

City of Jefferson, Missouri

Storm Water Management Program Plan 2013 -2018

Acronyms Defined:

APWA:	American Public Works Association
BMP:	Best Management Practice
EPA:	United States Environmental Protection Agency
GIS:	Geographic Information System
MCM:	Minimum Control Measure
MARC:	Mid America Regional Council
MDNR:	Missouri Department of Natural Resources
MS4:	Municipal Separate Storm Sewer System
NPDES:	National Pollutant Discharge Elimination System
SPCC:	Spill Prevention Control and Countermeasures
SWMP:	Storm Water Management Program
SWPPP:	Storm Water Pollution Prevention Plan
SWQAC:	Storm Water Quality Advisory Committee

Contact Information:

Name of Permittee: City of Jefferson, Missouri
Address: City Hall, 320 East McCarty Street, Jefferson City MO 65101
Phone Number: 573-634-6410
Department Responsible: Public Works Department Interim Director: Matt Morasch, P.E.
Primary Contact: City Engineer: Matt Morasch, P.E.
Secondary Contact: Storm Water Engineer: Don Fontana, P.E.

General Information:

Area of City: 37 + Square Miles
Population: 43,079
Home County(s): Cole and Callaway Counties
Major Receiving Water: Missouri River
Major Watersheds: Wears Creek,
Coon Creek,
Grays Creek,
Boggs Creek,
Moreau River
2012-303(d) Listed Waters: Hough Park Lake – Mercury in Fish Tissue
Sunset Lake – Mercury in Fish Tissue

City Overview Narrative:

The City of Jefferson Missouri was originally contemplated in 1825 by the State Legislature specifically to construct the State Capital. Since that time the City has grown to become a regional employment, shopping and health care destination. Our demographic data indicates that the City contains approximately 13,000 residential parcels and 2000 commercial parcels. In the past 25 years (1988-2012), City growth patterns can be characterized as steady and sustainable with annual growth of about 1%. The average number of new single family

dwellings constructed per year in that period was 113 homes (low 2009 - 41 homes, high 1994 - 178 homes). The average number of new commercial buildings built per year in the City in that same period was 21 buildings (low 2011 – 6 buildings, high 1998 – 32 buildings).

The City has been very proactive in its protection of water quality over the years. The most significant of those efforts was the separation of storm water from sanitary sewers. That work began in the 1960's and was completed in the early 1990's by the City's Wastewater Division of Public Works. The Wastewater Division has a very aggressive construction program which seeks to eliminate the potential of sanitary sewer overflows into the storm water conveyances of the City. They do so by aggressively inspecting, replacing and/or lining old sanitary sewer mains thereby limiting the amount of storm water infiltration into the sanitary sewer system and hence reducing the potential for overflows into the storm water conveyance system.

The Street Division of Public Works, consisting of 23 employees, is tasked with maintenance and operation of streets and the storm water conveyance systems of the City. Their storm water maintenance efforts include street sweeping, inlet clearing/cleaning and in-house replacement and upgrade of the storm water system. The Division's street maintenance tasks include snow/ice control, pothole repair, street overlay, traffic signal maintenance, street/curb painting and striping, sign maintenance and mowing of City owned right-of-way. Their assets include approximately 250 center line miles of streets, over 830,000 linear feet of storm water pipe and improved channel and almost 13,000 storm water manholes and structures. The Street Division budget for 2013 is about \$3,000,000 and is funded from the General Revenue Fund of the City.

The Engineering Division of Public Works is tasked with the administrative oversight and implementation of the City's MS4 permit. Storm water related tasks of the Division include development review/inspection, design/inspection of storm water capital improvements, construction related erosion control planning/inspection, storm water complaint resolution, collection of storm water related GIS data, illicit discharge detection, post construction and operational related inspections as well as public education and outreach efforts. The Division is made up of 15 employees with approximately 5 full time equivalent man hours allotted to storm water duties. The storm water capital improvement program is slated to receive \$400,000 per year from a ½ cent capital improvement sales tax (2012-2017), most of which will be utilized to replace failing infrastructure. The Engineering Division budget for 2013 is about \$1,250,000 and is funded from the General Revenue Fund of the City.

MCM 1 Public Education and Outreach

(4.2.1.1 .1-6)

4.2.1.1 Permit Requirement: The permittee shall implement a public education program to distribute educational materials to the community... about the impacts of storm water discharges... and the steps the public can take to reduce pollutants in storm water runoff. ...the public education... program... shall include... at a minimum...

.1 Target Pollutants and Source

The public education component of the City's SWMP is currently focused on reducing contaminants from residential properties as well as commercial activities. The target pollutants include: Lawn and Garden Waste, Household Hazardous Waste, Illicit Discharges and Silt/Sediment.

.2 Target Audience for Public Education

The City's target audience for public education is its citizenry and business operators.

.3 Plan to Inform Individuals, Households and Groups of How to Reduce Storm Water Pollution

The City's plan to educate the public about storm water and how to reduce its impacts to the environment include maintaining a library of storm water educational brochures, which are available in the City Hall foyer and on the City web site. The City will also distribute educational materials to at least one community event per year and will issue two press releases per year on storm water related topics (Spring and Fall).

.4 Involvement in the SWMP

The most direct way persons can become involved in the SWMP plan is to attend or become a Committee member of the City's SWQAC. The Committee is made up of citizen volunteers and is specifically tasked with the "continuous study of the City's storm water management plan". The Committee is still a new group but they have been consistently discussing ways to improve public awareness, education and involvement opportunities.

MCM 1 Public Education and Outreach

.5 Outreach Strategy

The outreach strategy includes multiple media mechanisms. The City maintains and distributes printed brochures. The brochures are also available in digital format via the City's website. The City's press releases are distributed to all media outlets, including newspapers, radio and television. The City has been successful in the past at getting coverage of the press release topics in all media formats.

The target audience for the educational materials is the citizenry of Jefferson City, commercial businesses as well school age children. In a typical year the City distributes approximately 1400 brochures (about two-hundred each of the seven different storm water related brochures). It is difficult to determine the full extent of their distribution due to their availability on the web site. It is also difficult to determine the extent of the news release distribution due to the variability in the news cycle at the time of their release.

BMP 1	Public outreach;
Targeted Facilities:	brochures;
Targeted Pollutants:	lawn and garden waste, household hazardous waste, illicit discharges and silt/sediment;
MCM 1 Measurable Goal (1):	maintaining brochure availability and their distribution at one community event per year
BMP 2	Public outreach;
Targeted Facilities:	press releases;
Targeted Pollutants:	lawn and garden waste, household hazardous waste, illicit discharges and silt/sediment;
MCM 1 Measurable Goal (2):	issuance of two press releases per year on storm water related topics.

MCM 1 Public Education and Outreach

.6 Success Evaluation

The success of MCM 1 will be evaluated by implementing and tracking of the two measurable goals identified above as “**MCM 1 Measurable Goal (1-2)**” and reported on annually.

The position which is responsible to implement, track and report MCM 1, is the City’s Storm Water Engineer, Don Fontana, P.E.

MCM 2 Public Involvement / Participation

(4.2.2.1 .1-.5)

4.2.2.1 Permit Requirement: The permittee shall implement a public involvement and participation program... that involves the public in development and oversight of the SWMP... the public involvement... program... shall include... at a minimum...

.1 Public Involvement

The public was involved in completion of this SWMP through participation in a citizen advisory group called the Storm Water Quality Advisory Committee (SWQAC). The Committee was formed by the City Council late in 2011 and began regular meetings in February 2012. The Committee has the specific duty of “continuous study of the City’s storm water management plan “.

The City’s boards and commissions are set by City code. Chapter 7 Article XIX (excerpt attached Appendix A) pertains to the formulation of the SWQAC and describes its membership, duties and other pertinent rules.

.2 Target Audience for Public Involvement

The City’s target audience for public involvement is its citizenry. The City does not target specific ethnic or economic groups when considering appointments to boards, committees and commissions. The code creating the SWQAC indicates that its members must be residents of Jefferson City. The committee members are vetted by the staff and the City’s Administration Committee and then appointed by the City Council. It is the staff’s goal to have a good mix of members including business owners and residents who have some personal interest in the topic of storm water quality. The current Committee has some very qualified individuals including a civil engineering consultant, a retired MDNR employee, administrator for the Missouri Prairie Foundation, local business owner and an employee of the state government, all of which reside and own property in Jefferson City.

As ordinance changes are proposed and vetted, other individuals will be invited to participate in the SWQAC meetings and may include representatives from the local home builders association, banking community, chamber of commerce, etc. The meetings are posted/noticed in accordance with State statute for open meetings. Each agenda has a repetitive item listed as “Citizen opportunity to address Committee on Storm Water issues”.

MCM 2 Public Involvement / Participation

.3 (.1-.4) Public Involvement Activities

The City's plan for public involvement in the SWMP is primarily through maintaining a storm water committee referred to as the SWQAC. The Committee is required by the code to hold quarterly meetings. The committee at its discretion may elect to meet more often. Each meeting is publicly noticed and open so that interested individuals may attend. In addition to the SWQAC the City also has a standing opportunity for individuals or groups to participate in storm drain stenciling. The program started several years ago and has been very popular with scouting and other youth groups. The SWQAC is also looking for additional avenues to involve the public.

.4 Public Involvement Plan

BMP 1	SWQAC meetings;
Targeted Facilities:	public involvement and participation;
Targeted Pollutants:	all pollutants listed in the SWMP BMP's including: illicit discharges, silt/sediment, salts, grit, grease/oil, metals, velocity, solid waste, pet waste and yard waste;
MCM 2 Measurable Goal (1):	number of meetings held per year.
BMP 2	Community activities completed such as stenciling projects, stream clean ups, etc.;
Targeted Facilities:	storm water conveyances including inlets, pipes and channels;
Targeted Pollutants:	solid waste, pet waste and yard waste;
MCM 2 Measurable Goal (2):	number of activities conducted per year.

MCM 2 Public Involvement / Participation

.5 Success Evaluation

The success of MCM 2 will be evaluated by implementing and tracking the two measurable goals identified above as “**MCM 2 Measurable Goal (1-2)**” and reported on annually.

The position which is responsible to implement MCM 2, is the City Engineer, Matt Morasch, P.E.

The position which will track and report MCM 2 is the City’s Storm Water Engineer, Don Fontana, P.E.

MCM 3 Illicit Discharge Detection and Elimination

(4.2.3.1 .1-.6)

4.2.3.1 Permit Requirement: The permittee shall develop, implement and enforce a program to detect and eliminate illicit discharges... the SWMP... shall include... at a minimum...

.1 Storm Sewer Map

The City has completed a storm water outfall map for the MS4 program. The map indicates the City has 40 outfalls (as defined by Appendix A of the MS4 Program Evaluation Guidance Manual – EPA-833-R-07-003, 40 CFR 122.2). The storm water system was initially mapped and modeled in the early 1990's as part of the original storm water master plan for the City. The map is updated annually to include any newly constructed storm water systems installed by the development community and newly installed capital improvement projects undertaken by the City. The outfall map is available for viewing by the public on the City website.

In addition to the outfall map, the City has an extensive GIS mapping program. Among many items contained in the GIS, it includes the storm water system, the sanitary sewer system, detention basins (public and private), flood plains, open channels and 2-ft. contours of the entire City. The GIS map is very useful to staff in assessing and resolving storm water complaints and illicit discharge issues. The GIS mapping information is available for viewing by the public on the City website.

.2 Ordinances

Chapter 31 Storm Water and Flood Plain Management

Section 31 400 – 440 Illicit Discharge Detection and Elimination (excerpt attached Appendix B)

.3 (.1-.6) Plans and Procedures

The City's plan to detect illicit discharges to the City's storm water conveyance system includes dry weather screening of the system, visual inspection of sanitary sewer mains utilizing closed circuit TV, smoke and dye testing of the sanitary sewers and public reporting of potential incidents. If a discharge is detected the City may conduct a chemical parameter analysis to aid in determining the discharge composition and source.

As a matter of routine inspection, the City will prioritize the inspections to focus on areas that are not served by the City's sanitary sewer mains and areas where the sanitary sewer mains are older.

MCM 3 Illicit Discharge Detection and Elimination

If a discharge is detected the City staff will develop a plan to determine its source and eliminate it. The process of tracing the source and containment of the discharge until it can be addressed is made much easier by use of the City's GIS mapping of the storm water system, sanitary sewer system and contour data.

Depending on the type and source of the illicit discharge the City has several options available to require its removal and elimination. The City's initial process is one of conference, conciliation and persuasion to gain voluntary compliance and it typically gains the desired results. If that process fails the City Code allows for Declaration of Nuisances and Tax Liens in cases of City conducted remediation.

The City actively seeks to educate public employees, businesses and the general public of the illicit discharge issues and proper disposal of wastes by use of its citizen information series brochures. The brochures are available online, in the foyer of City Hall and distributed at different educational events noted in MCM 1 Public Education and Outreach.

BMP 1	Dry weather visual inspection;
Targeted Facilities:	storm water conveyances, priority for un-sewered areas of the City and areas with older sewer mains and downstream of MDNR NPDES facilities located in the City;
Targeted Pollutants:	illicit discharges;
MCM 3 Measurable Goal (1):	number and locations of documented inspections per year.
BMP 2	Inspection of sanitary sewer mains by closed circuit TV, and smoke and dye testing;
Targeted Facilities:	sanitary sewer mains;
Targeted Pollutants:	sanitary sewer and storm water infiltration into sanitary sewers;
MCM 3 Measurable Goal (2):	number and locations of documented inspections per year.

MCM 3 Illicit Discharge Detection and Elimination

.4 - .5 Non-Storm Water Discharges

The City has evaluated several sources of non-storm water discharges and determined they do not have a high potential for significant storm water pollution. A list of discharge exemptions are located in the City Code Section 31-410 (excerpt attached Appendix B). Other occasional discharges such as charity car washes, etc. will be evaluated on a case by case basis for their potential to be a significant source of storm water pollution. If an occasional activity is determined to be a source of significant pollution the City may require the discharger to develop an engineered plan for control of the release.

.6 Industrial and Commercial Facilities

The City will work with MDNR to locate and map MDNR NPDES facilities within the City limits. As noted above these facilities along with un-sewered and areas of older sewer mains will be targeted for dry weather visual inspections.

Success Evaluation

The success of MCM 3 will be evaluated by implementing and tracking of the two measurable goals identified above as “**MCM 3 Measurable Goal (1-2)**” and reported on annually.

The positions which are responsible to implement MCM 3, are the City’s Plan Reviewer, Len Bonnot (dry weather inspection and tracking) and the Wastewater Division Director, Eric Seaman, P.E. (sanitary sewer inspections and tracking)

The position which will track and report MCM 3 is the City’s Storm Water Engineer, Don Fontana, P.E.

MCM 4 Construction Site Storm Water Runoff Control

(4.2.4.1 .1-.7)

4.2.4.1 Permit Requirement: The permittee shall develop, implement and enforce a program to reduce pollutants... from construction activities... in a land disturbance of greater than ... one acre....the SWMP... shall include... at a minimum...

.1 (.1-.3) Ordinance

Chapter 31 Storm Water and Flood Plain Management

Section 31 210 Permit Required (excerpt attached Appendix B)

Section 31 570 Violations and Penalties (excerpt attached Appendix B)

.2 Control of Waste for Water Quality

Section 31 410 C. Waste Disposal Prohibition (excerpt attached Appendix B)

.3 Site Plan Review Procedures

Plan Development: The City requires erosion and sediment control plans to be developed for all capital improvement plans, grading plans, site plans and subdivision developments within the City. The plans must be developed in accordance with City code which references APWA standards 5100 Erosion and Sediment Control.

Approval Procedures: The City's Development Engineer reviews all plans for compliance. Once the plans are approvable, the developer or site operator is contacted to have the appropriate erosion controls installed. City staff then conducts a site investigation to ensure the controls are properly installed. Once the required controls are installed the official plan approval is given and the permittee can then begin clearing and grading.

BMP 1	Development related erosion control plans;
Targeted Facilities:	developer proposed site plans and subdivision plans;
Targeted Pollutants:	silt and sediment;
MCM 4 Measurable Goal (1):	number and type of plans approved.

MCM 4 Construction Site Storm Water Runoff Control

.4 Public Input

The City has multiple avenues for public input in regard to erosion and sediment control planning. Depending on the type of plan and the required approvals, the public may comment on plans at a number of publicly noticed meetings including, Planning and Zoning Commission hearings, City Council meetings, Public Works and Planning Committee meetings and the Storm Water Quality Advisory Committee meetings. If an interested party would want to comment or provide information to City staff in a more informal manner, they could do so by utilizing a web based complaint form or the storm water complaint phone line, both of which are referenced on the City web site.

.5 Inspection

The City conducts routine inspections of erosion control measures for both private and public construction sites. To ensure uniformity of inspections, the erosion control inspections have been centralized under the plan reviewer position. This position is now responsible to conduct weekly documented inspections of all City CIP projects as they relate to erosion and sediment control practices. The same position is also tasked with completing a minimum of one monthly documented inspection of private development projects as they relate to erosion and sediment control. If the volume of inspections needed is greater than time allows, projects will be prioritized based on the potential to impact adjacent water courses and/or the past history of the operator. Additional inspections will also be conducted when appropriate, such as after rain events and or complaints.

BMP 2	Conduct compliance inspections for development related and City capital improvement projects;
Targeted Facilities:	developer proposed site plans and subdivision plans and City capital improvement projects;
Targeted Pollutants:	silt and sediment;
MCM 4 Measurable Goal (2):	number of inspections conducted and documented.

MCM 4 Construction Site Storm Water Runoff Control

.6 Enforcement

The City's enforcement efforts will initially follow the process of conference, conciliation and persuasion to gain voluntary compliance with its erosion and sediment control efforts. If that process fails to gain the desired results the City Code allows for Stop Work Orders, Revocation of Permits, Declaration of Nuisances, and Tax Liens in cases of City conducted remediation.

.7 Success Evaluation

The success of MCM 4 will be evaluated by implementing and tracking of the two measurable goals identified above as "MCM 4 Measurable Goal (1-2)" and reported on annually.

The positions which are responsible to implement MCM 4, are the City's Development Engineer, Shane Wade, P.E. (development plan review and approval) and the City's Plan Reviewer, Len Bonnot (site inspection and tracking)

The position which will track and report MCM 4 is the City's Storm Water Engineer, Don Fontana, P.E.

