

**STORMWATER  
MANAGEMENT PLAN  
MARSHALL, MO**

**June 2013-June 2018**

Prepared By:



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**FOR MARSHALL, MO**

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**PART I  
CITY OF MARSHALL  
BACKGROUND**

## **City of Marshall Background**

### Information on the Permittee:

Name of the Permittee: City of Marshall, Missouri  
Type of Entity: City – Municipality  
Total Area (acres): 10.28 sq. miles  
Mailing Address: 1277 South Odell Avenue, Marshall, MO 65340  
Primary Contact: Bill Anderson – Director of Municipal Services  
Phone Number: 660-886-3945  
Secondary Contact: Marie Fowler – Assistant Director of Municipal Services  
Phone Number: 660-886-3945  
Population (2010): 13,065

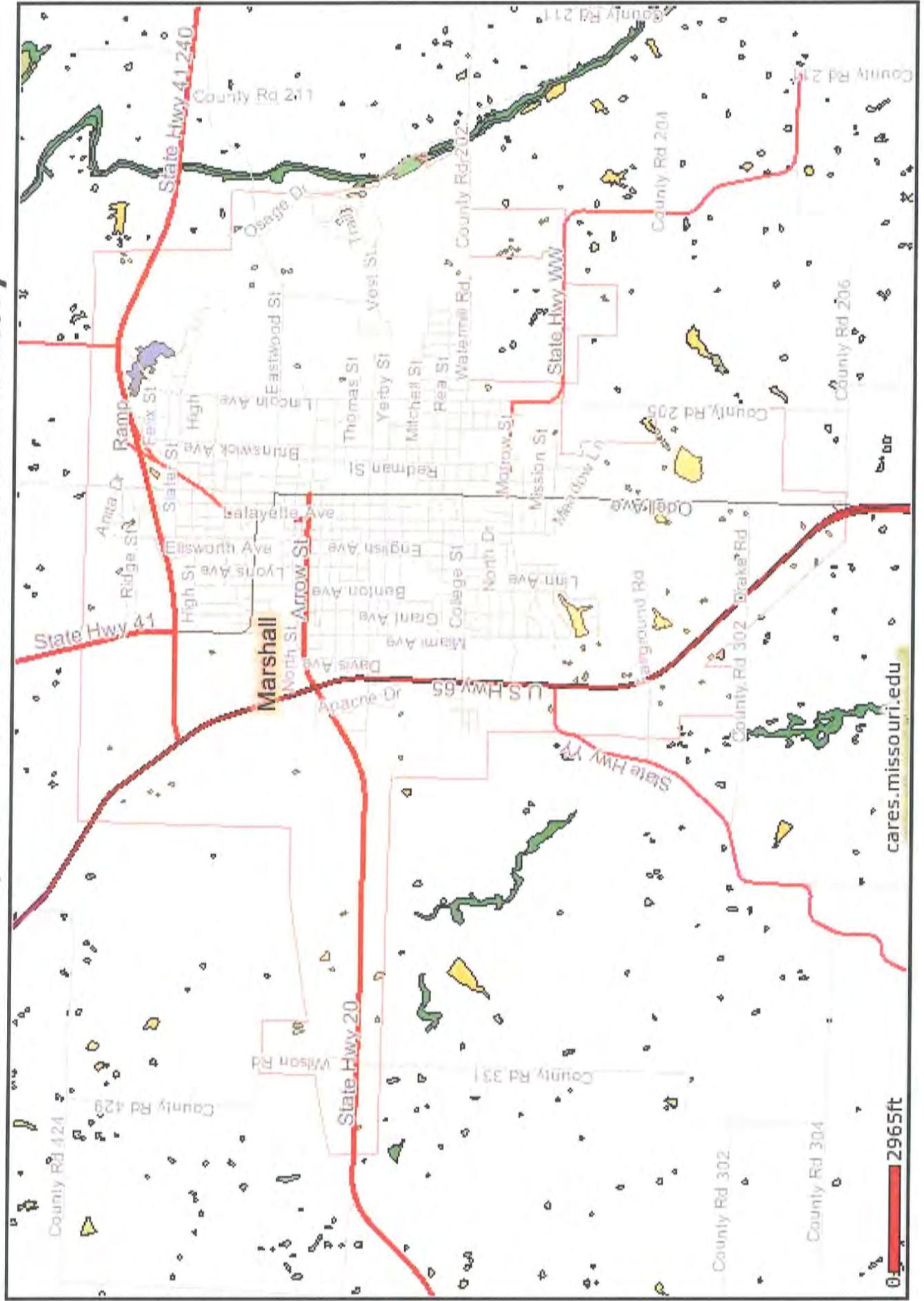
### Information on the Municipal Separate Storm Sewer System:

