City of Wentzville Missouri

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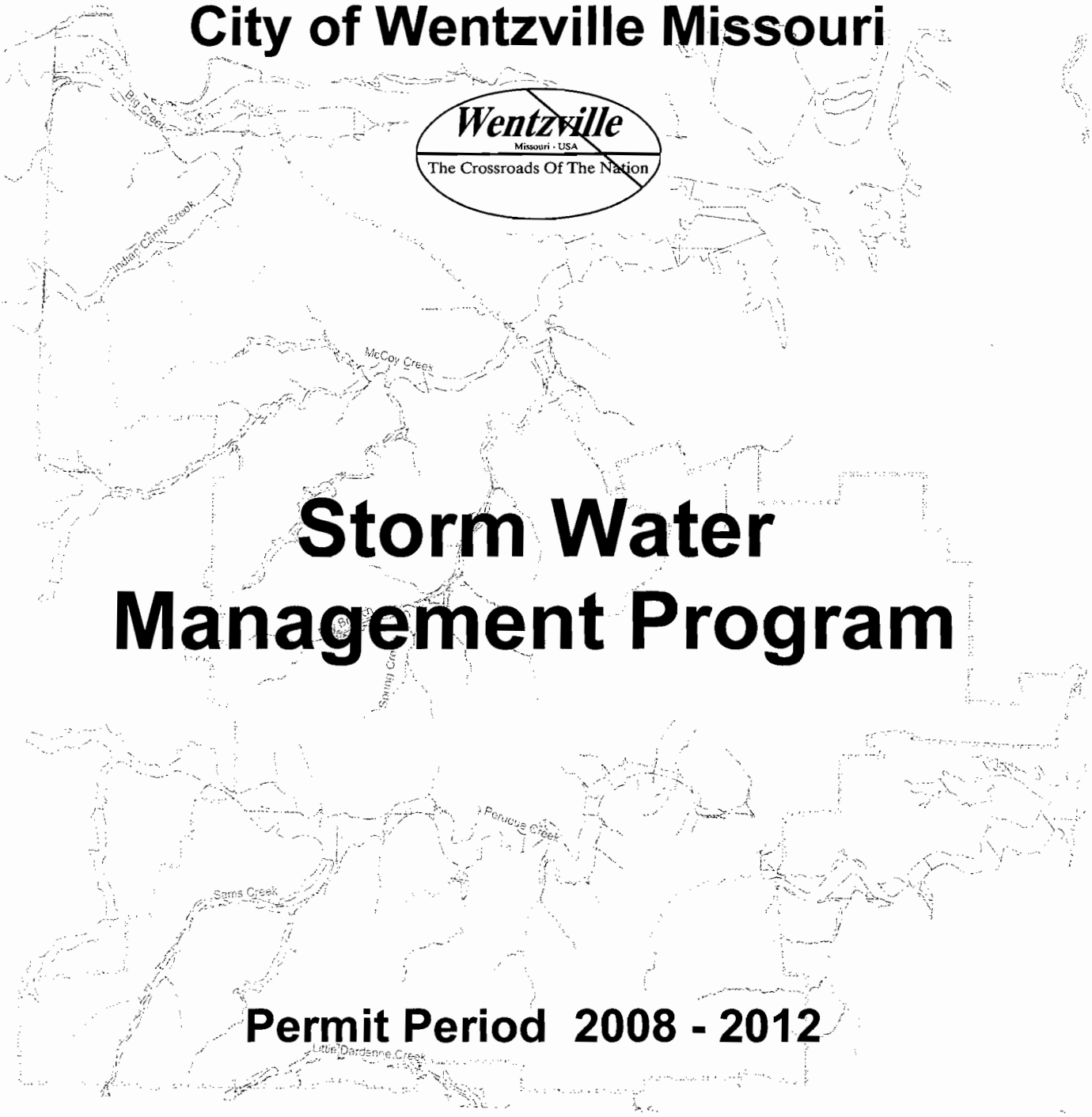

Storm Water Management Program

Permit Period 2008 - 2012

200 East 4th Street
Wentzville, MO 63385

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Part I

General State Operating Permit for Small MS4 and Parts of the Wentzville SWMP that Apply

Permit Period 2008 thru 2012

Introduction

The City of Wentzville is located in St. Charles County Missouri in the Metropolitan St. Louis area. Major highways through the area include Interstate 70 and U.S. Highways 40 and 61. The current population of the City of Wentzville is estimated at approximately 24,000 and the City's planning area consists of 44 square miles, with 18 square miles within the current city limits. The Wentzville area has increased development in the last 5 years as growth in the metropolitan area has moved west. See Appendix C for a copy of the Wentzville Municipal Area.

The City of Wentzville Storm Water Management Plan was developed as a result of new storm water regulations from the Environmental Protection Agency. These regulations, authorized under the Clean Water Act, are designed to help communities protect their streams, rivers and wetlands from polluted storm water runoff.

The Storm Water Phase II Rule of the National Pollutant Discharge Elimination System (NPDES) applies to operators of regulated small municipal separate storm sewer systems (MS4s). The Phase II Final Rule requires nationwide coverage of all operators of small MS4s that are located within the boundaries of a Bureau of the Census-defined "urbanized area" (UA) based on the latest decennial Census. The Final Rule requires that the NPDES permitting authority, Missouri Department of Natural Resources for Missouri, develop and apply designation criteria to make a final determination of which communities are required to comply with this regulation. In 2002, Wentzville was identified as a location meeting the Phase II MS4 criteria.

The City of Wentzville developed a Storm Water Management Program (SWMP) in March 2003 for the permit period of March 10, 2003 through March 10, 2008. This document updates and revises the SWMP for the permit period of March 10, 2008 through March 10, 2013.

The format of this document has changed. The new document format is as follows:

- Part I is a copy of the General State Operating Permit for Small MS4. Following each section of the Permit is a brief description of how the City of Wentzville is meeting the requirements of that section and/or which part of the SWMP addresses the requirements of that section.
    - The Permit text is in **bold**.
    - How the City is meeting the requirements of the Permit follows in regular text.
- Part II is the detailed Storm Water Management Program (SWMP) for the City of Wentzville. The SWMP is divided into the six Minimum Control Measures (MCMs) required by the Permit. The SWMP includes, for each of the MCM:
    - Best Management Practices (BMPs) chosen
    - Target audience, pollutant sources and/or pollutants as applicable
    - Measurable Goals to assess the effectiveness of the BMPs
- The projected timeline for implementation of BMP and measurement tasks is outlined in Appendix A
- The designated Responsible Party for each BMP is outlined in Appendix B

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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 storm water 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;

1.2.1.2 The regulated small MS4 is not a "large" or "medium" MS4 as defined in 10 CSR 20-6.200;

1.2.1.3 Submits a general permit application in accordance with Section 2 of this permit;

1.2.1.4 The regulated small MS4 is 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.

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

- **Landscape irrigation**
- **Rising ground waters**
- **Uncontaminated ground water infiltration (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 conditional condensate**

- **Springs**
- **Water from crawl space pumps**
- **Footing drains**
- **Lawn watering**
- **Flows from riparian habitats and wetlands**
- **Street wash water**
- **Discharges or flows from fire fighting activities**
- **Individual residential car washing**
- **Dechlorinated residential swimming pool discharges**

1.3 Limitations on Coverage

This permit does not authorize:

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

- In compliance with a separate NPDES permit, or
- Determined not to be a substantial contributor of pollutants to waters of the State.

1.3.2 Storm water discharges associated with industrial activities requiring separate NPDES permits as defined in 10 CSR 20-6.200.

1.3.3 Storm water discharges associated with construction activities requiring separate NPDES permits as defined in 10 CSR 20-6.200.

1.3.4 Storm water discharges currently covered under another permit.

1.3.5 Discharges that are likely to jeopardize the continued existence of any species that are listed as endangered or threatened under the Endangered Species Act (ESA) or result in the adverse modification or destruction of habitat that is designated as critical under the ESA.

1.3.6 Discharges that violate the National Historic Preservation Act.

1.3.7 Discharges that cause or contribute to a violation of instream water quality standards. The permittee's storm water management program must include a description of the BMPs that the permittee will use to ensure that violations will not occur. The department may require corrective action or an application for an individual 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 Storm Water Management Program in order to be eligible for permit coverage. For discharges for which the permittee is responsible but are not eligible for coverage Page 3 under this permit, the permittee shall apply for and receive an individual or other applicable general NPDES permit prior to discharging.

1.3.9 Discharges that do not comply with state anti-degradation requirements for water quality standards as specified at 10 CSR 20-7.031(2).

1.4 Obtaining Authorization

1.4.1 To be authorized to discharge storm water from regulated small MS4s, the permittee shall submit an application and a description of the permittee's storm water management program in accordance with the deadlines presented in Section 2 of this permit.

1.4.2 The permittee shall submit the information required in Section 2 on the latest version of the application form (or photocopy thereof). The permittee's application shall be signed and dated.

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 permittee is automatically designated under 10 CSR 20-6.200 or designated by the department in this permit, then the permittee is required to submit an application and a description of the permittee's storm water management program or apply for an individual permit by _____.

2.2 *Additional designations after the date of permit issuance.* If the permittee is designated by the department after the date of permit issuance, then the permittee is required to submit an application and a description of the permittee's storm water management program 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. If a late, or modified application is submitted, the permittee's authorization is only for discharges that occur after permit coverage is granted. 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 storm water discharges from any part of the MS4 significantly contributes measurable 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.

Peruque Creek was added to the 2002 303(d) list, including the reach within the City of Wentzville Corporate Limits, for Urban and Rural Non-Point Sources (runoff). However, the list approved by the Clean Water Commission on April 20, 2007 does not include Peruque Creek, so the City of Wentzville anticipates that Peruque Creek will be removed from the 303(d) list. See Appendix C for a copy of the Total Maximum Daily Load Information Sheet for Peruque Creek and a copy of the list approved by the Clean Water Commission on April 20, 2007.

3.1.1.2 Determine whether a Total Maximum Daily Load (TMDL) has been developed by the department and approved by EPA for the listed waterbody. If there is 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.

Currently there are no TMDL requirements for Peruque Creek according to the Missouri Department of Natural Resources Total Maximum Daily Load Information Sheet. The City will work with the Missouri Department of Natural Resources to incorporate specific TMDL measurement procedures should the TMDL status changes. See Appendix C for a copy of the Total Maximum Daily Load Information Sheet for Peruque Creek.

3.1.2 *Water Quality Controls for Discharges to Impaired Waterbodies*. The permittee's storm water management program (SWMP) 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.

The pollutant is Non-Volatile Suspended Solids (NVSS). Almost every BMP in the Wentzville's Storm Water Management Program will reduce the NVSS in Peruque Creek and Wentzville's other receiving streams. Following is a brief description of how the BMPs address NVSS.

MCM I – Public Outreach and Education

1. Storm Water Management Web Page will educate users in proper disposal of yard waste, erosion control on personal property, the use of native landscaping, illicit discharge detection and reporting procedures, etc.

2. Brochures/Fact Sheets will provide education in proper disposal of yard waste, erosion control on personal property, the use of native landscaping, etc.
3. School-Aged Educational Programs will educate children about storm water issues and the proper disposal of wastes such as yard wastes
4. Storm Water Related Articles will educate readers in proper disposal of yard waste, erosion control on personal property, the use of native landscaping, illicit discharge detection and reporting procedures, etc.
5. Utility Bill Insert will educate recipients in proper disposal of yard waste
6. Targeted Seminars and Training will educate developers and contractors in proper erosion and sediment control and developers and engineers in storm water management design for new developments.

MCM II – Public Involvement and Participation

5. Concerns Hotline will provide reporting of illicit discharges and uncontrolled construction site sediment

MCM III – Illicit Discharge Detection and Elimination

1. Storm Sewer Mapping will aid the visual field screening of storm sewer outfalls by providing a GPS survey
2. Illicit Discharge Ordinance and Inspections includes visual field screenings of storm sewer outfalls to locate potential illicit discharges such as large amounts of suspended solids or unconsolidated sediment
3. Demolition Permitting includes education of proper disposal techniques for demolition wastes
4. Yard Waste Collection and Recycling Collection Programs for Household Wastes provides alternatives to improper yard waste dumping in storm sewers or stream banks

MCM IV – Construction Site Storm Water Runoff Control

1. Grading and Erosion/Sediment Control Plan Review requires permitting for land disturbance activities and the review of the Storm Water Pollution Prevention Plan to control erosion and sediment during construction
2. Sediment and Erosion Control Design Manual provides design requirements and guides for proper erosion and sediment control during construction
3. Sediment and Erosion Control Inspection and Training includes regular inspections of permitted construction projects by qualified inspectors to enforce installation and maintenance of proper erosion and sediment controls
4. Sediment and Erosion Control Developer/Engineer/Contractor Training provides further guidance in proper erosion and sediment control installation and maintenance during construction

MCM V – Post-Construction Storm Water Management

1. Storm Water Design Criteria requires proper storm water management so the hydrology coming to receiving streams closely matches pre-development hydrology and requires stream assessment for stream crossings and energy dissipation at storm sewer outfalls
2. City of Wentzville Comprehensive Land Use Plan and Municipal Code Revisions continues to adjust the municipal code for controlled development and conservation of key resources such as riparian areas and trees
3. Storm Water Utility provides funding for the SWMP

4. Parks & Recreation Program continues to investigate opportunities for open space, especially along stream corridors

MCM VI - Pollution Prevention/Good Housekeeping for Municipal Operations

1. Operations and Maintenance (O&M) Program and Training involves all municipal departments in proper landscape maintenance and waste disposal procedures
2. Public Works Facility Structural BMP provides for removal of suspended solids generated by the facility
3. Street Sweeping provides removal of debris and sediment from public streets
5. Flood Management Projects includes proper erosion and sediment control on all flood management projects constructed by the City

See Section 4.2 for details on the Storm Water Management Plan.

3.1.3 *Consistency with TMDL Allocations*. If a TMDL has been finalized for any waterbody into which the permittee discharge, the permittee must:

3.1.3.1 Determine whether the approved TMDL is for a pollutant likely to be found in storm water 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 storm water discharge from the permittee's MS4.

3.1.3.3 Determine whether the TMDL address a flow regime likely to occur during periods of storm water 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 storm water 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 storm water controls are adequate to meet the WLA.

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 until two continuous monitoring cycles show that the WLAs are being met or that water quality standards are being met.

3.2 <u>Duty to Comply</u>

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

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

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 [10 CSR 20-6.010 (13) and 10 CSR 20-6.200(5)].

The department may require the permittee to apply for and obtain a site specific or different general permit if:
a. The permittee is not in compliance with the conditions of this general permit;
b. The discharge no longer qualifies for this general permit due to changed site conditions and regulations; or
c. Information becomes available that indicates water quality standards have been or may be violated.

The permittee will be notified in writing of the need to apply for a site specific permit or a different general permit. When a site specific permit or different 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 different 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 an Individual 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 an individual NPDES permit or an alternative NPDES general permit. Any interested person may petition the department to require an individual permit. Where the department requires the permittee to apply for an individual 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, 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 individual 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 an individual 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 an individual 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 individual permit or an alternative general permit.

4 STORM WATER MANAGEMENT PROGRAMS

4.1 Requirements

4.1.1 Reserved

4.1.1.1 The discharge of storm water shall not cause a violation of the state water quality standards, 10 CSR 20-7.031, which states, in part, that no water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:

a. 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;
b. Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
c. Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
d. Waters shall be free from substances or conditions in sufficient amounts to have a harmful effect on human, animal or aquatic life.
e. There shall be no significant human health hazard from incidental contract with the water;
f. There shall be no acute toxicity to livestock or wildlife watering;
g. Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
h. 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 Laws, Section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to Section 260.200-260.247.

4.1.1.2 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.

Good housekeeping practices to keep solid waste from entry into waters of the state are addressed with the following BMPs:

MCM II – Public Involvement and Participation
3 & 4. Stream Teams and Other Voluntary Litter Pickup Programs – Stream Teams, the Adopt-A-Street program, Make a Difference Day and Operation Clean Stream

programs directly remove solid wastes from Wentzville streets, neighborhoods and streams. These activities also provide opportunities for volunteers to be in areas where they may detect and report other illicit discharges.

MCM III – Illicit Discharge Detection and Elimination

4. Yard Waste Collection and Recycling Collection Programs for Household Wastes – To divert the potential for promiscuous litter and improper yard waste disposal, the City of Wentzville has contracted with a licensed solid waste hauler for both yard waste pickup and curbside recycling.

   Wentzville also conducts two free special trash pickups per year in the spring and fall. Households can put out large bulky items, electronic items and construction/remodeling waste at these pickups.

   Additional household waste recycling and collection, including residential hazardous chemical collection, is available through St. Charles County. The St. Charles County Division of Environmental Services operates two drop-off recycling centers for all St. Charles County residents, including residents of the City of Wentzville. Recycle Works West is within the City of Wentzville, and accepts a variety of household wastes such as: antifreeze, transmission and hydraulic fluid, motor oil, batteries, appliances, computers and peripherals, microwaves, printer cartridges, clothing, electronic equipment, among others. Recycle Works Central also accepts hazardous household chemicals such as paints, solvents, insecticides, etc. during the months of April through October. The chemicals collected are recycled, used to produce energy, or packaged for safe disposal in a hazardous waste landfill.

   Residents are referred to the yard waste, recycling and St. Charles County programs via the "Wentzville Residential Trash Guide" included in the "Welcome to Wentzville" packet and information is also found on the City website. Advertising for the programs will be increased by including them more prominently on the City website and including the information in the Utility Bill Insert as described in MCM I – Public Outreach and Education.

   See Appendix C for a copy of the "Wentzville Residential Trash Guide" and information about the St. Charles County Recycle Works program.

5. Municipal Waste Trash Collection Requirements - The City of Wentzville contracts with J. Hunt Hauling to pick up trash in the Wentzville area. J. Hunt Hauling is a licensed solid waste hauler. The contract stipulates that the City may assess an administrative charge, and deduct or withhold money due, for such things as: failure to resolve a complaint within a given time frame; failure to clean up spillage or litter; failure to maintain equipment in a clean, safe, and sanitary manner; failure to have a vehicle operator properly licensed; failure to submit required documents to the City; etc. See Appendix C for a copy of relevant sections of the current solid waste contract with J. Hunt Hauling.

MCM VI – Pollution Prevention/Good Housekeeping for Municipal Operations

1. Operations and Maintenance (O&M) Program and Training

   O&M Program:

   The City will expand upon the current O&M Programs for various departments/facilities to further prevent or reduce pollutant runoff from municipal operations. The programs will contain but not necessarily be restricted to the following municipal operations and categories:

   Building Maintenance
   - Material storage and control
   - Proper use and application of materials

   Garden and Landscaping Operations
   - Proper operation of irrigation systems
   - Material storage and control
   - Proper use and application of materials

   Parking Lots and Storm Water System Maintenance
   - Inspection and cleaning of storm water systems on a complaint-driven basis

   Park/Open Space Maintenance
   - Use of native and low-maintenance plant species
   - Material storage and control
   - Proper use and application of materials

   Licensed Vehicle Maintenance
   - Performed by a competent vendor in a protected facility
   - Routine operator inspections before use
   - Vehicle wash-out procedures

   Off-Road Equipment Maintenance
   - Maintenance performed within a protected facility
   - Weekly operator inspections before use
   - Remove equipment from service when fluid leaks are significant
   - Vehicle wash-out procedures

   Outdoor Bulk Material Storage
   - Covered material storage areas
   - Short-term uncovered storage areas

   Land Disturbance
   - Plan/Design projects for minimum disturbance
   - Procedures for self-performed construction activities

   Soil Stabilization
   - Continuous assessment of City-operated sites
   - Projects to improve soil stability

   Illicit Discharge Detection
   - Periodic inspection of City-sites for illicit discharges

   Waste Disposal
   - All wastes disposed per federal, state, and local regulations
   - Provide recycling alternatives to reduce conventional waste disposal

Spill Prevention, Control and Countermeasure (SPCC)

- Safe handling procedures
- Spill containment procedures
- All spills handled per federal, state, and local regulations

Maintenance Schedules and Inspection Procedures

- Routine maintenance
- Non-routine maintenance
- Inspection schedule and checklists
- Record-keeping

The following departments will be responsible to evaluate their current O&M programs, or having none, develop a specific O&M Program for that department's operations and facilities such that storm water pollutants are minimized:

- Public Works, including:
  - Engineering Division
  - Street Division
  - Water Division
  - Wastewater Treatment Division
  - Vehicle Maintenance Division
- Parks and Recreation
- City Government

In the development or evaluation of O&M programs, each applicable department will assess their municipal operations for associated storm water impacts, including the categories listed above. The assessment will identify existing and potential pollutant sources and methods of reduction or elimination of identified pollutants. The following decision process will be used to change existing municipal operations to meet this objective:

1. Review current operation methods, associated pollutants, and possible alternatives
2. Determine feasibility of operational changes
3. Estimate probable cost of implementation
4. Departmental review of Cost/Benefit Analysis
5. Implement changes if budget allows
6. Request additional funds if necessary
7. Financial appropriation if necessary

The various O&M Programs will be collected and reviewed by the Public Works department for adherence to the details of this BMP and for consistency and overlap.

Training:

Each department will create and implement a training program tailored for their operations. The training program shall consist of new staff orientation and retainer/refresher components. The training will include written feedback from employees regarding the applicability and effectiveness of the O&M Program and training.

The Public Works department will assist the individual departments by compiling training resources from St. Charles County, EPA, Missouri Department of Natural Resources, and other applicable authorities and coordinating inter-departmental training opportunities.

3. Street Sweeping – The City has a street-sweeping program implemented. The schedule is based on the snow route. The sweeper is out daily except when maintenance of the sweeping vehicle takes it offline 1 to 4 days per month. The sweeper is the Elgin Eagle brush sweeper. The sweeping schedule is as follows, but changes as needed for construction cleanup:
   - Main streets twice per month
   - Subdivision streets once per quarter

4.1.1.3 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.

Fueling facilities are addressed with the following BMP:

MCM VI – Pollution Prevention/Good Housekeeping for Municipal Operations

4. Fuel Storage – The City has eliminated the use and removed all City owned fuel storage tanks. Municipal vehicles now use commercial fuel stations.

4.1.1.4 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.

Management of substances regulated by federal law under RCRA or CERCLA that are transported, stored, or used for maintenance, cleaning or repair by the City are addressed with the following BMP as described in 4.1.1.2 and Part II:

MCM VI – Pollution Prevention/Good Housekeeping for Municipal Operations

1. Operations and Maintenance (O&M) Program and Training

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

Storage of paint, solvents, petroleum products and petroleum waste products (except fuels) by the City and spill prevention, control and/or management are addressed with the following BMPs as described in 4.1.1.2 and Part II.:

MCM III – Illicit Discharge Detection and Elimination
4. Yard Waste Collection and Recycling Collection Programs for Household Wastes
5. Municipal Waste Trash Collection Requirements

MCM VI – Pollution Prevention/Good Housekeeping for Municipal Operations
1. Operations and Maintenance (O&M) Program and Training

4.1.2 The permittee shall develop, implement, and enforce a storm water management program designed to reduce the discharge of pollutants from the permittee's regulated small MS4 to the maximum extent practicable (MEP), to protect water quality, and to satisfy the appropriate water quality requirements of the Missouri Clean Water Law. The storm water management program should include 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 storm water management program shall include the following information for each of the six minimum control measures described in Section 4.2 of this permit:

Note: These requirements do not supersede nor remove liability for compliance with county and other local ordinances.

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

4.1.2.2 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;

4.1.2.3 Individual(s) shall be designated by the permittee as responsible for environmental matters. The permittee shall inspect any structures that function to prevent pollution of storm water or to remove pollutants from storm water and of the facility in general to ensure that any Best Management Practices are continually implemented and effective;

4.1.3 In addition to the requirements listed above, the permittee shall provide a rationale for how and why the permittee selected each of the BMPs and measurable goals for the permittee's storm water management program. The information required for such a rationale is given in Section 4.2 for each minimum measure. The permittee shall develop and fully implement each measure within five (5) years of permit issuance.

The City of Wentzville has developed a Storm Water Management Program to meet the above conditions to the maximum extents practicable. The complete plan can be found in Part II – Storm Water Management Program (SWMP) for the City of Wentzville. The timeline for SWMP implementation is in Appendix A. The responsible party for each

MCM and individual BMPs as applicable is in Appendix B. Supporting documentation is in Appendix C. To assist in the review of the SWMP, information on the BMPs, as applicable to permit requirements, is also found in Section 4.2.

4.2 Minimum Control Measures

The six (6) minimum control measures that shall be included in the permittee's storm water management program are:

4.2.1 Public Education and Outreach on Storm Water Impacts

4.2.1.1 *Permit requirement.* The permittee shall implement a public education program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of storm water discharges on water bodies and the steps that the public can take to reduce pollutants in storm water runoff.

The City's public education outreach strategy employs a multi-faceted approach to inform the public about common storm water pollutants, their effects on receiving waters, the extent and magnitude of the problem, and corrective actions the public can take to prevent non-point source (NPS) pollution.

4.2.1.2 *Decision process.* The permittee shall document the permittee's decision process for the development of a storm water public education and outreach program. The permittee's rationale statement shall address both their overall public education program and the individual BMPs, measurable goals and responsible persons for the permittee's program. The rationale statement shall include the following information, at a minimum:

The Best Management Practices (BMPs) and measurable goals in MCM I – Public Education and Outreach have been selected based on water quality needs and applicability to the population of Wentzville, to take advantage of related events and resident interest, and to build on existing and developing partnerships. The decision process involved discussions with City departments/divisions, neighboring MS4s including the City of O'Fallon and St. Charles County, guidance from Missouri Department of Natural Resources and EPA websites, successes from the previous permit cycle, and available funding.

The City will seek assistance from local interest groups and volunteers to perform outreach activities and distribute educational materials. During the permit term, the City will rely primarily upon existing storm water educational resources provided by St. Charles County and other neighboring MS4 communities, the Department of Natural Resources, EPA, Soil and Water Conservation District, and local universities or community colleges.

4.2.1.2.1 How the permittee plans to inform individuals and households about the steps they can take to reduce storm water pollution.

The City will inform individuals and households about the steps they can take to reduce storm water pollution with the following BMPs:

1. Storm Water Management Web Page – The Storm Water Management Coordinator will create a Storm Water Management page on the City's website. The web page will be maintained and expanded to become the main information source for all aspects of the City's Storm Water Management Program including how to get involved in voluntary activities, information on what citizens can do to address storm water pollution, what an illicit discharge looks like and what to do about it, the Concerns Hotline, upcoming seminars, storm water related regulations, design requirements for storm drainage facilities, erosion and sediment control design requirements, etc.

2. Brochures/Fact Sheets – Current brochures/fact sheets used by the City of Wentzville include "The Wentzville Residential Trash Guide" included in the City's "Welcome to Wentzville" packet for new utility customers and on the City's website. The guide includes educational information regarding yard waste composting, recyclable materials, household chemicals and other solid wastes as well as trash collection procedures. A copy of the trash guide is included in Appendix C.

   As part of the City's residential composting program, the Brochures/Fact Sheets published and made available will include information on composting and yard waste collection as viable alternatives to yard waste disposal down storm drains or along stream banks. Additional brochures/fact sheets will target commercial property owners and landscaping services.

   The Storm Water Management Coordinator will investigate other available brochures and fact sheets containing storm water and storm water pollution information that are applicable to the City. The brochures and/or fact sheets will be made available at the Public Works Office, City Hall, St. Charles City-County Library District's Corporate Parkway Branch location, in the City's "Welcome to Wentzville" packet for new utility customers, published on the City's web page and through direct educational programs.

   Since, the public is accustomed to finding information on various topics at the locations listed above; inclusion of storm water pollution information at these locations will be a successful means to reach the public. Brochures about specific programs with activities will include information for residents to sign up for programs and become involved in the environment around them.

   The City will rely primarily upon existing storm water educational resources provided by St. Charles County and other neighboring MS4 communities, the Department of Natural Resources, EPA, Soil and Water Conservation District, and local universities or community colleges.

3. School-Aged Educational Programs – The Storm Water Management Coordinator will develop and implement educational programs for school-aged children at

Wentzville School District Schools and Private/Parochial Schools in the Wentzville MS4 area as well as other youth groups such as scouts, church organizations, etc. Other stakeholders, such as the St. Charles County, St. Charles County Soil and Water Conservation District, NRCS, and Department of Conservation, will be invited to participate in the education programs.

Educational programs provide information to children in a format they can understand, and gives them a chance to ask questions. This BMP enables the educational institutions and youth organizations in the Wentzville MS4 area to participate in the public education process.

The Storm Water Management Coordinator will investigate potential existing programs to determine what's available and discuss options with area teachers and youth organizations. A "Storm Water Awareness to Action" program will be brought to at least one middle school. Eventually, the programs will be made available to all schools in the Wentzville MS4 area as well as other youth groups.

Additional educational programs may be added as practicable such as a lecture list of available professionals that could talk with classrooms, schools or youth groups about storm water issues.

4. Storm Water Related Articles – The Storm Water Management Coordinator will continue to write articles related to storm water pollution control in the City's bi-monthly newsletter, the *Vision* or local newspapers. Information will include how to get involved in voluntary activities, what citizens can do to address storm water pollution and how to report illegal dumping or other storm water concerns. The City will include a minimum of 4 storm water related articles per year.

5. Utility Bill Insert – The City is the water and wastewater utility and sends a monthly bill to its customers. Once per year, the Public Works Department will include a fact sheet with the City utility bill. The fact sheet will explain what wastes are and are not allowed in the storm sewers and streams and how residents should dispose of particular wastes such as hazardous household wastes, yard wastes and recyclable materials. The fact sheet will include educational information as to why unlawful disposal is harmful to our local streams, feature the Concerns Hotline to report illegal dumping or other storm water concerns, and explain how to volunteer for SWMP activities. Every year the fact sheets will be reviewed and revised as needed.

6. Targeted Seminars and Training – The Storm Water Management Coordinator in cooperation with the Public Works Director will determine specific seminars and training needs to be implemented as practicable. The seminars will be in coordination with other MCM's in this SWMP and will take advantage of regional seminars and training opportunities when possible. Potential seminar topics for this permit period include:
   - Water quality monitoring for volunteers through the Stream Team program in coordination with MCM II – Public Involvement and Participation.

- Erosion and sediment control design in coordination with MCM IV – Construction Site Storm Water Runoff Control. This may be held concurrent with the semi-annual Builder's Meetings currently held by the Public Works Department.
- Erosion and sediment control inspection and maintenance in coordination with MCM IV – Construction Site Storm Water Runoff Control. This may be held concurrent with the semi-annual Builder's Meetings currently held by the Public Works Department.
- Design of Storm Drainage Facilities with new engineering design criteria as described in MCM V – Post Construction Storm Water Management.
- Storm water quality BMP operation and maintenance for neighborhood associations and property owners in coordination with MCM V – Post Construction Storm Water Management.
- Facility Operations and Maintenance (O&M) training for City employees in coordination with MCM VI – Pollution Prevention and Good Housekeeping.

4.2.1.2.2 How the permittee plans to inform individuals and groups on how to become involved in the storm water program (with activities such as local stream restoration activities).

The City will inform individuals and groups on how to become involved in the storm water program with the following BMPs as described above:

1. Storm Water Management Web Page
3. School-Aged Educational Programs
4. Storm Water Related Articles
5. Utility Bill Insert
6. Targeted Seminars and Training

In addition, individuals and groups will be informed using the following BMPs from MCM II – Public Involvement and Participation:

2. Wentzville Storm Water Action Group
3. Stream Teams
4. Other Voluntary Litter Pickup Programs
6. Bi-annual Storm Water Management Program Public Meeting
7. Storm Water Management Program Survey/Questionnaire

See section 4.2.2 or Part II, MCM II – Public Involvement and Participation for details on the BMPs.

4.2.1.2.3 Identification of target audiences for the permittee's education program who are likely to have significant storm water impacts (including commercial, industrial and institutional entities) and an explanation why those target audiences were selected, AND

4.2.1.2.4 The target pollutant sources the permittee's public education program is designed to address.

1. Storm Water Management Web Page – The target audience includes residents, educators, businesses, developers, engineers and construction companies. Since these entities already use the City's web site to find information about City requirements and programs, the Storm Water Management Web Page is a good method to disseminate information to the target audience.

   Target pollutant sources include: household activities such as lawn care and improper disposal of household waste such as yard waste, pet waste, hazardous household wastes, used motor oil, etc.; construction activities such as improper erosion and sediment control or improper disposal of construction wastes; industrial and commercial activities such as improper disposal of waste; and illegal dumping and littering.

2. Brochures/Fact Sheets – The target audience includes residents, educators and businesses.

   Target pollutant sources include: household activities such as lawn care and improper disposal of household waste such as yard waste, pet waste, hazardous household wastes, used motor oil, etc.; construction activities such as improper erosion and sediment control or improper disposal of construction wastes; industrial and commercial activities such as improper disposal of waste; and illegal dumping and littering.

3. School-Aged Educational Programs – The target audience includes students, youth groups, educators, youth leaders and parents.

   Target pollutant sources include: household activities such as lawn care and improper disposal of household waste such as yard waste, pet waste, hazardous household wastes, used motor oil, etc.; and illegal dumping and littering.

4. Storm Water Related Articles – The City newsletter is distributed to all residents of the City of Wentzville, the target audience of this BMP.

   Target pollutant sources include: household activities such improper disposal of household waste such as yard waste, pet waste, hazardous household wastes, used motor oil, etc.; industrial and commercial activities such as improper disposal of waste; and illegal dumping and littering.

5. Utility Bill Insert – The target audience is households and businesses.

   Target pollutant sources include: household activities such improper disposal of household waste such as yard waste, pet waste, hazardous household wastes, used motor oil, etc.; industrial and commercial activities such as improper disposal of waste; and illegal dumping and littering.

6. Targeted Seminars and Training – The target audiences will be determined for each seminar. Potential audiences include volunteers, engineers, construction companies, neighborhood associations, property owners, and City employees, among others.

   Target pollutant sources include: household activities such as lawn care and improper disposal of household waste such as yard waste, pet waste, hazardous household wastes, used motor oil, etc.; construction activities such as improper erosion and sediment control or improper disposal of construction wastes; industrial, commercial and municipal activities such as improper disposal of waste; and illegal dumping and littering.

4.2.1.2.5 The permittee's outreach strategy, including the mechanisms (e.g., printed brochures, newspapers, media, workshops, etc.) they will use to reach their target audiences, and how many people do they expect to reach by their outreach strategy over the permit term.

The public outreach strategy outlined in Part II, MCM I – Public Education and Outreach relies on a variety of methods to reach a wide audience in a variety of ages, ethnic groups and socio-economic classes, and to reach both the residential and commercial/industrial community. Mechanisms include:

1. The Storm Water Management Web Page provides information for anyone with access to the Internet. Free access to the Internet is available at any St. Charles City/County Library.
2. Printed brochures/fact sheets made available at the Public Works Office, City Hall, St. Charles City-County Library District's Corporate Parkway Branch location, in the City's "Welcome to Wentzville" packet for new utility customers, and through direct educational programs. The "Welcome to Wentzville" packet is distributed to every new resident. The other locations are open to the public, so they are accessible to anyone living in, doing business in or passing through Wentzville
3. School-Aged Educational Programs may use a mixture of lecture, printed material or electronic media geared toward middle school children. A "Storm Water Awareness to Action" program will be brought to at least one middle school. Eventually, the programs will be made available to all schools in the Wentzville MS4 area as well as other youth groups. Additional educational programs may be added as practicable such as a lecture list of available professionals that could talk with classrooms, schools or youth groups about storm water issues.
4. Storm Water Related Articles rely on printed material either through The *Vision* or local newspapers. The *Vision* is also available on the City's website. The *Vision* is distributed to all residents of the City of Wentzville and therefore has a 100% potential of reaching the target audience.
5. The Utility Bill Insert relies on printed material mailed with the utility bill. 100% of the City's households and 100% of the City's businesses receive a monthly utility bill.
6. Targeted Seminars and Training may include workshops, training sessions, professional organizations, web seminars, etc. This BMP allows for further education of specific industries and groups felt to be potential pollutant sources.

4.2.1.2.6 Identification of the person(s) responsible for overall management and implementation of the permittee's storm water public education and outreach program and, if different, the person responsible for each of the BMPs identified for this program.

The Storm Water Management Coordinator (SWMC) will be responsible for overseeing the Public Outreach and Education program with assistance for individual BMPs as follows:

1. Storm Water Management Web Page – The Web Page Administrator will be responsible for setting up and populating the web page with information provided by the SWMC. The Web Page Administrator will submit to the SWMC an annual report including:
    - The number of "hits" or downloads on the Storm Water Management Web Page
    - Dates of significant spikes in usage
    - Amount of information on the web page in some measurable unit
    - Online comment form results including an overall rating
2. Brochures/Fact Sheets – Public Works Administrative Staff will assist the SWMC in the production and distribution of brochures/fact sheets. Each location will be responsible for informing the SWMC of the need for more brochures/fact sheets and for submitting to the SWMC an annual report including
    - Information changed or added to the "Welcome to Wentzville" packet
    - Number of "Welcome to Wentzville" packets distributed
    - Number of brochures/fact sheets distributed to that location
    - Any observed spikes in interest in the brochures/fact sheets
3. School-Aged Educational Programs – The teachers or youth group leaders involved in the program will assist the SWMC in the implementation and evaluation of the education program, including filling out the teacher/leader survey. Lecturers will assist the SWMC in providing information on lectures performed including date, location, topic and brief description, audience and number of participants.
4. Storm Water Related Articles – The *Vision* Editor will assist the SWMC by publishing the articles provided by the SWMC and by submitting to the SWMC an annual report including:
    - Copies of The *Vision* including storm water related articles
    - Number of The *Vision* newsletters distributed
5. Utility Bill Insert – Utility Billing Operations will assist the SWMC by including the insert in one utility bill annually and by submitting to the SWMC an annual report including:
    - A copy of the utility bill insert
    - Number of utility bills mailed
6. Targeted Seminars and Training – The Public Works Director will work with the SWMC to determine and prioritize seminars and training needs. If the seminars and training are focused on a particular department or division of the City, the Department Director or Division Supervisor will be responsible for implementation of the seminar and submitting to the SWMC a report with the number in attendance, the agenda or course outline, and the results of comment cards filled out during the seminar or training.

4.2.1.2.7 How the permittee will evaluate the success of this minimum measure, including how the measurable goals for each of the BMPs were selected.

The measurable goals were selected to provide both quantitative and qualitative indication of the effectiveness of the Public Education and Outreach program and to make use of City employees, supporting partner organizations and volunteers.

1. Storm Water Management Web Page – The goal for this permit period is to fully populate and then maintain the Storm Water Management web page. The effectiveness of this BMP will be measured using the following parameters:
   - Implementation of the Storm Water Management web page.
   - Amount of information available on the Storm Water Management web page.
   - Number of "hits" and/or downloads on the web page.
   - Online comment form to receive feedback from the users of the web page regarding the information's and usefulness.

2. Brochures/Fact Sheets – The goal for this permit period is to continue the use of and include additional storm water specific materials in the "Welcome to Wentzville" packet. Also, brochures and fact sheets will be made available at the locations listed above. The effectiveness of this BMP will be measured using the following parameters:
   - Update "The Wentzville Residential Trash Guide"
   - Inclusion of additional storm water materials in the "Welcome to Wentzville" packet
   - Number of "Welcome to Wentzville" packets distributed
   - Number of locations containing brochures/fact sheets
   - Number of brochures/fact sheets distributed to each location
   - Qualitative observation of a decreased amounts of litter, debris and yard waste in storm sewers or on stream banks during informal staff field observations and Voluntary Water Quality Monitoring by Stream Teams as discussed in MCM II – Public Involvement and Participation

3. School-Aged Educational Programs – The goal for this permit period is to implement an educational program for at least one grade level made available to all schools in the Wentzville MS4 area. The effectiveness of this BMP will be measured using the following parameters:
   - Implementation of the school-aged educational program
   - Number of schools included in the school-aged education program
   - Number of school-aged children, educators and youth group leaders included in the school-aged educational program
   - Surveys to teachers and youth group leaders to receive feedback for the school-aged educational program

4. Storm Water Related Articles – The goal for this permit period is to continue writing articles for The *Vision* or local newspapers with a minimum of 4 articles per year. The effectiveness of this BMP will be measured using the following parameters:

- Number of storm water related articles per year in The *Vision* or local newspapers
- Number of The *Vision* newsletters distributed

5. Utility Bill Insert – The goal for this permit period is to develop the educational fact sheet to be included with the City's utility bill and to send it once per year. Every year the fact sheets will be reviewed and revised as needed. The effectiveness of this BMP will be measured using the following parameters:
   - Creation of the utility bill insert
   - Number of times per year the insert is included with the City's utility bill
   - Number of households and businesses receiving the City's utility bill insert

6. Targeted Seminars and Training – The goal for this permit period is to determine needs and priorities for seminar topics and investigate existing and/or regional seminars and training opportunities for those topics. Additional seminars and training will be developed as needed and as practicable. The effectiveness of this BMP will be measured using the following parameters:
   - Number of seminars and training sessions conducted, recommended or advertised by the City
   - Breadth of target audiences for the seminars and training sessions
   - Number of seminars and training sessions attended by City employees
   - Feedback from comment cards filled out after seminars and training sessions

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.

4.2.2.2 *Decision process.* The permittee shall document the decision process for the development of a storm water public involvement/participation program. The documentation shall provide rationale for how the overall public involvement/participation program was developed, and explain the individual BMPs, measurable goals, and responsible persons for the program. The rationale statement shall include the following information, at a minimum:

The Best Management Practices (BMPs) and measurable goals described in MCM II – Public Involvement and Participation have been selected based on water quality needs and applicability to the population of Wentzville, to take advantage of related events and resident interest, and to build on existing and developing partnerships. The decision process involved discussions with City departments/divisions, neighboring MS4s including the City of O'Fallon and St. Charles County, guidance from Missouri Department of Natural Resources and EPA websites, successes from the previous permit cycle, and available funding.

The City will seek assistance from local interest groups and volunteers to promote public involvement and participation in the SWMP. Also, the City will seek additional regional programs to promote storm water pollution prevention as a regional issue.

4.2.2.2.1 How the permittee has involved the public in the development and submittal of the application and storm water management program.

The City has welcomed public input in several key components of the SWMP, including a storm water utility, storm water design criteria, and natural stream protection ordinance. The public input has been solicited by posting the proposed ordinance and criteria, accepting comments and through public meetings.

4.2.2.2.2 The permittee's plan to actively involve the public in the development and implementation of their program.

The City's will actively involve the public in the development and implementation of their program with the following BMPs:

1. Storm Water Management Program Advisory Committee – The City of Wentzville will organize and implement a Storm Water Management Plan Advisory Committee to bring a variety of potentially affected stakeholder groups into the Storm Water Management Program's development and assessment process. The Committee will consist of five members with staff support. Four members will be appointed by the Mayor with the consent of the Board of Aldermen (BOA) and one BOA member will be selected by the Board. The Committee will meet semi-annually to discuss the effectiveness of the SWMP, propose changes, review and comment on the Annual Reports, review and comment on the new SWMP at the end of the permit period. The Committee will also help conduct the Bi-annual Storm Water Management Plan Public Meetings.

   Meeting agendas, minutes and review comments for the Annual Report and next SWMP will be kept on the Storm Water Management web page until the end of each year and then archived.

2. Wentzville Storm Water Action Group – Volunteers are an integral part of the SWMP for several reasons. Volunteering gives the community a sense of ownership in the program. From a practical standpoint, volunteers are needed to provide the manpower to make the SWMP effective.

   The Storm Water Management Coordinator will organize and implement a Wentzville Storm Water Action Group made up of applicable City departments and divisions that may include Streets, Parks Public Works, Engineering Water and Wastewater, among others. Members of the Storm Water Management Plan Advisory Committee will also be invited. Activities for the group may include organizing stream cleanups, organizing storm drain stenciling groups, organizing volunteer water quality monitoring and aiding the Public Works Department in the identification of polluters.

The Storm Water Action Group is intended to assist the City in the organization, recruitment and implementation of volunteer activities. This enables these programs to achieve a higher level of success than possible if solely implemented by the department's staff.

The following methods of soliciting input will be used to generate interest and recruit the public for involvement:

- Advertising on the City website, in newsletters, and at civic meetings
- Postings at municipal buildings, schools, and libraries
- Telephone and e-mail notifications
- Bi-annual Storm Water Management Public Meetings
- SWMP Survey/Questionnaire
- Annual Utility Bill Insert

The Wentzville Storm Water Action Group will meet at least annually to discuss recruitment strategies, organize activities and evaluate the effectiveness of activities.

3. Stream Teams – The City of Wentzville Public Works Department currently has one stream team. Stream Team #1062, for McCoy Creek is comprised of the wastewater and water departments. The Storm Water Management Coordinator, with assistance from the Citizen's Storm Water Action Group, will organize and implement additional Stream Teams with the public and other interested City departments, such as the Parks Department, through the Missouri Stream Team program.

   The activities anticipated to be conducted by the Stream Teams include:
   - Litter Pickups
   - Storm Drain Stenciling
   - Volunteer Water Quality Monitoring

   The Stream Teams will be encouraged to conduct monitoring activities close to the Wentzville municipal boundaries, both the upstream and downstream ends, to help the City evaluate the effectiveness of the overall Storm Water Management Program. The Stream Teams will also be asked to submit to the Storm Water Management Coordinator an annual report documenting dates and types of Stream Team activity, number of volunteers involved, amount of trash collected, number of inlets painted, results of water quality tests and observations of the overall condition of their reach of stream with such things as vegetative cover and condition, amount of invasive species, amount of yard waste dumping, etc.

   Reaches of stream cleaned, the date that each inlet is stenciled, and water quality monitoring data will be recorded by the Storm Water Management Coordinator, potentially in the City's GIS system as described in MCM III – Illicit Discharge Detection and Elimination. This will allow tracking of the program and enable easy use of the data.

4. Other Voluntary Litter Pickup Programs – In addition to Stream Teams, Wentzville organizes or participates in several other voluntary litter pickup programs including the Adopt-A-Street program, Make a Difference Day and Operation Clean Stream.

   The Adopt-A-Street program is organized through the Public Works Department and includes two cleanups per year, one of which could be the Make a Difference Day.

   Make a Difference Day is organized through the Public Works Department and is conducted each fall.

   Operation Clean Stream is organized through the Parks Department partnered with St. Charles County and is held annually. There are 5 to 15 cleanup sites along Peruque and McCoy Creeks.

5. Concerns Hotline – The City of Wentzville Public Works Department has a dedicated phone number for citizens to use for any concerns that they may have. The program includes a tracking component to categorize the concerns and to ensure concerns are addressed in a timely manner. Categories include "flood/storm water" and "storm sewer blocked," and can be adjusted to include additional categories as needed. The number is advertised on the City's web page, in the City's newsletter, the *Vision* and in the City's "Welcome to Wentzville" packet for new utility customers as a refrigerator magnet. The City will expand the advertisement of the phone number specifically for storm water concerns by listing it on the Storm Water Management web page on the City's website and in storm water articles and mailings.

6. Bi-annual Storm Water Management Program Public Meeting – The Storm Water Management Coordinator with assistance from the SWMP Advisory Committee, as described above, will conduct a bi-annual public meeting for the purpose of informing the public about the SWMP and receiving input on storm water concerns and the effectiveness of the SWMP. The meetings will comply with State and local public notice requirements and may be held in conjunction with a SWMP Advisory Committee Meeting or other public meeting to increase attendance.

7. Storm Water Management Program Survey/Questionnaire – The City of Wentzville completed the first Storm Water Master Plan in December 2001. As part of the preparation of this master plan, a survey/questionnaire was sent to residents of the City. The Storm Water Management Coordinator will conduct three additional surveys during this permit period, at the beginning, middle and end. The purpose of the SWMP Survey/Questionnaire is to gauge attitudes and concerns regarding storm water and water quality issues and to receive input on the SWMP.

   The surveys will be mailed to every resident, business owner and commercial property owner in the City of Wentzville and will also be available on the website. The results will be tallied and reviewed with the SWMP Advisory Committee.

4.2.2.2.3 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.

1. Storm Water Management Program Advisory Committee – The target audience is stakeholder groups potentially affected by the SWMP. Potential stakeholder groups include, but are not limited to: City government, commercial and industrial businesses, trade associations, environmental groups, homeowners associations and educational organizations.

2. Wentzville Storm Water Action Group – The target audience is the citizens of Wentzville, including: residents, educators, college students, civic leaders, business owners and commercial property owners.

3. Stream Teams – The target audience is groups of individuals interested in the quality of our streams. These may include neighborhood associations, scout troops, youth groups, educational institutions, environmental organizations, local businesses, City departments, etc.

4. Other Voluntary Litter Pickup Programs – The target audience is groups of volunteers including neighborhood associations, scout troops, youth groups, educational institutions, environmental organizations, local businesses, City departments, etc.

5. Concerns Hotline – The target audience is people living, working or driving through Wentzville.

6. Bi-annual Storm Water Management Program Public Meeting – The target audience is the citizens and other stakeholder of the SWMP, including residents, neighborhood associations, business owners, commercial property owners, trade organizations and environmental groups, among others.

7. Storm Water Management Program Survey/Questionnaire – The target audience is the residents, business owners and commercial property owners in the City of Wentzville.

4.2.2.2.4 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:

4.2.2.2.4.1 Citizen representatives on a storm water management panel

Citizen representatives on a storm water management panel is addressed with the following BMP as described above:

1. Storm Water Management Program Advisory Committee.

4.2.2.2.4.2 Public hearings

In addition to holding public hearings for key components of the SWMP as they are developed, the public will also have an opportunity to comment on the SWMP with the following BMP as described above:

6. Bi-annual SWMP Public Meeting

4.2.2.2.4.3 Working with citizen volunteers willing to educate others about the program

Working with citizen volunteers willing to educate others about the program is addressed with the following BMPs:

MCM II – Public Involvement and Participation

2. Citizen's Storm Water Action Group, as described above

MCM I – Public Outreach and Education

3. School-Aged Educational Programs, as described in 4.2.1, in that most programs will be administered by teachers or youth group leaders

MCM V – Post-Construction Storm Water Management

3. Storm Water Utility, as described in 4.2.5, in that the utility includes a credit program for non-residential entities if certain storm water education or volunteer activities are conducted by the entity.

4.2.2.2.4.4 Volunteer monitoring or stream/beach clean-up activities

Volunteer monitoring and stream clean-up activities are addressed in the following BMPs as described above:

3. Stream Teams
4. Other Voluntary Litter Pickup Programs

4.2.2.2.4.5 The person(s) responsible for the overall management and implementation of the permittee's storm water public involvement/participation program and, if different, the person responsible for each of the BMPs identified for this program.

The Storm Water Management Coordinator (SWMC) will be responsible for overseeing the Public Involvement and Participation program with assistance for individual BMPs as follows:

1. Storm Water Management Program Advisory Committee – The SWMP Advisory Committee will assist the SWMC by determining meeting times, setting agendas, and doing the business of the Committee including assistance with BMP #6, the Bi-annual SWMP Public Meeting (see below). The SWMP Advisory Committee Chair will submit to the SWMP an annual report including:
    - Meeting dates, attendance, agendas and minutes

- Comments regarding the SWMP and recommendations for the following permit year
- Review comments on the Annual Report and recommendations for the following permit year
- Review comments on the new SWMP developed at the end of the permit period

2. Wentzville Storm Water Action Group – The Wentzville Storm Water Action Group will assist the SWMC by determining meeting times, setting agendas, and doing the business of the Group including tracking Stream Team activities for BMP #3 (see below). The Wentzville Storm Water Action Group Members will submit to the SWMP an annual report including:
   - Number and dates of volunteer activities implemented
   - Number of volunteers participating in the activities implemented
3. Stream Teams – The Wentzville Storm Water Action Group will assist the SWMC by seeking interested parties and leaders for Stream Teams, alerting the Stream Teams of training opportunities, and by tracking Stream Team activities.
   – Individual Stream Teams will assist the SWMC by conducting Storm Drain Stenciling, Litter Cleanup and Water Quality Monitoring activities
   – The Wentzville Storm Water Action Group will submit to the SWMC an annual report including, as applicable:
   - Dates and types of Stream Team activity
   - Training completed with dates and number involved
   - Number of volunteers involved
   - Amount of trash collected
   - Number of inlets painted
   - Results of water quality tests
   - Observations of the overall condition of their reach of stream with such things as vegetative cover and condition, amount of invasive species, amount of yard waste dumping, etc.

   – The SWMC will also coordinate with the GIS Administrator information as applicable to incorporate into the GIS System such as the dates storm drains are stenciled.
4. Other Voluntary Litter Pickup Programs – The Public Works Office Manager will assist the SWMC by tracking and helping to organize as needed, the Adopt-A-Street program and Make a Difference Day activities. The Parks Department will assist the SWMC by tracking and helping to organize, as needed the Operation Clean Stream program. Each will submit to the SWMC an annual report including:
   - Dates of activities
   - Number of miles of street or stream cleaned
   - Number of participants
   - Tons of trash collected
5. Concerns Hotline – The Engineering Division will assist the SWMC by tracking storm water related complaints and responses and will submit to the SWMC an annual report including:
   - Number of storm water related concerns
   - Response time for initial callback

6. Bi-annual Storm Water Management Program Public Meeting – The SWMP Advisory Committee will assist the SWMC by informing stakeholder groups about the public meeting and helping to conduct the meeting. The SWMP Advisory Committee Chair will submit to the SWMC a report including:
   - Date of the SWMP Public Meetings
   - Agenda and Minutes of the SWMP Public Meetings
   - Number of attendees at the SWMP Public Meetings
   - Number of comments generated during the SWMP Public Meetings
7. Storm Water Management Program Survey/Questionnaire – Utility Billing Operations will assist the SWMC in mailing the SWMP Survey/Questionnaire and will submit to the SWMC the number of Survey/Questionnaires mailed. The Survey/Questionnaires will be mailed back to the SWMC for data compilation and analysis.

4.2.2.2.4.6 The method for evaluating the success of this minimum measure, including how the permittee selected the measurable goals for each of the BMPs.

The measurable goals were selected to provide both quantitative and qualitative indication of the effectiveness of the Public Involvement and Participation program and to make use of City employees, supporting partner organizations and volunteers.

1. Storm Water Management Program Advisory Committee – The goal for this permit period is to create the advisory committee and begin the quarterly meetings. The effectiveness of this BMP will be measured using the following parameters:
   - Creation of the SWMP Advisory Committee
   - Type of stakeholder groups represented
   - Number of meetings
   - Meeting agendas, minutes and review comments

2. Wentzville Storm Water Action Group – The goal of this permit period is to create the Wentzville Storm Water Action Group and have it assist the City in organizing and implementing the wide variety of volunteer activities described in the SWMP. The effectiveness of this BMP will be measured using the following parameters:
   - Formation of the Action Group
   - Number of volunteer activities implemented
   - Number of volunteers included in the activities implemented

3. Stream Teams – The goal of this permit period is to have a Stream Team adopt each of Wentzville's major streams. The major streams are: McCoy, Peruque, and Big Creek.

   Once the Stream Teams are in place the goal is for each Stream Team to accomplish 2 or more of the following:
   - Stencil storm drains leading to their reach of stream
   - Re-paint storm drains every 3 to 5 years
   - Conduct or participate in at least one litter pickup per year
   - Perform water quality monitoring twice a year

Additional Stream Teams may be organized solely for the purpose of storm drain stenciling in order to achieve additional coverage within the Wentzville MS4 area.

The effectiveness of this BMP will be measured using the following parameters:

- Number of Stream Teams
- Number of streams with Stream Teams in place
- Number of stream miles cleaned
- Number of litter pickups
- Tons of trash collected
- Number of volunteers involved in Stream Clean activities
- Number of storm water inlets stenciled
- Percentage of storm water inlets stenciled
- Average number of years before storm water inlets are re-painted
- Frequency of water quality monitoring events
- Amount of water quality data collected
- Ability to track and use water quality data

In addition to meeting the objectives of MCM II, the volunteer water quality monitoring will give the citizens of Wentzville and the City, a means of assessing the success of the entire SWMP. Water quality data can be used to track improvements in water quality due to the SWMP or pinpoint potential illicit discharges or other pollutant sources that require attention.

4. Other Voluntary Litter Pickup Programs – The goal of this permit period is to continue these programs and increase participation. The effectiveness of this BMP will be measured using the following parameters:
   - Number of Adopt-A-Street groups
   - Number of miles of streets cleaned with the Adopt-A-Street program
   - Number of miles of stream cleaned annually with the Operation Clean Stream program
   - Number of litter pickup activities
   - Number of volunteers involved in litter pickup activities
   - Tons of trash collected

5. Concerns Hotline – The goal of this permit is to continue receiving calls for storm water concerns via the City of Wentzville Public Works Department's Concern Program and improve response time for concerns to an initial call back within 24 hours after a concern is received to determine action required and priority. The effectiveness of this BMP will be measured using the following parameters:
   - Evaluate the effectiveness of the Concerns routing tree and update as necessary
   - Number of storm water related concerns
   - Response time for initial callback

6. Bi-annual Storm Water Management Program Public Meeting – The goal of this permit period is to implement the SWMP Public Meetings and to conduct a meeting

in 2008, 2010 and 2012. The effectiveness of this BMP will be measured using the following parameters:

- Number of SWMP Public Meetings
- Number of attendees at the SWMP Public Meetings
- Number of comments generated as a result of the SWMP Public Meetings

7. Storm Water Management Program Survey/Questionnaire – The goal of this permit period is to conduct three SWMP Survey/Questionnaires: in 2008, 2010 and 2012. The effectiveness of this BMP will be measured using the following parameters:
   - Date SWMP Survey/Questionnaires are sent
   - Number of quality responses
   - Use of tallied results

4.2.3 Illicit Discharge Detection and Elimination

4.2.3.1 *Permit requirement.* The permittee shall:

4.2.3.1.1 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;

The purpose of this MCM is to develop, implement and enforce a program to detect and eliminate illicit discharges into the City of Wentzville's municipal separate storm sewer systems (MS4s).

BMPs for MCM III

1. Storm Sewer Mapping - The City began mapping the storm sewer system 2000. The information was compiled from field surveys, as-built surveys and archived drawings from years 2000 and earlier. The City has incorporated the storm sewer data into the City's GIS system for ease of analysis and updating. The City is in the process of verifying the information and updating the GIS map with newer constructed systems. Also, the City will contract to have all outfalls into major streams field surveyed with GPS equipment for ease of incorporating into the GIS map.

   A GIS-based system was selected to make the map interactive for inspectors and other involved parties. Inspectors will verify outlet locations with field surveys and have access to a GPS unit to check and document storm structures.

   See Appendix C for a copy of the most current Storm Sewer Map.

2. Illicit Discharge Ordinance and Inspections - The City has existing ordinances addressing various forms of illicit discharges including:
   - Chapter 215: Nuisances
     - Article I. In General – which addresses such things as human excrement, animal or vegetable matter that has become putrid, offensive or unhealthy, filth, garbage, ashes, foul, nauseous or unclean water, etc.
     - Article III: Junked or Abandoned Motor Vehicles

- Chapter 240: Garbage and Rubbish
- Chapter 510: Streets, Sidewalks and other Public Places
    - Sections 510.020, 510.030 and 510.040 – which addresses depositing dirt, rocks, etc. from land disturbance activities or hauling
- Chapter 720: Wastewater Pretreatment – Article I – which addresses the use of the wastewater system for discharges from businesses such as restaurants, laundries, car washes, etc. and requires the use of oil separators and grease traps and/or sand interceptors.