MCM 5 Post-Construction Storm Water Management in New Development and Redevelopment

(4.2.5.1 .1-.7)

4.2.5.1 Permit Requirement: The permittee shall develop, implement and enforce a program to address the quality of long term storm water runoff from new development and redevelopment... that disturb greater than... one acre... The permittee's program shall... minimize water quality impacts by reasonably mimicking preconstruction runoff conditions on... new development... and... on... redevelopment projects to the maximum extent practicable... The purpose... is to arrive at ... water quality treatment through infiltration, flow rates and similar site-design opportunities... the SWMP... shall include the following...

.1 Strategy

The strategy to implement MCM 5 is to continue to enforce the existing storm water management code that requires non-structural stream buffers and restriction of runoff controls which are typically structural in nature. The City will also work to enhance post-construction storm water controls by pursuing adoption of a storm water quality manual such as the Mid-America Regional Council/American Public Works Association – Kansas City Chapter (MARC/APWA) BMP storm water quality manual or some other similar manual.

.2 Ordinances

Existing Codes: Chapter 31 Storm Water and Flood Plain Management
Section 31-200 H. Natural Stream Protection (excerpt attached Appendix B)
Section 31-220 B. Restriction of Runoff (excerpt attached Appendix B)

Code Enhancement Plan:

The City will work to enhance its post-construction codes in Small MS4 Permit Cycle 3. The main focus of the enhancement will be to adopt by code a storm water quality manual. It may include improvements to the stream buffer code, soil and vegetation restoration and preservation, filtration practices, infiltration practices, bio-retention practices and extended detention practices.

MCM 5 Post-Construction Storm Water Management in New Development and Redevelopment

The City will utilize a citizen advisory committee called the SWQAC to vet any proposed ordinance changes with the Community. City Staff will propose changes to the SWQAC. The SWQAC will review and make an official recommendation to the City Council's Public Works and Planning Committee which will then forward any final recommendation to the full City Council for enactment. The Committee and Council process allows multiple opportunities for stakeholder input.

City staff will begin working through the Committee and Council process in 2013 with the anticipation of final adopted changes by the City Council to take place in 2016.

.3 Long Term Operation and Maintenance

The City will ensure the long term operation and maintenance of post-construction BMP's by annual inspection and follow-up with the responsible party to conduct any corrective action as necessary. Should a private party not comply with a request for corrective action, the City's code allows for several options including, revocation of permits / business licenses and pursuit of legal actions.

City owned and maintained post-construction controls as well as privately held controls have been identified and cataloged in a GIS data base. These facilities will receive a documented inspection at least once per year. Any deficiencies or maintenance items noted will be forwarded to the appropriate party for correction. If maintenance items are required the inspector may conduct a follow up inspection to ensure the required maintenance has been completed. Currently there have been 113 post-construction facilities identified in the City (82 Private, 31 Public).

.4 Priority Areas

The City's priority to implement new post-construction controls will be in new development areas. Redevelopment and infill development areas will be evaluated for implementation of the controls to the maximum extent practical so as not to discourage infill and redevelopment and promote sprawl.

MCM 5 Post-Construction Storm Water Management in New Development and Redevelopment

.5 (.1-.4) Non-Structural BMPs

BMP 1:	Codes and policies implementing non-structural BMP's;
Targeted Facilities:	riparian areas, stream buffers, open space and native vegetation restoration;
Target Pollutants:	salts, grit, grease/oil, metals, storm water velocity;
MCM 5 Measurable Goal (1):	code enhancements approved by the City Council;
MCM 5 Measurable Goal (2):	number of new facilities installed and existing facilities inspected/maintained.

.6 (.1-.2) Structural BMPs

BMP 2:	Codes and policies implementing structural BMP's;
Targeted Facilities:	detention basins, filtration practices, infiltration practices, bio-retention practices and extended detention practices ;
Target Pollutants:	salts, grit, grease/oil, metals, storm water velocity;
MCM 5 Measurable Goal (3):	code enhancements approved by the City Council;
MCM 5 Measurable Goal (4):	number of new facilities installed and existing facilities inspected/maintained.

.7 Success Evaluation

The success of MCM 5 will be evaluated by implementing and tracking the four measurable goals identified above as “**MCM 5 Measurable Goal (1-4)**” and reported on annually.

The position which is responsible to implement MCM 5, is the City Engineer, Matt Morasch, P.E.

The position which will track and report MCM 5 is the City's Storm Water Engineer, Don Fontana, P.E.

MCM 6 Pollution Prevention/Good Housekeeping for Municipal Operations

(4.2.6.1 .1-.8)

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... the SWMP... shall include the following...

.1 List of Municipal Operations

- 1) Hyde Park Operations Campus (2300 Hyde Park Road);
 - a. Street & Storm Water Operations
 - b. Waste Water Collections Operations
 - c. Fire Department Training and Storage Facility
 - d. Household Hazardous Waste Collection
 - e. Animal Shelter
- 2) Jefferson City Parks, Recreation and Forestry Operations Center and Golf Course (900 Block Ellis Blvd);
- 3) East Miller Street Operations Facility (800/900 Blocks of East Miller Street);
 - a. Central Vehicle Maintenance and Fueling
 - b. Street and Storm Water Operations (eastside facility)
 - c. Transit Facilities
- 4) Jefferson City Airport (500 Airport Road) **NPDES Permit No. MO-R80F006;**
- 5) Jefferson City Regional Water Reclamation Facility (401 Old Mokane Road) **NPDES Permit No. MO-0094846;**
- 6) Algoa Lagoon (Cortez Drive) **NPDES Permit No. MO-0044300.**

.2-.4 BMP's and Controls for Reducing/Eliminating Discharges

BMP 1: Street and Parking Lot Sweeping and Inlet Cleaning/Clearing;

Targeted Facility: Streets, Inlets and Municipal Parking Lots;

Targeted Pollutants: Road salts, grit, grease/oil, metals, solid waste litter/floatingables, yard waste;

MCM 6 Measurable Goal (1):Tons of Waste Disposed;

Narrative: *The City maintains a fleet of three street sweepers that clean streets throughout the City. The sweepers are scheduled to sweep all streets a minimum of six times per year. This includes two sweepings in early spring to remove accumulated road salts, grit and other litter and debris. The streets are then swept twice in*

MCM 6 Pollution Prevention/Good Housekeeping for Municipal Operations

the late fall to remove any accumulated liter, grit, dust, leaf litter and other yard waste. Other sweepings occur multiple times throughout the summer. In addition to sweeping the City dispatches 23 Street Division employees during and immediately after each rainfall event to clear inlets of litter and other floatable debris. Beginning in fiscal year 2013 the Street Division acquired a vacuum truck and have now begun the systematic cleaning of inlets and storm water pipes. All waste collected from the sweepings and inlet cleaning/clearing is disposed of in the local permitted solid waste landfill. The City's solid waste contract provides for City waste to be disposed of free of charge.

The City's Parking Division maintains all City owned parking lots. Each workday morning the lots are policed for solid waste litter/floatables. These lots also are swept monthly to remove any salts, grit, grease/oil and other accumulated waste. All waste collected from the sweepings is disposed of in the local permitted solid waste landfill. The City's solid waste contract provides for City waste to be disposed of free of charge.

BMP 2: SWPPP and SPCC for City Operations Sites;

Targeted Facilities:

1. Hyde Park Operations Campus (2300 Hyde Park Road);
2. Jefferson City Parks, Recreation and Forestry Operations Center and Golf Course (900 Block Ellis Blvd);
3. East Miller Street Operations Facility (800/900 Blocks of East Miller Street);

Targeted Pollutants: Road salt, calcium chloride brine, paints/solvents/chemicals, vehicle wash grit, grit, grease/oil, metals, solid waste litter/floatables, fuel storage;

MCM 6 Measurable Goal (2): to be identified in the SWPPP and SPCC for each facility;

Narrative: *The City has begun the process of developing specific SWPPP's and SPCC's for the three facilities noted above. Although many procedures are currently in place at the facilities to prevent and/or reduce discharges the SWPPP's and SPCC's will formalize the controls, recommend possible improvements, indicate measurable goals and formalize inspections and reporting requirements for the facilities. A timeline for developing these plans is proposed as follows:*

<i>July 2013:</i>	<i>Begin development of the Hyde Park SWPPP and SPCC;</i>
<i>May 2014:</i>	<i>Complete the Hyde Park SWPPP and SPCC plan and begin the East Miller SWPPP and SPCC plan;</i>
<i>May 2015:</i>	<i>Complete the East Miller SWPPP and SPCC plan and begin the Parks Operations SWPPP and SPCC plan;</i>
<i>May 2016:</i>	<i>Complete the Parks Operations SWPPP and SPCC plan;</i>

MCM 6 Pollution Prevention/Good Housekeeping for Municipal Operations

May 2014 – May 2018:

implement facility improvements as proposed in the SWPPP and SPPC plans as budget allows.

.5 Procedures for Waste Disposal

The City's procedure for disposal of all solid waste including street and parking lot sweepings is to place the waste into a dumpster or haul waste directly to the local permitted solid waste landfill. The City wide waste collection and recycling services bid includes a requirement that all City waste be accepted by the hauler free of charge. Excerpt from contract section 11.2 states...

"11.2. Provide at no cost to the City for collection and hauling of Solid Waste generated by City Departments... waste generated from City operations, such as Parks Department trash trucks and street sweepings, shall be accepted at... landfill at no cost to the City..."

.6 Procedures for Evaluating Flood Management Projects for Water Quality

Detention Basins: The City has ownership and maintenance responsibility for 19 storm water detention basins. Each basin was designed for flood control purposes however they likely do contain some water quality features. During this next five year permit cycle the City will investigate each basin for the potential to improve and/or incorporate additional water quality attributes at the facilities and develop a report/plan for each. The City proposes to complete review of 4 basins per year so that all basins will have complete reports/plans by the end of the permit cycle in May 2018. Implementation of actual field modifications is dependent on available budget for the work.

Capital Improvement Projects: The City has also begun the process of evaluating and documenting water quality features for City capital improvement projects. Any incorporated water quality features shall be noted in each plan set developed.

MCM 6 Measurable Goal (3): The annual report for the MS4 permit will contain updates concerning the progress of these items, such as number of basins evaluated and measures implemented.

MCM 6 Pollution Prevention/Good Housekeeping for Municipal Operations

.7 Employee Training Program

In the 2013-2018 permit cycle, the employee training program component will be revamped to better target operational employees that work out of our three main operation facilities (Hyde Park, Parks and Recreation and Miller Operations centers). The trainings will initially focus on the site specific SWPPP and SPCC plans developed for the sites. As time progresses the trainings will incorporate new materials and other aspects of the City's efforts to reduce and eliminate pollutant runoff. This training component effort should enhance our outreach and illicit discharge efforts by:

- 1) targeting the individuals most likely to encounter citizens while carrying out their daily duties; and*
- 2) training large numbers of employees who conduct the majority of their work in the field, they will be more apt to discover illicit discharges while conducting their work, hence making the City more proactive in identifying potential illicit discharges and reporting them to the management staff for resolution.*

MCM 6 Measurable Goal (4): The City's goal is to train at least 50% of the employees housed in the operational facilities per year. The annual report for the MS4 permit will contain updates concerning the progress of this item by indicating the number of employees trained at each event and what information was disseminated.

.8 Success Evaluation

The success of MCM 6 will be evaluated by implementing and tracking of the four measurable goals identified above as "**MCM 6 Measurable Goal (1-4)**" and reported on annually.

The primary position which is responsible to implement, track and report on MCM 6, is the City's Storm Water Engineer, Don Fontana, P.E.

Appendixes

- Appendix A: Chapter 7 Article XIX. Storm Water Quality Advisory Committee (1 page)
- Appendix B: Chapter 31 Storm Water / Floodplain Management (pages 3100-3141)
- Appendix C: Draft MDNR Permit for 2013-2018 (pages 2-17)
- Appendix D: City Outfall Map (1 page)

CITY OF JEFFERSON
2013-2018 SWMP Appendix A
MO-R040049

ARTICLE XIX. STORM WATER QUALITY ADVISORY COMMITTEE.

Sec. 7-650. Committee established, membership .

- A. There shall be a Storm Water Quality Advisory Committee composed of five (5) members, who shall be qualified for appointment by having an interest or expertise and being familiar with the subject of storm water quality issues. The Mayor shall, with the approval and consent of a majority of the members of the City Council, appoint the members of the Storm Water Quality Advisory Committee. All members shall be residents of the City of Jefferson.
- B. Members shall be appointed for 3-year terms. Any vacancies shall be filled by appointment and approval in like manner for the unexpired portion of the term. All members shall continue to serve until their successors shall have been appointed and qualified.
- C. Members shall receive no compensation for their service on the committee, but may receive reimbursement for authorized expenses, upon approval of the City Administrator.

Sec. 7-651. Meetings, quorum.

The Storm Water Quality Advisory Committee shall hold a regular business meeting at least once each quarter at such time and place as shall be established by rule of the committee. The committee may hold such additional business meetings as it shall, from time to time, deem necessary. A quorum for business at such meetings shall be a majority of the duly appointed members of the committee.

Sec. 7-652. Officers.

The Storm Water Quality Advisory Committee shall elect, at its first meeting in each fiscal year and from among its resident members, a chairman and vice chairman. Such officers shall be eligible to succeed themselves at the will of the committee, except that persons shall serve a maximum of three (3) consecutive terms as chairman.

Sec. 7-653. Powers and duties generally.

The Storm Water Quality Advisory Committee shall make a continuous study of the City's storm water management plan and NPDES (National Pollutant Discharge Elimination System) permit documents. The Storm Water Quality Advisory Committee may adopt bylaws not inconsistent with the code for its own organization and procedure.

Sec. 7-654. Report.

The Storm Water Quality Advisory Committee shall make reports and recommendations to the Public Works Committee on an as needed basis.

Sec. 7-655. Finances.

The Storm Water Quality Advisory Committee is not authorized to make any purchases or spend any money on behalf of the City.

Sec. 7-656. Staff, city cooperation.

The Storm Water Quality Advisory Committee may request, and shall receive, the cooperation of city staff members in providing it assistance for the furtherance of its duties as approved by the City Administrator.

CITY OF JEFFERSON
2013-2018 SWMP Appendix B
MO-R040049

CHAPTER 31

STORMWATER/FLOODPLAIN MANAGEMENT¹

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ARTICLE I. GENERAL

Section 31-100 Intent and Purpose.

The purpose of these regulations is to safeguard persons, protect property, prevent damage to the environment and promote the public welfare by guiding, regulating, and controlling the design, construction, use and maintenance of all stormwater facilities and development.

Section 31-110 Responsibility for Administration

The provisions of this chapter shall be administered and enforced by the Director. The Director shall prescribe forms for attainment of the purposes of this chapter and for the proper enforcement thereof. The Director may delegate the administration of this chapter, or any part thereof, subject to limitations of the ordinances of the city, to duly qualified employees, deputies or agents of the city.

Section 31-120 Definitions.

Unless specifically defined below, words or phrases in this chapter shall be interpreted so as to give them the meaning they have in common usage and to give this chapter its most reasonable application:

100-year Flood. See base flood.

Accessory Structure. Also appurtenant structure.

Actuarial or risk premium rates. Those rates established by the administrator pursuant to individual community studies and investigations which are undertaken to provide flood insurance in accordance with Section 1307 of the Act and the accepted actuarial principles. "Risk premium rates" include provisions for operating costs and allowances.

Administrator. The Federal Insurance Administrator.

Agency. The Federal Emergency Management Agency (FEMA).

Agricultural Commodities. Agricultural products and livestock.

Agricultural Structure. Any structure used exclusively in connection with the production, harvesting, storage, drying, or raising of agricultural commodities.

Appeal. A request for a review of the floodplain administrator's interpretation of any provision of this article or a request for a variance.

Appurtenant Structure. A structure that is on the same parcel of property as the principle structure to be insured and the use of which is incidental to the use of the principal structure.

Area of special flood hazard. The land in the floodplain within the City of Jefferson subject to a one percent or greater chance of flooding in any given year.

Base flood. The flood having a one percent chance of being equaled or exceeded in any given year (100 year flood).

Basement. Any area of the structure having its floor subgrade (below ground level) on all sides.

Best Management Practices (BMPs). Schedules of activities, prohibitions of practices, general good housekeeping practices, pollution prevention and educational practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants directly or indirectly to stormwater, receiving waters, or stormwater conveyance systems. BMPs also include treatment practices, operating procedures, and practices to control site runoff, spillage or leaks, sludge or water disposal, or drainage from raw materials storage.

Building. *See structure.*

Chief Executive Officer or Chief Elected Official. The official of the community who is charged with the authority to implement and administer laws, ordinances, and regulations for that community.

City. The City of Jefferson, Missouri.

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

Clearing. Any activity which removes the vegetative surface cover.

Community. Any State or area or political subdivision thereof, which has authority to adopt and enforce floodplain management regulations for the areas within its jurisdiction.

Council. The city council of the City of Jefferson, Missouri.

Design year storm. The selected or established frequency or return period of rainfall time-duration for which drainage facilities are to be designed.

Detention basin. Any man-made area which serves as a means of controlling and storing stormwater runoff.

Developer. A person directing or participating in the direction of improvements on and/or to land, including, but not limited to, the owner of the land, a general contractor or a commercial agent engaged for such activity.

Development. Any man-made change to improved or unimproved real estate, including, but not limited to, buildings or other structures, levees, levee systems, mining, dredging, filling, grading, paving, excavation or drilling operations, or storage of equipment or materials. May also include any change of land use.

Director. The Director of Public Works or a delegated representative.

Drainage Basin (Watersheds). The catchment area from which stormwater is carried off by a watercourse or storm drainage system. The area served by a drainage system receiving storm and other surface-borne water. The boundaries of a drainage basin are a product of natural topography and drainage system configuration.

Drainage facility. A man-made structure or natural watercourse for the conveyance of stormwater runoff. Examples are channels, pipes, ditches, swales, catch basins and street gutters.

Drainage Way. Any channel that conveys surface runoff.

Dwelling unit. One or more rooms in a dwelling occupied or intended to be occupied as separate living quarters by a single family as defined herein.

Elevated Building. For insurance purposes, a non-basement building which has its lowest elevated floor raised above ground level by foundation walls, shear walls, posts, piers, pilings, or columns.

Eligible Community or Participating Community. A community for which the Administrator has authorized the sale of flood insurance under the National Flood Insurance Program (NFIP).

Erosion Control. Measures that prevent erosion.

Erosion and Sediment Control Plan. A set of plans prepared by or under the direction of a licensed professional engineer that indicates the specific measures and sequencing to be used controlling sediment and erosion on a development site both before, during and after construction.