MS4 System Location: Marshall, Missouri  
Name of Organization: City of Marshall, Missouri  
County Permittee Resides: Saline County  
The major receiving waters within the permitted area include: North Fork of Finney Creek and Salt Fork  
None of the receiving waters are on the latest CWA's list of impaired waters.

### Information on Adjacent Waterways:

The Permittee is within 100 feet of: North Fork of Finney Creek and Salt Fork  
The Permittee discharges to waters classified as major reservoirs: None  
The Permittee has some area defined as wetlands as identified by the National Wetland Inventory. See attached map.  
Stormwater from Marshall does not discharge to a sinkhole.

# Marshall, MO - National Wetland Inventory



## Legend

### MoDOT Roads and Highways, 2007

-  Interstate
-  U.S. Highway
-  State Numbered Highway
-  State Lettered Highway
-  Principal Road
-  Road or Street

### Incorporated Areas, 2007

-  City
-  Town
-  Village
-  Census Designated Place
-  Other

### National Wetlands Inventory

-  Inland Aquatic Bed
-  Inland Forested Wetland
-  Inland Herbaceous Wetland
-  Inland Shrub Swamp
-  Lower Perennial River
-  Upper Perennial River
-  Intermittent River
-  Lake (Shallow)
-  Lake (Deep)
-  Pond
-  Pond (Drawdown)
-  Other Vegetated Wetland

## Locator Map



Map prepared by:  
<http://cares.missouri.edu>,  
4/19/2013

**PART II  
MINIMUM  
CONTROL  
MEASURES**

## **1. Public Education and Outreach**

### **1.1 Regulatory Requirement**

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

### **1.2 Target pollutants**

The following is a list of the target pollutants for the public education and outreach program. The pollutants are expected to be found in the permitted area based on research of typical substances found in municipal stormwater:

1. Suspended solids
2. Oil and grease
3. Pesticides/Herbicides
4. Bacteria/Nutrients/Oxygen-depleting substances
5. Habitat alterations
6. Salinity (salt)
7. Litter/Trash

### **1.3 Target audiences**

During the development of the proposed education program, Marshall identified the sources of stormwater pollutants that needed to be reduced to improve overall water quality. The target audiences were selected because changing their behavior would have a significant stormwater quality impact on the target pollutants. The target audiences for the public education program are:

1. Citizens (Homeowners)
2. Developers and Home Builders
3. Business Owners
4. Children
5. Elected Officials
6. City Staff

### **1.4 Selected BMPs for Public Education and Outreach**

#### **1.4.1 Stormwater Web Page**

The City of Marshall has selected the use of a web page for implementation as part of this Stormwater Management Program. The City maintains a web page with stormwater education information on the City's web site. The page includes general stormwater information, conveys actions citizens can take to improve stormwater quality, solicits input on the program plan, and has direct links to the stormwater ordinances and guidance documents. The website will be reviewed annually to determine if any updates are needed.

#### 1.4.2 Brochures

The City of Marshall has selected brochures for implementation as part of this Stormwater Management Program.

The City developed a general information brochure on stormwater management. These educational materials are available at various municipal locations including Municipal Services and City Hall. They will be replenished as needed. The approximate number of brochures printed and distributed will be reported annually.

#### 1.4.3 Public Presentations

The City of Marshall has selected the use of public presentations for implementation as part of this Stormwater Management Program. This will allow the message to be tailored to specific audiences. It will be integrated into the program through coordination with various schools, civic organizations, service clubs and other opportunities as they arise. The City will complete at least one public presentation annually.

The number of presentations, approximate number of attendees and the topic of each presentation will be reported annually.

#### 1.4.4 Public Access Televisions (Channel 10)

The City of Marshall has selected posting information on the public access cable television station for implementation as part of this Stormwater Management Program. This will allow the messages to reach a wider variety and volume of people. The City will run information on the channel at least twice each year. Staff will tailor messages to tie into different seasons and/or outreach activities.

The number of times information is posted and the topic of each posting will be reported annually.

#### 1.4.5 Press Release/Advertisements

The City of Marshall has selected issuing press releases or including stormwater information on paid advertisements for implementation as part of this Stormwater Management Program. This will allow the messages to reach a wider variety and volume of people. The City will include stormwater information on paid advertisements and/or issued in press releases at least three times each year. Staff will tailor messages to tie into different seasons and/or outreach activities.

The number of times press releases issued or advertisements purchased and the topic of each will be reported annually.

#### 1.4.6 Utility Bill Announcements/Inserts

The City of Marshall has selected inserting information in utility bills for implementation as part of this Stormwater Management Program. This will allow the messages to reach a wider variety and volume of people. The City will include stormwater information with utility bills at least twice each year. Staff will tailor messages to tie into different seasons.

The number of times information is included and the topic of each message will be reported annually.

#### 1.4.7 Chamber of Commerce Correspondence

The City of Marshall has selected distributing information through the Chamber of Commerce weekly email updates and quarterly reports for implementation as part of this Stormwater Management Program. This will allow the City to distribute to the widest audience possible.

Staff will put stormwater education information in the Chamber correspondence regularly. The number of stormwater tips or articles published will be reported annually.

#### 1.4.8 Distribute Educational Materials at Community Event

The City of Marshall has selected distributing educational materials at a community event for implementation as part of this Stormwater Management Program. This will allow the City to distribute to the widest audience possible. Staff will distribute stormwater education materials at least twice per year at community events. Historically, this has occurred at the spring Home Show and the Santa Fe Trail Days in the fall.

The annual report will indicate at which event(s) staff distributed information, the approximate number of attendees at the event and the type of information distributed.

#### 1.4.9 Door Hangers

The City of Marshall has selected door hangers for implementation as part of this Stormwater Management Program. This will allow the City to distribute to the widest audience possible. At this time, door hangers are distributed in relation to the storm drain marking program and grass/leaf ordinance enforcement.

At least until all storm drains are marked, door hangers will continue to be utilized as part of this program. After this program is completed, the use of door hangers will be reviewed to determine if it is feasible to continue their use in another capacity. The approximate number of door hangers distributed will be reported annually.

#### 1.4.10 Maintain Dog Waste Disposal Signage in Parks

The City of Marshall has selected maintaining educational signage regarding dog waste disposal within the Parks system for implementation as part of this Stormwater Management Program. This provides a direct message of desired actions to reduce stormwater pollution.

These stations and their associated signage will be regularly inspected to ensure that they have not been vandalized or removed. Additional signs will be added if additional stations are installed.

#### 1.4.11 Storm Drain Stenciling/Marking

The City of Marshall has selected storm drain stenciling/marketing for implementation as part of this Stormwater Management Program. This provides a direct message of desired behavior (i.e. "No Dumping").

The number of storm drains marked or stenciled with the anti-dumping message will be reported annually.

#### 1.4.12 Distribution of Children's Activity Books and Other NPS Pollution Reduction Message "Doo Dads"

The City of Marshall has selected the distribution of children's activity books and other NPS pollution reduction message "doo dads" for implementation as part of this Stormwater Management Program. The City has an active Stream Team and utilizes the various giveaway products provided by this program to encourage NPS pollution reduction.

The number and types of giveaway items distributed will be reported annually.

## 2. Public Involvement in Stormwater Management Program Development

### 2.1 Regulatory Requirement

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

### 2.2 Public Notice/Target Audiences

The City of Marshall will comply with state and local public notice requirements when implementing the public involvement/participation program. The public will be included in reviewing and implementing the stormwater management program as much as possible. The target audiences for the public involvement program are the same as those listed in Section 1.3.

### 2.3 Selected BMPs for Public Involvement

#### 2.3.1 Existing Public Meetings

The City of Marshall has selected inviting public input through existing meetings for implementation as part of this Stormwater Management Program. There is an open public comment period at each City Council meeting where citizens are allowed input on any City issue. Additionally, development and redevelopment issues as they relate to stormwater are discussed at the Planning and Zoning hearings. The City Council typically has meetings twice a month and the Planning and Zoning hearings are typically held monthly. The number of meetings where stormwater input is received will be reported annually. Also, new and re-developments are reviewed in an open public meeting by the Subdivision Advisory Board.

#### 2.3.2 Public Input on SWMP

The City of Marshall has selected requesting public input on this SWMP for implementation as part of this Stormwater Management Program. This BMP allows for direct public involvement and participation in the development of the SWMP.

The draft SWMP was made available at City Hall. It was then presented at an advertised public hearing prior to a City Council meeting on May 6, 2013 and public comment invited at that time.

No comments were received from the public. The Council then adopted the plan by resolution. The final draft of the SWMP will be posted on the City web site for the public to make further comment on the program at any time within the permit cycle.

### 2.3.3 Community Group Activities

The City of Marshall will continue to work with various community groups to perform implementation of the Stormwater Management Plan. In the past, these volunteer groups have included Missouri Valley College students, Cargill employees, etc. These groups have worked on storm drain stenciling, litter pick-up, etc. Several hundred people typically volunteer each spring for the "Take Pride in Marshall" litter pickup event.

Staff will continue to work with these groups to leverage their manpower to implement the stormwater program. A summary of the types of activities completed and approximate number of people involved will be provided in the annual report.

### **3. Illicit Discharge Detection and Elimination**

#### **3.1 Regulatory Requirement**

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

#### **3.2 Storm Sewer System Map**

The City of Marshall developed a storm sewer system map, showing the location of all outfalls and the names and locations of all water of the U.S. that receive discharges from those outfalls. It is evolving from a paper map to a GIS-based map that integrates additional GIS data such as aerial photography, etc. that is available. The data was collected by city staff on paper and is being incorporated into the GIS.

The map is updated as the system expands (as-builts received) or as discrepancies with field information are discovered.

#### **3.3 Illicit Discharge Detection and Elimination Ordinance**

The City of Marshall passed an illicit discharge detection and elimination ordinance on December 1, 2008. This ordinance can be found in Article III of Chapter 33 in the City Code. A copy of the entire stormwater ordinance is included in Appendix A. The ordinance will be reviewed at the end of the permit cycle to determine if any updates are needed.

#### **3.4 Plan to Detect and Address Illicit Discharges**

##### **3.4.1 Procedure for Locating Priority Areas for Screening**

The City of Marshall inspects all outfalls negating the need for prioritization of the screening. If prioritization is ever needed due to

limited resources, a desktop exercise can be completed to review the subdrainage areas and determine those most likely to produce illicit discharges. Alternatively, past inspection records could be reviewed to prioritize based on historical evidence.

#### 3.4.2 Dry Weather Field Screening

The City of Marshall will conduct dry weather field screening of all outfalls each year. These outfall inspections may be coordinated with the community group activities discussed in Section 2.3.4. The number of outfall inspections completed and any findings of illicit discharge evidence will be reported annually.

#### 3.4.3 Investigate cross-connection of sanitary and storm sewer systems

The City of Marshall will continue to investigate cross-connection of the sanitary sewer system through CCTV inspection. This work will be coordinated with the City's wastewater inflow and infiltration (I&I) reduction program. The lineal feet of sanitary and/or storm sewer lines inspected will be reported annually.

#### 3.4.4 On-Site Sewage Treatment

The City of Marshall has identified 79 on-site sewage treatment systems within its jurisdictional limits. These sites will be visually inspected to determine if any pose a risk of pollution due to insufficient wastewater treatment prior to discharge to the MS4. A list of these locations and a summary of any inspections conducted will be included in the annual report.

#### 3.4.4 Procedures for Tracing Source

The City of Marshall will continue to utilize its storm sewer system map to trace the source of any illicit discharges that are discovered.

#### 3.4.5 Procedures for Removing Source

The City of Marshall will utilize the enforcement mechanisms within its adopted ordinance to remove the source of any illicit discharges discovered where the responsible party can be identified. Municipal Services or Public Safety staff (depending on the nature of the source) will remove the source of any illicit discharges discovered where the responsible party cannot be identified.

#### 3.4.6 Plan to Ensure Enforcement

The City of Marshall will develop a written Enforcement Response Plan in the first permit year. This plan will document the exact work process from the receipt of information from the public or discovery

of an illicit discharge through investigation and the removal of the source. It will include identification of the responsibilities of any staff involved in the process. It will also include enforcement escalation as necessary.

The number of illicit discharges detected, investigated and eliminated will be reported annually.

#### 3.4.7 Public/Employee Education

The City of Marshall has developed a public education effort to inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste. This has included distribution of informational door hangers during storm drain marking events (in addition to the marking itself). This information is also included in the stormwater education brochures and on the web site. This BMP also addresses the minimum control measure for public education. See Section 1 for additional details.

#### 3.4.8 Household Hazardous Waste (HHW) Collection Program

The City of Marshall will continue to encourage its citizens to participate in the HHW collection program in order to prevent these materials from becoming illicit discharges. The public education program will further advertise these options for proper disposal of HHW. Generally, at least one HHW collection event will be held during the permit cycle.

### **3.5 *Non-Stormwater/Incidental Flows***

#### 3.5.1 Addressing Non-Stormwater Flows

The City of Marshall does not currently see the need to address the following non-stormwater flows into their MS4: landscape irrigation, rising ground waters, uncontaminated ground water infiltration, 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, flows from street wash water, and flows from emergency fire- fighting activities. These flows are not considered significant contributors of pollutants to the MS4.

#### 3.5.2 Addressing Incidental Non-Stormwater Flows

The City of Marshall does not currently see the need to address incidental non-stormwater flows into their MS4 (such as non-

commercial or charity car washes). These flows are not considered significant contributors of pollutants to the MS4.

### **3.6 *Industrial/Commercial Facilities***

The City of Marshall is not currently required to inventory and inspect industrial or commercial facilities. However, the illicit discharge ordinance gives them the authority to do so if this becomes a permit requirement.

## 4. Construction Site Stormwater Controls

### 4.1 Regulatory Requirement

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

### 4.2 Selected BMPs for Construction Site Stormwater Controls

#### 4.2.1 Construction Site Runoff Control Ordinance

The City of Marshall adopted an erosion and sediment control ordinance on December 1, 2008. The ordinance can be found in Article IV of Chapter 33 of the City Code. A copy of the ordinance is included in Appendix A.

The ordinance was recently reviewed and updates will need to be made to more specifically identify when a Stormwater Pollution Prevention Plan (SWPPP) is required. This, and any other related amendments, will be made in the first year of the permit cycle.

The ordinance will be reviewed again at the end of the permit cycle to determine if any additional changes are needed. Also, the ordinance will be modified if any changes in the federal or state general permits for construction occur during the period of this permit (i.e. numeric limits).

#### 4.2.2 Construction Site Waste Control

The City of Marshall recently reviewed its stormwater ordinance and discovered that it did not address construction site waste other than sediment. The City will amend its stormwater ordinance to include construction waste control measures within the first year of the

permit. A copy of the ordinance revisions will then be added to Appendix A. The ordinance will be reviewed again at the end of the permit cycle to determine if any changes are needed.

#### 4.2.3 Pre-Construction Plan Review

The City of Marshall has selected plan review for implementation as part of this Stormwater Management Program. All development and re-development projects disturbing greater than one acre will be evaluated for the potential impact to water quality and comments provided to minimize the potential for discharge of pollutants from the site.

The number of plans reviewed for water quality impacts will be reported annually.

#### 4.2.4 Receive Public Input on Construction Projects

The City of Marshall has selected receiving public input for implementation as part of this Stormwater Management Program. This BMP coordinates with MCM #2 and can be integrated into existing activities through receipt of information from the public at the existing Subdivision Advisory Board meetings, Planning and Zoning hearings and City Council meetings. Additional input can be received less formally through the City web site and at the designated phone number and mailing address.

Information about construction site runoff control will be integrated into the public education program as feasible. This may increase the input received from the public on construction projects.

A summary of the input from the public on construction projects will be included in the annual report.

#### 4.2.5 Construction Site Inspections

The City of Marshall has selected construction site inspections for implementation as part of this Stormwater Management Program. Inspection procedures were developed during the previous permit cycle. All development and re-development projects disturbing greater than one acre (other than those which are infrastructure construction projects) will be inspected at least six times during the construction process. The inspection records are kept in the Building Inspector's office at City Hall. Inspection records on infrastructure projects are kept in the Director's office at Municipal Services.

The number of construction site inspections completed will be reported annually.

#### 4.2.6 Ensuring Compliance (Enforcement)

The City of Marshall's stormwater ordinance has a detailed outline of the process that will be followed for enforcement including escalation as necessary. It includes the use of verbal and written notifications, stop work orders, permit revocations, and deeming the violation a nuisance if abatement is necessary.

The number of construction site runoff control enforcement actions taken will be reported annually.

## **5. Post Construction Stormwater Management for New Development/ Redevelopment**

### **5.1 Regulatory Requirement**

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

### **5.2 Priority Areas for Post-Construction Program**

The City of Marshall considers any area that may be developed or re-developed a “priority area” for the post-construction stormwater management program. However, in the entire last permit cycle (possibly longer), there was only one small (3 lot) subdivision and two stand-alone sites developed.

### **5.3 Selected BMPs for Post Construction Stormwater Management for New Development/Redevelopment**

The City of Marshall has developed a strategy to minimize water quality impacts of new and redevelopment (disturbing greater than one acre). Currently, these requirements require the mimicking of the predevelopment runoff release rate. This plan includes the following Best Management Practices:

#### **5.3.1 Ordinance to address post-construction management**

The City of Marshall adopted a post-construction stormwater management ordinance on December 1, 2008. This code can be found in Chapter 33 (primarily Article II) of the City Code. A copy of this ordinance is included in Appendix A. This ordinance included provisions for stormwater quantity.

The ordinance will be reviewed during the first year of the permit cycle and additional water quality protection requirements added as needed to better meet the permit requirements.

#### 5.3.2 Plan for Long Term Operation and Maintenance of Post-Construction BMPs

The City of Marshall recently reviewed its stormwater ordinance and discovered that it did not include specific requirements for long term operation and maintenance of post-construction stormwater BMPs. The ordinance does have provisions to authorize the inspection of post-construction stormwater BMPs. It also included enforcement mechanisms if violations are found.

The City will amend its stormwater ordinance to include long term operation and maintenance of stormwater BMPs within the first year of the permit. A copy of the ordinance revisions will then be added to Appendix A. The ordinance will be reviewed at the end of the permit cycle to determine if any changes are needed.

Also during the first permit year, the City will develop an inventory of post-construction BMPs and identify the responsible parties for each. Post-construction BMPs will be inspected annually. Results of these inspections and a summary of enforcement actions taken will be reported annually.

#### 5.3.3 Non-structural BMPs

The City of Marshall will utilize its planning and development codes to direct growth to identified areas, maintain or increase open space, minimize impervious surfaces, minimize soil/vegetation disturbance, encourage infill development, encourage the redevelopment of brownfield and grayfield sites, and improve site design for overall water quality impact.

The stormwater management ordinance passed on December 1, 2008 included stream buffer requirements. A buffer of 25 feet is required along all streams (indicated by blue lines on the USGS quadrangle maps) for all new and redevelopments (where feasible) disturbing more than one acre.

The number of new and redevelopments submitted for review utilizing these non-structural BMPs will be reported annually.

The public education and outreach program will include elements of post-construction stormwater management and source control/good housekeeping where feasible. Any specific educational efforts will be reported annually.

#### 5.3.4 Structural BMPs

The City of Marshall adopted a stormwater management ordinance on December 1, 2008. At the same time, the City adopted by reference APWA design standards for stormwater management structures. The APWA standards currently address quantity control practices such as detention and retention. During the first year of the permit cycle, the ordinance and associated design standards will be reviewed and amendments made to better address water quality objectives. A copy of the revised ordinances will be added to Appendix A upon completion.

The number of new and redevelopments submitted for review utilizing these structural BMPs will be reported annually.

## 6. Pollution Prevention/Good Housekeeping for Municipal Operations

### 6.1 Regulatory Requirement

**40 CFR 122.34 (b)(6) Develop and implement an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations.**

### 6.2 List of Municipal Operations

Per the permit requirement, the City of Marshall is implementing Good Housekeeping practices in all municipal operations that can reasonably be expected to impact water quality. The City of Marshall's municipal operations as they relate to the MS4 permit and program include the management and maintenance of:

- Parks and Open Space
- Other Municipally-Owned Recreational Facilities
- