of this chapter unless it shall make all of the following findings:

SECTION 2. This ordinance shall be in full force and effect from and after its passage.

PASSED this _____ day of _____, 2010.

ATTEST:

City Clerk

Mayor and Presiding Officer

Source:
John Glascock
John

FISCAL and VISION NOTES:

City Fiscal Impact Enter all that apply:	
\$0	City's current net FY cost.
\$0	Amount of Funds Already appropriated
\$0	Amount of budget amendment needed
\$0	Estimated 2 yr net costs:
\$0	One-time
\$0	Operating / On-going
Program Impact:	
N	New program/ agency (Y/N)
N	Duplicates/expands an existing program (Y/N)
N	Fiscal impact on any local political subdivision (Y/N)
Resources Required:	
N	Requires add'l FTE personnel? (Y/N)
N	Requires additional facilities? (Y/N)
N	Requires additional capital equipment? (Y/N)
Mandates:	
N	Federal or state mandated? (Y/N)
Vision Implementation Impact Enter Below All That Applies: Refer to Website:	
Y	Vision Impact? (Y/N or if N, go no further)
Item #9:1	Primary Vision, Strategy and/or Goal Item#
Item #	Secondary Vision, Strategy and/or Goal Item#
Task #	FY10/FY11 Implementation Task#

Agenda Item No. _____

COPY

2

TO: City Council
FROM: City Manager and Staff *MM*
DATE: November 14, 2011
RE: Proposed Changes to Chapter 12A -- Storm Water Rules

EXECUTIVE SUMMARY:

Staff has prepared for Council consideration an ordinance amending Chapter 12A of the City Code relating to storm water rules and regulations. The proposed revisions deal primarily with the topic of redevelopment.

DISCUSSION:

City Council created the Storm Water Advisory Commission (SWAC) on February 15, 2010. Since that time staff has met with the SWAC on numerous occasions in order to draft revisions to Chapter 12A of City Code.

On September 6, 2011, staff presented a report to Council regarding these proposed 12A ordinance revisions and the SWAC comments (copy of report is attached for reference.) Since the September Council meeting, City staff and the SWAC, have been able to reach an agreement on most items. Two of the most contentious items are "Common Plan of Development" and "Maximum Extent Practicable".

Common Plan of Development

The proposed Section 12A-32 states, "Development of tracts less than one (1) acre does not exempt the developer from the provisions of this chapter if the activity is part of a larger common plan of development or sale."

As outlined in staff's August 30, 2011 Council report (copy attached), the SWAC has suggested that the words "or sale" be removed from the proposed ordinance. Staff believes the wording "or sale" needs to remain in the proposed ordinance because Federal Rules and Regulations Section 122.34 (b) (4) Construction site storm water runoff control. (i) state... "Reduction of storm water discharges from construction activity disturbing less than one acre must be included in your program if that construction activity is part of a larger common plan of development or sale that would disturb one acre or more." This requirement is repeated in

Columbia's MS4 Permit No. MO-0136557 (attached) Section 4.2.4 1 (i), on Construction Site Storm Water Runoff Control, and also in Section 4.2.5.1 on Post-Construction Storm Water Management in New Development and Redevelopment. Therefore, in order to be consistent with the federal rules and regulations, and Columbia's MS4 Permit, staff is recommending that the ordinance be approved as written.

Maximum Extent Practicable

The proposed Section 12A-87(e)2 provides in part that redevelopment on a site of one acre or more is eligible for a partial exception from the requirements of the ordinance if the redevelopment, "incorporates water quality protection to the maximum extent practicable."

As outlined in staff's August 30, 2011 Council report (copy attached), the SWAC has suggested that the language "incorporate water quality protection to the maximum extent practical" be removed from the proposed ordinance. Staff believes the language "incorporate water quality protection to the maximum extent practical" needs to remain in the proposed ordinance because Federal Rules and Regulations 40CFR, Section 122.34 (a) states "Your NPDES MS4 Permit will require at a minimum that you develop, implement, and enforce a storm water management program designed to reduce the discharge of pollutants from your MS4 to the maximum extent practicable, to protect water quality and to satisfy the appropriate water quality requirements of the Clean Water Act." To the maximum extent practicable is reaffirmed two additional times in 122.34 (a) in reference to requiring implementation of best management practices and reducing pollutants.

Columbia's MS4 Permit No. MO-0136557, Section 4.1 requirements repeats this language stating, "Per state regulation 10 CSR 20-6.200 and federal regulations 40CFR Parts 9, 122, the permittee shall develop, implement, and enforce a storm water management program and plan (SWMP) designed to reduce the discharge of pollutants from the permittee's regulated MS4 to the maximum extent practicable, to protect water quality, and to satisfy the appropriate water quality requirements of the Missouri Clean Water Law." The requirement is repeated in Section 4.1.4 as information that is required for each of the six minimum control measures of the permit. Section 4.1.4 states "The permittee shall develop, implement, and enforce a storm water management program designed to reduce the discharge of pollutants to the maximum extent practicable, to protect water quality, and to protect water quality requirements of Clean Water Act.

The Joint Storm Water Management Plan (attached) affirms commitment to this requirement. "The three co-permittees, Boone County, Columbia and MU, have developed and implemented this program in order to protect water quality and effectively reduce storm water pollutant runoff within their respective jurisdictions to the maximum extent practicable."

Therefore, in order to be consistent with the federal and state rules and regulations, Columbia's MS4 Permit, and Boone County, Columbia and MU Joint Storm water Management Plan, staff is recommending that the ordinance be approved as written.

FISCAL IMPACT:

There is no direct fiscal impact to the City, although the ordinance changes are expected to allow for more efficient use of staff time.

VISION IMPACT:

Columbia and its neighboring communities will be a place where the air, water, land and natural aesthetic qualities of our environment shall be protected by a combination of conservation strategies including, but not limited to regulations and ordinances, conservation incentives, education programs, and smart growth planning.

SUGGESTED COUNCIL ACTIONS:

Approve the ordinance amending Chapter 12A of the City Code.

Introduced by _____

First Reading _____

Second Reading _____

Ordinance No. _____

Council Bill No. B 328-11

AN ORDINANCE

amending Chapter 12A of the City Code as it relates to stormwater management; and fixing the time when this ordinance shall become effective.

BE IT ORDAINED BY THE COUNCIL OF THE CITY OF COLUMBIA, MISSOURI, AS FOLLOWS:

SECTION 1. Chapter 12A of the Code of Ordinances of the City of Columbia, Missouri, is hereby amended as follows:

Material to be deleted in ~~strikeout~~; material to be added underlined.

Sec. 12A-5. Definitions.

(a) For the purposes of this chapter, the following words and phrases shall have the meaning given herein.

...

Development. Any manmade changes to real estate, including, but not limited to, construction, filling, grading, paving or excavation ~~1) The improvement of property for any purpose involving construction; 2) the preparation of land for construction; or, 3) land disturbance that requires the issuance of a land disturbance permit.~~

...

Redevelopment. ~~Any reconstruction, rehabilitation, addition or other improvement of a property (exclusive of R-1 and R-2 zoned properties) the cost of which equals or exceeds fifty (50) percent of the market value of the structure before the start of construction of the improvement.~~ Development that:

- (1) Expands or replaces any development; and
- (2) Is on a site that has not been subdivided after December 5, 2011; and

(3) Is on a site that is either:

a. One (1) acre or more that has an impervious surface of more than twelve percent (12%) of the site; or

b. Less than one (1) acre that has any impervious surface.

Site. The total area of the parcel(s), tract(s), lot(s) or ownership of land upon which development or land disturbance is proposed irrespective of the actual limits or size of the proposed development or land disturbance activity.

Storm drain. A closed conduit or open ditch, natural or specifically constructed, for conducting or conveying collected storm water. Conduits and paved open ditches are termed "improved"; unpaved ditches are termed "unimproved".

~~*Storm drainage design manual.* A City manual intended primarily for use by land developers in the design of minor storm drainage systems, such as a storm drains, relatively small culverts, associated streets and gutter flow hydraulics, natural drainage swales, storm inlets and detention facilities. The manual includes drainage policy to be followed, standard design methods, computation forms, and City standards.~~

Storm drainage system. All drainage facilities used for collecting and conducting storm water to, through and from drainage areas to the points of final outlet including; but not limited to, the following: Conduits and appurtenant features, canals, ditches, streams, gullies, flumes, culverts, streets, gutters, and pump stations.

Stormwater. Any surface flow, runoff, and drainage consisting entirely of water from any form of natural precipitation, and resulting from such precipitation including snowmelt.

Stormwater management and water quality manual. The manual described in section 12A-91.

Stormwater management facilities. This term includes measures, primarily structural, which are determined to be the most effective, practical means of preventing or reducing point source or non-point source pollution inputs to stormwater runoff and subsequently into water bodies. These facilities are also used to control volume and peak rates of runoff from development and redevelopment sites.

...

Watershed. All the land area which drains to a given body of water.

(b) This chapter shall be construed in conformity with the provisions of state and federal law.

...

Sec. 12A-32. Permit required.

A land disturbance permit is required for any land disturbance activity including streets and utilities construction on any site ~~in excess of that is~~ one (1) acre or more. All applications for land disturbance permits shall be submitted on forms issued by the director and shall contain all information required by the director. The applicant for the permit shall be responsible for field verifying to the city the actual area being disturbed. ~~Phased development~~ Development of tracts larger less than one (1) acre does not exempt the developer from the provisions of this chapter if that activity is part of a larger common plan of development or sale.

Sec. 12A-33. Site development plan.

(a) Applications for land disturbance permits for any area ~~greater than of one (1) acre or more~~ shall be accompanied by a detailed site development plan which shall include, a tree preservation plan, a landscaping plan, a soil erosion control plan, and a storm water management plan conforming to the provisions of this chapter. Where practical, drawings may be combined to contain all of the required plans.

...

Sec. 12A-35. Exemptions.

(a) A land disturbance permit shall not be required for sites less than one (1) acre ~~or less or~~ for individual lots in R-1 and R-2 zoned development except that erosion control provisions, grading limits, low floor elevation, and storm drainage work, including piping, swaling, and ditching, shall be shown on the plot plan and approved prior to issuance of a building permit. All land disturbance activity on such property shall conform to the provisions of the approved plot plan.

(b) Agricultural activities are exempted from the provisions of this chapter except that a land disturbance permit is required for the mechanized clearing or removal of trees on sites ~~in excess of one (1) acre~~ or more.

...

Sec. 12A-49. Clearing of trees; permit required.

(a) The mechanized clearing of trees, logging of trees or clear-cutting of trees by any means on tracts of land ~~over of one (1) acre~~ or more shall be unlawful unless done in compliance with a land disturbance permit.

...

Sec. 12A-87. Applicability.

(a) This article shall apply to all developments with the exceptions and exemptions set forth in subsections (b), (c), (d), (e) and (f), and redevelopments that alter the surface of the land, including but not limited to, pavement, buildings and structures with the following exceptions:

- (1) Single-family and two-family lots within an approved preliminary plat;
- (2) Logging activity performed with a city approved logging plan; and
- (3) Additions or modifications to single-family and two-family structures.

(b) Stormwater detention is not required for redevelopment within the central business district. Single family residences, farmland and domestic gardens are exempt from the provisions of this article.

(c) Linear, strip, or ribbon construction or maintenance operations within existing city and state right-of-way that are approved by the director and in compliance with state and federal law are exempt from the provisions of this article.

(d) The following exceptions apply to this article when the development of the site results in a land disturbance of less than one (1) acre and is not a part of a larger common plan of development or sale that would disturb one (1) acre or more:

- (1) Lots within an approved preliminary plat or final plat used for single-family and two-family residences and land disturbance on an individual residential building lot;
- (2) Land disturbances of less than ten thousand (10,000) square feet that do not create more than five hundred (500) square feet of additional impervious surface;
- (3) Maintenance and repair of impervious surface, including gravel and stone impervious surfaces; and
- (4) Redevelopment of a site less than one (1) acre.

(e) Redevelopment on a site of one (1) acre or more is eligible for partial exceptions from the requirements of this article, as set out in the stormwater manual, if the redevelopment:

- (1) Does not have an adverse impact on any known critical downstream location;
and

- (2) Incorporates water quality protection to the maximum extent practicable.

The director shall track, map, add and remove known critical downstream locations and make this information available to the public. The director shall set forth criteria in the stormwater manual that details the partial exemption under this subsection.

(e-f) Stormwater management shall be provided for land in zoning districts PUD, O-P, C-P, M-R and M-P, for which a conceptual stormwater management plan was approved before September 4, 2007 in accordance with the approved conceptual stormwater management plan or in accordance with this article.

...

Sec. 12A-95. Maintenance and repair of stormwater management facilities.

~~(a) Before approval of a stormwater management plan, the property owner must execute an easement in favor of the city allowing the city access to all stormwater management facilities on the property for inspection and, if the facility is to be maintained by the city, for maintenance.~~

(b-a) Maintenance of all stormwater management facilities shall be ensured through the creation of a formal maintenance covenant, which must be approved by the director before final plat or plan approval and subsequently be recorded by the city with the Boone County Recorder of Deeds. The covenant will include a schedule for maintenance of the facilities to insure proper function of each stormwater management facility. The covenant shall also include a schedule for inspections of each facility to ensure proper function of each stormwater management facility between scheduled maintenance functions.

...

(e-b) All stormwater management facilities shall be inspected at least once each year, during the period beginning on March 1 and ending on May 31, to document maintenance and repair needs and to ensure compliance with this article. The facilities should also be inspected after each heavy rainfall and any necessary maintenance should be performed such as removal of silt, litter and debris from all catch basins, inlets, pipes and outlet structures.

~~(d-c) City inspections may be routine, random or complaint driven. The director may inspect any stormwater management facility as set forth in section 12A-192.~~ Inspections may involve full evaluation of the physical structure and condition of the facility; review of the prior inspection, repair and maintenance records; and sampling of the surface water, discharges and groundwater as deemed necessary.

(e-d) Persons responsible for the operation and maintenance of stormwater management facilities shall make records of the inspection, repair, maintenance and any modifications to the facilities and shall retain these records for a minimum of five (5) years. These records shall be made available to the director during inspection of the facility or at any time upon request. Inspection and maintenance records shall be submitted to the director by June 1 of each year. Any failure to submit these records shall be unlawful and subject to the penalties of section 12A-11.

(f-e) Failure to properly maintain a stormwater management facility is hereby declared a nuisance and may be abated under the procedures set forth in section 12A-202.

...

Sec. 12A-110. Variances.

(a) Any property owner may petition the board of adjustment for a variance from strict compliance with the requirements of this chapter. The petition shall be in writing and shall state the grounds for the petition and all facts relied upon by petitioner. The petition shall include a written detailed explanation of all unreasonable burdens or hardships and how all options available in the stormwater manual or under this chapter have been exhausted. The petition shall address in detail how the petitioner is in compliance with subsections (b)(1) through (4) and (c) of this section; shall include all evidence and support that no adverse downstream impacts exist; and shall list all reasonable mitigation measures that are acceptable.

...

SECTION 2. This ordinance shall be in full force and effect from and after its passage.

PASSED this _____ day of _____, 2011.

ATTEST:

City Clerk

Mayor and Presiding Officer

APPROVED AS TO FORM:

City Counselor

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES
MISSOURI CLEAN WATER COMMISSION



MISSOURI STATE OPERATING PERMIT

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S.Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

Permit No. MO-0136557

Owner:	University of Missouri	City of Columbia	County of Boone
Address:	8 Research Park Development Bldg	701 E. Broadway	801 E. Walnut
	Columbia, MO 65211	Columbia, MO 65201	Columbia, MO 65201

Continuing Authority: Same as above

Facility Name: Boone Co/Columbia/MU MS4
Facility Address: 8 Research Park
Columbia, MO 65211

Legal Description: See pages i through iv
Latitude/Longitude: See pages i through iv

Receiving Stream: See pages i through iv
First Classified Stream and ID: See pages i through iv
USGS Basin & Sub-watershed No.: See pages i through iv

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

FACILITY DESCRIPTION

All Outfalls

Discharges from Small (Phase II) Regulated Municipal Separate Storm Sewer Systems

SIC 9511/NAICS 924110

This permit authorizes only wastewater discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 644.051.6 of the Law.

January 28, 2011
Effective Date

January 27, 2016
Expiration Date

Sara Parker Pauley, Director, Department of Natural Resources

John Madros, Director, Water Protection Program

OUTFALL 001

Legal Description
Latitude: +385428.0
Receiving Water
1st Classified
USGS/ SUB WATERSHED

¼ SE, ¼ SW, Sec 27, T48N, R12W, Boone County
Longitude: -0921528.0
Tributary to Gans Creek (U)
Gans Creek (C) (1004)
10300102-130001

OUTFALL 002

Legal Description
Latitude: +385948.0
Receiving Water
1st Classified
USGS/ SUB WATERSHED

¼ NW, ¼ NW, Sec 34, T49N, R13W, Boone County
Longitude: -0922235.0
Rocky Fork (C)
Rocky Fork (C) (1014)
10300102-110005

OUTFALL 003

Legal Description
Latitude: +385818.4
Receiving Water
1st Classified
USGS/ SUB WATERSHED

¼ NW, ¼ SW, Sec 12, T48N, R15W, Boone County
Longitude: -0923322.0
Missouri River (P)
Missouri River (P) (701) 303(d)
10300102-110007

OUTFALL 004

Legal Description
Latitude: +391325.0
Receiving Water
1st Classified
USGS/ SUB WATERSHED

¼ NW, ¼ SW, Sec 12, T51N, R13W, Boone County
Longitude: -0921952.0
Tributary to Lick Fork (U)
Lick Fork (C) (1024)
10300102-110002

OUTFALL 005

Legal Description
Latitude: +391441.0
Receiving Water
1st Classified
USGS/ SUB WATERSHED

¼ NW, ¼ NW, Sec 4, T51N, R12W, Boone County
Longitude: -0921622.0
Saling Creek (U)
Reese Fork Creek (C) (136)
07110006-020002

OUTFALL 006

Legal Description
Latitude: +391428.0
Receiving Water
1st Classified
USGS/ SUB WATERSHED

¼ SE, ¼ SW, Sec 33, T52N, R11W, Boone County
Longitude: -0920908.0
Goodwater Creek (U)
Youngs Creek (C) (140)
07110006-030001

OUTFALL 007

Legal Description
Latitude: +391433.3
Receiving Water
1st Classified
USGS/ SUB WATERSHED

¼ SW, ¼ SE, Sec 36, T52N, R12W, Boone County
Longitude: -0921217.0
Long Branch Creek (U)
Long Branch Creek (C) (139)
07110006-030002

OUTFALL 008

Legal Description
Latitude: +390259.0
Receiving Water
1st Classified
USGS/ SUB WATERSHED

¼ SW, ¼ SE, Sec 7, T49N, R14W, Boone County
Longitude: -0923204.0
Prairie Creek (U)
Moniteau Creek (P) (754)
10300102-070002

OUTFALL 009

Legal Description
Latitude: +384729.0
Receiving Water
1st Classified
USGS/ SUB WATERSHED

¼ SE, ¼ SW, Sec 3, T46N, R13W, Boone County
Longitude: -0922247.0
Bonne Femme Creek (P)
Bonne Femme Creek (P) (750)
10300102-130003

OUTFALL 010

Legal Description
Latitude: +384904.0
Receiving Water
1st Classified
USGS/ SUB WATERSHED

LG 1726, Boone County
Longitude: -0922307.0
Little Bonne Femme Creek (P)
Little Bonne Femme Creek (P) (1003)
10300102-130001

OUTFALL 011

Legal Description
Latitude: +384912.0
Receiving Water
1st Classified
USGS/ SUB WATERSHED

Sec 33, T47N, R13W, Boone County
Longitude: -0922325.0
Perche Creek (P1)
Perche Creek (P1) (1005)
10300102-110008

OUTFALL 012

Legal Description
Latitude: +385942.0
Receiving Water
1st Classified
USGS/ SUB WATERSHED

¼ SW, ¼ SW, Sec 29, T49N, R12W, Boone County
Longitude: -0921807.0
Bear Creek (U)
Bear Creek (C) (1015)
10300102-110005

OUTFALL 013

Legal Description
Latitude: +391156.0
Receiving Water
1st Classified
USGS/ SUB WATERSHED

¼ SW, ¼ SW, Sec 13, T51N, R11W, Boone County
Longitude: -0920619.0
Youngs Creek (U)
Youngs Creek (C) (140)
07110006-030001

OUTFALL 014

Legal Description
Latitude: +384005.0
Receiving Water
1st Classified
USGS/ SUB WATERSHED

Sec 21, T45N, R12W, Boone County
Longitude: -0921736.0
Slate Creek (U)
Missouri River (P) (701) 303(d)
10300102-130004

OUTFALL 015

Legal Description
Latitude: +384022.0
Receiving Water
1st Classified
USGS/ SUB WATERSHED

¼ NE, ¼ NW, Sec 19, T45N, R12W, Boone County
Longitude: -0921927.0
Hart Creek (C)
Hart Creek (C) (748)
10300102-130004

OUTFALL 016

Legal Description
Latitude: +384355.0
Receiving Water
1st Classified
USGS/ SUB WATERSHED

¼ NE, ¼ NW, Sec 35, T46N, R13W, Boone County
Longitude: -0922135.0
Glascock Branch (U)
Missouri River (P) (701) 303(d)
10300102-130004

OUTFALL 017

Legal Description
Latitude: +384400.0
Receiving Water
1st Classified
USGS/ SUB WATERSHED

¼ SW, ¼ SW, Sec 26, T46N, R13W, Boone County
Longitude: -0922152.0
Grider Branch (U)
Missouri River (P) (701) 303(d)
10300102-130004

OUTFALL 018

Legal Description
Latitude: +385631.0
Receiving Water
1st Classified
USGS/ SUB WATERSHED

¼ SW, ¼ NE, Sec 20, T48N, R14W, Boone County
Longitude: -0923102.0
Sinking Creek (U)
Missouri River (P) (701) 303(d)
10300102-110007

OUTFALL 019

Legal Description
Latitude: +385418.0
Receiving Water
1st Classified
USGS/ SUB WATERSHED

¼ SW, ¼ SW, Sec 35, T48N, R14W, Boone County
Longitude: -0922830.0
Grocery Branch (U)
Missouri River (P) (701) 303(d)
10300102-110008

OUTFALL 020

Legal Description
Latitude: +385509.0
Receiving Water
1st Classified
USGS/ SUB WATERSHED

LG 2457, Boone County
Longitude: -0922922.0
Terrapin Creek (U)
Missouri River (P) (701) 303(d)
10300102-110007

OUTFALL 021

Legal Description
Latitude: +384120.0
Receiving Water
1st Classified
USGS/ SUB WATERSHED

¼ SW, ¼ SW, Sec 7, T45N, R11W, Boone County
Longitude: -0921305.0
Cedar Creek (P)
Cedar Creek (P) (733)
10300102-190004

OUTFALL 022

Legal Description
Latitude: +390103.0
Receiving Water
1st Classified
USGS/ SUB WATERSHED

¼ SE, ¼ NE, Sec 22, T49N, R11W, Boone County
Longitude: -0920801.0
Cedar Creek (P)
Cedar Creek (P) (737) 303(d)
10300102-190001

OUTFALL 023

Legal Description
Latitude: +384247.0
Receiving Water
1st Classified
USGS/ SUB WATERSHED

¼ NW, ¼ NW, Sec 6, T45N, R11W, Boone County
Longitude: -0921300.0
Cedar Creek (P)
Cedar Creek (P) (733)
10300102-190003

OUTFALL 024

Legal Description
Latitude: +384316.0
Receiving Water
1st Classified
USGS/ SUB WATERSHED

¼ NE, ¼ SW, Sec 31, T46N, R11W, Boone County
Longitude: -0921242.0
Brushy Creek (C)
Brushy Creek (C) (746)
10300102-190003

OUTFALL 025

Legal Description
Latitude: +385043.0
Receiving Water:
1st Classified
USGS/ SUB WATERSHED

¼ NE, ¼ NW, Sec 22, T47N, R11W, Boone County
Longitude: - 0920853.0
Cedar Creek (C)
Cedar Creek (C) (737)
10300102-190002

OUTFALL 026

Legal Description
Latitude: +390422.0
Receiving Water
1st Classified
USGS/ SUB WATERSHED

¼ SE, ¼ NE, Sec 34, T50N, R11W, Boone County
Longitude: - 0920750.0
Tributary to Cedar Creek (U)
Cedar Creek (C) (737)
10300102-190001

OUTFALL 027

Legal Description
Latitude: +385155.0
Receiving Water
1st Classified
USGS/ SUB WATERSHED

¼ NW, ¼ SE, Sec 9, T47N, R11W, Boone County
Longitude: - 0920943.0
Cedar Creek (C)
Cedar Creek (C) (737)
10300102-190002

OUTFALL 028

Legal Description
Latitude: +384903.0
Receiving Water
1st Classified
USGS/ SUB WATERSHED

¼ SW, ¼ SW, Sec 25, T47N, R12W, Boone County
Longitude: - 0921350.0
Tributary to Bass Creek (U)
Bass Creek (C) (752)
10300102-130002

OUTFALL 029

Legal Description
Latitude: +3854140
Receiving Water
1st Classified
USGS/ SUB WATERSHED

¼ SE, ¼ SW, Sec 28, T48N, R11W, Boone County
Longitude: - 09209520
Cedar Creek (C)
Cedar Creek (C) (737)
10300102-190001

OUTFALL 030

Legal Description
Latitude: +385736.0
Receiving Water
1st Classified
USGS/ SUB WATERSHED

¼ SW, ¼ NE, Sec 11, T48N, R12W, Boone County
Longitude: - 0921410.0
Tributary to North Fork Grindstone Creek (U)
North Fork Grindstone Creek (C) (1010)
10300102-120002

OUTFALL 031

Legal Description
Latitude: +390125.0
Receiving Water
1st Classified
USGS/ SUB WATERSHED

¼ SE, ¼ SE, Sec 15, T49N, R12W, Boone County
Longitude: - 0921445.0
Hinkson Creek (C)
Hinkson Creek (C) (1008)
10300102-120001

Table of Contents

1. Coverage Under this Permit
 - 1.1 Permit Area
 - 1.2 Eligibility
 - 1.3 Limitations on Coverage
 - 1.4 Obtaining Authorization
2. Application Requirements
 - 2.1 Deadlines for Application
 - 2.2 Additional designations after the date of permit issuance
 - 2.3 Submitting a Late application
3. Special Conditions
 - 3.1 Total Maximum Daily Load (TMDL)
 - 3.2 Duty to Comply
 - 3.3 Continuation of the Expired Permit
 - 3.4 Need to Halt or Reduce Activity Not a Defense
 - 3.5 Permit Transfers
 - 3.6 Procedures for Modification or Revocation
 - 3.7 Requiring a Modified Site-Specific or an Alternative General Permit
4. Storm Water Management Programs and Plans
 - 4.1 Requirements
 - 4.2 Minimum Control Measures
 - 4.3 Sharing Responsibility
 - 4.4 Reviewing and Updating Storm Water Management Programs and Plans
5. Monitoring, Recordkeeping and Reporting
 - 5.1 Monitoring
 - 5.2 Recordkeeping
 - 5.3 Reporting
6. Standard Permit Conditions
7. Definitions

1. **Coverage Under this Permit**

1.1 **Permit Area**

This permit covers all areas served by a municipal separate storm sewer systems (MS4s) for which the applicants are identified as the continuing authorities.

1.2 **Eligibility**

1.2.1 This permit authorizes discharges of storm water from regulated MS4s, as defined in 10 CSR 20-6.200. The permittee, or co-permittee, is authorized to discharge under the terms and conditions of this permit if the permittee:

1.2.1.1 Owns or operates a regulated MS4 as defined in 10 CSR 20-6.200; located fully or partially within an urbanized area as determined by the latest Decennial Census by the Bureau of Census or designated for permit authorization by the Department pursuant to 10 CSR 20-6.200; and

1.2.1.2 Submits a permit application in accordance with Section 2 of this permit; and

1.2.1.3 Complies with the terms of this permit.

1.2.2 The following are types of discharges authorized by this permit:

1.2.2.1 *Storm water discharges.* This permit authorizes storm water discharges to waters of the state from the regulated MS4s identified on the certificate page of this permit, except as excluded in Section 1.3.

1.2.2.2 *Non-storm water discharges.* The permittee is authorized to discharge the following non-storm water sources provided that the permitting authority has not determined these sources to be substantial contributors of pollutants to the permittee's MS4 that require a separate permit:

- water line and fire hydrant flushing
- Landscape irrigation
- Rising ground waters
- Uncontaminated ground water infiltration (infiltration is defined as water other than wastewater that enters a sewer system, including sewer service connections and foundation drains, from the ground through such means as defective pipes, pipe joints, connections, or manholes. Infiltration does not include, and is distinguished from, inflow.)
- Uncontaminated pumped ground water
- Discharges from potable water sources
- Foundation drains
- Air conditioning condensate
- Springs
- Water from crawl space pumps
- Footing drains
- Lawn watering
- Flows from riparian habitats and wetlands
- Street wash water
- Discharges or flows from emergency fire fighting activities
- Individual residential car washing
- Dechlorinated residential swimming pool discharges

1.3 **Limitations on Coverage**

This permit does not authorize:

1.3.1 Discharges that are mixed with sources of non-storm water unless such non-storm water discharges are:

1.3.1.1 In compliance with a separate NPDES permit; or

- 1.3.1.2 Determined not to be a substantial contributor of pollutants to waters of the state.
- 1.3.2 Storm water discharges associated with industrial activities requiring separate NPDES permits as defined in 10 CSR 20-6.200.
- 1.3.3 Storm water discharges associated with construction activities requiring separate NPDES permits as defined in 10 CSR 20-6.200.
- 1.3.4 Storm water discharges currently covered under another permit.
- 1.3.5 Discharges that are likely to jeopardize the continued existence of any species that are listed as endangered or threatened under the Endangered Species Act (ESA) or result in the adverse modification or destruction of habitat that is designated as critical under the ESA.
- 1.3.6 Discharges that violate the National Historic Preservation Act.
- 1.3.7 Discharges that cause or contribute to a violation of instream water quality standards. The permittee shall develop, implement, and enforce a SWMP designed to reduce the discharge of pollutants from the MS4 to the "maximum extent practicable (MEP), to protect water quality, and to satisfy the appropriate water quality requirements of the Clean Water Act." Implementation of best management practices consistent with the provisions of the stormwater management program and the provisions of this permit constitutes compliance with the standard of reducing pollutants to the "maximum extent practicable, to protect water quality, and to satisfy the appropriate water quality requirements of the Clean Water Act."
- 1.4 Obtaining Authorization
 - 1.4.1 To be authorized to discharge storm water from regulated MS4s, the applicant/permittee shall submit an application and a written description of the permittee's SWMP in accordance with the deadlines presented in Section 2 of this permit.
 - 1.4.2 The permittee shall submit the information required in Section 2 on the latest version of the application form (or photocopy thereof). The permittee's application shall be signed and dated by an authorized signatory.
 - 1.4.3 Where the operator changes, where an operator is removed or where a new operator is added after submittal of an application under Section 2, a new application shall be submitted in accordance with Section 2 prior to the change or addition.
- 2. Application Requirements
 - 2.1 Deadlines for Application

If the MS4 is regulated pursuant to 10 CSR 20-6.200 then the operator is required to seek coverage under the applicable Small MS4 General Permit or a site-specific MS4 permit as follows:

 - 2.1.1 If small MS4 permittee chooses to apply for the Small MS4 general permit after the issuance of a site-specific MS4 permit, application shall be submitted 180 days prior to expiration of the existing permit unless an extended due date has been granted by the Department, and the application must include a written draft Storm Water Management Program plan (SWMP) to cover the five-year permit period. The applicant must submit a final SWMP document within 90 days from the date of Small MS4 general permit issue; or
 - 2.1.2 If the small MS4 permittee applies for a site-specific permit, application shall be made 180 days prior to expiration of existing permit and the five-year SWMP plan must be included with the application.

2.2 Additional designations after the date of permit issuance

If the MS4 is specially designated by the Department after the date of permit issuance, then the MS4 is required to:

- 2.2.1 Submit application for a site-specific MS4 permit or a small general MS4 permit (whichever applies) and a written description of the permittee's SWMP to the Department within 180 days of notice.

2.3 Submitting a Late application

The permittee is not prohibited from submitting an application after the dates provided in Section 2.1. The Department reserves the right to take appropriate enforcement actions for any unpermitted discharges.

3. Special Conditions

3.1 Total Maximum Daily Load (TMDL)

- 3.1.1 If a TMDL has been developed and approved by EPA for any waterbody into which the permittee discharges, the permittee shall implement best management practices (BMPs) to attenuate the discharge of the TMDL regulated parameters to the associated stream and/or lake. These BMPs, intended to attenuate the discharge of the TMDL regulated parameters are to be implemented within the permit area wherever stormwater drains to the associated impaired stream or lake. BMPs shall be implemented for each of the final TMDL regulated parameters consistent with the TMDL implementation schedule. Within twelve months of the finalization of each TMDL, the permittee shall assess the SWMP and update the SWMP as necessary to implement each TMDL.

- 3.1.2 The permittee shall describe a monitoring program to determine whether the storm water controls are adequate to meet the WLAs for TMDL parameters or other performance requirements specifically for storm water discharge from the permittee's MS4. Such monitoring program may require the development of a Quality Assurance Project Plan (QAPP) or suitable alternative.

3.2 Duty to Comply

- 3.2.1 The permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of Missouri Clean Water Law and is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or for denial of a permit renewal.

- 3.2.2 This permit authorizes only the activities described in this permit.

- 3.2.3 Nothing in this permit shall be construed so as to prevent the Department from taking appropriate action as authorized by law.

3.3 Continuation of this Expired Permit

- 3.3.1 If this permit is not reissued or replaced prior to the expiration date, it will be administratively continued in accordance with 10 CSR 20-6.010 (10)(E) and remain in force and effect. Any permittee who was granted permit coverage prior to the expiration date will automatically remain covered by the continued permit until the earlier of:

- 3.3.1.1 Reissuance or replacement of this permit, at which time the permittee shall comply with the application conditions of the new permit to maintain authorization to discharge; or

- 3.3.1.2 Notice of Termination; or

- 3.3.1.3 Issuance of a site-specific permit for your discharges; or

- 3.3.1.4 A permit decision by the Director to terminate or not reissue this permit, at which time the permittee shall seek coverage under a modified or alternative permit.
- 3.4 Need to Halt or Reduce Activity Not a Defense
- Actions by the permittee in an enforcement action to halt or reduce the permitted activity do not excuse non-compliance with this permit or any provision of the Missouri Clean Water Law.
- 3.5 Permit Transfers
- This permit is not transferable to any other legal entity except after notice to the Department. The Department may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary.
- 3.6 Procedures for Modification, Revocation, and Reopening
- 3.6.1 If at any time the Missouri Department of Natural Resources determines that the quality of waters of the state may be better protected by reopening this permit or requiring the owner/operator of the permitted site to apply for a modified site-specific permit or alternative permit, the Department may require any person to obtain such an operating permit as authorized by 10 CSR 20-6.010(13) and 10 CSR 20-6.200(5).
- 3.6.2 In the event a co-permittee needs to be added or removed from this permit, a permit modification request must be submitted to the Department as soon as possible.
- 3.6.3 If this permit is re-opened, modified or revoked pursuant to this Section, the permittee retains all rights under Chapter 536 and 644 Revised Statutes of Missouri upon the Department's reissuance of the permit as well as all other forms of administrative, judicial, and equitable relief available under law.
- 3.7 Requiring a Modified Site-Specific Permit or an Alternative Permit
- 3.7.1 *Decision by the Department.* The Department may require any person authorized by this permit to apply for and/or obtain either a modified site-specific NPDES permit or an alternative NPDES permit [10 CSR 20-6.200(6)]. Any interested person may petition the Department to require a modified site-specific permit or alternative NPDES permit. Where the Department requires the permittee to apply for a modified site-specific or alternative NPDES permit, the Department will notify the permittee in writing that a permit application is required. This notification shall include a brief statement of the reasons for this decision, an application form(s), a statement setting a deadline for the permittee to file the application, and a statement that on the effective date of issuance of the modified site-specific NPDES permit or the alternative permit, coverage under this permit shall automatically terminate in accordance with Section 3.6. Coverage under this permit has been issued by the Administrative Hearing Commission or a court of competent jurisdiction. The Department may grant additional time to submit the application upon request of the applicant. If the permittee fails to submit a modified site-specific or alternative NPDES permit application in a timely manner as required by the Department under this paragraph, then the applicability of this permit to the permittee is automatically terminated on the day specified by the Department for application submittal.
- 3.7.2 *Request by permittee.* The permittee may apply for a modified site-specific permit or alternative permit in lieu of coverage under this permit. In such cases, the permittee shall submit an application in accordance with the requirements of 10 CSR 20-6.200, with reasons supporting the request. The request may be granted by issuance of any site-specific permit or alternative NPDES permit.
4. **Storm Water Management Programs and Plans**

- 4.1 Requirements
Per state regulation 10 CSR 20-6.200 and federal regulations 40 CFR Parts 9, 122, the permittee shall develop, implement, and enforce a storm water management program and plan (SWMP) designed to reduce the discharge of pollutants from the permittee's regulated MS4 to the maximum extent practicable, to protect water quality, and to satisfy the appropriate water quality requirements of the Missouri Clean Water Law. The SWMP should include best management practices; control techniques and system, design, and engineering methods; and such other provisions as the permitting authority determines appropriate for the control of such pollutants. The permittee's SWMP document shall include the following information for each of the six minimum control measures described in Section 4.2 of this permit:
- 4.1.1 A description of the best management practices (BMPs) that the permittee will implement for each of the storm water minimum control measures;
- 4.1.2 The measurable goals for each of the BMPs including, as appropriate, the months and years in which the permittee will undertake required actions, including interim milestones and the frequency of the action;
- 4.1.3 The person primarily responsible for the SWMP, and the person(s) responsible for each minimum control measure if different from the primary responsible person; and
- 4.1.4 The permittee shall develop, implement, and enforce a storm water management program designed to reduce the discharge of pollutants to the maximum extent practicable, to protect water quality, and to protect water quality requirements of Clean Water Act.
- 4.1.4.2 The following general water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
- 4.1.4.2.1 Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
- 4.1.4.2.2 Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
- 4.1.4.2.3 Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
- 4.1.4.2.4 Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
- 4.1.4.2.5 There shall be no significant human health hazard from incidental contact with the water;
- 4.1.4.2.6 There shall be no acute toxicity to livestock or wildlife watering;
- 4.1.4.2.7 Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community; and
- 4.1.4.2.8 Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.
- 4.1.5 For facilities under the control of the permittee good housekeeping practices shall be maintained to keep solid waste from entry into waters of the state to the maximum extent practicable;
- 4.1.6 All fueling facilities under the control of the permittee shall adhere to applicable federal and state regulations concerning underground storage, above ground storage, and dispensers, including spill prevention, control and counter measures;

- 4.1.7 Substances regulated by federal law under the Resource Conservation and Recovery Act (RCRA) or the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) that are transported, stored, or used for maintenance, cleaning or repair by the permittee shall be managed according to the provisions of RCRA and CERCLA;
- 4.1.8 All paint, solvents, petroleum products and petroleum waste products (except fuels) under the control of the permittee shall be stored so that these materials are not exposed to storm water. Sufficient practices of spill prevention, control, and/or management shall be provided to prevent any spills of these pollutants from entering a water of the state. Any containment system used to implement this requirement shall be constructed of materials compatible with the substances contained and shall also prevent the contamination of groundwater; and
- 4.1.9 Per 40 CFR 122.34(d), the SWMP document shall include interim milestones, measurable goals, an implementation schedule and measures for success.
- 4.2 Minimum Control Measures
- The six (6) minimum control measures that shall be included in the permittee's SWMP document per 10 CSR 20-6.200 and 40 CFR Parts 9, 122, are:
- 4.2.1 Public Education and Outreach on Storm Water Impacts
- 4.2.1.1 *Permit requirement.* The permittee shall implement a public education program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of storm water discharges on water bodies and steps the public can take to reduce pollutants in storm water runoff.
- 4.2.2 Public Involvement/Participation
- 4.2.2.1 *Permit requirement.* The permittee shall implement an effective public involvement/participation program that at a minimum complies with State and local public notice requirements.
- 4.2.3 Illicit Discharge Detection and Elimination
- 4.2.3.1 *Permit requirement.* The permittee shall develop, implement and enforce a program to detect and eliminate illicit discharges (as defined in 10 CSR 20-6.200) into the permittee's regulated MS4. As part of the SWMP document, the permittee's illicit discharge detection and elimination program shall include the development and implementation of, at a minimum;
- 4.2.3.1.1 A storm sewer map showing the location of all known outfalls and the names and location of all receiving waters of the state that receive discharges from those outfalls. The permittee shall make the map data and its origin available to the Department upon request;
- 4.2.3.1.2 To the extent allowable under State, or local law, effectively prohibit, through ordinance, or other regulatory mechanism, non-storm water discharges into the permittee's storm sewer system and implement appropriate enforcement procedures and actions. The permittee shall identify in the SWMP the enforcement mechanisms and actions, if any such mechanisms are authorized under local law, used to prohibit illicit discharges to the MS4;
- 4.2.3.1.3 A plan and implementation schedule to detect and address non-storm water discharges, including discharges from illegal dumping and spills, to the permittee's system;
- 4.2.3.1.4 Inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste.

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

4.2.4 Construction Site Storm Water Runoff Control

4.2.4.1 *Permit requirement.* As provided in 40 CFR 122.34(b)(4), the permittee must:

- (i) develop, implement, and enforce a program to reduce pollutants in any storm water runoff to your small MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. Reduction of storm water discharges from construction activity disturbing less than one acre must be included in the program if that construction activity is part of a larger common plan of development or sale that would disturb one acre or more. If the NPDES permitting authority waives requirements for storm water discharges associated with small construction activity in accordance with § 122.26(b)(15)(i), the permittee is not required to develop, implement, and/or enforce a program to reduce pollutant discharges from such sites.
- (ii) The permittee's program must include the development and implementation of, at a minimum:

(A) 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;

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

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

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

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

(F) Procedures for site inspection and enforcement of control measures.

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

4.2.5.1 *Permit requirement.* The permittee shall develop, implement, and enforce a program to address the quality of storm water runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, that discharge into the permittee's regulated MS4. As part of the SWMP document per 40 CFR Part 122, the post-construction runoff control program shall include the following information, at a minimum:

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

4.2.5.1.2 An ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects to the extent allowable under State, or local law; and

4.2.5.1.3 Ensurance of adequate long-term operation and maintenance of BMPs.

4.2.6 **Pollution Prevention/Good Housekeeping for Municipal Operations**

- 4.2.6.1 *Permit requirement.* The permittee shall develop and implement an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations, including those not currently required to be permitted as associated with industrial activities. Using training materials that are available from EPA, the permittee's State, or other organizations, the permittee's program must include employee training to prevent and reduce storm water pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and storm water system maintenance.

4.3 **Sharing Responsibility**

Implementation of one or more of the minimum measures may be shared with another entity, or another entity assumes responsibility for the measure if:

- 4.3.1 The other entity, in fact, implements the control measure;
- 4.3.2 The particular control measure, or component of that measure, is at least as stringent as the corresponding permit requirement; and
- 4.3.3 The other entity agrees to implement the control measure on permittee's behalf. Written acceptance of this obligation is required. This obligation shall be maintained as part of the documented description of the permittee's storm water management program. If the other entity agrees to report on the minimum measure, the permittee shall supply the other entity with the reporting requirements contained in Section 5.3 of this permit. If the other entity fails to implement the control measure on the permittee's behalf, then the permittee remains liable for any discharges due to that failure to implement.

4.4 **Reviewing and Updating Storm Water Management Programs and Plans**

- 4.4.1 *Storm Water Management Program and Written Plan (SWMP) Review:* The permittee shall operate the SWMP in accordance with the permit. The permittee shall do an annual review of the permittee's SWMP in conjunction with preparation of the annual report required under Section 5.3; and
- 4.4.2 Per 40 CFR Part 122 ss122.34 the permittee shall identify and include in the SWMP the following information: (i) The best management practices (BMPs) that the permittee or another entity will implement for each of the storm water minimum control measures at 4.2.1 through 4.2.6 permit; (ii) The measurable goals for each of the BMPs including, as appropriate, the months and years in which you will undertake required actions, including interim milestones and the frequency of the action; and (iii) The entity, office, or person responsible for implementing or coordinating [the permittee's] storm water management program; and
- 4.4.3 Per 40 CFR Part 122 ss122.34 the permittee shall comply with other applicable NPDES permit requirements, standards and conditions established in this permit, developed consistent with the provisions of §§ 122.41 through 122.49, as appropriate.
- 4.4.4 Per 40 CFR Part 122 ss122.34 the permittee shall evaluate program compliance; the appropriateness of identified best management practices, and progress towards achieving identified measurable goals.
- 4.4.5 *SWMP Update:* The permittee may change the SWMP during the life of the permit, and provide the Department an analysis of why the BMP is ineffective or infeasible (including cost prohibitive), expectations on the effectiveness of the replacement BMP, and an analysis of why the replacement BMP is expected to achieve the goals of the BMP to be replaced. Notifications must be made in writing and signed in accordance with Section 5.

- 4.4.6 *Transfer of Ownership, Continuing Authority, or Responsibility for SWMP Implementation:* The permittee shall implement the SWMP on all new areas added to the permittee's portion of the municipal separate storm sewer system (or for which the permittee becomes responsible for implementation of storm water quality controls) as expeditiously as practicable, but not later than one year from addition of the new areas. Implementation may be accomplished in a phased manner to allow additional time for controls that cannot be implemented immediately.
- 4.4.6.1 Within 90 days of a transfer of ownership, continuing authority, or responsibility for SWMP implementation, the permittee shall submit a revised plan, if necessary, for implementing the revised SWMP on all affected areas. The plan shall include revised schedules for implementation. Information on all new annexed areas and any resulting updates required to the SWMP shall be included in the annual report.
- 4.4.6.2 Only those portions of the SWMP specifically required as permit conditions shall be subject to the modification requirements of 10 CSR 20-6.200. Addition of components, controls, or requirements by the permittee(s) and replacement of an ineffective or infeasible BMP implementing a required component of the SWMP with an alternate BMP expected to achieve the goals of the original BMP shall be considered minor changes to the SWMP and not modifications to the permit.
5. **Monitoring, Recordkeeping, and Reporting**
- 5.1 Evaluation
- 5.1.1 The permittee shall evaluate program compliance, the appropriateness of identified best management practices, and progress toward achieving identified measurable goals.
- 5.2 Recordkeeping
- 5.2.1 The permittee shall retain records of all activities requiring recordkeeping by the SWMP and copies of all reports required by this permit, copies of Discharge Monitoring Reports (DMRs), a copy of the NPDES permit, a copy of all ordinances, policies and formal procedures for all six minimum control measures and records of all data used to complete the application for this permit, for a period of at least three years from the date of the sample, measurement, report or application, or for the term of this permit, whichever is longer; and
- 5.2.2 The permittee shall submit the permittee's records to the Department only when specifically asked to do so. The permittee shall retain a written description of the SWMP required by this permit (including a copy of the permit language) at a location accessible to the Department. The permittee shall make the permittee's records, including the application and the description of the SWMP, available to the public if requested to do so in writing.
- 5.3 Reporting
- The permittee shall submit annual reports, using the annual report form provided by the Department, to the Director by April 10 of each year of the permit term. The report shall include:
- 5.3.1 The status of the permittee's compliance with permit conditions, an assessment of the appropriateness of the identified best management practices, progress towards achieving the identified measurable goals for each of the minimum control measures;
- 5.3.2 Results of information collected and analyzed, if any, during the reporting period, including monitoring data used to assess the success of the program at reducing the discharge of pollutants to the MEP;
- 5.3.3 A summary of the storm water activities the permittee plans to undertake during the next reporting cycle (including an implementation schedule);

- §.3.4 Proposed changes to the permittee's SWMP, including changes to any BMPs or any identified measurable goals that apply to the program elements; and
- §.3.5 Notice that the permittee is relying on another government entity to satisfy some of the permittee's permit obligations (if applicable).