Existing construction. For the purposes of determining rates, structures for which the "start of construction" commenced before the effective date of the FIRM or before January 1, 1975, for FIRM's effective before that date. "Existing construction" may also be referred to as "existing structures."

Existing Manufactured Home Park or Subdivision. A manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before the effective date of the floodplain management regulations adopted by a community.

Expansion to an Existing Manufactured Home Park or Subdivision. The preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

Family. One or more persons related by blood, marriage or adoption, occupying a dwelling unit as an individual housekeeping organization. A family may not include more than two (2) persons not related by blood, marriage or adoption.

Flood or flooding. A general and temporary condition of partial or complete inundation of normally dry land areas from:

1. The overflow of inland waters.
2. The unusual and rapid accumulation or runoff of surface waters from any source.

Flood Boundary and Floodway Map (FBFM). An official map of a community on which the Administrator has delineated both special flood hazard areas and the designated regulatory floodway.

Flood Elevation Determination. A determination by the Administrator of the water surface elevations of the base flood, that is, the flood level that has a one percent or greater chance of occurrence in any given year.

Flood Elevation Study. An examination, evaluation and determination of flood hazards.

Flood Fringe. The area outside the floodway encroachment lines, but still subject to inundation by the regulatory flood.

Flood Hazard Boundary Map (FHBM). An official map of a community, issued by the Administrator, where the boundaries of the flood areas having special flood hazards have been designated as (unnumbered or numbered) A zones.

Flood insurance rate map (FIRM). An official map of a community on which the Administrator has delineated both the special flood hazard areas and the risk premium zones applicable to the community.

Flood Insurance Study (FIS). An examination, evaluation and determination of flood hazards and, if appropriate, corresponding water surface elevations.

Floodplain or Flood-prone Area. Any land area susceptible to being inundated by water from any source (see "flooding").

Floodplain Management. The operation of an overall program of corrective and preventive measures for reducing flood damage, including but not limited to emergency preparedness plans, flood control works, and floodplain management regulations.

Floodplain Management Regulations. Zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances (such as floodplain and grading ordinances) and other applications of

police power. The term describes such state or local regulations, in any combination thereof, that provide standards for the purpose of flood damage prevention and reduction.

Floodproofing. Any combination of structural and nonstructural additions, changes, or adjustments to structures that reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, or structures and their contents.

Floodway or regulatory floodway. The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot.

Floodway Encroachment Lines. The lines marking the limits of floodways on Federal, State and local floodplain maps.

Floodway fringe. That area of the floodplain, outside of the floodway that has a one percent chance of flood occurrence in any one year.

Freeboard. A factor of safety usually expressed in feet above a flood level for purposes of floodplain management. Freeboard tends to compensate for the many unknown factors that could contribute to flood heights greater than the height calculated for a selected size flood and floodway conditions, such as wave action, clogged bridge openings, and the hydrological effect or urbanization of the watershed.

Functionally Dependent Use. A use that cannot perform its intended purpose unless it is located or carried out in close proximity to water. This term includes only docking facilities and facilities that are necessary for the loading and unloading of cargo or passengers, but does not include long-term storage or related manufacturing facilities.

Grading. Excavation or fill of material, including the resulting condition thereof.

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

Highest adjacent grade. The highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

Historic Structure. Any structure that is (a) listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register; (b) certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district; (c) individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the Interior; or (d) individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either (1) by an approved state program as determined by the Secretary of the Interior or (2) directly by the Secretary of the Interior in states without approved programs.

Illegal Discharge. Any direct or indirect non-storm water discharge to the storm drain system, except as exempted by this ordinance.

Illicit Connections. An illicit connection is defined as either of the following: Any drain or conveyance, whether on the surface or subsurface, which allows an illegal discharge to enter the storm drain system including but not limited to any conveyances which allow any non-storm water discharge including sewage, process wastewater, and wash water to enter the storm drain system and any connections to the storm drain system from indoor drains and sinks, regardless of whether said drain or connection had been previously allowed, permitted, or approved by an authorized enforcement agency or, Any drain or conveyance connected from a commercial or

industrial land use to the storm drain system which has not been documented in plans, maps, or equivalent records and approved by an authorized enforcement agency.

Impervious surface. Surfaces on real property where infiltration of stormwater into the earth has been virtually eliminated by the works of man.

Improved land. Land having improvements that are impervious to, or alter the flow of, stormwater within the limits of a platted, or otherwise distinguished, parcel of land.

Improvement. A structure on or other alteration of land.

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

KC-APWA 5100. Kansas City Metro Chapter of the American Public Works Association (APWA), Division 5100, Erosion and Sediment Control, as amended from time to time by APWA and including all additions and exceptions kept on file by the City.

KC-APWA 5600. Kansas City Metro Chapter of the American Public Works Association, Division 5600, Storm Drainage Systems and Facilities, as amended from time to time by APWA and including all additions and exceptions kept on file by the City.

Low-density residential. Individually platted lots containing two (2) or fewer dwelling unit.

Lowest Floor. The lowest floor of the lowest enclosed area, including basement. An unfinished or flood-resistant enclosure, usable solely for parking of vehicles, building access, or storage, in an area other than a basement area, is not considered a building's lowest floor, provided that such enclosure is not built so as to render the structure in violation of the applicable floodproofing design requirements of this ordinance.

Manufactured home. A structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when connected to the required utilities. For floodplain management purposes, the term "manufactured home" does not include a "recreational vehicle."

Manufactured home park or subdivision. A parcel (or contiguous parcels) of land divided into two (2) or more manufactured home lots for rent or sale.

Map. The Flood Hazard Boundary Map (FHBM), Flood Insurance Rate Map (FIRM), or the Flood Boundary and Floodway Map (FBFM) for a community issued by the Federal Emergency Management Agency (FEMA).

Market Value or Fair Market Value. An estimate of what is a fair, economic, just, and equitable value under normal local market conditions.

Mean Sea Level. For purposes of the National Flood Insurance Program (NFIP), the National Geodetic Vertical Datum (NGVD) of 1929 or other datum, to which base flood elevations shown on a community's Flood Insurance Rate Map (FIRM) are referenced.

National Pollutant Discharge Elimination System (NPDES) Storm Water Discharge Permit. A permit issued by EPA (or by a State under authority delegated pursuant to 33 USC § 1342(b)) that authorizes the discharge of pollutants to waters of the United States, whether the permit is applicable on an individual, group, or general area-wide basis.

Natural Stream. For the purposes of this chapter natural stream shall be defined as a water course containing an ordinary high water mark with a drainage area of fifty (50) acres or more.

Natural Stream Protection Buffer. An area of land containing a twenty-five (25) foot riparian zone and a thirty-five (35) foot minimum building setback. The purpose of the buffer is to protect water quality, minimize the effects of stream bank erosion and enhance flood protection.

New Construction. For the purposes of determining insurance rates, structures for which the "start of construction" commenced on or after the effective date of an initial FIRM or after December 31, 1974, whichever is later, and includes any subsequent improvements to such structures. For floodplain management purposes, "new construction" means structures for which the "start of construction" commenced on or after the effective date of the floodplain management regulations adopted by a community and includes any subsequent improvements to such structures.

New Manufactured Home Park or Subdivision. A manufactured home park or subdivision for which the construction of facilities for servicing the lot on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after the effective date of floodplain management regulations adopted by the community.

(NFIP). The National Flood Insurance Program (NFIP).

Ordinary High Water Mark. A line on the bank established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

Owner. Any person, firm, association, syndicate, partnership, corporation, trust, or any other entity having legal title to, or a sufficient proprietary interest to legally transfer, real property. Proprietary interest shall include, but not be limited to, estate administration, trusteeship, guardianship and actions under a valid power of attorney. Proprietary interest shall not include an agency or a bare employment relation.

Participating Community also known as an "eligible community". A community in which the Administrator has authorized the sale of flood insurance.

Perimeter Control. A barrier that prevents sediment from leaving a site either by filtering sediment-laden runoff, or diverting it to a sediment trap or basin.

Person. Includes any individual or group of individuals, corporation, partnership, association, or any other entity, including Federal, State, and local governments and agencies.

Phasing. Clearing a parcel of land in distinct phases, with the stabilization of each phase before the clearing of the next.

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

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

Principally Above Ground. At least 51 percent of the actual cash value of the structure, less land value, is above ground.

Recreational Vehicle. A vehicle which is (a) built on a single chassis; (b) 400 square feet or less when measured at the largest horizontal projections; (c) designed to be self-propelled or permanently towable by a light-duty truck; and (d) designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

Regional Detention Master Plan: Plan showing existing and future regional detention facilities to be

owned and operated by the City and as amended from time to time by the Director. The document shall be kept on file at the City.

Remedy A Violation. To bring the structure or other development into compliance with Federal, State, or local floodplain management regulations; or, if this is not possible, to reduce the impacts of its noncompliance.

Repetitive Loss. Flood-related damages sustained by a structure on two separate occasions during a 10-year period for which the cost of repairs at the time of each such flood event, equals or exceeds twenty-five percent of the market value of the structure before the damage occurred.

Riparian Zone. A twenty-five (25) foot area of land adjacent to a natural stream, kept in its natural state for the purpose of protecting water quality, minimizing the effects of stream bank erosion and enhancing flood protection. The width of the riparian zone shall be measured from the ordinary high water mark of the natural stream. After the riparian zone is platted, the area designated on the plat as the riparian zone shall be substituted for this definition.

Risk Premium Rates. Those rates established by the Administrator pursuant to individual community studies and investigations which are undertaken to provide flood insurance in accordance with Section 1307 of the National Flood Disaster Protection Act of 1973 and the accepted actuarial principles. "*Risk premium rates*" include provisions for operating costs and allowances.

Sediment Control. Measures that prevent eroded sediment from leaving the site.

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

Special Flood Hazard Area. *see "area of special flood hazard."*

Special Hazard Area. An area having special flood hazards and shown on a FHBM, FIRM or FBFM as zones (unnumbered or numbered) A and AE.

Stabilization The use of practices that prevent exposed soil from eroding.

Start of Construction (includes substantial-improvements). The date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition placement, or other improvements were within 180 days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slabs or footings, the installation of piles, the construction of columns, any work beyond the stage of excavation, or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling, the installation of streets and/or walkways, excavation for a basement, footings, piers, foundations, the erection of temporary forms, nor installation on the property of accessory structures, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial-improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

State Coordinating Agency. That agency of the state government, or other office designated by the governor of the state or by state statute at the request of the Administrator to assist in the implementation of the National Flood Insurance Program (NFIP) in that state.

Storm drain. An improved storm drain is a closed conduit or paved open ditch for conducting collected stormwater. An unimproved storm drain is an open ditch, natural or specifically constructed for conveying collected stormwater.

Storm drainage design manual. A city manual for use by land developers in the design of storm drainage systems such as storm drains, culverts, streets, gutter flow hydraulics, natural drainage swales and storm inlets. The Storm Drainage Design Manual may include drainage policy to be followed, standard design methods, computation forms and city standards.

Storm Water. Any surface flow, runoff, and drainage consisting entirely of water from any form of natural precipitation, and resulting from such precipitation.

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

Stormwater management plan. All phases (1-4) of the city master plan describing the development of, and facilities required for, the stormwater drainage system and additional improvements and actions necessary to the management of stormwater drainage, entitled "City of Jefferson, Missouri Comprehensive Stormwater Master Plan Update," prepared by Burns and McDonnell, as approved by the council and from time to time amended.

Stormwater Pollution Prevention Plan: A document which describes the Best Management Practices and activities to be implemented by a person or business to identify sources of pollution or contamination at a site and the actions to eliminate or reduce pollutant discharges to Stormwater, Stormwater Conveyance Systems, and/or Receiving Waters to the Maximum Extent Practicable.

Structure. For floodplain management purposes, a walled and roofed building, including a gas or liquid storage tank, that is principally above ground, as well as a manufactured home. "Structure" for insurance purposes, means a walled and roofed building, other than a gas or liquid storage tank that is principally above ground and affixed to a permanent site, as well as a manufactured home on a permanent foundation. For the latter purpose, the term includes a building while in the course of construction, alteration or repair, but does not include building materials or supplies intended for use in such construction, alteration or repair, unless such materials or supplies are within an enclosed building on the premises.

Substantial-Damage. Damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred. The term includes Repetitive Loss buildings (see definition).

For the purposes of this definition, "repair" is considered to occur when the first repair or reconstruction of any wall, ceiling, floor, or other structural part of the building commences.

The term does not apply to:

1. Any project for improvement of a building required to comply with existing health, sanitary, or safety code specifications which have been identified by the Code Enforcement Official and which are solely necessary to assure safe living conditions, or
2. Any alteration of a "historic structure" provided that the alteration will not preclude the structure's continued designation as a "historic structure", or
3. Any improvement to a building.

(Ord. No. 11850, § 1, 1-26-93)

Substantial Improvement. Any combination of reconstruction, alteration, or improvement to a building, taking place during a 10 year period, in which the cumulative percentage of improvement equals or exceeds fifty percent of the current market value of the building. For the purposes of this definition, an improvement occurs when the first alteration of any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the building. This term includes structures, which have incurred "repetitive loss" or "substantial damage", regardless of the actual repair work done.

The term does not apply to:

1. any project for improvement of a building required to comply with existing health, sanitary, or safety code specifications which have been identified by the Code Enforcement Official and which are solely

necessary to assure safe living conditions, or

2. Any alteration of a “historic structure” provided that the alteration will not preclude the structure’s continued designation as a “historic structure.” Or
3. Any building that has been damaged from any source or is categorized as repetitive loss.

Substantially improved existing manufactured home parks or subdivisions. Where the repair, reconstruction, rehabilitation or improvement of the streets, utilities and pads equals or exceeds 50 percent of the value of the streets, utilities and pads before the repair, reconstruction or improvement commenced.

Swale. A relatively wide, shallow ditch around or between structures used to carry stormwater runoff.

Unimproved land. Land in its natural state.

Variance. A grant of relief by the community from the terms of a floodplain management regulation. Flood insurance requirements remain in place for any varied use or structure and cannot be varied by the community.

Violation. The failure of a structure or other development to be fully compliant with the community's floodplain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required by this ordinance is presumed to be in violation until such time as that documentation is provided.

Wastewater Any water or other liquid, other than uncontaminated storm water, discharged from a facility.

Water Surface Elevation. The height, in relation to the National Geodetic Vertical Datum (NGVD) of 1929 (or other datum where specified) of floods of various magnitudes and frequencies in the floodplain.

Watercourse. A stream, usually flowing in a particular direction (though it need not flow continuously in a definite channel), having a bed or banks and usually discharging into some other stream or body of water.

(Ord. No. 15017, §1, 9-17-2012)

Section 31-130 Limitations on Liability.

Floods from stormwater runoff may occur which exceed the capacity of stormwater drainage facilities constructed and maintained under this chapter. This chapter does not guarantee that property will always be free from stormwater flooding or flood damage. This chapter shall not create a liability on the part of, or cause of action against, the city or any officer or employee thereof for any flood damage. Neither does this chapter purport to reduce the need or the necessity for obtaining flood insurance.

Section 31-140 Conditions, Interpretations, Conflict, Separability.

- A. Conditions. Regulation of stormwater drainage and the attachment of reasonable conditions thereto is an exercise of the valid police power delegated by the State of Missouri to the city. Property owners have the duty of compliance with reasonable policies, regulations, standards and conditions established by the city for design, construction, improvement and restrictive use of the land so as to conform to the physical and economical development of the city, and to promote the health, safety and general welfare of the community at large.
- B. Interpretation. The provisions of this chapter shall be the minimum requirements for the protection of the public health, safety and general welfare.

- C. Conflict. Conflict with public and private provisions:
1. Public provisions. Where any provision of this chapter imposes restrictions different from those imposed by any other law or regulation, whichever is more restrictive or imposes a higher standard shall control.
 2. Private provisions. This chapter is not intended to abrogate any easement, covenant or any other private agreement or restriction; provided, that where the provisions of this chapter are more restrictive or impose higher standards or regulations that such easement, covenant, or other private agreement or restriction, the requirements of this chapter shall govern.
- D. Separability. The provisions and sections of this ordinance shall be deemed to be separable, and the invalidity of any portion of this ordinance shall not affect the validity of the remainder.

Section 31-150. Access to the facilities.

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

Unreasonable delays in allowing the Department of Public Works access to a permitted facility is a violation of a storm water discharge permit and of this ordinance.

If the Department of Public Works has been refused access to any part of the premises from which stormwater is discharged, and is able to demonstrate probable cause to believe that there may be a violation of this ordinance, or that there is a need to inspect and/or sample as part of a routine inspection and sampling program designed to verify compliance with this ordinance or any order issued hereunder, or to protect the overall public health, safety, and welfare of the community, then the Department of Public Works may seek issuance of a search warrant from any court of competent jurisdiction.

Section 31-160 Violations and Penalties.

In addition to any specific penalties set forth in individual articles, any person found guilty of violating the provisions of this chapter, shall upon conviction be fined not more than five hundred dollars (\$500.00) and in addition shall pay all costs and expenses involved in the case. Each day such violation continues shall be considered a separate offense. Nothing herein contained shall prevent the City of Jefferson, Missouri, or other appropriate authority, from taking such other lawful action as is necessary to prevent or remedy any violation.

Where a violation is declared a nuisance, all policies and procedures set forth in Chapter 21 shall apply.

ARTICLE II. STORMWATER MANAGEMENT

Section 31-200 General Requirements.