See Appendix C for copies of the relevant sections of these ordinances.

Wentzville will develop a more comprehensive Illicit Discharge Detection and Elimination (IDDE) Ordinance by the beginning of the permit period (March, 2008). The IDDE Ordinance will directly prohibit illicit discharges into municipal separate storm sewers and will include enforcement measures, remediation recovery, and response procedures.

The City will conduct visual field screenings of at least 20% of all outfalls per year. In addition, potential illicit discharges may be reported through: Stream Teams, the volunteer water quality monitoring will include visual field screenings for illicit discharges; Operation Clean Stream; the Storm Water Management Web Page, the web page will include information on what an illicit discharge looks like and have an online reporting form; and the Concerns Hotline.

If the City is alerted to a potential illicit discharge, an inspector from the Engineering Division will investigate, as needed, to verify the existence of the illicit discharge. Methods available for the inspection program include visual inspection, smoke and dye tests and closed circuit television. Investigations will include visible evidence or chemical tests to indicate contamination. Once the illicit discharge is located, a detailed field survey with testing will take place, working upstream until the source of origin is located. During the inspection process, the City will seek permission and access private property to the extent allowable by law.

The City will work with the source of the illicit discharge to remedy the situation. The discharge shall be removed by the party responsible for the violation, at no expense to the City. The violator will submit the proposed removal process to the City for approval. The process will then be monitored by the City for proper methodology. Should the party responsible for the illicit discharge refuse to cooperate; the penalty provisions included in the IDDE Ordinance will be enforced.

Should the source of a violation not be identified, the City will remediate and curtail the violation to the extent practicable, taking into account cost, manpower requirements and the availability of state and federal funding.

3. Demolition Permitting - The ongoing demolition permitting process ensures that demolition waste and special waste resulting from the destruction/removal of any

institutional, commercial, public, industrial or residential structure is properly handled, transported, and disposed.

4. Yard Waste Collection and Recycling Collection Programs for Household Wastes - To divert the potential for promiscuous litter and improper yard waste disposal, the City of Wentzville has contracted with a licensed solid waste hauler for both yard waste pickup and curbside recycling.

   J. Hunt Hauling picks up and composts yard waste from residents desiring those services, giving them a means of proper disposal of yard wastes. Residents are able to subscribe to the service over the phone or on the website and they are charged a fee that appears on the normal City utility bill.

   J. Hunt Hauling also does curbside pick up of particular household wastes for recycling. The recycling service is mandatory, meaning the residents are charged regardless of whether they use the service or not. Items collected include: cardboard boxes, boxboard, newspaper, mixed paper, glass jars/bottles, aluminum and steel cans and #1 and #2 plastic containers.

   Wentzville also conducts two free special trash pickups per year in the spring and fall. Households can put out large bulky items, electronic items and construction/remodeling waste at these pickups.

   Additional household waste recycling and collection, including residential hazardous chemical collection, is available through St. Charles County. The St. Charles County Division of Environmental Services operates two drop-off recycling centers for all St. Charles County residents, including residents of the City of Wentzville. Recycle Works West is within the City of Wentzville, and accepts a variety of household wastes such as: antifreeze, transmission and hydraulic fluid, motor oil, batteries, appliances, computers and peripherals, microwaves, printer cartridges, clothing, electronic equipment, among others. Recycle Works Central also accepts hazardous household chemicals such as paints, solvents, insecticides, etc. during the months of April through October. The chemicals collected are recycled, used to produce energy, or packaged for safe disposal in a hazardous waste landfill.

   Residents are referred to the yard waste, recycling and St. Charles County programs via the "Wentzville Residential Trash Guide" included in the "Welcome to Wentzville" packet and information is also found on the City website. Advertising for the programs will be increased by including them more prominently on the City website and including the information in the Utility Bill Insert as described in MCM I – Public Outreach and Education.

   See Appendix C for a copy of the "Wentzville Residential Trash Guide" and information about the St. Charles County Recycle Works program.

5. Municipal Waste Trash Collection Requirements - The City of Wentzville contracts with J. Hunt Hauling to pick up trash in the Wentzville area. J. Hunt Hauling is a licensed solid waste hauler. The contract stipulates that the City may assess an administrative charge, and deduct or withhold money due, for such things as: failure to resolve a complaint within a given time frame; failure to clean up spillage or litter; failure to maintain equipment in a clean, safe, and sanitary manner; failure to have a vehicle operator properly licensed; failure to submit required documents to the City; etc. See Appendix C for a copy of relevant sections of the current solid waste contract with J. Hunt Hauling.

6. Voluntary Litter Pickup Programs - Stream Teams, the Adopt-A-Street program, Make a Difference Day and Operation Clean Stream programs as described in MCM II – Public Involvement and Participation are also applicable to MCM III in that they directly remove illicit discharges in the form of floatables and debris from the Wentzville streets, neighborhoods and streams. These activities also provide opportunities for volunteers to be in areas where they may detect and report other illicit discharges.

7. Private Sewerage Conversion - The City of Wentzville does not allow new septic or private package treatment plants within the municipal boundaries. In addition, as an area is incorporated into the City limits, that area is converted to the public sanitary system where practicable.

4.2.3.1.2 Develop or submit, if not already completed, a storm sewer system map, showing the location of all outlets and the names and location of all waters of the State that receive discharges from those outlets;

See above for a description of the Wentzville Storm Sewer Mapping BMP. A copy of the most current map is in Appendix C.

The goal for this permit period is to continue to verify and update the City's storm sewer GIS map with sewers constructed between 2000 and 2007 and to complete the GPS survey of all storm outfalls into Wentzville's major streams.

4.2.3.1.3 To the extent allowable under State, or local law, effectively prohibit, through ordinance, or other regulatory mechanism, non-storm water discharges into the permittee's storm sewer system and implement appropriate enforcement procedures and actions;

Prohibiting non-storm water discharges into the storm sewer system and implement enforcement procedures and actions is addressed with the following BMPs, as described above:

2. Illicit Discharge Ordinance and Inspections
3. Demolition Permitting

Additional applicable ordinances can be found in MCM IV – Construction Site Storm Water Runoff Control with the following BMP, as described in 4.2.4

1. Grading and Erosion/Sediment Control Plan Review

4.2.3.1.4 Develop and implement a plan to detect and address non-storm water discharges, including illegal dumping, to the permittee's system;

Illicit discharge detection, including illegal dumping, will be addressed through a variety of BMPs including:

2. Illicit Discharge Ordinance and Inspections, as described above, The City will conduct visual field screenings of at least 20% of all outfalls per year.

In addition, potential illicit discharges may be reported through:
MCM II – Public Involvement and Participation, as described in 4.2.2.

3. Stream Teams
4. Other Voluntary Litter Pickup Programs
5. Concerns Hotline

MCM I – Public Outreach and Education, as described in 4.2.1.

1. Storm Water Management Web Page – The web page will include information on what an illicit discharge looks like and have an online reporting form

When the City is alerted to a potential illicit discharge, the City will address the complaint with the following BMP:

2. Illicit Discharge Ordinance and Inspections, as described above.

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

MCM I – Public Outreach and Education, as described in 4.2.1, will inform businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste through the following BMPs:

1. Storm Water Management Web Page
2. Brochures/Fact Sheets
3. School-Aged Educational Programs
4. Storm Water Related Articles
5. Utility Bill Insert
6. Targeted Seminars and Training

In addition,

3. Demolition Permitting, as described above, will include educational material regarding the hazards of improper disposal of demolition spoils

Informing public employees of hazards associated with illegal discharges and improper disposal of waste is addressed with MCM VI – Pollution Prevention and Good Housekeeping, using the following BMP, as described in 4.2.6:

1. Operations and Maintenance (O&M) Program and Training

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

The listed non-storm water discharges are not significant contributors of pollutants.

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

Currently, the City of Wentzville has not determined any such occasional incidental non-storm water discharges to be of concern. If any individual non-storm water discharge is determined to be contributing significant amounts of pollutants to the City's MS4, the City will address that discharge using the following BMP, as described above:

2. Illicit Discharge Ordinance and Inspections

4.2.3.2 *Decision process.* The permittee shall document the decision process for the development of a storm water illicit discharge detection and elimination program. The permittee shall provide rationale for both the overall illicit discharge detection and elimination program and the individual BMPs, measurable goals, and responsible persons for the permittee's program. The rationale statement shall include the following information, at a minimum:

4.2.3.2.1 How the permittee will develop a storm sewer map showing the location of all outlets and the names and location of all receiving waters. The permittee shall describe the sources of information used for the maps, and how the permittee plans to verify the outlet locations with field surveys. If already completed, the permittee shall describe how the map was developed and how the map will be regularly updated.

1. Storm Sewer Mapping - The City began mapping the storm sewer system 2000. The information was compiled from field surveys, as-built surveys and archived drawings

from years 2000 and earlier. The City has incorporated the storm sewer data into the City's GIS system for ease of analysis and updating. The City is in the process of verifying the information and updating the GIS map with newer constructed systems. Also, the City will contract to have all outfalls into major streams field surveyed with GPS equipment for ease of incorporating into the GIS map.

A GIS-based system was selected to make the map interactive for inspectors and other involved parties. Inspectors will verify outlet locations with field surveys and have access to a GPS unit to check and document storm structures.

See Appendix C for a copy of the most current Storm Sewer Map.

4.2.3.2.2 The mechanism (ordinance or other regulatory mechanism) the permittee will use to effectively prohibit illicit discharges into the MS4 and why the permittee chose that mechanism. If the permittee needs to develop this mechanism, describe the permittee's plan and a schedule to do so. If the permittee's ordinance or regulatory mechanism is already developed, include a copy of the relevant sections with the permittee's program.

Prohibiting non-storm water discharges into the storm sewer system and implement enforcement procedures and actions is addressed with the following BMPs, as described in 4.2.3.1.1:

2. Illicit Discharge Ordinance and Inspections
3. Demolition Permitting

Additional applicable ordinances can be found in MCM IV – Construction Site Storm Water Runoff Control with the following BMP, as described in 4.2.4

6. Grading and Erosion/Sediment Control Plan Review

The BMPs have been selected based on national and state regulations along with discussions with City departments/divisions, neighboring MS4s including the City of O'Fallon and St. Charles County, guidance from Missouri Department of Natural Resources and EPA websites, successes from the previous permit cycle, and available funding.

See Appendix C for relevant sections of the ordinances.

4.2.3.2.3 The permittee's plan to ensure through appropriate enforcement procedures and actions that the permittee's illicit discharge ordinance (or other regulatory mechanism) is implemented.

The City's plan to ensure through appropriate enforcement procedures and actions that the illicit discharge ordinance (or other regulatory mechanism) is implemented is addressed with the following BMPs, as described in 4.2.3.1.1:

2. Illicit Discharge Ordinance and Inspections

Additional enforcement is provided through various methods for the public to inform the City about potential illicit discharges using the following BMPs from MCM II, as described in 4.2.2:

3. Stream Teams
4. Other Voluntary Litter Pickup Programs
5. Concerns Hotline
6. Bi-annual Storm Water Management Program Public Meeting

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

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

Priority areas will be located based on visual field screening as described in 4.2.3.1.1 under:

2. Illicit Discharge Ordinance and Inspections through visual field screenings of storm sewer outfalls

Additional information will also be available to locate priority areas through MCM II BMPs, as described in 4.2.2, including:

3. Stream Teams through voluntary water quality monitoring or visual location of potential problems during litter pickup activities
4. Other Voluntary Litter Pickup Programs through visual location of potential problems during litter pickup activities
5. Concerns Hotline may be used by the public to inform the City of potential illicit discharges

In addition, potential illicit discharges may be reported through:
MCM I – Public Outreach and Education, as described in 4.2.1.

1. Storm Water Management Web Page – The web page will include information on what an illicit discharge looks like and have an online reporting form

Once an illicit discharge is located, that area will become a priority area for additional screening by the City

4.2.3.2.4.2 Procedures for tracing the source of an illicit discharge, including the specific techniques the permittee will use to detect the location of the source.

When the City is alerted to a potential illicit discharge, the City will trace the source to the extents practicable through the following BMP:

2. Illicit Discharge Ordinance and Inspections – If the City is alerted to a potential illicit discharge, an inspector from the Engineering Division will investigate, as needed, to verify the existence of the illicit discharge. Methods available for the inspection program include visual inspection, smoke and dye tests and closed circuit television. Investigations will include visible evidence or chemical tests to indicate contamination. Once the illicit discharge is located, a detailed field survey with testing will take place, working upstream until the source of origin is located. During the inspection process, the City will seek permission and access private property to the extent allowable by law.

4.2.3.2.4.3 Procedures for removing the source of the illicit discharge.

Procedures for removing the source of an illicit discharge are as described in the following BMP:

2. Illicit Discharge Ordinance and Inspections – The City will work with the source of the illicit discharge to remedy the situation. The discharge shall be removed by the party responsible for the violation, at no expense to the City. The violator will submit the proposed removal process to the City for approval. The process will then be monitored by the City for proper methodology. Should the party responsible for the illicit discharge refuse to cooperate; the penalty provisions included in the IDDE Ordinance will be enforced.

   Should the source of a violation not be identified, the City will remediate and curtail the violation to the extent practicable, taking into account cost, manpower requirements and the availability of state and federal funding.

In addition, potential sources for illicit discharges are routinely removed through the following BMP:

7. Private Sewerage Conversion – The City of Wentzville does not allow new septic or private package treatment plants within the municipal boundaries. In addition, as an area is incorporated into the City limits, that area is converted to the public sanitary system where practicable.

4.2.3.2.4.4 Procedures for program evaluation and assessment.

1. Storm Sewer Mapping – The goal for this permit period is to continue to verify and update the City's storm sewer GIS map with sewers constructed between 2000 and 2007. Also, the City will contract to have all outfalls field surveyed with GPS equipment for ease of incorporating into the GIS map. Additional information may be added to track the storm drains that have been stenciled as part of the Stream Team BMP described in MCM II – Public Involvement and Participation.

   The effectiveness of this BMP will be measured using the following parameters:
   - Number of storm structures added to the GIS map
   - Number of storm sewer outfalls identified with GPS survey
   - Additional information added as practicable

- How the storm sewer map is being used

2. Illicit Discharge Ordinance and Inspections – The goal of this permit period is to continue the enforcement of the IDDE Ordinance. The effectiveness of this BMP will be measured using the following parameters:
   - IDDE Ordinance submitted for approval by March, 2008
   - Percentage of outfalls visually inspected
   - Number of illicit discharge alerts
   - Number of investigations performed
   - Number of illicit discharges located
   - Enforcement and remediation actions taken under the ordinance

3. Demolition Permitting – The goal for this permit period is to continue the demolition permitting program and inform those performing demolition of proper waste handling, transportation and disposal procedures as well as local recycling opportunities. The effectiveness of this BMP will be measured using the following parameters:
   - Number of demolition permits
   - Inclusion with the permits of educational material regarding proper waste handling, transportation and disposal procedures as well as local recycling opportunities

4. Yard Waste Collection and Recycling Collection Programs for Household Wastes – The goal of this permit period is to continue these waste collection programs and to increase awareness of the programs through more prominent advertisement on the City website and in the annual utility bill insert. The effectiveness of this BMP will be measured using the following parameters:
   - Number of households registered for yard waste service
   - Tons of yard waste material collected
   - Tons of household waste recycled through the curbside recycling program
   - Percentage of total household waste collected that is recycled through the curbside recycling program
   - Number of tons of household waste collected by St. Charles County
   - Ease of finding information about the waste collection programs on the City of Wentzville website
   - Inclusion of information about the waste collection programs in the annual utility bill insert
   - Qualitative observation of a reduction in litter in storm sewers or on stream banks during informal staff field observations, Stream Team activities and Operation Clean Stream activities as discussed in MCM II – Public Involvement and Participation

5. Municipal Waste Trash Collection Requirements – The goal for this permit period is to continue the use of a licensed solid waste hauler for municipal waste collection. The effectiveness of this BMP will be measured using the following parameters:
   - Number of tons of solid waste collected

- Number of complaints
- Number of administrative charges assessed
- Dollar amount of administrative charges assessed

6. Volunteer Litter Pickup Programs – The goal of this permit period is to continue these programs and increase participation. The effectiveness of this BMP will be measured using the following parameters:
   - Number of Adopt-A-Street groups
   - Number of miles of streets cleaned with the Adopt-A-Street program
   - Number of miles of stream cleaned annually with the Operation Clean Stream program and Stream Team activities
   - Number of litter pickup activities
   - Number of volunteers involved in litter pickup activities
   - Tons of trash collected

7. Private Sewerage Conversion – The goal of this permit period is to continue the process of private sewerage conversion within the City limits. The effectiveness of this BMP will be measured using the following parameters:
   - Number of existing private sewerage systems taken offline

4.2.3.2.5 How the permittee plans 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.

MCM I – Public Outreach and Education, as described in 4.2.1, will inform businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste through the following BMPs:

1. Storm Water Management Web Page
2. Brochures/Fact Sheets
3. School-Aged Educational Programs
4. Storm Water Related Articles
5. Utility Bill Insert
6. Targeted Seminars and Training

In addition,

3. Demolition Permitting, as described above, will include educational material regarding the hazards of improper disposal of demolition spoils

Informing public employees of hazards associated with illegal discharges and improper disposal of waste is addressed with MCM VI – Pollution Prevention and Good Housekeeping, using the following BMP, as described in 4.2.6:

1. Operations and Maintenance (O&M) Program and Training

4.2.3.2.6 Identification of the person(s) responsible for overall management and implementation of the permittee's storm water illicit discharge detection and elimination

program and, if different, the person responsible for each of the BMPs identified for this program.

The Public Works Director and Storm Water Management Coordinator (SWMC) will be responsible for overseeing and reporting on the Illicit Discharge Detection and Elimination program with assistance for individual BMPs as follows:

1. Storm Sewer Mapping – The GIS Administrator and Engineering Division will be responsible for collection of data and adding it to the storm sewer map. The GIS Administrator will submit to the SWMC an annual report including:
    - A copy of the current storm sewer map
    - A list of data available for storm sewer pipes and structures
    - Number of storm structures added to the map
    - Number storm sewer outfalls identified with GPS survey
2. Illicit Discharge Ordinance and Inspections – The Engineering Division will assist the Public Works Director by conducting inspections and performing enforcement duties. The Engineering Division will submit to the SWMC an annual report including:
    - Percentage of outfalls visually inspected
    - Number of illicit discharge alerts
    - Number of investigations performed
    - Number of illicit discharges located
    - Number of illicit discharges eliminated
    - Enforcement actions taken under the ordinance
3. Demolition Permitting – The Engineering Division will assist the Public Works Director in reviewing and approving Demolition Permits. The Engineering Division will submit to the SWMC an annual report including:
    - Number of demolition permits approved
    - Copies of educational material included with the permit regarding proper waste handling, transportation and disposal procedures as well as local recycling opportunities
4. Yard Waste Collection and Recycling Collection Programs for Household Wastes – The Commercial Solid Waste Contractor will track the curbside yard waste and recycling collection and will submit to the Public Works Director who will submit to the SWMC an annual report including:
    - Number of residents registered for yard waste service
    - Tons of yard waste material collected
    - Number of tons of household waste recycled through the curbside recycling program
    - Percentage of total household waste collected that is recycled
    - What is done with the yard waste and recycled material collected

    St. Charles County administers the drop-off recycling and household chemical collection on behalf of the City of Wentzville. The SWMC will request information from the County for the Annual Report, including:
    - Number of tons and types of household waste collected by St. Charles County
    - What is done with the materials collected

5. Municipal Waste Trash Collection Requirements – The Commercial Solid Waste Contractor will be responsible for meeting all local, state and federal requirements for waste collection. The Public Works Director will submit to the SWMC an annual report including:
    - Number of tons of solid waste collected
    - Number of complaints received regarding the solid waste contractor
    - Number of administrative charges assessed against the contractor
    - Dollar amount of administrative charges assessed
    - Status of the trash collection contract
6. Volunteer Litter Pickup Programs – See MCM II for responsible party for Stream Teams, the Adopt-A-Street program, Make a Difference Day and Operation Clean Stream programs
7. Private Sewerage Conversion – The Engineering Division will review and approve all private sewerage conversions and will submit to the SWMC an annual report including:
    - Number of existing private sewerage systems taken offline

4.2.3.2.7 How the permittee will evaluate the success of this minimum measure, including how they selected the measurable goals for each of the BMPs.

Measurable goals are detailed above in 4.2.3.2.4.4

The measurable goals were selected to provide both quantitative and qualitative indication of the effectiveness of the Illicit Discharge Detection and Elimination program and to make use of City employees, supporting partner organizations and volunteers.

4.2.4 Construction Site Storm Water Runoff Control

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

The target audience for MCM IV – Construction Site Storm Water Runoff Control includes developers, contractors, and the City of Wentzville. The Wentzville area is experiencing extensive growth. Construction site pollutants are a significant contributor to storm water runoff pollution.

The main targeted pollutant is sediment, but construction debris, construction chemicals and concrete truck washout are targeted as well.

BMPs for MCM IV

1. Grading and Erosion/Sediment Control Plan Review – Chapter 520 of the Wentzville Municipal Building Code, entitled Erosion and Sediment Control, requires that *any*

person, firm, corporation, or business proposing to develop land within the City of Wentzville shall apply to the designated official for approval of required erosion control plans and issuance of a grading permit. See Appendix C for a copy of the ordinance. Erosion and sediment control plans and proposed phasing of the site development are required for grading land areas 20,000 square feet or larger. Provisions are required to accommodate increased runoff caused by changed soil and surface conditions during and after grading activities. Requiring the use of erosion and sediment Best Management Practices (BMPs) will prevent runoff from the site into storm water systems and natural watercourses.

If required to have a Land Disturbance Permit issued by the Missouri Department of Natural Resources, the permit number shall be required prior to issuance of a grading permit.

City engineers review all plans to determine the site conditions before, during and after construction. This includes the phasing of construction, the use of BMPs to protect the site, and a listing of the responsible parties involved with the construction site. Responsible parties are required to post a Performance Guarantee with the City to ensure that all BMPs are working and the site is protected against sediment runoff.

Grading operations 20,000 square feet or larger conducted by the City of Wentzville will also include an erosion and sediment control plan, will go through the review process and will meet all local, state and federal requirements.

2. Erosion and Sediment Control Design Manual – Current requirements and design guidance for erosion and sediment control plans can be found in Chapter 520 of the Wentzville Municipal Building Code entitled Erosion and Sediment Control and its appendices. The Engineering Division will create a sediment and erosion control design manual to be incorporated into the Engineering Design Criteria manual. The City will review existing local design manuals to determine applicability to the City of Wentzville. The City will adopt the most applicable manual with revisions as appropriate.

   In addition to erosion and sediment control requirements and design guidance for BMPs, the design manual will include: contractor requirements during construction such as inspection and maintenance procedures, record keeping, etc.; proper handling requirements for construction waste such as discarded building materials, concrete truck washouts, chemicals, litter, and sanitary waste; and disposal requirements of dredged material, accumulated sediments, floatables and other debris from temporary silt basins.

   Municipal construction projects will also be required to follow the requirements in the Erosion and Sediment Control Design Manual.
3. Erosion and Sediment Control Inspection and Training – The City currently has three trained erosion and sediment control inspectors on staff. Each of the inspectors has received training through an Erosion Control Class and additional training on-site

from staff Civil Engineers and experienced inspectors. Additional training will be conducted for new inspectors and periodic refresher courses as needed.

Inspections are usually conducted after major rain events or on a complaint-driven basis. General inspections of sediment/erosion control measures are routinely performed during site inspections for other infrastructure. Contractors shall be required to keep on site and make available upon request the following items:

- A copy of the grading permit and the most current erosion and sediment control plan
- Inspection and maintenance logs from routine and heavy rain event inspections
- A copy of the Land Disturbance Permit issued by the Missouri Department of Natural Resources, if required

The Engineering Division's measures for compliance include inspections, notice to correct, stop work orders, fines, and use of a Performance Guarantee. Inspections provide enforcement of the erosion and sediment control BMPs employed on each site. If the BMPs are not being followed or are not working as intended, a notice to correct is issued. This Notice to Correct requires a 30-day compliance period. If compliance is not met within the allocated time, a Stop Work Order is issued. At this point fines can be issued to the violator. Fines not to exceed five hundred dollars ($500.00) per violation per day could be levied against the violator. If the fines are ignored and compliance is not met, the monies provided by the performance guarantee will be used to correct the violation and return the site to compliance.

4. Erosion and Sediment Control Developer/Engineer/Contractor Training – This BMP is in coordination with the Targeted Seminars and Training BMP as described in MCM I – Public Outreach and Education. The Public Works Department conducts two Builder's Meetings to discuss builder concerns, new regulations, building code changes, etc. One meeting will be used as a training vehicle on erosion and sediment control topics such as: design, installation, inspection and maintenance.

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

The City's ordinance to require erosion and sediment controls, as well as sanctions to ensure compliance is addressed with the following BMP, as described above:

1. Grading and Erosion/Sediment Control Plan Review – A copy of Chapter 520 can be found in Appendix C

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

Requirements for construction site operators to implement appropriate erosion and sediment control best management practices are addressed with the following BMPs, as described above:

1. Grading and Erosion/Sediment Control Plan Review
2. Sediment and Erosion Control Design Manual
3. Sediment and Erosion Control Inspection and Training

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

Requirements for construction site operators to control waste at the construction site that may cause adverse impacts to water quality are addressed with the following BMPs:
MCM III – Illicit Discharge Detection and Elimination
3. Demolition Permitting, as described in 4.2.3, which also includes educational material regarding proper disposal of demolition wastes

MCM IV, as described above:
1. Grading and Erosion/Sediment Control Plan Review
2. Sediment and Erosion Control Design Manual
3. Sediment and Erosion Control Inspection and Training

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

Site plan review is addressed with following BMPs, as described above:
1. Grading and Erosion/Sediment Control Plan Review
2. Sediment and Erosion Control Design Manual

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

Procedures for receipt and consideration of information submitted by the public are addressed via MCM II – Public Involvement and Participation, as described in 4.2.2, with the following BMPs:
3. Concerns Hotline
4. Bi-annual Storm Water Management Program Public Meeting
5. Storm Water Management Program Survey/Questionnaire

Another procedure for receipt of information submitted by the public is addressed in MCM I – Public Public Outreach and Education, as described in 4.2.1, with the following BMP:
1. Storm Water Management Web Page through the online reporting form

4.2.4.1.6 Procedures for site inspection and enforcement of control measures.

Procedures for site inspection and enforcement of control measures are addressed with the following BMP, as described above:
3. Sediment and Erosion Control Inspection and Training

4.2.4.2 *Decision process.* The permittee shall document the permittee's decision process for the development of a construction site storm water control program. The permittee's rationale statement shall address both the permittee's overall construction site storm water control program and the individual BMPs, measurable goals, and responsible persons for the permittee's program. The rationale statement shall include the following information, at a minimum:

4.2.4.2.1 The mechanism (such as an ordinance or other regulatory mechanism) the permittee will use to require erosion and sediment controls at construction sites and why they chose that mechanism. If the permittee needs to develop this mechanism, the permittee shall describe the plan and schedule 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 storm water management program description.

The mechanisms that the City uses to require erosion and sediment controls at construction sites is addressed with the following BMPs, as described above:

1. Grading and Erosion/Sediment Control Plan Review – A copy of Chapter 520: Erosion and Sediment Control can be found in Appendix C.
2. Sediment and Erosion Control Design Manual – The Engineering Division will create a sediment and erosion control design manual to be incorporated into the Engineering Design Criteria manual. The City will review existing local design manuals to determine applicability to the City of Wentzville. The City will adopt the most applicable manual with revisions as appropriate.

The decision process to use these mechanisms involved existing programs in place for plan review, discussions with City departments/divisions, discussions with neighboring MS4s including the City of O'Fallon and St. Charles County, and available funding.

4.2.4.2.2 The permittee's plan to ensure compliance with the permittee's erosion and sediment control regulatory mechanism, including the sanctions and enforcement mechanisms they will use to ensure compliance. The permittee shall describe the procedures for when the permittee will use certain sanctions. Possible sanctions include nonmonetary penalties (such a stop work orders), fines, bonding requirements, and/or permit denials for non-compliance.

The City's ensures compliance with the erosion and sediment control regulatory mechanisms, is addressed with the following BMP, as described above:

3. Sediment and Erosion Control Inspection and Training – Inspections are usually conducted after major rain events or on a complaint-driven basis. General inspections of sediment/erosion control measures are routinely performed during site inspections for other infrastructure. Contractors shall be required to keep on site and make available upon request the following items:
    - A copy of the grading permit and the most current erosion and sediment control plan
    - Inspection and maintenance logs from routine and heavy rain event inspections

- A copy of the Land Disturbance Permit issued by the Missouri Department of Natural Resources, if required

The Engineering Division's measures for compliance include inspections, notice to correct, stop work orders, fines, and use of a Performance Guarantee. Inspections provide enforcement of the erosion and sediment control BMPs employed on each site. If the BMPs are not being followed or are not working as intended, a notice to correct is issued. This Notice to Correct requires a 30-day compliance period. If compliance is not met within the allocated time, a Stop Work Order is issued. At this point fines can be issued to the violator. Fines not to exceed five hundred dollars ($500.00) per violation per day could be levied against the violator. If the fines are ignored and compliance is not met, the monies provided by the performance guarantee will be used to correct the violation and return the site to compliance.

4.2.4.2.3 The permittee's requirements for construction site operators to implement appropriate erosion and sediment control BMPs and control waste at construction sites that may cause adverse impacts to water quality. Such waste includes discarded building materials, concrete truck washouts, chemicals, litter, and sanitary waste.

Requirements for construction site operators to control waste at the construction site that may cause adverse impacts to water quality are addressed with the following BMPs:
MCM III – Illicit Discharge Detection and Elimination
3. Demolition Permitting, as described in 4.2.3, which also includes educational material regarding proper disposal of demolition wastes

MCM IV, as described above:
1. Grading and Erosion/Sediment Control Plan Review
2. Sediment and Erosion Control Design Manual
3. Sediment and Erosion Control Inspection and Training

4.2.4.2.4 The permittee's procedures for considering the potential water quality impacts of pre-construction site plans. The permittee shall describe the procedures and the rationale for how the permittee will identify certain sites for site plan review, if all plans are not reviewed. The permittee shall describe the estimated number and percentage of sites that will have pre-construction site plans reviewed.

The City reviews all site plans disturbing 20,000 square feet or more as explained above in the following BMP:
1. Grading and Erosion/Sediment Control Plan Review

4.2.4.2.5 The permittee's procedures for receipt and consideration of information submitted by the public. Consider coordinating this requirement with the permittee's public education program.

Procedures for receipt and consideration of information submitted by the public are addressed via MCM II – Public Involvement and Participation, as described in 4.2.2, with the following BMPs:

5. Concerns Hotline
6. Bi-annual Storm Water Management Program Public Meeting
7. Storm Water Management Program Survey/Questionnaire

Another procedure for receipt of information submitted by the public is addressed in MCM I – Public Public Outreach and Education, as described in 4.2.1, with the following BMP:

1. Storm Water Management Web Page through the online reporting form

4.2.4.2.6 The permittee's procedures for site inspection and enforcement of control measures, including how the permittee will prioritize sites for inspection.

As described in above, the City's procedures for site inspection and enforcement of control measures, including how the City will prioritize sites for inspection is addressed with the following BMP:

3. Sediment and Erosion Control Inspection and Training – Inspections are usually conducted after major rain events or on a complaint-driven basis. General inspections of sediment/erosion control measures are routinely performed during site inspections for other infrastructure.

4.2.4.2.7 Identification of the person(s) responsible for overall management and implementation of the permittee's construction site storm water control program and, if different, the person responsible for each of the BMPs identified for this program.

The City Engineer and Storm Water Management Coordinator (SWMC) will be responsible for overseeing and reporting on the Construction Site Storm Water Runoff Control program with assistance for individual BMPs as follows:

1. Grading and Erosion/Sediment Control Plan Review – The Review Engineer assigned to the project is responsible for the Erosion/Sediment Control Plan Review. The Engineering Division will submit to the SWMC an annual report including:
   - Number of site plans submitted for review
   - Average number of submittal/review cycles prior to site plan approval
   - Feedback from inspectors as to improvements in erosion and sediment control measures on construction sites
   - Number of sediment related complaints via the Concerns Hotline
2. Sediment and Erosion Control Design Manual – The Engineering Division is responsible for the review of existing manuals and development of the Design Manual for the City. The Engineering Division will submit to the SWMC an annual report including:
   - Qualitative feedback from inspectors as to improvements in erosion and sediment control measures on construction sites
   - Feedback from the development community via regular meetings with the local Home Builder's Association and semi-annual builder's meeting
   - Qualitative observation of water quality during outfall visual field screenings
   - Number of sediment related complaints via the Concerns Hotline

3. Sediment and Erosion Control Inspection and Training – The Engineering Technician assigned to the project is responsible for the inspection of Erosion Control measures. The Engineering Division is responsible for training the inspectors. The Engineering Division will submit to the SWMC an annual report including:
   - Number of inspectors employed by the City
   - Number of inspections performed
   - Number and frequency of formal inspector training sessions
   - Average number of inspections per acre of land disturbance activity
   - Number of violation notifications and enforcement procedures used
   - Qualitative feedback from inspectors
   - Qualitative observation of water quality during outfall visual field screenings
   - Number of sediment related complaints via the Concerns Hotline
4. Sediment and Erosion Control Developer/Engineer/Contractor Training – The Public Works Department is responsible implementing training in conjunction with the Builder's Meetings. The Public Works Department will submit to the SWMC an annual report including:
   - Number of training sessions
   - Variety of topics covered during training sessions
   - Feedback from training participants
   - Qualitative feedback from inspectors as to improvements in erosion and sediment control measures on construction sites
   - Number of sediment related complaints via the Concerns Hotline

4.2.4.2.8 Describe how will the permittee evaluate the success of this minimum measure, including how the permittee selected the measurable goals for each of the BMPs.

The measurable goals were selected to provide both quantitative and qualitative indication of the effectiveness of the Construction Site Storm Water Runoff Control program and to make use of City employees and existing procedures.

1. Grading and Erosion/Sediment Control Plan Review – The goal for this permit period is to continue the site plan review process including the review of erosion and sediment control plans. The effectiveness of this BMP will be measured using the following parameters:
   - Number of site plans submitted for review
   - Average number of submittal/review cycles prior to site plan approval
   - Feedback from inspectors as to improvements in erosion and sediment control measures on construction sites
   - Number of sediment related complaints via the Concerns Hotline
   - Qualitative observation of water quality during outfall visual field screenings

2. Sediment and Erosion Control Design Manual – The goal for this permit period is to review, amend and adopt an Erosion and Sediment Control Design Manual with requirements tied to land disturbance activities and design guidance for erosion and sediment control BMPs. The effectiveness of this BMP will be measured using the following parameters:

- Feedback from inspectors as to improvements in erosion and sediment control measures on construction sites
- Feedback from the development community via regular meetings with the local Home Builder's Association and semi-annual builder's meeting
- Qualitative observation of water quality during outfall visual field screenings
- Number of sediment related complaints via the Concerns Hotline

3. Sediment and Erosion Control Inspection and Training – The goal of this permit period is to continue the erosion and sediment control inspection and inspector training programs. The effectiveness of this BMP will be measured using the following parameters:
   - Number of inspectors employed by the City
   - Number of inspections performed
   - Number and frequency of formal inspector training sessions
   - Average number of inspections per acre of land disturbance activity
   - Number of violation notifications and enforcement procedures used
   - Qualitative feedback from inspectors
   - Qualitative observation of water quality during outfall visual field screenings
   - Number of sediment related complaints via the Concerns Hotline

4. Sediment and Erosion Control Developer/Engineer/Contractor Training – The goal for this permit period is to include erosion and sediment control training in at least one of the semi-annual Builder's Meetings. The effectiveness of this BMP will be measured using the following parameters:
   - Number of training sessions
   - Number of participants
   - Qualitative feedback from participants
   - Qualitative feedback from inspectors as to improvements in erosion and sediment control measures on construction sites
   - Number of sediment related complaints via the Concerns Hotline

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

4.2.5.1 *Permit requirement.* The permittee shall:

4.2.5.1.1 Develop, implement, and enforce a program to address storm water runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, that discharge into the permittee's regulated small MS4. The permittee's program shall ensure that controls are in place that would prevent or minimize water quality impacts;

The City will continue existing, develop new, and enforce Best Management Practices (BMPs) to address storm water runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one

acre that are part of a larger common plan of development or sale, that discharge into the City's regulated small MS4. The BMPs are designed to ensure that controls are in place that would prevent or minimize water quality impacts by requiring water quality treatment and more closely matching pre-developed hydrology.

BMPs for MCM V:

1. Storm Water Design Criteria – Per the City of Wentzville, Missouri Engineering Design Criteria, all public or private sewerage, public water mains, drainage works or other public improvements proposed to be constructed, altered or reconstructed within the corporate limits of the City of Wentzville must be reviewed by the Engineering division of the Public Works department. This includes any altering of any storm drainage channel, site drainage or flood plain within City limits.

   The current Design Requirements for Storm Drainage Facilities, which is found in the Engineering Design Criteria manual, were adapted in 2003 from the Metropolitan St. Louis Sewer District (MSD) Design Criteria from 1997. New development and re-development projects are required to have storm water detention if they are determined to have a differential runoff greater than 1 cfs for the 15-year, 20-minute storm event. If required, the post-developed peak flow from the site may not exceed the existing peak flow for the 2-year, 24-hour event and the 25-year, 24-hour event for sites larger than 10 acres. For sites less than 10 acres, the post-developed peak flow from the site may not exceed the existing peak flow for the 2-year, 20-minute event and the 25-year, 20-minute event. In addition, erosion protection is required in engineered channels and at pipe outfalls to reduce or eliminate sediment generation in these high stress areas.

   The Design Requirements for Storm Drainage Facilities were revised in 2007 to meet the requirements of the General State Operating Permit for Small MS4s. The new Design Requirements were open for public comment and a stakeholder's meeting to discuss comments was held August 30, 2007. If approved, the new Design Requirements are scheduled for implementation on January 1, 2008. See Appendix C for relevant sections of the revised Design Requirements. The entire section is available on the City's website at:
   http://www.wentzvillemo.org/pdf/storm_drainage_draft.pdf

   Municipal Capital Improvement Projects such as roadway widening and new municipal buildings and parking lots that meet the requirements for storm water management will also be designed in accordance with the new Design Requirements.

2. City of Wentzville Comprehensive Land Use Plan and Municipal Code Revisions – The City of Wentzville adopted a Comprehensive Plan April 2006, to provide for organized and sustainable growth within the Planning Boundary. The Comprehensive Plan includes areas designated for development as well as areas of open space for floodplain, parks and recreation. The areas designated for development are: Commercial; Office; Industrial; Institutional; Residential including

high density, medium to high density, medium density and low density; Transitional; and Neighborhood Commercial.

The goals and objectives of the Comprehensive Plan are far-reaching and varied. See Appendix C for a copy of the "Goals, Objectives, and Action Steps of the Comprehensive Plan" section. The entire Comprehensive Land Use Plan is available on the City's website at:
http://www.wentzvillemo.org/new_planning/comprehensive_plan.pdf

The stated goals and objectives with particular applicability to this MCM are:

- Encourage infill development, as appropriate, to maximize utilization of existing infrastructure and land resources.
- Preserve natural physiographic features, i.e., woods, prairie lands, stream valleys, and contours to the greatest extent possible through creative site planning.
- Use natural areas, creek channels, and associated floodplain areas, drainage areas and storm water structures/basins, existing parks and play fields, streetscapes, and underutilized lands to create an integrated city wide open space system. Included in this objective is the action item to acquire public pedestrian easements within common ground areas of Wentzville subdivisions, under the plat approval process, which connect to public sidewalks for the construction and maintenance of a public pedestrian trail network.
- Preservation and conservation of mature trees and existing tree masses and canopies in order to protect existing natural resources, minimize damage and destruction via development, provide shade, protect wildlife habitat, reduce air pollution, stabilize existing soils, buffer and screen, and generally enhance the City of Wentzville's physical and aesthetic environment, thereby generally protecting and enhancing the quality of life of the City's residents. Included in this goal is the objective to adopt a Municipal Tree Ordinance and the action item to create a Natural Resources Map to indicate preservation and conservation areas, waterways, wetlands, etc.

In accordance with the Comprehensive Plan, Zoning Ordinances have been and will continue to be reviewed and modified to meet the stated goals and objectives. Ordinances with particular applicability to this MCM are as follows:

- Chapter 415: Floodway and Floodway Fringe Districts restricts certain land uses in the floodplain and floodway. See Appendix C for a copy of the ordinance.
- Tree Preservation Ordinance: The City has attempted to enact a tree preservation ordinance without success. The ordinance will be revised resubmitted for approval.
- Riparian Buffer Ordinance: In 2007, the City developed an ordinance to set forth regulations for the protection of natural watercourses and provide minimum standards and setbacks for riparian buffers. These regulations and standards will prevent or minimize water quality impacts by promoting the protection of natural watercourses and riparian buffers, minimizing encroachment, reducing impervious area, absorbing peak flows, and filtering or settling pollutants in storm water runoff. The ordinance was made available for public comment and a

stakeholder's meeting to discuss comments was held August 30, 2007. If approved, the new ordinance is scheduled for implementation on January 1, 2008. See Appendix C for a copy of the draft ordinance.

3. Storm Water Utility – The City of Wentzville has proposed and is in the public comment process for a Storm Water Utility to fund the maintenance of the existing storm water system and additional improvements. The utility will provide funding for the implementation of NPDES Phase II Programs. The utility will include a credit program for non-residential entities if certain storm water education or volunteer activities are conducted by the entity. For example, schools will get a credit for incorporating storm water education into their curriculum or holding litter cleanup activities. If approved, the utility will be implemented January, 2008.

4. Parks & Recreation Program – Parklands provide a combination of benefits to the City, including the preservation of open space, regional detention, and recreation. The City will continue to purchase property for its Parks & Recreation program and actively preserve land along streams for trails by requiring common ground to be platted as a public pedestrian easement.

   The City is also creating a future 26-acre park, which will contain a 9-acre lake on an unnamed tributary to McCoy Creek. The lake will be used for regional storm water detention to alleviate flooding in the McCoy Creek watershed. The lake is currently under design and is scheduled for construction in 2008.

   Additional opportunities exist by partnering with private or public groups. The City will continue to seek partnerships with municipalities and/or non-profits such as: Greenway Network, St. Charles Soil and Water Conservation District, Great Rivers Greenway District, etc.

4.2.5.1.2 Develop and implement strategies which include a combination of structural and/or non-structural best management practices (BMPs) appropriate for the permittee's community;

Strategies that include a combination of structural and/or non-structural best management practices (BMPs) appropriate for the City of Wentzville are addressed with the following BMPs, as described above:

1. Storm Water Design Criteria
2. City of Wentzville Comprehensive Land Use Plan and Municipal Code Revisions

4.2.5.1.3 Use 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;

The regulatory mechanisms to address post-construction runoff from new development and redevelopment projects are addressed with the following BMPs, as described above:

1. Storm Water Design Criteria
2. City of Wentzville Comprehensive Land Use Plan and Municipal Code Revisions

4.2.5.1.4 Ensure adequate long-term operation and maintenance of BMPs.

To ensure adequate long-term operation and maintenance of BMPs, Wentzville will use the following BMPs, as described above:

1. Storm Water Design Criteria, which:
   - Requires developers to submit a maintenance plan including the following:
     1. The person(s) or organization(s) responsible for maintenance (subdivision trustees, property owner, etc,)
     2. Drawing and description of the Detention or BMP facility(s) including all components integral to the operation of the facility
     3. Routine seasonal and annual inspection procedures (such as plantings, replacing mulch)
     4. Routine seasonal and annual maintenance procedures
     5. Non-routine maintenance procedures (less frequent and generally more expensive such as pond dredging or major repairs to structures)
     6. Repair procedures
     7. Inspection and maintenance logs and record keeping procedures to track and record compliance with the Operation and Maintenance Plan.
   - Requires the developer to execute a maintenance agreement to be transferred to the property owner or neighborhood association, which allows the City to conduct inspections. The subdivision homeowners or private property owners must complete any required maintenance or repair. The City may correct violations and costs will be assessed against the property owner or subdivision homeowners if the owners fail to comply.
3. Storm Water Utility will help to fund City inspections of BMPs

4.2.5.2 *Decision process*. The permittee shall document their decision process for the development of a post-construction storm water management program. The permittee's rationale statement shall address both their overall post-construction storm water management program and the individual BMPs, measurable goals, and responsible persons for their program. The rationale statement shall include the following information, at a minimum:

4.2.5.2.1 The permittee's program to address storm water runoff from new development and redevelopment projects. The permittee shall include in this description any specific priority areas for this program.

The City's program to address storm water runoff from new development and redevelopment projects is described above in 4.2.5.1.1.

4.2.5.2.2 How the permittee's program will be specifically tailored for their local community, minimize water quality impacts, and attempt to maintain predevelopment runoff conditions.

The Best Management Practices (BMPs) and measurable goals described in MCM V – Post Construction Storm Water Management have been selected based on national and state regulations, water quality needs and applicability to the population of Wentzville. The decision process involved existing storm water design criteria required by the City, discussions with City departments/divisions, use of an outside consultant experienced with writing storm water design criteria and evaluations of neighboring MS4 design criteria including St. Louis Metropolitan Sewer District and the City of Columbia.

1. Storm Water Design Criteria BMP, as described above, including the following measures to minimize or prevent water quality impacts and maintain predevelopment runoff conditions:
   - Requires storm water detention and water quality features for all new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than 1 acre that are part of a larger common parcel or project that is greater than one acre
   - Requires water quality structural BMPs to capture and treat the runoff from 90% of the recorded daily rainfall events. The water quality volume is calculated using a precipitation amount of 1.14 inches multiplied by a volumetric runoff coefficient, which depends on the amount of impervious cover. The BMPs are based on those adopted by the state of Maryland, (also adopted by MSD).
   - Allows credits to the water quality structural requirements for the use of non-structural water quality BMPs, also based on those adopted by the state of Maryland and MSD.
   - In addition to flood protection by maintaining the pre-developed 100-year peak flow rate, the new criteria requires 24-hour extended detention of a channel protection volume, assumed to be the runoff volume generated by the 1-year, 24-hour storm event.
   - Requires a Channel Assessment and Channel Condition Scoring Matrix to be completed for any project crossing over or under a natural channel in order to inform the crossing design.
   - Requires grade controls to be built in receiving streams at crossings and pipe outfalls to reduce or eliminate sediment generation and stream degradation as a result of these designs.

2. City of Wentzville Comprehensive Land Use Plan and Municipal Code Revisions, as described above, will also minimize or prevent water quality impacts and maintain predevelopment runoff conditions by maintaining key natural resources such as floodpways, trees and riparian areas, and providing a plan for controlled growth.

4.2.5.2.3 Any non-structural BMPs in the permittee's program, including, as appropriate:

4.2.5.2.3.1 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;

Policies and ordinances that provide requirements and standards to direct growth to identified areas, protect sensitive areas such as wetlands and riparian areas, maintain and/or increase open space, provide buffers along sensitive water bodies, minimize impervious surfaces, and minimize disturbance of soils and vegetation are addressed with the following BMPs, as described above:

1. Storm Water Design Criteria
2. City of Wentzville Comprehensive Land Use Plan and Municipal Code Revisions
4. Parks & Recreation Program

4.2.5.2.3.2 Policies or ordinances that encourage infill development in higher density urban areas, and areas with existing storm sewer infrastructure;

Policies or ordinances that encourage infill development in higher density urban areas, and areas with existing storm sewer infrastructure are addressed with the following BMP, as described above:

2. City of Wentzville Comprehensive Land Use Plan and Municipal Code Revisions

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

Education programs for developers and the public about project designs that minimize water quality impacts are addressed via MCM I – Public Outreach and Education, with the following BMPs, as described in 4.2.1:

1. Storm Water Management Web Page
2. Brochures/Fact Sheets
4. Storm Water Related Articles
6. Targeted Seminars and Training

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

Other measures such as minimization of the percentage of impervious area after development and use of measures to minimize directly connected impervious areas are addressed with the following BMPs, as described above:

1. Storm Water Design Criteria
2. City of Wentzville Comprehensive Land Use Plan and Municipal Code Revisions

Other measures such as source control measures often thought of as good housekeeping, preventive maintenance and spill prevention are addressed in 4.2.4 under MCM IV – Construction Site Storm Water Runoff Control and 4.2.6 under MCM VI – Pollution Prevention and Good Housekeeping with the following BMPs:

MCM IV
1. Grading and Erosion/Sediment Control Plan Review
2. Sediment and Erosion Control Design Manual
3. Sediment and Erosion Control Inspection and Training

MCM VI
1. Operations and Maintenance (O&M) Program and Training
2. Public Works Facility Structural BMP
4. Fuel Storage

4.2.5.2.4 Any structural BMPs in the permittee's program, including, as appropriate:

4.2.5.2.4.1 Storage practices such as wet ponds and extended-detention outlet structures;

4.2.5.2.4.2 Filtration practices such as grassed swales, bioretention cells, sand filters and filter strips;

4.2.5.2.4.3 Infiltration practices such as infiltration basins and infiltration trenches.

All of the structural water quality BMPs listed are included in following BMP, as described above:
1. Storm Water Design Criteria

4.2.5.2.5 Identification of the mechanisms (such as an ordinance or other regulatory mechanisms) the permittee will use to address post-construction runoff from new developments and redevelopments and why the permittee chose that mechanism. 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 program.

Mechanisms to address post-construction runoff from new developments and redevelopments are addressed with the following BMPs, as described above:
1. Storm Water Design Criteria
2. City of Wentzville Comprehensive Land Use Plan and Municipal Code Revisions

A copy of the relevant sections of the draft Storm Water Design Criteria, the goals and objectives of the Comprehensive Land Use Plan and the City's Municipal Code including draft ordinances are included in Appendix C.

The entire draft Storm Water Design Criteria is available on the City's website at:
http://www.wentzvillemo.org/pdf/storm_drainage_draft.pdf
The entire Comprehensive Land Use Plan is available on the City's website at:
http://www.wentzvillemo.org/new_planning/comprehensive_plan.pdf
The entire Wentzville Municipal Code is available at:
http://www.ctspublish.com/wentzvillelp/lpext.dll?f=templates&fn=frame_default.htm

4.2.5.2.6 How the permittee will ensure the long-term operation and maintenance (O&M) of their selected BMPs. Options to help ensure that future O&M responsibilities are clearly identified include an agreement between the permittee and another party such as the post-development landowners or regional authorities.

To ensure adequate long-term operation and maintenance of BMPs, Wentzville will use the following BMPs, as described above:

1. Storm Water Design Criteria, which:
   - Requires developers to submit a maintenance plan including the following:
     8. The person(s) or organization(s) responsible for maintenance (subdivision trustees, property owner, etc,)
     9. Drawing and description of the Detention or BMP facility(s) including all components integral to the operation of the facility
     10. Routine seasonal and annual inspection procedures (such as plantings, replacing mulch)
     11. Routine seasonal and annual maintenance procedures
     12. Non-routine maintenance procedures (less frequent and generally more expensive such as pond dredging or major repairs to structures)
     13. Repair procedures
     14. Inspection and maintenance logs and record keeping procedures to track and record compliance with the Operation and Maintenance Plan.
   - Requires the developer to execute a maintenance agreement to be transferred to the property owner or neighborhood association, which allows the City to conduct inspections. The subdivision homeowners or private property owners must complete any required maintenance or repair. The City may correct violations and costs will be assessed against the property owner or subdivision homeowners if the owners fail to comply.
3. Storm Water Utility will help to fund City inspections of BMPs

4.2.5.2.7 Identification of the person(s) responsible for overall management and implementation of the permittee's post-construction storm water management program and, if different, the person responsible for each of the BMPs identified for this program.

The City Engineer and Storm Water Management Coordinator (SWMC) will be responsible for overseeing and reporting on the Post-Construction Storm Water Management program with assistance for individual BMPs as follows:

1. Storm Water Design Criteria – The Engineering Division is responsible for implementing and reviewing plans under the new Storm Water Design Criteria. The City Engineer will submit to the SWMC an annual report including:
   - Progress regarding the approval of the new Design Requirements for Storm Drainage Facilities
   - Number of new and re-development projects reviewed under the new criteria
   - Average number of submittal/review cycles prior to site plan approval
   - Feedback from City review engineers

2. City of Wentzville Comprehensive Land Use Plan and Municipal Code Revisions – The Planning Department is responsible for any changes to the land use code. The Planning Department will submit to the SWMC an annual report including:
   - Progress regarding passage of a riparian buffer ordinance
   - Progress regarding passage of a tree preservation ordinance or other storm water related regulations
   - Number of acres of riparian area preserved
   - Number of trees or acres of existing tree canopy preserved
   - Annexed areas added within the Wentzville municipal boundary
3. Storm Water Utility – The Public Works Department is responsible for the passage of the storm water utility. Utility Billing Operations will include the storm water utility on the City Utility Bill and will submit to the SWMC an annual report including:
   - Number of residents receiving a utility bill
   - Amount of revenue generated by the utility
   - Amount of credits to the storm water utility fee granted
4. Parks & Recreation Program – The Parks & Recreation Department is responsible for the acquisition and management of the parks system. The Engineering Division is responsible for the construction of the regional detention facility. The Parks & Recreation Department will submit to the SWMC an annual report including:
   - Progress toward new regional detention facility and park
   - Number of acres of park and other open space
   - Number of acres of new park or other open space added
   - Number of miles of trail network
   - Number of miles of trail network added

4.2.5.2.8 How the permittee will evaluate the success of this minimum measure, including how the permittee selected the measurable goals for each of the BMPs.

The measurable goals were selected to provide both quantitative and qualitative indication of the effectiveness of the Post Construction Storm Water Management program and to make use of City employees and existing procedures.

1. Storm Water Design Criteria – The goal of this permit period is to implement the new Design Requirements for Storm Drainage Facilities and review new and re-development projects within the City of Wentzville using these criteria. The effectiveness of this BMP will be measured using the following parameters:
   - Approval of the new Design Requirements for Storm Drainage Facilities
   - Number of new and re-development projects reviewed under the new criteria
   - Average number of submittal/review cycles prior to site plan approval
   - Feedback from City review engineers
   - Feedback from the development community, neighborhood associations and the residents via the Bi-annual SWMP Public Meetings and training seminars
   - Qualitative observation of water quality during outfall visual field screenings

2. City of Wentzville Comprehensive Land Use Plan and Municipal Code Revisions – The goal for this permit period is to pass the riparian buffer ordinance and tree preservation ordinance and to continue to review and revise the Municipal Code to meet the stated goals and objectives of the Comprehensive Land Use Plan. The effectiveness of this BMP will be measured using the following parameters:
   - Passage of a riparian buffer ordinance
   - Passage of a tree preservation ordinance
   - Number of acres of riparian area preserved
   - Number of trees or acres of existing tree canopy preserved

3. Storm Water Utility – The goal of this permit period is to pass the storm water utility and create a prioritized list of uses for the revenue generated. The effectiveness of this BMP will be measured using the following parameters:
   - Passage of the storm water utility
   - Establishment of the storm water utility credit program
   - Amount of revenue generated by the utility
   - Amount in credits from the credit program
   - Amount of expenditures on NPDES Phase II Programs

4. Parks & Recreation Program – The goal for this permit period is to complete the new park and regional detention facility, continue requiring public pedestrian easements on common ground in new subdivisions, and continue to expand the open space preserved through the Parks & Recreation program. The effectiveness of this BMP will be measured using the following parameters:
   - Construction of the new regional detention facility
   - Number of acres of park and other open space
   - Number of acres of new park or other open space added
   - Number of miles of trail network
   - Number of miles of trail network added

4.2.6 Pollution Prevention / Good Housekeeping for Municipal Operations

4.2.6.1 *Permit requirement.* The permittee shall:

4.2.6.1.1 Develop and implement an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations;

The City will continue existing and develop new pollution prevention/good housekeeping BMPs to prevent or reduce pollutant runoff from municipal operations. The program includes training of City employees and will eventually encompass all departments/divisions of municipal operations.

Municipal Capital Improvement Projects such as roadway widening and new municipal buildings and parking lots are designed in accordance with municipal design requirements for erosion and sediment control and storm water management. Municipal projects go through the design review process and receive construction inspections.

The targeted pollutants for this MCM are those generated by municipal operations including: sediment, sodium chloride, fertilizers, pesticides, petroleum hydrocarbons, solid and hazardous wastes, nutrients, organic materials, litter and debris, and bacteria.

BMPs for MCM VI:

1. Operations and Maintenance (O&M) Program and Training

   O&M Program:

   The City will expand upon the current O&M Programs for various departments/facilities to further prevent or reduce pollutant runoff from municipal operations. The programs will contain but not necessarily be restricted to the following municipal operations and categories:

   Building Maintenance
   - Material storage and control
   - Proper use and application of materials

   Garden and Landscaping Operations
   - Proper operation of irrigation systems
   - Material storage and control
   - Proper use and application of materials

   Parking Lots and Storm Water System Maintenance
   - Inspection and cleaning of storm water systems on a complaint-driven basis

   Park/Open Space Maintenance
   - Use of native and low-maintenance plant species
   - Material storage and control
   - Proper use and application of materials

   Licensed Vehicle Maintenance
   - Performed by a competent vendor in a protected facility
   - Routine operator inspections before use
   - Vehicle wash-out procedures

   Off-Road Equipment Maintenance
   - Maintenance performed within a protected facility
   - Weekly operator inspections before use
   - Remove equipment from service when fluid leaks are significant
   - Vehicle wash-out procedures

   Outdoor Bulk Material Storage
   - Covered material storage areas
   - Short-term uncovered storage areas

   Land Disturbance
   - Plan/Design projects for minimum disturbance
   - Procedures for self-performed construction activities

   Soil Stabilization
   - Continuous assessment of City-operated sites
   - Projects to improve soil stability

   Illicit Discharge Detection

- Periodic inspection of City-sites for illicit discharges

Waste Disposal

- All wastes disposed per federal, state, and local regulations
- Provide recycling alternatives to reduce conventional waste disposal

Spill Prevention, Control and Countermeasure (SPCC)

- Safe handling procedures
- Spill containment procedures
- All spills handled per federal, state, and local regulations

Maintenance Schedules and Inspection Procedures

- Routine maintenance
- Non-routine maintenance
- Inspection schedule and checklists
- Record-keeping

The following departments will be responsible to evaluate their current O&M programs, or having none, develop a specific O&M Program for that department's operations and facilities such that storm water pollutants are minimized:

- Public Works, including:
  - Engineering Division
  - Street Division
  - Water Division
  - Wastewater Treatment Division
  - Vehicle Maintenance Division
- Parks and Recreation
- City Government

In the development or evaluation of O&M programs, each applicable department will assess their municipal operations for associated storm water impacts, including the categories listed above. The assessment will identify existing and potential pollutant sources and methods of reduction or elimination of identified pollutants. The following decision process will be used to change existing municipal operations to meet this objective:

1. Review current operation methods, associated pollutants, and possible alternatives
2. Determine feasibility of operational changes
3. Estimate probable cost of implementation
4. Departmental review of Cost/Benefit Analysis
5. Implement changes if budget allows
6. Request additional funds if necessary
7. Financial appropriation if necessary

The various O&M Programs will be collected and reviewed by the Public Works department for adherence to the details of this BMP and for consistency and overlap.

Training:

Each department will create and implement a training program tailored for their operations. The training program shall consist of new staff orientation and retainer/refresher components. The training will include written feedback from employees regarding the applicability and effectiveness of the O&M Program and training.

The Public Works department will assist the individual departments by compiling training resources from St. Charles County, EPA, Missouri Department of Natural Resources, and other applicable authorities and coordinating inter-departmental training opportunities.

The Storm Water Management Coordinator will seek opportunities to coordinate the training programs with the outreach programs developed for MCM I – Public Education and Outreach and MCM III – Illicit Discharge Detection and Elimination.

2. Public Works Facility Structural BMP – The City of Wentzville Public Works Department will design and construct a structural water quality BMP to treat runoff generated on the Public Works Facility. The City has a 5-acre drainage area associated with the public works facility. The area has a single point discharge for the storage yard, maintenance facility, etc.

   The Streets Division will test the existing effluent for the targeted pollutants: sediment, sodium chloride, petroleum hydrocarbons, litter and debris, then test again after construction. Effluent testing will continue bi-annually to check for BMP effectiveness and to determine if additional maintenance is required.

3. Street Sweeping – The City has a street-sweeping program implemented. The schedule is based on the snow route. The sweeper is out daily except when maintenance of the sweeping vehicle takes it offline 1 to 4 days per month. The sweeper is the Elgin Eagle brush sweeper.

   The sweeping schedule is as follows, but changes as needed for construction cleanup:
   - Main streets twice per month
   - Subdivision streets once per quarter

4. Fuel Storage – The City has eliminated the use and removed all City owned fuel storage tanks. Municipal vehicles now use commercial fuel stations.

5. Flood Management Projects – The Engineering Division reviews all flood management projects that require a floodplain development permit for water quality impacts and recommends necessary water quality protection device(s) or practice(s). The Engineering Division will also acquire any necessary permits and develop a Storm Water Pollution Prevention Plan (SWPPP) as required by Missouri Department of Natural Resources. The SWPPP will include inspection and maintenance procedures for erosion and sediment control devices.

4.2.6.1.2 Using training materials that are available from EPA, State, or other organizations, the permittee shall develop training to prevent and reduce storm water pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and storm water system maintenance.

Training to prevent and reduce storm water pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and storm water system maintenance is addressed with the following BMP, as described above:

1. Operations and Maintenance (O&M) Program and Training

4.2.6.2 Decision process. The permittee shall document the permittee's decision process for the development of a pollution prevention/good housekeeping program for municipal operations. The permittee's rationale statement shall address both the permittee's overall pollution prevention/good housekeeping program and the individual BMPs, measurable goals, and responsiple persons for the program. The rationale statement shall include the following information, at a minimum:

The Best Management Practices (BMPs) and measurable goals described in MCM VI – Pollution Prevention/Good Housekeeping for Municipal Operations have been selected based on national and state regulations, water quality needs and applicability to the City of Wentzville's municipal operations. The decision process involved existing Operation & Maintenance procedures, discussions with City departments/divisions, and available training materials.

4.2.6.2.1 The permittee's operation and maintenance program to prevent or reduce pollutant runoff from their municipal operations. The permittee shall specifically list the 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 EPA's Multi-Sector General Permit (MSGP) or individual NPDES permits for discharges of storm water associated with industrial activity that ultimately discharge to the permittee's MS4. The permittee shall include the permit number or a copy of the Industrial application form for each facility.

See above for details on the Pollution Prevention/Good Housekeeping program including a list of municipal operations impacted by this program.

Individual facility locations currently covered by site-specific NPDES general permits for storm water discharges are listed as follows:

- Wastewater Treatment facility, Permit #MO-0093599

4.2.6.2.2 Any government employee training program the permittee uses to prevent and reduce storm water pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and storm water

system maintenance. The permittee shall describe any existing, available materials the permittee plans to use. 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.

Training programs to prevent and reduce storm water pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and storm water system maintenance, including materials the City plans to use are addressed with the following BMP, as described above:

1. Operations and Maintenance (O&M) Program and Training

4.2.6.2.3 The permittee's program description shall specifically address the following areas:

4.2.6.2.3.1 Maintenance activities, maintenance schedules, and long-term inspection procedures for controls to reduce floatables and other pollutants to the permittee's regulated small MS4.

Maintenance schedules, inspection procedures and controls are addressed with the following BMPs, as described above:

1. Operations and Maintenance (O&M) Program and Training
2. Public Works Facility Structural BMP
3. Street Sweeping
4. Fuel Storage
5. Flood Management Projects

4.2.6.2.3.2 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.

Controls, practices, operations and structures designed for pollution reduction/containment from highway operations maintenance/storage yards, material pile sites and other locations are addressed with the following BMPs, as described above:

1. Operations and Maintenance (O&M) Program and Training
2. Public Works Facility Structural BMP
3. Street Sweeping
4. Fuel Storage

4.2.6.2.3.3 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.

Procedures for the proper disposal of waste removed from the City's MS4 and area of jurisdiction, including dredged material, accumulated sediments, floatables, and other debris is addressed with the following BMPs:
MCM III – Illicit Discharge Detection and Elimination, as described in 4.2.3

3. Demolition Permitting
4. Yard Waste Collection and Recycling Collection Programs for Household Wastes
5. Municipal Waste Trash Collection Requirements

MCM IV – Construction Site Storm Water Runoff Control, as described in 4.2.4

1. Grading and Erosion/Sediment Control Plan Review
2. Sediment and Erosion Control Design Manual

MCM VI – Pollution Prevention/Good Housekeeping for Municipal Operations, as described above

2. Public Works Facility Structural BMP

4.2.6.2.3.4 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.

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 are addressed with the following BMP, as described above:

5. Flood Management Projects

4.2.6.2.4 Identification of the person(s) responsible for overall management and implementation of their pollution prevention/good housekeeping program and, if different, the person responsible for each of the BMPs identified for this program.

The Public Works Director and Storm Water Management Coordinator (SWMC) will be responsible for overseeing and reporting on the Pollution Prevention/Good Housekeeping for Municipal Operations program with assistance for individual BMPs as follows:

1. Operations and Maintenance (O&M) Program and Training – The Public Works Department will coordinate the overall O&M Program and training and track compliance with the other departments. An individual will be assigned to lead the Program. Division Supervisors will be responsible for implementation of the O&M Program and training in their departments. Departments will submit an annual report to the Public Works Department with any changes to their O&M Program and specific training conducted. The Public Works Department will submit to the SWMC an annual report including:
    - Number of departments with new or revised O&M Programs
    - Progress/status of O&M operations and categories
    - Number of training sessions
    - Number of participants in training sessions
    - Feedback from City employees regarding the applicability and effectiveness of the O&M Programs and training
2. Public Works Facility Structural BMP – The Engineering Division is responsible for overseeing the design and construction of the Public Works facility BMP. The Street Division Supervisor will be responsible for inspections, O&M and effluent testing. The Street Division Supervisor will submit to the SWMC an annual report including:
    - Progress toward design/construction of the structural BMP

- Amount of targeted pollutants as measured from pre and post construction tests
- Inspection and maintenance logs for the BMP

3. Street Sweeping – The Street Division Supervisor is responsible for the street sweeping program. The Street Division Supervisor will submit to the SWMC an annual report including:
   - Name of the designated street sweeper operator
   - Number of days the street sweeper is in operation
   - Frequency of street-sweeping for each main and subdivision street within the municipal boundaries
   - Percent coverage of the public streets swept per month for both main streets and subdivision streets
   - Number of citizen complaints with regards to cleanliness of public streets
   - Response to citizen complaints with regards to cleanliness of public streets
4. Fuel Storage – Vehicle operators are responsible for using commercial fuel station for all municipal vehicles
5. Flood Management Projects – The Engineering Division is responsible for the review of flood management projects, inspection and maintenance activities associated with flood management projects and acquiring necessary state and federal permits. The Engineering Division will submit to the SWMC an annual report including:
   - Description of flood management projects developed by the City
   - Copies of applicable permits
   - Inspection and maintenance logs of erosion and sediment control devices during construction of flood management projects

4.2.6.2.5 How the permittee will evaluate the success of this minimum measure, including how the permittee selected the measurable goals for each of the BMPs.

The measurable goals were selected to provide both quantitative and qualitative indication of the effectiveness of the Pollution Prevention/Good Housekeeping program and to make use of City employees and existing procedures.

1. Operations and Maintenance (O&M) Program and Training – The goal of this BMP is to prevent or reduce pollutant runoff from municipal operations through the use of O&M Programs and training tailored to specific City departments and facilities. The effectiveness of this BMP will be measured using the following parameters:
   - Number of departments with new or revised O&M Programs
   - Progress/status of O&M operations and categories
   - Number of training sessions
   - Number of participants in training sessions
   - Number of training sessions coordinated with MCM I and MCM III education and outreach programs
   - Feedback from City employees regarding the applicability and effectiveness of the O&M Programs and training

2. Public Works Facility Structural BMP – The goal for this permit period is to construct the public works facility BMP to reduce the targeted pollutants. The effectiveness of the BMP will be measured using the following parameters:
   - Construction of the public works facility BMP
   - Amount of targeted pollutants as measured from pre and post construction tests
   - Number of recorded inspection and maintenance logs for the BMP

3. Street Sweeping – The goal for this permit period is to continue the street sweeping program, designate a dedicated employee to operate the street sweeper, implement a tracking system to determine sweeping coverage and increase the frequency of sweeping streets. The effectiveness of this BMP will be measured based on the following parameters:
   - Designation of dedicated street sweeper operator
   - Number of days the street sweeper is in operation
   - Tracking the frequency of street-sweeping for each main and subdivision street within the municipal boundaries
   - Percent coverage of the public streets swept per month for both main streets and subdivision streets
   - Number of citizen complaints with regards to cleanliness of public streets
   - Response to citizen complaints with regards to cleanliness of public streets
   - Qualitative observation by street sweeping staff of a decrease in the amount of floatables, sediment and debris

4. Fuel Storage – The goal for this permit period is to continue the use of commercial fuel stations for all municipal vehicles.

5. Flood Management Projects – The goal of this BMP is to continue the practice of reviewing flood management projects for water quality impacts and the applicability of NPDES Land Disturbance permits for each project. The effectiveness of this BMP will be measured based on the following parameters:
   - Approval of individual NPDES Land Disturbance Permits
   - Implementation of SWPPP including inspection and maintenance logs of erosion and sediment control devices

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.

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 description of the permittee's storm water management program. If the other entity agrees to report on the minimum measure, the permittee shall supply the other entity with the reporting requirements contained in Section 5.3 of this permit. If the other entity fails to implement the control measure on the permittee's behalf, then the permittee remains liable for any discharges due to that failure to implement.

St. Charles County runs the Recycling Centers discussed under section 4.2.3. It is open to all residents in St. Charles County, including those within Wentzville. See Appendix C for information on the program.

4.4 Reviewing and Updating Storm Water Management Programs

4.4.1 *Storm Water Management Program Review:* The permittee shall do an annual review of the permittee's Storm Water Management Program in conjunction with preparation of the annual report required under Section 5.3

4.4.2 *Storm Water Management Program Update:* The permittee may change the Storm Water Management Program during the life of the permit in accordance with the following procedures:

4.4.2.1 Changes adding (but not subtracting or replacing) components, controls, or requirements to the Storm Water Management Program may be made at any time upon written notification to the department.

4.4.2.2 Changes replacing an ineffective or unfeasible BMP specifically identified in the Storm Water Management Program with an alternate BMP may be requested at any time. Unless denied by the department, changes proposed in accordance with the criteria below shall be deemed approved and may be implemented 60 days from submittal of the request. If request is denied, the department will send the permittee a written response giving a reason for the decision. The permittee's modification requests shall include 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 requests or notifications must be made in writing and signed in accordance with Section 6.

4.4.3 *Storm Water Management Program 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 Storm Water Management Program 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 Storm Water Management Program Implementation:* The permittee shall implement the Storm Water Management Program on all new areas added to the permittee's portion of the municipal separate storm sewer system (or for which the permittee becomes responsible for implementation of storm water quality controls) as expeditiously as practicable, but not later than one year from addition of the new areas. Implementation may be accomplished in a phased manner to allow additional time for controls that cannot be implemented immediately.

4.4.4.1 Within 90 days of a transfer of ownership, continuing authority, or responsibility for storm water management program implementation, the permittee shall submit a revised plan, if necessary, for implementing the revised Storm Water Management Program 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 Storm Water Management Program shall be included in the annual report.

4.4.4.2 Only those portions of the Storm Water Management Programs 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 Storm Water Management Program with an alternate BMP expected to achieve the goals of the original BMP shall be considered minor changes to the Storm Water Management Program 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 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 results shall be conducted according to test procedures approved under 10 CSR 20-7-.015.

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. Monitoring results shall be reported on a Discharge Monitoring Report (DMR).

5.2 Record Keeping

5.2.1 The permittee shall retain records of all activities requiring record keeping 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, 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. This period may be extended by request of the department at any time.

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 description of the Storm Water Management Program 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 storm water management program, available to the public if requested to do so in writing.

5.3 Reporting

The permittee shall submit annual reports to the Director by April 10 of each year of the permit term. The report shall include:

5.3.1 The status of the permittee's compliance with permit conditions, an assessment of the appropriateness of the identified best management practices, progress towards achieving the 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;

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

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

5.3.5.1 Notice that the permittee is relying on another government entity to satisfy some of the permittee's permit obligations (if applicable).

6 GENERAL CONDITIONS

This permit includes General 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 Pollution Control 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 storm water, except discharges authorized under an NPDES permit (other than the NPDES permit for discharges from the MS4) and discharges resulting from fire fighting activities.**

MEP **is an acronym for "Maximum Extent Practicable," the technology-based discharge standard for Municipal Separate Storm Sewer Systems to reduce pollutants in storm water discharges that was established by CWA §402(p). A discussion of MEP as 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 Dallas MS4"). The term is used to refer to either the system operated by a single entity or a group of systems within an area that are operated by multiple entities (e.g., the Houston MS4 includes MS4s operated by the city of Houston, the Texas Department of Transportation, the Harris County Flood Control District, Harris County, and others).**

Outlet**, refers to the point at which storm water exits an MS4 or enters waters of the state.**

Permittee**, as used in this permit refers to the permit holder.**

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

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

SWMP **is an acronym for "Storm Water Management Program."**

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Part II

Storm Water Management Program For the City of Wentzville

Permit Period 2008 thru 2012

MCM I – Public Outreach and Education

Introduction

The City's public education outreach strategy employs a multi-faceted approach to inform the public about common storm water pollutants, their effects on receiving waters, the extent and magnitude of the problem, and corrective actions the public can take to prevent non-point source (NPS) pollution.

Programs will be implemented by the City to the maximum extent practicable and will consider the needs of minority and disadvantaged communities. The Best Management Practices (BMPs) listed have been selected with regard to: water quality needs; applicability to the City of Wentzville; reaching a wide range of target audiences including residential communities, educators, businesses, commercial property owners, the development community and other specific industries; taking advantage of related events and resident interest; and to build on existing and developing programs and partnerships.

The public will have opportunities to recommend changes to the program and provide other feedback as to the overall effectiveness of the Public Outreach and Education program via the Bi-annual SWMP Public Meeting, the SWMP Survey/Questionnaire, feedback form on the website, the Concerns Hotline and the SWMP Advisory Committee as described in MCM II – Public Involvement and Participation.

The City will continue to investigate educational and outreach programs being used or developed by other local, state and federal entities in order to improve upon the current program and/or contribute to regional programs. Potential partners and informational sources include: St. Charles County and other neighboring MS4 communities such as the Cities of St. Charles, O'Fallon, St. Peters, etc.; Local schools, universities and community college; Local non-governmental entities such as environmental and professional organizations; Missouri Department of Natural Resources; Missouri Department of Conservation; and the EPA.

Best Management Practices (BMPs) for MCM I

1. Storm Water Management Web Page

BMP Description

The Storm Water Management Coordinator will create a Storm Water Management page on the City's website. The web page will be maintained and expanded to become the main information source for all aspects of the City's Storm Water Management Program including how to get involved in voluntary activities, information on what citizens can do to address storm water pollution, what an illicit discharge looks like and what to do about it, the Concerns Hotline, upcoming seminars, storm water related regulations, design requirements for storm drainage facilities, erosion and sediment control design requirements, etc.

Target Audience and Pollutant Sources

The Storm Water Management page provides information for anyone with access to the Internet. Free access to the internet is available at any St. Charles City/County Library. The target audience includes residents, educators, businesses, developers, engineers and construction companies. Since these entities already use the City's web site to find information about City

requirements and programs, the Storm Water Management Web Page is a good method to disseminate information to the target audience.

Target pollutant sources include: household activities such as lawn care and improper disposal of household waste such as yard waste, pet waste, hazardous household wastes, used motor oil, etc.; construction activities such as improper erosion and sediment control or improper disposal of construction wastes; industrial and commercial activities such as improper disposal of waste; and illegal dumping and littering.

Measurable Goals
The goal for this permit period is to fully populate and then maintain the Storm Water Management web page. The effectiveness of this BMP will be measured using the following parameters:

- Implementation of the Storm Water Management web page.
- Amount of information available on the Storm Water Management web page.
- Number of "hits" and/or downloads on the web page.
- Online comment form to receive feedback from the users of the web page regarding the information's and usefulness.

2. Brochures/Fact Sheets

BMP Description
Current brochures/fact sheets used by the City of Wentzville include "The Wentzville Residential Trash Guide" included in the City's "Welcome to Wentzville" packet for new utility customers and on the City's website. The guide includes educational information regarding yard waste composting, recyclable materials, household chemicals and other solid wastes as well as trash collection procedures. A copy of the trash guide is included in Appendix C.

As part of the City's residential composting program, the Brochures/Fact Sheets published and made available will include information on composting and yard waste collection as viable alternatives to yard waste disposal down storm drains or along stream banks. Additional brochures/fact sheets will target commercial property owners and landscaping services.

The Storm Water Management Coordinator will investigate other available brochures and fact sheets containing storm water and storm water pollution information that are applicable to the City. The brochures and/or fact sheets will be made available at the Public Works Office, City Hall, St. Charles City-County Library District's Corporate Parkway Branch location, in the City's "Welcome to Wentzville" packet for new utility customers, published on the City's web page and through direct educational programs.

Since, the public is accustomed to finding information on various topics at the locations listed above; inclusion of storm water pollution information at these locations will be a successful means to reach the public. Brochures about specific programs with activities will include information for residents to sign up for programs and become involved in the environment around them.

The City will rely primarily upon existing storm water educational resources provided by St. Charles County and other neighboring MS4 communities, the Department of Natural Resources, EPA, Soil and Water Conservation District, and local universities or community colleges.

Target Audience and Pollutant Sources
The target audience includes residents, educators and businesses.

Target pollutant sources include: household activities such as lawn care and improper disposal of household waste such as yard waste, pet waste, hazardous household wastes, used motor oil, etc.; construction activities such as improper erosion and sediment control or improper disposal of construction wastes; industrial and commercial activities such as improper disposal of waste; and illegal dumping and littering.

Measurable Goals
The goal for this permit period is to continue the use of and include additional storm water specific materials in the "Welcome to Wentzville" packet. Also, brochures and fact sheets will be made available at the locations listed above. The effectiveness of this BMP will be measured using the following parameters:

- Update "The Wentzville Residential Trash Guide"
- Inclusion of additional storm water materials in the "Welcome to Wentzville" packet
- Number of "Welcome to Wentzville" packets distributed
- Number of locations containing brochures/fact sheets
- Number of brochures/fact sheets distributed to each location
- Qualitative observation of a decreased amounts of litter, debris and yard waste in storm sewers or on stream banks during informal staff field observations and Voluntary Water Quality Monitoring by Stream Teams as discussed in MCM II – Public Involvement and Participation

3. School-Aged Educational Programs

BMP Description
The Storm Water Management Coordinator will develop and implement educational programs for school-aged children at Wentzville School District Schools and Private/Parochial Schools in the Wentzville MS4 area as well as other youth groups such as scouts, church organizations, etc. Other stakeholders, such as the St. Charles County, St. Charles County Soil and Water Conservation District, NRCS, and Department of Conservation, will be invited to participate in the education programs.

Educational programs provide information to children in a format they can understand, and gives them a chance to ask questions. This BMP enables the educational institutions and youth organizations in the Wentzville MS4 area to participate in the public education process.

The Storm Water Management Coordinator will investigate potential existing programs to determine what's available and discuss options with area teachers and youth organizations. A "Storm Water Awareness to Action" program will be brought to at least one middle school. Eventually, the programs will be made available to all schools in the Wentzville MS4 area as well as other youth groups.

Additional educational programs may be added as practicable such as a lecture list of available professionals that could talk with classrooms, schools or youth groups about storm water issues.

Target Audience and Pollutant Sources
The target audience includes students, youth groups, educators, youth leaders and parents.

Target pollutant sources include: household activities such as lawn care and improper disposal of household waste such as yard waste, pet waste, hazardous household wastes, used motor oil, etc.; and illegal dumping and littering.

Measurable Goals
The goal for this permit period is to implement an educational program for at least one grade level made available to all schools in the Wentzville MS4 area. The effectiveness of this BMP will be measured using the following parameters:

- Implementation of the school-aged educational program
- Number of schools included in the school-aged education program
- Number of school-aged children, educators and youth group leaders included in the school-aged educational program
- Surveys to teachers and youth group leaders to receive feedback for the school-aged educational program

4. Storm Water Related Articles

BMP Description
The Storm Water Management Coordinator will continue to write articles related to storm water pollution control in the City's bi-monthly newsletter, the *Vision* or local newspapers. Information will include how to get involved in voluntary activities, what citizens can do to address storm water pollution and how to report illegal dumping or other storm water concerns. The City will include a minimum of 4 storm water related articles per year.

Target Audience and Pollutant Sources
The City newsletter is distributed to all residents of the City of Wentzville, the target audience of this BMP. Inclusion of storm water information in the newsletter has a 100% potential of reaching our target audience.

Target pollutant sources include: household activities such improper disposal of household waste such as yard waste, pet waste, hazardous household wastes, used motor oil, etc.; industrial and commercial activities such as improper disposal of waste; and illegal dumping and littering.

Measurable Goals
The goal for this permit period is to continue writing articles for The *Vision* or local newspapers with a minimum of 4 articles per year. The effectiveness of this BMP will be measured using the following parameters:

- Number of storm water related articles per year in The *Vision* or local newspapers
- Number of The *Vision* newsletters distributed

5. Utility Bill Insert

BMP Description

The City is the water and wastewater utility and sends a monthly bill to its customers. Once per year, the Public Works Department will include a fact sheet with the City utility bill. The fact sheet will explain what wastes are and are not allowed in the storm sewers and streams and how residents should dispose of particular wastes such as hazardous household wastes, yard wastes and recyclable materials. The fact sheet will include educational information as to why unlawful disposal is harmful to our local streams, feature the Concerns Hotline to report illegal dumping or other storm water concerns, and explain how to volunteer for SWMP activities. Every year the fact sheets will be reviewed and revised as needed.

Target Audience and Pollutant Sources

The target audience is households and businesses. 100% of the City's households and 100% of the City's businesses receive a monthly utility bill.

Target pollutant sources include: household activities such improper disposal of household waste such as yard waste, pet waste, hazardous household wastes, used motor oil, etc.; industrial and commercial activities such as improper disposal of waste; and illegal dumping and littering.

Measurable Goals

The goal for this permit period is to develop the educational fact sheet to be included with the City's utility bill and to send it once per year. Every year the fact sheets will be reviewed and revised as needed. The effectiveness of this BMP will be measured using the following parameters:

- Creation of the utility bill insert
- Number of times per year the insert is included with the City's utility bill
- Number of households and businesses receiving the City's utility bill insert

6. Targeted Seminars and Training

BMP Description

The Storm Water Management Coordinator in cooperation with the Public Works Director will determine specific seminars and training needs to be implemented as practicable. The seminars will be in coordination with other MCM's in this SWMP and will take advantage of regional seminars and training opportunities when possible. Potential seminar topics for this permit period include:

- Water quality monitoring for volunteers through the Stream Team program in coordination with MCM II – Public Involvement and Participation.
- Erosion and sediment control design in coordination with MCM IV – Construction Site Storm Water Runoff Control. This may be held concurrent with the semi-annual Builder's Meetings currently held by the Public Works Department.
- Erosion and sediment control inspection and maintenance in coordination with MCM IV – Construction Site Storm Water Runoff Control. This may be held concurrent with the semi-annual Builder's Meetings currently held by the Public Works Department.
- Design of Storm Drainage Facilities with new engineering design criteria as described in MCM V – Post Construction Storm Water Management.
- Storm water quality BMP operation and maintenance for neighborhood associations and property owners in coordination with MCM V – Post Construction Storm Water Management.

- Facility Operations and Maintenance (O&M) training for City employees in coordination with MCM VI – Pollution Prevention and Good Housekeeping.

Target Audience and Pollutant Sources

Target audiences will be determined for each seminar. Potential audiences include volunteers, engineers, construction companies, neighborhood associations, property owners, and City employees, among others.

Target pollutant sources include: household activities such as lawn care and improper disposal of household waste such as yard waste, pet waste, hazardous household wastes, used motor oil, etc.; construction activities such as improper erosion and sediment control or improper disposal of construction wastes; industrial, commercial and municipal activities such as improper disposal of waste; and illegal dumping and littering.

Measurable Goals

The goal for this permit period is to determine needs and priorities for seminar topics and investigate existing and/or regional seminars and training opportunities for those topics. Additional seminars and training will be developed as needed and as practicable. The effectiveness of this BMP will be measured using the following parameters:

- Number of seminars and training sessions conducted, recommended or advertised by the City
- Breadth of target audiences for the seminars and training sessions
- Number of seminars and training sessions attended by City employees
- Feedback from comment cards filled out after seminars and training sessions

MCM II – Public Involvement and Participation

Introduction

The City strives to achieve demographic representation and an increased level of community involvement in the SWMP development and implementation. The BMPs selected will address the viewpoints and concerns of a variety of audiences and communities. The Best Management Practices (BMPs) listed have been selected with regard to: water quality needs; applicability to the City of Wentzville; reaching a wide range of target audiences including residential communities, educators, businesses, commercial property owners, the development community and other specific industries; taking advantage of related events and resident interest; and to build on existing and developing programs and partnerships.

Best Management Practices (BMPs) for MCM II

1. Storm Water Management Program Advisory Committee

BMP Description

The City of Wentzville will organize and implement a Storm Water Management Plan Advisory Committee to bring a variety of potentially affected stakeholder groups into the Storm Water Management Program's development and assessment process. The Committee will consist of five members with staff support. Four members will be appointed by the Mayor with the consent of the Board of Aldermen (BOA) and one BOA member will be selected by the Board. The Committee will meet semi-annually to discuss the effectiveness of the SWMP, propose changes, review and comment on the Annual Reports, review and comment on the new SWMP at the end of the permit period. The Committee will also help conduct the Bi-annual Storm Water Management Plan Public Meetings.

Meeting agendas, minutes and review comments for the Annual Report and next SWMP will be kept on the Storm Water Management web page until the end of each year and then archived.

Target Audience

The target audience is stakeholder groups potentially affected by the SWMP. Potential stakeholder groups include, but are not limited to: City government, commercial and industrial businesses, trade associations, environmental groups, homeowners associations and educational organizations.

Measurable Goals

The goal for this permit period is to create the advisory committee and begin the quarterly meetings. The effectiveness of this BMP will be measured using the following parameters:

- Creation of the SWMP Advisory Committee
- Type of stakeholder groups represented
- Number of meetings
- Meeting agendas, minutes and review comments

2. Wentzville Storm Water Action Group

BMP Description

Volunteers are an integral part of the SWMP for several reasons. Volunteering gives the community a sense of ownership in the program. From a practical standpoint, volunteers are needed to provide the manpower to make the SWMP effective.

The Storm Water Management Coordinator will organize and implement a Wentzville Storm Water Action Group made up of applicable City departments and divisions that may include Streets, Parks Public Works, Engineering Water and Wastewater, among others. Members of the Storm Water Management Plan Advisory Committee will also be invited. Activities for the group may include organizing stream cleanups, organizing storm drain stenciling groups, organizing volunteer water quality monitoring and aiding the Public Works Department in the identification of polluters.

The Storm Water Action Group is intended to assist the City in the organization, recruitment and implementation of volunteer activities. This enables these programs to achieve a higher level of success than possible if solely implemented by the department's staff.

The following methods of soliciting input will be used to generate interest and recruit the public for involvement:

- Advertising on the City website, in newsletters, and at civic meetings
- Postings at municipal buildings, schools, and libraries
- Telephone and e-mail notifications
- Bi-annual Storm Water Management Public Meetings
- SWMP Survey/Questionnaire
- Annual Utility Bill Insert

The Wentzville Storm Water Action Group will meet at least annually to discuss recruitment strategies, organize activities and evaluate the effectiveness of activities.

Target Audience

The target audience is the citizens of Wentzville, including: residents, educators, college students, civic leaders, business owners and commercial property owners.

Measurable Goals

The goal of this permit period is to create the Wentzville Storm Water Action Group and have it assist the City in organizing and implementing the wide variety of volunteer activities described in the SWMP. The effectiveness of this BMP will be measured using the following parameters:

- Formation of the Action Group
- Number of volunteer activities implemented
- Number of volunteers included in the activities implemented

3. Stream Teams

BMP Description

The City of Wentzville Public Works Department currently has one stream team. Stream Team #1062, for McCoy Creek is comprised of the wastewater and water departments. The Storm Water Management Coordinator, with assistance from the Citizen's Storm Water Action Group, will organize and implement additional Stream Teams with the public and other interested City departments, such as the Parks Department, through the Missouri Stream Team program.

The activities anticipated to be conducted by the Stream Teams include:
- Litter Pickups
- Storm Drain Stenciling
- Volunteer Water Quality Monitoring

The Stream Teams will be encouraged to conduct monitoring activities close to the Wentzville municipal boundaries, both the upstream and downstream ends, to help the City evaluate the effectiveness of the overall Storm Water Management Program. The Stream Teams will also be asked to submit to the Storm Water Management Coordinator an annual report documenting dates and types of Stream Team activity, number of volunteers involved, amount of trash collected, number of inlets painted, results of water quality tests and observations of the overall condition of their reach of stream with such things as vegetative cover and condition, amount of invasive species, amount of yard waste dumping, etc.

Reaches of stream cleaned, the date that each inlet is stenciled, and water quality monitoring data will be recorded by the Storm Water Management Coordinator, potentially in the City's GIS system as described in MCM III – Illicit Discharge Detection and Elimination. This will allow tracking of the program and enable easy use of the data.

Target Audience

The target audience is groups of individuals interested in the quality of our streams. These may include neighborhood associations, scout troops, youth groups, educational institutions, environmental organizations, local businesses, City departments, etc.

Measurable Goals

The goal of this permit period is to have a Stream Team adopt each of Wentzville's major streams. The major streams are: McCoy, Peruque, and Big Creek.

Once the Stream Teams are in place the goal is for each Stream Team to accomplish 2 or more of the following:
- Stencil storm drains leading to their reach of stream
- Re-paint storm drains every 3 to 5 years
- Conduct or participate in at least one litter pickup per year
- Perform water quality monitoring twice a year

Additional Stream Teams may be organized solely for the purpose of storm drain stenciling in order to achieve additional coverage within the Wentzville MS4 area.

The effectiveness of this BMP will be measured using the following parameters:
- Number of Stream Teams
- Number of streams with Stream Teams in place
- Number of stream miles cleaned
- Number of litter pickups
- Tons of trash collected
- Number of volunteers involved in Stream Clean activities
- Number of storm water inlets stenciled
- Percentage of storm water inlets stenciled

- Average number of years before storm water inlets are re-painted
- Frequency of water quality monitoring events
- Amount of water quality data collected
- Ability to track and use water quality data

In addition to meeting the objectives of MCM II, the volunteer water quality monitoring will give the citizens of Wentzville and the City, a means of assessing the success of the entire SWMP. Water quality data can be used to track improvements in water quality due to the SWMP or pinpoint potential illicit discharges or other pollutant sources that require attention.

4. Other Voluntary Litter Pickup Programs

BMP Description

In addition to Stream Teams, Wentzville organizes or participates in several other voluntary litter pickup programs including the Adopt-A-Street program, Make a Difference Day and Operation Clean Stream.

The Adopt-A-Street program is organized through the Public Works Department and includes two cleanups per year, one of which could be the Make a Difference Day.

Make a Difference Day is organized through the Public Works Department and is conducted each fall.

Operation Clean Stream is organized through the Parks Department partnered with St. Charles County and is held annually. There are 5 to 15 cleanup sites along Peruque and McCoy Creeks.

Target Audience

The target audience is groups of volunteers including neighborhood associations, scout troops, youth groups, educational institutions, environmental organizations, local businesses, City departments, etc.

Measurable Goals

The goal of this permit period is to continue these programs and increase participation. The effectiveness of this BMP will be measured using the following parameters:

- Number of Adopt-A-Street groups
- Number of miles of streets cleaned with the Adopt-A-Street program
- Number of miles of stream cleaned annually with the Operation Clean Stream program
- Number of litter pickup activities
- Number of volunteers involved in litter pickup activities
- Tons of trash collected

5. Concerns Hotline

BMP Description

The City of Wentzville Public Works Department has a dedicated phone number for citizens to use for any concerns that they may have. The program includes a tracking component to categorize the concerns and to ensure concerns are addressed in a timely manner. Categories include "flood/storm water" and "storm sewer blocked," and can be adjusted to include additional categories as needed. The number is advertised on the City's web page, in the City's

newsletter, the *Vision* and in the City's "Welcome to Wentzville" packet for new utility customers as a refrigerator magnet. The City will expand the advertisement of the phone number specifically for storm water concerns by listing it on the Storm Water Management web page on the City's website and in storm water articles and mailings.

Target Audience
The target audience is people living, working or driving through Wentzville.

Measurable Goals
The goal of this permit is to continue receiving calls for storm water concerns via the City of Wentzville Public Works Department's Concern Program and improve response time for concerns to an initial call back within 24 hours after a concern is received to determine action required and priority. The effectiveness of this BMP will be measured using the following parameters:

- Evaluate the effectiveness of the Concerns routing tree and update as necessary
- Number of storm water related concerns
- Response time for initial callback

6. Bi-annual Storm Water Management Program Public Meeting

BMP Description
The Storm Water Management Coordinator with assistance from the SWMP Advisory Committee, as described above, will conduct a bi-annual public meeting for the purpose of informing the public about the SWMP and receiving input on storm water concerns and the effectiveness of the SWMP. The meetings will comply with State and local public notice requirements and may be held in conjunction with a SWMP Advisory Committee Meeting or other public meeting to increase attendance.

Target Audience
The target audience is the citizens and other stakeholder of the SWMP, including residents, neighborhood associations, business owners, commercial property owners, trade organizations and environmental groups, among others.

Measurable Goals
The goal of this permit period is to implement the SWMP Public Meetings and to conduct a meeting in 2008, 2010 and 2012. The effectiveness of this BMP will be measured using the following parameters:

- Number of SWMP Public Meetings
- Number of attendees at the SWMP Public Meetings
- Number of comments generated as a result of the SWMP Public Meetings

7. Storm Water Management Program Survey/Questionnaire

BMP Description
The City of Wentzville completed the first Storm Water Master Plan in December 2001. As part of the preparation of this master plan, a survey/questionnaire was sent to residents of the City. The Storm Water Management Coordinator will conduct three additional surveys during this permit period, at the beginning, middle and end. The purpose of the SWMP Survey/Questionnaire is to gauge attitudes and concerns regarding storm water and water quality issues and to receive input on the SWMP.

The surveys will be mailed to every resident, business owner and commercial property owner in the City of Wentzville and will also be available on the website. The results will be tallied and reviewed with the SWMP Advisory Committee.

Target Audience

The target audience is the residents, business owners and commercial property owners in the City of Wentzville.

Measurable Goals

The goal of this permit period is to conduct three SWMP Survey/Questionnaires: in 2008, 2010 and 2012. The effectiveness of this BMP will be measured using the following parameters:

- Date SWMP Survey/Questionnaires are sent
- Number of quality responses
- Use of tallied results

MCM III – Illicit Discharge Detection and Elimination

Introduction

The purpose of this MCM is to develop, implement and enforce a program to detect and eliminate illicit discharges into the City of Wentzville's municipal separate storm sewer systems (MS4s). An illicit discharge is defined as any discharge that is not composed entirely of storm water, except for discharges permitted under other state operation permits or directly from fire fighting activities.

Best Management Practices (BMPs) for MCM III

1. Storm Sewer Mapping

BMP Description

The City began mapping the storm sewer system 2000. The information was compiled from field surveys, as-built surveys and archived drawings from years 2000 and earlier. The City has incorporated the storm sewer data into the City's GIS system for ease of analysis and updating. The City is in the process of verifying the information and updating the GIS map with newer constructed systems. Also, the City will contract to have all outfalls into major streams field surveyed with GPS equipment for ease of incorporating into the GIS map.

A GIS-based system was selected to make the map interactive for inspectors and other involved parties. Inspectors will verify outlet locations with field surveys and have access to a GPS unit to check and document storm structures.

See Appendix C for a copy of the most current Storm Sewer Map.

Measurable Goals

The goal for this permit period is to continue to verify and update the City's storm sewer GIS map with sewers constructed between 2000 and 2007 and to complete the GPS survey of all storm outfalls into Wentzville's major streams.

Additional information may be added to track the storm drains that have been stenciled as part of the Stream Team BMP described in MCM II – Public Involvement and Participation.

The effectiveness of this BMP will be measured using the following parameters:

- Number of storm structures added to the GIS map
- Number of storm sewer outfalls identified with GPS survey
- Additional information added as practicable
- How the storm sewer map is being used

2. Illicit Discharge Ordinance and Inspections

BMP Description

The City has existing ordinances addressing various forms of illicit discharges including:

- Chapter 215: Nuisances

  - Article I. In General – which addresses such things as human excrement, animal or vegetable matter that has become putrid, offensive or unhealthy, filth, garbage, ashes, foul, nauseous or unclean water, etc.
  - Article III: Junked or Abandoned Motor Vehicles
- Chapter 240: Garbage and Rubbish
- Chapter 510: Streets, Sidewalks and other Public Places
  - Sections 510.020, 510.030 and 510.040 – which addresses depositing dirt, rocks, etc. from land disturbance activities or hauling
- Chapter 720: Wastewater Pretreatment – Article I – which addresses the use of the wastewater system for discharges from businesses such as restaurants, laundries, car washes, etc. and requires the use of oil separators and grease traps and/or sand interceptors.

See Appendix C for copies of the relevant sections of these ordinances.

Wentzville will develop a more comprehensive Illicit Discharge Detection and Elimination (IDDE) Ordinance by the beginning of the permit period (March, 2008). The IDDE Ordinance will directly prohibit illicit discharges into municipal separate storm sewers and will include enforcement measures, remediation recovery, and response procedures.

The City will conduct visual field screenings of at least 20% of all outfalls per year. In addition, potential illicit discharges may be reported through: Stream Teams, the volunteer water quality monitoring will include visual field screenings for illicit discharges; Operation Clean Stream; the Storm Water Management Web Page, the web page will include information on what an illicit discharge looks like and have an online reporting form; and the Concerns Hotline.

If the City is alerted to a potential illicit discharge, an inspector from the Engineering Division will investigate, as needed, to verify the existence of the illicit discharge. Methods available for the inspection program include visual inspection, smoke and dye tests and closed circuit television. Investigations will include visible evidence or chemical tests to indicate contamination. Once the illicit discharge is located, a detailed field survey with testing will take place, working upstream until the source of origin is located. During the inspection process, the City will seek permission and access private property to the extent allowable by law.

The City will work with the source of the illicit discharge to remedy the situation. The discharge shall be removed by the party responsible for the violation, at no expense to the City. The violator will submit the proposed removal process to the City for approval. The process will then be monitored by the City for proper methodology. Should the party responsible for the illicit discharge refuse to cooperate; the penalty provisions included in the IDDE Ordinance will be enforced.

Should the source of a violation not be identified, the City will remediate and curtail the violation to the extent practicable, taking into account cost, manpower requirements and the availability of state and federal funding.

Measurable Goals

The goal of this permit period is to continue the enforcement of the IDDE Ordinance. The effectiveness of this BMP will be measured using the following parameters:

- IDDE Ordinance submitted for approval by March, 2008
- Percentage of outfalls visually inspected
- Number of illicit discharge alerts
- Number of investigations performed
- Number of illicit discharges located
- Enforcement and remediation actions taken under the ordinance

3. Demolition Permitting

BMP Description

The ongoing demolition permitting process ensures that demolition waste and special waste resulting from the destruction/removal of any institutional, commercial, public, industrial or residential structure is properly handled, transported, and disposed.

Measurable Goals

The goal for this permit period is to continue the demolition permitting program and inform those performing demolition of proper waste handling, transportation and disposal procedures as well as local recycling opportunities. The effectiveness of this BMP will be measured using the following parameters:

- Number of demolition permits
- Inclusion with the permits of educational material regarding proper waste handling, transportation and disposal procedures as well as local recycling opportunities

4. Yard Waste Collection and Recycling Collection Programs for Household Wastes

BMP Description

To divert the potential for promiscuous litter and improper yard waste disposal, the City of Wentzville has contracted with a licensed solid waste hauler for both yard waste pickup and curbside recycling.

J. Hunt Hauling picks up and composts yard waste from residents desiring those services, giving them a means of proper disposal of yard wastes. Residents are able to subscribe to the service over the phone or on the website and they are charged a fee that appears on the normal City utility bill.

J. Hunt Hauling also does curbside pick up of particular household wastes for recycling. The recycling service is mandatory, meaning the residents are charged regardless of whether they use the service or not. Items collected include: cardboard boxes, boxboard, newspaper, mixed paper, glass jars/bottles, aluminum and steel cans and #1 and #2 plastic containers.

Wentzville also conducts two free special trash pickups per year in the spring and fall. Households can put out large bulky items, electronic items and construction/remodeling waste at these pickups.

Additional household waste recycling and collection, including residential hazardous chemical collection, is available through St. Charles County. The St. Charles County Division of Environmental Services operates two drop-off recycling centers for all St. Charles County residents, including residents of the City of Wentzville. Recycle Works West is within the City of Wentzville, and accepts a variety of household wastes such as: antifreeze, transmission and hydraulic fluid, motor oil, batteries, appliances, computers and peripherals, microwaves, printer cartridges, clothing, electronic equipment, among others. Recycle Works Central also accepts hazardous household chemicals such as paints, solvents, insecticides, etc. during the months of April through October. The chemicals collected are recycled, used to produce energy, or packaged for safe disposal in a hazardous waste landfill.

Residents are referred to the yard waste, recycling and St. Charles County programs via the "Wentzville Residential Trash Guide" included in the "Welcome to Wentzville" packet and information is also found on the City website. Advertising for the programs will be increased by including them more prominently on the City website and including the information in the Utility Bill Insert as described in MCM I – Public Outreach and Education.

See Appendix C for a copy of the "Wentzville Residential Trash Guide" and information about the St. Charles County Recycle Works program.

Measurable Goals

The goal of this permit period is to continue these waste collection programs and to increase awareness of the programs through more prominent advertisement on the City website and in the annual utility bill insert. The effectiveness of this BMP will be measured using the following parameters:

- Number of households registered for yard waste service
- Tons of yard waste material collected
- Tons of household waste recycled through the curbside recycling program
- Percentage of total household waste collected that is recycled through the curbside recycling program
- Number of tons of household waste collected by St. Charles County
- Ease of finding information about the waste collection programs on the City of Wentzville website
- Inclusion of information about the waste collection programs in the annual utility bill insert
- Qualitative observation of a reduction in litter in storm sewers or on stream banks during informal staff field observations, Stream Team activities and Operation Clean Stream activities as discussed in MCM II – Public Involvement and Participation

5. Municipal Waste Trash Collection Requirements

BMP Description

The City of Wentzville contracts with J. Hunt Hauling to pick up trash in the Wentzville area. J. Hunt Hauling is a licensed solid waste hauler. The contract stipulates that the City may assess an administrative charge, and deduct or withhold money due, for such things as: failure to resolve a complaint within a given time frame; failure to clean up spillage or litter; failure to maintain

equipment in a clean, safe, and sanitary manner; failure to have a vehicle operator properly licensed; failure to submit required documents to the City; etc. See Appendix C for a copy of relevant sections of the current solid waste contract with J. Hunt Hauling.

Measurable Goals

The goal for this permit period is to continue the use of a licensed solid waste hauler for municipal waste collection. The effectiveness of this BMP will be measured using the following parameters:

- Number of tons of solid waste collected
- Number of complaints
- Number of administrative charges assessed
- Dollar amount of administrative charges assessed

6. Voluntary Litter Pickup Programs

BMP Description

Stream Teams, the Adopt-A-Street program, Make a Difference Day and Operation Clean Stream programs as described in MCM II – Public Involvement and Participation are also applicable to MCM III in that they directly remove illicit discharges in the form of floatables and debris from the Wentzville streets, neighborhoods and streams. These activities also provide opportunities for volunteers to be in areas where they may detect and report other illicit discharges.

7. Private Sewerage Conversion

BMP Description

The City of Wentzville does not allow new septic or private package treatment plants within the municipal boundaries. In addition, as an area is incorporated into the City limits, that area is converted to the public sanitary system where practicable.

Measurable Goals

The goal of this permit period is to continue the process of private sewerage conversion within the City limits. The effectiveness of this BMP will be measured using the following parameters:

- Number of existing private sewerage systems taken offline

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MCM IV – Construction Site Storm Water Runoff Control

Introduction

The target audience for MCM IV includes developers, contractors, and the City of Wentzville. As stated in the introduction, the Wentzville area is experiencing extensive growth. Construction site pollutants are a significant contributor to storm water runoff pollution.

The main targeted pollutant is sediment, but construction debris, construction chemicals and concrete truck washout are targeted as well.

Best Management Practices (BMPs) for MCM IV

1. Grading and Erosion/Sediment Control Plan Review

BMP Description

Chapter 520 of the Wentzville Municipal Building Code, entitled Erosion and Sediment Control, requires that *any person, firm, corporation, or business proposing to develop land within the City of Wentzville shall apply to the designated official for approval of required erosion control plans and issuance of a grading permit.* See Appendix C for a copy of the ordinance. Erosion and sediment control plans and proposed phasing of the site development are required for grading land areas 20,000 square feet or larger. Provisions are required to accommodate increased runoff caused by changed soil and surface conditions during and after grading activities. Requiring the use of erosion and sediment Best Management Practices (BMPs) will prevent runoff from the site into storm water systems and natural watercourses.

If required to have a Land Disturbance Permit issued by the Missouri Department of Natural Resources, the permit number shall be required prior to issuance of a grading permit.

City engineers review all plans to determine the site conditions before, during and after construction. This includes the phasing of construction, the use of BMPs to protect the site, and a listing of the responsible parties involved with the construction site. Responsible parties are required to post a Performance Guarantee with the City to ensure that all BMPs are working and the site is protected against sediment runoff.

Grading operations 20,000 square feet or larger conducted by the City of Wentzville will also include an erosion and sediment control plan, will go through the review process and will meet all local, state and federal requirements.

Measurable Goals

The goal for this permit period is to continue the site plan review process including the review of erosion and sediment control plans. The effectiveness of this BMP will be measured using the following parameters:

- Number of site plans submitted for review
- Average number of submittal/review cycles prior to site plan approval
- Feedback from inspectors as to improvements in erosion and sediment control measures on construction sites
- Number of sediment related complaints via the Concerns Hotline
- Qualitative observation of water quality during outfall visual field screenings

2. Erosion and Sediment Control Design Manual

BMP Description

Current requirements and design guidance for erosion and sediment control plans can be found in Chapter 520 of the Wentzville Municipal Building Code entitled Erosion and Sediment Control and its appendices. The Engineering Division will create a sediment and erosion control design manual to be incorporated into the Engineering Design Criteria manual. The City will review existing local design manuals to determine applicability to the City of Wentzville. The City will adopt the most applicable manual with revisions as appropriate.

In addition to erosion and sediment control requirements and design guidance for BMPs, the design manual will include: contractor requirements during construction such as inspection and maintenance procedures, record keeping, etc.; proper handling requirements for construction waste such as discarded building materials, concrete truck washouts, chemicals, litter, and sanitary waste; and disposal requirements of dredged material, accumulated sediments, floatables and other debris from temporary silt basins.

Municipal construction projects will also be required to follow the requirements in the Erosion and Sediment Control Design Manual.

Measurable Goals

The goal for this permit period is to review, amend and adopt an Erosion and Sediment Control Design Manual with requirements tied to land disturbance activities and design guidance for erosion and sediment control BMPs. The effectiveness of this BMP will be measured using the following parameters:

- Feedback from inspectors as to improvements in erosion and sediment control measures on construction sites
- Feedback from the development community via regular meetings with the local Home Builder's Association and semi-annual builder's meeting
- Qualitative observation of water quality during outfall visual field screenings
- Number of sediment related complaints via the Concerns Hotline

3. Erosion and Sediment Control Inspection and Training

BMP Description

The City currently has three trained erosion and sediment control inspectors on staff. Each of the inspectors has received training through an Erosion Control Class and additional training on-site from staff Civil Engineers and experienced inspectors. Additional training will be conducted for new inspectors and periodic refresher courses as needed.

Inspections are usually conducted after major rain events or on a complaint-driven basis. General inspections of sediment/erosion control measures are routinely performed during site inspections for other infrastructure. Contractors shall be required to keep on site and make available upon request the following items:

- A copy of the grading permit and the most current erosion and sediment control plan
- Inspection and maintenance logs from routine and heavy rain event inspections

- A copy of the Land Disturbance Permit issued by the Missouri Department of Natural Resources, if required

The Engineering Division's measures for compliance include inspections, notice to correct, stop work orders, fines, and use of a Performance Guarantee. Inspections provide enforcement of the erosion and sediment control BMPs employed on each site. If the BMPs are not being followed or are not working as intended, a notice to correct is issued. This Notice to Correct requires a 30-day compliance period. If compliance is not met within the allocated time, a Stop Work Order is issued. At this point fines can be issued to the violator. Fines not to exceed five hundred dollars ($500.00) per violation per day could be levied against the violator. If the fines are ignored and compliance is not met, the monies provided by the performance guarantee will be used to correct the violation and return the site to compliance.

Measurable Goals

The goal of this permit period is to continue the erosion and sediment control inspection and inspector training programs. The effectiveness of this BMP will be measured using the following parameters:

- Number of inspectors employed by the City
- Number of inspections performed
- Number and frequency of formal inspector training sessions
- Average number of inspections per acre of land disturbance activity
- Number of violation notifications and enforcement procedures used
- Qualitative feedback from inspectors
- Qualitative observation of water quality during outfall visual field screenings
- Number of sediment related complaints via the Concerns Hotline

4. Erosion and Sediment Control Developer/Engineer/Contractor Training

BMP Description

This BMP is in coordination with the Targeted Seminars and Training BMP as described in MCM I – Public Outreach and Education. The Public Works Department conducts two Builder's Meetings to discuss builder concerns, new regulations, building code changes, etc. One meeting will be used as a training vehicle on erosion and sediment control topics such as: design, installation, inspection and maintenance.

Measurable Goals

The goal for this permit period is to include erosion and sediment control training in at least one of the semi-annual Builder's Meetings. The effectiveness of this BMP will be measured using the following parameters:

- Number of training sessions
- Number of participants
- Qualitative feedback from participants
- Qualitative feedback from inspectors as to improvements in erosion and sediment control measures on construction sites
- Number of sediment related complaints via the Concerns Hotline

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MCM V – Post-Construction Storm Water Management

Introduction

The City will continue existing, develop new, and enforce Best Management Practices (BMPs) to address storm water runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, that discharge into the City's regulated small MS4. The BMPs are designed to ensure that controls are in place that would prevent or minimize water quality impacts by requiring water quality treatment and more closely matching pre-developed hydrology.

Best Management Practices (BMPs) for MCM V

1. Storm Water Design Criteria

BMP Description

Per the City of Wentzville, Missouri Engineering Design Criteria, all public or private sewerage, public water mains, drainage works or other public improvements proposed to be constructed, altered or reconstructed within the corporate limits of the City of Wentzville must be reviewed by the Engineering division of the Public Works department. This includes any altering of any storm drainage channel, site drainage or flood plain within City limits.

The current Design Requirements for Storm Drainage Facilities, which is found in the Engineering Design Criteria manual, were adapted in 2003 from the Metropolitan St. Louis Sewer District (MSD) Design Criteria from 1997. New development and re-development projects are required to have storm water detention if they are determined to have a differential runoff greater than 1 cfs for the 15-year, 20-minute storm event. If required, the post-developed peak flow from the site may not exceed the existing peak flow for the 2-year, 24-hour event and the 25-year, 24-hour event for sites larger than 10 acres. For sites less than 10 acres, the post-developed peak flow from the site may not exceed the existing peak flow for the 2-year, 20-minute event and the 25-year, 20-minute event. In addition, erosion protection is required in engineered channels and at pipe outfalls to reduce or eliminate sediment generation in these high stress areas.

The Design Requirements for Storm Drainage Facilities were revised in 2007 to meet the requirements of the General State Operating Permit for Small MS4s. The new Design Requirements were open for public comment and a stakeholder's meeting to discuss comments was held August 30, 2007. If approved, the new Design Requirements are scheduled for implementation on January 1, 2008. See Appendix C for relevant sections of the revised Design Requirements. The entire section is available on the City's website at: http://www.wentzvillemo.org/pdf/storm_drainage_draft.pdf

The new design criteria meet the requirements of the General State Operating Permit for Small MS4s by including the following measures to minimize or prevent water quality impacts:

- Requires storm water detention and water quality features for all new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than 1 acre that are part of a larger common parcel or project that is greater than one acre

- Requires water quality structural BMPs to capture and treat the runoff from 90% of the recorded daily rainfall events. The water quality volume is calculated using a precipitation amount of 1.14 inches multiplied by a volumetric runoff coefficient, which depends on the amount of impervious cover. The BMPs are based on those adopted by the state of Maryland, (also adopted by MSD).
- Allows credits to the water quality structural requirements for the use of non-structural water quality BMPs, also based on those adopted by the state of Maryland and MSD.
- In addition to flood protection by maintaining the pre-developed 100-year peak flow rate, the new criteria requires 24-hour extended detention of a channel protection volume, assumed to be the runoff volume generated by the 1-year, 24-hour storm event.
- Requires a Channel Assessment and Channel Condition Scoring Matrix to be completed for any project crossing over or under a natural channel in order to inform the crossing design.
- Requires grade controls to be built in receiving streams at crossings and pipe outfalls to reduce or eliminate sediment generation and stream degradation as a result of these designs.
- Requires developers to submit a maintenance plan including the following:
  15. The person(s) or organization(s) responsible for maintenance (subdivision trustees, property owner, etc,)
  16. Drawing and description of the Detention or BMP facility(s) including all components integral to the operation of the facility
  17. Routine seasonal and annual inspection procedures (such as plantings, replacing mulch)
  18. Routine seasonal and annual maintenance procedures
  19. Non-routine maintenance procedures (less frequent and generally more expensive such as pond dredging or major repairs to structures)
  20. Repair procedures
  21. Inspection and maintenance logs and record keeping procedures to track and record compliance with the Operation and Maintenance Plan.
- Requires the developer to execute a maintenance agreement to be transferred to the property owner or neighborhood association, which allows the City to conduct inspections. The subdivision homeowners or private property owners must complete any required maintenance or repair. The City may correct violations and costs will be assessed against the property owner or subdivision homeowners if the owners fail to comply.

Municipal Capital Improvement Projects such as roadway widening and new municipal buildings and parking lots that meet the requirements for storm water management will also be designed in accordance with the new Design Requirements.

Measurable Goals

The goal of this permit period is to implement the new Design Requirements for Storm Drainage Facilities and review new and re-development projects within the City of Wentzville using these criteria. The effectiveness of this BMP will be measured using the following parameters:

- Approval of the new Design Requirements for Storm Drainage Facilities
- Number of new and re-development projects reviewed under the new criteria
- Average number of submittal/review cycles prior to site plan approval

- Feedback from City review engineers
- Feedback from the development community, neighborhood associations and the residents via the Bi-annual SWMP Public Meetings and training seminars
- Qualitative observation of water quality during outfall visual field screenings

2. City of Wentzville Comprehensive Land Use Plan and Municipal Code Revisions

BMP Description

The City of Wentzville adopted a Comprehensive Plan April 2006, to provide for organized and sustainable growth within the Planning Boundary. The Comprehensive Plan includes areas designated for development as well as areas of open space for floodplain, parks and recreation. The areas designated for development are: Commercial; Office; Industrial; Institutional; Residential including high density, medium to high density, medium density and low density; Transitional; and Neighborhood Commercial.

The goals and objectives of the Comprehensive Plan are far-reaching and varied. See Appendix C for a copy of the "Goals, Objectives, and Action Steps of the Comprehensive Plan" section. The entire Comprehensive Land Use Plan is available on the City's website at: http://www.wentzvillemo.org/new_planning/comprehensive_plan.pdf

The stated goals and objectives with particular applicability to this MCM are:

- Encourage infill development, as appropriate, to maximize utilization of existing infrastructure and land resources.
- Preserve natural physiographic features, i.e., woods, prairie lands, stream valleys, and contours to the greatest extent possible through creative site planning.
- Use natural areas, creek channels, and associated floodplain areas, drainage areas and storm water structures/basins, existing parks and play fields, streetscapes, and underutilized lands to create an integrated city wide open space system. Included in this objective is the action item to acquire public pedestrian easements within common ground areas of Wentzville subdivisions, under the plat approval process, which connect to public sidewalks for the construction and maintenance of a public pedestrian trail network.
- Preservation and conservation of mature trees and existing tree masses and canopies in order to protect existing natural resources, minimize damage and destruction via development, provide shade, protect wildlife habitat, reduce air pollution, stabilize existing soils, buffer and screen, and generally enhance the City of Wentzville's physical and aesthetic environment, thereby generally protecting and enhancing the quality of life of the City's residents. Included in this goal is the objective to adopt a Municipal Tree Ordinance and the action item to create a Natural Resources Map to indicate preservation and conservation areas, waterways, wetlands, etc.

In accordance with the Comprehensive Plan, Zoning Ordinances have been and will continue to be reviewed and modified to meet the stated goals and objectives. Ordinances with particular applicability to this MCM are as follows:

- Chapter 415: Floodway and Floodway Fringe Districts restricts certain land uses in the floodplain and floodway. See Appendix C for a copy of the ordinance.

- Tree Preservation Ordinance: The City has attempted to enact a tree preservation ordinance without success. The ordinance will be revised resubmitted for approval.
- Riparian Buffer Ordinance: In 2007, the City developed an ordinance to set forth regulations for the protection of natural watercourses and provide minimum standards and setbacks for riparian buffers. These regulations and standards will prevent or minimize water quality impacts by promoting the protection of natural watercourses and riparian buffers, minimizing encroachment, reducing impervious area, absorbing peak flows, and filtering or settling pollutants in storm water runoff. The ordinance was made available for public comment and a stakeholder's meeting to discuss comments was held August 30, 2007. If approved, the new ordinance is scheduled for implementation on January 1, 2008. See Appendix C for a copy of the draft ordinance.

Measurable Goals

The goal for this permit period is to pass the riparian buffer ordinance and tree preservation ordinance and to continue to review and revise the Municipal Code to meet the stated goals and objectives of the Comprehensive Land Use Plan. The effectiveness of this BMP will be measured using the following parameters:

- Passage of a riparian buffer ordinance
- Passage of a tree preservation ordinance
- Number of acres of riparian area preserved
- Number of trees or acres of existing tree canopy preserved

3. Storm Water Utility

BMP Description

The City of Wentzville has proposed and is in the public comment process for a Storm Water Utility to fund the maintenance of the existing storm water system and additional improvements. The utility will provide funding for the implementation of NPDES Phase II Programs. The utility will include a credit program for non-residential entities if certain storm water education or volunteer activities are conducted by the entity. For example, schools will get a credit for incorporating storm water education into their curriculum or holding litter cleanup activities. If approved, the utility will be implemented January, 2008.

Measurable Goals

The goal of this permit period is to pass the storm water utility and create a prioritized list of uses for the revenue generated. The effectiveness of this BMP will be measured using the following parameters:

- Passage of the storm water utility
- Establishment of the storm water utility credit program
- Amount of revenue generated by the utility
- Amount in credits from the credit program
- Amount of expenditures on NPDES Phase II Programs

4. Parks & Recreation Program

BMP Description

Parklands provide a combination of benefits to the City, including the preservation of open space, regional detention, and recreation. The City will continue to purchase property for its

Parks & Recreation program and actively preserve land along streams for trails by requiring common ground to be platted as a public pedestrian easement.

The City is also creating a future 26-acre park, which will contain a 9-acre lake on an unnamed tributary to McCoy Creek. The lake will be used for regional storm water detention to alleviate flooding in the McCoy Creek watershed. The lake is currently under design and is scheduled for construction in 2008.

Additional opportunities exist by partnering with private or public groups. The City will continue to seek partnerships with municipalities and/or non-profits such as: Greenway Network, St. Charles Soil and Water Conservation District, Great Rivers Greenway District, etc.

Measurable Goals

The goal for this permit period is to complete the new park and regional detention facility, continue requiring public pedestrian easements on common ground in new subdivisions, and continue to expand the open space preserved through the Parks & Recreation program. The effectiveness of this BMP will be measured using the following parameters:

- Construction of the new regional detention facility
- Number of acres of park and other open space
- Number of acres of new park or other open space added
- Number of miles of trail network
- Number of miles of trail network added

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MCM VI - Pollution Prevention/Good Housekeeping for Municipal Operations

Introduction

The City will continue existing and develop new pollution prevention/good housekeeping BMPs to prevent or reduce pollutant runoff from municipal operations. The program includes training of City employees and will eventually encompass all departments/divisions of municipal operations.

Municipal Capital Improvement Projects such as roadway widening and new municipal buildings and parking lots are designed in accordance with municipal design requirements for erosion and sediment control and storm water management. Municipal projects go through the design review process and receive construction inspections.

The targeted pollutants for this MCM are those generated by municipal operations including: sediment, sodium chloride, fertilizers, pesticides, petroleum hydrocarbons, solid and hazardous wastes, nutrients, organic materials, litter and debris, and bacteria.

Best Management Practices (BMPs) for MCM VI

1. Operations and Maintenance (O&M) Program and Training

BMP Description

O&M Program:

The City will expand upon the current O&M Programs for various departments/facilities to further prevent or reduce pollutant runoff from municipal operations. The programs will contain but not necessarily be restricted to the following municipal operations and categories:

Building Maintenance
- Material storage and control
- Proper use and application of materials

Garden and Landscaping Operations
- Proper operation of irrigation systems
- Material storage and control
- Proper use and application of materials

Parking Lots and Storm Water System Maintenance
- Inspection and cleaning of storm water systems on a complaint-driven basis

Park/Open Space Maintenance
- Use of native and low-maintenance plant species
- Material storage and control
- Proper use and application of materials

Licensed Vehicle Maintenance
- Performed by a competent vendor in a protected facility
- Routine operator inspections before use
- Vehicle wash-out procedures

Off-Road Equipment Maintenance
- Maintenance performed within a protected facility
- Weekly operator inspections before use
- Remove equipment from service when fluid leaks are significant

- Vehicle wash-out procedures

Outdoor Bulk Material Storage
- Covered material storage areas
- Short-term uncovered storage areas

Land Disturbance
- Plan/Design projects for minimum disturbance
- Procedures for self-performed construction activities

Soil Stabilization
- Continuous assessment of City-operated sites
- Projects to improve soil stability

Illicit Discharge Detection
- Periodic inspection of City-sites for illicit discharges

Waste Disposal
- All wastes disposed per federal, state, and local regulations
- Provide recycling alternatives to reduce conventional waste disposal

Spill Prevention, Control and Countermeasure (SPCC)
- Safe handling procedures
- Spill containment procedures
- All spills handled per federal, state, and local regulations

Maintenance Schedules and Inspection Procedures
- Routine maintenance
- Non-routine maintenance
- Inspection schedule and checklists
- Record-keeping

The following departments will be responsible to evaluate their current O&M programs, or having none, develop a specific O&M Program for that department's operations and facilities such that storm water pollutants are minimized:

- Public Works, including:
  - Engineering Division
  - Street Division
  - Water Division
  - Wastewater Treatment Division
  - Vehicle Maintenance Division
- Parks and Recreation
- City Government

In the development or evaluation of O&M programs, each applicable department will assess their municipal operations for associated storm water impacts, including the categories listed above. The assessment will identify existing and potential pollutant sources and methods of reduction or elimination of identified pollutants. The following decision process will be used to change existing municipal operations to meet this objective:

1. Review current operation methods, associated pollutants, and possible alternatives
2. Determine feasibility of operational changes
3. Estimate probable cost of implementation

4. Departmental review of Cost/Benefit Analysis
5. Implement changes if budget allows
6. Request additional funds if necessary
7. Financial appropriation if necessary

The various O&M Programs will be collected and reviewed by the Public Works department for adherence to the details of this BMP and for consistency and overlap.

Training:
Each department will create and implement a training program tailored for their operations. The training program shall consist of new staff orientation and retainer/refresher components. The training will include written feedback from employees regarding the applicability and effectiveness of the O&M Program and training.

The Public Works department will assist the individual departments by compiling training resources from St. Charles County, EPA, Missouri Department of Natural Resources, and other applicable authorities and coordinating inter-departmental training opportunities.

The Storm Water Management Coordinator will seek opportunities to coordinate the training programs with the outreach programs developed for MCM I – Public Education and Outreach and MCM III – Illicit Discharge Detection and Elimination.

Measurable Goals
The goal of this BMP is to prevent or reduce pollutant runoff from municipal operations through the use of O&M Programs and training tailored to specific City departments and facilities. The effectiveness of this BMP will be measured using the following parameters:

- Number of departments with new or revised O&M Programs
- Progress/status of O&M operations and categories
- Number of training sessions
- Number of participants in training sessions
- Number of training sessions coordinated with MCM I and MCM III education and outreach programs
- Feedback from City employees regarding the applicability and effectiveness of the O&M Programs and training

2. Public Works Facility Structural BMP

BMP Description
The City of Wentzville Public Works Department will design and construct a structural water quality BMP to treat runoff generated on the Public Works Facility. The City has a 5-acre drainage area associated with the public works facility. The area has a single point discharge for the storage yard, maintenance facility, etc.

The Streets Division will test the existing effluent for the targeted pollutants: sediment, sodium chloride, petroleum hydrocarbons, litter and debris, then test again after construction. Effluent testing will continue bi-annually to check for BMP effectiveness and to determine if additional maintenance is required.

Measurable Goals
The goal for this permit period is to construct the public works facility BMP to reduce the targeted pollutants. The effectiveness of the BMP will be measured using the following parameters:

- Construction of the public works facility BMP
- Amount of targeted pollutants as measured from pre and post construction tests
- Number of recorded inspection and maintenance logs for the BMP

3. Street Sweeping

BMP Description
The City has a street-sweeping program implemented. The schedule is based on the snow route. The sweeper is out daily except when maintenance of the sweeping vehicle takes it offline 1 to 4 days per month. The sweeper is the Elgin Eagle brush sweeper.

The sweeping schedule is as follows, but changes as needed for construction cleanup:

- Main streets twice per month
- Subdivision streets once per quarter

Measurable Goals
The goal for this permit period is to continue the street sweeping program, designate a dedicated employee to operate the street sweeper, implement a tracking system to determine sweeping coverage and increase the frequency of sweeping streets. The effectiveness of this BMP will be measured based on the following parameters:

- Designation of dedicated street sweeper operator
- Number of days the street sweeper is in operation
- Tracking the frequency of street-sweeping for each main and subdivision street within the municipal boundaries
- Percent coverage of the public streets swept per month for both main streets and subdivision streets
- Number of citizen complaints with regards to cleanliness of public streets
- Response to citizen complaints with regards to cleanliness of public streets
- Qualitative observation by street sweeping staff of a decrease in the amount of floatables, sediment and debris

4. Fuel Storage

BMP Description
The City has eliminated the use and removed all City owned fuel storage tanks. Municipal vehicles now use commercial fuel stations.

Measurable Goals
The goal for this permit period is to continue the use of commercial fuel stations for all municipal vehicles.

5. Flood Management Projects

BMP Description

The Engineering Division reviews all flood management projects that require a floodplain development permit for water quality impacts and recommends necessary water quality protection device(s) or practice(s). The Engineering Division will also acquire any necessary permits and develop a Storm Water Pollution Prevention Plan (SWPPP) as required by Missouri Department of Natural Resources. The SWPPP will include inspection and maintenance procedures for erosion and sediment control devices.

Measurable Goals

The goal of this BMP is to continue the practice of reviewing flood management projects for water quality impacts and the applicability of NPDES Land Disturbance permits for each project. The effectiveness of this BMP will be measured based on the following parameters:

- Approval of individual NPDES Land Disturbance Permits
- Implementation of SWPPP including inspection and maintenance logs of erosion and sediment control devices

Appendix A

Projected Timeline for SWMP Implementation

Permit Period 2008 thru 2012

Appendix A – Projected Timeline for SWMP Implementation

Following is a projected timeline for implementation of SWMP major tasks, along with the applicable Minimum Control Measure(s) (MCM(s)) and responsible party for each task.

Responsible party abbreviations are as follows:
CSWAG – Citizens Storm Water Action Group
ENG – Engineering Division
GIS – GIS Administrator
PARKS – Parks and Recreation Department
PLAN – Planning Department
PW – Public Works Department
STREET – Streets Division
SWMAC – Storm Water Management Advisory Committee
SWMC – Storm Water Management Coordinator
UBO – Utility Billing Operations
WASTE – Wastewater Division
WATER – Water Division
WPA – Web Page Administrator

See Appendix B for additional information regarding the responsible party for each MCM and individual BMPs.

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Task #	Permit Year	Task	Applicable MCM(s)	Responsible Party
		2008		
1	2008	Implement Storm Water Management Web Page	I	SWMC/WPA
2	2008	Publish and distribute brochures	I	SWMC
3	2008	Develop Educational Program and reach 350 participants	I	SWMC
4	2008	Continue yard waste collection via a licensed hauler	III	PW
5	2008	Include yard waste disposal alternatives in brochures/fact sheets/web page, etc.	I, III	SWMC
6	2008	Write four storm water articles for The *Vision* or local newspaper	I	SWMC
7	2008	Develop fact sheet for inclusion with City utility bill	I	SWMC/UBO
8	2008	Include one fact sheet with City utility bill	I	UBO
9	2008	Publish seminars/training for various target audiences and investigate existing and regional seminar/training opportunities	I	SWMC
10	2008	Form the Storm Water Management Plan (SWMP) Advisory Committee	II	SWMC/CG
11	2008	SWMP Advisory Committee first meeting to review the SWMP	II	SWMAC
12	2008	Form the Wentzville's Storm Water Action Group	II	SWMC
13	2008	First meeting of the Citizen's Storm Water Action Group	II	CSWAG
14	2008	Stream Team #1062 Litter Cleanup	II, III	WATER/WASTE
15	2008	Seek at least one additional Stream Team	II	SWMC/CSWAG
16	2008	Track local Stream Team activities	II, III	SWMC/CSWAG
17	2008	Storm drain stenciling of 1000-1500 public storm drains	II, III	SWMC/CSWAG
18	2008	Track Adopt-A-Street program activities	II, III	PW
19	2008	Annual Make A Difference Day	II, III	PW
20	2008	Annual Operation Clean Stream	II, III	PARKS
21	2008	Evaluate the Concerns Hotline routing tree and update as necessary	II	SWMC/ENG
22	2008	Increase advertising of the Concerns Hotline for storm water concerns	II	SWMC/WPA
23	2008	Track and respond to citizen's concerns	II	SWMC/WPA
24	2008	First Bi-annual SWMP Public Meeting	II	SWMC/SWMAC
25	2008	First SWMP Survey/Questionnaire	II	SWMC/UBO
26	2008	Continue updating the Storm Sewer Map	III	ENG/GIS
27	2008	Review Storm Sewer Map applicability for tracking other SWMP BMPs	III	SWMC/ENG/GIS
28	2008	Enforce Illicit Discharge Ordinance	III	ENG/PW
29	2008	Visual field screening of 20% of Wentzville's outfalls	III	ENG

Task #	Permit Year	Task	Applicable MCM(s)	Responsible Party
30	2008	Develop educational material to accompany demolition permits with information on acceptable disposal methods and recycling opportunities	II, III	SWMC/ENG
31	2008	Continue to permit demolition activities with the inclusion of educational material	II, III	ENG
32	2008	Continue curb-side recycling program via a licensed solid waste collection contractor	III	PW
33	2008	Increase advertising of the St. Charles County household waste collection programs and continue referring Wentzville residents to the program	III	SWMC/WPA
34	2008	Request data from St. Charles County regarding amount of various wastes collected and what is done with the wastes	III	SWMC
35	2008	Continue private sewerage conversion to public in new areas incorporated into the City limits	III	ENG
36	2008	Continue contract with licensed solid waste hauler and evaluate hauler performance	III	PW
37	2008	Continue review of Erosion and Sediment Control Plans	IV	ENG
38	2008	Evaluate erosion and sediment control inspection procedures to increase consistency of inspections	IV	ENG
39	2008	Continue erosion and sediment control inspections	IV	ENG
40	2008	Continue to train inspectors in erosion and sediment control installation, maintenance and inspection procedures	II, IV	ENG
41	2008	One Sediment and Erosion Control Developer/Engineer/Contractor training session during a Builder's Meeting	II, IV	PW
42	2008	If approved, implement the new Design Requirements for Storm Drainage Facilities	V	ENG
43	2008	If not approved, work with the City Government, HBA, Engineering Community, Neighborhood Associations, DNR, and other interested stakeholders to revise the new Design Requirements and implement	V	ENG/PW
44	2008	Resubmit for approval a Tree Preservation ordinance	V	PLAN/PW
45	2008	If approved, implement the Natural Watercourse/ Riparian Buffer ordinance or resubmit for approval	V	PLAN/PW
46	2008	Pass storm water utility fee	V	PW
47	2008	Establish the storm water utility credit program	I, II	PW
48	2008	Construct new park with regional detention facility	V	PW/PARKS
49	2008	Develop a template for the O&M Program for use by the individual departments	VI	PW
50	2008	Compile training resources from applicable authorities and suggests inter-departmental O&M training opportunities	II, VI	PW

Task #	Permit Year	Task	Applicable MCM(s)	Responsible Party
51	2008	Pre-construction effluent test at the Public Works Facility	VI	STREET
52	2008	Public Works Facility BMP conceptual design and cost estimate	VI	ENG
53	2008	Investigate funding mechanisms for Public Works Facility BMP including municipal funds and state or federal grants or matching fund opportunities	VI	PW
54	2008	Request municipal funding for Public Works Facility BMP if needed	VI	PW
55	2008	Designate a dedicated employee for street sweeping	VI	STREET
56	2008	Evaluate street-sweeping schedule and procedures	VI	STREET
57	2008	Implement tracking of street-sweeping for each main and subdivision street within the municipal boundaries	VI	STREET

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Appendix B

Responsible Party for SWMP BMPs

Appendix B – Responsible Party for Storm Water Management Program BMPs

The City has hired a Storm Water Management Coordinator (SWMC) for the purpose of managing the SWMP. The SWMC has overall responsibility for the SWMP. General duties include:

- Manage the SWMP budget including:
  1. Review current operation methods
  2. Determine feasibility and priority of operational changes
  3. Estimate probable cost of implementation
  4. Explore alternative funding opportunities such as donations, grants, local, state and federal matching programs, etc.
  5. Submit budget to Public Works Department for review
  6. Request additional funds if necessary
  7. Financial appropriation if necessary
- Coordinate with the Missouri Department of Natural Resources and EPA on permit requirements and the City's compliance
- Coordinate with neighboring MS4s for opportunities to share information and programs and support regional programs
- Write and submit the Annual Report as required by the permit
- Write and submit the Permit Application for the next permit renewal
- Write and submit the SWMP for the next permit period

Following is a list of the responsible party for the various SWMP MCMs and BMPs. Annual reports by various individuals or departments are due to the SWMC by January 31 each year so the SWMC can compile data for the Annual Report required by the permit by April 10 of each year. During the permit period, the City will review staffing needs to determine if additional staffing is needed to implement the SWMP. Additional staff will be added to the extents practicable.

MCM I – Public Outreach and Education

The **Storm Water Management Coordinator (SWMC)** will be responsible for overseeing the Public Outreach and Education program with assistance for individual BMPs as follows:

1. Storm Water Management Web Page – The **Web Page Administrator** will be responsible for setting up and populating the web page with information provided by the SWMC. The Web Page Administrator will submit to the SWMC an annual report including:
    - The number of "hits" or downloads on the Storm Water Management Web Page
    - Dates of significant spikes in usage
    - Amount of information on the web page in some measurable unit
    - Online comment form results including an overall rating
2. Brochures/Fact Sheets – **Public Works Administrative Staff** will assist the SWMC in the production and distribution of brochures/fact sheets. **Each location** will be responsible for informing the SWMC of the need for more brochures/fact sheets and for submitting to the SWMC an annual report including
    - Information changed or added to the "Welcome to Wentzville" packet
    - Number of "Welcome to Wentzville" packets distributed
    - Number of brochures/fact sheets distributed to that location
    - Any observed spikes in interest in the brochures/fact sheets
3. School-Aged Educational Programs – The **teachers or youth group leaders** involved in the program will assist the SWMC in the implementation and evaluation of the education program, including filling out the teacher/leader survey. **Lecturers** will assist the SWMC in providing information on lectures performed including date, location, topic and brief description, audience and number of participants.
4. Storm Water Related Articles – **The *Vision* Editor** will assist the SWMC by publishing the articles provided by the SWMC and by submitting to the SWMC an annual report including:
    - Copies of The *Vision* including storm water related articles
    - Number of The *Vision* newsletters distributed
5. Utility Bill Insert – **Utility Billing Operations** will assist the SWMC by including the insert in one utility bill annually and by submitting to the SWMC an annual report including:
    - A copy of the utility bill insert
    - Number of utility bills mailed
6. Targeted Seminars and Training – The **Public Works Director** will work with the SWMC to determine and prioritize seminars and training needs. If the seminars and training are focused on a particular department or division of the City, the **Department Director or Division Supervisor** will be responsible for implementation of the seminar and submitting to the SWMC a report with the number in attendance, the agenda or course outline, and the results of comment cards filled out during the seminar or training.

MCM II – Public Involvement and Participation

The **Storm Water Management Coordinator (SWMC)** will be responsible for overseeing the Public Involvement and Participation program with assistance for individual BMPs as follows:

1. Storm Water Management Program Advisory Committee – The **SWMP Advisory Committee** will assist the SWMC by determining meeting times, setting agendas, and doing the business of the Committee including assistance with BMP #6, the Bi-annual SWMP Public Meeting (see below). The **SWMP Advisory Committee Chair** will submit to the SWMP an annual report including:
    - Meeting dates, attendance, agendas and minutes
    - Comments regarding the SWMP and recommendations for the following permit year
    - Review comments on the Annual Report and recommendations for the following permit year
    - Review comments on the new SWMP developed at the end of the permit period
2. Wentzville Storm Water Action Group – The **Wentzville Storm Water Action Group** will assist the SWMC by determining meeting times, setting agendas, and doing the business of the Group including tracking Stream Team activities for BMP #3 (see below). The **Wentzville Storm Water Action Group Members** will submit to the SWMP an annual report including:
    - Number and dates of volunteer activities implemented
    - Number of volunteers participating in the activities implemented
3. Stream Teams – The **Wentzville Storm Water Action Group** will assist the SWMC by seeking interested parties and leaders for Stream Teams, alerting the Stream Teams of training opportunities, and by tracking Stream Team activities.
   – Individual **Stream Teams** will assist the SWMC by conducting Storm Drain Stenciling, Litter Cleanup and Water Quality Monitoring activities
   – The **Wentzville Storm Water Action Group** will submit to the SWMC an annual report including, as applicable:
    - Dates and types of Stream Team activity
    - Training completed with dates and number involved
    - Number of volunteers involved
    - Amount of trash collected
    - Number of inlets painted
    - Results of water quality tests
    - Observations of the overall condition of their reach of stream with such things as vegetative cover and condition, amount of invasive species, amount of yard waste dumping, etc.

   – The SWMC will also coordinate with the **GIS Administrator** information as applicable to incorporate into the GIS System such as the dates storm drains are stenciled.
4. Other Voluntary Litter Pickup Programs – The **Public Works Office Manager** will assist the SWMC by tracking and helping to organize as needed, the Adopt-A-Street program and Make a Difference Day activities. The **Parks Department** will assist the SWMC by tracking and helping to organize, as needed the Operation Clean Stream program. Each will submit to the SWMC an annual report including:
    - Dates of activities
    - Number of miles of street or stream cleaned
    - Number of participants
    - Tons of trash collected

5. Concerns Hotline – The **Engineering Division** will assist the SWMC by tracking storm water related complaints and responses and will submit to the SWMC an annual report including:
    - Number of storm water related concerns
    - Response time for initial callback
6. Bi-annual Storm Water Management Program Public Meeting – The **SWMP Advisory Committee** will assist the SWMC by informing stakeholder groups about the public meeting and helping to conduct the meeting. The **SWMP Advisory Committee Chair** will submit to the SWMC a report including:
    - Date of the SWMP Public Meetings
    - Agenda and Minutes of the SWMP Public Meetings
    - Number of attendees at the SWMP Public Meetings
    - Number of comments generated during the SWMP Public Meetings
7. Storm Water Management Program Survey/Questionnaire – **Utility Billing Operations** will assist the SWMC in mailing the SWMP Survey/Questionnaire and will submit to the SWMC the number of Survey/Questionnaires mailed. The Survey/Questionnaires will be mailed back to the SWMC for data compilation and analysis.

MCM III – Illicit Discharge Detection and Elimination

The **Public Works Director** and **Storm Water Management Coordinator (SWMC)** will be responsible for overseeing and reporting on the Illicit Discharge Detection and Elimination program with assistance for individual BMPs as follows:

1. Storm Sewer Mapping – The **GIS Administrator** and **Engineering Division** will be responsible for collection of data and adding it to the storm sewer map. The **GIS Administrator** will submit to the SWMC an annual report including:
    - A copy of the current storm sewer map
    - A list of data available for storm sewer pipes and structures
    - Number of storm structures added to the map
    - Number storm sewer outfalls identified with GPS survey
2. Illicit Discharge Ordinance and Inspections – The **Engineering Division** will assist the Public Works Director by conducting inspections and performing enforcement duties. The **Engineering Division** will submit to the SWMC an annual report including:
    - Percentage of outfalls visually inspected
    - Number of illicit discharge alerts
    - Number of investigations performed
    - Number of illicit discharges located
    - Number of illicit discharges eliminated
    - Enforcement actions taken under the ordinance
3. Demolition Permitting – The **Engineering Division** will assist the Public Works Director in reviewing and approving Demolition Permits. The **Engineering Division** will submit to the SWMC an annual report including:
    - Number of demolition permits approved
    - Copies of educational material included with the permit regarding proper waste handling, transportation and disposal procedures as well as local recycling opportunities
4. Yard Waste Collection and Recycling Collection Programs for Household Wastes – The **Commercial Solid Waste Contractor** will track the curbside yard waste and recycling collection and will submit to the Public Works Director who will submit to the SWMC an annual report including:
    - Number of residents registered for yard waste service
    - Tons of yard waste material collected
    - Number of tons of household waste recycled through the curbside recycling program
    - Percentage of total household waste collected that is recycled
    - What is done with the yard waste and recycled material collected

    St. Charles County administers the drop-off recycling and household chemical collection on behalf of the City of Wentzville. The SWMC will request information from the County for the Annual Report, including:
    - Number of tons and types of household waste collected by St. Charles County
    - What is done with the materials collected
5. Municipal Waste Trash Collection Requirements – The **Commercial Solid Waste Contractor** will be responsible for meeting all local, state and federal requirements for waste collection. The **Public Works Director** will submit to the SWMC an annual report including:

- Number of tons of solid waste collected
- Number of complaints received regarding the solid waste contractor
- Number of administrative charges assessed against the contractor
- Dollar amount of administrative charges assessed
- Status of the trash collection contract

6. Volunteer Litter Pickup Programs – See MCM II for responsible party for Stream Teams, the Adopt-A-Street program, Make a Difference Day and Operation Clean Stream programs
7. Private Sewerage Conversion – The **Engineering Division** will review and approve all private sewerage conversions and will submit to the SWMC an annual report including:
    - Number of existing private sewerage systems taken offline

MCM IV – Construction Site Storm Water Runoff Control

The **City Engineer** and **Storm Water Management Coordinator (SWMC)** will be responsible for overseeing and reporting on the Construction Site Storm Water Runoff Control program with assistance for individual BMPs as follows:

1. Grading and Erosion/Sediment Control Plan Review – The **Review Engineer** assigned to the project is responsible for the Erosion/Sediment Control Plan Review. The **Engineering Division** will submit to the SWMC an annual report including:
    - Number of site plans submitted for review
    - Average number of submittal/review cycles prior to site plan approval
    - Feedback from inspectors as to improvements in erosion and sediment control measures on construction sites
    - Number of sediment related complaints via the Concerns Hotline
2. Sediment and Erosion Control Design Manual – The **Engineering Division** is responsible for the review of existing manuals and development of the Design Manual for the City. The **Engineering Division** will submit to the SWMC an annual report including:
    - Qualitative feedback from inspectors as to improvements in erosion and sediment control measures on construction sites
    - Feedback from the development community via regular meetings with the local Home Builder's Association and semi-annual builder's meeting
    - Qualitative observation of water quality during outfall visual field screenings
    - Number of sediment related complaints via the Concerns Hotline
3. Sediment and Erosion Control Inspection and Training – The **Engineering Technician** assigned to the project is responsible for the inspection of Erosion Control measures. The **Engineering Division** is responsible for training the inspectors. The **Engineering Division** will submit to the SWMC an annual report including:
    - Number of inspectors employed by the City
    - Number of inspections performed
    - Number and frequency of formal inspector training sessions
    - Average number of inspections per acre of land disturbance activity
    - Number of violation notifications and enforcement procedures used
    - Qualitative feedback from inspectors
    - Qualitative observation of water quality during outfall visual field screenings
    - Number of sediment related complaints via the Concerns Hotline
4. Sediment and Erosion Control Developer/Engineer/Contractor Training – The **Public Works Department** is responsible implementing training in conjunction with the Builder's Meetings. The **Public Works Department** will submit to the SWMC an annual report including:
    - Number of training sessions
    - Variety of topics covered during training sessions
    - Feedback from training participants
    - Qualitative feedback from inspectors as to improvements in erosion and sediment control measures on construction sites
    - Number of sediment related complaints via the Concerns Hotline

MCM V – Post-Construction Storm Water Management

The **City Engineer** and **Storm Water Management Coordinator (SWMC)** will be responsible for overseeing and reporting on the Post-Construction Storm Water Management program with assistance for individual BMPs as follows:

1. Storm Water Design Criteria – The **Engineering Division** is responsible for implementing and reviewing plans under the new Storm Water Design Criteria. The **City Engineer** will submit to the SWMC an annual report including:
    - Progress regarding the approval of the new Design Requirements for Storm Drainage Facilities
    - Number of new and re-development projects reviewed under the new criteria
    - Average number of submittal/review cycles prior to site plan approval
    - Feedback from City review engineers
2. City of Wentzville Comprehensive Land Use Plan and Municipal Code Revisions – The **Planning Department** is responsible for any changes to the land use code. The **Planning Department** will submit to the SWMC an annual report including:
    - Progress regarding passage of a riparian buffer ordinance
    - Progress regarding passage of a tree preservation ordinance or other storm water related regulations
    - Number of acres of riparian area preserved
    - Number of trees or acres of existing tree canopy preserved
    - Annexed areas added within the Wentzville municipal boundary
3. Storm Water Utility – The **Public Works Department** is responsible for the passage of the storm water utility. **Utility Billing Operations** will include the storm water utility on the City Utility Bill and will submit to the SWMC an annual report including:
    - Number of residents receiving a utility bill
    - Amount of revenue generated by the utility
    - Amount of credits to the storm water utility fee granted
4. Parks & Recreation Program – The **Parks & Recreation Department** is responsible for the acquisition and management of the parks system. The **Engineering Division** is responsible for the construction of the regional detention facility. The **Parks & Recreation Department** will submit to the SWMC an annual report including:
    - Progress toward new regional detention facility and park
    - Number of acres of park and other open space
    - Number of acres of new park or other open space added
    - Number of miles of trail network
    - Number of miles of trail network added

MCM VI - Pollution Prevention/Good Housekeeping for Municipal Operations
The **Public Works Director** and **Storm Water Management Coordinator (SWMC)** will be responsible for overseeing and reporting on the Pollution Prevention/Good Housekeeping for Municipal Operations program with assistance for individual BMPs as follows:

1. Operations and Maintenance (O&M) Program and Training – The **Public Works Department** will coordinate the overall O&M Program and training and track compliance with the other departments. An individual will be assigned to lead the Program. **Division Supervisors** will be responsible for implementation of the O&M Program and training in their departments. **Departments** will submit an annual report to the Public Works Department with any changes to their O&M Program and specific training conducted. The Public Works Department will submit to the SWMC an annual report including:
    - Number of departments with new or revised O&M Programs
    - Progress/status of O&M operations and categories
    - Number of training sessions
    - Number of participants in training sessions
    - Feedback from City employees regarding the applicability and effectiveness of the O&M Programs and training
2. Public Works Facility Structural BMP – The **Engineering Division** is responsible for overseeing the design and construction of the Public Works facility BMP. The **Street Division Supervisor** will be responsible for inspections, O&M and effluent testing. The Street Division Supervisor will submit to the SWMC an annual report including:
    - Progress toward design/construction of the structural BMP
    - Amount of targeted pollutants as measured from pre and post construction tests
    - Inspection and maintenance logs for the BMP
3. Street Sweeping – The **Street Division Supervisor** is responsible for the street sweeping program. The Street Division Supervisor will submit to the SWMC an annual report including:
    - Name of the designated street sweeper operator
    - Number of days the street sweeper is in operation
    - Frequency of street-sweeping for each main and subdivision street within the municipal boundaries
    - Percent coverage of the public streets swept per month for both main streets and subdivision streets
    - Number of citizen complaints with regards to cleanliness of public streets
    - Response to citizen complaints with regards to cleanliness of public streets
4. Fuel Storage – **Vehicle operators** are responsible for using commercial fuel station for all municipal vehicles
5. Flood Management Projects – The **Engineering Division** is responsible for the review of flood management projects, inspection and maintenance activities associated with flood management projects and acquiring necessary state and federal permits. The Engineering Division will submit to the SWMC an annual report including:
    - Description of flood management projects developed by the City
    - Copies of applicable permits
    - Inspection and maintenance logs of erosion and sediment control devices during construction of flood management projects

Appendix C

Supporting Documentation

Wentzville Municipal Map

Total Maximum Daily Load Information Sheet
Peruque Creek

Permit Period 2008 thru 2012
Appendix C

Missouri Department of Natural Resources

Total Maximum Daily Load Information Sheet

Peruque Creek

Waterbody Segment at a Glance:

County:	Warren St. Charles
Nearby Cities:	Wright City Foristell Wentzville
Length of Impairment:	12.5 miles
Pollutant:	Non-Volatile Suspended Solids (NVSS)
Pollutant Sources:	Urban and Rural Non-Point Sources (runoff)

Note: Added to the 2002 303(d) list

State map showing location of watershed

TMDL Priority Ranking: Medium

Description of the Problem

Beneficial uses of Peruque Creek

- Livestock and Wildlife Watering
- Protection of Warm Water Aquatic Life
- Protection of Human Health associated with Fish Consumption

Use that is impaired

- Protection of Warm Water Aquatic Life

Standards that apply

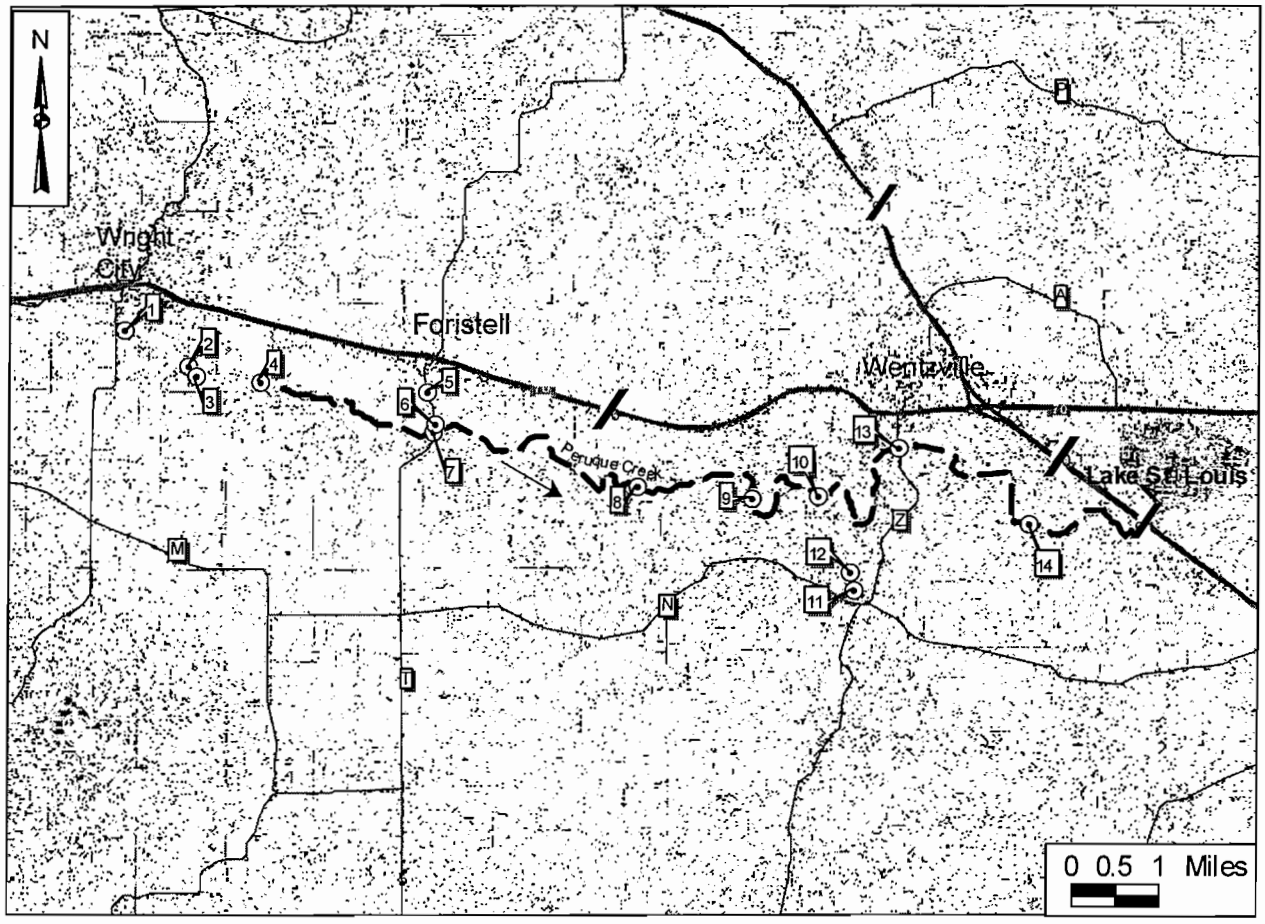
- All waterbodies in Missouri are protected by the *general* criteria (standards) contained in Missouri's WQS, 10 CSR20-7.031(3). These criteria (also called *narrative* criteria) list substances that all waters "shall be free from". The sections that apply to Peruque Creek are (A), (C) and (G) and they state:
  - 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.
  - Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses.
  - Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community.

Background Information and Water Quality Data

Rapid rates of sedimentation in upper Lake St. Louis suggest that excess erosion and high sediment loads are a problem in Peruque Creek upstream of the lake. This was the basis for adding Peruque Creek to the 2002 303(d) list. The impairment is listed as Non-Volatile Suspended Solids (NVSS). This term covers the silt, sand or gravel that is associated with erosion and sedimentation.

In 2000, Missouri Water Quality Monitoring (WQM) volunteers collected water quality data at three sites along Peruque Creek upstream of Lake St. Louis (see map below). Sampling occurred from April though July 2000. Volunteers sampled the water for temperature (Temp in degrees Celsius), dissolved oxygen (DO), specific conductance (SC), total solids (TS), total dissolved solids (TDS), turbidity (Turb), and pH. Each sampling site was visited four times for pH and six times for all other constituents with one exception – only five turbidity measurements were reported for Hepperman Road. This data is summarized in Table 1 (see next page).

Sampling Sites on Peruque Creek in St. Charles County, Missouri



Impaired Segment Direction of flow

Table 1. Mean Water Quality Data Collected by Volunteers, April –June 2000							
Site # Location	**Temp C**	**DO mg/L**	**SC us**	**TS mg/L**	**TDS mg/L**	**Turb NTU**	**pH* SU**
9. Hepperman Road	20	7.5	458	181.5	228.3	12.8	7.9
10. Wilmer Road	20	7.8	447	207.2	215.3	14.0	8.0
14. Duello Road	20	6.8	448	247.9	221.7	20.2	7.9
* Median							

In 2002, the Department of Natural Resources and the Department of Conservation conducted an extended water quality monitoring effort on the portion of Peruque Creek upstream of Lake St. Louis. This data is summarized in Table 2.

Table 2. Mean Water Quality for Peruque Creek and Tributaries 2002
(number of samples averaged are in parentheses)

#	Location	TSS mg/L	VSS mg/L	Turb.	D.O. mg/L	Cond umhos/cm	KJN mg/L	NH_3N mg/L	NH_3N mg/L	TP mg/L
1	Peruque Cr. at Wright City	12.5 (8)	<5 (8)	41.6 (1)	4.1 (9)	653 (9)	0.54 (9)	0.04 (9)	<.05 (9)	0.09 (9)
2	Wright City WWTP	12.1 (8)	4.06 (8)		6.5 (8)	1019 (8)	2.95 (8)	0.07 (8)	0.11 (8)	1.33 (8)
3	Trib. 0.1 mi. below Wright City WWTP	16.4 (9)	5.39 (9)		5.1 (9)	1020 (9)	2.86 (9)	0.03 (9)	0.18 (9)	1.26 (9)
4	Peruque Cr. at Archer Rd.	62.1 (9)	2.81 (8)	143 (2)	8.1 (10)	895 (10)	1.68 (10)	<.05 (10)	0.22 (10)	0.55 (10)
5	Foristell WWTP	7.2 (5)	<5 (5)		4.3 (5)	1041 (5)	0.52 (5)	<.05 (5)	8.80 (5)	3.82 (5)
6	Trib. from Foristell WWTP	17.8 (7)	<5 (7)		9.2 (7)	927 (7)	0.68 (7)	<.05 (7)	2.72 (7)	1.86 (7)
7	Peruque Cr. at Hwy T	86 (26)	10.5 (27)	93.9 (19)	8.8 (26)	482 (25)	0.87 (26)	.05 (26)	0.14 (26)	0.11 (26)
8	Peruque Cr. at Prairie Point Rd.	37.6 (23)	6.5 (23)	38.4 (16)	8.6 (21)	408 (21)	0.56 (21)	0.04 (20)	0.15 (21)	0.09 (21)
9	Peruque Cr. at Hepperman Rd.	129.7 (15)	13.8 (15)	65.5 (15)	7.3 (14)	451 (13)	0.53 (14)	<.05 (14)	0.15 (14)	0.08 (14)
10	Peruque Cr. at Wilmer Rd.	8.7 (9)	<5 (8)	19.2 (2)	8.3 (10)	392 (10)	0.40 (10)	<.05 (10)	0.07 (10)	0.05 (10)
11	Castlegate WWTP	6.6 (9)	3.2 (9)		4.9 (9)	918 (9)	14.5 (9)	8.15 (9)	5.88 (9)	4.45 (9)
12	Trib. from Castlegate WWTP	5.6 (8)	<5 (8)		5.2 (8)	914 (8)	12.8 (8)	8.56 (8)	5.65 (8)	4.26 (8)
13	Peruque Cr. at Hwy Z	12.3 (8)	<5 (8)		6.4 (8)	426 (8)	0.45 (8)	<.05 (7)	<.05 (8)	0.05 (8)
14	Peruque Cr. at Duello Rd.	13.9 (9)	<5 (9)	32 (2)	7.2 (10)	403 (10)	0.41 (10)	<.05 (10)	0.10 (10)	0.07 (10)

Source: Missouri Department of Natural Resources and Missouri Department of Conservation

Total Suspended Solids (TSS), Volatile Suspended Solids (VSS, i.e. organic matter), and Turbidity data all suggest the middle section of Peruque Creek has the highest levels of suspended sediment. However, these stations were sampled more frequently and contain data from stormwater events not sampled at other stations. The conductivity (Cond), Kjeldahl nitrogen (KJN), ammonia nitrogen (NH_3N), nitrate nitrogen (NO_3N) and total phosphorus (TP) all show that the upper portions of Peruque

Creek are more affected by wastewater discharges (Wright City and Foristell) than the lower sections of the stream near Lake St. Louis.

Assessment of aquatic habitat and sampling of aquatic macroinvertebrate communities on Peruque Creek were done in 2002 by the Department of Natural Resources. Six sites on Peruque Creek were evaluated. Four sites were considered to have good riparian land use practices and two sites had obvious soil erosion problems. The mean habitat quality scores for these sites were 109 percent of mean reference habitat scores, indicating good habitat quality. Spring invertebrate sampling showed the upper and middle portions of the creek to be slightly impaired and the lower section of the creek in good condition. Fall sampling showed all but the uppermost part of Peruque Creek (which had almost no water at that time) to be in good condition. There were no observed differences in the habitat scores or the aquatic invertebrate communities between the four sites with good riparian land use and the two sites with obvious erosion problems. Observation of the stream at many locations noted large areas of bedrock on the bottom of the stream and areas with very coarse gravel or cobble substrate, all of which indicate the presence of occasional scouring flows that would prevent the deposition of fine sediments in the stream. These observations may explain the lack of impact in the immediate area where serious soil erosion problems were occurring.

These observations appear to be supported by measurements of fine sediment (sand and silt) deposition taken that same year. Table 3 summarizes this data. The data suggests that the upper portion of the creek, which has the smallest amount of watershed, is less subject to high flow events and scour, and therefore has a greater amount of fine sediment deposition in the stream. As the watershed becomes larger, the impact of high flows and scour become greater and the amount of fine sediments in the stream become progressively less.

Table 3. Percent Fine Sediment Deposition at Six Locations in Peruque Creek, 2002

Location	Percent Sand and Silt in Streambottom*
Ruge Park, Wright City	63
Archer Road	28
Highway T	27
Hepperman Road	30
Wilmer Road	8
Duello Road	12

Note: In this region of the state, values for sand and silt deposition in streambottoms of up to 30 percent are considered normal.

The studies conducted in 2002 suggest that neither water quality changes caused by wastewater discharges nor fine sediment deposition caused by soil erosion are significant problems on this portion of Peruque Creek. Aquatic invertebrate monitoring data was not conclusive and further monitoring of the aquatic invertebrate community is planned.

The local community (including several environmental groups) is active and involved regarding the health of Peruque Creek. WQM volunteers and Missouri Lakes Volunteer Program participants continue to collect data. The Peruque Watershed Alliance, formed in August 2001, is composed of residents and stakeholders, staff and members of Peruque Creek Watershed communities and interested people from St. Charles and Warren counties. The Alliance worked on a watershed plan for

Peruque Creek. The plan laid out objectives and strategies to minimize and prevent future impacts to natural resources, residents and communities in St. Charles and Warren counties.

In the spring of 2002, the city of Lake St. Louis received a grant from the U.S. Environmental Protection Agency for a special study on Peruque Creek. The consulting firm of Camp Dresser and McKee (CDM) was hired to conduct the study to try and define the challenges to the creek regarding water quality and to suggest solutions to protect the creek as a healthy waterbody. In the course of the study, they attempted to gather and review all available data pertaining to Peruque Creek. They then identified gaps in the data and conducted sampling to fill those gaps. The results of this study, along with CDM's recommendations, have been compiled in a report due out in November 2004. The Alliance will be responsible for implementing the CDM recommendations. An important component of their strategy is public education to increase awareness of the environment in general and the Peruque Creek watershed in particular.

For more information call or write:
Missouri Department of Natural Resources
Water Protection Program
P.O. Box 176, Jefferson City, MO 65102-0176
1-800-361-4827 or (573) 751-1300 office
(573) 522-9920 fax
Program Home Page: www.dnr.mo.gov/env/wpp/index.html

Missouri Department of Natural Resources

WATER PROTECTION PROGRAM
2004/2006 303(d) List Approved by Clean Water Commission on April 20, 2007

***Designated Use Codes:**

AQL-Protection of Aquatic Life (Warm, Cool, or Cold Water)
FC-Fish Consumption
WBC-Whole Body Contact Recreation
SCR-Secondary Contact Recreation
DWS-Drinking Water Supply
IRR-Irrigation
LWW-Livestock & Wildlife Watering
IND-Industrial

Waterbody Name	WBID	First Year on 303(d)	Length/Area of Impaired Segment	Pollutant	Source	Impaired Uses*	Other Designated Uses*	Upstream Impaired	End of Segment	Downstrm Impaired	End of Segment	Primary County
								Latitude	Longitude	Latitude	Longitude	
Bee Fork	2760	2006	1.0 mi.	Lead	Fletcher Mine	AQL	FC, LWW, WBC	37.4410	-91.0960	37.4431	-91.0792	Reynolds
Big Bottom Creek	1746	1998	1.8 mi.	Low D.O.	Lake Forest Subdivision	AQL	FC, LWW	37.9540	-90.2066	37.9745	-90.1997	Ste. Genevieve
Big Creek	444	2006	6.0 mi.	Ammonia, Low D.O.	Bethany WWTP	AQL	FC, LWW, WBC, DWS	40.2542	-94.0636	40.2038	-94.0756	Harrison
Big River	2080	1994	19.0 mi.	Cadmium, Lead, Zinc, Inorganic Sediment	Old Lead Belt AML	AQL	FC, LWW, WBC, IND	37.8721	-90.5885	37.9329	-90.5123	St. Francois
		1994	16.0 mi.	Cadmium, Lead, Inorganic Sediment				37.9329	-90.5123	38.0078	-90.6282	
		1994	3.0 mi.	Lead, Inorganic Sediment				38.0078	-90.6282	38.0364	-90.6196	
		1994	17.0 mi.			AQL, FC	LWW, WBC, IND	38.0364	-90.6196	38.1569	-90.7022	Jefferson
Blue River	417	2006	4.0 mi.	Bacteria	Urban Runoff	WBC	FC, AQL, LWW, IND	39.0694	-94.5071	39.1228	-94.4658	Jackson
Blue River	418	2006	9.0 mi.	Bacteria	Urban Runoff	WBC	FC, AQL, LWW, SCR, IND	39.0156	-94.5208	39.0694	-94.5071	Jackson
Blue River	419	2006	9.0 mi.	Bacteria	Urban Runoff	WBC	FC, AQL, LWW, SCR	38.9526	-94.5633	39.0156	-94.5208	Jackson
Bobs Creek	35	2006	1.0 mi.	Low D.O.	Lincoln Co. PWSD #1 WWTP	AQL	FC, LWW, WBC	38.9860	-90.8701	38.9799	-90.8541	Lincoln
Brush Creek	1371	2002	4.0 mi.	Low D.O.	Humansville WWTP	AQL	FC, LWW, WBC	37.7913	-93.5901	37.8316	-93.6277	Polk
Buffalo Ditch	3118	1994	3.0 mi.	Ammonia, Low D.O.	Kennett WWTP	AQL	FC, LWW, WBC	36.2001	-90.0614	36.1609	-90.0826	Dunklin

Waterbody Name	WBID	First Year on 303(d)	Length/Area of Impaired Segment	Pollutant	Source	Impaired Uses*	Other Designated Uses*	Upstream Impaired	End of Segment	Downstrm Impaired	End of Segment	Primary County
								Latitude	Longitude	Latitude	Longitude	
Capps Cr.	3234	2006	4.0 mi.	Bacteria	Rural NPS	WBC	AL, LWW, IR, SCR	36.88319	-94.02616	36.88843	-94.09365	Newton
Cave Spring Br.	3245U	1998	0.2 mi.	Nutrients	Simmons Ind.	GC		36.5468	-94.6094	36.5475	-94.6178	McDonald
Center Creek	3203	1994	12.8 mi.	Cadmium, Lead	Tri-State AML	AQL	FC, LWW, WBC, SCR, IRR, IND	37.1754	-94.4550	37.1510	-94.6170	Jasper
Chariton River	640	2006	20.0 mi.	Bacteria	Rural NPS	WBC	FC, AQL, LWW, SCR, IRR	39.6819	-92.6928	39.4428	-92.8784	Chariton
Clear Creek	3239	2006	3.0 mi.	Low D.O.	Monett WWTP	AQL	FC, LWW, WBC	36.9174	-93.9470	36.9423	-94.0002	Lawrence
Courtois Creek	1943	2006	3.0 mi.	Lead, Zinc	Viburnum Mine Tailings	AQL	FC, LWW, WBC, SCR	37.7648	-91.0718	37.7989	-91.0589	Washington
Crooked Creek	1928	2006	3.5 mi.	Cadmium, Lead	Casteel Mine	AQL	FC, LWW, WBC	37.6929	-91.1593	37.7133	-91.2048	Crawford
Dardenne Creek	221	2006	1.0 mi.	Inorganic Sediment	Suburban and Rural NPS	AQL	FC, LWW, WBC, SCR	38.7361	-90.7854	38.7366	-90.7699	St. Charles
Dardenne Creek	222	2006	3.4 mi.	Inorganic Sediment	Suburban and Rural NPS	AQL	FC, LWW, WBC, SCR	38.7388	-90.8301	38.7361	-90.7854	St. Charles
Douger Branch	3168	2006	2.5 mi.	Cadmium, Lead	Aurora AML	AQL	FC, LWW, WBC	36.9751	-93.7139	36.9775	-93.7798	Lawrence
Dousinbury Creek	1180	2006	3.5 mi.	Bacteria	Rural NPS	WBC	AQL, FC, LWW	37.5731	-92.9276	37.5952	-92.9801	Dallas
Dry Auglaize Creek	1145	2002	3.0 mi.	Unknown	Unknown	AQL	FC, LWW, WBC	37.7049	-92.6505	37.7408	-92.6220	Laclede
Dutro Carter Creek	3569	2006	0.6 mi. 0.1 mi.	Low D.O. Ammonia	Rolla Southeast WWTP	AQL	FC, LWW,WBC	37.9320 37.9320	-91.7262 -91.7262	37.9317 37.9318	-91.7169 -91.7245	Phelps
East Fork Chariton River	682	2006	48.5 mi.	Sulfate	Multiple AMLs	AQL	FC, LWW, WBC, DWS, IRR	39.7509	-92.5158	39.3403	-92.8445	Randolph
East Fork Grand River	457	2006	25.0 mi.	Bacteria	Rural NPS	WBC	FC, AQL, LWW, DWS, IRR	40.4943	-94.3123	40.1977	-94.3620	Gentry

Waterbody Name	WBID	First Year on 303(d)	Length/Area of Impaired Segment	Pollutant	Source	Impaired Uses*	Other Designated Uses*	Upstream Impaired	End of Segment	Downstrm Impaired	End of Segment	Primary County
								Latitude	Longitude	Latitude	Longitude	
E. Fk. Locust Creek	608	2006	2.5 mi.	Low D.O.	Milan WWTP	AQL	FC, LWW	40.1936	-93.1139	40.1664	-93.1190	Sullivan
E. Fk. Tebo Creek	1282	2006	1.0 mi.	Low D.O.	Windsor Southwest Lagoon	AQL	FC, LWW, WBC	38.5142	-93.5346	38.5005	-93.5297	Henry
Eaton Branch	2166	2006	0.9 mi.	Cadmium, Lead, Zinc	Leadwood Tailings Pile	AQL	FC, LWW, WBC	37.8675	-90.6057	37.8721	-90.5885	St. Francois
Fellows Lake	7237	2006	820 ac.	Nutrients	Suburban and Rural NPS	GC	AQL, LWW, WBC, SCR, DWS	37.3097	-93.1790	37.3155	-93.2294	Greene
Flat Creek	865	2006	15.5 mi.	Unknown	Unknown	AQL	FC, LWW, WBC, SCR	38.5436	-93.4116	38.6588	-93.2537	Pettis
Flat River Creek	2168	2006	1.0 mi.	Cadmium, Lead, Zinc, Inorganic Sediment	Old Lead Belt AML	AQL	FC, LWW, WBC	37.8372	-90.5301	37.8481	-90.5175	St. Francois
		1994	4.0 mi.			AQL, FC	LWW, WBC	37.8481	-90.5175	37.8918	-90.4999	
Gabriel Creek	883	2006	0.8 mi.	Ammonia, Low D.O.	Stover WWTPs	AQL	FC, LWW	38.4377	-93.0000	38.4477	-93.0041	Morgan
		1994	1.2 mi.	Low D.O.				38.4477	-93.0041	38.4641	-93.0033	
Grand River	593	2006	60.0 mi.	Bacteria	Rural NPS	WBC	AQL, FC, LWW, SCR, DWS, IRR	39.7410	-93.5352	39.3844	-93.1071	Chariton
Gravois Creek	1712	2006	2.0 mi.	Bacteria	Urban Runoff	WBC	AQL, FC, LWW	38.5407	-90.2985	38.5595	-90.2829	St. Louis
Gravois Creek	1713	2006	4.0 mi.	Bacteria	Urban Runoff	AQL, WBC	FC, LWW	38.5467	-90.3480	38.5407	-90.2985	St. Louis
Grindstone Creek	1009	2006	1.5 mi.	Bacteria	Unknown	WBC	AQL, FC, LWW	38.9224	-92.3034	38.9278	-92.3218	Boone
Hickory Cr.	3226	2006	1.0 mi.	Bacteria	Unknown	WBC	LWW, AQL,	36.88135	-94.36867	36.89394	-94.3708	Newton
Hinkson Creek	1007	1998	6.0 mi.	Unknown	Urban Runoff	AQL	FC, LWW, WBC, SCR	38.9278	-92.3375	38.9217	-92.4135	Boone
Hinkson Creek	1008	1998	6.3 mi.	Unknown	Urban Runoff	AQL	FC, LWW, WBC	38.9629	-92.2961	38.9278	-92.3375	Boone
Indian Creek	420	2002	3.0 mi.	Bacteria	WWTP in Kansas, Urban Runoff	WBC	AQL, FC, LWW, IND	38.9384	-94.6085	38.9526	-94.5633	Jackson

Waterbody Name	WBID	First Year on 303(d)	Length/Area of Impaired Segment	Pollutant	Source	Impaired Uses*	Other Designated Uses*	Upstream Impaired	End of Segment	Downstrm Impaired	End of Segment	Primary County
								Latitude	Longitude	Latitude	Longitude	
Indian Creek	1946	2002	1.5 mi.	Lead, Zinc	Viburnum Mine Tailings	AQL	FC, LWW, WBC	37.7413	-91.0847	37.7648	-91.0718	Washington
Indian Creek, Tributary to	3663	2006	0.5 mi.	Lead, Zinc	Viburnum Mine Tailings	AQL	FC, LWW, WBC	37.7559	-91.0946	37.7596	-91.0748	Washington
Indian Creek	3256	2006	5.0 mi.	Bacteria	Rural NPS	WBC	AL, LWW, IR, SCR	36.7944	-94.2326	36.76246	-94.2729	McDonald
Lake Taneycomo	7314	1994	865.0 ac.	Low D.O.	Table Rock Dam	AQL	FC, LWW, WBC, SCR, DWS	36.5957	-93.3091	36.6592	-93.1244	Taney
Lamine River	847	2006	54.0 mi.	Bacteria	Rural NPS	WBC	AQL, FC, LWW, SCR, IRR	38.6683	-92.953	38.9802	-92.8508	Cooper
Lewistown Lake	7020	2002	29.0 ac.	Atrazine	Crop Production	DWS	AQL, FC, LWW, WBC, SCR	40.0978	-91.8269	40.0978	-91.8190	Lewis
Little Dry Fork	1863	2006	1.0 mi.	Low D.O.	Rolla Southeast WWTP	AQL	FC, LWW, WBC	37.9318	-91.7170	37.9393	-91.7060	Phelps
Little Muddy Creek, Tributary to	3490	1998	0.4 mi.	Color, Chloride	Tyson Foods	AQL, GC**	FC, LWW, WBC	38.7680	-93.3021	38.7731	-93.2912	Pettis
Long Branch Creek	696	2006	2.0 mi.	Low D.O.	Atlanta WWTP	AQL	FC, LWW, WBC	39.8979	-92.4934	39.8744	-92.4908	Macon
Lost Creek	3278	2006	8.5 mi.	Bacteria	Rural NPS	WBC	AL, LWW, SCR	36.88931	-94.49823	36.84035	-94.61853	Newton
Main Ditch	2814	2006	1.0 mi.	Temperature	Stream Modification	AQL	LWW, FC, WBC, IRR	36.7348	-90.4131	36.7295	-90.3984	Butler
			6.0 mi.	pH, Ammonia, Temperature	Poplar Bluff WWTP, Stream Modification			36.7295	-90.3984	36.6163	-90.4031	
			7.0 mi.	Temperature	Stream Modification			36.6163	-90.4031	36.5558	-90.4485	
McKenzie Creek	2786	2002	2.5 mi.	Low D.O.	Piedmont WWTP	AQL	FC, LWW, WBC	37.1389	-90.7070	37.1058	-90.7180	Wayne
Middle Fork Grand River	468	2006	25.0 mi.	Bacteria	Rural NPS	WBC	AQL, FC, LWW, SCR, IRR	40.5418	-94.3513	40.2186	-94.3944	Gentry
Mound Br.	1300	1998	1.0 mi.	Low D.O.	Butler WWTP	AQL	LWW, WBC	38.2262	-94.3444	38.217	-94.351	Bates
Muddy Creek	853	2006	1.0 mi.	Color	Tyson Foods	GC**	AQL, FC, LWW, WBC	38.7718	-93.2748	38.7675	-93.2582	Pettis

Waterbody Name	WBID	First Year on 303(d)	Length/Area of Impaired Segment	Pollutant	Source	Impaired Uses*	Other Designated Uses*	Upstream Impaired	End of Segment	Downstrm Impaired	End of Segment	Primary County
								Latitude	Longitude	Latitude	Longitude	
North Fork Spring River	3188	2006	29.9 mi.	Unknown	Unknown	AQL	FC, LWW, WBC	37.3172	-94.0258	37.4825	-94.2927	Barton
			1.0 mi.	Low D.O., Ammonia	Lamar WWTP			37.4825	-94.2927	37.4790	-94.2786	
			3.1 mi.	Low D.O.	Lamar WWTP			37.4790	-94.2786	37.4566	-94.2819	
			11.5 mi.	Unknown	Unknown			37.4566	-94.2819	37.3406	-94.3312	
Niangua River	1170	2006	2.0 mi.	Bacteria	Unknown	WBC	AQL, FC, LWW, SCR	37.6865	-92.9374	37.6929	-92.9236	Dallas
No Creek	550	2006	22.5 mi.	Bacteria	Rural NPS	WBC	AQL, FC, LWW	40.1706	-93.4500	39.8891	-93.5716	Grundy
Pearson Creek	2373	2006	1.5 mi.	Bacteria	Unknown	WBC	AQL, FC, LWW	37.1821	-93.1991	37.1637	-93.1965	Greene
Pickle Creek	1755	2006	7.0 mi.	pH	Natural	AQL	FC, LWW, WBC	37.8146	-90.2552	37.8369	-90.2036	Ste. Genevieve
Piper Creek (Town Branch)	1444	2006	0.5 mi.	Unknown	Unknown	AQL	FC, LWW, WBC	37.6113	-93.3953	37.6169	-93.3900	Polk
		1998	2.0 mi.	Organic Sediment	Bolivar WWTP, unknown			37.6169	-93.3900	37.6387	-93.3829	
Saline Creek, Trib. to	2859U	2006	1.0 mi.	Nickel	Madison Mine	GC**		37.5516	-90.2729	37.5594	-90.2756	Madison
Shaw Branch	2170	1994	2.0 mi.	Cadmium, Lead	Federal AML	AQL	FC, LWW, WBC	37.8332	-90.5173	37.8481	-90.5175	St. Francois
South Blackbird Creek	655	2006	4.0 mi.	Ammonia	Unknown	AQL	FC, LWW, WBC	40.4246	-92.9602	40.4139	-92.9050	Putnam
Spring River	3160	2006	3.0 mi.	Bacteria	Urb/Rural Pt/NPS	WBC	AL, LWW, IR, SCR	37.1864	-94.31279	37.19051	-94.35594	Jasper
Strother Creek	2751U	2006	1.0 mi.	Zinc	Buick Mine	GC**		37.5881	-91.0602	37.5948	-91.0471	Reynolds
Table Rock Lake	7313	2002	43100 ac.	Nutrients	Pt/NP Sources	GC	LWW, AQL, WBC,SCR	36.4984	-93.754	36.5961	-93.3138	Stone
Turkey Creek	3216	2002	7.0 mi.	Cadmium	Multiple AMLs	AQL	FC, LWW, WBC	37.1058	-94.5025	37.1248	-94.6180	Jasper

Waterbody Name	WBID	First Year on 303(d)	Length/Area of Impaired Segment	Pollutant	Source	Impaired Uses*	Other Designated Uses*	Upstream Impaired End of Segment		Downstrm Impaired End of Segment		Primary County
								Latitude	Longitude	Latitude	Longitude	
			0.8 mi.	Cadmium, Zinc, Lead				37.9233	-90.5486	37.9331	-90.5523	
Turkey Creek	3282	2006	1.2 mi.	Lead	Mine Tailings	AQL	FC, LWW, WBC	37.9331	-90.5523	37.9490	-90.5592	St. Francois
Village Creek	2863	2006	1.5 mi.	Inorganic Sediment, Manganese, Lead	Mine La Motte AML	AQL	FC, LWW, WBC	37.5988	-90.2541	37.5656	-90.3092	Madison
Warm Fork Spring River	2579	2006	9.0 mi.	Bacteria	Unknown	WBC	AQL, FC, LWW, SCR, IRR	36.6003	-91.5482	36.4991	-91.5273	Oregon
Watkins Creek	1708	2006	3.5 mi.	Bacteria	Urban Runoff	AQL, WBC	FC, LWW	38.7696	-90.2213	38.7734	-90.1754	St. Louis
West Fork Medicine Creek	623	2006	40.0 mi.	Unknown	Unknown	AQL	FC, LWW, WBC	40.5794	-93.4292	40.1058	-93.3760	Mercer
Willow Fork, Tributary to	956	2006	0.5 mi.	Low D.O.	Tipton WWTP	AQL	FC, LWW	38.6321	-92.7698	38.6274	-92.7644	Moniteau

*Designated Use Codes: AQL-Protection of Aquatic Life (Warm, Cool, or Cold Water); FC-Fish Consumption; WBC-Whole Body Contact Recreation; SCR-Secondary Contact Recreation; DWS-Drinking Water Supply; IRR-Irrigation; LWW-Livestock & Wildlife Watering; IND-Industrial

**General Criteria: Although no specific designated uses have been impaired, the general water quality criteria which apply to all waters of the state [10 CSR 20-7.031 (3)] have been violated, so the water is considered impaired and eligible for the 303(d) list. In the case of unclassified waters, this includes acute toxicity.

The Wentzville Residential Trash Guide

Permit Period 2008 thru 2012
Appendix C

The Wentzville Residential Trash Guide

Everything You Ever Wanted to Know About Taking Out the Trash in Wentzville

Wentzville
Missouri - USA
The Crossroads Of The Nation

The City of Wentzville is proud to present this Garbage Guide to our residents. The publication of this guide was made possible by the following organizations.

Thank you

Funding for this publication was provided by
The St. Louis-Jefferson Solid Waste Management District

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Rural Utility Service

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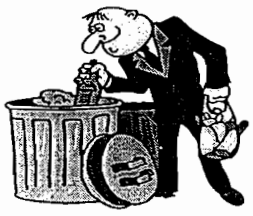


Household Trash Collection

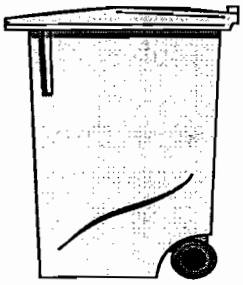
The City of Wentzville has contracted normal household waste collection and recycling collection for the entire City. This has resulted in the lowest possible rate for waste collection and recycling and provides the City with a mechanism for assuring a high level of service for all households.

Trash will be picked up from all households in Wentzville twice each week. The residences north of the railroad tracks will be picked up on Monday and Thursday. The Residences South of the railroad tracks will be picked up on Tuesday and Friday. If a holiday falls on a regularly scheduled pick up day, it will be picked up on the following day. Trash should be placed within 3 foot of the curb before 6:00 AM. All trash must be in one of the following:

Plastic bags - Tied securely to prevent spillage. Maximum size for each bag must be 33 gallons or less and not weigh over 30 lbs.

Trash Containers - Containers must be covered to prevent animal intrusions. The maximum size of the container is 33 gallons and less than 30 lbs.

Rental Carts - The City has 96 gallon wheeled carts that may be rented for $2.75 per month. To request a cart call the Public Works Department at 639-2035 or order on line at www.wentzvillemo.org.



Large Item Pickup - A Citywide large trash pickup is scheduled each spring and fall. At that time bulky items will be picked up. The City will announce these dates in the Wentzville Journal and/or the City Newsletter.

Why Recycle?

Recycling is a popular thing to do. Teachers teach it in school, governmental agencies encourage it, environmentalists get passionate about it, and neighbors keep track of who's doing it. But why is recycling important?

Conservation of Resources – We live in a wasteful age. In fact many describe us as a "throw away society". We exhaust our resources as if we have an endless supply. But the reality is we are living on a planet that has finite resources. When we use our resources there is no "somewhere else" to get more.

Conservation of Landfill Space – The more we throw away, the faster we fill up our existing landfills. There is a lot of land to put in new landfills but no one wants to live near one. Transporting our waste to far away landfills will be costly and use great amounts of energy in the future.

Conservation of Energy – In all cases, it takes less energy to make a product out of recyclable material than out of virgin material. Recycling frees up energy resources for more deserving causes.

Respect for Nature – Recycling teaches us, and our children, to respect our environment by conserving our resources and energy while protecting our environment.

Recycling Creates Jobs – The EPA estimates that over 1 million jobs are created as a result of recycling. The effect on our economy is over $45 billion dollars annually.

Recycling may seem like an unappealing chore and a waste of time. But by recycling we can make a difference.

Recycling in Wentzville

Recycling in Wentzville is easy and convenient. The collection of recyclables is part of the solid waste services contracted by the City and is available to all residents that want to conserve resources and protect our environment.

Every household has received a recycling bin. If a second bin is needed, please call Public Works at 639-2035 and another bin will be delivered to your home. Recyclables will be collected from the residences every Wednesday.

The following items should be prepared and set out as follows:

Cardboard Boxes	Flatten and stack at the curb with the recycling bin on top. This will reduce the problem of boxes scattering on windy days.
Boxboard	Cereal and food packaging boxes. Flatten and put in the bottom of the recycling bin.
Newspaper	Keep the papers dry and clean. Put in the bottom of the recycling bin to avoid blowing out.
Mixed paper	Junk mail, notebook paper, etc. Prepare the same as newspapers.
Glass Jars/Bottles	Rinse well and throw away the lid. Paper labels do not need to be removed.
Aluminum Cans	Empty liquids and flatten.
Steel Cans	Rinse well and throw away the lid. Paper labels do not need to be removed.
Plastic Containers	All plastic containers with #1 or #2 marked on the bottom of the container are recyclable. Rinse well and throw away the lid. Flattening soda and milk containers by stomping on them will save room in your recycling bin and reduce blowing away on windy days.

Non-Recyclable Items

In a perfect world all of our waste would be recyclable and we would never need to landfill or incinerate anything. However, that perfect world is not here yet and some items are technically or economically not recyclable.

The following items should be put into the trash and **not** in the recycling bin:

Cardboard	Wax or plastic coated, food saturated, or wet cardboard.
Paper	Food stained paper, papers with adhesives or tape, laminated or plastic coated paper, wax paper or cellophane.
Glass	Broken bottles or jars, light bulbs, mirrors. Broken glass can injure the recycling workers and can be dangerous to neighborhood children.
Metal	Any large items or metals with other materials attached.
Plastics	Styrofoam, plastic bags, prescription bottles, plastic from toys or electronic cases. Any PVC material.
Food	All food should be put into the trash or compost bin.
Diapers	Neither baby nor adult diapers are recyclable.
Wood	No wood products, sawdust, or shavings.
Pet litter	All pet litter and waste products should be put into the trash or compost bin.
Yard Waste	Yard waste should be put into the compost bin or in yard waste collection if subscribed.

Trash Facts

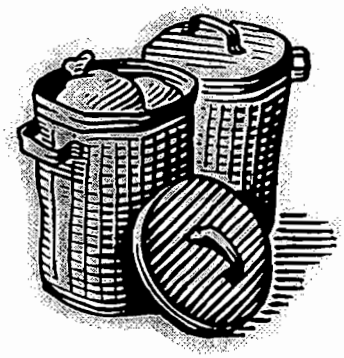
In a lifetime, the average American will throw away 600 times their adult weight in garbage. This means that each adult will leave a legacy of 90,000 lbs. of trash for his or her children.

Americans generated about 225 million tons of household waste in 2000.

If the pilgrims had used aluminum cans at the first Thanksgiving, the cans would still be around today.

Americans use 50 million tons of paper each year, consuming more than 850 million trees.

It takes 75,000 trees to print a Sunday Edition of the New York Times. As a nation we use 500,000 trees every week for newspapers.



Americans throw away enough aluminum every three months to rebuild our entire commercial air fleet.

Everyday Americans buy 62 million newspapers and throw out 44 million. That's the equivalent of dumping 500,000 trees into a landfill every week.

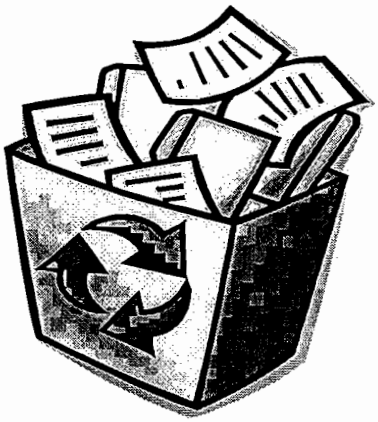
Americans throw out enough iron and steel to supply all the nation's automakers on a continuous basis.

Americans throw away enough used oil each year to fill 120 supertankers.

Product packaging accounts for 30% of the weight and 50% of the volume in our household waste.

Recycling Facts

Enough energy is saved by recycling one aluminum can to run a TV set for three hours or to light one 100 watt bulb for 20 hours.



Annually, enough energy is saved by recycling steel to supply St. Louis with electricity for almost 100 years.

If everyone in the U.S. recycled just 1/10 of their newsprint, we would save the estimated equivalent of about 25 million trees a year.

One ton of recycled paper uses: 64% less energy, 50% less water, 74% less air pollution, and creates 5 times more jobs than one ton of paper products from virgin wood pulp.

One ton of recycled paper also saves 17 trees, 380 gallons of oil, three cubic feet of landfill space, 4,000 kilowatts of energy and 7,000 gallons of water.

Producing a recycled aluminum can takes 5% of the energy required to make a new one.

Missourians reduced reused, recycled and composted 4,384,765 tons of waste in 2001.

Yard Waste Collection

In 1990 the Missouri State Legislature passed a law banning the disposal of yard waste in Missouri landfills. That ban became effective in 1992. Therefore yard waste cannot be picked up and mixed with household trash. All yard waste collected in Missouri must be taken to a certified composting facility.

The City of Wentzville has contracted with J. Hunt Hauling to pick up and compost yard waste from residents desiring that service.

Any household desiring yard waste service may subscribe by registering online at www.wentzvillemo.org or by calling Wentzville Public Works at 639-2035. The yard waste service will be offered from April 1-November 30 of each year. Residents must subscribe for this service. The fee for the yard waste collection service will be $6.95 per month. This fee will appear on the normal City utility bill.

For those subscribing to the service, yard waste will be collected on Wednesday of each week. Yard waste can be set out in the following ways:

- A 96 gallon rolling yard waste cart. These carts may be rented by calling Public Works at 639-2035, or order a cart on line at www.wentzvillemo.org for a monthly fee of $2.75.
- Biodegradable Kraft bags which may be purchased at local retail outlets
- Branches and limbs can be tied into bundles no more than 5-foot long. These branches should be no greater than 6-inches in diameter.

Please do not use plastic bags for yard waste.

Yard Waste Collection Alternatives

Yard waste is primarily composed of lawn clippings, leaves, and small brush. These items can be very beneficial to yards if they are "composted" properly. Large composting facilities "grind and turn" these materials in a way that allows natural biological actions to breakdown the grass, leaves, and brush into a very beneficial soil amendment.

Compost will add organic matter to the soil; reduce the need for fertilizer, and increase water-holding ability during dry spells. Master Gardener's pay premium prices for good compost because they recognize the value it adds to their gardens.

There are several ways to create these same benefits on a smaller scale in your yard.

Cut it high and let it lie: Grass clippings contain many of the ingredients of fertilizer. By allowing your grass to grow slightly higher and cutting it slightly more often, you can fertilize your grass every time you mow. A mulching lawnmower is very efficient at this chore. Grass clippings decompose quickly and pass nutrients into the soil and roots of the existing grass. The same is true of leaves. In small quantities leaves can be mulched and left on the yard to provide the same benefits as the grass clippings.

Back yard composting: All organic waste will decompose over time. Simple containers or open piles for yard waste are the least labor and time consuming ways to compost. As weeds, grass clippings, and leaves are collected they can be added to the container or pile. Turning the pile occasionally will speed the decomposition process. Composting bins can be purchased or built to speed up the process and make your compost area more attractive.

Items Banned From Landfills

In 1990 the Missouri State Legislature passed a law banning the disposal of certain materials in Missouri landfills. That ban became effective in 1991. The following items cannot be picked up and mixed with household trash.

Lead Acid Batteries - Lead and the sulfuric acid contained within lead acid batteries are harmful to the environment if not disposed properly. Lead-acid batteries have the highest recycling rate of any product sold in the United States. This is because batteries are easily returned when a new battery is purchased and because a battery's lead and plastic components are valuable. Most auto parts stores will accept old batteries.

Old Tires - Tires are banned from landfills because they are difficult to keep buried in landfills, do not decompose easily, and are breeding spots for mosquitoes. Tires can be disposed in landfills if they are cut into quarters, shredded or chipped. Most tires are burned as tire-derived fuel for electrical generation or ground and used as a playground surface. Many tire dealers will accept old tires but will charge a small disposal fee unless new tires are purchased.

Major Appliances - Large appliances such as washers and refrigerators etc. are banned from landfills because they are valuable to metal recyclers and should not be filling landfills. An appliance pick-up can be scheduled by calling Public Works at 639-2035. A small fee will be charged for this pick-up.

Used Motor Oil - Motor oil is a contaminant to ground water and therefore banned from disposal. Very small amounts of motor oil can seep into aquifers and create unhealthful conditions. Most garages and oil change operations will accept motor oil from do-it-yourselfers at little or no fee.

Other Problem Waste Items

Some waste items need special attention or require special pick-ups. These items are not banned from disposal in Missouri landfills but should be prepared differently or set out at different times from your normal household trash.

Large Bulky Items - Large bulky items such as furniture, mattresses, bicycles, etc. cannot be picked up on the normal trash route. The normal trash truck is not designed to take such items and the workers may not have the manpower to handle them without possible injury. Call the City at 639-2035 for a special pick-up or put these items out during the spring and fall clean up period.

Electronic Items - Small electronic items can be put out with normal household trash. However large items such as televisions, microwaves, etc. should be put out as a special pick-up. Some electronic items such as computer monitors contain large amounts of lead and are toxic when the item is smashed. Call the City at 639-2035 for a special pick-up or put these items out during the spring and fall clean up period.

Construction and/or Remodeling Waste - Waste materials from construction or remodeling can be put out with the normal household trash in small volumes or quantities. However, large items or hard to handle items should be picked up separate from the normal trash pick-up. Call the City at 639-2035 for a special pick-up or put these items out during the spring and fall clean up period.

Infectious Waste - Medical wastes can be dangerous to the workers picking up the trash and disposal personnel at the transfer station or landfill. Residential households are required to package all sharps (needles, knives, etc.) in a rigid, leak proof, puncture resistant container.

Household Hazardous Waste

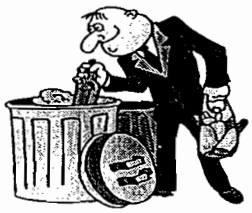
Many common household products contain hazardous substances. Household Hazardous Wastes (HHW) are products that consumers no longer need. In Missouri we generate about 47,000 tons of HHW each year. These wastes can catch on fire, react with other substances, explode under certain conditions, are corrosive, or poisonous. Among the most common of these are:

Pesticides	Paints	Varnishes
Solvents	Paint Thinners	Motor Oil
Antifreeze	Cleaners	Polishes
Hobby Chemicals	Pool Chemicals	Batteries

The liquid items above **should not** be poured down the drain. They can be put into your household trash for disposal however may cause problems to the sanitation workers and the environment. Someday we hope to have a separate disposal procedure for these items.

When disposing of household hazardous waste please:

- Take the lid off of paint and allow it to solidify before disposing.
- Follow all directions on the container for use and disposal.
- Buy just enough of the product to do the job.
- Buy non-hazardous or less hazardous products.
- Keep products in their original containers with instructions readable.
- Use up the entire chemical before discarding it.
- Share the unused product with others rather than disposing of it.



The City of Wentzville
Information

TRASH PICK-UP SCHEDULE
North of the Railroad Tracks
Monday & Thursday
South of the Railroad Tracks
Tuesday & Friday

ALL RECYCLING PICKED-UP ON WEDNESDAY

ALL YARD WASTE PICKED-UP ON WEDNESDAY

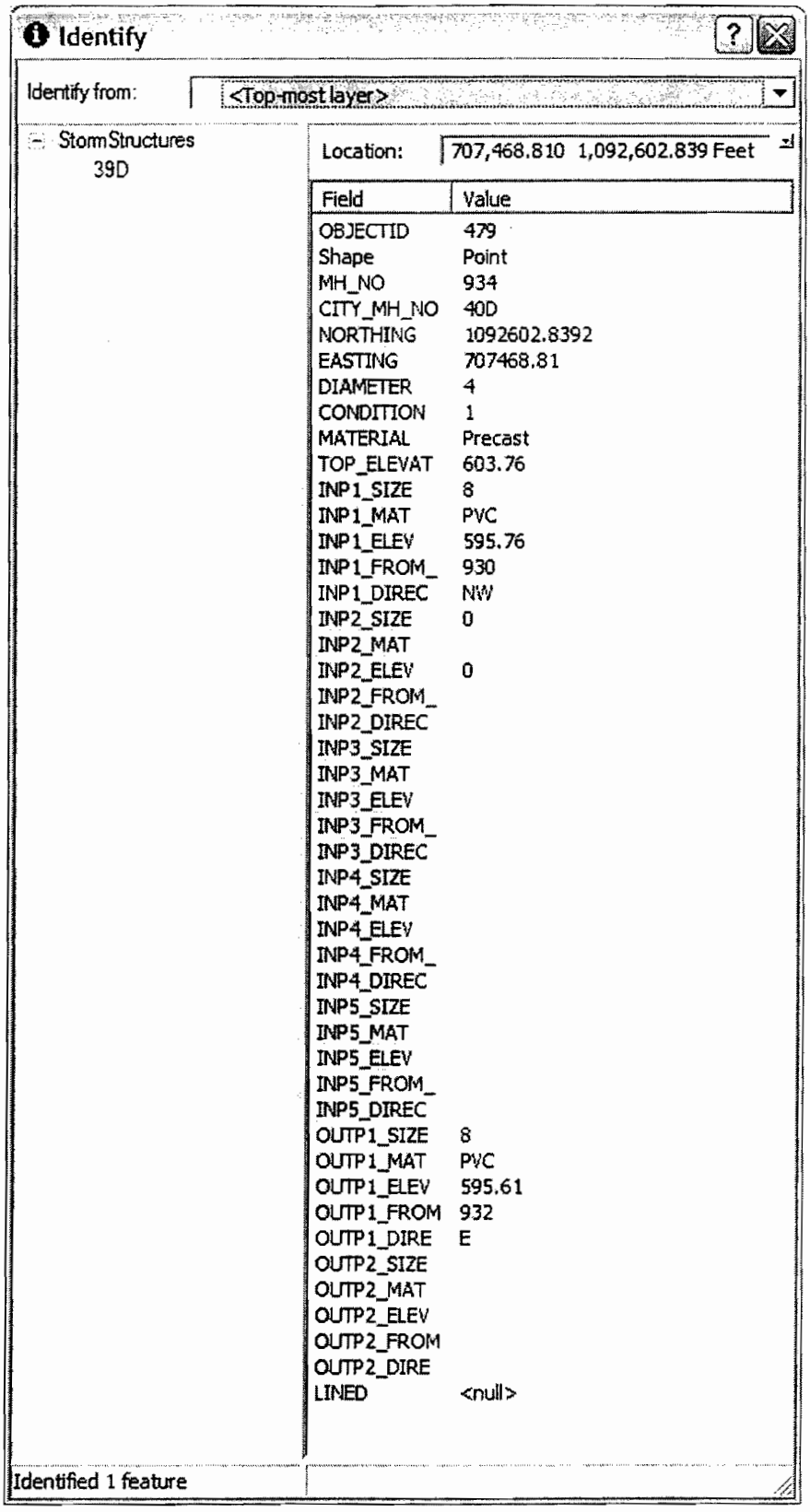
All items should be placed within
3-feet of the curb before 6:O0 A.M.

Contact the Wentzville Public Works at 636-639-2035 regarding any questions, or to schedule any additional services; i.e., trash carts, yard waste pick-up, or large item pick-up.

For your convenience, you can apply on line at www.wentzvillemo.org

Wentzville Trash & Recycling Collection

Storm Sewer Map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NORTHING 1092602.8392
EASTING 707468.81
DIAMETER 4
CONDITION 1
MATERIAL Precast
TOP_ELEVAT 603.76
INP1_SIZE 8
INP1_MAT PVC
INP1_ELEV 595.76
INP1_FROM_ 930
INP1_DIREC NW
INP2_SIZE 0
INP2_MAT
INP2_ELEV 0
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Draft Design Requirements for Storm Drainage Facilities (Relevant Sections)

Permit Period 2008 thru 2012
Appendix C

6. Design Requirements for Storm Drainage Facilities

6.01 General

6.01.01 Introduction and Mission Statement

The mission of these stormwater design criteria is to:

- Protect property and infrastructure
- Prevent environmental degradation
- Protect natural waterways
- Accommodate growth by offering a variety of design tools
- Meet the City's State and Federal regulation requirements
- Achieve this mission in a cost effective manner to the City

The City of Wentzville recognizes that natural waterways are an integral part of our stormwater conveyance system. Therefore, a major component of the stormwater design criteria is to use stormwater best management practices (BMP) in each development to more closely imitate natural hydrologic function. By doing so, we are delivering cleaner stormwater in a natural flow regime to our receiving natural channels.

Portions of this criteria has been adapted from the Metropolitan St. Louis Sewer District, "Rules and Regulations and Engineering Design Requirements for Sanitary Sewer and Stormwater Drainage Facilities" February 2006 manual.

The criteria set forth in this document are minimum standards and design professionals are encouraged to provide stormwater system designs that go beyond these standards.

6.01.02 Prevailing Law

All design must conform to prevailing Federal, State and County requirements in addition to these criteria. Agencies with jurisdiction include, but are not limited to the following:

- Federal Emergency Management Agency (FEMA)
- Federal Highway Administration
- U S. Army Corps of Engineers
- Missouri Department of Natural Resources
- Missouri Department of Transportation
- St. Charles County

6.01.03 Companion Documents

The following documents have been included in these criteria by reference:

- The Municipal Code of the City of Wentzville (latest revision)
- City of Wentzville Construction Specifications and Standard Details (latest revision)
- Maryland Stormwater Design Manual, Volume I and II (latest revision)
- City of Wentzville Comprehensive Plan

Each document has requirements pertaining to development and contains information regarding stormwater systems. The designer is expected to understand and follow these documents as applicable.

6.01.04 Construction Alternatives

This section gives the minimum technical design requirements of the City of Wentzville storm water drainage facilities. In general, the methods presented herein for stormwater design represent acceptable procedures, not necessarily to the exclusion of other sound and technically supportive methods. Any departure from these design requirements should be discussed before submission of plans for approval and should be justified.

Variance to these requirements will NOT be entertained unless the reasons for doing so can be shown to enhance the stated mission of these criteria.

6.01.05 Escrow

Escrow release associated with stormwater facilities shall conform to Section 9 of this design criteria manual.

6.01.06 Quick Reference Guide

Following is a quick reference guide to the performance criteria included in this section. Section 6 must be read in its entirety to fully understand these criteria.

Facility Type	Design Storm	Tc	Accepted Methodology for Peak Flow or Volume Calculation	Freeboard, Ponding Limits and Other Requirements	Design Criteria Section
Enclosed Systems					6.02
Street Gutters, Curb and Area Inlets	15 year, 20 minute	20 min	Modified Rational Equation	8' maximum spread	6.02.02
Storm Sewers (DA < 20 acres and Tc ≤ 20 min)	15 year, 20 minute	20 min	Modified Rational Equation	3' maximum head; 6" freeboard to inlet sill, 1' freeboard to top of manhole	6.02.03
Storm Sewers (DA ≥ 20 acres and Tc > 20 min)	15 year, 20 minute	Compute	NRCS Unit Hydrograph		6.02.03
Overland Flow System	100 year, 24 hour with design system blocked	Compute	NRCS Unit Hydrograph	Low sill of any adjacent structure shall be above	6.02.04
Engineered Channels					6.03
Engineered Channels (DA < 20 acres and Tc ≤ 20 min)	15-yr, 20-min with 100-yr, 24-hr check	20 min	Modified Rational Equation for 15-yr, NRCS Unit Hydrograph for 100-yr	Design - 6 inches to top of bank.	6.03
Engineered Channels (DA ≥ 20 acres and Tc > 20 min)	15-yr, 20-min with 100-yr, 24-hr check	Compute	Modified Rational Equation for 15-yr, NRCS Unit Hydrograph for 100-yr	Check - 1-foot to low sill of adjacent structure.	6.03
Culverts, Bridges and Natural Channel Crossings					6.04
Culverts - Under driveways along roadside ditches	15 year, 20 minute	20 min	Modified Rational Equation	1-foot to edge of pavement	6.04.03
Culverts - In Natural Channels	Low Flow: 1 year, 24 hour Full Capacity: 100 year, 24 hour	Compute	NRCS Unit Hydrograph	1-foot to edge of pavement	6.04.04
Bridges	100 year, 24 hour	Compute	NRCS Unit Hydrograph	1-foot to bottom chord	6.04.05
Grade Controls	Rock size: 100 year, 24 hour Height of rock to top of bank or 10 year, 24-hour elevation	Compute	NRCS Unit Hydrograph		6.04.07
Detention and Water Quality					6.05
Water Quality Volume WQ_v	1.14 inches	NA	$WQ_v = [(P/12)(R_v)(A*43,560)]$	BMP to treat	6.05.03.2
Stream Protection Volume Cp_v	1 year, 24 hour	Compute	NRCS Unit Hydrograph	24-hour extended detention	6.05.03.3
Flood Protection Qp_2 and Qp_{100}	2 year, 24 hour and 100 year, 24 hour	Compute	NRCS Unit Hydrograph	Proposed, routed peak flow ≤ existing peak flow	6.05.03.4
Limits of Maximum Ponding	100 year, 24 hour with lower outlets blocked	Compute	NRCS Unit Hydrograph	Ponds: 30' horizontal and 2' vertical distance to low sill of any building. Parking lots: 10' feet horizontal and 1' vertical distance to low sill elevation of any building. 1' freeboard to top of the basin.	6.05.04

Rainfall Data (Rainfall Frequency Atlas of the Midwest, Bulletin 71)

Design Storm	Rainfall (inches)
1 year, 24 hour	2.50
2 year, 24 hour	3.10
10 year, 24 hour	4.64
100 year, 24 hour	7.21

e. Composite revetments - Composite revetments are a combination of techniques. For example, vegetated rock, vegetated ACB, etc.

f. Vegetation shall be appropriate to local conditions and shall be native Missouri riparian species. Planting plans and palettes shall be prepared by a qualified Landscape Architect registered in the State of Missouri.

6.05 Detention and Water Quality

6.05.01 General

1. All projects shall be submitted to the City for review and approval.

2. Detention and water quality facilities shall be provided and designed in accordance with the requirements of this section.

6.05.02 When Required

1. Stormwater detention and water quality requirements shall be evaluated for all projects. Specifically, stormwater detention and water quality shall be required for projects as follows:

   a. All new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than 1 acre that are part of a larger common parcel or project that is greater than one acre.

   b. Projects which have a differential runoff of 1 cfs or greater for the 15-year, 20-minute event. The differential runoff is calculated by the Modified Rational Method per Section 6.02.01.

   c. Subsequent development or redevelopment of sites without prior stormwater detention or water quality features, when cumulative differential increase since January 1, 2007 equals 1 cfs or greater.

   d. When existing stormwater management facilities are going to be used to accommodate additional runoff from building or parking lot expansions or subdivision additions, the facilities shall be retrofitted to meet the current stormwater management requirements for the drainage area, served by the facility.

   e. Subsequent development or redevelopment projects with prior detention and/or water quality shall provide additional detention and/or water quality, regardless of disturbance size or differential runoff, at the discretion of the City.

6.05.03 Stormwater Detention and Water Quality Sizing Criteria

1. General

This section presents the sizing criteria for stormwater facilities to meet pollutant removal goals, reduce channel erosion and prevent flooding and pass extreme floods. A very brief summary is listed below.

SUMMARY OF THE KEY COMPONENTS AND STORMWATER CRITERIA

Stormwater Volume	General Criteria and Calculation Method
Water Quality Volume (WQ_v) (ft^3)	WQ_v shall be treated using one of the allowable BMPs. **$WQ_v = [(P/12)(R_v)(A*43,560)]$** P = rainfall depth = 1.14in R_v = volumetric runoff coefficient A = area in acres
Channel Protection Storage Volume (Cp_v)	Cp_v = 24 hour extended detention of post-developed one-year, 24 hour storm event
Flood Protection Volume (Qp_2 & Qp_{100})	The post-developed routed peak flow from the site may not exceed the existing routed peak flow for the 2-year and 100-year, 24-hour events. Calculated using NRCS unit hydrograph method routed through the detention basin(s).

The following sub-sections provide more expanded information, directories, explanations and resource references.

2. Water Quality Volume (WQ_v)

a. WQ_v is the storage needed to capture and treat the runoff from 90% of the recorded daily rainfall events. In numerical terms, it is equivalent to 1.14 inches of rainfall multiplied by the volumetric runoff coefficient (R_v) and site area. The WQ_v is directly related to the amount of impervious cover created at a site. A minimum WQ_v of 0.2 inches per acre shall be met at all sites where WQ_v is required. The following equations are used to determine WQ_v:

$$WQ_v = [(P/12)(R_v)(A*43,560)]$$

Where:
WQ_v = water quality volume (in ft^3)
P = 1.14 inches of rainfall
R_v = 0.05 + 0.009 (I)
I = percent impervious cover (in percent.
Eg 100% = 100, 75%=75,…). See table below for minimum impervious percentages.
A =area in acres

b. Percent Impervious Cover (I) can be calculated by breaking drainage areas into component areas, with the appropriate percent impervious applied to each component, i.e.; a proposed development may show 100% impervious for paved areas and 5% impervious for grassed areas and producing a weighted average.

If a weighted average is not calculated, the minimum I to be used is as follows:

For manufacturing and industrial areas	100%
For business and commercial areas	100%
For residential areas, including all areas for roofs of dwellings and garages; for driveways, streets, and paved areas; for public and private sidewalks; with adequate allowance in area for expected or contingent increases in imperviousness:	
In apartment, condominium and multiple dwelling areas:	75%
In single family areas:	
1/4 Acre or less	50%
1/4 Acre to 1/2 Acre	40%
1/2 Acre to One Acre	35%
One Acre or larger	Calculate Impervious Percentage
Playgrounds (non-paved)	20-35%
For small, non-perpetual charter cemeteries	30%
For parks and large perpetual charter cemeteries	5%

c. As a basis for determining water quality treatment volume the following assumptions may be made:

1) The water quality volume WQ_v for offsite areas is not required if the offsite flows bypass the water quality facilities. If offsite runoff flows into a water quality facility, the WQ_v calculation must include the offsite area. Offsite areas are defined as those areas that are not a part of the proposed development but produce runoff that flows to the proposed development.

2) Measuring Impervious Cover: The measured area of a site plan that does not have vegetative or permeable cover shall be considered total impervious cover.

3) Multiple Drainage Areas: When a project contains or is divided by multiple drainage areas, the entire WQ_v shall be addressed for each drainage area within that drainage area (i.e. you cannot increase the WQ_v in one BMP to compensate for no or reduced WQ_v in another).

4) BMP Treatment: The final WQ_v shall be treated by an acceptable BMP(s) from the list presented in Section 6.05.06.

5) Subtraction for Non-structural Practices: When non-structural practices are employed in the site design, the WQ_v volume can be reduced in accordance with the conditions outlined in Section 6.05.07.

6) Extended Detention (ED) for Water Quality Volume: The water quality requirements can be met by providing 24-hour extended detention of **up to half** of the water quality volume (WQ_v) in conjunction with a stormwater pond or wetland system. If the same pond or wetland is used for the Cp_v, the ED portion of the WQ_v may be included when routing the Cp_v.

7) All water quality facilities shall include a separate landscaping plan sealed by a Landscape Architect registered in the State of Missouri.

3. Channel Protection Storage Volume Requirements (Cp_v)

a. To protect channels from erosion, a 24-hour extended detention of the 1-year, 24-hour storm event shall be provided. The rationale for this criterion is that runoff will be stored and released in such a gradual manner that critical erosive velocities during bankfull and near-bankfull events will seldom be exceeded in downstream channels. A detention pond or underground vault is normally needed to meet the Cp_v requirement (and subsequent flood protection criteria Qp_2 and Qp_{100}).

b. As a Basis for determining Channel Protection Storage Volume the following assumptions may be made:

1) NRCS Unit Hydrograph method shall be used for determining peak discharge rates.

2) The rainfall depth for the one-year, 24-hour storm event is 2.50 inches. Use Type II rainfall distribution.

3) The length of overland sheet flow used in time of concentration (t_c) calculations is limited to no more than 100 feet for post project conditions.

4) The 24-hour extended detention is defined as providing a 24-hour detention lag time (T) for the one-year storm. The lag time is defined as the interval between the center of mass of the inflow hydrograph and the center of mass of the outflow hydrograph.

5) Cp_v is not required at sites where the one-year post development peak discharge is less than or equal to 1.0 cfs for the entire site.

6) A Cp_v orifice diameter of less than 3.0" is not allowed.

7) Multiple Drainage Areas: When a project contains or is divided by multiple drainage areas, the entire Cp_v shall be addressed for each drainage area within that drainage area (i.e. you cannot increase the Cp_v in one facility to compensate for no or reduced Cp_v in another, except where the WQ_v is treated by widening the riparian buffer as described in Section 6.05.06).

8) Extended detention storage provided for the Cp_v does not fully meet the WQ_v requirement (that is Cp_v and WQ_v should be treated separately).

9) The stormwater storage needed for Cp_v may be provided above the WQ_v storage in stormwater ponds and wetlands; thereby meeting all storage criteria in a single facility with appropriate hydraulic control structures for each storage requirement.

10) Infiltration is not recommended for Cp_v control because of large storage requirements. If proven effective, appropriate and desirable however, in some rare situations it may be permissible.

4. Flood Protection Volume Requirement (Qp_2 & Qp_{100})

a. To protect downstream areas from flooding stormwater shall be detained on site or offsite as approved and released at a rate not to exceed the existing peak flow for the 2-year and 100-year 24-hour events.

Note that stormwater pipes, downstream from the control structure, shall be sized to carry the runoff from the 15-year 20-minute design storm for the total tributary upstream watershed. No reduction in outfall pipe size shall be permitted because of detention.

b. As a Basis for Determining the Flood Protection Volume the following assumptions may be made:

1) The 2-year and 100-year, 24-hour inflow hydrographs shall be determined by using NRCS Unit Hydrograph method. The inflow hydrograph shall be developed based on the actual flow and timing characteristics upstream of the detention facility. The rainfall distribution shall be Type II. The rainfall quantities to be used are from the Rainfall Frequency Atlas of the Midwest, Bulletin 71, developed by the Midwest Climate Center and Illinois State Water Survey, and shall be as follows: 3.1" for the 2- year, 24-hour storm and 7.2" for the 100-year, 24-hour storm.

2) The volume of detention may be provided through permanent detention facilities such as dry basins or ponds, permanent ponds or lakes, underground storage facilities or in parking lots. The engineer shall make every effort to locate the detention facility at or near the lowest point of the project such that all of the onsite runoff will be directed into the detention facility. Multiple use of detention basins is encouraged. Multiple use may include parking lots, ball fields, tennis courts, play grounds and picnic areas.

   Flows from offsite, upstream areas should be bypassed around the detention facility to ensure that the proposed detention facility will function as designed and will provide effective control of downstream flows with development in place. If offsite flows are directed into a detention facility, the allowable release rates shall not be modified.

3) Detention basin volume will be based on routing the post-developed 2-year and 100-year, 24-hour inflow hydrographs through the detention facility while satisfying the appropriate allowable release rate. The routing computations shall be based on an application of the continuity principle, (i.e., level pool routing).

4) Multiple Drainage Areas: When a project contains or is divided by multiple drainage areas, the Qp_2 & Qp_{100} may be addressed for the entire site in one basin for the entire site, as long as all areas are tributary to the same stream. This does not alleviate the need to provide WQ_v (BMPs) and/or Cp_v for each separate discharge point.

5) Pond routing shall be modeled using a nationally recognized computer program using industry standard methodologies, including, but not limited to:
   1. Pondpack by Haested
   2. Hydraflow Hydrographs by inteliSolve
   3. HEC-HMS by the U.S. Corps of Engineers
   4. Others as approved by the City

6.05.04 Limits of Maximum Ponding

1. The maximum ponding elevation shall be calculated based on a routing of the 100-year, 24-hour event assuming all outlet weirs and orifices are blocked, except for the highest overflow structure. The routing shall begin assuming water is ponded to the overflow structure's sill.

2. The limits of maximum ponding in dry basins or ponds and permanent lakes or ponds shall not be closer than thirty (30) feet horizontally to any building, and not less than two (2) feet vertically below the lowest sill elevation of any building.

3. The limits of maximum ponding in parking lots shall not be closer than ten (10) feet horizontally from any building and not less than (1) foot vertically below the lowest sill elevation of any building

4. A minimum of one (1) foot of freeboard shall be provided from the top of the basin to the maximum ponding elevation.

6.05.05 General Stormwater Basin Design Requirements

1. Underground Basins Special Requirements:

   a. Adequate access for basin maintenance and inspection shall be provided. A means of visual inspection from the ground surface of the low flow device, overflow weir, and outlet structure is necessary. Access shall also be provided to allow for cleaning of the low flow device from the ground surface.

   b. The basin should have sufficient volume and spillway capacity to pass/contain the 100-year 24-hour event with the low flow outlet blocked. In some situations it may be desirable to have control structures with at least 2 outlet openings, one above the other.

   c. Underground basins shall be acceptable for non-residential projects only.

   d. Provide immediate manhole access from ground surface for both sides of the low flow device. Also provide a manhole at upstream end of underground basins, for access, inspection, to facilitate maintenance and air release.

   e. Adequate flowline spot elevations, sections and profiles including pipe length and slope shall be labeled to define basin and pipe geometry.

2. For detention ponds that do not contain water quality features, all ends of pipes discharging into a dry basin shall be connected with the low flow pipe or control structure, by means of a permeable swale. The swale shall a minimum 4:1 lateral (25%) slope to the center, a minimum 1.0% longitudinal slope to ensure positive drainage and a maximum 2.0% longitudinal slope. Swales shall be a minimum of six (6) inches deep and four (4) feet wide or 1.3 times the diameter of the pipe entering the basin, whichever is greater. The bottom of the basin shall be sloped a minimum of two percent (2%) towards the edge of the swale.

   No concrete swales will be allowed unless approved by the City.

   Permanent erosion control protection must be provided at the ends of discharging pipes into the pond to protect against the 15 year – 20 minute storm event.

3. Railroad tie walls cannot be used.

4. Permanent detention ponds or lakes are to be designed to minimize fluctuating lake levels. Maximum fluctuation from the permanent pool elevation to the maximum ponding elevation shall be six (6) feet.

5. The maximum side slopes for dry basins or ponds, and the fluctuating area of permanent ponds or lakes shall be 3:1 (three feet horizontal, one foot vertical) without fencing.

6. Dry basins or ponds and the fluctuating areas of permanent ponds or lakes are to be appropriately vegetated to the maximum high water elevation. Areas above that elevation shall be appropriately stabilized and vegetated. Sod and mowing above that elevation may be approved and is required for dam embankment slopes and downstream toe areas for wet basins where riprap is not appropriate. All vegetation shall be approved by the City.

7. Control structures and overflow structures are to be reinforced concrete, including precast.

8. Accepted materials for use in baffles, grates, screens and pipe, which is normally submerged or is located in a normally wet environment shall be composed of aluminum, stainless steel, concrete, or other like material that is not subject to corrosion. Galvanized or coated steel is not acceptable.

9. The outflow pipe shall be sized for the developed flow rate.

10. In basins with concrete walls or riprap covered slopes, provisions should be made for mowing equipment to reach the bottom (ramps, etc.).

11. Maximum Depths:

    a. The maximum depth of water in a dry detention basin or pond shall not exceed eight (8) feet. The design of detention basin dams must be sealed and certified by a Professional Engineer registered in the State of Missouri with demonstrated expertise in geotechnical engineering.

    b. Parking lots used for automobiles shall have a maximum depth of eight (8) inches of water.

    c. Parking lots used for trucks or truck trailers shall have a maximum ponding depth of water of twelve (12) inches.

12. Detention Basin Fencing

    A four (4) foot (minimum height) approved fence shall be provided around the perimeter of any basin where the side slopes exceed 3H:1V. Fencing such as post and rail, or fencing which prevents easy observation of detention basin, such as tall privacy fencing, should not be used.

13. Detention Basin Elevation

    a. If the detention basin discharges to a piped sewer system, the low elevation of the detention basin shall be above the 15-year, 20-minute hydraulic elevation of the receiving storm system.

    b. If the detention basin discharges to an open channel, or to a piped sewer system affected by flood levels in a nearby downstream open channel, then the low elevation of the detention storage shall be above the 100-year flood elevation in the open channel as established by the FEMA Flood Insurance Study.

6.05.06 Acceptable Urban BMP Options

1. This section sets forth five acceptable groups of BMPs that can be used to meet the Water Quality volume criteria (WQ_v). The design and selection of these BMPs shall generally conform to the criteria contained in the Maryland Stormwater Design Manual, Volumes I & II (latest revision), as prepared by the Center For Watershed Protection and the State of Maryland Department of the Environment (MDE). Adaptation to local Missouri environment and natural conditions should be expected but shall be as approved by the City. The Manual can be purchased through MDE's website. A simple search for Maryland Stormwater Design Manual will provide a direct link.

a. The acceptable BMP designs are assigned into six general categories for stormwater quality control (WQ_v):

BMP Group 1 Stormwater Ponds
BMP Group 2 Stormwater Wetlands
BMP Group 3 Infiltration Practices
BMP Group 4 Filtering Practices
BMP Group 5 Open Channel Practices
BMP Group 6 Riparian Buffer Widening

Acceptable uses of the BMPs are summarized in Table 6-7.

b. To be considered an effective BMP for stand-alone treatment of WQ_v, a design shall be capable of:

1) Capturing and treating the required water quality volume (WQ_v)
2) Removing 80% of the TSS, and
3) Having an acceptable longevity rate in the field

c. A combination of BMPs and/or credits is normally required at most development sites to meet all three stormwater sizing criteria.

BMP Group 1. Stormwater Ponds

a. Practices that have a combination of permanent pool, extended detention or shallow wetland equivalent to the entire WQ_vs include:

P-1	Micropool extended detention pond
P-2	Wet pond
P-3	Wet extended detention (ED) pond
P-4	Multiple pond system
P-5	Pocket Ponds

b. As described in the Maryland Stormwater Design Manual, wet ponds shall:
1) Have a minimum drainage area of 10 acres
2) Have a forebay at each inlet unless the inlet provides less than 10% of the total design storm inflow to the pond. The forebay shall be sized to contain 0.1 inches per impervious acre of contributing drainage.
3) See the Maryland Stormwater Design Manual for additional criteria.

BMP Group 2. Stormwater Wetlands

a. Practices that include significant shallow wetland areas to treat urban stormwater but often may also incorporate small permanent pools and/or extended detention storage to achieve the full WQ_v include (Modification of existing wetland areas will require a Corps 404 permit):

W-1	Shallow wetland
W-2	ED shallow wetland
W-3	Pond/wetland system
W-4	Pocket wetland

b. As described in the Maryland Stormwater Design Manual, stormwater wetlands design shall:
   1) Include a water balance to demonstrate that the wetland can withstand a 30 day drought at summer evaporation rates without completely drawing down.
   2) Have a forebay at the inlet and a micropool at the outlet. The forebay shall be sized to contain 0.1 inches per impervious acre of contributing drainage.
   3) See the Maryland Stormwater Design Manual for additional criteria.

c. Wetlands may be used for Cpv and WQv, but shall not be used for control of the flood protection volume.

d. Wetlands shall be designed by a qualified and experienced team.

BMP Group 3. Infiltration Practices

a. Practices that capture and temporarily store the WQ_v before allowing it to infiltrate into the soil over a two day period include:

I-1	infiltration trench
I-2	infiltration basin

b. Infiltration practices will be allowed on sites where it is proven that infiltration will work to the satisfaction of the City. This must be supported by a soils report.

BMP Group 4. Filtering Practices

a. Practices that capture and temporarily store the WQ_v and pass it through a filter bed of sand, organic matter, soil or other media are considered to be filtering practices. Filtered runoff may be collected and returned to the conveyance system. Design variants include:

F-1	Surface sand filter
F-2	Underground sand filter
F-3	Perimeter sand filter
F-4	Organic filter
F-5	Pocket sand filter
F-6	Bioretention*

*may also be used for infiltration

b. As described in the Maryland Stormwater Design Manual, filtering practices shall:
   1) Have a maximum contributing drainage area of 10 acres
   2) Include dry or wet pretreatment equivalent to at least 25% of the computed WQ_v.
   3) See the Maryland Stormwater Design Manual for additional criteria.

c. Underground filtering practices may be allowed on commercial/industrial projects. They are not allowed on residential projects.

d. A maintenance agreement and maintenance schedule shall be required.

BMP Group 5. Open Channel Practices

a. Vegetated open channels that are explicitly designed to capture and treat the full WQ_v within the dry or wet cells formed by checkdams or other means include:

O-1	Dry swale
O-2	Wet swale

b. Open channel practices shall be designed with the proper plantings. They are not allowed on single-family residential projects. They may be allowed on condominium or apartment projects if maintenance is provided by a management company.

c. Wet swales shall be designed to drain out over time.

BMP Group 6. Riparian Buffer Widening

This BMP shall be used only with the approval of the City and shall generally meet the following:

a. Riparian buffer widening is applicable for residential developments only.

b. Riparian buffer widening shall not be used for roadway drainage.

c. Riparian buffer widening may be approved if the development meets ALL of the following criteria:

1) The development is contiguous to an existing riparian buffer as described in the City of Wentzville Municipal Code, Article ___, Regulation for the Protection of Natural Water courses.

2) Topography is such that stormwater runoff cannot gravity flow to a BMP.

3) Stormwater runoff from the area sheet flows directly into the existing riparian buffer and does not cross an impervious area.

4) Stormwater runoff from the area does not cross from one property onto another before entering the riparian buffer.

d. If approved, the WQ_v can be met by:

1) Widening the existing riparian buffer by a minimum of 25 feet per effected side as measured from the edge of the existing buffer away from the channel.

2) The widened riparian buffer shall meet all the requirements of the existing riparian buffer.

3) The new buffer width shall be platted as a riparian buffer conservation easement and shall not be included as part of individual lots.

4) If approved, the channel protection (Cpv) and the flood protection volumes (Qp2 and Qp100) shall be accommodated elsewhere in the development.

2. Additional resources for BMP design

In addition to the Maryland Stormwater Design Manual, the following resources may be useful to the design engineer:

a. Georgia Stormwater Management Manual, Volume 2 Technical Handbook, Chapter 3 and Appendixes D and E (latest revision) http://www.georgiastormwater.com

b. Stormwater Best Management Practices in an Ultra-Urban Setting: Selection and Monitoring, Federal Highway Administration Publication No. FHWA-EP-00-002, http://www.fhwa.dot.gov/environment/ultraurb

6.05.07 Non-structural BMP Credits for Water Quality Volume

Non-structural BMPs are increasingly recognized as a critical feature of stormwater BMP plans, particularly with respect to site design. In most cases, non-structural BMPs will be combined with structural BMPs to meet all stormwater quality volume (WQ_v) requirements. The key benefit of non-structural BMPs is that they can reduce the generation of stormwater from the development, thereby reducing the size and cost of structural BMPs. In addition, they can provide partial removal of many pollutants. The non-structural BMPs have been classified into seven broad categories. To promote greater use of non-structural BMPs, a series of credits and incentives are provided for developments that use these progressive site planning techniques. For a complete description of the credits and how to determine if a credit is applicable, see Chapter 5 of the Maryland Stormwater Design Manual, Volume I (most recent version).

1. Natural area conservation
2. Disconnection of rooftop runoff (only available for R-1A, commercial and industrial zones)
3. Disconnection of non-rooftop impervious area
4. Reserved buffers
5. Open channel use
6. Environmentally sensitive development
7. Impervious cover reduction – This is not a credit, per se, but is a means of reducing the WQ_v.

6.05.08 Easements Required

The detention basin and BMP's are to be located in easements per Section 8.

6.05.09 Maintenance Agreement

Prior to plan approval the property owner(s) of the detention basin and BMP site(s) shall execute a City Maintenance Agreement for the BMPs and the detention basin or pond to insure the BMPs and the detention area will be kept in working order, to the satisfaction of the City. The City will not be responsible for maintenance of detention basins or BMPs.

The Maintenance Agreement shall include the Detention and BMP Operation and Maintenance Plan by reference (see Section 6.06.02 for more information regarding the Detention and BMP Operation and Maintenance Plan).

6.05.10 As-Built Certification for Detention/BMP Facilities

An as-built survey is required for all detention/BMP facilities. The design engineer shall submit the Professional Engineer's Construction/As-Built Certification for Detention/BMP Facilities as required in Section 11.

Grading tolerances should be kept at ±0.1 foot. In the event that the tolerance requirement is not met, the design engineer shall prepare and submit a revised Detention and BMP Design Report to demonstrate that the system still meets the performance requirements of these criteria.

6.05.11 Dam Permit Requirements

Dams with a height of thirty-five (35) feet or greater will require approval from the Missouri Department of Natural Resources.

6.06 Stormwater Design Submittal Requirements

6.06.01 Construction Plans

Stormwater structures and features shall be shown in the project construction plans to the extent necessary to fully describe the design intent and adherence to these criteria. At a minimum, the construction plans shall include all information required in Chapter 1. General Instructions.

6.06.02 Stormwater Design Report

1. The engineer shall submit two copies of the Stormwater Design Report.

2. The Stormwater Design Report shall be signed, dated and sealed by the Missouri Professional Engineer who is responsible for its preparation. If the report is prepared by another person, a note on the cover shall state the preparer's name and that he or she is under the direct supervision of the Missouri Professional Engineer who's seal is shown.

3. The Stormwater Design Report shall be bound with each section separated by a labeled tab.

4. The Stormwater Design Report shall at a minimum contain the following:

   a. Table of Contents

   b. Soils data for the site used to determine curve numbers and infiltration rates (if applicable).

   c. City of Wentzville Stormwater Design Summary (Form 6-2)

   d. A City of Wentzville Discharge Summary (Form 6-3) shall be completed for every discharge location leaving the site.

   e. Detention, channel protection and water quality BMP design calculations, including but not limited to:

      1) A City of Wentzville Detention and BMP Summary (Form 6-4) shall be completed for the entire site.

      2) A City of Wentzville Water Quality (BMP) Design Summary (Form 6-5) shall be completed for each BMP facililty.

      3) A City of Wentzville Detention/Retention Pond Design Summary (Form 6-6) shall be completed for each detention facility.

4) Storm routing calculations for all storm frequencies including time, inflow, outflow and elevation.

5) Calculations to demonstrate 24-hour draw down for Cpv and ED portion of WQv (if applicable).

6) Elevation vs Discharge tables or curves for each basin for 1-yr, 2-yr and 100-yr, 24-hour design storms.

7) Elevation vs Storage tables or curves for each basin for 1-yr, 2-yr and 100-yr, 24-hour design storms.

8) Hydraulic gradeline computations for pipes entering and leaving the basin(s) for 1-yr, 2-yr and 100-yr, 24-hour design storms and the 15-yr, 20-minute design storm.

9) If the embankment contains fill material a geotechnical report may be required.

10) Existing Drainage Area Map plotted to a readable scale

   i. City of Wentzville Engineering Project Number in the lower right corner
   ii. Existing contours (2' intervals for residential projects, 1' intervals for commercial projects)
   iii. Existing drainage areas
   iv. For each drainage area, label: Area, CN, Flow Path, Tc and Q1, Q2 and Q100
   v. North arrow.
   vi. Graphic scale

11) Detention Basin and BMP Drainage Area Map plotted to a readable scale

   i. City of Wentzville Engineering Project Number in the lower right corner.
   ii. Proposed contours (2' intervals for residential projects, 1' intervals for commercial projects)
   iii. Drainage areas to each detention basin and BMP
   iv. For each drainage area, label: Area, CN, Flow Path, Tc and Q_1, Q_2, Q_{100} and WQ_v
   v. Calculated routed flow from each drainage basin and BMP outlet.
   vi. North arrow.
   vii. Graphic scale.

12) Structural calculations for the outlet control structures (if required).

13) Cross sections defining the size, shape and depth of the detention basin(s) and other BMP features. At a minimum, three sections, one at each end and one in the middle of the basin will be required.

14) Detention and BMP Operation and Maintenance Plan

A Detention and BMP Operation and Maintenance Plan shall be submitted for approval.

The Detention and BMP Operation and Maintenance Plan shall include:

i. The person(s) or organization(s) responsible for maintenance (subdivision trustees, property owner, etc,)
ii. Drawing and description of the Detention or BMP facility(s) including all components integral to the operation of the facility.
iii. Routine seasonal and annual inspection procedures (such as plantings, replacing mulch)
iv. Routine seasonal and annual maintenance procedures
v. Non-routine maintenance procedures (less frequent and generally more expensive such as pond dredging or major repairs to structures)
vi. Repair procedures
vii. Inspection and maintenance logs and record keeping procedures to track and record compliance with the Operation and Maintenance Plan. These records shall be available upon request of the City.

In addition to the Maryland Stormwater Design Manual, the following resources may be useful in developing the Operation and Maintenance Plan:

i. Georgia Stormwater Management Manual, Volume 2 Technical Handbook, Chapter 3 and Appendix E (latest revision) http://www.georgiastormwater.com
ii. Stormwater Manager's Resource Center webpage http://www.stormwatercenter.net/. Go to Program Resources => STP Maintenance
iii. Contra Costa Clean Water Program: Stormwater Quality Requirements for Development Applications, Stormwater C.3 Guidebook, 3rd Edition, October, 2006 http://www.ci.concord.ca.us/pw/stormwater/stormwaterC3guidebook3rd.pdf. Appendix F contains a step-by-step guide to preparing an Operation and Maintenance Plan

f. Enclosed system design calculations, including but not limited to:

1) Calculation of the 15-yr, 20-min design flow to every inlet

2) Calculation of the 15-yr, 20-min flow in every pipe reach

3) Hydraulic gradeline calculations for the 15-yr, 20-min design storm in all pipes including headloss

4) Calculations for all pipe outfalls including outlet velocity

5) Overland flow path calculations including the 100-yr, 24-hr flow quantity and highwater elevation at critical sections

6) Enclosed system drainage area map

   i. City of Wentzville Engineering Project Number in the lower right corner.
   ii. Proposed contours (2' intervals for residential projects, 1' intervals for commercial projects)
   iii. For each inlet label tributary area, PI factor and flow.
   iv. For each pipe reach, label accumulative flow.
   v. 100 year 24 hour overland flow path, showing width and depth of flow.
   vi. North arrow.
   vii. Graphic scale.

g. Engineered channel design calculations, including but not limited to:

1) Calculation of 15-yr, 20-min and 100-yr, 24-hr design storms to all open channels

2) Hydraulic calculations for engineered channels including depth, velocity and boundary shear for the 15-yr, 20-min design storm and the depth for the 100-yr, 24-hr design storm at critical locations. Include backwater calculations as applicable.

3) Engineered channel lining calculations including sizing of rock and permissible shear stress of lining materials as applicable

4) Energy dissipation calculations for all engineered channel outfalls including outlet velocity and rock sizing for the 100-yr, 24-hr flow in the receiving channel.

h. Culvert design calculations, including but not limited to:

1) Calculation of the 15-yr, 20-min design storm flow to roadside swale culverts, 100-yr, 24-hr storm flow to other culverts

2) Calculation of the 1-yr, 24-hr storm flow at the culvert location for culverts in natural channels

3) Calculation of the depth of the 1-yr, 24-hr flow in the natural channel and in the culvert low flow barrel.

4) Hydraulic calculations for culverts including inlet and outlet control, headwater and tailwater depth and outlet velocity for the 1-yr, 24-hour, 15-yr, 20-min and/or 100-yr, 24-hr design storms as applicable

5) Energy dissipation calculations for all culvert outfalls including outlet velocity and rock sizing for the design storm of 15-year, 20-minutes for driveway culverts or 100-year, 24-hours for all other culverts

i. Bridge design calculations, including but not limited to:

1) Calculation of the 1-yr, 24-hr and 100-yr, 24-hr design storm flows

2) Existing condition HEC-RAS input and output including:

i. Plan view with cross section locations
ii. Cross sections showing HGL and EGL for all storm events
iii. Profile view with HGL and EGL for all storm events
iv. Output table including flow, velocity, channel shear and HGL and EGL elevation for all storm events

3) Proposed condition HEC-RAS input and output including:

i. Plan view with cross section locations
ii. Cross sections showing HGL and EGL for all storm events
iii. Profile view with HGL and EGL for all storm events
iv. Output table including flow, velocity, channel shear and HGL and EGL elevation for all storm events

j. Natural channel crossing design calculations, including but not limited to:

1) Channel Condition Scoring Matrix (Form 6-1)

2) Bank-full and critical shear stress calculations, including:

i. Bank-full discharge for the 1-yr, 24-hr storm event
ii. Bank-full width and depth calculations
iii. Critical shear stress ratio calculations

3) Natural Channel Plan, Profile and Section Exhibits

4) Calculations for the existing and proposed HGL and EGL a sufficient distance upstream and downstream to show where existing and proposed converge for the 1-yr, 24-hour and 15-yr, 20-min design storms

5) Grade control rock sizing for the 100-yr, 24-hr storm flow

TABLE 6-7: BEST MANAGEMENT PRACTICE APPLICABLILITY MATRIX

Stormwater Management Practice		Treatment Suitability			Acceptable Use	
		Water Quality	Channel Protection	Flood Protection	Residential	Commercial/ Industrial
BMP Group 1. Stormwater Ponds (Drainage Area ≥ 10 acres)						
P-1	Micropool extended detention pond	Y	Y	Y	Y	Y
P-2	Wet pond	Y	Y	Y	Y	Y
P-3	Wet extended detention pond	Y	Y	Y	Y	Y
P-4	Multiple pond system	Y	Y	Y	Y	Y
P-5	Pocket pond	Y	Y	Y	Y	Y
BMP Group 2. Stormwater Wetlands						
W-1	Shallow wetland	Y	Y	N	Y	Y
W-2	Extended detention shallow wetland	Y	Y	N	Y	Y
W-3	Pond/wetland system	Y	Y	N	Y	Y
W-4	Pocket wetland	Y	S	N	Y	Y
BMP Group 3. Infiltration Practices						
I-1	Infiltration trench	Y	S[2]	N	S[2]	S[2]
I-2	Infiltration basin	Y	S[2]	N	S[2]	S[2]
BMP Group 4. Filtering Practices (Drainage Area < 10 acres)						
F-1	Surface sand filter	Y	S	N	Y	Y
F-2	Underground sand filter	Y	N	N	N	Y
F-3	Perimeter sand filter	Y	N	N	Y	Y
F-4	Organic filter	Y	S	N	Y	Y
F-5	Pocket sand filter	Y	S	N	Y	Y
F-6	Bioretention*	Y	S	N	Y	Y
BMP Group 5. Open Channel Practices						
O-1	Dry swale	Y	N	N	S[3]	Y
O-2	Wet swale	Y	N	N	S[3]	Y
Other Stormwater Management Practices						
	Dry extended detention pond	N	Y	Y	Y	Y
	Underground detention	Y	Y	Y	N	Y

Y: Yes S: Sometimes N: No

Notes:

1 Bioretention may also be used for infiltration

2 Infiltration practices will be allowed on sites where it is proven that infiltration will work. This must be supported by a soils report.

3 Open channel practices are not allowed on single-family residential projects. They may be allowed on condominium or apartment projects if maintenance is provided by a management company.

Comprehensive Land Use Plan
Goals, Objectives, and Action Steps

Permit Period 2008 thru 2012
Appendix C

CHAPTER 6: COMPREHENSIVE/LAND USE PLAN

GOALS, OBJECTIVES, AND ACTION STEPS OF COMPREHENSIVE PLAN

This chapter illustrates Wentzville's goals, objectives, and action steps in carrying out the implementation of the Comprehensive Plan. These goals, objectives, and action steps address issues discussed in earlier chapters, and reflect many issues derived from the Comprehensive Plan Review Committee (including the Planning and Zoning Commission) study sessions held from March of 2005 to March of 2006, and including input gathered from Open House Public Meetings held on May 24th, 2005 and again on March 13th, 2006.

The City of Wentzville's long-term growth and quality of life shall be guided by the implementation of these goals, objectives, and action steps. The principles within this Chapter guide the City of Wentzville to preserve and enhance the Village Center and to maintain and expand the economic vitality of the City while maintaining a strong sense of community spirit, through the management of natural resources, community involvement, and proactive infrastructure planning.

Incorporated by reference to this Chapter of the Plan is the Land Use Plan Map. The site-specific map, which simply identifies, within broad ranges, the land uses deemed suitable for a given location related to transportation, utility access, and adjacent existing and planned land uses. The fulfillment or implementation of these goals and objectives is dependent upon continuing education, behavioral modifications, intergovernmental coordination, creation and implementation of new policies and regulations, implementation upon review and approval of new projects, creation of funding mechanisms, and taking action. (Map No. 15)

Current and future development in the City of Wentzville will be characterized by the following Land Use Categories:

Agricultural: This category contains cropland, pasture land, open space and related uses, and single-family dwellings at a density of one (1) home per every three (3) acres.

Residential: This category contains all forms of residential dwellings and is divided into the following general densities of dwelling units per acre:

Low-Density Residential	1.0 to 2.0
Medium-Density Residential	2.1 to 4.0
Medium-to-High Density Residential	4.1 to 7.9
High-Density Residential	8.0 or less

Commercial: This category contains retail sales, service trades, financial institutions, professional offices, and repair businesses, activities serving the City in a local and regional capacity and including commercial recreation.

Industrial: This category contains light and heavy manufacturing, office, assembly, supply, storage, and warehouse activities.

Public/ Institutional: This category includes public buildings, hospitals, educational facilities, and uses of similar character.

Transitional: This category contains forested land, grassland, and very low-density residential use that will be transitioning in the future to higher-density residential and commercial/industrial development upon access to public utilities.

COMMUNITY INVOLVEMENT

GOAL: Promote citizen, City Boards, and Commissions education and participation in the planning process to ensure improved community quality.

Objective: Actively solicit involvement of public officials, community leaders, and the general citizenry in the planning process.

Action Step: Convene seminars/workshops, utilize the City newsletter, City website, public newspaper articles, Wentzville School District education opportunities, and City publications to educate citizens about City governance and the development review and approval process, and to encourage/facilitate participation in community visioning forums.

Action Step: Include in the City of Wentzville periodical newsletter information about current planning issues, permit processing procedures, land development and property maintenance regulations, and other related matters.

Action Step: Involve citizens/business owners in the formulation of regulations that affect respective property holdings or areas of interest.

Action Step: Initiate periodical "work session" meetings of the Planning and Zoning Commission, Board of Adjustment, and Board of Aldermen to educate about the importance of planning, discuss current issues, design problems, adequacy of codes, and for visioning.

Action Step: Provide training opportunities for members of the Planning and Zoning Commission, via the yearly training offered by the American Planning Association (APA).

GROWTH MANAGEMENT

GOAL: Provide for the orderly and cost-efficient development of the community.

Objective: Improve local government management and communication techniques relative to development issues.

Action Step: Establish interdepartmental team management approach in dealing with all development issues.

Action Step: Establish regular communications, including sharing of resources, with neighboring communities, county government, economic development entities, state government, and the regional coordinating body.

Action Step: Maintain routine communications with the Wentzville Fire Protection District, the Wentzville R-IV School District, Missouri Department of Transportation, and other applicable agencies in relation to projects and City development.

Objective: Ensure an adequate supply of developable land within the community planning area.

Action Step: Perform routine review of community growth dynamics within the planning area and undertake annexation of contiguous lands or examine areas for redevelopment needs to ensure continuous and orderly development.

Action Step: Pursue the incorporation of properties within the Planning area, including incorporation of property in St. Charles County, surrounded by Wentzville, to protect the integrity of future land uses as reflected by the Comprehensive Plan's Land Use Plan, eliminate jurisdictional overlap, and create a cohesive community (Map No. 15).

Objective: Minimize initial and future public/private improvement cost.

Action Step: Revise the community's subdivision regulations to implement/require high-quality subdivision design and construction of improvements.

Action Step: Maintain high standards for planned improvements, but enable exercise of design flexibility in the Site Plan Review process.

Action Step: Require that the cost of all site improvements (on and off site) be borne by the owner and/or developer of the property being developed, if for the exclusive service of the property.

Action Step: Ensure that street and utility extensions are designed to serve the greatest area with the least amount of extension, and following the guidance of the adopted Transportation Master Plan, Thoroughfare Plan, including the Water and Wastewater Distribution Plans (Map Nos. 8/9).

Action Step: Continue utility infrastructure upsizing policies and procedures upon property development, including the reservation and dedication of right-of-way as depicted within this plan.

Objective: Providing for high-quality development, which by any use is compatible with adjacent or surrounding land uses.

Action Step: Update and monitor the community's Zoning Ordinance to ensure desired compatible land use relationships and desired development activities, and to maintain a progressive ordinance document.

Action Step: Encourage infill development, as appropriate, to maximize utilization of existing infrastructure and land resources.

Action Step: Provide for adequate buffering techniques to minimize incompatible aspects of some land uses.

UTILITIES

GOAL: Provide electricity, telephone/communications, and natural gas in response to demand or the community's needs.

Objective: Maintain cooperative working relationship with utility providers and cause systems installations (substations and distribution lines) to be installed in an aesthetic manner.

Action Step: Prepare/enforce/negotiate standards for landscaping and/or buffering for all utility substations and all utility structure installations from adjacent land uses, and review and enforce compliance with franchise agreements as they appear for renewal.

Action Step: Through cooperative effort of plan review with the providing utility, maximize underground installation of electrical or telephone/communications distribution systems; or minimize detrimental effect through placement of overhead lines in inconspicuous locations, i.e., rear lot lines or peripheral areas for development.

Action Step: Require underground installation of electrical, telephone, and other communications lines within new development tracts.

GOAL: Provide water supply and distribution along with wastewater collection on response to demand or the community's needs.

Objective: Invest in infrastructure improvements in strategic locations to serve new development cost effectively as guided by this Plan (Map Nos. 8 - 9).

Action Step: Enforce existing Annexation Policy for access to Wentzville utility extensions.

Action Step: Ensure that infrastructure improvements being planned or sought represent a logical extension of existing improvements.

Action Step: New land development should be encouraged in areas where municipal services are already available or available with extensions as planned and given priority in the Capital Improvements Budget. Evaluate all options to serve impending urban growth with utilities.

Action Step: Undertake projects as illustrated in Chapter 3 and assign priority for construction through the Capital Improvements Budget.

GOAL: Provide storm water control in response to the community's needs.

Objective: Invest in infrastructure improvements concurrent with new developments to ensure proper management.

Action Step: Enforce/require storm water standards to be applied to new developments at developer cost.

Action Step: Continue to address deficiencies and problems identified within the Wentzville Storm Water Master Plan, create methods of finance, and assign priority for construction in the Capital Improvements Budget.

TRANSPORTATION

GOAL: Provide an inter-modal transportation system, i.e., airways, highways (arterial, collector, and minor streets), railways, public transit, bikeways, and pedestrian walkways (sidewalks and trails) within diverse land uses, that enables safe and efficient movement of people and goods by any or all means from all points of origin to all destinations.

Objective: To accommodate and support any regional airport near Wentzville as may be identified by an Integrated Plan of Systems Airports.

Action Step: Given feasibility, prepare Airport Master Plan and determine potential funding sources.

Objective: Preserve the presence of Norfolk Southern Rail or other rail system through the heart of Wentzville and maintain a good relationship with the railroad enterprise.

Action Step: Promote the growth and development of the Village Center to be coordinated with the active railroad, related to design, public pedestrian, and vehicle access across and adjacent to this existing railroad right-of-way.

Action Step: Preserve availability of existing railway for industrial development, with a view that the right-of-way has potential, perhaps in combination, for light rail in the indeterminate future.

Action Step: Promote or sponsor new initiatives to bring light rail access to St. Charles County and to Wentzville as an alternative means of transportation. Assist the St. Charles County Government with light rail corridor planning including linkages to park and ride lots, as detailed in the St. Charles County Master Plan 2015.

Objective: To enhance traffic-carrying potential and safety on I-70 within the Wentzville planning area through cooperation with the Missouri Department of Transportation (MoDOT).

Action Step: Provide for additional lanes and realignment from Highway Z west to Wentzville Parkway within the next five (5) years.

Action Step: Provide for additional lanes from Wentzville Parkway west to Foristell within the next five (5) to ten (10) years.

Action Step: Provide for interchange improvements at Hwy 70 and Hwy 40-61 detailed within the Missouri Department of Transportation "Improve I-70" study within the next fifteen (15) years.

Action Step: Provide assistance for a break in access for the planned interchange of the Highway 70-61 Beltway.

Action Step: Provide for modification to access at Highway A, including a north service road and flyover into the Mall at Wentzville Crossing's.

Objective: To upgrade Highway 40-61 to a controlled access highway (including service roads) and improve/create interchanges within the Wentzville Planning Area through cooperation with the Missouri Department of Transportation (MoDOT).

Action Step: Upgrade Highway 40-61 south of Interstate 70 to a "controlled access" highway within the next five (5) years.

Action Step: Upgrade Highway 40-61 north of Interstate 70 to "controlled access" highway to a location in proximity of North Point Prairie in ten (10) years.

Action Step: Upgrade and improve the Highway A overpass and interchange to a six (6) lane facility.

Action Step: Provide assistance for a break in access and create a new full interchange with Peine Road and Highway 61 for the planned interchange of Highway 70-61 Beltway connecting to Highway P.

Action Step: Create new full interchange at Highway 40-61 with Prospect Road and Mall Parkway within the next three (3) years.

Objective: Improve or create arterial and collector roads to serve Wentzville, with good connections to state or regional highway systems.

Action Step: Create and/or improve the following roads or road improvements in anticipation of imminent future growth of the community to ensure safe and easy access to state and regional transportation systems from all parts of the community as depicted upon the Thoroughfare Plan (Map No. 6):

- Interstate Drive
- Wentzville Parkway Extension
- Wilmer Road Extension
- 70-61 Beltway
- West Meyer Road
- Scotti Road Extension
- Duenke Road
- Peine Road Extension (Beltway Connection)
- Great Oaks Blvd. (Inner Belt Roadway)
- West/East Service Road - Highway 61
- Mexico Road
- Whisper Creek Extension
- Carlton Glen Parkway Extension
- William Dierberg Drive Extension
- Gilmore Road Extension
- May Road
- Hepperman Road
- Duello Road
- Point Prairie Road (North/South)
- Schroeder Creek Blvd
- Business Highway 61 - Reconstruction
- State Letter Routes

The above roads are assigned priority within the City of Wentzville's adopted five (5) year Capital Improvement Budget (Fiscal Years 2006 - 2010) to initiate the design and are to be pursued for future construction, pending funding. Priority is assigned related to growth and development, traffic volumes and circulation, and public

safety. Additional corridor preservation studies are planned for roadways upon the Thoroughfare Plan, such as Wentzville Parkway Extension (south), Schroeder Creek Blvd. (south), and/or William Dierberg Drive (east) in the future.

Action Step: Utilize the Transportation Master Plan guidance and Chapter Three (3) to receive in dedication or acquire right-of-way for planned facilities and roadway improvements as land is proposed, reviewed, and approved for development, and to establish building setback lines to avoid creation of crowded, congested, and unaesthetic urban conditions.

Action Step: Through the approval of preliminary subdivision plats, require connection points of access to adjacent properties, as applicable, to access collector and/or arterial roadways and provide appropriate transportation circulation in the City.

Action Step: Provide parallel service roads, whether public or private (internal drive isles and roadways), for arterial roads in commercial districts to enable controlled access and to minimize congestion on main roadways.

Objective: Promote bicycling and walking as alternative means of transportation from home, to work, to school, to places of worship, to shop, or for pleasure.

Action Step: Publicize existence of the St. Charles County Trails and Greenways Development Map (Map No. 7).

Action Step: Receive in dedication or acquire right-of-way needed to implement the trails upon the above-stated map and trails and pedestrian ways indicated upon the Land Use Plan (Map No. 15) as land is proposed, reviewed, and approved for development.

Action Step: Create pedestrian and bike paths under the guidance of the specifications within the Transportation Master Plan criteria, and Parks Master Plan, which connect collector and arterial roadways to the City Parks, shopping areas, greenways, and open spaces supported by the Land Use Plan (Map No. 15).

Action Step: Install bike racks/stands in select locations in response to future pedestrian travel in the community upon commercially zoned areas and public facilities, as applicable.

Action Step: Require that all new developments provide sidewalks to ensure safe mobility to work, to school, to places of worship, to shop, or for pleasure.

Action Step: Create walkways or paths in City of Wentzville Parks, greenways, and waterways.

Objective: Establish public transportation within the City of Wentzville.

Action Step: Evaluate and implement the recommendations of the Wentzville consultant study to execute public transportation in the City of Wentzville and Western St. Charles County, providing linkages with the systems in adjacent communities and the region to the east.

LAND USE

GOAL: Provide a compact, efficient, and attractive community that is able to respond to most market demands, is self-sustaining through its diversity, and provides balanced land resources for permitted development of improvements satisfying all human needs for living, working, education, recreation, and cultural activities.

Objective: Create commercial and industrial development locations in response to the market place, but in proper relationship to transportation corridors and other land uses.

Action Step: (See below and Chapter Eight [8] Economic Development Plan).

Objective: Provide commercial development locations of the highest quality equipped with appropriate infrastructure.

Action Step: Pursue Land Use Regulations for the frontage tracts to Interstate 70 and Highway 61 and at planned interchanges to improve the image of the community, to encourage and require high-quality planned commercial development.

Action Step: Encourage sustainable commercial development via the review of zoning district requests, thereby ensuring adequate depth and configuration of properties to limit strip commercial development to appropriate tracts within the City.

Action Step: Evaluate and permit, as appropriate, small-scale local neighborhood commercial service nodes, utilizing zoning district C-O (Commercial Office) and C-1 (Neighborhood Commercial) in close proximity to large residential areas, which are adjacent to arterial residential routes, appropriately screened from adjacent residential land uses and constructed to be architecturally compatible with adjacent dwellings, for the purpose of providing commercial services/conveniences to nearby residences, while minimizing traffic generation and trip generation on thoroughfare streets of the City.

Action Step: Create regional shopping centers, which attract patrons from within land outside the community in proximity to high-density housing opportunities, upon designated commercial properties on the Land Use Plan.

Action Step: All commercial locations need to possess the following characteristics:

- Location adjacent to an arterial road or at the intersection of arterial/collector roads.
- No dependency for access through residential or other sensitive uses.
- Requirement of buffering to eliminate or modify potential adverse impact upon adjacent residential uses.
- Access to the sites in compliance with the Transportation Master Plan criteria.

Objective: Provide industrial development locations of the highest quality equipped with appropriate infrastructure.

Action Step: Actively promote development of existing industrially zoned locations.

Action Step: Actively create new industrial and high-technology development tracts in locations proximate to arterial corridors, within planned industrial areas upon the Land

Use Plan, and adjacent to potential rail headings, as infrastructure permits.

Action Step: Maintain inventory of small to large tracts with appropriate topography and full availability of essential utilities to enable favorable marketing response to a variety of potential users.

Acton Step: Avoid expedient rezoning of existing undeveloped industrially zoned and planned areas to ensure availability of land for the future industrial development with resultant benefits of providing employment opportunities for residents and improving the community's tax base.

Objective: Provide opportunities for industrial development without negative environmental impact.

Action Step: Prepare a repertoire of desirable or niche industries desired by the community that lack potential of negative environmental impact.

Action Step: Provide land resources for development that do not necessitate industrial-use traffic through residential or other sensitive land-use areas.

Action Step: Require buffering to eliminate or modify potential negative environmental impacts upon proximate non-industrial or sensitive uses.

Objective: Foster a positive climate for commercial and industrial retention and expansion.

Action Steps: Visit companies to determine needs.

Establish regular Mayor's roundtable to discuss needs or issues.

Create a business appreciation event.

Recognize companies for extraordinary community contributions.

Invite other community companies to promote the community for other potential new businesses.

Establish linkages with other institutions and organizations involved in promotion of business development for information and referrals.

Objective: Provide a variety of housing choices in well-maintained neighborhoods to meet the needs of a diverse population.

Action Step: Utilize the Planned Development Zoning District to achieve housing development's that contain a mix of housing types and affordability, appropriately designed using the existing land forms of a project site and containing project amenities for Wentzville residents, with an emphasis on quality.

Action Step: Require that developers create and record indentures and covenants for a subdivision to guarantee architectural integrity and maintenance of the development.

Action Step: Require that higher-density housing only be permitted in locations adjacent to collector and arterial streets and/or commercial developments, without necessity of access through low-density residential developments.

Objective: Maintain existing residential neighborhoods through innate community pride and enforcement of minimum housing maintenance standards.

Action Step: Continue to enforce minimum maintenance housing code and enforce proactively on a regular basis.

Action Step: Avoid commercial, industrial, or other incompatible zoning districts uses within residential neighborhoods.

Action Step: Through the city newsletter, inform citizens of responsibility for property maintenance and of benefits in upholding property values and the image of Wentzville.

Objective: Foster an environment for consideration of mixed-use development and traditional neighborhood development within the City in appropriate locations.

Action Step: Implement the components of Wentzville Resolution 03-098, adopted on June 25th, 2003 endorsing the recommendation of the Wentzville Downtown Phase II Plan and Program, whereby the City of Wentzville adopted the Village Center Zoning Districts to encourage the redevelopment and

revitalization of this area as a pedestrian oriented, mixed use, downtown.

Action Step: Budget additional funds to continue the Wentzville Downtown Phase II Plan for beautification/aesthetic enhancement and pedestrian improvements supported by the plan.

GOAL: Provide a compact, efficient, and attractive community that is created in harmony with nature not by or through actions resulting in the desecration of natural or physical attributes that represent one of the community's drawing powers.

Objective: Preserve natural physiographic features, i.e., woods, prairie lands, stream valleys, and contours to the greatest extent possible through creative site planning.

Action Step: Require the subdivider to identify special natural features in the preliminary design phase of a project and to offer approaches for preservation, including non-traditional subdivision approaches, in both traditional zoning districts and the planned development district.

Action Step: Require a subdivider to avoid the construction of improvements with the 100 Year Floodplain Boundary as identified on the Federal Insurance Rate Map, under the project design phase and to maintain a riparian corridor adjacent to the top of bank of existing waterways, for the preservation of the natural environment, water filtering, and protection of life and property.

Action Step: Encourage the use of design alternatives (Low-Impact Design) for residential, commercial, and/or industrial site development, while maintaining compliance with City of Wentzville Municipal Ordinance standards.

Action Step: Require the subdivider to provide larger residential lot development adjacent to existing floodplain and waterways in the planning area, as identified on the Land Use Plan.

Objective: Use natural areas, creek channels, and associated floodplain areas, drainage areas and storm water structures/basins, existing parks and play fields, streetscapes, and underutilized lands to create an integrated citywide open space system.

Action Step: Require landscaping enhancements adjacent to storm water detention structures to enhance the aesthetics of these required facilities.

Action Step: Map areas of the City using the Wentzville GIS to accomplish this objective.

Action Step: Acquire public pedestrian easements within common ground areas of Wentzville subdivisions, under the plat approval process, which connect to public sidewalks for the construction and maintenance of a public pedestrian trail network, as indicated upon Map No. 15 and Map No. 7.

GOAL: Preservation and conservation of mature trees and existing tree masses and canopies in order to protect existing natural resources, minimize damage and destruction via development, provide shade, protect wildlife habitat, reduce air pollution, to stabilize existing soils, to buffer and screen, and generally enhance the City of Wentzville's physical and aesthetic environment, thereby generally protecting and enhancing the quality of life of the City's residents.

Objective: Adopt a Municipal Tree Ordinance with the assistance of the Wentzville Consultant to accomplish the stated goal(s), soliciting public input for the creation of the document.

Action Step: Proactively market and promote the purpose and intent of the goal and future ordinance text.

Action Step: Create a Board of Environmental Quality and create a Community Forest Plan (written document to guide efforts to achieve the above goal).

Action Step: Retain the services of a Community Forest Manager/staff member to monitor and enforce the future Municipal Tree Ordinance.

Action Step: Creation of a Natural Resources Map to indicate preservation and conservation area's, waterways, wetlands, etc.

GOAL: Provide for a mixture of land uses that are compatible, as well as complementary to one another.

Objective: This plan embodies this goal.

Action Step: Implement planned highway systems (and caveats), make changes in the zoning of land to achieve compliance with the plan, and upgrade regulations.

Action Step: Strengthen land use buffer requirements within the zoning regulations to screen adjacent land uses to achieve compatible relationships and improve the appearance of the community.

Action Step: Zoning district selection and adoption for a given area of the City should be based upon the nature of the proposed development and its compatibility to the existing adjacent development or land uses depicted upon the Comprehensive Land Use Plan. Issues of appropriate access, orientation, natural physical attributes, buffering, and overall site design of the proposed residential development shall be evaluated.

PARKS AND RECREATION

GOAL: Provide a community-wide system of parks and recreational facilities, to include regional, neighborhood, and community park categories, in response to growing population needs, under the direction of the Parks Master Plan.

Objective: Implement the goals, action steps, and recommendations of the Wentzville Parks Master Plan.

Action Step: See Chapter Six (6) of this Comprehensive Plan related to the stated objective and Goal.

Applicable Municipal Codes/Ordinances

ARTICLE I. IN GENERAL

SECTION 215.010: DEFINITION

As used in Sections 215.010 through 215.090, the term *"nuisance"* shall mean and include:

1. Any act done or committed or suffered to be done or committed by any person or any substance or things kept, maintained, placed or found in or upon any public or private place which is injurious or dangerous to the public health;

2. The carrying on of a business which may be dangerous or detrimental to the public health; or the manufacturing or vending of articles obnoxious to the health of the inhabitants of the City;

3. Any building of whatever character, kept or maintained, or which is permitted by any person owning or having control of the same, to be kept or maintained in a condition unsafe, dangerous, unhealthy or injurious to the public;

4. Every privy, cesspool or other receptacle containing human excrement which is overflowing, full, insecure or in a defective condition, or which emits an offensive, noxious, unhealthy odor to the neighborhood;

5. Any animal, vegetable matter or other substance whatever which is or has become putrid, offensive or unhealthy to the public, thrown into or upon any street, alley, sidewalk or other public place or upon any private property;

6. Any filth, garbage, ashes, foul, nauseous or unclean water, liquid or substance which is conducted, cast, thrown or permitted or suffered to escape from any kitchen, house, tenement or other place or premises into or upon any street, sidewalk, alley or other public place or upon private property of another;

7. Depositing or causing to be deposited any dead animal or excrement or filth from privies upon any ground, or permitting any such nuisance to be or exist upon any premises; and

8. Any cellar, vault, private drain, pool, sewer or sink suffered or permitted to become noxious, foul, offensive or injurious or detrimental to the public health, and any stagnant water, animal or vegetable matter or other substance liable to become putrid, offensive and unhealthy suffered or permitted to exist in or upon any lot, house, building or enclosure.

9. Any trash or debris, including, but not limited to, weed cuttings, cut and fallen trees and shrubs, rubbish and trash, lumber not piled or stacked twelve (12) inches off the ground, rocks or bricks, tin, steel, parts of derelict cars or trucks, broken furniture, any flammable material which may endanger public safety or any material which is unhealthy or unsafe, provided that sites under construction shall be reasonably allowed to maintain on-site construction materials, debris and other items in such fashion so as to avoid harmful effects, spillover, the blowing or scattering of litter, or any other hardship to other property owners. (CC 1988 §14-1; Ord. No. 97 §§2--4, 7--8, 10--12, 14, 3-2-44; Ord. No. 1858 §1, 5-22-02)

Cross Reference--Definitions and rules of construction generally, §100.020.

SECTION 215.020: PROHIBITED

No person shall cause or maintain any nuisance, as defined by the laws of this State, or this Code, or cause or maintain any such nuisance within the City. (CC 1988 §14-2; Ord. No. 97 §1, 3-2-44)

SECTION 215.030: NOTICE TO ABATE

A. It shall be the duty of the Chief of Police, whenever the Chief of Police is notified by the Board of Aldermen or otherwise has knowledge, or where such officer is informed of the existence of any nuisance prohibited by this Code or any other ordinance of the City forthwith to give written notice to the person causing or maintaining the nuisance to abate the same within a reasonable time to be in such notice specified. Such notice may be served by the City Building Inspector or his/her designate or the Chief of Police or any Policeman of the City. A copy of the notice shall be kept by the officer serving the same, who shall make a written return thereon, stating how, when, or whom, and where such officer served the same and subscribe his/her name thereto. The notice may be served by delivering the same to the person to be notified, or a copy thereof left at the usual place of abode of such person with a member of such person's family over the age of fifteen (15) years.

B. If a nuisance is being maintained upon property to which record title is held by a person not a resident of this City, a notice prescribed by Subsection (A) may be served by posting a copy thereof in plain view upon such property at least five (5) days before any further action is taken by the City with regard to the nuisance. The cost of such publication shall be assessed against the owner of the lot in the same manner as other costs incurred on account of the abatement of nuisances are assessed as provided in Sections 215.010 through 215.090. In such cases, it shall be the duty of the Chief of Police to determine whether the owner of such property is a resident of the City, and the fact of such non-residence shall be recited in the notice posted and published. The City Collector's record of ownership of property in the City shall be prima facie evidence of the State of the record title and shall be admissible as such evidence. (CC 1988 §14-3; Ord. No. 97 §1, 3-2-44; Ord. No. 116 §1, 11-1-45; Ord. No. 1147 §§3--5, 4-8-92)

SECTION 215.040: COMPLAINTS

It shall be the duty of the Chief of Police and other Police Officers to file a complaint before the Municipal Judge against all persons who shall refuse or neglect to remove or abate a nuisance after service of the notice as required in Section 215.030. Any person interested in the removal or abatement of any nuisance may also in like manner file a complaint before the Municipal Judge. In either case, it shall be the duty of the Municipal Judge to issue a warrant for the owner, occupant or agent in charge and proceed in all respects as in other cases of the violation of any City ordinance. (CC 1988 §14-4; Ord. No. 97 §§21, 24, 3-2-44)

SECTION 215.050: ABATEMENT

If upon trial and conviction for causing or maintaining any nuisance it shall appear that the nuisance complained of continues to exist, the Municipal Judge may, in addition to the penalty imposed for causing or

maintaining such nuisance, make an order directing the Chief of Police to abate the nuisance forthwith, and report the expense thereof to the Municipal Judge, who may make the same a part of the judgment in addition to the fine imposed, the same to be collected as other fines and penalties. (CC 1988 §14-5; Ord. No. 97 §20, 3-2-44)

SECTION 215.060: REMOVAL BY THE CITY

The City may prevent, abate and remove any nuisance on public or private property after publication of notice, at the cost of the occupant or owner of the premises wherever the nuisance or cause thereof may be, provided that the same was caused by the occupant or owner of the premises or such person's agent. All costs and expenses incurred by the City in removing or abating any nuisance on private property within the City limits may be assessed against the occupant or owner, if caused by such person or such person's agent, and the same shall be assessed as a special tax bill against such private property in the same manner and with the same effect that special tax bills are assessed for paving streets, and shall be a lien against such property. Alternately, the cost of removing or abating a nuisance may be made a part of the judgment by the Municipal Judge, in addition to the fine imposed, in case of conviction in Municipal Court of the person causing or maintaining any such nuisance in the City. (CC 1988 §14-6; Ord. No. 97 §19, 3-2-44)

SECTION 215.070: ABATEMENT OF OTHER NUISANCES

Should any nuisance exist, the abatement or removal of which is not prescribed or provided for in this Code pertaining to the abatement or removal of nuisances, the same shall be forthwith abated by the Chief of Police at the expense of the City. (CC 1988 §14-7; Ord. No. 97 §22, 3-2-44)

SECTION 215.080: PENALTY FOR VIOLATION

Any person, officer, agent, or employee of any corporation, who shall, within this City, cause or maintain any nuisance, and who shall fail or refuse to abate or remove the same within the reasonable time required and specified in the notice of the Chief of Police to abate or remove the same, shall be deemed guilty of an offense and upon conviction, shall be punished as provided in Section 100.190. (CC 1988 §14-8; Ord. No. 97 §18, 3-2-44)

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ARTICLE III. JUNKED OR ABANDONED MOTOR VEHICLES

Cross References--Garbage and rubbish, ch. 240; junkyards, ch. 650; traffic and motor vehicles generally, Title III; impoundment of certain vehicles authorized, §375.050.

SECTION 215.100: DEFINITIONS

The following words, terms and phrases, when used in Sections 215.100 through 215.130, shall have the meanings ascribed to them in this Section, except where the context clearly indicates a different meaning:

MOTOR VEHICLE: Any self-propelled vehicle not operated exclusively upon stationary rails or tracks.

VEHICLE: Every device in, upon or by which any person or property is or may be transported or drawn upon a highway. (CC 1988 §14-21; Ord. No. 355 §7-506, 1-8-64; Ord. No. 398 §4, 7-27-66)

Cross Reference--Definitions and rules of construction generally, §100.020.

SECTION 215.110: ABANDONING MOTOR VEHICLES DECLARED NUISANCE

A. It is hereby declared a nuisance for the owner of any motor vehicle located within the City to leave upon such motor vehicle to public view if it has been dismantled, unlicensed, wrecked, junked, discarded or abandoned for longer than fifteen (15) days unless such motor vehicle is in an enclosed building, garage or open carport. If a vehicle is stored or housed in an open carport, it must rest on fully inflated tires, not be in a state of visible disrepair and have all its parts intact. If a vehicle is stored or housed in an open carport and is in a visible state of disrepair or in need of repair, said repair must be completed within fifteen (15) days. If a vehicle is stored or housed in an open carport and is undergoing emergency repairs, said repair must be completed within fifteen (15) days.

B. Any motor vehicle shall be presumed to have been abandoned if it is without proper motor vehicle license, is undriveable without repair or if it has been dismantled, wrecked or junked for a period of fifteen (15) days.

C. For purposes of this Section, *"owner"* shall include any person or persons who are the record owner of the vehicle pursuant to the Missouri Department of Revenue. (CC 1988 §14-22; Ord. No. 355 §7-506, 1-8-64; Ord. No. 398 §4, 7-27-66; Ord. No. 2278 §1, 2-16-05)

SECTION 215.120: EXEMPTION FROM NUISANCE PROVISIONS

The provisions of Section 215.110 shall not pertain to business enterprises where the keeping of motor vehicles is necessary to the lawful operation of the business. (CC 1988 §14-23; Ord. No. 355 §7-506, 1-8-64; Ord. No. 398 §4, 7-27-66)

SECTION 215.130: ABATEMENT OF NUISANCE

Whenever any nuisance exists under the provisions of Section 215.110, the nuisance shall be abated by the procedures set forth in Sections 215.030 through 215.060, inclusive. (CC 1988 §14-24)

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CHAPTER 240: GARBAGE AND RUBBISH

Cross References--Buildings and building regulations, Title V; nuisances generally, ch. 215; junked or abandoned motor vehicles, §215.100 et seq.; littering, §210.240; secondhand goods, ch. 640; sewers and water, Title VII; vegetation, ch. 220.

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ARTICLE I. IN GENERAL

SECTION 240.010: DEFINITIONS

The following words, terms and phrases, when used in Sections 240.010 through 240.030 shall have the following meanings ascribed to them:

COMBUSTIBLE AND NON-COMBUSTIBLE WASTE MATERIALS: Except garbage, and the term shall include the residue from the burning of wood, coal, coke and other combustible material, paper, rags, cartons, boxes, wood, excelsion, rubber, leather, tree branches, yard trimmings, tin cans, metals, mineral matter, glass, crockery and dust or similar materials.

GARBAGE: The animal and vegetable waste resulting from the handling, preparation, cooking and consumption of food. (CC 1988 §11-1; Ord. No. 506 §3, 5-23-73)

Cross Reference--Definitions and rules of construction generally, §100.020.

SECTION 240.020: PLACING GARBAGE, RUBBISH IN OTHER'S CONTAINER, ON OTHER'S PROPERTY

It shall be unlawful for any person to deposit garbage or rubbish into any container other than such person's container, or onto any property other than such person's without the written consent of the owner of such container or property. (CC 1988 §11-3)

SECTION 240.030: PLACING GARBAGE, TRASH, CONTAINERS UPON CITY PROPERTY

It shall be unlawful for any person to deposit, place, put or throw any trash or garbage of any kind or description upon City-owned property in the City or to deposit, place or put any container containing trash or garbage of any kind or description upon City-owned property in the City. (CC 1988 §11-4)

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ARTICLE II. SOLID WASTE COLLECTION AND DISPOSAL

Editor's Note--Ord. no. 1962 §39, adopted April 23, 2003, repealed the ordinances which made up sections 240.040--240.140 and enacted the provisions set out in this article. Former sections 240.040--240.140 derived from CC 1988 §§11-5, 11-16--11-25; ord. no. 895 §§2--3, 7-10-85; ord. no. 1003 §§1--10, 11-9-88; ord. no. 1069 §3, 3-28-90; ord. no. 1292 §2, 12-13-95.

SECTION 240.035: RESIDENTIAL SOLID WASTE COLLECTION -- AUTHORIZATION OF BILLING, ETC.

A. Enactment of this Article authorizes the direct billing of all residential dwelling units within the City's corporate limits for basic residential solid waste collection.

B. The reasonable trash collection rates and preservation of City streets can best be achieved by uniform and strict compliance with the City's trash collection ordinances, rules, regulations and solid waste hauler contract provisions. (Ord. No. 1962 §§4--5, 4-23-03)

SECTION 240.040: PROHIBITED PRACTICE AND VIOLATION

It is a prohibited practice and a violation of this Article for any person to:

1. Deposit solid waste in any solid waste container other than his/her own container.

2. Fail or refuse to pay the solid waste collection charges of the City's contract hauler.

3. Take any evasive action to avoid payment of reasonable charges provided for solid waste collection or disposal.

4. Interfere in any manner with solid waste collection transportation personnel or equipment of the City or its contract hauler.

5. Dispose or burn any solid Waste at any facility or location within the City which is not approved by the City and the Missouri Department of Natural Resources.

6. Place or leave trash out for pickup more than twenty-four (24) hours.

7. Engage in the business of collecting, transporting, processing, storing or disposing of solid waste within the corporate limits of the City without a current permit or contract with the City.

8. Fail to comply with the current rules and regulations promulgated by the Director of Public Works of the City pertaining to solid waste. (Ord. No. 1962 §6, 4-23-03)

SECTION 240.050: DUTIES OF DIRECTOR OF PUBLIC WORKS

The Director of Public Works is hereby authorized to issue, promulgate and periodically update rules and regulations pertaining to solid waste collection, transport and disposal including, but not limited to, the following:

1. Preparation, drainage and wrapping of garbage deposited in solid waste containers.

2. Specifications for solid waste containers including the type, composition, equipment, size and shape thereof.

3. Identification of solid waste containers and of the covers thereof and of equipment thereto appertaining, if any.

4. Weight limitations on the combined weight of solid waste containers and the contents thereof and weight and size limitations on bundles of solid waste too large for solid waste containers.

5. Storage of solid waste in solid waste containers.

6. Sanitation, maintenance and replacement of solid waste containers.

7. Schedules of and routes for collection and transportation of solid waste.

8. Collection points of solid waste containers.

9. Collection, transportation, processing and disposal of solid waste.

10. Processing facilities and fees for the use thereof.

11. Disposal facilities and fees for the use thereof.

12. Records of quantity and types of wastes received at processing and/or disposal facilities.

13. Handling of special wastes such as sludge, ashes, agriculture, construction, bulky items, tires, automobiles, oils, greases, etc.

14. Size limitations of collection vehicles.

15. Recycling procedures. (Ord. No. 1962 §7, 4-23-03)

SECTION 240.060: DEFINITIONS

For purposes of understanding the terms used in this Article as well as the rules and regulations promulgated in regard to solid waste collection and disposal, the following definitions are to be applied pursuant to the provisions of Section 260.200, RSMo., 2000:

ALKALINE-MANGANESE BATTERY OR ALKALINE BATTERY: A battery having a manganese dioxide positive electrode, a zinc negative electrode, an alkaline electrolyte, including alkaline-manganese button cell batteries intended for use in watches, calculators and other electronic products, and larger-sized alkaline-manganese batteries in general household use.

APPROVED INCINERATOR: An incinerator that complies with all current regulations of the responsible local, State and Federal air pollution control agencies.

BULKY RUBBISH: Non-putrescible solid wastes consisting of combustible and/or non-combustible waste materials from dwelling units, commercial, industrial, institutional or agricultural establishments which are either too large or too heavy to be safely and conveniently loaded in solid waste transportation vehicles by solid waste collectors with the equipment available therefore.

BUTTON CELL BATTERY OR BUTTON CELL: Any small alkaline-manganese or mercuric-oxide battery having the size and shape of a button.

CITY: The City of Wentzville, Missouri.

CLEAN FILL: Uncontaminated soil, rock, sand, gravel, concrete, asphalt concrete, cinderblocks, brick, minimal amounts of wood and metal and inert solids as approved by rule or policy of the department for fill, reclamation or other beneficial use.

CLOSURE: The permanent cessation of active disposal operations, abandonment of the disposal area, revocation of the permit or filling with waste of all areas and volumes specified in the permit and preparing the area for long-term care.

COLLECTION: Removal of solid waste from the designated pickup location in the transportation vehicle.

DEMOLITION AND CONSTRUCTION WASTE: Waste materials from the construction or destruction of residential, industrial or commercial structures.

DEMOLITION LANDFILL: A solid waste disposal area used for the controlled disposal of demolition wastes, construction material, brush, wood wastes, soil, rock, concrete and inert solids insoluble in water.

DEPARTMENT: The Missouri Department of Natural Resources.

DIRECTOR: The Director of the Department of Natural Resources.

DIRECTOR OF PUBLIC WORKS: The Director of Public Works of the City of Wentzville or his/her designee.

DISPOSABLE SOLID WASTE CONTAINER: Disposable plastic or paper sacks with a capacity of ten (10) to thirty-five (35) gallons specifically designed for storage and disposal of solid waste.

DWELLING UNIT: Any room or group of rooms located within a structure and forming a single habitable unit with facilities which are used or are intended to be used for living, sleeping, cooking and eating.

HAZARDOUS WASTE: Any waste or combination of wastes, as determined by the Missouri Hazardous Waste Management Commission by rules and regulations, which because of its quantity, concentration or physical, chemical or infectious characteristics may cause or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness or pose a present or potential threat to the health of humans or other living organisms (Subsection 260.360(9) of the Missouri Hazardous Waste Management Law).

HOUSEHOLD CONSUMER: An individual who generates used motor oil through the maintenance of the individual's personal motor vehicle, vessel, airplane or other machinery powered by an internal combustion engine.

HOUSEHOLD CONSUMER USED MOTOR OIL COLLECTION CENTER: Any site or facility that accepts or aggregates and stores used motor oil collected only from household consumers or farmers who generate an average of twenty-five (25) gallons per month or less of used motor oil in a calendar year. This Section shall not preclude a commercial generator from operating a household consumer used oil collection center.

HOUSEHOLD CONSUMER USED MOTOR OIL COLLECTION SYSTEM: Any used motor oil collection center at publicly owned facilities or private locations, any curbside collection of household consumer used motor oil or any other household consumer used motor oil collection program determined by the department to further the purposes of Sections 260.200 to 260.345, RSMo.

INFECTIOUS WASTE: Waste in quantities and characteristics as determined by the department by rule including isolation wastes, cultures and stocks of etiologic agents, blood and blood products, pathological wastes, other wastes from surgery and autopsy, contaminated laboratory wastes, sharps, dialysis unit wastes, discarded biological known or suspected to be infectious; provided however, that infectious does not mean waste treated to department specifications.

LEAD-ACID BATTERY: A battery designed to contain lead and sulfuric acid with a nominal voltage of at least six (6) volts and of the type intended of ruse in motor vehicles and watercraft.

MAJOR APPLIANCE: Clothes washers and dryers, water heaters, trash compactors, dishwashers, microwave ovens, conventional ovens, ranges, stoves, woodstoves, air conditioners, refrigerators and freezers.

MERCURIC-OXIDE BATTERY OR MERCURY BATTERY: A battery having a mercuric-oxide positive electrode, a zinc negative electrode and an alkaline electrolyte, including mercuric-oxide button cell batteries generally intended for use in hearing aids, and larger size mercuric-oxide batteries used primarily in medical equipment.

MOTOR OIL: Any oil intended for use in a motor vehicle, as defined in Section 301.010, RSMo., train, vessel, airplane, heavy equipment or other machinery powered by an internal combustion engine.

MOTOR VEHICLE: As defined in Section 301.010, RSMo.

MULTI-FAMILY DWELLING UNIT OR MULTIPLE-HOUSING FACILITY: A housing facility containing more than one (1) dwelling unit under one (1) roof.

OCCUPANT: Any person who, alone or jointly or severally with others, shall be in actual possession of any dwelling unit or of any other improved real property, either as owner or tenant.

OPERATOR AND PERMITTEE: Anyone so designated and shall include cities, counties, other political subdivisions, authority, State agency or institution or Federal agency or institution.

PERMIT MODIFICATION: Any permit issued by the department that alters or modifies the provision of an existing permit previously issued by the department.

PERSON: Any individual, partnership, corporation, association, institution, City, County, other political

subdivision, authority, State agency or institution or Federal agency or institution.

POST CLOSURE PLAN: Plans, designs and relevant data that specify the methods and schedule by which the operator shall perform necessary monitoring and care of the area after closure to achieve the purposes of Sections 260.200 to 260.345, RSMo., and the regulations promulgated thereunder.

PROCESSING: Incinerating, composting, baling, shredding, salvaging, compacting and other processes whereby solid waste characteristics are modified or solid waste quantity is reduced.

RECOVERED MATERIALS: Those materials that have been diverted or removed from the solid waste stream for sale, use, reuse or recycling, whether or not they require subsequent separation and processing.

RECYCLED CONTENT: The proportion of fiber in a newspaper that is derived from post consumer waste.

RECYCLING: The separation and reuse of materials which might otherwise be disposed of as solid waste.

RESOURCE RECOVERY: A process by which recyclable and recoverable material is removed from the waste stream to the greatest extent possible as determined by the department and pursuant to department standards, for reuse or remanufacture.

RESOURCE RECOVERY FACILITY: A facility in which recyclable and recoverable material is removed from the waste stream to the greatest extent possible, as determined by the department and pursuant to department standards, for reuse or remanufacture.

SANITARY LANDFILL: A solid waste disposal area that accepts commercial and residential solid waste.

SOLID WASTE: Garbage, refuse and other discarded materials including, but not limited to, solid and semisolid waste materials resulting from industrial, commercial, agricultural, governmental and domestic activities, but does not include hazardous waste as defined in Sections 260.360 to 260.432, RSMo., recovered materials, overburden, rock tailings, matte, slag or otherwise material resulting from mining, milling or smelting.

SOLID WASTE CONTAINER: Receptacle that may be used by persons to store solid waste during the interval between solid waste collections.

SOLID WASTE DISPOSAL: The process of discarding or getting rid of unwanted material. In particular the final deposition of solid waste by humans.

SOLID WASTE DISPOSAL AREA: Any area used for the disposal of solid waste from more than one (1) residential premises or one (1) or more commercial, industrial, manufacturing, recreational or governmental operation.

SOLID WASTE FEE: A fee imposed pursuant to Sections 260.200 to 260.345, RSMo., and may be:

1. A solid waste collection fee imposed at the point of waste collection, or

2. A solid waste disposal fee imposed at the disposal site.

SOLID WASTE MANAGEMENT: The entire solid waste system of storage, collection, transportation,

processing and disposal.

SOLID WASTE MANAGEMENT AREA: A solid waste disposal area which also includes one (1) or more of the functions contained in the definitions of recycling, resource recovery facility, waste tire collection center, waste tire processing facility, waste tire site or solid waste processing facility, excluding incinerations.

SOLID WASTE MANAGEMENT SYSTEM: The entire process of managing solid waste in a manner that minimizes the generation and subsequent disposal of solid waste, including waste reduction, source separation, collection, storage, transportation, recycling, resource recovery, volume minimization, processing, market development and disposal of solid wastes.

SOLID WASTE PROCESSING FACILITY: Any facility where solid wastes are salvaged and processed including:

1. A transfer station; or

2. An incinerator which operates with or without energy recovery but excluding waste tire end-user facilities; or

3. A material recovery facility which operates with or without composting.

STORAGE: Keeping, maintaining or storing solid waste from the time of its production until the time of its collection.

TIRE: A continuous solid or pneumatic rubber covering encircling the wheel of a self-propelled vehicle not operated exclusively upon tracks or a trailer as defined in Chapter 301, RSMo., except farm tractors and farm implements owned and operated by a family farm or family farm corporation as defined in Section 350.010, RSMo.

TRANSPORTATION: The transporting of solid waste from the place of collection or processing to a solid waste processing facility or solid waste disposal area.

USED MOTOR OIL: Any motor oil which as a result of use becomes unsuitable for its original purpose due to loss of original properties or the presence of impurities; but used motor oil shall not include ethylene glycol, oils used for solvent purposes, oil filters that have been drained of free flowing used oil, oily waste, oil recovered from oil tank cleaning operations, oil spilled to land or water or industrial no lube oils such as hydraulic oils, transmission oils, quenching oils and transformer oils.

UTILITY WASTE LANDFILL: A solid waste disposal area used for fly ash waste, bottom ash waste, slag waste and flue gas emission control waste generated primarily from the combustion of coal or other fossil fuels.

WASTE TIRE: A tire that is no longer suitable for its original intended purpose because of wear, damage or defect.

WASTE TIRE COLLECTION CENTER: A site where waste tires are collected prior to being offered for recycling or processing and where fewer than five hundred (500) tires are kept on site on any given day.

WASTE TIRE END-USER FACILITY: A site where waste tires are used as a fuel or fuel supplement or

converted into a useable product. Baled or compressed tires used in structures or used in recreational facilities or used for flood or erosion control shall be considered an end use.

WASTE TIRE GENERATOR: A person who sells tires at retail or any other person, firm, corporation or government entity that generates waste tires.

WASTE TIRE PROCESSING FACILITY: A site where tires are reduced in volume by shredding, cutting, chipping or otherwise altered to facilitate recycling, resource recovery or disposal.

WASTE TIRE SITE: A site at which five hundred (500) or more waste tires are accumulated but not including a site owned or operated by a waste tire end-user that burns waste tires for the generation of energy or converts waste tires to a useful product.

YARD WASTE: Tree limbs, leaves, grass clippings, yard and garden vegetation and Christmas trees. The term does not include stumps, roots or shrubs with intact root balls. (Ord. No. 1962 §8, 4-23-03)

SECTION 240.065: COLLECTION OF SOLID WASTE

The City has contracted for solid waste collection and hauling for single-family residences on a bid proposal basis obtaining the best bid therefore; owners and occupants of industrial, commercial multiple-housing facilities and multi-family dwelling units operated on a commercial basis are allowed to contract for their own solid waste collection and disposal subject to the pertinent provisions of this Article as well as the rules and regulations promulgated by the Director of Public Works. (Ord. No. 1962 §9, 4-23-03)

SECTION 240.066: SOLID WASTE STORAGE -- MULTI-FAMILY AND BUSINESS

The occupant or owner of every multi-family dwelling unit and of every institutional, commercial or business, industrial or agricultural establishment producing solid waste within the corporate limits of the City shall provide sufficient and adequate containers in residential zones and for the screening of said containers for the storage of all solid wastes. Solid waste from single-family housing units may be stored in disposable solid waste containers between collections or in solid waste containers as designated herein. Bulky rubbish and/or demolition and construction waste to serve each such dwelling unit and/or establishment shall be maintained in solid waste containers at all times and kept in good repair. (Ord. No. 1962 §10, 4-23-03)

SECTION 240.068: DISPOSAL OF SOLID WASTE -- GENERALLY

The occupant or owner of every dwelling unit and of every institutional, commercial, industrial, agricultural or business establishment shall place all solid waste to be collected in proper solid waste containers or in disposable solid waste containers, except as otherwise provided herein, and shall maintain such solid waste containers or disposable solid waste containers and the area surrounding them in a clean, neat and sanitary condition at all times. (Ord. No. 1962 §11, 4-23-03)

SECTION 240.070: STORAGE OF RESIDENTIAL SOLID WASTE

A. Residential solid waste shall be stored in disposable or non-disposable containers of not more than

ninety-five (95) gallons nor less than thirty-five (35) gallons in nominal capacity.

B. Non-disposable containers shall be leakproof, waterproof and fitted with a fly-tight lid and shall be properly covered at all times except when depositing waste therein or removing the contents thereof. These containers shall have handles, bails or other suitable lifting devices or features. Non-disposable containers shall be of type originally manufactured for residential solid waste with tapered sides for easy emptying. They shall be of lightweight and sturdy construction. The weight of any individual container, disposable or non-disposable, and contents shall not exceed fifty (50) pounds. Galvanized metal containers or rubber, fiberglass or plastic containers that do not become brittle in cold weather may be used. Disposable solid waste containers or containers as approved by the City Director of Public Works may also be used for storage of residential solid waste. (Ord. No. 1962 §12, 4-23-03)

SECTION 240.072: STORAGE OF COMMERCIAL SOLID WASTE

Commercial solid waste shall be stored in said waste containers as approved by the City Director of Public Works. The containers shall be waterproof, leakproof and shall be covered at all times except when depositing waste therein or removing the contents thereof and shall meet all requirements as set forth in the provisions of this Article. (Ord. No. 1962 §13, 4-23-03)

SECTION 240.074: DISPOSAL OF TREE LIMBS

Tree limbs less than six (6) inches in diameter and brush shall be securely tied in bundles not larger than sixty (60) inches long and eighteen (18) inches in diameter when not placed in storage containers. The weight of any individual bundle shall not exceed fifty (50) pounds. (Ord. No. 1962 §14, 4-23-03)

SECTION 240.075: YARD WASTE STORAGE

Yard wastes shall be stored in disposable or non-disposable containers so constructed and maintained as to prevent the dispersal of wastes placed therein upon the premises served, upon adjacent premises or upon adjacent public rights-of-way. The weight of any individual container and contents shall not exceed fifty (50) pounds. (Ord. No. 1962 §15, 4-23-03)

SECTION 240.076: COLLECTION OF SOLID WASTE

A. All solid waste from any single-family residential premises to which collection services are provided by the City shall be collected, except bulky rubbish as defined herein. Bulky rubbish will be collected in accordance with the rules and regulations as promulgated by the Director of Public Works.

B. *Yard Waste Collection.* Tree limbs and yard wastes as described herein shall be placed at the curb for collection. Solid waste containers as required by this Article for the storage of other residential solid waste shall be placed at the curb, alley or the rear of the building for collection. Any solid waste container, tree limbs, yard wastes or other solid waste permitted by this Article to be placed at the curb or alley for collection shall not be placed until the regularly scheduled collection day for that collection route or pickup service.

C. *Collection Of Bulky Rubbish.* Bulky rubbish shall be collected at least twice annually. The Director

of Public Works shall establish the dates, times and procedures for collecting bulky rubbish or solid waste collections under permit by the City.

D. *Collection On Private Property.* Solid waste collectors are hereby authorized to enter upon private property for the purpose of collecting solid waste therefore as required by this Article. Solid waste collectors shall not enter dwelling units or other residential buildings for the purpose of collecting residential solid waste. The Director of Public Works may remove commercial solid waste within commercial establishments upon written request of the property owner and approval. (Ord. No. 1962 §§16--19, 4-23-03)

SECTION 240.078: LIMITED BAG SERVICE

The pickup of certain disposable bags placed for collection at the edge of the property adjacent to the street and adjacent to the driveway or entrance way to the property. The bags for such pickup shall be certain bags purchased from the City for such purpose. Bags shall be placed at the above-described location for pickup no sooner than dusk the evening before the scheduled pickup day.

1. The fee for "limited bag service" for garbage and rubbish disposal shall be set annually by the Public Works Director. The subscriber to this service shall only use the bags purchased for the service. The fee for the limited service pickup bag includes the cost of the bag and disposal.

2. Subscription to such service requires the annual purchase of a minimum of twelve (12) bags per year. The failure of residents to renew this service by January first (1st) of each year shall be considered as having elected curbside pickup service.

3. This service is limited to residents who are sixty-two (62) years of age and older. Subscribers to this service shall provide verification of age to the City. (Ord. No. 1978 §1, 7-16-03)

SECTION 240.079: SENIOR CITIZEN SERVICE

This service is limited to residents who are sixty-two (62) years of age and older. Subscribers to this service shall provide verification of age to the City. This fee for this service shall be reduced by the current administrative cost as set by the Finance Director. (Ord. No. 1978 §1, 7-16-03)

SECTION 240.080: SPECIAL NEEDS SERVICE

The pickup of garbage and rubbish located beyond the actual front building line of the residential property. Such containers must be located in a place allowing for reasonable access to the sanitation personnel. In the event such containers are located in a place that access is not reasonable, the occupant of such property shall be advised by the Public Works Department.

1. The fee for "special needs service" for garbage and rubbish disposal shall be equal to the current residential rate and any cost reductions set forth in the ordinance.

2. This service is limited to those residents that are physically unable to place garbage and rubbish at the curb and have no one living with them to assist. Subscribers to this service shall

provide verification of disability to the City. (Ord. No. 1978 §1, 7-16-03)

SECTION 240.083: FREQUENCIES OF COLLECTION

The following collection frequencies shall apply to collections of solid waste within the City.

1. All residential solid waste, other than bulky rubbish, shall be collected at least weekly.

2. All commercial solid waste shall be collected at least once weekly and shall be collected at such more frequent intervals as may be determined by the Director of Public Works as requested by the commercial establishment to each private carrier upon a determination that such more frequent intervals are necessary for the preservation of the health and safety of the public. (Ord. No. 1962 §20, 4-23-03)

SECTION 240.085: STORAGE OF CONTAINERS

Residential disposable or non-disposable solid waste containers shall be stored upon the residential premises. Commercial solid waste containers shall be stored upon private property, unless the owner shall have been granted written permission from the City to use public property for such purposes. The storage site shall be well drained, fully accessible to collection equipment, public health personnel and fire inspection personnel. (Ord. No. 1962 §21, 4-23-03)

SECTION 240.088: SOLID WASTE COLLECTORS -- RESPONSIBILITIES

Solid waste collectors operating under permit from the City shall be responsible for the collection of solid waste from the designated pickup location to the transportation vehicle provided the solid waste was stored in compliance with the provisions set forth in this Article. Any spillage or blowing litter caused as a result of the duties of the solid waste collector shall be collected and placed in the transportation vehicle by the solid waste collector. (Ord. No. 1962 §22, 4-23-03)

SECTION 240.090: TRANSPORTATION VEHICLES

All transportation vehicles shall be maintained in a safe, clean and sanitary condition and shall be so constructed, maintained and operated as to prevent spillage of solid waste therefrom. All vehicles to be used for transportation of solid waste shall be constructed with watertight bodies and with covers which shall be an integral part of the vehicle or shall be a separate cover of suitable material with fasteners designed to secure all sides of the cover to the vehicle and shall be secured whenever the vehicle is transporting solid waste or, as an alternate, the entire bodies thereof shall be enclosed with only loading hoppers exposed. No solid waste shall be transported in the loading hoppers. (Ord. No. 1962 §23, 4-23-03)

SECTION 240.092: PERMITS NOT REQUIRED -- WHEN

Permits shall not be required for the removal, hauling or disposal of earth and rock material from grading or excavation activities, however, all such material shall be conveyed in light vehicles, trucks or receptacles so constructed and maintained that none of the material being transported shall spill upon the public rights-of-

way. (Ord. No. 1962 §24, 4-23-03)

SECTION 240.096: DEMOLITION AND CONSTRUCTION WASTES -- PERMIT NOT REQUIRED

Demolition and construction wastes shall be transported to a proper disposal area as defined herein. A permit shall not be required for the hauling of demolition and construction waste, however, all such materials shall be conveyed in tight vehicles, trucks or receptacles so constructed and maintained that none of the material being transported shall spill upon the public rights-of-way. (Ord. No. 1962 §25, 4-23-03)

SECTION 240.098: DISPOSAL OF SOLID WASTE -- WHERE

Solid wastes shall be deposited at a processing facility or disposal area approved by the City and complying with all requirements of the Missouri Solid Waste Management Law, Sections 260.200 to 260.960, RSMo., and the rules and regulations adopted thereunder. The City may designate the processing or disposal facility to be utilized by persons operating under the provisions of this Article. (Ord. No. 1962 §26, 4-23-03)

SECTION 240.100: HAZARDOUS WASTE

Those hazardous wastes under the provisions of this Article will require special handling and shall be disposed of only in a manner authorized by the State regulations. (Ord. No. 1962 §27, 4-23-03)

Cross reference--Also see §240.150 et seq.

SECTION 240.102: PERMIT REQUIRED FOR COLLECTION OF SOLID WASTE

No person shall engage in the business of collecting, transporting, processing or disposing of solid waste within the corporate limits of the City, without first obtaining an annual permit therefore from the City Clerk; provided however, that this provision shall not be deemed to apply to employees of the holder of such permit. (Ord. No. 1962 §28, 4-23-03)

SECTION 240.104: INFORMATION REQUIRED FOR PERMIT APPLICATION

Each applicant for any such permit shall state in his application therefore:

1. The nature of the permit desired as to collect, transport, process or dispose of solid waste or any combination thereof;

2. The characteristics of solid waste to be collected, transported, processed or disposed;

3. The number of solid waste transportation vehicles to be operated thereunder;

4. The precise location or locations of solid waste processing or disposal facilities to be used;

5. Boundaries of the collection area; and

6. Such other information as required by the Director of Public Works. The City contractor would be exempt from this Section. (Ord. No. 1962 §29, 4-23-03)

SECTION 240.106: PERMIT FOR COLLECTION WITHOUT HAZARDOUS WASTE

If the application shows that the applicant will collect, transport, process or dispose of solid wastes without hazard to the public health or damage to the environment and in conformity with the laws of the State of Missouri and this Article, the Director may issue the permit authorized by this Article. The permit shall be issued for a period of one (1) year and each applicant shall pay therefore a fee of fifty dollars ($50.00) for each solid waste processing or disposal facility to be operated and a fee of five dollars ($5.00) for each transportation vehicle to be used. If modifications can be made to the application regarding service, equipment or mode of operation so as to bring the application within the intent of this Article, the Director shall notify the applicant in writing setting forth the modification to be made and the time in which it shall be done. The City contractor would be exempt from this Section. (Ord. No. 1962 §30, 4-23-03)

SECTION 240.110: PUBLIC HEALTH MODIFICATIONS

If the applicant does not make the modifications pursuant to the notice in Section 240.106 within the time limit specified therein or if the application does not clearly show that the collection, transportation, processing or disposal of solid wastes will create no public health hazard or be without harmful effects on the environment, the application shall be denied and the applicant notified by the Director, in writing, stating the reason for such denial. Nothing in this Article shall preclude the right of the applicant to reapply after the rejection of this application provided that all aspects of the reapplication comply with the provisions of this Article. Nothing in this Section shall prevent the denial of a permit should the total number of annual permits have already been issued. (Ord. No. 1962 §31, 4-23-03)

SECTION 240.115: RENEWAL OF PERMIT--TRANSFERABILITY

The annual permit may be renewed upon payment of the fee or fees as designed herein if the business has not been modified, the collection vehicles meet the requirements of this Article and the Director of Public Works approves the renewal. If modifications have been made, the applicant shall reapply for a permit as set forth herein. No permits authorized by this Article shall be transferable from person to person. (Ord. No. 1962 §32, 4-23-03)

SECTION 240.120: DIRECTOR OF PUBLIC WORKS INSPECTION

In order to insure compliance with the laws of this State, this Article and the rules and regulations authorized herein, the Director of Public Works is authorized to inspect all phases of solid waste management within the City. In all instances when such inspections reveal violation of this Article, the rules and regulations authorized herein for the storage, collection, transportation, processing or disposal of solid waste or the laws of the State of Missouri, the Director of Public Works shall issue notice for each such violation stating therein the violation or violations founds, the time and date and the corrective measure to be taken, together with the time in which such corrections shall be made. (Ord. No. 1962 §33, 4-23-03)

SECTION 240.125: SUSPENSION OR REVOCATION OF PERMIT

In all cases, when the corrective measures have not been taken within the time specified, the Director shall suspend or revoke the permit or permits involved in the violation; however, in those cases where an extension of time will permit correction and there is no public health hazard created by the delay, one (1) extension of time not to exceed the original time period may be given. (Ord. No. 1962 §34, 4-23-03)

SECTION 240.130: OPERATION AFTER PERMIT REVOKED

In the event a permit is revoked and the person continues to operate, the Director of Public Works may request the action of a court of law to enjoin the acts and to enforce compliance with this Article or any rule or regulation promulgated thereunder. In any such action, the court may grant the prohibitory or mandatory injunctive relief as the facts may warrant. (Ord. No. 1962 §35, 4-23-03)

SECTION 240.132: NOTICE OF VIOLATION -- APPEAL

Any person who feels aggrieved by any notice of violation or order issued pursuant thereto by the Director may, with ten (10) days of the act for which redress is sought, appeal in writing setting forth in a concise statement the act being appealed and the grounds for its reversal. (Ord. No. 1962 §36, 4-23-03)

SECTION 240.135: DUMPSTERS AT MULTI-FAMILY DWELLING -- OWNERS TO PROVIDE

Those owners of multi-family dwelling units within the City of Wentzville, Missouri, shall provide dumpsters for removal of trash generated by their tenants. (Ord. No. 1962 §37, 4-23-03)

SECTION 240.140: PRIVACY FENCE ENCLOSURES

Due to the large accumulations of trash and scattered debris occurring in commercial and multi-family dwelling units, the landowners of those properties are hereby required to erect and maintain privacy fence enclosures around trash disposal areas and to have regular trash removals to prevent the attractions of rats and vermin. (Ord. No. 1962 §38, 4-23-03)

SECTION 240.142: TEMPORARY VACATING OR PROPERTY

In the event any residential property shall be vacant for sixty (60) days or more, the owner or tenant-in-possession of such property may suspend service for the period of time that such property shall be vacant by making application for such suspension. Fees shall be assessed in full for any portion of the calendar month that a property is occupied. No fees shall be charged during the period service is suspended which span a calendar month. (Ord. No. 1978 §1, 7-16-03)

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ARTICLE III. REGULATION OF HAZARDOUS WASTE MATERIALS

Cross References--Civil disasters and emergencies, ch. 235.

SECTION 240.150: DEFINITIONS

When used in Sections 240.150 through 240.190, the following terms are hereby defined:

HAZARDOUS WASTE: Any waste or combination of wastes, as determined by the commission by rules and regulations, which, because of its quantity, concentration, or physical, chemical or infectious characteristics, may cause or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness, or pose a present or potential threat to the health of humans or the environment.

HAZARDOUS WASTE FACILITY: Any property that is intended or used for hazardous waste management including, but not limited to, storage, treatment and disposal sites. (CC 1988 §11-50; Ord. No. 1184 §5, 8-25-93)

SECTION 240.160: AUTHORITY

Missouri Cities of the Fourth Class, Wentzville being such, have the authority pursuant to the provisions of Section 79.370, RSMo., to prevent activity which may be dangerous or detrimental to the public health of its inhabitants and to pass ordinances in regard thereto. (CC 1988 §11-51; Ord. No. 1184 §1, 8-25-93)

SECTION 240.170: ADVANCE MEASURES FOR STORAGE, TRANSPORTATION OR DISPOSAL OF HAZARDOUS WASTE MATERIALS

No person, firm, corporation or agency shall store, transport or dispose of hazardous waste materials within the corporate limits of Wentzville, Missouri, without being in compliance with the following measures in advance:

1. Secure Federal permit from Environmental Protection Agency.

2. Secure State permit from Department of Natural Resources.

3. Provide City Administrator twenty-four (24) hour written notice of any transporting of hazardous waste materials giving City opportunity to alter route or timing thereof.

4. Storage site is to be properly secured so that materials are not exposed to weather conditions or constitute an attractive nuisance.

5. Make arrangements for City Public Works Director to be present during any loading or unloading of hazardous waste materials.

6. Keys shall be provided to the City Administrator as well as to the Wentzville Fire Chief for

hazardous waste storage facilities.

7. Agencies of the Federal or State Government shall be required to comply with their own safety and public notice/hearing regulations.

8. Containers and drums of hazardous waste shall be stored so that no leakage or explosions occur; and clean-up inspections will be monitored by the Director of Public Works for the City. (CC 1988 §11-52; Ord. No 1184 §2, 8-25-93)

SECTION 240.180: MANDATORY CONDITIONS FOR STORAGE OF HAZARDOUS WASTE

Any person, firm, corporation or agency storing hazardous waste with the proper Federal or State permit shall comply with the following mandatory conditions:

1. The permittee shall provide secondary containment for any potential leaks or spills. If leaking containers are received or identified at the facility, such containers shall be overpacked to control any releases. Any spills shall be cleaned up using the appropriate absorbent materials. The split and spent clean-up materials shall be containerized and stored.

2. The permittee shall screen the waste as it arrives at the storage area to ensure the characteristics of the waste have been identified.

3. The permittee shall segregate the waste as it arrives at the site to ensure incompatible wastes are not located in close proximity to each other. To the extent practical, the permittee shall designate separate areas within the boundary of the storage area to segregate incompatible waste types.

4. The permittee shall maintain adequate aisle space in the storage area. The aisle space shall be planned such that access of spill control equipment, decontamination equipment, and other emergency equipment to the wastes will not be hindered.

5. The permittee shall limit access to the storage area to only those personnel that require access. Such personnel should have received appropriate hazardous materials training prior to physically handling the waste materials.

6. The permittee shall post signs on each side of the storage area which state "Danger--Unauthorized Personnel Keep Out." The sign should be clearly legible for a distance of at least twenty-five (25) feet.

7. For those locations which are not surrounded by a property fence, warning ribbon will be erected and maintained around the storage area to further discourage/minimize entrance by unauthorized personnel.

8. The permittee shall conduct inspections of the storage area once each week to determine whether leaks or spills have occurred and the overall condition of the storage area for compliance with the emergency permit.

9. The permittee shall store the waste material in such a manner as to avoid direct contact with the ground (e.g. on shipping pallets).

10. The permittee shall label "owner unidentifiable" containers with the words, "hazardous waste" and the description of the contents of the container to the extent known by the permittee.

11. The permittee shall place portable fire protection equipment in a prominent location at the storage area.

12. The permittee shall prominently display phone numbers of emergency personnel to be contacted in the event of fire or other disaster.

13. The permittee shall place spill containment equipment at a prominent location at the storage area. The equipment will include, but is not limited to: a variety of overpack containers, absorbent and containment socks/booms, and bulk absorbent material.

14. The permittee shall prominently display "No Smoking" signs within the confines of, and around, the storage area.

15. Upon removal of all hazardous wastes from the storage area, the permittee shall inspect and decontaminate the storage area within ten (10) days after all hazardous waste has been removed. A formal closure plan for the emergency storage unit will not be required.

16. The permittee is authorized to accept, through identified emergency response personnel, all waste material which have been discovered as a result of the flood, and are suspected of containing hazardous wastes, hazardous constituents, and/or hazardous materials.

17. The permittee shall only conduct storage related activities within the confines of the storage area. The storage area shall be used solely for the storage of suspected hazardous waste materials. Any activity such as bulking of materials, normal business location operation, etc. are expressly prohibited within the storage area.

18. The estimated storage volume should not exceed twelve thousand three hundred twenty (12,320) gallons or two hundred twenty-four (224) drums. (CC 1988 §11-53; Ord. No. 1184 §4, 8-25-93)

SECTION 240.190: PENALTY

Any person, firm, corporation or agency found to be in violation of the provisions of Sections 240.150 through 240.180 shall be subject to a fine of five hundred dollars ($500.00) or up to ninety (90) days in the St. Charles County Jail, or to both such fine and imprisonment. Each day of such violation shall constitute a separate offense. (CC 1988 §11-54; Ord. No. 1184 §6, 8-25-93)

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CHAPTER 415: FLOODWAY AND FLOODWAY FRINGE DISTRICTS

Editor's Note--Ord. no. 2082, adopted February 18, 2004, repealed ch. 415 and enacted new provisions set out herein. Former ch. 415 derived from CC 1988 §§6-161--6-172; ord. no. 1255 §§1--11, 6-28-95.

SECTION 415.010: STATUTORY AUTHORIZATION, FINDINGS OF FACT AND PURPOSES

A. *Statutory Authorization.* The Legislature of the State of Missouri has in Section 89.020, RSMo., delegated the responsibility to local governmental units to adopt floodplain management regulations designed to protect the health, safety and general welfare. Therefore, the City of Wentzville, Missouri, ordains as follows.

B. *Findings Of Fact.*

1. *Flood losses resulting from periodic inundation.* The special flood hazard areas of the City of Wentzville, 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:

a. The cumulative effect of development in any delineated floodplain causing increases in flood heights and velocities; and

b. 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 Chapter 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 Chapter is representative of large floods which are characteristic of what can be expected to occur on the particular streams subject to this Chapter. It is in the general order of a flood which could be expected to have a one percent (1%) chance of occurrence in any one (1) year as delineated on the Federal Insurance Administrator's FIS and illustrative materials dated March 17, 2003, 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.

C. *Statement Of Purpose.* It is the purpose of this Chapter to promote the public health, safety and general welfare; to minimize those losses described in Section 415.010(B)(1) of the Code of the City of Wentzville; 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 Chapter 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;

2. Require uses vulnerable to floods, including public facilities that serve such uses, be provided with flood protection at the time of initial construction;

3. Protect individuals from buying lands that are unsuited for the intended development purposes due to the flood hazard; and

4. Assure that eligibility is maintained for property owners in the community to purchase flood insurance in the National Flood Insurance Program. (Ord. No. 2082, 2-18-04)

SECTION 415.020: GENERAL PROVISIONS

A. *Lands To Which Chapter Applies.* This Chapter shall apply to all lands within the jurisdiction of the City of Wentzville, Missouri, identified as numbered and unnumbered A Zones and AE Zones on the Flood Insurance Rate Map (FIRM) dated August 2, 1996, as amended, and any future revisions thereto. In all areas covered by this Chapter, no development shall be permitted except through the issuance of a floodplain development permit granted by the City of Wentzville or its duly designated representative under such safeguards and restrictions as the City of Wentzville or the designated representative may reasonably impose for the promotion and maintenance of the general welfare, health of the inhabitants of the community and as specifically noted in Section 415.050.

B. *Floodplain Administrator.* The City Planner is hereby designated as the Floodplain Administrator under this Chapter.

C. *Rules For Interpretation Of District Boundaries.* The boundaries of the Floodway and Floodway Fringe Overlay Districts shall be determined by scaling distances on the Official Zoning Map or on the Flood Insurance Rate Map or Floodway Map. Where interpretation is needed to the exact location of the boundaries of the districts as shown on the Official Zoning Map, as for example where there appears to be a conflict between a mapped boundary and actual field conditions, the Enforcement Officer shall make the necessary interpretation. In such cases where the interpretation is contested, the Board of Adjustment will resolve the dispute. The regulatory flood elevation for the point in question shall be the governing factor in locating the district boundary on the land. The person contesting the location of the district boundary shall be given a reasonable opportunity to present his/her case to the Board and to submit his/her own technical evidence, if he/she so desires.

D. *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 Chapter and other applicable regulations.

E. *Abrogation And Greater Restrictions.* It is not intended by this Chapter to repeal, abrogate or impair any existent easements, covenants or deed restrictions. However, where this Chapter imposes greater restrictions, the provision of this Chapter shall prevail. All other ordinances inconsistent with this Chapter are hereby repealed to the extent of the inconsistency only.

F. *Interpretation.* In their interpretation and application, the provisions of this Chapter 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 Missouri Statutes.

G. *Warning And Disclaimer Of Liability.* The degree of flood protection required by this Chapter 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 manmade or natural causes, such as ice jams and bridge openings restricted by debris. This Chapter does not imply that areas outside the floodway and flood fringe or land uses permitted with such areas will be free from flooding or flood damage. This Chapter shall not create a liability on the part of the City of Wentzville or any officer or employee thereof for any flood damages that may result from reliance on this Chapter or any administrative decision lawfully made thereunder.

H. *Severability.* If any Section, clause, provision or portion of this Chapter is adjudged unconstitutional or invalid by a court of appropriate jurisdiction, the remainder of this Chapter shall not be affected thereby.

I. *Appeal.* Where a request for a floodplain development permit to develop is denied by the City Planner, the applicant may apply for a variance to the Board of Adjustment. (Ord. No. 2082, 2-18-04)

SECTION 415.030: ADMINISTRATION

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, in the areas described in Section 415.020(A). 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. *Designation Of Floodplain Administrator.* The City Planner is hereby appointed to administer and implement the provisions of this Chapter.

C. *Duties And Responsibilities Of Floodplain Administrator.* Duties of the City Planner shall include, but not be limited to:

1. Review of all applications for floodplain development permits to assure that sites are reasonably safe from flooding and that the floodplain development permit requirements of this Chapter have been satisfied;

2. Review of all applications for floodplain development permits for proposed development to

assure that all necessary permits have been obtained from Federal, State or local governmental agencies from which prior approval is required by Federal, State or local law;

3. 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;

4. Issue floodplain development permits for all approved applications;

5. Notify adjacent communities and the State Emergency Management Agency prior to any alteration or relocation of a watercourse and submit evidence of such notification to the Federal Emergency Management Agency (FEMA);

6. Assure that the flood-carrying capacity is not diminished and shall be maintained within the altered or relocated portion of any watercourse.

7. Verify and maintain a record of the actual elevation (in relation to mean sea level) of the lowest floor, including basement, of all new or substantially improved structures;

8. Verify and maintain a record of the actual elevation (in relation to mean sea level) that the new or substantially improved non-residential structures have been floodproofed;

9. When floodproofing techniques are utilized for a particular non-residential structure, the City Planner shall require certification from a registered professional engineer or architect.

D. *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 City Planner;

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. (Ord. No. 2082, 2-18-04)

SECTION 415.040: ESTABLISHMENT OF ZONING DISTRICTS

The mapped floodplain areas within the jurisdiction of this Chapter are hereby divided into the two (2) following districts: a Floodway Overlay District (FW) and a Floodway Fringe Overlay District (FF) identified in the Flood Insurance Study (and accompanying map(s)). Within these districts all uses not meeting the standards of this Chapter and those standards of the underlying zoning district shall be prohibited. These zones shall be consistent with the numbered and unnumbered A Zones (including "AE", "AO" and "AH" Zones) as identified on the official FIRM and identified in the Flood Insurance Study provided by the Federal Emergency Management Agency. (Ord. No. 2082, 2-18-04)

SECTION 415.050: PROVISIONS FOR FLOOD HAZARD REDUCTION

A. *General Standards.*

1. 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.

2. 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 Chapter. 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.

3. 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 (1) foot at any point within the community.

4. All new construction, subdivision proposals, substantial improvements, prefabricated structures, placement of manufactured homes and other developments shall require:

a. 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;

b. Construction with materials resistant to flood damage;

c. Utilization of methods and practices that minimize flood damages;

d. 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;

e. New or replacement water supply systems and/or sanitary sewage systems be designed to minimize or eliminate infiltration of floodwaters into the systems and discharges from the systems into floodwaters and on-site waste disposal systems be located so as to avoid impairment

or contamination; and

f. Subdivision proposals and other proposed new development, including manufactured home parks or subdivisions, located within special flood hazard areas are required to assure that:

(1) All such proposals are consistent with the need to minimize flood damage;

(2) All public utilities and facilities, such as sewer, gas, electrical and water systems, are located and constructed to minimize or eliminate flood damage;

(3) Adequate drainage is provided so as to reduce exposure to flood hazards; and

(4) 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.

g. *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.

h. *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 four hundred (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 Chapter; and a floodplain development permit has been issued. (Ord. No. 2082, 2-18-04)

SECTION 415.060: SPECIFIC STANDARDS

A. 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 Section 415.050(A)(2) of the Code of the City of Wentzville, the following provisions are required:

1. *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.

2. *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 Section 415.030(C)(9).

3. 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:

a. A minimum of two (2) openings having a total net area of not less than one (1) square inch for every square foot of enclosed area subject to flooding shall be provided; and

b. The bottom of all opening shall be no higher than one (1) foot above grade. Openings maybe equipped with screens, louvers, valves or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

B. *Manufactured Homes.*

1. 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.

2. 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 a manufactured home park or subdivisiion;

b. In a new manufactured home park or subdivision;

c. In an expansion to an 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 or above 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.

3. 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 Subsection (B)(2) above of this Section, 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. (Ord. No. 2082, 2-18-04)

SECTION 415.070: FLOODWAY

Located within areas of special flood hazard established in Section 415.020(A) are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of floodwaters 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 (1) 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. All new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of Section 415.050.

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 Section 415.050(A)(2). (Ord. No. 2082, 2-18-04)

SECTION 415.075: 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 one hundred eighty (180) consecutive days; or

2. Be fully licensed and ready for highway use*; or

3. Meet the permitting, elevation and the anchoring requirements for manufactured homes of this Chapter.

* 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. 2082, 2-18-04)

SECTION 415.080: FLOODPLAIN MANAGEMENT VARIANCE PROCEDURES

A. *Establishment Of Appeal Board.* The Board of Adjustment as established by the City of Wentzville shall hear and decide appeals and requests for variances from the floodplain management requirements of

this Chapter.

B. *Responsibility Of Appeal Board.*

1. Where an application for a floodplain development permit or request for a variance from the floodplain management regulations is denied by the City Planner or designate, the applicant may apply for such floodplain development permit or variance directly to the Board of Adjustment.

2. 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 City Planner in the enforcement or administration of this Chapter.

C. *Further Appeals.* Any person aggrieved by the decision of the Board of Adjustment or any taxpayer may appeal such decision to the Circuit Court of St. Charles County, State of Missouri as provided in Section 89.110, RSMo.

D. *Floodplain Management Variance Criteria.* 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 Chapter and the following criteria:

1. The danger to life and property due to flood damage;

2. The danger that materials may be swept onto other lands to the injury of others;

3. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;

4. The importance of the services provided by the proposed facility to the community;

5. The necessity to the facility of a waterfront location, where applicable;

6. The availability of alternative locations, not subject to flood damage, for the proposed use;

7. The compatibility of the proposed use with existing and anticipated development;

8. The relationship of the proposed use to the Comprehensive Plan and floodplain management program for that area;

9. The safety of access to the property in times of flood for ordinary and emergency vehicles;

10. The expected heights, velocity, duration, rate of rise and sediment transport of the floodwaters, if applicable, expected at the site; and

11. 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, streets and bridges.

E. *Conditions For Approving Floodplain Management Variances.*

1. Generally, variances may be issued for new construction and substantial improvements to be erected on a lot of one-half (½) 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 the one-half (½) 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 structures 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:

a. 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 twenty-five dollars ($25.00) for one hundred dollars ($100.00) of insurance coverage, and

b. 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 Chapter.

F. *Conditions For Approving Variances For Accessory Structures.*

1. 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 criteria and conditions set forth in Section 415.080 (D) and (E) of this Chapter.

2. 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.

a. 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).

b. 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 Section 415.050(A)(4)(b) of this Chapter.

c. The accessory structures must be adequately anchored to prevent flotation, collapse or lateral movement of the structure in accordance with Section 415.050(A)(4)(a) of this Chapter. 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.

d. Any mechanical, electrical or other utility equipment must be located above the base flood elevation or floodproofed so that they are contained within a watertight, flood proofed enclosure that is capable of resisting damage during flood conditions in accordance with Section 415.050(A)(4)(d) of this Chapter.

e. 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 Section 415.060(A)(3) of this Chapter.

f. The accessory structures must comply with the floodplain management floodway encroachment provisions of Section 415.070(2) of this Chapter. 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.

g. Equipment, machinery or other contents must be protected from any flood damage.

h. 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.

i. 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 twenty-five dollars ($25.00) for one hundred dollars ($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 Chapter.

j. Wet-floodproofing construction techniques must be reviewed and approved by the community and registered professional engineer or architect prior to the issuance of any floodplain development permit for construction. (Ord. No. 2082, 2-18-04)

SECTION 415.090: PENALTIES FOR VIOLATION

Violation of the provisions of this Chapter or failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with granting of variances) shall constitute a

misdemeanor. Any person who violates this Chapter or fails to comply with any of its requirements shall, upon conviction thereof, 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 Wentzville or other appropriate authority from taking such other lawful action as is necessary to prevent or remedy any violation. (Ord. No. 2082, 2-18-04)

SECTION 415.100: AMENDMENTS

The regulations, restrictions and boundaries set forth in this Chapter may from time to time be amended, supplemented, changed or appealed 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 of 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 Wentzville. 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 Region VII office of the Federal Emergency Management Agency (FEMA). The regulations of this Chapter are in compliance with the National Flood Insurance Program (NFIP) regulations. (Ord. No. 2082, 2-18-04)

SECTION 415.110: DEFINITIONS

Unless specifically defined below, words or phrases used 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: The same as *"APPURTENANT STRUCTURE"*.

ACTUARIAL RATES: See *"RISK PREMIUM RATES"*.

ADMINISTRATOR: The Federal Insurance Administrator.

AGENCY: The Federal Emergency Management Agency (FEMA).

APPEAL: A request for review of the Floodplain Administrator's interpretation of any provision of this Chapter or request for a variance.

APPURTENANT STRUCTURE: A structure which is on the same parcel of property as the principal 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 a community subject to a one percent (1%) or greater chance of flooding in any given year.

BASE FLOOD: The flood having a one percent (1%) chance of being equalled or exceeded in any given year.

BASEMENT: Any area of the building having its floor subgrade (below ground level) on all sides.

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 PLANNER: The officially designated representative of the City of Wentzville charged with the responsibility for enforcement of this Chapter.

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.

DEVELOPMENT: Any manmade change to improved or unimproved real estate including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials.

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.

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 FIRMs 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 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 complete 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).

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 (1%) 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 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.

FLOOD OR FLOODING: A general and temporary condition of partial or complete inundation of normally dry land areas from:

1. The overflow of inland, and/or

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

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 ordinances, grading ordinances and erosion control ordinances) and other applications of Police power. The term describes such State or local regulations, in any combination thereof, which provide standards for the purpose of flood damage prevention and reduction.

FLOODPROOFING: Any combination of structural and non-structural additions, changes or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities or structures and their contents.

FLOODWAY ENCROACHMENT LINES: The lines marking the limits of floodways on Federal, State and local floodplain maps.

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 (1) foot.

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 bridge openings and the hydrological effect of 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.

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:

1. 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;

2. 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;

3. 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

4. Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:

   a. By an approved State program as determined by the Secretary of the Interior, or

   b. Directly by the Secretary of the Interior in States without approved programs.

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 non-elevation design requirements of this Chapter.

MANUFACTURED HOME: A structure, transportable in one (1) or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when attached to the required utilities. The term *"manufactured home"* does not include *"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) or the 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 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.

NEW CONSTRUCTION: For the purpose 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 regulation 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 formal 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).

PARTICIPATING COMMUNITY: Also known as an *"eligible community"*, means a community in which the Administrator has authorized the sale of flood insurance.

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

PRINCIPALLY ABOVE GROUND: At least fifty-one percent (51%) of the actual cash value of the structure, less land value, is above ground.

RECREATIONAL VEHICLE: A vehicle which is:

1. Built on a single chassis;

2. Four hundred (400) square feet or less when measured at the largest horizontal projections;

3. Designed to be self-propelled or permanently towable by a light duty truck; and

4. Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel or seasonal use.

REMEDY A VIOLATION: To bring the structure or other development into compliance with State or local floodplain management regulations or, if this is not possible, to reduce the impacts of its non-compliance.

RISK PREMIUM RATES: 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.

SPECIAL FLOOD HAZARD AREA: See *"AREA OF SPECIAL FLOOD HAZARD"*.

SPECIAL HAZARD AREA: An area having special flood hazards and shown on an FHBM, FIRM or FBFM as Zones (unnumbered or numbered) A and AE.

START OF CONSTRUCTION: Includes substantial improvement and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement or other improvement was within one hundred eighty (180) days of the permit date. The *"actual start"* means the first (1st) placement of permanent construction of a structure on a site, such as the pouring of slab 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; nor does it include 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 (1st) 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: The agency of the Missouri 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.

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 fifty percent (50%) of the market value of the structure before the damage occurred.

SUBSTANTIAL IMPROVEMENT: Any reconstruction, rehabilitation, addition or other improvement of a structure, the cost of which equals or exceeds fifty percent (50%) of the market value of the structure before "start of construction" of the improvement. This term includes structures which have incurred "substantial damage", regardless of the actual repair work performed. The term does not, however, include either:

1. Any project for improvement of a structure to correct existing violations of State or local health, sanitary or safety code specifications which have been identified by the local Code Enforcement Official and which are the minimum 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".

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 Chapter is presumed to be in violation until such time as that documentation is provided.

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. (Ord. No. 2082, 2-18-04)

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CHAPTER 510: STREETS, SIDEWALKS AND OTHER PUBLIC PLACES

Cross References--Ordinances naming, renaming, opening, accepting or vacating streets or alleys in the City saved from repeal §100.080; animals running at large prohibited, §205.080; buildings and building regulations, chs. 500 and 505; loitering, §210.310; parks and recreation, ch. 225; planning and development, ch. 400; review of street name by planning and zoning commission, §400.170; placing injurious substances in streets prohibited, §340.220; driving vehicles on sidewalks prohibited, §340.070; riding bicycles and motorized bicycles on sidewalks prohibited, §340.110; traffic and motor vehicles, Title III; zoning, ch. 405.

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ARTICLE I. IN GENERAL

SECTION 510.010: STREET NAMES

All streets running in an east-west direction and extending or continuing on both sides of Linn Avenue or the imaginary extension thereof, shall be known as East, east of Linn Avenue or the imaginary extension thereof, and West, west of Linn Avenue or the imaginary extension thereof. All streets running in a north-south direction and extending or continuing on both sides of Pitman Street or the imaginary extension thereof shall be known as North, north of Pitman Street or the imaginary extension thereof, and South, south of Pitman Street or the imaginary extension thereof. (CC 1988 §22-1; Ord. No. 485 §§1, 2, 7-12-72)

SECTION 510.020: DEPOSITING DIRT, ROCK, ETC., ON STREETS--LAND DISTURBING ACTIVITY PROHIBITED

It shall be unlawful for any person to engage in any land disturbing activity or any other action which causes or permits any soil, mud, earth, sand, gravel, rock, stone, concrete or other materials or liquids to be flung from or deposited, dropped upon or to roll, flow, stand or wash upon or over any public street, street improvement, road, sewer, storm drain, watercourse, right-of-way or any other public property, or which creates a nuisance or a hazardous condition which is detrimental to the property, health, safety and welfare of the public. (CC 1988 §22-2; Ord. No. 884 §2, 4-10-85)

SECTION 510.030: DEPOSITING DIRT, ROCK, ETC., ON STREETS--HAULING

A. It shall be unlawful for any person, when hauling soil, earth, sand, gravel, mud, rock, stone, concrete, building materials or any other materials or liquids over any public street, road or alley to allow such materials or liquids to blow, drop, to be placed or spill over and upon such street, road, alley or public property.

B. The operator of equipment engaged in hauling shall not permit soil, mud, earth, sand, gravel, rock, stone, concrete, or other materials to fall from the vehicle or equipment, upon any street, road, alley or public property. (CC 1988 §22-3; Ord. No. 884 §§3, 4, 4-10-85)

SECTION 510.040: DEPOSITING DIRT, ROCK, ETC., ON STREETS--REMOVAL

A. All matter or objects described in Sections 510.020 and 510.030 shall be immediately removed in a prompt and on-going manner as it occurs, and not as a cumulative effort at the end of the day or project.

B. Any person who causes any soil, mud, earth, sand, gravel, rock, stone, concrete or other materials or liquids to be deposited or to roll, flow, wash or drop onto any public street, road, alley or other public property shall be directed to immediately remove such materials or liquids, and any person failing or refusing to do so shall be issued a summons or warrant to appear in the Municipal Court. (CC 1988 §22-4; Ord. No. 884 §§5, 6, 4-10-85)

SECTION 510.050: LAYING OF PIPES, WIRE, OTHER CONDUIT

A. It shall be unlawful for any person to place any pipe, wire or other conduit either on the surface of and within, through or across any street, alley, avenue or public highway of the City without first having obtained the consent of the Building Inspector.

B. It shall be unlawful for any person to open up, make any hole or excavation in or place any obstruction in or upon any street, alley, avenue or public highway of the City without first having obtained the consent of the Building Inspector.

C. Any person desiring to place any pipe, wire or other conduit either on the surface of or underneath the surface of and within or through or across any street, alley, avenue or public highway of the City or desiring to open up, make any hole or excavation in or place any obstruction in or upon any street, alley, avenue or public highway of the City shall make written application to the Building Inspector for permission to do so, setting out in the application the exact type of work contemplated to be done together with a full description of the streets, alleys, avenues or public highways of the City in or upon which the work is to be done. (CC 1988 §22-5; Ord. No. 69 §§1, 3, 3-27-39)

Cross Reference--Sewers and water generally, Title VII.

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CHAPTER 520: EROSION AND SEDIMENT CONTROL

SECTION 520.010: FINDINGS--TITLE

These sediment and erosion control regulations for urban development, as proposed by the St. Charles Soil and Water Conservation District, present a reasonable method for controlling sediment and erosion. It is hereby revised and adopted as the Model Sediment and Erosion Control Regulations of the City of Wentzville, Missouri. (CC 1988 §6-151; Ord. No. 1125 §1, 9-18-91)

SECTION 520.020: GENERAL PROVISIONS

A. *Purpose.* The purpose of this Chapter is to control soil erosion on land that is undergoing development for non-agricultural uses and to preserve the natural terrain and waterways of land within the City of Wentzville. Soil erosion scars the land and creates sediment that clogs storm sewers and road ditches, chokes streams, and creates silt lakes, all of which pose a threat to public health and safety. The provisions in this regulation are intended to provide a natural community environment, to prevent soil erosion and to reduce costly repairs to gullies, washed out fills, water conveyance systems, roads and embankments. Application of the regulations in this document will effectively control soil erosion and sedimentation.

B. *Scope Of Authority.* Any person, firm, corporation or business proposing to develop land within the City of Wentzville shall apply to the designated official for approval of required erosion control plans and issuance of a grading permit as specified in this regulation.

C. *Performance Guarantee.* Upon approval of the required erosion control plan and the issuance of a grading permit, the designated official shall require the developer to post an escrow agreement, lender's agreement, or certified check in the amount of all work to be done under the erosion control plan. Ninety percent (90%) of the funds will be released after all erosion control measures are in place and approved by the designated official. Ten percent (10%) will be held until the public improvements are accepted by the City to insure that the erosion control measures are maintained. If there are no public improvements (site plans) the final ten percent (10%) will be held until released by the designated official. (CC 1988 §10-152; Ord. No. 1125 §2, 9-18-91)

SECTION 520.030: DEFINITIONS

For the purposes of this Chapter, the following words and phrases shall have the meanings respectively ascribed to them by this Section:

BOCA: Refers to the currently adopted BOCA National Building Code; please note these regulations are designed to be used with the adopted BOCA Codes as a reference for minimum performance standards.

DEBRIS OR SEDIMENT BASIN: A barrier or dam built across a waterway or at other suitable

locations to retain rock, sand, gravel, silt or other materials.

DESIGNATED OFFICIAL: The Director of Public Works or his/her assignee.

DIVERSION: A channel with or without a supporting ridge on the lower side constructed across or at the bottom of a slope.

EROSION: The wearing away of the land surface by the action of wind, water or gravity.

EXCAVATION OR CUT: The removal, stripping or disturbance of soil, earth, sand, rock, gravel or other similar substances from the ground.

EXISTING GRADE: The vertical location of the existing ground surface prior to excavation or filing.

FEMA: Federal Emergency Management Agency.

FILL OR FILLING: The placing of any soil, earth, sand, rock, gravel, or other substance on the ground.

FINISHED GRADE: The final grade or elevation of the ground surface conforming to the proposed design.

GRADING: Any excavation or filling or combination thereof.

NATURAL WATERCOURSE: A channel formed in the existing surface topography of the earth prior to changes made by unnatural conditions.

OPEN CHANNEL: A constructed ditch or channel designed for water flow.

SEDIMENT: Solid material, mineral or organic, that has been moved by erosion and deposited in a location other than the point of origin.

SILT TRAPS OR FILTERS: Staked bales or silt fencing systems that function as a filter and a velocity check to trap fine-grained sediment while allowing satisfactory passage of stormwater runoff.

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

SITE DEVELOPMENT: Altering terrain and/or vegetation and constructing improvements.

SOIL AND WATER CONSERVATION DISTRICT (SWCD): Section 278.070(5), RSMo., defines a Soil and Water Conservation District. The St. Charles S.W.C.D. is a locally organized and operated unit of government functioning under Missouri law, to promote protection, maintenance, improvement, and wise use of the soil and water within the County. (CC 1988 §6-153; Ord. No. 1125 §5, 9-18-91)

SECTION 520.040: REGULATIONS

A. *Required Erosion And Sedimentation Control Plan Content.* Grading plans, site plans,

preliminary plat or subdivision, or the subdivision improvement plans for grading land areas twenty thousand (20,000) square feet or more shall include the following additional information:

1. Erosion and sediment control plans submitted to the designated official shall include three (3) sets of maps and plans with specifications showing proposed excavation, grading or filling and will include the following:

a. Full name and address of property owner;

b. Designation of property address and a location map;

c. Portion of the property that is to be excavated, graded or filled with excavated material;

d. Location of any sewerage disposal system or underground utility line, any part of which is within fifty (50) feet of the proposed excavation, grading or filling area and the location of any pipe line operated at a maximum service pressure in excess of two hundred (200) p.s.i.g., any part of which is within one hundred (100) feet of the proposed excavation, grading or filling area;

e. Existing grade and topography of the premises and the proposed finished grade and final contour elevation at a contour interval of not more than two (2) feet on United States Geological Survey datum;

f. Location and present status of any previous permitted grading operations on the property;

g. Details of any temporary drainage system proposed to be installed and maintained by the applicant and a comprehensive drainage plan designed to safely handle surface water, streams or other natural drains following heavy rains during grading operations;

h. Details of proposed water impoundment structures, embankments, sediment or debris basins, grass or lined waterways and diversions with the details and locations of proposed stable outlets and the location of any downstream impoundments which could be affected by the proposed grading;

i. Details of soil preparation and revegetation of the finished grade and of other methods of soil erosion control;

j. Proposed truck and equipment access ways to the work site;

k. Delineation of the 100-year flood plain and floodway; and

l. A statement from the property owner or his/her agent assuming full responsibility for the performance of the operation as stated in the application. This statement shall also contain assurance that all City property or roads will be adequately protected.

2. The proposed phasing of development of the site, including clearing, rough grading and construction, and final grading and landscaping. Phasing should identify the expected date on which clearing will begin, the estimated duration of exposure of cleared areas and the

sequence of clearing, installation of temporary sediment control measures, installation of storm drainage, paving streets and parking areas, and establishment of temporary and permanent vegetative cover. The designated official may waive specific requirements for the content of submissions upon finding that the information submitted is sufficient to show that the work will comply with the objectives and principles of these regulations.

B. *Sediment And Erosion Control Plan Approval.*

1. The sediment and erosion control plan must define the measures to be taken to meet erosion control principles and standards as defined in these regulations. The plan must assure that sediment is not transported from the site by a storm event of fifteen (15) year (frequency) twenty (20) minute (inlet time) or less.

2. *Comments.* When a plan is submitted by the designated official to the Soil and Water Conservation District, the district may make comments and recommendations. All such comments and recommendations shall be made within fifteen (15) days of receipt by the district. Such comments may pertain, but need not be limited to:

a. Erosion and sedimentation control.

b. Soil use limitations.

c. Environmental considerations.

C. *Principles And Standards.*

1. All excavation, grading, or filling shall have a finished grade not to exceed a 3:1 slope thirty-three percent (33%). Steeper grades may be approved by the designated official if the excavation is through rock or the excavation or the fill is adequately protected (a designated head wall or toe wall may be required). Retaining walls that exceed a height of four (4) feet shall require the construction of safety guards as identified in the appropriate Section(s) of the adopted BOCA Codes and must be approved by the Director of Public Works. Permanent safety guards will be constructed in accordance with the appropriate Section(s) of the adopted BOCA Codes.

2. Sediment and erosion control plans for sites that exceed twenty thousand (20,000) square feet of grading shall provide for sediment or debris basins, silt traps or filters, staked straw bales or other approved measures to remove sediment from runoff waters. The design shall be approved by the designated official before improvements begin. Temporary siltation control measures (structural) shall be maintained until vegetative cover is established at a sufficient density to provide erosion control on the site. (Refer to Appendix A.)

3. Where natural vegetation is removed during grading, vegetation shall be reestablished in such a density as to prevent erosion. Permanent type grasses shall be established as soon as possible or during the next seeding period after grading has been completed. (Refer to Appendix A.)

4. When grading operations are completed or suspended for more than thirty (30) days permanent grass must be established at sufficient density to provide erosion control on the site. Between permanent grass seeding periods, temporary cover shall be provided according

to the designated official's recommendation and/or approval. (Refer to Appendix A.)

All finished grades (areas not to be disturbed by future improvement) in excess of twenty percent (20%) slopes (5:1) shall be mulched and tacked at the rate of one hundred (100) pounds per thousand (1,000) square feet when seeded.

5. Provisions shall be made to accommodate the increased runoff caused by changed soil and surface conditions during and after grading. Unvegetated open channels shall be designed so that gradients result in velocities of two (2) fps (feet per second) or less. Open channels shall be designed so that gradients result in velocities of two (2) fps (feet per second) or less. Open channels with velocities more than two (2) fps and less than five (5) fps shall be established in permanent vegetation by use of commercial erosion control blankets or lined with rock riprap or concrete or other suitable materials as approved by the designated official. Detention basins, diversion, or other appropriate structures shall be constructed to prevent velocities above five (5) fps. (Refer to Appendices B, C, D, E and F.)

6. The adjoining ground to development sites (lots) shall be provided with protection from accelerated and increased surface water, silt from erosion, and any other consequences of erosion. Runoff water from developed areas (parking lots, paved sites and buildings) above the area to be developed shall be directed to diversions, detention basins, concrete gutters and/or underground outlet systems.

A three (3) foot buffer strip shall be maintained at the property line in an undisturbed condition unless otherwise approved.

Sufficiently anchored straw bales may be temporarily substituted with the approval of the designated official. (References to Appendices B, C, D, E and F.)

7. Development along natural watercourses shall have residential lot lines, commercial or industrial improvements, parking areas or driveways set back a minimum of twenty-five (25) feet from the top of the existing stream bank. The watercourse shall be maintained and made the responsibility of the subdivision trustees or, in the case of a site plan, by the property owner. Permanent vegetation should be left intact.

Variances will include designed streambank erosion control measures and shall be approved by the designated official. FEMA and U.S. Army Corps of Engineers guidelines shall be followed where applicable regarding site development areas designated as flood plains and wetlands.

8. All lots shall be seeded and mulched at the rates defined in Appendix A or sodded before an occupancy permit shall be issued except that a temporary occupancy permit may be issued by the Director of Public Works in cases of undue hardship because of unfavorable ground conditions. (CC 1988 §6-154; Ord. No. 1125 §3, 9-18-91)

SECTION 520.050: INSPECTION AND VIOLATION

A. *Inspections.* By applying for a grading permit, the applicant consents to the City inspecting the proposed development site and all work in progress.

B. *Corrections.* All violations shall be corrected within the time limit set forth by the designated official specified in the issuance of a written notice to correct. All persons failing to comply with such notice shall be deemed in violation of these regulations. The time limit shall be thirty (30) days unless, in the opinion of the Director of Public Works, an emergency exists.

C. *Violations.* In the event of a violation, the (Performance Guarantee) proceeds shall be used by the City to complete the planned sediment and erosion control practices.

D. *Penalties.* Anyone violating any of the provisions of this Chapter shall upon conviction thereof be subject to a fine of not more than five hundred dollars ($500.00), or by imprisonment for a period not to exceed ninety (90) days, or both such fine and imprisonment. Each day that a violation continues shall constitute a separate offense. The imposition of any sentence shall not exempt the offender from compliance with the requirements of this Chapter.

In addition to the penalties herein above authorized and established, the City Attorney shall take such other actions at law or in equity as may be required to halt, terminate, remove, or otherwise eliminate any violation of this Chapter.

E. *Appeals.*

1. Any aggrieved person, firm, corporation, or any governmental officer, department, board or bureau may appeal a decision of the Director of Public Works before the Board of Adjustment as established and in conformance with the requirements of the applicable ordinance of the City of Wentzville, subject to the further requirements of this Section.

2. *Grounds for granting a variance.* The Board of Adjustment may grant variances from Sections 520.010 through 520.050 where there is alleged error in any order, requirement, decision, determination made by the designated official, or his/her assignee and where the applicant would be subject to undue hardship. Undue hardship is not considered the loss of possible advantage, economic loss or gain, or mere inconvenience to the applicant.

3. Appeals from decisions of the Board of Adjustment shall be to the Circuit Court in conformance with the requirements of the applicable ordinances of the City of Wentzville and Missouri Statutes. (CC 1988 §10-155; Ord. No. 1125 §4, 9-18-91)

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ARTICLE I. REGULATIONS

SECTION 720.010: DEFINITIONS

The following words, terms, phrases and abbreviations, when used in this Article, shall have the meanings ascribed to them in this Section, except where the context clearly indicates a different meaning:

ACT OR THE ACT: The Federal Water Pollution Control Act, also known as the Clean Water Act, as amended, 33 U.S.C. 1251, et seq.

APPROVAL AUTHORITY: The Director in an NPDES State with an approved State pretreatment program and the Administrator of the EPA in a non-NPDES State or NPDES State without an approved State pretreatment program.

AUTHORIZED REPRESENTATIVE OF INDUSTRIAL USER: An authorized representative of an industrial user who may be:

1. A principal executive officer of at least the level of Vice President, if the industrial user is a corporation;

2. A general partner or proprietor if the industrial user is a partnership or proprietorship, respectively; or

3. A duly authorized representative of the individual designated above if such representative is responsible for the overall operation of the facilities from which the indirect discharge originates.

BIOCHEMICAL OXYGEN DEMAND: The quantity of oxygen utilized in the biochemical oxidation of organic matter under standard laboratory procedure, five (5) days at twenty degrees Centigrade (20°C) expressed in terms of weight and concentration (milligrams per liter).

BOD: Biochemical oxygen demand.

BUILDING SEWER: A sewer conveying wastewater from the premises of a user to the POTW.

CATEGORICAL STANDARDS: National categorical pretreatment standards or pretreatment standard.

CFR: The Code of Federal Regulations.

COD: Chemical oxygen demand.

COMMERCIAL PERMITTED USER: Any commercial, industrial, institutional or other user of the POTW who does not qualify as a significant industrial user but, however, contributes waste not considered normal domestic waste and has potential for discharge of toxic or prohibitive material. This category may include, but not be limited to, service stations, auto repair facilities, laundries, car washes, food preparation and processing facilities, manufacturing facilities and similar enterprises.

CONTROL AUTHORITY: The approval authority, defined in this Section, or the Superintendent if the City has an approved pretreatment program under the provisions of 40 CRF, 403.11.

COOLING WATER: Once through non-contact cooling water or other non-contact cooling water from sources such as air conditioning, cooling or refrigeration. The only pollutant permitted to be added to such water is heat or thermal additions.

DIRECT DISCHARGE: The discharge of treated or untreated wastewater directly to the waters of the State.

ENVIRONMENTAL PROTECTION AGENCY: The United States Environmental Protection Agency or, where appropriate, the term may also be used as a designation for the Administrator or other duly authorized official of such agency.

EPA: The United States Environmental Protection Agency.

GRAB SAMPLE: A sample which is taken from a waste stream on a one-time basis with no regard to the flow in the waste stream and without consideration of time.

HOLDING TANK WASTE: Any waste from holding tanks such as vessels, chemical toilets, campers, trailers, septic tanks and vacuum-pump tank trucks.

INDIRECT DISCHARGE: The discharge or the introduction of non-domestic pollutants from any source regulated under Section 307(b) or (c) of the Act (33 U.S.C. 1317) into the POTW including holding tank waste discharged into the system.

INDUSTRIAL USER: A source of indirect discharge which does not constitute a discharge of pollutants under regulations issued pursuant to Section 402 of the Act (33 U.S.C. 1342).

INTERFERENCE: The inhibition or disruption of the POTW treatment processes or operations which contributes to a violation of any requirement of the City's NPDES permit. The term includes prevention of sewage sludge use or disposal by the POTW in accordance with Section 405 of the Act (33 U.S.C. 1345) or any criteria, guidelines or regulations developed pursuant to the Solid Waste Disposal Act, the Clean Air Act, the Toxic Substances Control Act or more stringent State criteria (including those contained in any State sludge management plan prepared pursuant to Title IV of SWDA) applicable to the method of disposal or use employed by the POTW.

l: Liter.

mg: Milligrams.

mg/l: Milligrams per liter.

NATIONAL CATEGORICAL PRETREATMENT STANDARD OR PRETREATMENT STANDARD: Any regulation containing pollutant discharge limits promulgated by the EPA in accordance with Section 307(b) and (c) of the Act (33 U.S.C. 1347) which applies to a specific category of industrial users.

NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM OR NPDES PERMIT: A permit issued pursuant to Section 402 of the Act (33 U.S.C. 1342).

NATIONAL PROHIBITIVE DISCHARGE STANDARD OR PROHIBITIVE DISCHARGE STANDARD: Any regulation developed under the authority of Section 307(b) of the Act and 40 CFR, Section 403.5.

NEW SOURCE: Any source, the construction of which is commenced after the publication of proposed regulations prescribing a Section 307(c) of the Act (33 U.S.C. 1317) categorical pretreatment standard which will be applicable to such source, if such standard is thereafter promulgated within one hundred twenty (120) days of proposal in the Federal Register. Where the standard is promulgated later than one hundred twenty (120) days after proposal, a *"new source"* means any source, the construction of which is commenced after the date of promulgation of the standard.

NORMAL DOMESTIC WASTE: A waste similar in characteristics to that generated by an average single-family dwelling unit.

NPDES: National pollutant discharge elimination system.

pH: The logarithm, base 10, of the reciprocal of the concentration of hydrogen ions expressed in grams per liter of solution.

POLLUTANT: Any dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discharged equipment, rock, sand, cellar dirt and industrial, municipal and agricultural waste discharged into water.

POLLUTION: The manmade or man-induced alteration of the chemical, physical, biological and radiological integrity of water.

POTW: Publicly owned treatment works.

POTW TREATMENT PLANT: Portion of the POTW designed to provide treatment to wastewater.

PRETREATMENT OR TREATMENT: The reduction of the amount of pollutants, the elimination of pollutants or the alteration of the nature of pollutant properties in wastewater to a less harmful state prior to or in lieu of discharging or otherwise introducing such pollutants into a POTW. The reduction or alteration can be obtained by physical, chemical or biological processes or process changes or other means, except as prohibited by 40 CFR Section 403.6(d).

PRETREATMENT FACILITY: Any premises of any industrial user in which a treatment system is located or in which records are required to be maintained.

PRETREATMENT REQUIREMENTS: Any substantive or procedural requirement related to pretreatment other than a national pretreatment standard imposed on an industrial user.

PUBLICLY OWNED TREATMENT WORKS: A treatment works as defined by Section 212 of the Act (33 U.S.C. 1292) which is owned in this instance by the City. This definition includes any sewers that convey wastewater to the POTW treatment plant, but does not include pipes, sewers or other conveyances not connected to a facility providing treatment. For the purposes of Sections 720.010 through 720.210, *"POTW"* shall also include any sewers that convey wastewaters to the POTW from persons outside the City who are, by contract or agreement with the City, users of the City's POTW.

SIC: Standard industrial classification.

SIGNIFICANT INDUSTRIAL USER: Any industrial user of the City's wastewater disposal system which:

1. Has a discharge flow of twenty-five thousand (25,000) gallons or more per average workday.

2. Has a flow greater than five percent (5%) of the flow in the City's wastewater treatment system.

3. Has in his/her wastes in excess of ten percent (10%) of the pretreatment standard for that pollutant toxic pollutants as defined pursuant to Section 307 of the Act.

4. Is found by the City, State Department of Natural Resources or the United States Environmental Protection Agency to have significant impact, either singly or in combination with other contributing industries, on the wastewater treatment system, the quality of sludge, the system's effluent quality or air emissions generated by the system.

SIGNIFICANT VIOLATION: A violation which remains uncorrected forty-five (45) days after notification of non-compliance, which is part of a pattern of non-compliance over a twelve (12) month period or which involves a failure to accurately report non-compliance.

STANDARD INDUSTRIAL CLASSIFICATION: A classification pursuant to the Standard Industrial Classification Manual issued by the Executive Office of the President, Office of Management and Budget, 1972.

STORMWATER: Any flow occurring during or following any form of natural precipitation and resulting therefrom.

SUPERINTENDENT: The person designated by the City to supervise the operation of the publicly owned treatment works and who is charged with certain duties and responsibilities by Sections 720.010 through 720.210 or his/her duly authorized representative.

SUSPENDED SOLIDS: The total suspended matter that floats on the surface of or is suspended in water, wastewater or other liquids, and which is removable by laboratory filtering.

SWDA: Solid Waste Disposal Act, 42 U.S.C. 6901, et seq.

TOXIC POLLUTANT: Any pollutant or combination of pollutants listed as toxic in regulations promulgated by the Administrator of the Environmental Protection Agency under the provision of the Clean Water Act, Section 307(a).

TSS: Total suspended solids.

U.S.C.: The United States Code.

USER: Any person who contributes, causes or permits the contribution of wastewater into the City's POTW.

WASTEWATER: The liquid- and water-carried industrial or domestic wastes from dwellings, commercial buildings, industrial facilities and institutions, together with any ground water, surface water and stormwater which may be present, whether treated or untreated, which is contributed into or permitted to enter the POTW.

WASTEWATER CONTRIBUTION PERMIT: The permit set forth in Section 720.140.

WATERS OF THE STATE: All streams, lakes, ponds, marshes, watercourses, waterways, wells, springs, reservoirs, aquifers, irrigation systems, drainage systems and all other bodies or accumulations of water, surface or underground, natural or artificial, public or private, which are contained within, flow through or border upon the State or any portion thereof. (Ord. No. 2401 §§1--2, 9-28-05)

Cross Reference--Definitions and rules of construction generally, §100.020.

SECTION 720.020: PURPOSE, OBJECTIVES, APPLICABILITY, SCOPE

A. Sections 720.010 through 720.210 set forth uniform requirements for contributors into the wastewater collection and treatment system for the City and enables the City to comply with all applicable State and Federal laws required by the Clean Water Act of 1977 and the general pretreatment regulations (40 CFR, Part 403).

B. The objectives of Sections 720.010 through 720.210 are to:

1. Prevent the introduction of pollutants into the City wastewater system which will interfere with the operation of the system or contaminate the resulting sludge;

2. Prevent the introduction of pollutants into the municipal wastewater system which will pass through the system, inadequately treated, into receiving waters or the atmosphere or otherwise be incompatible with the system;

3. Improve the opportunity to recycle and reclaim wastewaters and sludges from the system; and

4. Provide for equitable distribution of the cost of the municipal wastewater system.

C. Sections 720.010 through 720.210 provide for the regulation of contributors to the City wastewater system through the issuance of permits to certain non-domestic users and through enforcement of general requirements for the other users, and authorizes monitoring and enforcement activities, requires user reporting, assumes that existing customer's capacity will not be pre-empted, and provides for the setting of fees for the equitable distribution of costs resulting from the program established in Sections 720.010 through 720.210.

D. Sections 720.010 through 720.210 shall apply to the City and to persons outside the City who are, by contract or agreement with the City, users of the City POTW. Except as otherwise provided in Sections 720.010 through 720.210, the Superintendent of the City POTW shall administer, implement and enforce the provisions of Sections 720.010 through 720.210. (Ord. No. 2401 §§1--2, 9-28-05)

SECTION 720.030: FEES, CHARGES

A. It is the purpose of Sections 720.010 through 720.210 to provide for the recovery of costs from users of the City's wastewater disposal system for the implementation of the program established in this Section. The applicable charges or fees shall be set forth in the City's schedule of charges and fees.

B. The City may adopt charges and fees which may include:

1. Fees for reimbursement of costs of setting up and operating the City's pretreatment program;

2. Fees for monitoring, inspections and surveillance procedures;

3. Fees for reviewing accidental discharge procedures and construction;

4. Fees for permit applications;

5. Fees for removal allowances, when requested by an industrial user, which allows such industrial user to exceed established categorical standards; and

6. Other fees as the City may deem necessary to carry out the requirements contained in Sections 720.010 through 720.210.

C. These fees relate solely to the matter covered by Sections 720.010 through 720.210 and are separate from all other fees chargeable by the City. (Ord. No. 2401 §§1--2, 9-28-05)

SECTION 720.040: STATE REQUIREMENTS

State requirements and limitations on discharges shall apply in any case where they are more stringent than Federal requirements and limitations or those in Sections 720.010 through 720.210. (Ord. No. 2401 §§1--2, 9-28-05)

SECTION 720.050: CITY'S RIGHT OF REVISION

The City reserves the right to establish by ordinance more stringent limitations or requirements for discharges to the wastewater disposal system if deemed necessary to comply with the objectives presented in Section 720.020. (Ord. No. 2401 §§1--2, 9-28-05)

SECTION 720.060: FEDERAL CATEGORICAL PRETREATMENT STANDARDS

Upon the promulgation of the Federal Categorical Pretreatment Standards for a particular industrial subcategory, the Federal standard, if more stringent than limitations imposed under Sections 720.010 through 720.210 for sources in that subcategory, shall immediately supersede the limitations imposed under Sections 720.010 through 720.210. The Superintendent shall notify all affected users of the applicable reporting requirements under 40 CFR, Section 403.12. (Ord. No. 2401 §§1--2, 9-28-05)

SECTION 720.070: GENERAL DISCHARGE PROHIBITIONS

A. No user shall contribute or cause to be contributed any pollutant or wastewater which will interfere with the operation or performance of the POTW. These general prohibitions apply to all such users of a POTW whether or not the user is subject to national categorical pretreatment standards or any

other national, State or local pretreatment standards or requirements. A user may not contribute the following substances to any POTW:

1. Any liquids, solids or gases which by reason of their nature or quantity are or may be sufficient either alone or by interaction with other substances to cause fire or explosion or be injurious in any other way to the POTW or to the operation of the POTW. At no time shall two (2) successive readings on an explosion hazard meter at the point of discharge into the system or at any point in the system be more than five percent (5%) nor any single reading over ten percent (10%) of the lower explosive limit (LEL) of the meter. Prohibited materials include, but are not limited to, gasoline, kerosene, naphtha, benzene, toluene, xylene, ethers, alcohols, ketones, aldehydes, peroxides, chlorates, perchlorates, bromates, carbides, hydrides and sulfides and any other substances which the City, the State or EPA has notified the user is a fire hazard or a hazard to the system.

2. Solid or viscous substances which may cause obstruction to the flow in a sewer or other interference with the operation of the wastewater treatment facilities such as, but not limited to, grease, garbage with articles greater than one-half (½) inch in any dimension, animal guts or tissues, paunch manure, bones, hair, hides or fleshings, entrails, whole blood, feathers, ashes, cinders, sand, spent lime, stone or marble dust, metal, glass, straw, shavings, grass clippings, rags, spent grains, spent hops, waste paper, wood, plastics, gas, tar, asphalt residues, residues from refining or processing of fuel or lubricating oil, mud or glass grinding or polishing wastes.

3. Any wastewater having a pH less than six (6.0) or more than nine (9.0) or wastewater having any other corrosive property capable of causing damage or hazard to structures, equipment or personnel of the POTW.

4. Any wastewater containing toxic pollutants in sufficient quantity, either singly or by interaction with other pollutants, to injure or interfere with any wastewater treatment process, constitute a hazard to humans or animals, create a toxic effect in the receiving waters of the POTW or exceed the limitation set forth in a categorical pretreatment standard. A toxic pollutant shall include any pollutant identified pursuant to the latest revision of Section 307(a) of the Act.

5. Any noxious or malodorous liquids, gases or solids which either singly or by interaction with other wastes are sufficient to create a public nuisance or hazard to life or are sufficient to prevent entry into the sewers for maintenance and repair.

6. Any substance which may cause the POTW's effluent or any other product of the POTW, such as residues, sludges or scums, to be unsuitable for reclamation and reuse or to interfere with the reclamation process. In no case shall a substance discharged to the POTW cause the POTW to be in non-compliance with sludge use or disposal criteria guidelines or regulations developed under Section 405 of the Act or any criteria, guidelines or regulations affecting sludge use or disposal developed pursuant to the Solid Waste Disposal Act, the Clean Air Act, the Toxic Substances Control Act or State criteria applicable to the sludge management method being used.

7. Any substance which will cause the POTW to violate its NPDES and/or State discharge permit or the receiving water quality standards.

8. Any wastewater with objectionable color not removed in the POTW treatment process such as, but not limited to, dye wastes and vegetable tanning solutions.

9. Any wastewater having a temperature which will inhibit biological activity in the POTW

treatment plant resulting in interference, but in no case wastewater with a temperature at the introduction into the POTW which exceeds forty degrees Celsius (40°C) or one hundred four degrees Fahrenheit (104°F).

10. Any pollutants, including oxygen demanding pollutants (BOD, etc.), released at a flow rate or pollutant concentration which a user knows or has reason to know will cause interference to the POTW. In no case shall a slug load have a flow rate or contain concentration or quantities of pollutants that exceed for any time period longer than fifteen (15) minutes more than five (5) times the average twenty-four (24) hour concentration, quantities or flow during normal operation.

11. Any wastewater containing any radioactive wastes or isotopes of such half-life or concentration as may exceed limits established by the Superintendent in compliance with applicable State or Federal regulations.

12. Any wastewater which causes a hazard to human life or creates a public nuisance.

B. When the Superintendent determines that a user is contributing to the POTW any of the above enumerated substances in such amounts as to interfere with the operation of the POTW, the Superintendent shall:

1. Advise the user of the impact of the contribution on the POTW; and

2. Develop effluent limitations for such user to correct the interference with the POTW. (Ord. No. 2401 §§1--2, 9-28-05)

SECTION 720.080: SPECIFIC POLLUTANT LIMITATIONS

No person shall discharge, based on a twenty-four (24) hour composite sample, wastewater containing the following dissolved pollutants in excess of the amounts indicated below:

Substance/Waste Chemical	Concentration Level Limit not to Exceed in mg/l in a 24-Hour Composite Sample	Monthly Average in (mg/l)
Aluminum	25.000	15.00
Ammonia (May 1--Sept. 30)	3.250	n/a
Ammonia (Oct. 1--April 30)	4.500	n/a
Arsenic	0.020	0.10
Barium	0.750	0.50
B.O.D.	300.000	n/a

Boron	2.500	2.50
Cadmium	0.014	0.26
Chlorine Demand	3.000	n/a
Chromium Hexavalent	0.015	0.10
Chromium Total	0.522	1.71
Chromium Trivalent	0.522	n/a
C.O.D.	500.00	n/a
Copper	0.435	2.07
Cyanide	0.035	0.65
Lead	0.134	0.43
Mercury	0.013	0.001
Nickel	0.117	2.38
Oil and Grease	100.000	100.00
pH Range	5.5--9.0	n/a
Phenol	0.500	n/a
Silver	0.070	0.24
Temperature	65 Degrees C	n/a
Total Suspended Solids	240.000	n/a
Total Toxic Organics	213.000	n/a
Zinc	1.141	1.48

(Ord. No. 2401 §§1--2, 9-28-05)

SECTION 720.090: DILUTION TO ACHIEVE COMPLIANCE

No user shall ever increase the use of process water or in any way attempt to dilute a discharge as a partial or complete substitute for adequate treatment to achieve compliance with the limitations contained in the Federal Categorical Pretreatment Standards or in any other pollutant-specific limitation developed by the City or State. (Ord. No. 2401 §§1--2, 9-28-05)

SECTION 720.100: ACCIDENTAL DISCHARGES

A. *Protection Against Required.* Each user, if required, shall provide protection from accidental discharge of prohibited materials or other substances regulated by Sections 720.010 through 720.210. Facilities or procedures to prevent accidental discharge of prohibited materials shall be provided and maintained at the owner's or user's own cost and expense. Detailed plans showing facilities and operating procedures to provide this protection shall be submitted to the City for review and the technology shall be approved by the City before construction of the facility. No significant industry or commercial permitted user who commences contribution to the POTW shall be permitted to introduce pollutants into the system until accidental discharge procedures have been approved by the City. Review and approval of such plans and operation procedures shall not relieve the industrial user from the responsibility to modify the user's facility as necessary to meet the requirements of Sections 720.010 through 720.210. In the case of an accidental discharge, it is the responsibility of the user to immediately telephone and notify the POTW of the incident. The notification shall include location of discharge, type of waste, concentration, volume and corrective actions.

B. *Written Report.* Within five (5) days following an accidental discharge the user shall submit to the Superintendent a detailed written report describing the cause of the discharge and the measures to be taken by the user to prevent similar future occurrences. Such notification shall not relieve the user of any expense, loss, damage or other liability which may be incurred as a result of damage to the POTW, fish kills or any other damage to person or property, nor shall such notification relieve the user of any fines, civil penalties or other liability which may be imposed by this Section or other applicable law.

C. *Notice To Employees.* A notice shall be permanently posted on the significant industry or commercial permitted user's bulletin board or other prominent place advising employees whom to call in the event of an accidental discharge in accordance with the SPCC (spill prevention control and countermeasures) plan of the permittee. Employees shall ensure that all employees who may cause such an accidental discharge to occur are advised of the internal notification procedure. (Ord. No. 2401 §§1--2, 9-28-05)

SECTION 720.110: MONITORING FACILITIES

A. The City may require to be provided and operated at the user's own expense monitoring facilities to allow inspection, sampling and flow measurement of the building sewer or internal drainage systems. The monitoring facility should normally be situated on the user's premises, but the City may, when such a location would be impractical or cause undue hardship on the user, allow the facility to be constructed in the public street or sidewalk area and located so that it will not be obstructed by landscaping or parked vehicles.

B. There shall be ample room in or near such sampling manhole or facility to allow accurate sampling and preparation of samples for analysis. The facility, sampling and measuring equipment shall be maintained at all times in a safe and proper operating condition at the expense of the user. Whether constructed on public or private property, the sampling and monitoring facilities shall be provided in accordance with the City's requirements and all applicable local construction standards and specifications. Construction shall be completed within one hundred twenty (120) days following written notification by the City. (Ord. No. 2401 §§1--2, 9-28-05)

SECTION 720.120: INSPECTION AND SAMPLING

A. The City may inspect the pretreatment facilities of any user to ascertain whether the purpose of Sections 720.010 through 720.210 is being met and all requirements are being complied with. Persons or occupants of premises where wastewater is created or discharged shall allow the City or their representatives ready access at all reasonable times to all parts of the pretreatment facilities for the purpose of inspection, sampling, records examination or in the performance of any of their duties. The City, State Department of Natural Resources and EPA shall have the right to set up on the user's property such devices as are necessary to conduct sampling, inspection, compliance monitoring and metering operations.

B. Where a user has security measures in force which would require proper identification and clearance before entry into his/her premises, the user shall make necessary arrangements with his/her security guards so that, upon presentation of suitable identification, personnel from the City, approval authority and EPA will be permitted to enter, without delay, for the purposes of performing their specific responsibilities.

C. While performing the necessary work on private properties, the representatives of the City, State Department of Natural Resources and EPA shall observe all safety rules applicable to the premises established by the industry. The industry shall be held harmless for injury or death to the representatives of the above-mentioned agencies, unless the injury was caused by the industry. Also such agencies shall indemnify the industry against loss or damage to its properties by representatives of such agencies and against liability claims and demand for personal injury or property damage asserted against the industry and growing out of the inspection and sampling operation, except as such may be caused by negligence or failure of the industry to maintain safe conditions. (Ord. No. 2401 §§1--2, 9-28-05)

SECTION 720.130: PRETREATMENT

A. Users shall provide necessary wastewater treatment as required to comply with Sections 720.010 through 720.210 and shall achieve compliance with all Federal Categorical Pretreatment Standards within the time limitations as specified by the Federal pretreatment regulations. Any facilities required to pretreat wastewater to a level acceptable to the City shall be provided, operated and maintained at the user's expense. Detailed plans showing the pretreatment facilities and operating procedures selected by the industry shall be submitted to the City for review of technology and shall be acceptable to the City before construction of the facility. The review of such plans and operating procedures will in no way relieve the user from the responsibility of modifying the facility as necessary to produce an effluent acceptable to the City under the provisions of Sections 720.010 through 720.210. Any subsequent changes in the pretreatment facilities or method of operation shall be reported to and be acceptable to the City prior to the user's initiation of the changes.

B. All records relating to compliance with pretreatment standards shall be made available to officials of the EPA or approval authority upon written request. (Ord. No. 2401 §§1--2, 9-28-05)

SECTION 720.140: WASTEWATER DISCHARGE AND CONTRIBUTION PERMITS

A. *Required.* All significant industrial users or commercial permitted users proposing to connect to or

to contribute to the POTW shall obtain wastewater discharge permits before connecting to or contributing to the POTW. All existing significant industrial users or commercial permitted users connected to or contributing to the POTW shall obtain wastewater contribution permits within one hundred eighty (180) days.

B. *Application.*

1. A user required to obtain a wastewater contribution permit shall complete and file with the City an application in the form prescribed by the City which shall be accompanied by a fee of twenty-five dollars ($25.00). Existing users shall apply for wastewater contribution permits within thirty (30) days and proposed new users shall apply at least ninety (90) days prior to connecting to or contributing to the POTW.

2. The City will evaluate the data on the permit application furnished by the user and may require additional information. After evaluation and acceptance of the data furnished, the City may issue a wastewater contribution permit subject to terms and conditions provided in Sections 720.010 through 720.210.

3. If additional pretreatment or operation and maintenance will be required to meet the pretreatment standards, the permit will detail the shortest schedule by which the user will provide such additional pretreatment. The completion date in this schedule shall not be later than the compliance date established for the applicable pretreatment standards. The following conditions shall apply to this schedule:

a. The schedule shall contain increments of progress in the form of dates for the commencement and completion of major events leading to the construction and operation of additional pretreatment required for the user to meet the applicable pretreatment standards, e.g., hiring an engineer, completing preliminary plans, completing final plans, executing contract for major components, commencing construction, completing construction, etc.

b. No increment referred to in Subsection (B)(3)(a) shall exceed nine (9) months.

c. Not later than fourteen (14) days following each date in the schedule and the final date for compliance, the user shall submit a progress report to the Superintendent including, as a minimum, whether or not the user complied with the increment of progress to be met on such date and, if not, the date on which the user expects to comply with this increment of progress, the reason for delay, and the steps being taken by the user to return the construction to the schedule established. In no event shall more than nine (9) months elapse between such progress reports to the Superintendent.

C. *Modifications.* Within nine (9) months of the promulgation of a national categorical pretreatment standard, the wastewater contribution permit of users subject to such standards shall be revised to require compliance with such standard within the time frame prescribed by such standard. Where a user, subject to a national categorical pretreatment standard, has not previously submitted an application for a wastewater contribution permit as required by Subsection (B), the user shall apply for a wastewater contribution permit within one hundred eighty (180) days after the promulgation of the applicable national categorical pretreatment standard. In addition, the user with an existing wastewater contribution permit shall submit to the Superintendent within one hundred eighty (180) days after the promulgation of an applicable Federal Categorical Pretreatment Standard detailed information of the nature and concentration of any pollutants and information on pretreatment if required.

D. *Conditions.* Wastewater discharge permits shall be expressly subject to all provisions of Sections 720.010 through 720.210 and all other applicable regulations, user charges and fees established by the City. Permits may contain the following:

1. The unit charge or schedule of user charges and fees for the wastewater to be discharged to a community sewer;

2. Limits on the average, maximum and minimum wastewater constituents and characteristics;

3. Limits on average and maximum rate and time of discharge or requirements for flow regulations and equalization;

4. Requirements for installation and maintenance of inspection and sampling facilities;

5. Specifications for monitoring programs which may include sampling locations, frequency of sampling, number, types and standards for tests and reporting schedule;

6. Compliance schedules;

7. Requirements for submission of technical reports or discharge reports (see Section 720.110);

8. Requirements for maintaining and retaining plant records relating to wastewater discharge as specified by the City and affording City access thereto;

9. Requirements for notification of the City of any new introduction of wastewater constituents or any substantial change in the volume or character of the wastewater constituents being introduced into the wastewater treatment system;

10. Requirements for notification of slug discharges; and

11. Other conditions as deemed appropriate by the City to ensure compliance with Sections 720.010 through 720.210.

E. *Duration.* Permits shall be issued for a specified time period, not to exceed five (5) years. A permit may be issued for a period less than a year or may be stated to expire on a specific date. The user shall apply for permit reissuance a minimum of one hundred eighty (180) days prior to the expiration of the user's existing permit. The terms and conditions of the permit may be subject to modification by the City during the term of the permit as limitations or requirements as identified in Sections 720.040 through 720.100 are modified or other just cause exists. The user shall be informed of any proposed changes in the permit at least thirty (30) days prior to the effective date of change. Any changes or new conditions in the permit shall include a reasonable time schedule for compliance as determined by the Superintendent.

F. *Transfer.* Wastewater discharge permits are issued to a specific user for a specific operation. A wastewater discharge permit shall not be reassigned or transferred or sold to a new owner, new user, different premises or a new or changed operation without the approval of the City. Any succeeding owner or user shall also comply with the terms and conditions of the existing permit.

G. *Variance.* Any industrial user or commercial permitted user may apply to the Superintendent for a

variance to the specific pollutant limitations set forth in Section 720.080. The permit variance shall be revoked upon the promulgation of the Federal Categorical Pretreatment Standards for sources in that subcategory if more stringent than the variance. The permit variance shall be revoked if the effluent from the POTW causes the stream standards to be exceeded for the pollutant for which the variance has been issued. Variances which have been revoked may be reissued at lower limitation upon approval of the Superintendent.

H. *Suspension.* The City may suspend the wastewater treatment service or a wastewater contribution permit when in the opinion of the City Water and Sewer Superintendent the permittee is violating the conditions of permit or the provisions of Sections 720.010 through 720.210. Any person notified of a suspension of the wastewater treatment service or the wastewater contribution permit shall eliminate the contribution within the time period specified by the City Water and Sewer Superintendent. In the event of a failure of the person to comply voluntarily with the suspension order, the City shall take such steps as deemed necessary, including immediate severance of the sewer connection. The City shall reinstate the wastewater contribution permit or the wastewater treatment service upon proof of the elimination of the non-complying discharge. A detailed written statement submitted by the user describing the causes of the harmful contribution and the measures taken to prevent any future occurrence shall be submitted to the City within fifteen (15) days of the date of occurrence.

I. *Revocation.* Any user having a permit who violates the following conditions or Sections 720.010 through 720.210 or applicable State and Federal regulations is subject to having his/her permit revoked:

1. Failure of a user to factually report the wastewater constituents and characteristics of the discharge;

2. Failure of the user to report significant changes in operations or wastewater constituents and characteristics;

3. Refusal of reasonable access to the user's premises for the purpose of inspection or monitoring;

4. Violation of conditions of the permit. (Ord. No. 2401 §§1--2, 9-28-05)

SECTION 720.150: REPORTING REQUIREMENTS FOR PERMITTEE

A. *Compliance Date Report.* Within ninety (90) days following the date for final compliance with applicable pretreatment standards or, in the case of a new source, following commencement of the introduction of wastewater into the POTW, any user subject to pretreatment standards and requirements shall submit to the Superintendent a report indicating the nature and concentration of all pollutants in the discharge from the regulated process which are limited by pretreatment standards and requirements, and the average and maximum daily flow for these process units in the user facility which are limited by such pretreatment standards or requirements. The report shall state whether the applicable pretreatment standards or requirements are being met on a consistent basis and, if not, what additional operation and maintenance or pretreatment is necessary to bring the user into compliance with the applicable pretreatment standards or requirements. This statement shall be signed by an authorized representative of the industrial user, certified by a qualified professional.

B. *Periodic Compliance Reports.* Any user subject to a pretreatment standard shall, after the compliance date of such pretreatment standard, or in the case of a new source, after commencement of the

discharge into the POTW, submit to the Superintendent during the months of June and December, unless required more frequently the pretreatment standard or by the Superintendent, a report indicating the nature and concentration of pollutants in the effluent which are limited by such pretreatment standards. In addition, this report shall include a record of all daily flows which during the reporting period exceed the maximum flow stated in the permit. At the discretion of the Superintendent and in consideration of such factors as local high or low flow rates, holidays, budget cycles, etc., the Superintendent may agree to alter the months during which the above reports are to be submitted. The Superintendent may impose mass limitations on users which are using dilution to meet applicable pretreatment standards or requirements, or in other cases where the imposition of mass limitations are appropriate. In such cases, the report required by this Section shall indicate the mass of pollutants regulated by pretreatment standards in the effluent of the user. These reports shall contain the results of sampling and analysis of the discharge, including the flow analysis of the discharge, including the flow and the nature and concentration or production and mass, where requested by the Superintendent, of pollutants contained therein which are limited by the applicable pretreatment standards. The frequency of monitoring shall be prescribed in the applicable pretreatment standard. All analysis shall be performed in accordance with procedures established by the approval authority pursuant to Section 304(g) of the Act and contained in 40 CFR, Part 136 and amendments thereto or with any other test procedures approved by the approval authority. (Ord. No. 2401 §§1--2, 9-28-05)

SECTION 720.160: CONFIDENTIAL INFORMATION

A. Information and data on a user obtained from reports, questionnaires, permit applications, permits and monitoring programs and from inspections shall be made available to the public or other governmental agency without restriction unless the user specifically requests and is able to demonstrate to the satisfaction of the City Water and Sewer Superintendent that the release of such information would divulge information, processes or methods of production entitled to protection as trade secrets of the user.

B. When requested by the person furnishing a report, the portions of a report which might disclose trade secrets or secret processes shall not be made available for inspection by the public but shall be made available upon written request to governmental agencies for uses related to Sections 720.010 through 720.210, the national pollutant discharge elimination system permit, State disposal system permit or the pretreatment programs; provided however, that such portions of a report shall be available for use by the State or any State agency in judicial review or enforcement proceedings involving the person furnishing the report. Wastewater constituents and characteristics will not be recognized as confidential information.

C. Information accepted by the City as confidential shall not be transmitted to any governmental agency or to the general public by the City until and unless a ten (10) day written notification is given to the authorized representative of the industrial user in person or by registered or certified mail, return receipt requested. (Ord. No. 2401 §§1--2, 9-28-05)

SECTION 720.170: FALSIFYING INFORMATION

Any person who knowingly makes any false statements, representation or certification in any application, record, report, plan or other document filed or required to be maintained pursuant to Sections 720.010 through 720.210 or a wastewater contribution permittee who falsifies, tampers with or knowingly renders inaccurate any monitoring device or method required under Sections 720.010 through 720.210 shall, upon conviction, be punished as provided in Section 100.190. (Ord. No. 2401 §§1--2, 9-28-05)

SECTION 720.180: VIOLATION -- NOTIFICATION OF USER

Whenever the City finds that any user has violated or is violating Sections 720.010 through 720.210, a wastewater contribution permit or any prohibition, limitation or requirements contained in Sections 720.010 through 720.210, the City may serve upon such person a written notice stating the nature of the violation. Within thirty (30) days of the date of the notice, a plan for the satisfactory correction of the violation shall be submitted to the City by the user. (Ord. No. 2401 §§1--2, 9-28-05)

SECTION 720.190: VIOLATION -- SHOW CAUSE HEARING

A. The City may order any user who causes or allows an unauthorized discharge to enter the POTW to show cause before the Board of Aldermen why the proposed enforcement action should not be taken. A notice shall be served on the user specifying the time and place of a hearing to be held by the Board of Aldermen regarding the violation, the reasons why the action is to be taken, the proposed enforcement action and directing the user to show cause before the Board of Aldermen why the proposed enforcement action should not be taken. The notice of the hearing shall be served personally or by registered or certified mail, return receipt requested, at least ten (10) days before the hearing. Service may be made on the authorized representative of the industrial user as detailed in the permit.

B. The Board of Aldermen may itself conduct the hearing and take the evidence or may designate any of its members or any officer or employee of the Wastewater Department to:

1. Issue in the name of the Board of Aldermen notices of hearings requesting the attendance and testimony of witnesses and the production of evidence relevant to any matter involved in such hearings.

2. Take evidence.

3. Transmit a report of the evidence and hearing, including transcripts and other evidence, together with reconsideration to the Board of Aldermen for action thereon.

C. At any hearing held pursuant to Sections 720.010 through 720.210, testimony taken must be under oath and recorded. The transcript so recorded will be made available to any member of the public or any party to the hearing upon payment of the usual charges thereof.

D. After the Board of Aldermen has reviewed the evidence, it may issue an order to the user responsible for the discharge directing that, following a specified time period, the sewer service be discontinued unless adequate treatment facilities, devices or other related appurtenances shall have been installed or existing treatment facilities, devices or other related appurtenances are properly operated. Further orders and directives as are necessary and appropriate may be issued. (Ord. No. 2401 §§1--2, 9-28-05)

SECTION 720.200: VIOLATION -- LEGAL ACTION

If any person discharges sewage, industrial wastes or other wastes into the City's wastewater disposal system

contrary to the provisions of Sections 720.010 through 720.210, Federal or State pretreatment requirements or any order of the City, the attorney for the City may commence an action for appropriate legal or equitable relief in the Circuit Court of the County, including its Municipal Division. (Ord. No. 2401 §§1--2, 9-28-05)

SECTION 720.210: VIOLATION -- CIVIL AND CRIMINAL PENALTIES

A. Any user who is found guilty of violating any order of the Board of Aldermen pursuant to Sections 720.010 through 720.210 or who willfully or negligently failed to comply with any provision of Sections 720.010 through 720.210, and the orders, rules, regulations and permits issued hereunder, shall be punished as provided in Section 100.190. In addition to the penalties provided for in this Section, the City may recover reasonable attorneys' fees, court costs, court reporters' fees and other expenses of litigation by appropriate suit at law against the person found to have violated Sections 720.010 through 720.210 or the orders, rules, regulations and permits issued hereunder.

B. The publicly owned treatment works (POTW), the City, shall have the authority to seek or assess civil or criminal penalties in at least the amount of one thousand dollars ($1,000.00) a day for each violation by industrial users of pretreatment standards and requirements. (Ord. No. 2401 §§1--2, 9-28-05)

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ARTICLE __. REGULATIONS FOR THE PROTECTION OF NATURAL WATERCOURSES

SECTION 405.___: PURPOSE

A. The purpose of the Regulations for the Protection of Natural Watercourses set forth in this Section is to implement the Land Use Objectives of the City's Master Plan that recognizes the importance of protecting the City's natural attributes and the importance of utilizing these natural attributes to retain and absorb stormwater runoff and prevent development practices that destroy these natural functions and threaten the health, safety and general welfare of the City's residents. The specific purposes of these standards are to:

1. Reduce flood impacts by absorbing peak flows, slowing the velocity of floodwaters and regulating base flow.

2. Benefiting the community economically by minimizing encroachment on natural watercourses and the need for engineering solutions; by reducing property damage and threats to safety of watershed residents; by contributing to the scenic beauty and environment of the community, and thereby preserving the character of the community, improving the quality of life of its residents, and increasing the value of their property;

3. Stabilize the banks of watercourses to reduce bank erosion and the downstream transport of sediments eroded from watercourses;

4. Provide infiltration of stormwater and runoff, and reducing impervious surfaces;

5. Reduce pollutants in watercourses during periods of high flows by filtering, settling and transforming pollutants already present in watercourses;

6. Restoring and maintaining the chemical, physical and biological integrity of the water resources;

7. Provide ~~high~~ quality watercourse habitats with shade and food to a wide array of wildlife by maintaining diverse and connected riparian vegetation;

8. Furnishing recreational opportunities; and

9. Allowing areas for natural watercourses to meander naturally, reducing infrastructure and property damage.

SECTION 405.___: SCOPE OF APPLICATION AND REQUIREMENTS

A Application

1. This Article shall apply to all lands within the city limits of the City of Wentzville.

2. This Article shall apply to all proposed development except for that development which meets waiver criteria as provided in this Article.

3. This Article shall not apply to land used primarily for agricultural or farming purposes with the following exception. Installation or removal of berms or dams across natural watercourses that are depicted on the most current United States Geological Survey 7.5 Minute Series (Topographic) Maps that cause the impoundment of stormwater is permitted only with the approval of the Board of Alderman. Installation or removal of berms or dams across natural watercourses that are not depicted on the most current United States Geological Survey 7.5 Minute (Topographic) Maps that cause the impoundment of stormwater is permitted only with the express written approval of the Director of Public Works.

4. Watercourses which are depicted on the City of Wentzville Watershed Protection Map shall also apply ~~and~~;

B. Requirements.

1. All natural watercourses depicted on the most current United States Geological Survey 7.5 Minute Series (Topographic) Maps, City of Wentzville's Watershed Protection Map ~~and jurisdictional waterways protected by the United States Army Corp of Engineers~~ shall be left in their natural state and shall be flanked by a riparian buffer meeting the requirements of this Article.

2. Within such riparian buffer, there shall be no clearing, grading, construction or disturbance of land except as permitted by Section 405.___.(Management and Maintenance of Riparian Buffer) of this Article.

3. Development along natural watercourses that are left in their natural states shall have residential, commercial or industrial improvements, parking areas, driveways and in all subdivisions, lot lines set back from the top-of-bank of the existing stream bank or the 10 year, 24 hour or 15 year, 20 minute water surface elevation, which ever is greater, where no established top of bank can be determined, except as permitted in this Article. In the case of subdivision plats, except as permitted in this Article, the watercourse and the above mentioned setback area shall be preserved and made the responsibility of the subdivision trustees. In the case of a subdivision zoned "A" ,"R-1A", "C-0", "C-1", "C-2", "C-3", "I-1", "I-2", "PD-C", or "PD-I" site plan, commercial, industrial, or

private site, the watercourse and the above-mentioned setbacks area shall be preserved and made the responsibility of the property owner, except as permitted in this Article.

4. Slopes adjacent to the top-of-bank of a natural watercourse with significant grade shall be left undisturbed and included within the riparian buffer or permanent drainage easement.

SECTION 405.___: PLAN REQUIREMENTS

A. A riparian buffer plan shall be submitted in conjunction with or as part of any grading plan, preliminary plat or site plan for any development (See Section 405.370 and Section 410.120) and the riparian buffer shall be clearly delineated on any grading plan or site plan.

B. The riparian buffer plan shall contain the following information:

1. A location or vicinity map;

2. Field-surveyed natural watercourses which are left in their natural state:

3. Field-surveyed riparian buffers adjacent to natural watercourses which are left in their natural state;

5. Proposed clearing or grading limits;

6. Limits of the 100-year floodplain and floodway as identified on the Official FIRM.

C. Boundary markers locating the boundaries of riparian buffers and the clearing/grading limits shall be installed prior to final approval of the required clearing and grading plan.

SECTION 405.___: MINIMUM STANDARDS FOR RIPARIAN BUFFERS

A. A riparian buffer for a natural watercourse which is left in its natural state shall consist of a vegetative strip of land extending landward along both sides of a natural watercourse.

B. The riparian buffer shall begin at the top of the bank of the natural watercourse.

C. For those sites where vegetation does not exist, developers or property owners shall vegetate the riparian buffer with herbaceous plants.

D. A minimum of twenty (20) feet access to the public roadway network of a project is required.

E. The widths of the riparian buffer shall be:

1. One hundred (100) feet landward along the main branch of the Peruque Creek, McCoy Creek, Little Dardenne Creek and Indian Camp Creek as identified by the City of Wentzville's Watershed Protection Map;

   a. In subdivisions zoned "A", "R-1A", "C-0", "C-1", "C-2", "C-3", "I-1", "I-2", "PD-C", and "PD-I" the buffer must be established as a permanent drainage easement or dedicate as common ground .

      1.) Covenants and restrictions must be established for the drainage easement or Common Ground, which comply with this Article to ensure the protection of the riparian buffer (Refer to Section 410.170).

   b. In subdivisions zoned "R-1B", "R-1C", "R-1D", "R-1E", "R-2", "R-3B", "R-3C", "PD-R", "PD-MXD" and "MHD" the entire 100 foot buffer must be dedicated as Common Ground.

      1.) Covenants and restrictions must be established for the Common Ground, which comply with this Article to ensure the protection of the riparian buffer (Refer to Section 410.170).

2. Fifty (50) feet landward along the secondary tributaries of watercourses identified by the City of Wentzville's Watershed Protection Map.

   a. In subdivisions zoned "A", "R-1A", "C-0", "C-1", "C-2", "C-3", "I-1", "I-2", "PD-C", and "PD-I" the buffer must be established as a permanent drainage easement or dedicate as common ground.

      1.) Covenants and restrictions must be established for the drainage easement or Common Ground, which comply with this Article to ensure the protection of the riparian buffer (Refer to Section 410.170).

   b. In subdivisions zoned "R-1B", "R-1C", "R-1D", "R-1E", "R-2", "R-3B", "R-3C", "PD-R", "PD-MXD" and "MHD" the entire 50 foot buffer must be dedicated as Common Ground.

      1.) Covenants and restrictions must be established for the Common Ground, which comply with this Article to ensure the protection of the riparian buffer (Refer to Section 410.170).

3. Twenty-five (25) feet landward along any other watercourse that are not defined above and appear on the United States Geological Survey 7.5 Minute Series (Topographic) Map, identified on the City of Wentzville's Watershed Protection Map ,and/or determined by the U.S. Army Corp of Engineers;

a. In subdivisions zoned "A", "R-1A", "C-0", "C-1", "C-2", "C-3", "I-1", "I-2" "PD-C", and "PD-I" the buffer must be established as a permanent drainage easement or dedicate as common ground.

1.) Covenants and restrictions must be established for the drainage easement or Common Ground, which comply with this Article to ensure the protection of the riparian buffer (Refer to Section 410.170).

b. In subdivisions zoned "R-1B", "R-1C", "R-1D", "R-1E", "R-2", "R-3B", "R-3C", "PD-R", "PD-MXD" and "MHD" the entire 25 foot buffer must be dedicated as Common Ground.

1.) Covenants and restrictions must be established for the Common Ground, which comply with this Article to ensure the protection of the riparian buffer (Refer to Section 410.170).

4. Additional buffering will be required for **pre-developed** slopes in excess of thirty percent (30%) or more **adjacent to** ~~within one hundred (100) feet landward of~~ the natural watercourses top-of-bank;

a. The riparian buffer or drainage easement shall extend landward from the top-of-bank, including the entire distance of the sloped area exceeding thirty percent (30%);

b. In cases were the required setback from the watercourse is more restrictive, the watercourses setback will take precedent.

SECTION 405.___: MANAGEMENT AND MAINTENANCE OF RIPARIAN BUFFER

A. The riparian buffer shall be managed to enhance and maximize its value and effectiveness. Management includes specific limitations on altering the natural conditions of the buffer. The following practices and activities are permitted only with the express written approval of the Director of Public Works:

1. Construction and maintenance of roads, bridges and utilities (including sanitary and storm sewers). The right-of-way shall be the minimum width needed to allow for maintenance access and installation. The angle of the right-of-way or utility crossing shall be perpendicular to the natural watercourse in order to minimize clearing requirements. Impacts within these areas are permissive upon application and preliminary and final plat and/or site plan approval for portions of residential lot development.

2. Paths, including hard-surface trails.

B. Buffer restoration projects approved by the Director of Public Works are permitted within the riparian buffer.

C. Water quality monitoring and stream gauging are permitted within the riparian buffer.

D. Trash and debris and individual trees within the riparian buffer that are in danger of falling on structures, causing damage to dwellings or other structures may be removed.

E. Material dredged or removed during development authorized under this Section shall be stored outside the riparian buffer.

F. All plats and all improvements plans shall clearly:

1. Show the boundaries of any riparian buffer on the subject property;

2. Provide a note to reference any riparian buffer stating: "There shall be no clearing, grading, construction or disturbance of vegetation except as permitted by Section 405.___ of the City of Wentzville's ordinances".

SECTION 405.___: WAIVER

The Director of Public Works or his/her designee may grant a waiver allowing the riparian buffer to be disturbed only in cases of public purpose and necessity or only upon the Director's approval of designed streambank or site-development erosion control measures.

SECTION 405.___: VIOLATIONS AND ENFORCEMENT

Refer to Article XIII

DEFINITIONS (to be added to Section 405.035 or 410.070)

100-YEAR FLOOD: See "*BASE FLOOD*".

BASE FLOOD: The flood having a one percent (1%) chance of being equaled or exceeded in any given year.

CITY OF WENTZVILLE WATERSHED PROTECTION MAP: Official map which delineates watercourses which are to be protected.

DRAINAGE EASEMENT: Land in which the public or the city has an easement devoted to, planned, proposed, or required for use as a public drainage system.

FLOOD INSURANCE RATE MAP (FIRM): An official map of a community, issued by the Administrator, where the boundaries of the flood areas having special hazard areas and the risk premium zones applicable to the community

FLOODPLAIN: Any land area susceptible to being inundated by water from any source.

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 (1) foot.

HERBACEOUS: Perennial plants which have stems and die at the end of the growing season. New growth forms from the roots, from underground stems or from crown tissue at the surface (i.e. grass).

IMPERVIOUS SURFACE: Any surface that cannot effectively absorb of infiltrate water. This may include roads, streets, parking lots, rooftops, sidewalks and other areas not covered by vegetation.

NATURAL WATERCOURSE: A channel formed in the existing surface topography of the earth prior to changes made by unnatural conditions.

RIPARIAN BUFFER: A vegetated buffer strip along and extends landward of a watercourse that filters storm water and provides wildlife habitat.

RIPARIAN VEGETATION: An association of plant species growing adjacent to freshwater courses, including perennial and intermittent streams, lakes, and other bodies of fresh water.

SIGNIFICANT GRADE: Grade which is in excess of thirty percent (30%).

TOPGRAPHIC MAP: A map showing all principal physical features of an area, including elevations.

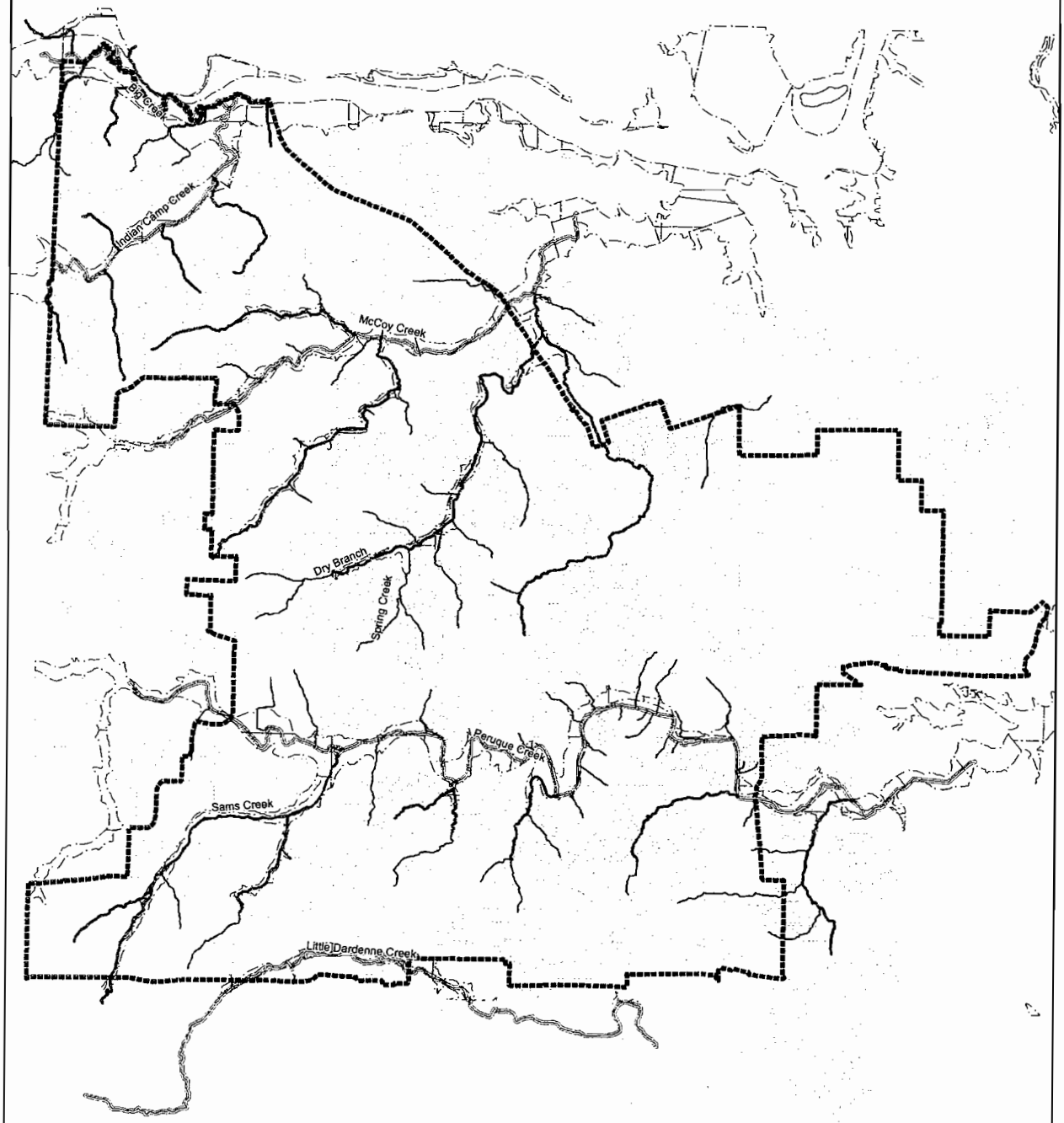
TOPOGRAPHY: The physical land surface relief describing the terrain elevation and slope.

WATERSHED: An area of land that drains into a particular watercourse, usually divided by topography.

Riparian Corridor

DRAFT

June 13, 2007



Legend

- Flood Plain
- Planning Boundary
- Parcels

Riparian Lines

- Creek Centerline
- 100 ft Buffer
- 50 ft Buffer
- 25 ft Buffer

0 1 2 4 Miles

Residential Solid Waste Collection Contract
(Relevant Sections)

can be resumed. The City Representative shall make an effort through the local news media to inform the public when regular services may be resumed. The clean-up from some events may require that the CONTRACTOR hire additional equipment, employ additional personnel, or work existing personnel on overtime hours to clean debris resulting from the event. The CONTRACTOR shall receive additional compensation, above the normal compensation contained in this Agreement, to cover the costs of rental equipment, additional personnel, overtime hours and other documented expenses, provided the CONTRACTOR has first secured written authorization and approval from the CITY through the City Representative.

SERVICE INQUIRIES AND COMPLAINTS

All service inquiries and complaints shall be directed to the City. A representative of the CONTRACTOR shall be available to receive the complaints during normal business hours. All service complaints will be handled by the CONTRACTOR in a prompt and efficient manner. In the case of a dispute between the CONTRACTOR and a Service Recipient, the matter will be reviewed and a decision made by the City Representative.

For those complaints related to missed Collections that are received by 3:00 p.m. on a Work Day, the CONTRACTOR will return to the Dwelling Unit address and Collect the missed materials before leaving the City for the day. For those complaints related to missed Collections that are received after 3:00 p.m. on a Work Day, the CONTRACTOR shall have until the end of the following Work Day to resolve the complaint. For those complaints related to repair or replacement of carts or bins, the appropriate sections of this Agreement shall apply. At the end of each Work Day the CONTRACTOR shall notify the City Representative with a response to each complaint which was received from a customer, or the CITY in the event the complaint was made by the CITY, during the preceding Work Day.

CONTRACTOR agrees that it is in the best interest of the CITY that all Residential Waste, Recyclable Materials and Yard Waste be Collected on the scheduled Collection day. Accordingly, missed Collections will normally be Collected as set forth above regardless of the reason that the Collection was missed. However, in the event a Service Recipient requests missed Collection service more than two (2) times in any consecutive two (2) month period the CITY will work with the CONTRACTOR to determine an appropriate resolution to that situation. In the event the CONTRACTOR believes any complaint to be without merit, CONTRACTOR shall immediately notify the City Representative. The City Representative will investigate all disputed complaints and render a decision.

QUALITY OF PERFORMANCE OF CONTRACTOR

CONTRACTOR acknowledges and agrees that one of CITY'S primary goals in entering into this Agreement is to ensure that the Collection Services are of the highest caliber and that Service Recipient satisfaction remains at the highest level to the extent possible.

CONTRACTOR shall assign a qualified supervisor to be in charge of the service within the City and shall provide the name of that person in writing to the City Representative within thirty (30) days of the execution of this Agreement, and annually by May 5 of each subsequent Agreement Year of the term of this Agreement, and any other time the person in that position changes. The supervisor shall be available to the City Representative through the use of telecommunication equipment at all times that

CONTRACTOR is providing services. In the event the supervisor is unavailable due to illness or vacation, CONTRACTOR shall designate an acceptable substitute who shall be available and who has the authority to act in the same capacity as the supervisor.

The Contractor shall provide the CITY with an emergency phone number where the supervisor can be reached outside of normal business hours.

Administrative Charges. It shall be the duty of CONTRACTOR to perform services under this Agreement in such a manner as to implement the goals set forth above. In the event CONTRACTOR fails to perform the specific services set forth below in this Agreement, CITY may assess an administrative charge against CONTRACTOR and may deduct such charges from any monies due or which may become due to CONTRACTOR in the following amounts:

a. Failure or neglect to resolve each complaint within the time set forth in this Agreement $50.00 per incident per Service Recipient
b. Failure to clean up spillage or litter caused by CONTRACTOR. $30.00 per incident per location
c. Failure to repair damage to customer property caused by CONTRACTOR or its' personnel. $50.00 per incident per location.
d. Failure to maintain equipment in a clean, safe, and sanitary manner. $50.00 per incident per day.
e. Failure to have a vehicle operator properly licensed. $50.00 per incident per day
f. Failure to maintain or timely submit to CITY all documents and reports required under the provisions of this Agreement. $50.00 per incident per day.
g. Failure to properly cover materials in Collection vehicles. $50.00 per incident
h. Failure to comply with the hours of operation as required by this Agreement. $50.00 per. incident per day.
i. Failure or neglect to complete at least 90 percent of each route on the regular scheduled Collection Day. $100.00 for each route not completed.
j. Changing routes without proper notification to the CITY Representative.$50.00 per incident per day.
k. Failure to deliver or exchange carts or bins within the time required by this Agreement.$10.00 per incident per day.
l. Failure to provide required communications equipment. $10.00 per incident per day.

Procedure for Review of Administrative Charges. The City Representative may assess administrative charges pursuant to this Agreement on a monthly basis. At the end of each month during the term of this Agreement, the City Representative shall issue a written notice to CONTRACTOR ("Notice of Assessment") of the administrative charges assessed and the basis for each assessment. The assessment shall become final, unless within ten (10) calendar days of the date of the Notice of Assessment, CONTRACTOR provides a written request for a meeting with the Director of Public Works ("Director") to present evidence that the assessment should not be made.

The City Representative shall schedule a meeting between CONTRACTOR and the Director, or the Director's designee, as soon as reasonably possible after timely receipt of CONTRACTOR'S request. The Director or the Director's designee shall review CONTRACTOR'S evidence and render a decision sustaining or reversing the administrative charges as soon as reasonably possible after the meeting. Written notice of the decision shall be provided to CONTRACTOR.

In the event CONTRACTOR does not submit a written request for a meeting within ten (10) days of the date of the Notice of Assessment, the City Representative's determination shall be final and CITY may deduct the administrative charges from amounts otherwise due to CONTRACTOR.

CITY'S assessment or collection of administrative charges shall not prevent CITY from exercising any other right or remedy, including the right to terminate this Agreement for CONTRACTOR'S failure to perform the work and services in the manner set forth in this Agreement.

PAYMENT WITHHELD

In addition to express provisions contained elsewhere in this Agreement, the CITY may withhold from any payment otherwise due the CONTRACTOR, such amount as determined necessary to protect the CITY'S interest, or if it so elects, may withhold or retain all or a portion of any monthly payment or refund payment on account of:

- Unsatisfactory progress of the work not caused by any condition beyond the CONTRACTOR'S control;
- Defective work not corrected;
- CONTRACTOR'S failure to carry out instructions or orders of the CITY or its' representative;
- Execution of work not in accordance with the Agreement documents;
- Claim filed by or against the CONTRACTOR, or reasonable evidence indicating probable filing of claims;
- Failure of the CONTRACTOR to make payments to any subcontractor for material or labor;
- Unsafe working conditions allowed to persist by the CONTRACTOR;
- Failure of the CONTRACTOR to provide route schedules and other reports as required by the CITY;
- Use of any subcontractors without the CITY'S prior written approval.

Payment. Upon the CONTRACTOR'S satisfactory remedy of the above-listed grounds for withholding payment, the CITY shall pay all withheld amounts within ten (10) Work Days. The CITY shall not be liable for interest on any delayed or late payment.

PERFORMANCE BOND

Within ten (10) calendar days from the date the Wentzville Board of Alderman approves this Agreement, the CONTRACTOR shall furnish to the CITY, and keep current, a Performance Bond in a form acceptable to the City, for the faithful performance of this Contract and all obligations arising hereunder in an amount as follows:

From ten days from the date of the award of the Agreement until December 31, 2003 and amount equal to twenty-five percent (25%) of the CONTRACTOR'S estimated annual gross revenue for the first year of the Agreement.

From January 1, 2004 through December 31, 2004 an amount equal to twelve percent (12%) of the CONTRACTOR'S estimated gross revenue for the first Agreement Year.

BMPs implemented by other entities
St. Charles County – Recycling Center

In This Section . . .

- Recycling Centers
- Recycling Companies
- Recycling Facts
- Buy Recycled
- Ways YOU Can Help
- Start a School Recycling Program

SUGGESTIONS ARE APPRECIATED
If you have any recommendations on improving our service or this site, please don't hesitate in contacting us. E-mail or call (636) 949-7415.

Printer Frier

Recycle Works - West

2110 E. Pitman Avenue • Wentzville, MO 63385
(636) 949-7415
click here for map

(Located on the north service road of I-70 halfway between the Lake St. Louis Blvd. and Hwy 40/61 north exits).

Monday through Saturday 8:30 a.m. to 4:30 p.m.
Closed Sundays and holidays.
Cash and checks accepted.

Recyclables accepted:

Aluminum

Keep cans, foil, and pie plates separate from sheeting, tubing, siding, windows, and doors, etc.

NOTE: Windows and doors MUST have glass removed.

Antifreeze

Accepted from residents only in non–returnable plastic containers no larger than three (3) gallon capacity. Limit ten (10) gallons per visit.

Appliances*

Washers, dryers, water heaters, trash compactors, dishwashers, ranges, stoves, air conditioners, refrigerators, furnaces and freezers. (*See also Microwaves.*)

NOTES: Please deliver refrigerators, air conditioners and freezers intact. Freon is removed by certified technicians and collected on site.

***FEES:** $15 per appliance, LIMIT 5. There is a $15 surcharge for devices with more than one compressor. Ask attendant for receipt.

Batteries

Rechargeable batteries and intact, used automotive batteries are accepted. For cracked or leaking batteries, call (636) 949-7900 ext. 4271 for chemical collections (appointmer required).

Cardboard

Corrugated cardboard. Material can be mixed with other paper and phone books.

Cartridges

Copier toner cartridges, computer printer ink jet cartridges and fax cartridges.

Clothing & Textiles

Used socks, hats, shoes, belts, purses, backpacks, t-shirts, coats, jackets, clothing, draperies, towels, sheets and bedspreads.

Computers & Peripherals

CPUs, key boards, computer mice, laptops, monitors*, scanners, copiers*, printers*, typewriters, and faxes. (*See also Cartridges and Electronics.*)

NOTES: LIMIT 5 computer systems per visit.

***FEES**: Per Ordinance No. 07-079, fees only apply to computer equipment that may have hazardous materials:

Computers & Peripherals:	**Recycle Works Fee:**
Monitors (CRTs) (19 inches or smaller)	$5
(20 inches or greater)	$10
Flat screen monitors (any size)	$5
Printers	
(0-25 pounds)	NO CHARGE
(26 pounds or greater)	$10
Copiers	
(desktop)	$10
(oversized)	$0.50 per pound
Other devices at facility discretion	$0.50 per pound

Electronics and Electric Devices

Electronics: TVs*, stereos, gaming systems, VCRs, DVDs, CDs, clock radios, cell phones, wireless headsets, chargers, batteries, ear buds, etc. (*See also Computers & Peripherals.*)

Electric devices: power tools, mixers, blenders, curling irons, vacuums, etc.

NOTES: You may choose to remove all personal information before dropoff, however be assured that ALL hard drives are shredded; none are resold. Cell phones are recycled as part of the Verizon Wireless HopeLine Program, where refurbished phones are donated to victims of domestic violence.

***FEES**: Per Ordinance No. 07-079, fees only apply to electronics that may have hazardous materials:

Electronics:	**Recycle Works Fee:**

Televisions	
(19 inches or smaller)	$5
(20 – 29 inches)	$10
(30 inches or larger)	$15
Other devices at facility discretion	$0.50 per pound

Glass Bottles and Jars

Remove lids, rinse out food and separate by color: clear, brown and green. No cookwar mirrors, dishes, or Pyrex® please.

Microwaves*

Accepted from residents only.

NOTES: Deliver microwave oven(s) intact.

***FEES**: $5 per microwave, per Ordinance No. 07-079. Ask attendant for receipt

Motor Oil

Accepted from residents only, in non-returnable plastic containers no larger than two (2 gallon capacity. Limit twenty (20) gallons per visit. Oil and transmission fluid can be mixed. If cleaning fluids or solvents are in the oil, please call (636) 949-7900 ext. 4271 for hazardous waste collection.

Paper / Mixed Fiber

The following can be mixed together: cardboard, phone books, newspaper, magazines, junk mail, envelopes, colored paper, manila envelopes, white office paper, message slip computer paper, cereal boxes, dry food boxes, etc.

Plastic

Look inside the recycling symbol: #1 – #7 is accepted (except styrofoam, six pack ring plastic bags and packaging). Includes soda bottles, milk jugs, detergent containers, clea plant pots and even five gallon buckets!

Telephone Books

Can be mixed with paper, newspapers, etc.

Tin Cans

Rinsed food cans only.

Transmission & Hydraulic Fluid

Accepted from individuals only, in non–returnable plastic containers no larger than two (2) gallon capacity. Limit ten (10) gallons per visit. If cleaning fluids or solvents are mixed with it, please call (636) 949-7900 ext. 4271 for hazardous waste collections (appointment required).

For curbside recycling or yard waste collection service, contact your city hall or a licensed trash hauler. All trash hauling companies are required by county ordinance to offer curbside collection, regardless of where you live.

**All material becomes the property of the County. We reserve the right to not accept or stop receiving any items listed at any t and without advance notice.*

Printer Frier

In This Section . . .

- Recycling Centers
- Recycling Companies
- Recycling Facts
- Buy Recycled
- Ways YOU Can Help
- Start a School Recycling Program

SUGGESTIONS ARE APPRECIATED
If you have any recommendations on improving our service or this site, please don't hesitate in contacting us. E-mail or call (636) 949-7415.

Recycle Works - Central

60 Triad South Drive • St. Charles, MO 63304
(636) 949-7415
Click here for a map.

New Operating Hours for RWC:
Tuesday through Saturday 8:30 a.m. to 4:30 p.m.
Closed Sundays and holidays.
Cash and checks accepted.

***NEW**: On a trial basis, Recycle Works Central now accepts paint and other chemicals without an appointment on certain days/times! Please see "Household Chemicals" below.

Recycle Works Central complements curbside recycling programs by accepting hard to handle items typically not collected at your curb*:

Household Chemicals (April through October)

Accepted:

Aerosols	Herbicides	Sealants
Antifreeze	Oil/Filters	Solvents
Batteries	Paint/Stain	Thermometers
Brake fluid	Pesticides	Thermostats
Poison	Transmission fluid	
Gas/Fuel	Pool chemicals	

Not accepted:

Business/Government waste	Medical wastes	Radioactive wastes
Explosives/Ammunition	Pressurized gas tanks	Tires

NOTES: St. Charles County residents only! Limits may apply; proof of residency required.

RWC now accepts paint and other chemicals without an appointment (see Instructions below)! If this is not convenient, appointments can be made to accommodate your schedule by calling (636) 949-7900, ext. 4271.

Learn how to tell if a product is hazardous and get safer alternatives to common hazardous products.

Instructions for Chemical Collections:

1. April through October, bring items to Recycle Works Central Tuesday through Friday from 9:00-11:00 am. Paint ONLY will be accepted on Saturdays from 9:00-11:00am).
2. HOW TO PACK YOUR WASTE
   - Do not mix wastes.
   - Leave material in its original container, with the label intact.
   - Items not in original packaging should be clearly labeled with contents. Mixed waste in plastic bags will NOT be accepted.
   - Be sure the lid is secure.
   - Place the product inside a box lined with newspaper (fill gaps to prevent spills during transport).
   - Place in the trunk of your vehicle.
3. AT THE COLLECTION Please remain in your vehicle at all times for your safety.

Antifreeze

Accepted from residents only in non-returnable plastic containers.

Appliances*

Washers, dryers, water heaters, trash compactors, dishwashers, ranges, stoves, air conditioners, refrigerators, furnaces and freezers. (*See also Microwaves.*)

NOTES: Please deliver refrigerators, air conditioners and freezers intact. Freon is removed by certified technicians and collected on site.

***FEES:** $15 per appliance, LIMIT 5. There is a $15 surcharge for devices with more than one compressor. Ask attendant for receipt.

Batteries

All intact, used batteries are accepted, including rechargeable, alkaline, automobile batteries, etc. For cracked or leaking car batteries, call (636) 949-7900 ext. 4271 for hazardous waste collections (appointment required).

Cardboard

Corrugated cardboard. Keep materials separate from paper.

Cartridges

Toner cartridges, ink jet cartridges and fax cartridges.

Clothing & Textiles

Used socks, hats, shoes, belts, purses, backpacks, t-shirts, coats, jackets, clothing, draperies, towels, sheets and bedspreads.

Computers & Peripherals

CPUs, key boards, computer mice, laptops, monitors*, scanners, copiers*, printers*, typewriters, and faxes. (*See also Cartridges and Electronics.*)

NOTES: LIMIT 5 computer systems per visit.

***FEES**: Per Ordinance No. 07-079, fees only apply to computer equipment that may have hazardous materials:

Computers & Peripherals:	Recycle Works Fee:
Monitors (CRTs) (19 inches or smaller)	$5
(20 inches or greater)	$10
Flat screen monitors (any size)	$5
Printers	
(0-25 pounds)	NO CHARGE
(26 pounds or greater)	$10
Copiers	
(desktop)	$10
(oversized)	$0.50 per pound
Other devices at facility discretion	$0.50 per pound

Electronics and Electric Devices

Electronics: TVs*, stereos, gaming systems, VCRs, DVDs, CDs, clock radios, cell phones, wireless headsets, chargers, batteries, ear buds, etc. (*See also Computers & Peripherals*.)

Electric devices: power tools, mixers, blenders, curling irons, vacuums, etc.

NOTES: You may choose to remove all personal information before dropoff, however be assured that ALL hard drives are shredded; none are resold. Cell phones are recycled as part of the Verizon Wireless HopeLine Program, where refurbished phones are donated to victims of domestic violence.

***FEES**: Per Ordinance No. 07-079, fees only apply to electronics that may have hazardous materials:

Electronics:	Recycle Works Fee:
Televisions	
(19 inches or smaller)	$5
(20 – 29 inches)	$10
(30 inches or larger)	$15
Other devices at facility discretion	$0.50 per pound

Light Bulbs

All types of residential light bulbs are accepted at no charge.

The following commercial light bulbs are accepted (fees per Ordinance No. 07-079):

Type of Bulbs:	Recycle Works Fee:
Fluorescent tubes* (straight)	$0.25 per foot
U-tube, circular, compact fluorescent	$0.50 each
HID, mercury, halide, sodium	$1.50 each
Shatter-Shield, Power Groove	$1.50 each
Incandescent, quartz, halogen	$0.50 each
Ultraviolet, arc lamps	$3.00 each

***Fluorescent bulbs presented for recycling may be refused at the discretion of the facility. Total charges for commercial establishments dropping off bulbs will be rounded up to the next whole dollar.**

Microwaves*

Accepted from residents only.

NOTES: Deliver microwave oven(s) intact.

***FEES**: $5 per microwave, per Ordinance No. 07-079. Ask attendant for receipt

Motor Oil

Accepted from residents only, in non-returnable plastic containers no larger than two (2 gallon capacity. Limit twenty (20) gallons per visit. Oil and transmission fluid can be mixed. If cleaning fluids or solvents are in the oil, please call (636) 949-7900 ext. 4271 for hazardous waste collections.

Paper/Mixed Fiber

Newspaper, magazines, junk mail, envelopes, colored paper, manila envelopes, white office paper, message slips, computer paper, cereal boxes, dry food boxes, etc.

NOTES: Material can be mixed together. If you need help, please consult with attendant.

Telephone Books

Separate from paper and cardboard.

Transmission & Hydraulic Fluid

Accepted from individuals only, in non-returnable plastic containers no larger than two (2) gallon capacity. Limit ten (10) gallons per visit. If cleaning fluids or solvents are mixed with it, please call (636) 949-7900 ext. 4264 for hazardous waste collections.

For curbside recycling or yard waste collection service, contact your city hall or a licensed trash hauler. All trash hauling companies are required by county ordinance to offer curbside collection, regardless of where you live.

**All material becomes the property of the County. We reserve the right to change fees, not accept, or stop accepting any item listed at any time and without advance notice.*