6. **Standard Permit Conditions**

This permit includes Standard Permit Conditions attached as Part 1 to this permit.

7. **Definitions**

All definitions contained in 10 CSR 20-6.200 shall apply to this permit and are incorporated herein by reference. For convenience, simplified explanations of some regulatory/statutory definitions have been provided, but in the event of a conflict, the definition found in the regulation takes precedence.

Control Measure as used in this permit refers to any Best Management Practice or other method used to prevent or reduce the discharge of pollutants to waters of the United States and waters of the State.

Director refers to the Director of Staff, Water Protection Program, and Department of Natural Resources.

Discharge when used without a qualifier, refers to "discharge of a pollutant" as defined at 40 CFR 122.2.

Illicit Connection means any man-made conveyance connecting an illicit discharge directly to a municipal separate storm sewer.

Illicit Discharge refers to any discharge to a municipal separate storm sewer that is not entirely composed of storm water, except discharges authorized under an NPDES permit (other than the NPDES permit for discharges from the MS4) and discharges resulting from emergency fire fighting activities.

Maximum Extent Practicable refers to the technology-based discharge standard for Municipal Separate Storm Sewer Systems to reduce pollutants in storm water discharges that was established by CWA §402(p). A discussion of how it applies to regulated MS4s is found at 40 CFR 122.34.

MS4 is an acronym for "Municipal Separate Storm Sewer System" and is used to refer to either a Large, Medium, or Small Municipal Separate Storm Sewer System (e.g. "the Springfield MS4").

Permittee as used in this permit refers to the holders of this site-specific permit.

Site-specific permit also means individual permit.

Storm Water means storm water runoff, snow melt runoff, and surface runoff and drainage.

Storm Water Management Program and Plan (SWMP) refers to a comprehensive documented program and plan to manage the quality of storm water discharged from the municipal separate storm sewer system.

Missouri Department of Natural Resources
Fact Sheet – Site-specific Permit for MU/Boone County/Columbia
Regulated Separate Storm Sewer System MO-0136557

The Federal Water Pollution Control Act ("Clean Water Act" Section 402 Public Law 92-500 as amended) established the National Pollution Discharge Elimination System (NPDES) permit program. This program regulates the discharge of pollutants from point sources into the waters of the United States, and the release of storm water from certain point sources. All such discharges are unlawful without a permit (Section 301 of the "Clean Water Act"). After a permit is obtained, a discharge not in compliance with all permit terms and conditions is unlawful. Missouri State Operating Permits (MSOPs) are issued by the Director of the Missouri Department of Natural Resources (Department) under an approved program, operating in accordance with federal and state laws (Federal "Clean Water Act" and "Missouri Clean Water Law" Section 644 as amended). MSOPs are issued for a period of five (5) years unless otherwise specified.

As per 10 CSR 20-6.020(1)2 and 40 CFR Part 124.8(a) a Factsheet shall be prepared to give pertinent information regarding the applicable regulations, rationale for the development of effluent limitations and conditions, and the public participation process for the Missouri State Operating Permit (operating permit) listed below:

A Fact Sheet is not an enforceable part of an operating permit.

This Fact Sheet is for a Major ☐, Minor ☒, Industrial Facility ☐, Variance ☐, Master General Permit ☐, and/or permit with widespread public interest ☐. This is a new permit, but is not a new source. The co-permittees may become subject to monitoring requirements once a TMDL for area listed waters is approved by EPA.

Part I - Facility Information

The following Facility Information shall appear on the coverage document issued to a Permit Covered Facility.

NPDES #:

Facility Name: Boone Co/Columbia/MU MS4

Facility Address: 8 Research Park

Columbia, MO 65211

Owner's Name:

Owner's Address:

Facility Region:

Facility County:

Facility Type:

Facility SIC Code: 9511

Facility NAICS Code: 924110

Facility Description: Discharges from Regulated Municipal Separate Storm Sewer Systems

Comments:

This site-specific permit replaces the Small MS4 General Permit MO-R040045 which was appealed by the applicants. The proposed site specific permit that includes all the federal mandated requirements was agreed upon by the applicants and the Department.

Part II - Outfalls

It is adequate to submit a representative subset of outfall information with the application. Specifically, outfalls needed for the application should be representative of discharges nearest the MS4's regulated boundaries or nearest the receiving classified waters running through the MS4's jurisdiction. The more comprehensive outfall information and maps required for the MS4's illicit discharge program shall be retained on-site and made available to EPA, DNR and the public upon request.

A full description of the representative outfalls in the application shall appear on the coverage document issued to a Permit Covered Facility. The following information is required for each outfall.

Outfall #001

Legal Description: ¼, ¼, Section, Township, Range, Direction
Latitude/Longitude: +0000000/-0000000 (Degrees, Minutes, Seconds)

Receiving Stream: Name & Classification

First Classified Stream and ID: Name, Class, Water Body ID – currently provided by the Department
USGS Basin & Sub-watershed No.: (# – #) [14 digit USGS Hydrologic Unit Code (HUC)]

This permit allows regulated MS4s to discharge storm water to the following waters, depending on location of the regulated MS4: Missouri River, lakes or reservoirs, losing streams, special streams, and other waters of the state.

10 CSR 20-7.031 Missouri Water Quality Standards, the Department defines the Clean Water Commission water quality objectives in terms of "water uses to be maintained and the criteria to protect those uses."

Part III - Rationale and Derivation of Effluent Limitations & Permit Conditions

INTRODUCTION:

This is a municipal storm water discharge permit which authorizes the discharge of storm water from regulated municipal separate storm sewer systems (MS4s). The permit also authorizes the discharges or flows from emergency fire fighting activities. The permit does not authorize any additional non-storm water discharges, such as: process wastewater, storm water discharges that are mixed with process wastewater, or storm water associated with industrial activity, as defined in 10 CSR 20-6.200 or other discharges identified in Section 1.3 of the permit.

The permit is intended to authorize discharge of storm water even as jurisdictional or regulated boundaries change through the life of the permit. This rationale will explain which entities are covered under this permit, how to apply for coverage, and what the basic permit requirements are, including the general requirement of a storm water management program and written plan (SWMP.)

This permit authorizes only the activities described in this permit. Compliance with this permit may not be considered a shield from compliance with any local ordinance, State Regulation or State Law.

TYPES OF ENTITIES COVERED UNDER THIS PERMIT:

This permit is intended to cover new or existing discharges composed entirely of storm water from MS4s required by State regulation to obtain a permit. This site-specific permit replaces the small MS4 general permit MO-R040045 previously issued to the co-permittees of Boone County, Missouri.

The criteria for permit coverage are contained in the Missouri Storm Water Regulations 10 CSR 20-6.200. In general, this includes any municipality, and federal or state facility/organization that owns or operates a regulated MS4 as defined in 10 CSR 20-6.200 (i.e. serving a population of 1,000 or greater and located fully or partially within an urbanized area as determined by the latest Decennial Census by the Bureau of Census, or having a population of 10,000 or greater if outside an urbanized area.) MS4s discharging entirely to combined sewer systems are exempt based on their coverage under NPDES wastewater permits.

APPLICATION REQUIREMENTS:

Regulated MS4s are required to seek coverage under the Small MS4 General Permit or a site-specific permit (whichever applies) by submitting completed application forms (Forms M & K if an individual applicant or Forms M & L if applying as a co-permittee), a jurisdictional or regulated boundary map showing perimeter outfall locations and a written description of the operator's SWMP. (The regulated MS4 must submit new or renewal applications according to requirements identified in 10 CSR 20-6.200.)

STORM WATER MANAGEMENT PROGRAM (SWMP):

This permit in accordance with 10 CSR 20-6.200 and 40 CFR Parts 9, 122, 123, and 124, requires the permittee to develop and implement a SWMP. The SWMP shall address the six minimum control measures - public education and outreach, public involvement/participation process, illicit discharge detection and elimination, construction site storm water runoff control, post-construction storm water management and pollution prevention/good housekeeping for municipal operations. The SWMP shall include, but not limited to, best management practices, pertinent local regulations, interim milestones, measurable goals, measures of success and responsible persons for each of the measurable goals.

ORDINANCES:

To the extent allowable under State or local law, ordinances (or other regulatory mechanisms) are required to be developed, implemented and enforced within five years of initial permit issuance under the following sections:

1. Illicit discharge detection and elimination - to prohibit non-storm water discharges into the storm sewer system; and implement appropriate enforcement procedures and actions
2. Construction site storm water runoff control - to require erosion and sediment controls at construction sites, as well as sanctions to ensure compliance
3. Post-construction - to address post-construction runoff from new development and redevelopment projects, and sanctions to ensure compliance

SWMP UPDATES REQUIRED BY THE DEPARTMENT:

Changes requested by the Department must be made in writing, set forth the time schedule for the permittee to develop the changes; and offer the permittee the opportunity to propose alternative program changes to meet the objective of the requested modification. All changes required by the Department will be made in accordance with 10 CSR 20-6.200. The Department may require changes to the SWMP as needed to: include components deemed necessary by the Department to comply with the goals and requirements of the permit and Missouri Clean Water Law; address impacts on receiving water quality caused or affected by discharges from the MS4; or include more stringent requirements necessary to comply with new federal or state statutory or regulatory requirements.

The permittee may also change the SWMP during the life of the permit in accordance with procedures described in Section 4.4 of the permit.

ANNUAL REPORTING:

The permittee is expected to annually review and provide a written report on their SWMP in accordance with Sections 4.4 and 5.3 of the permit. The permittee shall submit the report by April 10 of each year utilizing the Department's annual report form MO 78-1846 or latest version.

MONITORING:

Sampling and testing of storm water for specific parameters is not required on a routine basis under this permit. However, the Department may modify the permit to require sampling and testing, on a case-by-case basis. As per [10 CSR 20-2.010(78)], a wasteload allocation is the amount of pollutants each discharge is allowed by the Department to release into a given stream after the Department has determined to total amount of pollutant that may be discharged into that stream without endangering its water quality.

Usually wasteload allocations are not calculated. All permittees are subject to the Maximum Extent Practicable per [10 CSR 20-6.200] & [40 CFR 122]. However, if a storm water-based TMDL and WLA have been put into place for any waterbody into which the permittee discharges, monitoring may be required for discharges affecting that waterbody. Regulated MS4s must have procedures in place to investigate findings of illicit discharges further, also potentially resulting in monitoring. In such cases, the permittee shall follow regulations in 10 CSR 20 Chapter 6 and monitoring requirements set forth in the permit.

303(d) LIST, TOTAL MAXIMUM DAILY LOAD (TMDL) AND WASTELOAD ALLOCATIONS
Section 303(d) of the federal Clean Water Act requires that each state identify waters that are not meeting water quality standards and for which adequate water pollution controls have not been required. Water quality standards protect such beneficial uses of water as whole body contact (such as swimming), maintaining fish and other aquatic life, and providing drinking water for people, livestock and wildlife. The 303(d) list helps state and federal agencies keep track of waters that are impaired but not addressed by normal water pollution control programs.

A TMDL is a calculation of the maximum amount of a given pollutant that a body of water can absorb before its water quality is affected. If a water body is determined to be impaired as listed on the 303(d) list, then a watershed management plan will be developed that shall include the TMDL calculation.

PERMIT REQUIREMENTS:

The permit may be reopened to include additional requirements that apply if a Total Maximum Daily Load (TMDL) is approved for any waterbody into which the permittee discharges (Section 3.1. of the permit). In general, these requirements do not, in themselves, dictate additional measures that must be taken by the permittee. Instead, the permit requires the permittee to comply with any requirements included in a TMDL that address storm water discharges covered in the permit. New requirements affecting the permittee's discharges could be in the form of additional narrative requirements for implementation of BMPs, or in the form of a Waste Load Allocation (WLA) that prescribes a specific quantitative limit for pollution from a specific source.

ANTI-BACKSLIDING:

A provision in the Federal Regulations [CWA §303(d)(4); CWA §402(e); CFR §122.44(l)] that requires a reissued permit to be as stringent as the previous permit with some exceptions.

All limits, requirements, and/or conditions in this Fact Sheet are at least as protective as those previously established; therefore, backsliding does not apply.

ANTIDEGRADATION:

Policies which ensure protection of water quality for a particular water body where the water quality exceeds levels necessary to protect fish and wildlife propagation and recreation on and in the water. This also includes special protection of waters designated as outstanding natural resource waters. Antidegradation plans are adopted by each State to minimize adverse effects on water.

As per [10 CSR 20-7.031(2)(D)], the three (3) levels of protection provided by the antidegradation policy in subsections (A), (B), and (C) of this section shall be implemented according to procedures developed by the Department. On April 20, 2007, the Missouri Clean Water Commission approved *Missouri Antidegradation Rule and Implementation Procedure* (Antidegradation Rule), which is applicable to new or upgraded/expanded facilities. The implementation of the Antidegradation Rule will be implemented upon promulgation, which is tentatively scheduled for August 2008.

This facility is an existing source previously operating under permit number MO-R040045. No additional degradation is proposed in this permit, therefore antidegradation does not apply.

COMPLIANCE AND ENFORCEMENT:

Action taken by the Department to resolve violations of the Missouri Clean Water Law, its implementing regulations, and/or any terms and condition of an operating permit.

Dischargers of storm water from regulated MS4s, as defined in the Missouri Storm Water Regulations (10 CSR 20-6.200) who do not obtain coverage under the applicable Missouri Small MS4 general permit or site-specific NPDES permit, will be in violation of the Missouri Clean Water Law and its implementing regulations and subject to civil penalties of up to \$10,000 per violation per day. For entities covered under a NPDES permit, failure to comply with any NPDES permit requirement also constitutes a violation of the Missouri Clean Water Law and its implementing regulations.

Part IV - Administrative Requirements

PUBLIC NOTICE AND COVERAGE FOR AN INDIVIDUAL ENTITY:

As per the Missouri Clean Water Law, the Missouri Clean Water Commission, and the federal Clean Water Act, persons wishing to comment on Missouri State Operating Permits are directed to do so by a Department-approved Public Notice coversheet. This Public Notice coversheet is attached to a Missouri State Operating Permit during the Public Notice period.

The need for an individual public notification process shall be determined and identified in the permit. [10 CSR 20-6.020(1)(C)5.]

Applicable ☒:

Issuance of coverage to an individual facility under this permit shall be placed on Public Notice for 30 days in accordance with 10 CSR 20-6.020(1)(B) & (C).

Not Applicable ☐:

Public Notice is not required for issuance of coverage under this permit to individual facilities for the first time.

Date of Fact Sheet: Nov 22, 2010

Revised: Jan 11, 2011



JOINT STORMWATER MANAGEMENT PROGRAM

MS4 PERMIT #MO-0136557

Coverage for:

Boone County, Missouri

Columbia, Missouri

University of Missouri (MU)

Prepared by:

Boone County Resource Management

Columbia Public Works Department

MU Department of Environmental Health and Safety

July 2011

JOINT STORMWATER MANAGEMENT PROGRAM

Boone County/Columbia/MU

Table of Contents

4.1 REQUIREMENTS	1
Background Information.....	2
4.2 MINIMUM CONTROL MEASURES.....	5
MCM 1 - Public Education and Outreach.....	5
MCM 2 - Public Involvement/Participation.....	6
MCM 3 - Illicit Discharge Detection and Elimination.....	7
MCM 4 - Construction Site Stormwater Runoff Control.....	9
MCM 5 - Post-Construction Stormwater Management in New Development and Redevelopment	11
MCM 6 - Pollution Prevention/Good Housekeeping for Municipal Operations	13

4.1 REQUIREMENTS

This Joint Stormwater Management Plan (SWMP) has been developed in accordance with The Stormwater Phase II Final Rule requirements specified in the site-specific permit MO-0136557 for discharges from small regulated Municipal Separate Storm Sewer Systems (MS4s), as well as state regulation 10 CSR 20-6.200 and federal regulations 40 CFR Part 122. The three co-permittees, Boone County, Columbia and MU, have developed and implemented this program in order to protect water quality and effectively reduce stormwater pollutant runoff within their respective jurisdictions to the maximum extent practicable. MU will serve as the coordinating authority for this joint SWMP; however, MU does not have regulatory authority over either of the other co-permittees. Responsibility for implementation of all MCMs will be shared jointly among the three co-permittees. Program success will be evaluated based on the effective reduction of pollutants into receiving water bodies. This plan will be reviewed on an annual basis and updated as necessary.

IN ACCORDANCE WITH SECTION 4.1 OF THE PERMIT:

- Good housekeeping practices will be followed to prevent solid waste from entering waters of the state to the maximum extent practicable,
- Fueling facilities will adhere to underground storage and spill prevention regulations, including Spill Prevention Control and Countermeasures (when applicable),
- Substances regulated by the Resource Conservation and Recovery Act and the Comprehensive Environmental Response, Compensation and Liability Act will be managed accordingly,
- All paints, solvents, petroleum products and waste products will be stored so that these materials are not exposed to stormwater,
- Containment systems will be constructed of materials compatible with the substances contained and shall prevent the contamination of groundwater.

This plan contains Best Management Practices (BMPs) and Measurable Goals (MGs) for the six Minimum Control Measures (MCMs) described in Section 4.2 of the permit. Measurable goals are selected to evaluate the effectiveness of individual control measures and the stormwater management program as a whole.

BMPs will be described as follows:

BMP: Best Management Practice

MG: Measurable Goal (Responsible Permittee—Status)

BACKGROUND INFORMATION

POPULATION AND LAND USE:

Boone County has a population of 165,332 (2010 US census). The largest city is Columbia, with a population over 108,000. Columbia is fifth largest city, and the second fastest growing community in Missouri. The City's current land mass is over 60 mi², with an annexation rate of 0.6 mi² per year.

Columbia is the home of the University of Missouri, with more than 30,000 students, as well as Stephens College (1,750 students) and Columbia College (1,082 daytime students only). Other towns in Boone County include Centralia (3,500), Ashland (3,000), Hallsville (958), Sturgeon (915) Rocheport (208), Harrisburg (184), and Hartsburg (104).

Approximately 27% of the population lives in the rural areas of Boone County. According to the 2007 US Agriculture Census, there are over 1,300 farms in the county with an average size of 196 acres. The total land used for farming is almost 259,000 acres.

CLIMATE:

The average winter temperature is 29.6° F. In summer, the average temperature is 74.7° F and the average daily maximum of 85.9° F. The highest recorded temperature of 116 degrees occurred on July 15, 1954.

The total annual precipitation is 38.94 inches. The heaviest recorded 1-day rainfall was 5.37 inches on August 12, 1993. Thunderstorms are common from May to August. The average seasonal snowfall is 22.4 inches. During the three year period between January 1, 2008 and December 31, 2010 annual precipitation was more than 14 inches higher than average. (56.98, 53.15, and 53.50 respectively)

The average relative humidity in mid-afternoon is about 60%. Humidity is higher at night, peaking at dawn with an average of 83%. It is sunny 66% of the time in summer and 49% of the time in winter. The growing season in Boone County is 192 days. The first frost is around October 19th, while the last frost is around April 10th. (Boone County Soil Survey, 2005)

HYDROLOGY:

Boone County is bordered by the Missouri River on the southwest, and by Cedar Creek on the east. There are twenty-three sub-basins that are entirely or partially within the county boundaries. Drainage is mainly towards the Missouri River, from northeast to southwest. However, the extreme northeastern section of the county (Centralia) flows towards the Salt River. The largest watershed is Perche Creek which drains more than 70% of the landmass. Hinkson Creek, a 90 mi² watershed, is the single largest contributor to Perche Creek. Hinkson is fed by Grindstone Creek, Flat Branch, Hominy Branch, County House Branch,

Meredith Branch, and Mill Creek. More than 90,000 people live in the Hinkson Creek Watershed.

Between Columbia and Ashland is the Bonne Femme Watershed. This area is well known for Karst topography, with numerous caves, sinkholes and losing streams. The area also contains several state parks. The Bonne Femme feeds the cave system for the Devil's Icebox, and Rockbridge State Park. Also in this area is Three Creeks Conservation Area, maintained by the Missouri Department of Conservation. The streams running through these parks are designated as State Resource Waters.

WATER QUALITY AND TMDLS IN BOONE COUNTY:

Several area streams do not support warm water aquatic life or whole body contact recreation. These streams have been listed on the State's List of Impaired Waters as required by section 303(d) of the Clean Water Act (CWA). Once a waterbody is listed, then a Total Maximum Daily Load (TMDL) must be developed to set the maximum amount of pollution that can enter the stream and still maintain water quality standards. The following table shows the waterbodies in Boone County that are on the 2010 Impaired Waters List (Section 303(d)).

Waterbody Name	Pollutant	Source	Miles/acres impaired	TMDL
Bonne Femme	Bacteria	Urban/Rural NPS	7.0	2011
Cedar Creek	Unknown	Unknown	7.0	2014
Foster Creek	Ammonia	Ashland WWTP	0.5	2016
Fowler Creek	Low D.O.		6.0	2016
Grindstone Creek	Bacteria	Unknown	1.5	2011
Hinkson Creek	Unknown	Urban Runoff	18.0	Developed
Hinkson Creek	Bacteria	Unknown	18.0	2011
Lake of the Woods	Mercury	Atmospheric	1.3	2015
Philips Lake	Mercury	Atmospheric	32.0	2015

In streams where the identified pollutant is bacteria, the sources could be from leaky septic systems, sanitary sewer or lagoon overflows, or cross connected pipes in the suburban areas.

Agricultural land use can be a source of bacteria, pesticides and sediment nutrients, which contribute to sediment deposition, low DO and nutrient enrichments. The National Agricultural Statistics Service (NASS) reported in 2007 that there were 31,547 head of cattle, 1,278 hogs and pigs, 409 horses and ponies and 365 broilers in the county. (USDA, 2007). This problem is further exacerbated by cattle breaking down the stream banks and riparian cover.

In both suburban and rural areas, wildlife and domestic pets could be the source of bacteria. The Central Missouri Humane Society estimates that approximately 55,000 dogs reside in Columbia Missouri.

4.2 MINIMUM CONTROL MEASURES

MCM 1: PUBLIC EDUCATION AND OUTREACH

Through public education and outreach, residents can gain an understanding of how their actions affect local streams and rivers. By connecting poor water quality to common everyday activities such as over fertilizing lawns, flicking a cigarette into the drain, or even walking the dog without litter pick-up, major causes of pollution in stormwater can be eliminated.

Permit Requirement: Implement a coordinated public education program which involves the distribution of educational materials to the community, as well as equivalent outreach activities about the impacts of stormwater discharges on water bodies and steps the public can take to reduce pollutants in the stormwater runoff. The requirement continues to be met by each of the three co-permittees with the following BMPs and associated Measurable Goals.

BMP: Distribute educational materials to the community

MG: Identify target audience (All Permittees—Completed)

MG: Select topics for each calendar year, develop and distribute outreach materials, including hazards associated with illegal discharges and improper disposal of waste

(All Permittees—Ongoing)

BMP: Conduct outreach activities about the impacts of stormwater runoff

MG: Identify target audience (All Permittees—Completed)

MG: Select topics for each calendar year, schedule and present outreach activities

(All Permittees—Ongoing)

MCM 2 - PUBLIC INVOLVEMENT/PARTICIPATION

Public participation and stakeholder involvement can help increase the awareness and understanding of issues and challenges, help determine priorities, increase support for stormwater programs, and increase the likelihood of program success. Stakeholder processes often provide the reality check for federal and state requirements: they seek to synthesize ecological, technical, social, cultural, political, and economic concerns through a process that helps to define what is actually doable. (Adapted from EPA 2002)

Permit Requirement: Implement an effective public involvement/participation program that complies with State and local public notice requirements. The requirement continues to be met by each of the three co-permittees with the following BMPs and associated Measurable Goals.

BMP: Implement an effective public involvement/participation program that complies with State and local public notice requirements.

MG: Observe all public notice requirements (All Permittees—Ongoing)

MG: Hold public hearings/stakeholder meetings when properties are annexed or request a change in zoning, during the platting process, and throughout the project design stage (All Permittees—Ongoing)

MG: Annually publicize the Campus Master Plan, which identifies planning principles and includes current and proposed construction projects (MU—Ongoing)

MG: Select targeted topic for each calendar year, schedule and present public involvement/participation activities (All Permittees—Ongoing)

MCM 3 - ILLICIT DISCHARGE DETECTION AND ELIMINATION

An illicit discharge from a storm drain is a dry weather flow that contains pollutants and/or pathogens. (Dry weather flows that do not contain pollutants are simply a discharge). The most significant sources of illicit discharges are:

- Cross-connections with a wastewater system,
- Infiltration of wastewater to the stormwater sewer system from cracked sanitary sewer systems or malfunctioning septic systems,
- Inappropriate discharges from industrial and commercial areas,
- Paint, used oil or other pollutants dumped directly into storm drains.

Illicit discharges can cause high levels of pollutants such as heavy metals, toxics, oil and grease, solvents, nutrients, viruses and bacteria to local water bodies. Finding and removing illicit discharges will help to improve local water quality.

Permit Requirement: Develop, implement and enforce a program to detect and eliminate illicit discharges into the MS4. The responsibility will be shared jointly among the three co-permittees. The requirement continues to be met by each of the three co-permittees with the following BMPs and associated Measurable Goals.

BMP: Develop and maintain a storm sewer map

MG: Update as necessary (All Permittees—Ongoing)

BMP: Effectively prohibit, through ordinance, or other regulatory mechanism, non-stormwater discharges into the storm sewer system

MG: Develop IDDE Ordinance/Regulatory Mechanism (All Permittees—Completed)

MG: Implement IDDE Ordinance/Regulatory Mechanism (All Permittees—Ongoing)

BMP: Develop a plan and implementation schedule to detect and address non-stormwater discharges, including discharges from illegal dumping and spills to the MS4

MG: Implement plan to detect and address non-stormwater discharges which may include on-site visual inspections, smoke and dye testing, closed circuit television (CCTV) inspections as well as public watch and reporting programs with established hotlines (All Permittees—Ongoing)

BMP: Inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste

MG: Include this information as an element in the outreach, education and municipal training programs (All Permittees—Ongoing)

BMP: Address certain categories of non-stormwater discharges or flows only if the permittees identify them as significant contributors of pollutants to the MS4

MG: Evaluate occasional incidental non-stormwater discharges on a case-by-case basis by to determine whether such discharges may appropriately be directed to the storm sewer system. The co-permittees have not identified any of the listed non-stormwater discharges as significant contributors to the regulated MS4

(All Permittees—Ongoing)



Examples of several education needs that have been addressed since 2006. The picture on the left was taken by a municipal employee with their cell phone. The concrete driver is washing out the waste product into a local road ditch. The other picture shows a local stream that was used as a dumping ground. This stream has since been cleaned up with the help of volunteers.

MCM 4 - CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

Construction site runoff is the most publicly visible element of the stormwater program. During a very short period of time, construction sites can contribute more sediment to streams than agriculture, forest, or grassland combined. EPA found that on average, 75 tons of soil per acre per year leaves construction sites, compared to 7.5 from row crops, and 0.4 from grassland.

Permit Requirement: Develop, implement and enforce a program that reduces pollutants in stormwater runoff to the MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. The requirement continues to be met by each of the three co-permittees with the following BMPs and associated Measurable Goals.

BMP: Implement 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.

MG: Require MDNR Land Disturbance Permit for sites one acre and greater
(All Permittees—Ongoing)

MG: Develop ESC/Land Disturbance Ordinance/Regulatory Mechanism
(All Permittees—Ongoing)

MG: Implement ESC/Land Disturbance Ordinance/Regulatory Mechanism (City Chapter 12 Land Disturbance Ordinance, County Chapter 24 Erosion and Sediment Control Ordinance, MU Business Policy and Procedure Manual Chapter 7, Section 7.001) (All Permittees—Ongoing)

BMP: Require construction site operators to implement appropriate erosion and sediment control best management practices.

MG: Implement Stormwater Design Manual (City/County—Completed, MU—2011)

MU is currently working with a consultant to develop the Stormwater Master Plan. All construction projects are designed and reviewed by the Planning Design and Construction (PDC) and Environmental Health and Safety department. Architects and engineers are provided guidance related to stormwater management and these specifications are included in construction documents.

BMP: Implement procedures for site plan review which incorporate consideration of potential water quality impacts; require construction site operators to control waste such as discarded building materials, concrete truck washout, chemicals, litter and sanitary waste at the construction site that may cause adverse impacts to water quality.

MG: Require and review Stormwater Pollution Prevention Plans (SWPPPs)
(All Permittees—Ongoing)

BMP: Implement procedures for receipt and consideration of information submitted by the public

MG: Hold public hearings/stakeholder meetings (All Permittees—Ongoing)

BMP: Implement procedures for site inspection and enforcement of control measures

MG: Conduct site inspections (All Permittees—Ongoing)



The above left and center pictures illustrate the frequent problems encountered at construction sites prior to enacting local stormwater ordinances, inspections and enforcement programs. The picture on the right demonstrates how contractors are now implementing protections for erosion and sediment controls.

Boone County/Columbia/MU
Joint Stormwater Management Plan

July 2011

MCM 5 - POST-CONSTRUCTION STORMWATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT

Developing a strategy to mimic pre-construction runoff conditions is much more difficult than one may think. Before you can mimic pre-development conditions, one has to know about the previous infiltration and runoff rates. Runoff reduction is a difficult sell to developers and engineers in Missouri due in part to the low permeability of our soils, and frequency of intense rainfall events. Preliminary data from the Hinkson Watershed has illustrated that many of Boone County streams are flashy even under pasture and grassland conditions. Construction activities that remove vegetation and topsoil while increasing impervious surfaces have exacerbated this situation.

Permit Requirement: 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. This includes projects less than one acre which are part of a larger common plan for development or sale. The requirement continues to be met by each of the three co-permittees with the following BMPs and associated Measurable Goals.

BMP: Develop strategies combining structural and/or non-structural BMPs to improve the quality of stormwater runoff

MG: Identify structural and non-structural strategies (All Permittees—Ongoing)

MG: Implement strategies by developing a Stormwater Management/Water Quality Manual or equivalent (City and County—Ongoing, MU—2011, MU is working with a consultant to develop a Stormwater Master Plan)

BMP: Develop an ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects

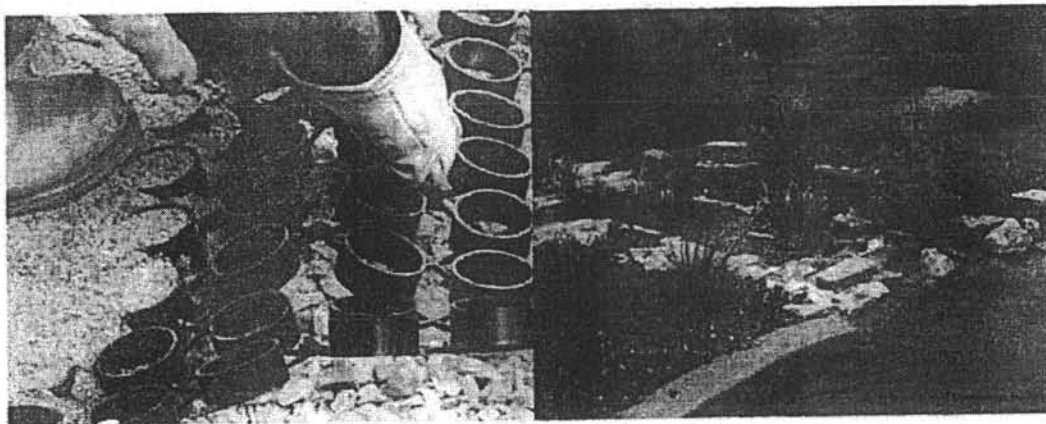
MG: Implement Stormwater Management Ordinance/Regulatory Mechanism
(All Permittees-Ongoing)

MG: Implement Stream Buffer Ordinance (All Permittees—Ongoing)

BMP: Ensure adequate long-term operation and maintenance of BMPs

MG: Inventory BMPs (MU—Completed, City/County—2012)

MG: Establish operation and maintenance schedule (All—2012)



Rain gardens and other stormwater practices are now familiar sights throughout the MS4

MCM 6 - POLLUTION PREVENTION/ GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS

Municipal employees who are directly involved in activities that could cause pollution will receive both general stormwater and targeted BMP training targeting their activities. This will increase the likelihood that receiving waters and the storm drain system will be protected from inadvertent discharges and spills. Municipal staff will receive general stormwater awareness and the detection of illicit discharges. Since municipal staff are residents of Boone County, improving the awareness of municipal employees may also reduce residential impacts and increase reporting of illicit discharges, dumping, and spills. Also, because municipalities expect residents and business owners to practice pollution prevention and good housekeeping, municipal employees should set an example for the rest of the community to follow.

Permit Requirement: Develop an operation and maintenance program that includes a training component and has the ultimate goal of preventing and/or reducing pollutant runoff from municipal operations, including those not currently required to be permitted as associated with industrial activities. The requirement continues to be met by each of the three co-permittees with the following BMPs and associated Measurable Goals.

BMP: Develop and implement operation and maintenance program.

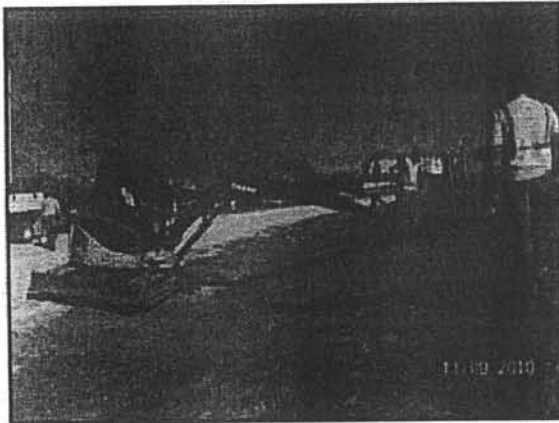
MG: Establish operation and maintenance schedule (All Permittees—Ongoing)

BMP: Develop training component

MG: Identify employees to train (All Permittees—Completed)

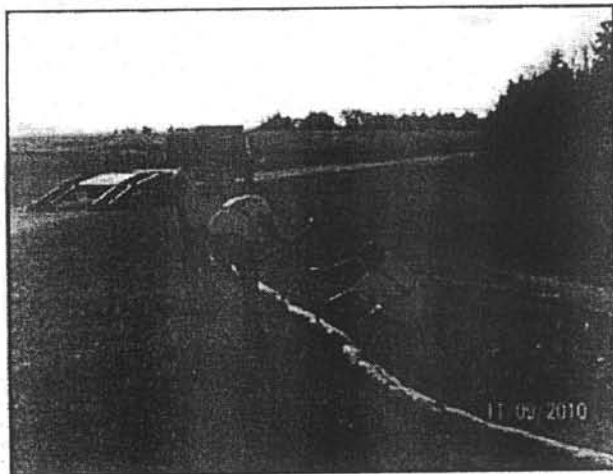
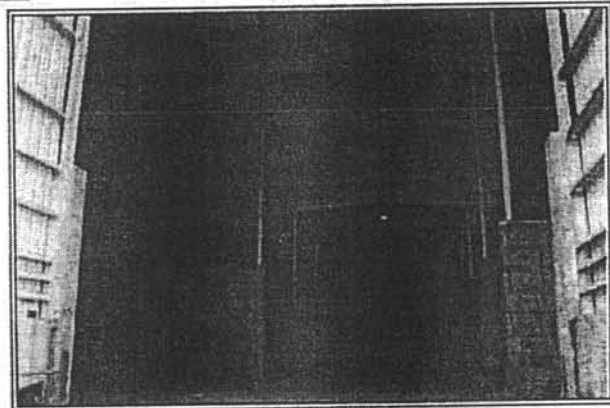
MG: Develop training presentation; include hazards associated with illegal discharges and improper disposal of waste (All Permittees—Completed)

MG: Schedule and conduct training (All Permittees—Ongoing)



Pictures above and below: Municipal employees receive training on the proper installation of erosion and sediment control practices to protect steep slopes. The practices were installed on a road realignment project.

Picture right: The covered salt shed protects local streams from stormwater runoff during rainfall events.



3

February 14, 2012

Mike Matthes
City Manager
701 E. Broadway P.O. Box 6015
Columbia, MO 65205-6015

Dear Mr. Matthes,

Please find enclosed a revised draft of Chapter 12A of the Storm Water Ordinance. The Storm Water Advisory Commission has taken recommendations from City Staff, City legal counsel, and local interest groups into consideration when making these recommendations.

The Storm Water Advisory Commission requests that the Ordinance we are submitting be taken to Council in its exact form. We also request that staff comments to City Council be provided to us at least three days prior to the City Council receiving them. This will allow time for commission responses to be prepared and sent out with the council meeting information. We believe that considerable progress has been made toward amendments that the commission and staff can agree on but if there are still areas of disagreements, we think the Council should have the benefit of perspective from both parties.

Thank you for your assistance in this matter and please feel free to contact me if you have any questions.

Sincerely,

Erin Daugherty
Chair of the storm Water Advisory Commission

Enclosures

Introduced by _____

First Reading _____

Second Reading _____

Ordinance No. _____

Council Bill No. _____

AN ORDINANCE

amending Chapter 12A of the City Code as it relates to stormwater management; and fixing the time when this ordinance shall become effective.

BE IT ORDAINED BY THE COUNCIL OF THE CITY OF COLUMBIA, MISSOURI, AS FOLLOWS:

SECTION 1. Chapter 12A of the Code of Ordinances of the City of Columbia, Missouri, is hereby amended as follows:

Material to be deleted in ~~strikeout~~; material to be added underlined.

Sec. 12A-5. Definitions.

(a) For the purposes of this chapter, the following words and phrases shall have the meaning given herein.

...

Development. Any manmade changes to real estate, including, but not limited to, construction, filling, grading, paving or excavation ~~1) The improvement of property for any purpose involving construction; 2) the preparation of land for construction; or, 3) land disturbance that requires the issuance of a land disturbance permit.~~

Facility or activity. Any NPDES "point source" or any other facility or activity (including land or appurtenances thereto) that is subject to regulation under the NPDES program.

...

Redevelopment. ~~Any reconstruction, rehabilitation, addition or other improvement of a property (exclusive of R-1 and R-2 zoned properties) the cost of which equals or exceeds fifty (50) percent of the market value of the structure before the start of construction of the improvement.~~ Development that:

(1) Expands or replaces any development; and

(2) Is on a site that is either:

a. One (1) acre or more that has an impervious surface of more than twelve percent (12%) of the site; or

b. Less than one (1) acre that has any impervious surface.

Site. ~~The land or water area where any "facility or activity" is physically located or conducted, including adjacent land used in connection with the facility or activity. The total area of the parcel(s), tract(s), lot(s) or ownership of land upon which development or land disturbance is proposed irrespective of the actual limits or size of the proposed development or land disturbance activity.~~

Storm drain. A closed conduit or open ditch, natural or specifically constructed, for conducting or conveying collected storm water. Conduits and paved open ditches are termed "improved"; unpaved ditches are termed "unimproved".

~~*Storm drainage design manual.* A City manual intended primarily for use by land developers in the design of minor storm drainage systems, such as a storm drains, relatively small culverts, associated streets and gutter flow hydraulics, natural drainage swales, storm inlets and detention facilities. The manual includes drainage policy to be followed, standard design methods, computation forms, and City standards.~~

Storm drainage system. All drainage facilities used for collecting and conducting storm water to, through and from drainage areas to the points of final outlet including, but not limited to, the following: Conduits and appurtenant features, canals, ditches, streams, gullies, flumes, culverts, streets, gutters, and pump stations.

Stormwater. Any surface flow, runoff, and drainage consisting entirely of water from any form of natural precipitation, and resulting from such precipitation including snowmelt.

Stormwater management and water quality manual. The manual described in section 12A-91.

Stormwater management facilities. This term includes measures, primarily structural, which are determined to be the most effective, practical means of preventing or reducing point source or non-point source pollution inputs to stormwater runoff and subsequently into water bodies. These facilities are also used to control volume and peak rates of runoff from development and redevelopment sites.

...

Watershed. All the land area which drains to a given body of water.

(b) This chapter shall be construed in conformity with the provisions of state and federal law.

...

Sec. 12A-32. Permit required.

A land disturbance permit is required for any land disturbance activity including streets and utilities construction ~~on any site in excess of that results in a disturbed area one (1) acre or more in size.~~ All applications for land disturbance permits shall be submitted on forms issued by the director and shall contain all information required by the director. The person performing the land disturbance activity shall be responsible for field verifying to the city the actual area being disturbed by staking the area to be disturbed upon request by the Director. ~~Phased development of tracts larger than one (1) acre does not exempt the developer from the provisions of this chapter~~

Sec. 12A-33. Site development plan.

(a) Applications for land disturbance permits for any area ~~greater than of one (1) acre or more~~ shall be accompanied by a detailed site development plan which shall include, a tree preservation plan, a landscaping plan, a soil erosion control plan, and a storm water management plan conforming to the provisions of this chapter. Where practical, drawings may be combined to contain all of the required plans.

...

Sec. 12A-35. Exemptions.

(a) A land disturbance permit shall not be required for sites ~~less than one (1) acre or less or~~ for individual lots in R-1 and R-2 zoned development except that erosion control provisions, grading limits, low floor elevation, and storm drainage work, including piping, swaling, and ditching, shall be shown on the plot plan and approved prior to issuance of a building permit. All land disturbance activity on such property shall conform to the provisions of the approved plot plan.

(b) Agricultural activities are exempted from the provisions of this chapter except that a land disturbance permit is required for the mechanized clearing or removal of trees on sites ~~in excess of one (1) acre or more.~~

...

Sec. 12A-49. Clearing of trees; permit required.

(a) The mechanized clearing of trees, logging of trees or clear-cutting of trees by any means on tracts of land ~~over of~~ one (1) acre or more shall be unlawful unless done in

compliance with a land disturbance permit.

...

Sec. 12A-87. Applicability.

(a) This article shall apply to all developments with the exceptions and exemptions set forth in subsections (b), (c), (d), (e) and (f), and redevelopments that alter the surface of the land, including but not limited to, pavement, buildings and structures with the following exceptions:

- (1) Single family and two family lots within an approved preliminary plat;
- (2) Logging activity performed with a city approved logging plan; and
- (3) Additions or modifications to single family and two family structures.

(b) Stormwater detention is not required for redevelopment within the central business district. Attached and detached single family residences, farmland and domestic gardens are exempt from the provisions of this article.

(c) The following exceptions apply to this article when the development of the site results in a land disturbance of less than one (1) acre and the site disturbed is not a part of a larger common plan of development or sale that would disturb one (1) acre or more:

- (1) Lots within an approved preliminary plat or final plat used for single-family and two-family residences and land disturbance on an individual residential building lot;
- (2) Land disturbances of less than ten thousand (10,000) square feet that do not create more than five hundred (500) square feet of additional impervious surface;
- (3) Maintenance and repair of impervious surface, including gravel and stone impervious surfaces; and
- (4) Redevelopment of a site less than one (1) acre.

(d) Redevelopment on a site of one (1) acre or more is eligible for partial exceptions from the requirements of this article, as set out in the stormwater manual, if the redevelopment does not have an adverse impact on any known mapped critical downstream location; and

The director shall track, map, add and remove known critical downstream locations and

make this information available to the public. The director shall set forth criteria in the stormwater manual that details the partial exemption under this subsection.

~~(e-e) Stormwater management shall be provided for land in zoning districts PUD, O-P, C-P, M-R and M-P, for which a conceptual stormwater management plan was approved before September 4, 2007 in accordance with the approved conceptual stormwater management plan or in accordance with this article. Stormwater management shall be provided in accordance with the approve stormwater management plan or in accordance with this article for land in zoning districts PUD, O-P, C-P, M-R and M-P for which a conceptual stormwater management plan was approved before September 4, 2007, or land in any other zoning district for which a site plan was approved before September 4, 2007, unless a revision to the plan for the site is requested which adversely impacts the stormwater discharge from the site. An "adverse impact" is one that significantly increases the volume of stormwater discharge from the site, decreases the water quality of the stormwater discharge or redirects the stormwater discharge in a manner that results in downstream storm drainage impacts that would not have occurred with the original plan. Approvals for stormwater plans approved prior to January 1, 2012 shall expire on January 1, 2019 for sites on which the planned work has not commenced. Approvals of stormwater plans approved after January 1, 2012 shall expire seven (7) years after the date of approval if the planned work has not commenced.~~

...

Sec. 12A-95. Maintenance and repair of stormwater management facilities.

~~(a) Before approval of a stormwater management plan, the property owner must execute an easement in favor of the city allowing the city access to all stormwater management facilities on the property for inspection and, if the facility is to be maintained by the city, for maintenance.~~

~~(b-a)~~ Maintenance of all stormwater management facilities shall be ensured through the creation of a formal maintenance covenant, which must be approved by the director before final plat or plan approval and subsequently be recorded by the city with the Boone County Recorder of Deeds. The covenant will include a schedule for maintenance of the facilities to insure proper function of each stormwater management facility. The covenant shall also include a schedule for inspections of each facility to ensure proper function of each stormwater management facility between scheduled maintenance functions.

The director, in lieu of a maintenance covenant, ~~may~~ shall accept dedication of stormwater management facilities for City maintenance based on specific criteria developed by the director and generally limited to those stormwater management facilities which serve multiple properties. Any stormwater management facility accepted by the City for maintenance must meet all the requirements of this article and include adequate access easements for inspection and regular maintenance.

...

(e-b) All stormwater management facilities shall be inspected at least once each year, during the period beginning on March 1 and ending on May 31, to document maintenance and repair needs and to ensure compliance with this article. The facilities should also be inspected after each heavy rainfall and any necessary maintenance should be performed such as removal of silt, litter and debris from all catch basins, inlets, pipes and outlet structures.

(d-c) ~~City inspections may be routine, random or complaint driven. The director may inspect any stormwater management facility as set forth in section 12A-192.~~ Inspections may involve full evaluation of the physical structure and condition of the facility; review of the prior inspection, repair and maintenance records; and sampling of the surface water, discharges and groundwater as deemed necessary.

(e-d) Persons responsible for the operation and maintenance of stormwater management facilities shall make records of the inspection, repair, maintenance and any modifications to the facilities and shall retain these records for a minimum of five (5) years. These records shall be made available to the director during inspection of the facility or at any time upon request. Inspection and maintenance records shall be submitted to the director by June 1 of each year. Any failure to submit these records shall be unlawful and subject to the penalties of section 12A-11.

(f-e) Failure to properly maintain a stormwater management facility is hereby declared a nuisance and may be abated under the procedures set forth in section 12A-202.

...

Sec. 12A-110. Variances.

(a) Any property owner may petition the board of adjustment for a variance from strict compliance with the requirements of this chapter. The petition shall be in writing and shall state the grounds for the petition and all facts relied upon by petitioner. The petition shall include a written detailed explanation of all burdens or hardships and how all options available in the stormwater manual or under this chapter have been exhausted. The petition shall address in detail how the petitioner is in compliance with subsections (b)(1) through (4) and (c) of this section; shall include all evidence and support that no adverse downstream impacts exist; and shall list all reasonable mitigation measures.

...

SECTION 2. This ordinance shall be in full force and effect from and after its passage.

PASSED this _____ day of _____, 2011.

ATTEST:

City Clerk

Mayor and Presiding Officer

APPROVED AS TO FORM:

City Counselor

ENVIRONMENT AND ENERGY COMMISSION

CITY OF COLUMBIA BOONE COUNTY, MISSOURI

Tuesday, April 24, 2012

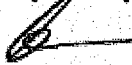
Re: Stormwater Ordinance Revisions

Mr. Mayor and Council,

The Land Disturbance & Riparian Corridor Committee of the Environment and Energy Commission (EEC) recommended to the Commission, and the Commission subsequently recommends to the City Council that the EEC supports the City Staff's definition of "site" rather than "lot" and that the Council not exempt the Central Business District and single family attached homes from the Stormwater Ordinance.

The Environment and Energy Commission requests to be a participant in the upcoming Council work session regarding stormwater revisions.

Respectfully submitted,



Karl Skala
Environment and Energy Commission, Chair

(cc: Columbia City Clerk & Boone County Commission)