- A. Design Criteria
1. Storm Drainage Systems and Facilities: The design procedures stipulated in the KC-APWA 5600 shall be followed insofar as it is applicable. Written justification for all deviations must be prepared and submitted in accordance with the variance procedures set forth in this chapter.
 2. Erosion and Sediment Control: The design procedures stipulated in the latest edition of the KC-APWA 5100 shall be followed insofar as it is applicable. Written justification for all deviations must be prepared and submitted in accordance with the variance procedures set forth in this chapter.
- B. Standard Drawings: The City of Jefferson Standard Details, as amended from time to time, as well as the Kansas City Metro Chapter of the American Public Works Association, Division 5300, Standard Drawings (KC-APWA 5300) shall be referenced as necessary for design and construction. When the two documents conflict, the City of Jefferson Standard Details shall rule.
- C. Plan Requirements: Plans shall include all drawings, narratives and computations as outlined in KC-APWA 5100 and 5600.
- D. Drainage onto sidewalks. Tributary areas where sidewalks exist or are proposed, and which drain across a public sidewalk, must not exceed three thousand (3,000) square feet of impervious area, including roofs discharging upon paved areas, or nine thousand (9,000) square feet of sodded areas, or in proportional amounts for a combination of such areas. Paved, roofed or other impervious areas exceeding three thousand (3,000) square feet shall be provided with drains for discharge into storm conduits, channels, or street gutters.
- E. Downspouts. Downspouts shall not be discharged directly onto sidewalks or entrance ways. When downspouts are connected to the gutterline of the street or the public drainage system, they shall be connected by a method approved by the Director. Downspouts shall not discharge within the building setback unless there is a drainage swale established to carry the water to the front or rear of the property or closest natural drainage course. Downspouts may also discharge within the building setback if discharging into a rain garden, rain barrel or other stormwater management practice.
- F. Flow toward streets. Any concentration of surface flow in excess of two (2) cubic feet per second (cfs) for the ten-year frequency rain shall be intercepted before reaching the street right-of-way and shall be carried by an enclosed storm drain to connect with a drainage structure at the low point in the street right-of-way or to discharge to a watercourse.
- G. Parking lots and garages. Adequate provisions shall be made for the disposal of stormwater from parking lots and garages. Plans shall be submitted for approval to the Director to ensure measures are taken to limit the flow of water onto adjoining property or adjacent sidewalks or streets in a quantity that would be detrimental to or inconvenient to persons using the streets or sidewalks.
- H. Natural Stream Protection On Developments Platted after April 1, 2007.
1. Natural streams containing an ordinary high water mark with a drainage area of 50 acres or greater shall be buffered by a natural stream protection buffer consisting of a twenty-five (25) foot riparian zone plus a thirty-five (35) foot building setback.

2. If a channel enclosure or relocation of such a drainageway is permitted by the City the riparian zone shall not be required and building setbacks will revert to those dictated by zoning.
3. Riparian zones shall remain undisturbed to the maximum extent practicable. This zone prohibits any land disturbance, clearing, grubbing, or any other construction activities except as necessary for utility construction, greenways and road access. Naturally occurring vegetation within the riparian zone shall not be removed, diminished, inhibited, mowed or substantially altered from its natural state or growth. Such construction shall minimize disturbance of the stream and riparian zone.
4. Adjustments in widths of the riparian zone or adjacent building setback may be made when approved by the Director when local conditions justify deviation from the standard widths.
5. Wherever the designated riparian zone must be disturbed, mitigation measures shall be taken to re-establish vegetative filtration and stream stabilization to the maximum extent practicable.

Section 31-210 Permit Required.

- A. No stormwater drainage facility shall be constructed, altered or reconstructed without first obtaining a permit. All such construction shall comply with the general requirements and design procedures, as set forth in this chapter, and the criteria of the KC-APWA 5600. Stormwater drainage facilities shall comport with the stormwater management plan. No clearing, grading, borrowing or filling of land shall be done without obtaining a permit from the Director.
- B. No clearing, grading, borrowing or filling of land shall be done without obtaining a permit from the Director. All such work shall comport with the stormwater management plan as well as an approved erosion and sediment control plan. No permit may be issued pursuant to this subsection for clearing, grading, borrowing or filling of land on tracts greater than one (1) acre except in conjunction with a building permit issued in accordance with the provisions of Chapter 8 of the Code of the City of Jefferson, Missouri, or in conjunction with an approved site development plan. Every permit issued under this subsection for clearing, grading, borrowing or filling of land not in conjunction with a building permit shall expire within one (1) year from the date of issuance. No grading permit is required for the following activities:
 1. Any emergency activity which is immediately necessary for the protection of life, property or natural resources.
 2. Existing nursery and agricultural operations conducted as a permitted main or accessory use.
 3. Minor construction that does not substantially alter the lay of the land or increase the impervious surface by more than 10%.
- C. The Director shall promulgate rules and regulations governing the issuance of the permits required by this section.
- D. Duties of property owners and developers; detailed plan required.
 1. Prior to the issuance by the city of a building permit for any low-density residential construction, the staff of the Department of Public Works shall visit the site and prepare the permit noting any special conditions to be met for storm drainage. This shall be accomplished within three (3) working days after receipt of the application.
 2. Prior to the issuance by the city of a building permit for any other type of construction, the property owner, the developer or their agent shall have a detailed drainage plan approved by the

Director in accordance with this chapter. The property owner, developer or their agent shall, at his or her own expense, submit necessary plans, designs and specifications to the Director for review and approval.

3. Provisions of this section for plan requirement shall be waived provided no land is disturbed and no trees, shrubs, grass or vegetation is destroyed or removed for construction, reconstruction, repair or alteration of any building provided the improvement does not alter or increase the flow of water.

E. Review and approval

1. The Public Works Department will review each application for a permit to determine its conformance with the provisions of the Code. Within thirty (30) days after receiving an application, the Public Works Department shall, in writing:
 - a. approve the permit application; or
 - b. approve the permit application subject to such reasonable conditions as may be necessary to secure substantially the objectives of this regulation, and issue the permit subject to these conditions; or
 - c. disapprove the permit application, indicating the deficiencies and the procedure for submitting a revised application and/or submission.
2. Failure of the Public Works Department to act on original or revised applications within thirty (30) days of receipt shall authorize the applicant to proceed in accordance with the plans as filed unless such time is extended by agreement between the applicant and the Public Works Department. Pending preparation and approval of a revised plan, development activities shall be allowed to proceed in accordance with conditions established by the Public Works Department.

F. Modifications to the plan

1. Major amendments of any approved plan shall be submitted to the Public Works Department and shall be processed and approved, or disapproved, in the same manner as the original plans.
2. Field modifications of a minor nature may be authorized by the Public Works Department by written authorization to the permittee.

Sec. 31-220. Developments.

- A. Conformance with stormwater management plan. Drainage plans submitted by developers must be developed in conformance with the stormwater management plan in effect at the time of the submission.
- B. Restriction of runoff. The city may require that storm drainage systems for tributary areas upstream of existing storm drainage facilities include on-site stormwater detention facilities limiting the peak discharge to that which would have occurred for the existing land use type prior to a zoning change or prior to development of the area. The city may waive such requirements for detention facilities when the developer makes satisfactory arrangements to improve or provide a downstream drainage system of adequate hydraulic capacity for peak rates of discharge to the system, including discharge from the developer's site, to a point downstream where the rate of total runoff from the site is ten (10) percent or less of the total runoff rate conveyed by the downstream system measured at the time of system peak rate. The City at its option may allow downstream system improvements, detention and/or fees in-lieu-of construction that provide the same level of control.

- C. Stormwater management plan facilities. Drainage plans and facilities constructed by developers for developments encompassing more than forty-three thousand five hundred sixty (43,560) square feet in total area, including areas not directly subject to improvements, must include any improvements not previously constructed, which are planned as part of the stormwater drainage system on the affected property pursuant to the stormwater management plan. For purposes of this paragraph, the stormwater management plan in effect at the time of submission of the drainage plan shall govern. Also for purposes of this paragraph, the affected property shall include any adjacent property under common ownership with, and within one hundred (100) feet of the limits of, the parcel of property being developed. Where the cost of such stormwater-related improvements exceeds ten (10) percent of the total cost of the development, excluding the cost of land, the developer may petition for city participation in financing and/or contribution to the funding of the improvements.
- D. Alternative improvements. In reviewing petitions for variances from the requirements of this section, the city will consider alternative improvements or types of improvements proposed by developers which the city deems to be equivalent for the purpose of stormwater management.

Section 31-230.

- A. Location of structures. In addition to any other requirements set forth by ordinance for construction in designated flood hazard areas, the following restrictions for construction adjacent to all watercourses and other drainage facilities shall apply:
 - 1. No house or building and no other structure shall be constructed within thirty (30) feet of the ordinary high water mark of a watercourse or other drainage facility nor shall any such structure be constructed with openings at an elevation below four (4) feet above the highest bank of a watercourse or top of other drainage facilities which traverse or are adjacent to the parcel being developed.
 - 2. The Director may vary the above requirements upon visiting the building site for low-density residential construction or reviewing plans for any other construction should such revisions not diminish the overall intent of this chapter.
- B. Existing storm drains. No cuts shall be made nor fill deposited over existing storm drains nor shall existing storm drains be altered without the approval of the Director.

Section 31-240 Easements and maintenance.

- A. Easements. Whenever improvements to land are made, easements for the stormwater drainage system including structural facilities, engineered channels and overflow paths, shall be provided across private property. Easements through existing developments may be obtained as deemed necessary by the Director. Drainage easements shall include access from a convenient public street or parking lot. The minimum width of easements for stormwater drainage shall be fifteen (15) feet. Where a storm drain consists of a closed conduit, the width shall be the greater of fifteen (15) feet or the sum of the conduit diameter and twice the cover depth over the conduit. Where the drainage system consists of an engineered channel, easements shall be as wide as the top of bank width plus ten (10) feet each side.
- B. Maintenance.
 - 1. Public Stormwater Improvements. Maintenance of stormwater sewers, lined drainage channels,

detention facilities and related facilities located within public drainage easements shall be the responsibility of the city.

2. **Natural Channels.** The city may undertake all maintenance activities, deemed necessary by the Director, of natural watercourses and other unlined drainage channels located within public drainage easements; however, assumption of such maintenance activities does not relieve the property owner of the responsibility for normal maintenance including debris removal, cutting of vegetation, repair of erosion and removal of silt.
3. **Private Stormwater Improvements.** Maintenance of stormwater facilities located on private property and not within any public drainage easements shall be the responsibility of the property owners and shall include debris removal and cleaning, cutting of vegetation, repair of erosion, removal of silt and maintenance of structural facilities.
4. **Private Detention Facilities.**
 - a. **Responsibilities.** Owners of land containing private detention facilities shall maintain the facility as it was designed in order to continue the mitigation of the stormwater impacts. This maintenance shall include removal of overgrown vegetation, repair of erosion, repairs to any inlet/outlet structures, and removal of excess silt or any other maintenance deemed necessary to provide the design storage capacity.
 - b. **Nuisance declared.** Failure to provide necessary maintenance shall be deemed a nuisance.
 - c. **Stormwater Pollution Prevention.** Any owner or operator of a commercial or industrial establishment shall provide, at their own expense, reasonable protection from accidental discharge of prohibited materials or other wastes into the municipal storm drain system or watercourses through the use of structural and non-structural BMPs. Further, any person responsible for a property or premise, which is, or may be, the source of an illicit discharge, may be required to implement, at said person's expense, additional structural and non-structural BMPs to prevent the further discharge of pollutants to the municipal separate storm sewer system. Compliance with all terms and conditions of a valid NPDES permit authorizing the discharge of storm water associated with industrial activity, to the extent practicable, shall be deemed compliant with the provisions of this section. These BMPs shall be part of a stormwater pollution prevention plan (SWPP) as necessary for compliance with requirements of the NPDES permit.

Section 31-250 Interference and damage.

No person shall damage or discharge or place any substance into the drainage system which will or may cause obstruction to flow or other interference with the operation of the stormwater drainage system. Any person violating this section or damaging the stormwater drainage system shall be liable to the city for all expense, loss or damage incurred by the city due to such violation or damage, in addition to any other penalties set forth herein.

Section 31-260 Inspection.

The Director or his or her designated representative may periodically inspect development sites. Through such periodic inspections the Director shall ensure that the drainage plan is properly implemented. The improvements shall be maintained by the developer or owner until such time, if any, maintenance is taken over by

the city.

Section 31-270 Remedial work.

If it is determined that development is not proceeding in accordance with the approved drainage plan, the Director shall issue a written stop-work order to the developer detailing the nature and location of the noncompliance and specifying what remedial work is necessary to bring the project into compliance. The developer shall immediately stop work on all aspects of the development except the required remedial action, which shall begin. The developer shall complete the remedial work within a reasonable time after receipt of said order. Upon satisfactory completion of the remedial work, the Director shall issue a notice of compliance and the development may proceed.

ARTICLE III. FLOODPLAIN MANAGEMENT

Sec. 31-300. General provisions.

- A. Methods of reducing flood losses. In order to accomplish its purposes, this article includes methods and provisions for:
1. Restricting or prohibiting uses which are dangerous to health, safety, and property due to water or erosion or to flood heights or velocities.
 2. Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction.
 3. Controlling the alteration of natural floodplains, stream channels and natural protective barriers which are involved in the accommodation of floodwaters.
 4. Controlling filling, grading, dredging and other development which may increase erosion or flood damage.
 5. Preventing or regulating the construction of flood barriers which will unnaturally divert floodway waters or which may increase flood hazards in other areas.
- B. Lands to which this article applies. This article shall apply to all areas of special flood hazards within the jurisdiction of City of Jefferson, Missouri.
- C. Basis for establishing the areas of special flood hazard: This ordinance shall apply to all lands within the jurisdiction of the City of Jefferson City, Missouri, identified as numbered and unnumbered A zones and AE zones, on the Flood Insurance Rate Maps (FIRMs) for Cole County on map panel numbers 29051C0107E, 29051C0108E, 29051C0109E, 29051C0120E, 29051C0126E, 29051C0127E, 29051C0128E, 29051C0129E, 29051C0131E, 29051C0132E, 29051C0133E, 29051C0134E, 29051C0136E, 29051C0137E, 29051C0139E, 29051C0141E, 29051C0142E, 29051C0143E, 29051C0153E, 29051C0161E, 29051C0162E, and 29051C0166E, dated November 2, 2012, as amended, and any future revisions thereto. In all areas covered by this ordinance, no development shall be permitted except through the issuance of a floodplain development permit, granted by the City Council or its duly designated representative under such safeguards and restrictions as the City Council or the designated representative may reasonably impose for the promotion and maintenance of the general welfare, health of the inhabitants of the community. (Ord. No. 15017, §2, 9-17-2012)
- (Ord. No. 13848, §1, 3-7-2005)
- D. Penalties for noncompliance. No structure or land shall hereafter be constructed, located, extended, converted or altered without full compliance with the terms of this article and other applicable regulations. Violation of the provisions of this article or failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with grants of variances or special exception) shall constitute an ordinance violation. Any person who violates this article or fails to comply with any of its requirements shall upon conviction thereof be fined not less than ten dollars (\$10.00) and not more than one hundred dollars (\$100.00) and in addition shall pay all costs and expenses involved in the case. Each day such violation continues shall be considered a separate offense.

Nothing herein contained shall prevent the City of Jefferson, Missouri, or other appropriate authority from taking such other lawful action as is necessary to prevent or remedy any violation.

- E. Abrogation and greater restriction. It is not intended by this article to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this article imposes greater restrictions, the provisions of this article shall prevail. All other sections of the Code inconsistent with this article are hereby repealed to the extent of the inconsistency only.
- F. Interpretation. In their interpretation and application, the provisions of this article shall be held to be minimum requirements, shall be liberally construed in favor of the governing body, and shall not be deemed a limitation or repeal of any other powers granted by State statutes.
- G. Warning and disclaimer of liability. The degree of flood protection required by this article is considered reasonable for regulatory purposes and is based on engineering and scientific methods of study. Larger floods may occur on rare occasions or the flood heights may be increased by man-made or natural causes, such as ice jams and bridge openings restricted by debris. This article does not imply that areas outside the floodway and flood fringe or land uses permitted within such areas will be free from flooding or flood damage. This article shall not create a liability on the part of the City of Jefferson City, any officer or employee thereof, for any flood damages that may result from reliance on this article or any administrative decision lawfully made thereunder.

(Ord. No. 10796, § 2, 3-16-87; Ord. No. 13972, §1, 11-21-2005; Ord. No. 15017, §2, 9-17-2012)

Sec. 31-301. Statutory authorization, findings of fact and purposes.

- A. Statutory Authorization. The Legislature of the State of Missouri has in RSMo 89.020 delegated the responsibility to local governmental units to adopt floodplain management regulations designed to protect the health, safety, and general welfare. Therefore, the City Council of the City of Jefferson City, Missouri, ordains as follows:
 - 1. Flood Losses Resulting from Periodic Inundation

The special flood hazard areas of the City of Jefferson City, Missouri, are subject to inundation which results in loss of life and property, health, and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base; all of which adversely affect the public health, safety and general welfare.
 - 2. General Causes of the Flood Losses

These flood losses are caused by (1) the cumulative effect of development in any delineated floodplain causing increases in flood heights and velocities; and (2) the occupancy of flood hazard areas by uses vulnerable to floods, hazardous to others, inadequately elevated, or otherwise unprotected from flood damages.
 - 3. Methods Used To Analyze Flood Hazards

The Flood Insurance Study (FIS) that is the basis of this ordinance uses a standard engineering method of analyzing flood hazards which consist of a series of interrelated steps.

 - a. Selection of a base flood that is based upon engineering calculations which permit a consideration of such flood factors as its expected frequency of occurrence, the area inundated, and the depth of inundation. The base flood selected for this ordinance is representative of large floods which are characteristic of what can be expected to occur on the particular streams subject to this ordinance. It is in the general order of a flood which could be expected to have a one percent chance of occurrence in any one year as delineated on the Federal Insurance Administrator's FIS, and illustrative

materials for Cole County dated November 2, 2012, as amended, and any future revisions thereto.

- b. Calculation of water surface profiles are based on a standard hydraulic engineering analysis of the capacity of the stream channel and overbank areas to convey the regulatory flood.
- c. Computation of a floodway required to convey this flood without increasing flood heights more than one (1) foot at any point.
- d. Delineation of floodway encroachment lines within which no development is permitted that would cause any increase in flood height.
- e. Delineation of flood fringe, i.e., that area outside the floodway encroachment lines, but still subject to inundation by the base flood.

Statement of Purpose. It is the purpose of this article to promote the public health, safety, and general welfare; to minimize those losses described in Article 1, Section B (1); to establish or maintain the community's eligibility for participation in the National Flood Insurance Program (NFIP) as defined in 44 Code of Federal Regulations (CFR) 59.22(a)(3); and to meet the requirements of 44 CFR 60.3(d) by applying the provisions of this ordinance to:

1. restrict or prohibit uses that are dangerous to health, safety, or property in times of flooding or cause undue increases in flood heights or velocities; and
2. require uses vulnerable to floods, including public facilities that serve such uses, be provided with flood protection at the time of initial construction; and
3. protect individuals from buying lands that are unsuited for the intended development purposes due to the flood hazard.

Sec. 31-302. Compliance.

No development located within the special flood hazard areas of this community shall be located, extended, converted, or structurally altered without full compliance with the terms of this ordinance and other applicable regulations.

Secs. 31-303 – 31-309 Reserved.

Sec. 31-310. Administration.

- A. Establishment of a development permit. A development permit shall be obtained before construction or development begins within any area of special flood hazard established in Section 31-300. No person, firm, or corporation or unit of government shall initiate any development or substantial improvement or cause the same to be done without first obtaining a separate permit for each development as defined in Section 31-300. Application for a development permit shall be made on forms furnished by the Director of Public Works and may include, but not limited to: Plans in duplicate drawn to scale showing the nature, location, dimensions and elevations of the area in question; existing or proposed structures, fill,

storage of material, drainage facilities and the location of the foregoing. Specifically, the following information is required:

1. Elevation in relation to mean sea level of the lowest floor (including basement) of all structures.
 2. Elevation in relation to mean sea level to which any nonresidential structure is to be floodproofed.
 3. Certification from a registered professional engineer or architect that the nonresidential floodproofed structure will meet the floodproofing criteria in Section 31-320.
 4. Description of the extent to which any watercourse will be altered or relocated as a result of proposed development.
 5. Elevations required for the application shall be provided by a registered professional engineer, architect or land surveyor.
- B. Designation of the local administrator. The Director of Public Works , or his/her designee, hereinafter referred to as the floodplain administrator is hereby appointed to administer and implement the provisions of this article by granting or denying development permit applications in accordance with the provisions of this article.
- C. Duties and responsibilities of the floodplain administrator. Duties of the floodplain administrator or his or her designee shall include, but not be limited to:
1. Review all development permit applications to assure that sites are reasonably safe from flooding and that the permit requirements of this article have been satisfied.
 2. Review all development permit applications for proposed development to assure that all necessary permits have been obtained from those federal, state or local governmental agencies from which prior approval is required. This shall include, but not be limited to, obtaining the permits required by Chapter 31, Stormwater Management.
 3. When base flood elevation data has not been provided in accordance with Section 31-300, then the floodplain administrator shall obtain, review and reasonably utilize any base flood elevation or floodway data available from a federal, state or other source, in order to administer the provisions of Section 31-320.
 4. Verify, record and maintain record of the actual elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures.
 5. Verify, record and maintain record of the actual elevation (in relation to mean sea level) to which the new or substantially improved structures have been floodproofed.
 6. When floodproofing is utilized for a particular structure the floodplain administrator shall obtain certification from a registered professional engineer or architect.
 7. Notify adjacent communities and the Missouri Department of Natural Resources prior to any alteration or relocation of a watercourse, and shall submit evidence of such notification to the Federal Emergency Management Agency.
 8. Assure that maintenance is provided within the altered or relocated portion of said watercourse so that the flood-carrying capacity is not diminished.
 9. Where interpretation is needed as to the exact location of the boundaries of the areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual field conditions) the floodplain administrator shall make the necessary interpretation. The

person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in this article.

10. All records pertaining to the provisions of this article shall be maintained in the office of the floodplain administrator and shall be open for public inspection.
 11. The floodplain administrator shall be authorized to promulgate rules consistent with this article to carry out the purpose and intent of this article.
 12. Review all subdivision proposals and other proposed new development, including manufactured home parks or subdivisions, to determine whether such proposals will be reasonably safe from flooding.
 13. Issue floodplain development permits for all approved applications;
- D. Variance procedures. Where an application for a floodplain development permit or request for a variance from the floodplain management regulations is denied by the Floodplain Administrator, the applicant may apply for such floodplain development permit or variance directly to the Board of Adjustment.
1. The Board of Adjustment shall hear and decide appeals when it is alleged that there is an error in any requirement, decision or determination made by the floodplain administrator in the enforcement or administration of this article. Also, all applications for development in a floodway shall go before the Board of Adjustment for approval.
 2. Any person aggrieved by the decision of the Board of Adjustment or any taxpayer may appeal such decision to the circuit court as provided in Chapter 89 RSMo., 1986.
 3. In passing upon such applications for variances, the Board of Adjustment shall consider all technical data and evaluations, all relevant factors, standards specified in other sections of this article, and:
 - a. The danger that materials may be swept onto other lands to the injury of others;
 - b. The danger of life and property due to flooding or erosion damage;
 - c. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
 - d. The importance of the services provided by the proposed facility to the community;
 - e. The necessity to the facility to a waterfront location, where applicable;
 - f. The availability of alternative locations, not subject to flooding or erosion damage, for the proposed use;
 - g. The compatibility of the proposed use with existing and anticipated development;
 - h. The relationship of the proposed use to the comprehensive plan and floodplain management program for that area;
 - i. The safety of access to the property in times of flood for ordinary and emergency vehicles;
 - j. The expected heights, velocity, duration, rate of rise and sediment transport of the flood waters and the effects of wave action, if applicable, expected at the site; and,
 - k. The costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water systems, and streets and bridges.

E. Conditions for variances:

1. Generally, variances may be issued for new construction and substantial-improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, providing items 2 through 6 below have been fully considered. As the lot size increases beyond one-half acre, the technical justification required for issuing the variance increases.
2. Variances may be issued for the reconstruction, rehabilitation, or restoration of structures listed on the National Register of Historic Places, the State Inventory of Historic Places, or local inventory of historic places upon determination provided the proposed activity will not preclude the structure's continued historic designation.
3. Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result
4. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
5. Variances shall only be issued upon (a) a showing of good and sufficient cause, (b) a determination that failure to grant the variance would result in exceptional hardship to the applicant, and (c) a determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.
6. A community shall notify the applicant in writing over the signature of a community official that (1) the issuance of a variance to construct a structure below base flood level will result in increased premium rates for flood insurance up to amounts as high as \$25.00 for \$100.00 of insurance coverage and (2) such construction below the base flood level increases risks to life and property. Such notification shall be maintained with the record of all variance actions as required by this ordinance.
7. Any applicant to whom a variance is granted shall be given a written notice that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation.
8. The Board of Adjustment may attach such conditions to the granting of variances as it deems necessary to further the purposes of this article.
9. The floodplain administrator shall maintain the records of all appeal actions and report any variances to the federal emergency management agency upon request.

F. Conditions for Approving Variances for Accessory Structures

Any variance granted for an accessory structure shall be decided individually based on a case by case analysis of the building's unique circumstances. Variances granted shall meet the following conditions as well as those other criteria and conditions set forth in this article.

In order to minimize flood damages during the 100-year flood and the threat to public health and safety, the following conditions shall be included for any variance issued for accessory structures that are constructed at-grade and wet-floodproofed.

1. Use of the accessory structures must be solely for parking and limited storage purposes in zone A only as identified on the community's Flood Insurance Rate Map (FIRM).
2. For any new or substantially damaged accessory structures, the exterior and interior building components and elements (i.e., foundation, wall framing, exterior and interior finishes, flooring,

etc.) below the base flood elevation, must be built with flood-resistant materials in accordance with this ordinance.

3. The accessory structures must be adequately anchored to prevent flotation, collapse, or lateral movement of the structure in accordance with this ordinance. All of the building's structural components must be capable of resisting specific flood-related forces including hydrostatic, buoyancy, and hydrodynamic and debris impact forces.
4. Any mechanical, electrical, or other utility equipment must be located a minimum of one foot above the base flood elevation or floodproofed so that they are contained within a watertight, floodproofed enclosure that is capable of resisting damage during flood conditions in accordance with Article 4, Section A (4)(d) of this ordinance.
5. The accessory structures must meet all National Flood Insurance Program (NFIP) opening requirements. The NFIP requires that enclosure or foundation walls, subject to the 100-year flood, contain openings that will permit the automatic entry and exit of floodwaters in accordance with this ordinance.
6. The accessory structures must comply with the floodplain management floodway encroachment provisions of this ordinance. No variances may be issued for accessory structures within any designated floodway, if any increase in flood levels would result during the 100-year flood.
7. Equipment, machinery, or other contents must be protected from any flood damage.
8. No disaster relief assistance under any program administered by any Federal agency shall be paid for any repair or restoration costs of the accessory structures.
9. A community shall notify the applicant in writing over the signature of a community official that (1) the issuance of a variance to construct a structure below base flood level will result in increased premium rates for flood insurance up to amounts as high as \$25.00 for \$100.00 of insurance coverage and (2) such construction below the base flood level increases risks to life and property. Such notification shall be maintained with the record of all variance actions as required by this ordinance.
10. Wet-floodproofing construction techniques must be reviewed and approved by the community and prepared by a registered professional engineer or architect prior to the issuance of any floodplain development permit for construction.

Sec. 31-311. Floodplain Development Permits.

- A. **Floodplain Development Permit Required.** A floodplain development permit shall be required for all proposed construction or other development, including the placement of manufactured homes. No person, firm, corporation, or unit of government shall initiate any development or substantial-improvement or cause the same to be done without first obtaining a separate floodplain development permit for each structure or other development.
- B. **Application For Floodplain Development Permit.** To obtain a floodplain development permit, the applicant shall first file an application in writing on a form furnished for that purpose. Every floodplain development permit application shall:
 1. Describe the land on which the proposed work is to be done by lot, block and tract, house and street address, or similar description that will readily identify and specifically locate the proposed structure or work;

2. Identify and describe the work to be covered by the floodplain development permit;
3. Indicate the use or occupancy for which the proposed work is intended;
4. Indicate the assessed value of the structure and the fair market value of the improvement;
5. Specify whether development is located in designated flood fringe or floodway;
6. Identify the existing base flood elevation and the elevation of the proposed development;
7. Give such other information as reasonably may be required by the Floodplain Administrator;
8. Be accompanied by plans and specifications for proposed construction; and
9. Be signed by the permittee or his authorized agent who may be required to submit evidence to indicate such authority.

Secs. 31-312 – 31-319 Reserved.

Sec. 31-320. Standards for flood hazard reduction.

- A. General standards. In all areas of special flood hazards (Zones A, AH, AO, AE and A1-30) the following provisions are required:
1. All new construction, including the placement or replacement of manufactured homes, and substantial improvements shall be designed (or modified) and adequately anchored to prevent flotation, collapse or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy.
 2. All new construction and substantial improvements shall be constructed with materials resistant to flood damage.
 3. All new construction and substantial improvements shall be constructed by methods and practices that minimize flood damage.
 4. All new construction and substantial improvements shall be constructed with electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.
 5. All new and replacement electrical, heating, ventilation, and air conditioning equipment and shall be designed and/or located to prevent water from entering or accumulating within the components during conditions of flooding unless deemed a minor repair by the floodplain administrator.
 6. In the event an excavation is made on land adjacent to special flood hazard areas which places the lowest floor, including basement elevation at or below the 100 year flood elevation plus one foot, the structure shall, for the purpose of these regulations, be considered as being in a special flood hazard area.
 7. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system.

8. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters.
 9. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.
 10. The storage or processing of materials that are in time of flooding buoyant, flammable, explosive or could be injurious to human, animal or plant life is prohibited.
 11. The storage or processing of materials that are in time of flooding buoyant, flammable, explosive or could be injurious to human, animal or plant life is prohibited, unless such materials are stored in:
 - a. A structure conforming to the specific standards as set forth in Section 31-320.C.2; or
 - b. A structure that does not conform to the specific standards as set forth in Section 31-320.C.2, but only if such materials are stored in a closed area. (Ord. 12120, § 1, 7-5-94)
 12. That until a flood way has been designated, no development, including landfill, may be permitted within Zones A1-30 and AE on the city's FIRM unless the applicant of the land use has demonstrated that the proposed use, when combined with all other existing and reasonably anticipated uses, will not increase the water surface elevation of the 100-year flood more than one foot on the average cross-section of the reach in which the development or landfill is located as shown on the flood insurance rate study incorporated by reference in Section 31-300 of this article.
- B. Standards for subdivision proposals:
1. All subdivision proposals and other proposed new developments, including manufactured home parks or subdivisions, shall be consistent with the need to minimize flood damage.
 2. All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage.
 3. All subdivision proposals shall have adequate drainage provided to reduce exposure to flood hazards.
 4. Base flood elevation data shall be provided for subdivision proposals and other proposed development (including proposals for manufactured home parks and subdivisions), which is greater than either fifty (50) lots or five (5) acres.
- C. Specific standards. In all areas of special flood hazard, where base flood elevation data has been provided as set forth in Section 31-300 or Section 31-310 (Zones A1-30 or AE), the following provisions are required:
1. Construction: New construction or substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to or above the base flood elevation plus one foot. As a minimum, two elevation certifications shall be required with one being required prior to the issuance of a Flood Plain Development Permit and a second being required after completion of construction. Elevation certifications shall be provided by a registered professional engineer, architect or land surveyor. On existing structures where no change is made to the existing floor elevation the floodplain administrator may waive the requirement for the second elevation certification.
 2. Nonresidential Construction: New construction or substantial improvement of any commercial, industrial or other nonresidential structure shall have:
 - a. The lowest floor, including basement, elevated to the level of the base flood elevation

plus one foot; or,

b. Together with attendant utility and sanitary facilities, be floodproofed so that below such a level the structure is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. The floodproofed structure shall not move, float, leak, collapse, nor be substantially damaged by water pressure, erosion, water current or debris loading. A registered professional engineer or architect shall certify that the standards of this subsection are satisfied. Such certification shall be provided to the official as set forth in Section 31-310. As a minimum one certification shall be required prior to the issuance of a Flood Plain Development Permit and a second certification shall be required after construction is complete; or,

c. If the area will be used solely for parking, building access, or limited storage; and designed to allow for the automatic entry and exit of flood waters through the use of engineered openings; and constructed of flood resistant materials; and with any necessary attendant utility and sanitary facilities floodproofed in accordance with Section 31-320.C.2.b; the area may be considered wet floodproofed. Certifications from a registered professional engineer or architect shall certify that the structure will resist hydrostatic, hydrodynamic and debris impact forces and that the utility and sanitary facilities have been floodproofed in accordance with Section 31-320.C.2.b. At a minimum, one certification shall be required prior to the issuance of a Flood Plain Development Permit and a second certification shall be required after construction is complete. Additionally, the owner shall provide a written statement prior to issuance of a Flood Plain Development Permit stating that the area will only be used for parking, building access, or limited storage and that, when a flood warning is issued, as much of the contents as possible will be evacuated.

3. Pressurized and flammable liquid tanks.

a. Pressurized and flammable liquid tanks are nonresidential structures. The installation of such tanks shall comply with the Nonresidential Construction Standards (Sec. 31-320.C.2) and the more restrictive standards of this subsection.

b. Standards for pressurized and flammable liquid tanks.

A tank located in a flood hazard area shall be installed so the tank, when full, partially full, or empty, will not float, move, leak or collapse during a rise in water level up to the 100 Year Flood Elevation plus one foot. Tank vents or other openings which are not liquid-tight shall be extended above the 100 Year Flood Elevation plus one foot. Tank piers, footings, vent stacks and any other support, anchorage or mechanical attachments shall be installed with sufficient mass and to a depth sufficient to prevent movement or destruction by erosion, current or debris loading. A registered professional engineer or architect shall certify that the standards of this subsection are satisfied. Such certification shall be provided to the official as set forth in Sec. 31-310 and Sec. 31-320.C.2.

4. Requirement for All New Construction and Substantial Improvements: That fully enclosed areas below the lowest floor that are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or meet or exceed the following minimum criteria: A minimum of two (2) openings having a total net area of not less than one square inch for every square foot of enclosed

area subject to flooding shall be provided. The bottom of all openings shall be no higher than one foot above grade. Openings may be equipped with screens, louvers, valves or other coverings or devices; provided, that they permit the automatic entry and exit of floodwaters.

5. Reserved
 6. Accessory Structure: An accessory structure is a structure whose use is incidental, customary and subordinate to the principal building on a lot and whose size and cost is small when compared to the principal building.
 - a. A residential accessory structure shall fully comply with the specific standards for residential construction as found in Section 31-320.C.1.
 - b. A nonresidential accessory structure shall fully comply with the specific standards for nonresidential construction as found in Section 31-320.C.2.
 7. Subterranean parking prohibited. A parking facility having a floor which is more than 6 feet below grade is a subterranean parking facility and is prohibited in special flood hazard areas.
 8. Recreational Vehicles. Recreational vehicles placed on sites within any designated flood hazard area shall either be:
 - a. On the site for fewer than 180 consecutive days and be fully licensed and ready for highway use (defined highway ready if it is on its wheels or jacking system, is attached to the site only by quick-disconnect type utilities and security devices, and has no permanently attached additions); or
 - b. Meet the permitting, elevating, and anchoring requirements for manufactured homes listed in this ordinance.
- D. Floodways. Located within areas of special flood hazard established in this article are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of flood waters that carry debris and potential projectiles, the following provisions shall apply:
1. The community shall select and adopt a regulatory floodway based on the principle that the area chosen for the regulatory floodway must be designed to carry the waters of the base flood without increasing the water surface elevation of that flood more than one foot at any point.
 2. The community shall prohibit any encroachments, including fill, new construction, substantial-improvements, and other development within the adopted regulatory floodway unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in flood levels within the community during the occurrence of the base flood discharge.
 3. If the provisions of Section 31-320.D.2 are satisfied, all new construction and substantial-improvements shall comply with all applicable flood hazard reduction provisions in this article.
 4. In unnumbered A zones, the community shall obtain, review, and reasonably utilize any base flood elevation or floodway data currently available from Federal, State, or other sources as set forth in this article.
- E. Shallow flooding.
1. In any AO Zone shown on the FIRM, all new construction and substantial improvements of residential structures shall have the lowest floor (including basement) elevated above the highest adjacent grade at least as high as the depth number specified in feet on the FIRM plus one foot (at least three feet if no depth number is specified).

2. In any AO Zone shown on the FIRM, all new construction and substantial improvements of non-residential structures shall (i) have the lowest floor (including basement) elevated above the highest adjacent grade at least as high as the depth number specified in feet on the FIRM plus one foot (at least three feet if no depth number is specified), or (ii) together with attendant utility and sanitary facilities be completely floodproofed to that level to meet the floodproofing standard specified in Section 31-320.C.2.
3. All structures located in Zone AH or Zone AO as shown on the FIRM, shall have adequate drainage paths around the structure on slopes, to guide floodwaters around and away from the proposed structure.

(Ord. No. 10796, §2, 3-16-87; Ord. No. 15017, §2, 9-17-2012; Ord. No. 15030, §1, 10-15-2012)

Sec. 31-321. Provisions for Flood Hazard Reduction.

- A. No permit for floodplain development shall be granted for new construction, substantial-improvements, and other improvements, including the placement of manufactured homes, within any numbered or unnumbered A zones and AE zones, unless the conditions of this section are satisfied.
- B. All areas identified as unnumbered A zones on the FIRM are subject to inundation of the 100-year flood; however, the base flood elevation is not provided. Development within unnumbered A zones is subject to all provisions of this ordinance. If Flood Insurance Study data is not available, the community shall obtain, review, and reasonably utilize any base flood elevation or floodway data currently available from Federal, State, or other sources.
- C. Until a floodway is designated, no new construction, substantial improvements, or other development, including fill, shall be permitted within any numbered A zone or AE zone on the FIRM, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point within the community.
- D. All new construction, subdivision proposals, substantial-improvements, prefabricated structures, placement of manufactured homes, and other developments shall require:
 1. Design or adequate anchorage to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy;
 2. Construction with materials resistant to flood damage;
 3. Utilization of methods and practices that minimize flood damages;
 4. All electrical, heating, ventilation, plumbing, air-conditioning equipment, and other service facilities be designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding;
 5. New or replacement water supply systems and/or sanitary sewage systems be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters, and on-site waste disposal systems be located so as to avoid impairment or contamination; and
 6. Subdivision proposals and other proposed new development, including manufactured home parks or subdivisions, located within special flood hazard areas are required to assure that:
 - a. All such proposals are consistent with the need to minimize flood damage;

- b. All public utilities and facilities, such as sewer, gas, electrical, and water systems are located and constructed to minimize or eliminate flood damage;
- c. Adequate drainage is provided so as to reduce exposure to flood hazards; and
- d. All proposals for development, including proposals for manufactured home parks and subdivisions, of five (5) acres or fifty (50) lots, whichever is lesser, include within such proposals base flood elevation data.

E. Storage, Material, and Equipment

- 1. The storage or processing of materials within the special flood hazard area that are in time of flooding buoyant, flammable, explosive, or could be injurious to human, animal, or plant life is prohibited.
- 2. Storage of other material or equipment may be allowed if not subject to major damage by floods, if firmly anchored to prevent flotation, or if readily removable from the area within the time available after a flood warning. (Ord. No. 15030, §2, 10-15-2012)

F. Accessory Structures

Structures used solely for parking and limited storage purposes, not attached to any other structure on the site, of limited investment value, and not larger than 400 square feet, may be constructed at-grade and wet-floodproofed provided there is no human habitation or occupancy of the structure; the structure is of single-wall design; a variance has been granted from the standard floodplain management requirements of this ordinance; and a floodplain development permit has been issued. (Ord. No. 15030, §3, 10-15-2012)

G. Nonconforming Use

A structure, or the use of a structure or premises that was lawful before the passage or amendment of the ordinance, but which is not in conformity with the provisions of this ordinance, may be continued subject to the following conditions:

- 1. If such structure, use, or utility service is discontinued for twelve (12) consecutive months, any future use of the building shall conform to this ordinance.
- 2. If any nonconforming use or structure is destroyed by any means, including flood, it shall not be reconstructed if the cost is more than 50 percent of the pre-damaged market value of the structure. This limitation does not include the cost of any alteration to comply with existing state or local health, sanitary, building, safety codes, regulations or the cost of any alteration of a structure listed on the National Register of Historic Places, the State Inventory of Historic Places, or local inventory of historic places upon determination.

Sec. 31-322. Specific Standards.

In all areas identified as numbered and unnumbered A zones and AE zones, where base flood elevation data have been provided, as set forth in this article, the following provisions are required:

- A. Residential Construction. New construction or substantial-improvement of any residential structures, including manufactured homes, shall have the lowest floor, including basement, elevated to one (1) foot above base flood elevation.
- B. Non-Residential Construction. New construction or substantial-improvement of any commercial, industrial, or other non-residential structures, including manufactured homes, shall have the lowest floor, including basement, elevated to one (1) foot above the base flood elevation or, together with attendant utility and sanitary facilities, be floodproofed so that below the base flood elevation the structure is

watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. A registered professional engineer or architect shall certify that the standards of this subsection are satisfied. Such certification shall be provided to the Floodplain Administrator as set forth in this article.

Require, for all new construction and substantial-improvements that fully enclosed areas below lowest floor used solely for parking of vehicles, building access, or storage in an area other than a basement and that are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or meet or exceed the following minimum criteria:

1. A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided; and
2. The bottom of all opening shall be no higher than one foot above grade. Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

C. **Manufactured Homes.**

2. All manufactured homes to be placed within all unnumbered and numbered A zones and AE zones, on the community's FIRM shall be required to be installed using methods and practices that minimize flood damage. For the purposes of this requirement, manufactured homes must be elevated and anchored to resist flotation, collapse, or lateral movement. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors.
3. Require manufactured homes that are placed or substantially improved within unnumbered or numbered A zones and AE zones, on the community's FIRM on sites:
 - a. Outside of manufactured home park or subdivision;
 - b. In a new manufactured home park or subdivision;
 - c. An expansion to and existing manufactured home park or subdivision; or
 - d. In an existing manufactured home park or subdivision on which a manufactured home has incurred substantial-damage as the result of a flood, be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated to one (1) foot above the base flood elevation and be securely attached to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.
4. Require that manufactured homes to be placed or substantially improved on sites in an existing manufactured home park or subdivision within all unnumbered and numbered A zones and AE zones, on the community's FIRM, that are not subject to the provisions of Article 4, Section C(2) of this ordinance, be elevated so that either:
 - a. the lowest floor of the manufactured home is at one (1) foot above the base flood level; or
 - b. the manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than thirty-six (36) inches in height above grade and be securely attached to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.

D. **Recreational Vehicles.** Require that recreational vehicles placed on sites within all unnumbered and numbered A zones and AE zones on the community's FIRM either:

1. Be on the site for fewer than 180 consecutive days,
2. Be fully licensed and ready for highway use, or
3. Meet the permitting, elevation, and the anchoring requirements for manufactured homes of this article.
4. A recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick-disconnect type utilities and security devices, and has no permanently attached additions.

(Ord. No. 15017, §2, 9-17-2012; Ord. No. 15030, §4, 10-15-2012)

Sec. 31-330. Nonconforming use.

- A. A structure or the use of a structure or premises which was lawful before the passage or amendment of the original Flood Hazard Ordinance, but which is not in conformity with the provisions of this article, may be continued subject to the following conditions:
 1. If such use is discontinued for twelve (12) consecutive months, any future use of the building premises shall conform to this article.
 2. Uses or adjuncts thereof which are or become nuisances shall not be entitled to continue as nonconforming uses.
- B. If any nonconforming use or structure is destroyed by any means, including flood, it shall not be reconstructed if the cost is more than fifty (50) percent of the market value of the structure before the damage occurred, except that if it is reconstructed in conformity with the provisions of this article. This limitation does not include the cost of any alteration to comply with existing state or local health, sanitary, building, or safety codes or regulations or the cost of any alteration of a structure listed on the National Register of Historic Places or a state inventory of historic places.

(Ord. No. 10796, § 2, 3-16-87)

Sec. 31-340. Amendments.

- A. The regulations, restrictions and/or boundaries set forth in this article may from time to time be amended, supplemented, changed or repealed to reflect any and all changes in the National Flood Disaster Protection Act of 1973; provided, however, that no such action may be taken until after a public hearing in relation thereto, at which parties in interest and citizens shall have an opportunity to be heard. Notice of the time and place of such hearing shall be published in a newspaper of general circulation in the City of Jefferson, Missouri.
- B. At least twenty (20) days shall elapse between the date of this publication and the public hearing. A copy of such amendments will be provided to the Federal Emergency Management Agency. The regulations of this article are in compliance with the National Flood Insurance Program (NFIP) regulations.

(Ord. No. 10796, §2, 3-16-87; Ord. No. 15017, §2, 9-17-2012)

Sec. 31-350. Authority.

These regulations are in accordance with those sections of the Revised Statutes of the State of Missouri which permit cities to adopt codes and ordinances designed to promote the public health, safety and general welfare of its citizenry. The regulations of this article are in compliance with the National Flood Insurance Program Regulations as published in Title 44 of the Code of Federal Regulations.

(Ord. No. 10796, § 2, 3-16-87)

Sec. 31-360. Validity.

If any section, subsection, sentence, clause or phrase of this article is for any reason held to be unconstitutional, such decision shall not affect the validity of the remaining portions of this article. The council of the City of Jefferson hereby declares that it would have passed this article and each section, subsection, sentence, clause and phrase hereof irrespective of the fact that any one or more other sections, subsections, sentences, clauses and phrases be declared unconstitutional.

(Ord. No. 10796, § 2, 3-16-87; Ord. No. 11980, § 1, 10-4-93)

Sec. 31-361. Severability.

If any section, clause, provision, or portion of this article is adjudged unconstitutional or invalid by a court of appropriate jurisdiction, the remainder of this ordinance shall not be affected thereby.

(Ord. No. 15017, §2, 9-17-2012)

ARTICLE IV. ILLICIT DISCHARGE DETECTION AND ELIMINATION

Section 31-400 General.

- A. Purpose. The purpose of this ordinance is to provide for the health, safety, and general welfare of the citizens of the City of Jefferson through the regulation of non-storm water discharges to the storm drainage system to the maximum extent practicable as required by federal and state law. This ordinance establishes methods for controlling the introduction of pollutants into the municipal separate storm sewer system (MS4) in order to comply with requirements of the National Pollutant Discharge Elimination System (NPDES) permit process. The objectives of this ordinance are:
1. To regulate the contribution of pollutants to the municipal separate storm sewer system (MS4) by stormwater discharges by any user
 2. To prohibit Illicit Connections and Discharges to the municipal separate storm sewer system
 3. To establish legal authority to carry out all inspection, surveillance and monitoring procedures necessary to ensure compliance with this ordinance
- B. Applicability. This ordinance shall apply to all water entering the storm drain system generated on any developed and undeveloped lands unless explicitly exempted.
- C. Ultimate Responsibility. The standards set forth in this article and promulgated pursuant to this article are minimum standards. Compliance with this article does not insure that there will be no contamination, pollution or unauthorized discharge of pollutants into the waters of the United States. This article shall not create liability on the part of the City or any agent or employee of the City for any damages that result from any discharges, reliance on this article or any administrative decision made under this article.

Section 31-410 Prohibitions.

- A. Illegal Discharges. Except as provided in subsection (b), it shall be unlawful for any person to discharge or cause to be discharged into the municipal separate storm sewer system or into any water course any material other than stormwater.

The following discharges are exempt from the discharge prohibitions established by this article:

1. Waterline flushing or other potable water sources;
2. Landscape irrigation or lawn watering;
3. Diverted stream flows;
4. Rising groundwater;
5. Groundwater infiltration;
6. Uncontaminated pumped groundwater;
7. Foundation or footing drains excluding active groundwater de-watering systems;
8. Crawlspace pumps, air conditioning condensation;

9. Springs;
10. Non-commercial washing of vehicles;
11. Natural riparian habitat or wetland flows;
12. Swimming pools if de-chlorinated to less than 1 ppm chlorine;
13. Firefighting activities;
14. Other water not containing pollutants;
15. Discharges specified by the Director as necessary to protect public health and safety;
16. Dye testing if notification is given to the Director before the test; and
17. Any non-storm water discharge permitted under an NPDES permit, waiver or waste discharge order issued to the discharger and administered under the authority of the Environmental Protection Agency, provided that the discharger is in full compliance with all requirements of the permit, waiver or order and other applicable laws and regulations, and provided that written approval has been granted for any discharge to the municipal separate storm sewer system.

B. Illicit connections.

1. It shall be unlawful for any person to construct, use, maintain or have an illicit connection.
2. This section expressly applies to illicit connections made in the past even if the connection was permissible under law or practices applicable or prevailing at the time of connection.

C. Waste disposal prohibitions.

It shall be unlawful for any person to place, deposit or dump or to cause or allow the placing, depositing or dumping any refuse, rubbish, yard waste, paper litter or other discarded or abandoned objects, articles and accumulations containing pollutants into the municipal separate storm sewer system or into any waterway.

D. Connection of sanitary sewer prohibited.

It shall be unlawful for any person to connect a line conveying sewage to the municipal separate storm sewer system or to allow such a connection to continue.

E. Industrial or construction activity discharges.

It shall be unlawful for any person subject to an industrial activity or construction NPDES storm water discharge permit to fail to comply with all provisions of such permit.

F. Continuing violation.

Each day that a violation of this article continues shall be deemed a separate offense.

Section 31-420 Notification of Spills.

Notwithstanding other requirements of law, as soon as any person responsible for a facility or operation, or responsible for emergency response for a facility or operation has information of any known or suspected release of materials which are resulting or may result in illegal discharges or pollutants discharging into storm water, the storm drain system, or water of the U.S. said person shall take all necessary steps to ensure the discovery, containment, and cleanup of such release. In the event of such a release of hazardous materials said person shall immediately notify emergency response agencies of the occurrence via emergency dispatch services.

In the event of a release of non-hazardous materials, said person shall notify the City in person or by phone or facsimile no later than the next business day. Notifications in person or by phone shall be confirmed by written notice addressed and mailed to the Department of Public Works within three business days of the phone notice. If the discharge of prohibited materials emanates from a commercial or industrial establishment, the owner or operator of such establishment shall also retain an on-site written record of the discharge and the actions taken to prevent its recurrence. Such records shall be retained for at least three years.

Section 31-430 Regulations and Monitoring.

- A. The City Council may, by ordinance, adopt standards identifying best management practices (BMP) for any activity, operation or facility which may cause or contribute to pollution of storm water, the storm drain system, waters of the state or waters of the United States. These standards shall be on file in the office of the Director. It shall be unlawful for any person undertaking any activity or owning or operating any facility subject to such standards to fail to comply with the standards.
- B. The owner or operator of a commercial or industrial establishment shall provide reasonable protection from accidental discharge of prohibited materials or other wastes into the municipal separate storm sewer system or water courses through the use of structural and non-structural BMPs. Any person responsible for property which is or may be the source of an illicit discharge may be required to implement additional structural and non-structural BMPs to prevent further discharge. Compliance with all terms and conditions of a valid NPDES permit authorizing the discharge of storm water associated with industrial activity to the extent practicable shall be deemed in compliance with provisions of this section. These BMPs shall be a part of the storm water pollution prevention plan as necessary for compliance with the requirements of the NPDES permit.

Section 31-440 Nuisance declared.

- A. Any discharge in violation of this article is a nuisance.
- B. Any illicit connection is a nuisance.

ARTICLE V. EROSION AND SEDIMENT CONTROL

Section 31-500 General.

Grading, erosion control practices, sediment control practices, and waterway crossings shall be adequate to prevent transportation of sediment from the site to the satisfaction of the Public Works Department.

Section 31-510 Clearing and Grading.

- A. Clearing and grading of natural resources, such as forests and wetlands, shall not be permitted, except when in compliance with all other chapters of this Code.
- B. Clearing techniques that retain natural vegetation and retain natural drainage patterns shall be used.
- C. Phasing shall be required on all sites disturbing greater than thirty acres, with the size of each phase to be established at plan review.
- D. Clearing, except that necessary to establish sediment control devices, shall not begin until all sediment control devices have been installed and have been stabilized.
- E. Cut and fill slopes shall be no greater than 2:1, except as approved by the Public Works Department to meet other community or environmental objectives.

Section 31-520 Erosion Control.

- A. Soil must be stabilized within 120 days of clearing or inactivity in construction, unless otherwise authorized.
- B. If vegetative erosion control methods, such as seeding, have not become established, the Public Works Department may require that the site be reseeded, or that a non-vegetative option be employed where possible.
- C. On steep slopes or in drainage ways, special techniques that meet the design criteria outlined in KC - APWA Division 5100 shall be used to ensure stabilization.
- D. Soil stockpiles must be stabilized or covered at the end of each work day unless otherwise protected from allowing sediment to leave the site.
- E. Techniques shall be employed to prevent the blowing of dust or sediment from the site.
- F. Techniques that divert upland runoff past disturbed slopes shall be employed.

Section 31-530 Sediment Controls.

- A. Sediment controls shall be provided in the form of settling basins or sediment traps or tanks, and perimeter controls.

- B. Where possible, settling basins shall be designed in a manner that allows adaptation to provide long term stormwater management.
- C. Adjacent properties shall be protected by the use of a vegetated buffer strip, in combination with perimeter controls.

Section 31-540 Waterways and Watercourses.

- A. When a wet watercourse must be crossed regularly during construction, a temporary stream crossing shall be provided, and an approval obtained from the U.S. Army Corps of Engineers.
- B. When in-channel work is conducted, the channel shall be stabilized before, during and after work.
- C. All on-site stormwater conveyance channels shall be designed according to the criteria outlined in KC - APWA Division 5600 .
- D. Stabilization adequate to prevent erosion must be provided at the outlets of all pipes and paved channels.

Section 31-550. Construction Site Access.

- A. A temporary access road or driveway shall be provided at all sites where a land disturbance permit is required.
- B. Other measures may be required at the discretion of the Public Works Department in order to ensure that sediment is not tracked onto public streets by construction vehicles, or washed into storm drains.
- C. Regardless of the amount of land disturbance at a particular site, it shall be the responsibility of the permit holder and/or property owner to ensure streets open to the public surrounding a permitted site are kept free of excessive debris and sediment throughout the term of the permit. Upon notification from the Director that a problem exists, the permit holder and/or property owner shall immediately remedy the issue. If the permit holder and/or property owner fails to remedy such issue, the Director may temporarily suspend the permit until the problem has been resolved. If a permit holder and/or property owner does not address the issue after requested, the Director may choose to remedy the situation and bill the permit holder and/or property owner for any reasonable associated costs. The permit will remain suspended until said bill is paid. Alternatively, the permit holder and/or property owner may request a hearing with the Director to contest the abatement costs.

Section 31-560 Inspection.

- A. General: The Director may periodically inspect development sites. Through such periodic inspections, the Director shall ensure that the Stormwater Pollution Prevention Plan (SWPPP) is properly implemented and any necessary amendments thereto made in order to protect the environment and the public's health, safety and welfare. The erosion and sediment control measures for the site must be maintained by the developer until the site is stabilized.
- B. The permittee shall notify the Department of Public Works at least two (2) working days before the following:

1. Start of Construction
 2. Site Clearing has been completed
 3. Rough Grading has been completed
 4. Final Grading has been completed
- C. The permittee or his/her agent shall make regular inspections of all control measures in accordance with the inspection schedule outlined on the approved erosion and sediment control plan(s) or in the Stormwater Pollution Prevention Plan (SWPPP). The purpose of such inspections will be to determine the overall effectiveness of the control plan, and the need for additional control measures and/or maintenance of existing measures. All inspections shall be documented in written form and kept readily available.

Section 31-570 Violations and Penalties.

- A. The Director may suspend or revoke any permit associated with the site or any permit associated with the person(s) holding the permit(s) for the site for non-compliance with this article.
- B. Procedure
1. Upon discovery of a violation of this article, the contractor will be notified and given up to seven (7) days to remedy the violation. The owner may request a hearing before the Director to review any violation notice within the given time frame. If such a request is made, the Director shall promptly set a hearing on the matter. The hearing shall be conducted by the Director. Any person aggrieved by a decision of the Director may appeal his or her decision to the Circuit Court of Cole County.
 2. If the violation has not been remedied within the time frame set forth in the notice, the permit(s) will be suspended. Once the violation has been remedied, the suspension will be lifted.
 3. If the violation for which the permit(s) was suspended is not corrected within 30 days, the permit(s) shall be revoked and the violation deemed a nuisance.
 4. After three (3) suspensions of a permit for the same site for similar violations, the permit(s) will be revoked. All applicable procedures from other chapters will have to be followed for re-issuance of the permit(s). Additionally, any remediation or abatement costs will be required to be paid prior to re-issuance.

ARTICLE VI. VARIANCES

Section 31-600 General.

Where undue hardships or practical difficulties may result from strict compliance with this chapter, except where said hardships or practical difficulties relate to Article III: Floodplain Management, the developer may petition for a variance. The Director may recommend, and the council may approve, variances so that substantial justice may be done and the public interest secured; provided, that any such variance shall not have the effect of nullifying the intent and purpose of this chapter; and further provided, that the council shall not grant variances unless they find and determine that:

1. The granting of the variance will not be detrimental to the public safety, health or welfare, or injurious to other property or improvements.
2. The conditions upon which the request for a variance is based are unique to the property for which the variance is sought, are not applicable generally to other property, and are not self-imposed.
3. Because of the particular physical surroundings, shape or topographical conditions of the specific property involved, a particular hardship to the owner would result, as distinguished from a *mere inconvenience, if this chapter was strictly interpreted and carried out.

*Editor's note: *Word "more" changed to "mere" administratively to correct grammatical error.*

Section 31-610 Conditions.

In recommending variances and exceptions, the Director may recommend and the council may require such conditions as will, in the judgment of each, secure substantially the objectives of the standards or requirements of this chapter.

Section 31-620 Procedures.

A petition for a variance shall be submitted at the time of filing for a preliminary plat or for application for a building permit. The petition shall state fully the grounds for the request and all facts relied upon by the practitioner.

(Ord. No. 10557, § 2, 1-6-86; Ord. 13301, 11-5-2001; Ord. 14154, §2, 2-5-2007; Ord. No. 14829, §18, 8-1-2011)

NOTES

¹. **Cross references** - Buildings and building regulations, Ch. 8; health and sanitation, Ch. 15; sewers and sewage disposal generally, Ch. 29; discharge of stormwater to public sewer prohibited, § 31-89(b); streets and sidewalks, Ch. 32.

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1. Coverage Under this Permit

1.1 Permit Area

This permit covers all areas served by a municipal separate storm sewer system (MS4) for which the applicant is identified as the continuing authority.

1.2 Eligibility

1.2.1 This permit authorizes discharges of stormwater from regulated small 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 general permit if the permittee:

1.2.1.1 Owns or operates a regulated small 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 general permit application in accordance with Section 2 of this permit; and

1.2.1.3 Complies with the terms of this general permit.

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

1.2.2.1 *Stormwater discharges.* This permit authorizes stormwater discharges to waters of the state from the regulated small MS4s identified in Section 1.2.1, except as excluded in Section 1.3.

1.2.2.2 *Non-stormwater discharges.* The permittee is authorized to discharge the following non-stormwater 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:

- 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-stormwater unless such non-stormwater discharges are:

1.3.1.1 Covered by a separate state NPDES permit; or

- 1.3.1.2 Determined by the Department not to be a substantial contributor of pollutants to waters of the state.
- 1.3.2 Stormwater discharges associated with industrial activities requiring separate NPDES permits as defined in 10 CSR 20-6.200.
- 1.3.3 Stormwater discharges associated with construction activities requiring separate NPDES permits as defined in 10 CSR 20-6.200.
- 1.3.4 Stormwater discharges currently covered under a separate state NPDES 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's stormwater management program and plan (SWMP) document must include a description of the best management practices (BMPs) that the permittee will use to ensure that violations will not occur. The department may require corrective action or an application for a site-specific permit or alternative general permit if an MS4 is determined to cause or create a significant potential for causing an instream exceedance of water quality standards.
- 1.3.8 Discharges of any pollutant into any water for which a Total Maximum Daily Load (TMDL) has been either established or approved by the EPA unless the permittee's discharge is consistent with that TMDL. This eligibility condition applies at the time the permittee submits an application for coverage. If conditions change after the permittee has permit coverage, the permittee may remain covered by the permit provided the permittee complies with the applicable requirements of Section 3. The permittee shall incorporate any limitations, conditions and requirements required by the TMDL, including monitoring frequency and reporting required, into the SWMP document in order to be eligible for permit coverage. For discharges for which the permittee is responsible but are not eligible for coverage under this permit, the permittee shall apply for and receive a site-specific or other applicable general NPDES permit prior to discharging.

1.4 Obtaining Authorization

- 1.4.1 To be authorized to discharge stormwater from regulated small 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. The permittee's application shall be signed and dated by an authorized signatory.
- 1.4.3 Where the operator changes, 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 Small MS4 General Permit or a site-specific MS4 permit as follows:

- 2.1.1 Existing small MS4 permittees shall submit renewal applications 30 days prior to permit expiration unless the permittee has been notified by the department that an earlier application is required. If the MS4 permittee is submitting a renewal application for a revised general permit, they may submit the updated SWMP document separately from the application up to 90 days following public notice of the revised permit. If the MS4 is applying for a site-specific permit, the SWMP plan must be included with the application; and
- 2.1.2 MS4 operators that become subject to 10 CSR 20-6.200 following the 2010 census shall submit permit applications within 180 days following census publication or by an extended date determined by the Department.
- 2.2 Additional designations after the date of permit issuance
- If the small MS4 is specially designated by the department after the date of permit issuance, then the small 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 Discharges to Water Quality Impaired Waters
- 3.1.1 If discharges from the MS4 are upstream from a 303(d) listed (impaired) waterbody, the permittee shall, in consultation with the department:
- 3.1.1.1 Determine whether stormwater discharges from any part of the MS4 significantly contribute pollutants directly or indirectly to a 303(d) listed (i.e., impaired) waterbody. If the permittee has discharges meeting this criteria, the permittee shall comply with Section 3.1.2. If the permittee does not, Section 3.1 does not apply to the permittee.
- 3.1.1.2 Determine whether a Total Maximum Daily Load (TMDL) has been developed and approved by EPA for the listed waterbody. If there is such a TMDL, the permittee shall comply with both Sections 3.1.2 and 3.1.3. If no TMDL has been finalized, Section 3.1.3 will apply when the TMDL is finalized and approved by EPA.
- 3.1.2 *Water Quality Controls for Discharges to Impaired Waterbodies.* The permittee's SWMP document required under Section 4 shall include a description of how the permittee's program will control the discharge of measurable pollutants of concern and ensure the permittee's discharges will not cause or contribute to instream exceedances of the water quality standards. This discussion shall specifically identify measures and BMPs that will collectively control the discharge of the pollutants of concern.
- 3.1.3 *Consistency with TMDL Allocations.* If a TMDL has been finalized and approved by EPA for any waterbody into which the permittee discharges, the permittee, shall:
- 3.1.3.1 Determine whether the approved TMDL is for a pollutant likely to be found in stormwater discharges from the permittee's MS4;
- 3.1.3.2 Determine whether the TMDL includes a pollutant wasteload allocation (WLA) or other performance requirements specifically for stormwater discharge from the permittee's MS4;

- 3.1.3.3 Determine whether the TMDL addresses a flow regime likely to occur during periods of stormwater discharge;
- 3.1.3.4 After the determinations above have been made and if it is found that the permittee's MS4 shall implement specific WLA provisions of the TMDL, assess whether the WLAs are being met through implementation of existing stormwater control measures or if additional control measures are necessary;
- 3.1.3.5 Document all control measures currently being implemented or planned to be implemented. The permittee shall also include a schedule of implementation for all planned controls and shall document the calculations or other evidence that shows that the WLA will be met;
- 3.1.3.6 Describe a monitoring program to determine whether the stormwater controls are adequate to meet the WLA; and
- 3.1.3.7 If the evaluation shows that additional or modified controls are necessary, describe the measures to be taken and the schedule for their implementation. The permittee shall continue meeting the requirements of 3.1.3.4 through 3.1.3.7 for this permit duration until the department determines WLAs are being met or that water quality standards are being met.
- 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.
- 3.3 Continuation of the Expired General 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, and who has applied for renewal at least 30 days 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 not to reissue this general permit, at which time the permittee shall seek coverage under an alternative general permit or a site-specific permit.
- 3.4 Need to Halt or Reduce Activity Not an Excuse

Actions by the permittee in an enforcement action to halt or reduce the permitted activity does not excuse 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 or Revocation
- 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 requiring the owner/operator of the permitted site to apply

for a site-specific permit, the department may require any person to obtain a site-specific operating permit in accordance with 10 CSR 20-6.200(6)].

- 3.6.2 The department may require the permittee to apply for and obtain a site-specific or different general permit if:
 - 3.6.2.1 The permittee is not in compliance with the conditions of this general permit; or
 - 3.6.2.2 The discharge no longer qualifies for this general permit due to changed site conditions and regulations; or
 - 3.6.2.3 Information becomes available that indicates water quality standards have been or may be violated.
- 3.6.3 The permittee will be notified in writing of the need to apply for a site-specific permit or an alternative general permit. When a site-specific permit or alternative general permit is issued to the authorized permittee, the applicability of this general permit to the permittee will be terminated upon the effective date of the site-specific or alternative general permit, whichever the case may be. The permittee shall submit the appropriate forms to the department to terminate the permit that has been replaced.

3.7 Requiring a Site-Specific Permit or an Alternative General 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 site-specific NPDES permit or an alternative NPDES general permit [10 CSR 20-6.200(6)]. Any interested person may petition the department to require a site-specific permit. Where the department requires the permittee to apply for a site-specific 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 or denial of the site-specific NPDES permit or the alternative general permit, coverage under this general permit shall automatically terminate in accordance with Section 3.6. The department may grant additional time to submit the application upon request of the applicant. If the permittee fails to submit a site-specific 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 site-specific permit in lieu of coverage under this general permit. In such cases, the permittee shall submit an application for the alternate permit 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 an alternative general permit.

4. **Stormwater Management Programs and Plans**

4.1 Requirements

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

- 4.1.1 A description of the best management practices (BMPs) that the permittee will implement for each of the stormwater 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 implement a program designed to protect water quality in potentially affected waters and ensure that the permitted activities do not cause a violation of the Water Quality Standards:
 - 4.1.4.1 Discharges to waters of the state shall not cause a violation of water quality standards rule under 10 CSR 20-7.031, including both specific and general criteria; and
 - 4.1.4.2 To the extent required by the law, 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 stormwater. 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;

- 4.1.9 In addition to the requirements listed above, the permittee shall document the decision process for each minimum control measure and include rationale statements for each BMP and measurable goal defined;
- 4.1.10 The permittee shall inspect any structures that function to prevent pollution of stormwater or to remove pollutants from stormwater and the facility in general to ensure that all BMPs are continually implemented and effective, and a monitoring schedule shall be specified in the SWMP document;
- 4.1.11 The SWMP document shall include interim milestones, measurable goals, an implementation schedule and measures for success; and
- 4.1.12 The permittee shall develop and fully implement each minimum control measure within five (5) years of receipt of its first MS4 permit. At each reissuance of this MS4 permit, the permittee shall comply with new or revised standards as soon as practicable, but no later than 5 years from the date of reissuance.

4.2 Minimum Control Measures

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

4.2.1 **Public Education and Outreach on Stormwater 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 stormwater discharges on water bodies and steps the public can take to reduce pollutants in stormwater runoff. As part of the SWMP, the public education and outreach program shall include the following information, at a minimum:

- 4.2.1.1.1 The target pollutant sources the permittee's public education program is designed to address;
- 4.2.1.1.2 Identification of target audiences for the permittee's education program who are likely to have significant stormwater impacts (including commercial, industrial and institutional entities);
- 4.2.1.1.3 A plan to inform individuals and households about steps they can take to reduce stormwater pollution;
- 4.2.1.1.4 A plan to inform individuals and groups on how to become involved in the SWMP (with activities such as local stream and lake restoration activities);
- 4.2.1.1.5 The permittee's outreach strategy, including the mechanisms (e.g., printed brochures, newspapers, media, workshops, etc.) to reach target audiences, and how many people expected to be reached over the permit term; and
- 4.2.1.1.6 A plan to evaluate the success of this minimum control measure.

4.2.2 **Public Involvement/Participation**

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

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

- 4.2.2.1.2 The target audiences for the permittee's public involvement program, including a description of the types of ethnic and economic groups engaged. The permittee is encouraged to actively involve all potentially affected stakeholder groups, including commercial and industrial businesses, trade associations, environmental groups, homeowners associations, and educational organizations, among others; and
- 4.2.2.1.3 The types of public involvement activities included in the permittee's program. Where appropriate, the permittee must consider the following types of public involvement activities:
 - 4.2.2.1.3.1 Citizen representatives on a stormwater management panel;
 - 4.2.2.1.3.2 Public hearings;
 - 4.2.2.1.3.3 Working with citizen volunteers willing to educate others about the program; and
 - 4.2.2.1.3.4 Volunteer monitoring or stream/lake clean-up activities.
- 4.2.2.1.4 The permittee's plan to actively involve the public in the development and implementation of their program; and
- 4.2.2.1.5 The method for evaluating success of this minimum control measure.
- 4.2.3 **Illicit Discharge Detection and Elimination**
 - 4.2.3.1 *Permit requirement.* The permittee shall develop, implement and enforce a program to detect and eliminate illicit discharges (as defined in 10 CSR 20-6.200) into the permittee's regulated small MS4. As part of the SWMP document, the permittee's illicit discharge detection and elimination program shall include the development and implementation of, at a minimum;
 - 4.2.3.1.1 A storm sewer map showing the location of all outfalls and the names and location of all receiving waters of the state that receive discharges from those outfalls. The permittee shall describe the sources of information used for the map(s), and how the permittee plans to verify the outfall locations with field surveys. If already completed, the permittee shall describe how the map was developed and how the map will be regularly updated. The permittee shall make the map information available to the department upon request;
 - 4.2.3.1.2 To the extent allowable under State, or local law, effectively prohibit, through ordinance, or other regulatory mechanism, non-stormwater discharges into the permittee's storm sewer system and implement appropriate enforcement procedures and actions. The permittee shall identify the mechanism (ordinance or other regulatory mechanism) the permittee will use to effectively prohibit illicit discharges into the MS4. If the permittee needs to develop this mechanism, describe the permittee's plan and implementation schedule. If the permittee's ordinance or regulatory mechanism is already developed, include a copy of the relevant sections with the permittee's program; and
 - 4.2.3.1.3 A plan and implementation schedule to detect and address non-stormwater discharges, including discharges from illegal dumping and spills, to the permittee's system. The permittee's plan shall include dry weather field screening for non-stormwater flows and field tests of selected chemical parameters as indicators of discharge sources. The plan shall also address on-site sewage disposal systems that flow into the permittee's storm drainage system. The permittee's description shall address the following, at a minimum:
 - 4.2.3.1.3.1 Procedures for locating priority areas which include areas with higher likelihood of illicit connections (e.g., areas with older sanitary sewer lines, for example) or ambient sampling to locate impacted reaches;
 - 4.2.3.1.3.2 Procedures for tracing the source of an illicit discharge, including the specific techniques the permittee will use to detect the location of the source;
 - 4.2.3.1.3.3 Procedures for removing the source of the illicit discharge;

- 4.2.3.1.3.4 A plan to ensure through appropriate enforcement procedures, including fines, and actions that the permittee's illicit discharge ordinance (or other regulatory mechanism) is implemented;
- 4.2.3.1.3.5 A plan to inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste. The permittee shall describe how this plan will coordinate with their public education minimum measure and the pollution prevention/good housekeeping minimum measure programs; and
- 4.2.3.1.3.6 Procedures for program evaluation and assessment of this minimum control measure.
- 4.2.3.1.4 Address the following categories of non-stormwater discharges or flows (i.e., illicit discharges) only if the permittee identifies them as significant contributors of pollutants to the permittee's regulated small MS4: landscape irrigation, rising ground waters, uncontaminated ground water infiltration (as defined in 10 CSR 20-6.200), uncontaminated pumped ground water, discharges from potable water sources, foundation drains, air conditioning condensation, springs, water from crawl space pumps, footing drains, lawn watering, flows from riparian habitats and wetlands, and street wash water (discharges or flows from emergency fire fighting activities are excluded from the effective prohibition against non-stormwater and need only be addressed where they are significant sources of pollutants to waters of the state).
- 4.2.3.1.5 The permittee may also develop a list of other similar occasional incidental non-stormwater discharges (e.g. non-commercial or charity car washes, etc.) that will not be addressed as illicit discharges. These non-stormwater discharges shall not be reasonably expected (based on information available to the permittees) to be significant sources of pollutants to the MS4, because of either the nature of the discharges or conditions the permittee has established for allowing these discharges to the permittee's MS4 (e.g., a charity car wash with appropriate controls on frequency, proximity to sensitive waterbodies, BMPs on the wash water, etc.). The permittee shall document in their SWMP any local controls or conditions placed on the discharges. The permittee shall include a provision prohibiting any individual non-stormwater discharge that is determined to be contributing significant amounts of pollutants to the permittee's MS4.
- 4.2.3.1.6 The permittee should inventory, inspect and have enforcement authority for industries and commercial enterprises within their boundary that may contribute pollutants via stormwater to the MS4.
- 4.2.4 **Construction Site Stormwater Runoff Control**
- 4.2.4.1 *Permit requirement.* The permittee shall develop, implement, and enforce a program to reduce pollutants in any stormwater runoff to their regulated small MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. Reduction of stormwater discharges from construction activity disturbing less than one acre shall be included in the program if that construction activity is part of a larger common plan of development or sale that would disturb one acre or more. As part of the SWMP, the permittee's construction site stormwater runoff control program shall include the development and implementation of, at a minimum:
- 4.2.4.1.1 An ordinance or other regulatory mechanism:
- 4.2.4.1.1.1 To require operators to implement erosion and sediment control BMPs at construction sites;
- 4.2.4.1.1.2 To include sanctions to ensure compliance, to the extent allowable under State or local law; and
- 4.2.4.1.1.3 If the permittee needs to develop this mechanism, the permittee shall describe the plan and scheduled implementation. If the permittee's ordinance or regulatory mechanism is already developed, the permittee shall include a copy of the relevant sections with the permittee's SWMP.

- 4.2.4.1.2 Requirements for construction site operators to control construction-site waste that may cause adverse impacts to water quality, such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste;
- 4.2.4.1.3 Procedures for the permittee to consider and review all pre-construction site plans for potential water quality impacts.
- 4.2.4.1.4 Procedures for the permittee to receive and consider information submitted by the public, including coordination with the permittee's public education program;
- 4.2.4.1.5 Procedures for the permittee to inspect sites and enforce control measures, including prioritization of site inspections;
- 4.2.4.1.6 A plan to ensure compliance with the permittee's erosion and sediment control regulatory mechanism, including the sanctions and enforcement mechanisms the permittee will use to ensure compliance and procedures for when certain sanctions will be used. Possible sanctions include non-monetary penalties (such as stop work orders), fines, bonding requirements, and/or permit denials for non-compliance; and
- 4.2.4.1.7 A description of how the permittee will evaluate the success of this minimum control measure.
- 4.2.5 **Post-Construction Stormwater Management in New Development and Redevelopment**
- 4.2.5.1 *Permit requirement.* The permittee shall develop, implement, and enforce a program to address the quality of long-term stormwater runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, that discharge into the permittee's regulated small MS4. The permittee's program shall ensure that controls are in place that have been designed and implemented to prevent or minimize water quality impacts by reasonably mimicking pre-construction runoff conditions on all affected new development projects and by effectively utilizing water quality strategies and technologies on all affected redevelopment projects, to the maximum extent practicable. The permittee shall assess site characteristics at the beginning of the construction design phase to ensure adequate planning for stormwater program compliance. The purpose for this approach is to arrive at designs and practices that provide for most effective water quality treatment through infiltration, flow rates and similar site-design opportunities. As part of the SWMP document, the post-construction runoff control program shall include the following information, at a minimum:
 - 4.2.5.1.1 A strategy to minimize water quality impacts, by reasonably mimicking pre-construction runoff conditions in affected new development and incorporating water quality protection in affected redevelopment projects to the maximum extent practicable, and include a combination of structural and/or non-structural BMPs appropriate for the permittee's community;
 - 4.2.5.1.2 An ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects to the extent allowable under State, or local law. If the permittee needs to develop a mechanism, the permittee shall describe the plan and a schedule for implementation. If the permittee's ordinance or regulatory mechanism is already developed, the permittee shall include a copy of the relevant sections with the SWMP document;
 - 4.2.5.1.3 A plan to ensure adequate long-term operation and maintenance of selected BMPs, including types of agreements between the permittee and other parties such as the post-development landowners or regional authorities;
 - 4.2.5.1.4 Specific priority areas for this program; and
 - 4.2.5.1.5 Any non-structural BMPs in the permittee's program, including, as appropriate:
 - 4.2.5.1.5.1 Policies and ordinances that provide requirements and standards to direct growth to identified areas, protect sensitive areas such as wetlands and riparian areas, maintain and/or increase open

space (including a dedicated funding source for open space acquisition), provide buffers along sensitive water bodies, minimize impervious surfaces, and minimize disturbance of soils and vegetation;

- 4.2.5.1.5.2 Policies or ordinances that encourage infill development in higher density urban areas, and areas with existing storm sewer infrastructure, and redevelopment of Brownfield sites or grayfields which may include abandoned malls or similar properties;
- 4.2.5.1.5.3 Education programs for developers and the public about project designs that minimize water quality impacts; and
- 4.2.5.1.5.4 Other measures such as minimization of the percentage of impervious area after development, use of measures to minimize directly connected impervious areas, site designs that provide for integration of a variety of infiltration practices and source control measures often thought of as good housekeeping, preventive maintenance and spill prevention.
- 4.2.5.1.6 Any structural BMPs in the permittee's program, including, as appropriate:
 - 4.2.5.1.6.1 Practices that provide infiltration, evapotranspiration or re-use such as grassed swales, bioretention cells, cisterns and green roofs; and
 - 4.2.5.1.6.2 Redevelopment practices such as planter boxes, street retrofits, parking-lot infiltration and green roofs.
- 4.2.5.1.7 How the permittee will evaluate the success of this minimum measure.
- 4.2.6 **Pollution Prevention/Good Housekeeping for Municipal Operations**
 - 4.2.6.1 *Permit requirement.* The permittee shall develop and implement an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations. As part of the SWMP, the pollution prevention/good housekeeping program shall include the following information, at a minimum:
 - 4.2.6.1.1 A list of all municipal operations that are impacted by this operation and maintenance program. The permittee shall also include a list of industrial facilities the permittee owns or operates that are subject to NPDES permits for discharges of stormwater associated with industrial activity that ultimately discharge to the permittee's MS4. The permittee shall include the permit number or a copy of the industrial application form for each facility;
 - 4.2.6.1.2 Maintenance BMPs, maintenance schedules, and long-term inspection procedures for controls to reduce floatables and other pollutants to the permittee's regulated small MS4;
 - 4.2.6.1.3 Controls for reducing or eliminating the discharge of pollutants from streets, roads, highways, municipal parking lots, maintenance and storage yards, waste transfer stations, fleet or maintenance shops with outdoor storage areas, and salt/sand storage locations and snow disposal areas the permittee operates;
 - 4.2.6.1.4 Controls described in Sections 4.1.5 through 4.1.8 of this permit;
 - 4.2.6.1.5 Procedures for the proper disposal of waste removed from the permittee's MS4 and area of jurisdiction, including dredged material, accumulated sediments, floatables, and other debris;
 - 4.2.6.1.6 Procedures to ensure that new flood management projects are assessed for impacts on water quality and existing projects are assessed for incorporation of additional water quality protection devices or practices;
 - 4.2.6.1.7 A government employee training program to prevent and reduce stormwater pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and stormwater system maintenance. The permittee shall

describe any existing, available materials the permittee plans to use such as those available from EPA, State or other organizations. The permittee shall describe how this training program will be coordinated with the outreach programs developed for the public information minimum measure and the illicit discharge minimum measure; and

4.2.6.1.8 How the permittee will evaluate the success of this minimum control measure.

4.3 Sharing Responsibility

Implementation of one or more of the minimum measures may be shared with another entity, or another entity assume 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 stormwater 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 Stormwater Management Programs and Plans

4.4.1 *Stormwater Management Program and Written Plan (SWMP) Review:* 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 *SWMP Update:* The permittee may change the SWMP during the life of the permit in accordance with the following procedures:

4.4.2.1 Changes adding components, controls, or requirements to the SWMP may be made at any time upon written notification to the department; through annual reporting if changes are minor or through a timely resubmittal of the SWMP if major changes are needed; and

4.4.2.2 Changes replacing an ineffective or unfeasible BMP specifically identified in the SWMP with an alternate BMP may be made at any time and reported to the Department through annual reporting or a timely resubmittal of the SWMP if major changes are needed. The permittee's modifications shall include a documentation of the following:

4.4.2.2.1 An analysis of why the BMP is ineffective or infeasible (including cost prohibitive);

4.4.2.2.2 Expectations on the effectiveness of the replacement BMP; and

4.4.2.2.3 An analysis of why the replacement BMP is expected to achieve the goals of the BMP to be replaced.

4.4.2.3 Change notifications must be made in writing and signed in accordance with Section 6.

4.4.3 *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:

4.4.3.1 Address impacts on receiving water quality caused or affected by discharges from the Municipal Separate Storm Sewer System;

- 4.4.3.2 Include more stringent requirements necessary to comply with new federal or state statutory or regulatory requirements; or
- 4.4.3.3 Include such other conditions deemed necessary by the department to comply with the goals and requirements of the Missouri Clean Water Law.
- 4.4.4 *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 stormwater 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.
 - 4.4.4.1 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.
 - 4.4.4.2 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 Monitoring
 - 5.1.1 The permittee shall evaluate program compliance, the appropriateness of identified best management practices, and progress toward achieving identified measurable goals. If the permittee discharges to a water for which a TMDL has been approved, the permittee will likely have additional monitoring requirements under Section 3.1.3.6.
 - 5.1.2 When the permittee conducts monitoring at the permittee's regulated small MS4, the permittee is required to comply with the following:
 - 5.1.2.1 *Representative monitoring.* Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity;
 - 5.1.2.2 *Test Procedures.* Monitoring shall be conducted according to test procedures approved under 10 CSR 20-7.015(9)(A).
 - 5.1.3 Records of monitoring information shall include:
 - 5.1.3.1 The date, exact place, and time of sampling or measurements;
 - 5.1.3.2 The names(s) of the individual(s) who performed the sampling or measurements;
 - 5.1.3.3 The date(s) analyses were performed;
 - 5.1.3.4 The names of the individuals who performed the analyses;
 - 5.1.3.5 The analytical techniques or methods used; and
 - 5.1.3.6 The results of such analyses.

5.1.4 *Discharge Monitoring Report.* TMDL monitoring results shall be reported to the department on the Department's latest Discharge Monitoring Report form (DMR). Monitoring results collected as part of the routine illicit discharge detection and elimination program shall be documented, retained on site and made available upon request by EPA, DNR and the public.

5.2 Recordkeeping

5.2.1 The permittee shall retain records of all activities requiring recordkeeping by the SWMP and monitoring information, including, all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, 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(s) provided by the department, to the Director by July 28 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 statutory goal of reducing the discharge of pollutants to the MEP, , and the 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, to protect water quality and meet appropriate water quality requirements;

5.3.3 A summary of the stormwater activities the permittee plans to undertake during the next reporting cycle (including an implementation schedule);

5.3.4 Proposed changes to the permittee's SWMP, including changes to any BMPs or any identified measurable goals that apply to the program elements; and

5.3.5 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.

Director refers to the Director of Staff, Water Protection Program, 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 stormwater, 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 stormwater discharges that was established by CWA §402(p). A discussion of how it applies to regulated small 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 holder of this general permit.

Site-specific permit, also means individual permit.

Stormwater, means stormwater runoff, snow melt runoff, and surface runoff and drainage.

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

Missouri Department of Natural Resources Fact Sheet – Master General Permit Renewal for Small MS4s

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 stormwater 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. Permits in Missouri 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). NPDES operating permits are issued for a period of five (5) years unless otherwise specified.

A Fact Sheet gives pertinent information regarding the applicable regulations, rational for the development of the NPDES Missouri State Operating Permit (operating permit), and the public participation process for 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 .

Part I - Facility Information

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

NPDES #:
Facility Name:
Facility Address:
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 Small Municipal Separate Storm Sewer Systems

Comments: _____

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 jurisdictional 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. If the applicant is submitting an application for renewal of the MOR04000 general permit, they need only submit updates to the representative outfalls listed in the existing permit and the modified outfall map.

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

Outfall #001

Legal Description: ¼, ¼, Section, Township, Range, Direction

UTM Coordinates: X=000000.0, Y=0000000.0 (Easting, Northing respectively)

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)]

Fact Sheet – Master General Permit Renewal for Small MS4s

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This permit allows regulated MS4s to discharge stormwater to the following waters, depending on location of the regulated MS4.

Missouri or Mississippi River, lakes or reservoirs, losing streams, metropolitan no-discharge waters, special streams, subsurface waters 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 stormwater discharge permit which authorizes the discharge of stormwater from regulated small 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-stormwater discharges, such as: process wastewater, stormwater discharges that are mixed with process wastewater, or stormwater 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 stormwater even as jurisdictional 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 stormwater 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 stormwater from small MS4s required by State regulation to obtain a permit. This permit is not intended to cover the discharge of stormwater from MS4s that have been designated by the department as requiring coverage under an alternative general permit or a site-specific permit.

The criteria for permit coverage are contained in the Missouri Stormwater Regulations 10 CSR 20-6.200 and Federal Stormwater Regulations under 40 CFR 122.26. In general, this includes any municipality, and federal or state facility/organization that owns or operates a regulated small 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 where the Department has applied EPA criteria.) MS4s discharging entirely to combined sewer systems are exempt based on their coverage under NPDES domestic wastewater permits.

APPLICATION REQUIREMENTS:

The regulated small MS4 is required to seek coverage under the Small MS4 General Permit or a site-specific permit by submitting completed application forms (Forms M & K if an individual applicant or Forms M & L if applying as a co-permittee), a jurisdictional boundary map showing perimeter outfall locations and a written description of the operator's SWMP. Note: If the small MS4 is seeking renewal of the revised general permit, they may submit the updated SWMP document separately up to 90 days following public notice of the general permit. (The regulated medium or large MS4 must submit new or renewal applications according to requirements identified in 10 CSR 20-6.200.) MS4 operators that become subject to 10 CSR 20-6.200 following the 2010 census shall submit permit applications within 180 days following census publication unless notified otherwise by the Department. MS4 operators specially designated by the department shall submit permit applications within 180 days following notice by the department.

STORMWATER MANAGEMENT PROGRAM (SWMP):

The SWMP is a documented implementation plan describing a schedule of MS4 program activities, including: prohibitions of practices, implementation of required practices, development of standards for urban growth, maintenance procedures, education, trainings, inspections and other management practices to prevent or reduce the pollution of waters of the state.

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 stormwater runoff control, post-construction stormwater 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/positions 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-stormwater discharges into the storm sewer system, and implement appropriate enforcement procedures and actions
2. Construction site stormwater 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. The "Missouri Guide to Green Infrastructure: Integrating Water Quality into Municipal Stormwater Management" (May, 2012) was written specifically to aid MS4s in developing and implementing the Post-construction runoff program.

<http://www.dnr.mo.gov/env/vpp/stormwater/mo-gi-guide.htm>

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 July 28 of each year utilizing the department's annual report form MO 78-1846 or latest version.

MONITORING:

Sampling and testing of stormwater for specific parameters is not required on a routine basis under this permit. However, the department reserves the right 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 discharger is allowed by the department to release into a given stream after the department has determined the 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 stormwater-based TMDL and WLA have been put into place for any water body into which the permittee discharges, monitoring may be required for discharges affecting that waterbed. 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 includes additional requirements that apply if a Total Maximum Daily Load (TMDL) has been approved for any water body 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 stormwater discharges covered in the permit and to address the overall goals and recommendations of a TMDL where applicable and as appropriate in the SWMP and any related water quality monitoring plan. 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.

The permittee may maintain coverage under the general permit provided they comply with the applicable requirements outlined above. The Department reserves the right to require site-specific or alternate general permit coverage.

ANTI-BACKSLIDING:

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

All limits, requirements, and/or conditions in this permit 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 has been promulgated. Adequate implementation of best management practices and terms and conditions described in this permit should satisfy antidegradation requirements.

PESTICIDE RULE:

The Missouri Department of Natural Resources has developed a Pesticide General Permit for point source discharges resulting from the application of pesticides. This permit has been developed as a result of federal requirements under the National Pollutant Discharge Elimination System, also known as NPDES.

The general permit authorizes the discharge of pesticides that leave a residue in water when such applications are made into or over including near waters of the United States. The department has determined that entities most likely affected by this permit include public health entities, including mosquito or other vector control districts and commercial applicators that service this sector. Others potentially affected by this permit include resource and land management entities, such as public and private entities managing public land, park areas and university campuses, as well as utilities maintaining easements and right-of-ways, golf courses and other large residential developments which maintain a large grounds area. In addition, permits may be required for applications involving pesticide use for agricultural related activities when pesticides are applied to crops grown in a water of the United States.

The Department of Natural Resources is collaborating closely with the Missouri Department of Agriculture, which already administers the Federal Insecticide, Fungicide and Rodenticide Act, or FIFRA, along with the Missouri Pesticide Use Act.

Applicable ;

The permittee/facility is subject to the pesticide rule is/will be required to apply for either the Pesticide General Permit or a site-specific pesticide permit by the Missouri Department of Natural Resources.

Not Applicable ;

The permittee/facility is not required to apply for a pesticide permit under the pesticide permit rule.

WHOLE EFFLUENT TOXICITY (WET) TEST:

A WET test is a quantifiable method of determining if a discharge from a facility may be causing toxicity to aquatic life by itself, in combination with or through synergistic responses when mixed with receiving stream water.

Applicable ;

Under the federal Clean Water Act (CWA) §101(a)(3), requiring WET testing is reasonably appropriate for site-specific Missouri State Operating Permits for discharges to waters of the state issued under the National Pollutant Discharge Elimination System (NPDES). WET testing is also required by 40 CFR 122.44(d)(1). WET testing ensures that the provisions in the 10 CSR 20-6.010(8)(A)7, and the Water Quality Standards 10 CSR 20-7.031(3)(D),(F),(G),(I)2.A & B are being met. Under [10 CSR 20-6.010(8)(A)4], the Department may require other terms and conditions that it deems necessary to assure compliance with the Clean Water Act and related regulations of the Missouri Clean Water Commission. In addition the following MCWL apply: §§644.051.3 requires the Department to set permit conditions that comply with the MCWL and CWA; 644.051.4 specifically references toxicity as an item we must consider in writing permits (along with water quality-based effluent limits, pretreatment, etc...); and 644.051.5 is the basic authority to require testing conditions. WET test will be required by all facilities meeting the following criteria:

- Facility is a designated Major.
- Facility continuously or routinely exceeds its design flow.
- Facility (industrial) that alters its production process throughout the year.
- Facility handles large quantities of toxic substances, or substances that are toxic in large amounts.
- Facility has Water Quality-based Effluent Limitations for toxic substances (other than NH₃)
- Facility is a municipality or domestic discharger with a Design Flow ≥ 22,500 gpd.
- Other – please justify.

Not Applicable ;

At this time, the permittee is not required to conduct WET test for this facility.

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 stormwater from regulated small MS4s, as defined in the Missouri Stormwater Regulations (10 CSR 20-6.200) who do not obtain coverage under this or other Missouri general permits, or under a 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.

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

Applicable ;

Issuance of coverage to an individual facility under this Master General 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 Master General Permit to individual facilities for the first time.

The Public Notice period for this operating permit is tentatively schedule to begin on March 15, 2013.

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RUTH WALLACE, ES-IV
WATER PROTECTION PROGRAM
ruth.wallace@dnr.mo.gov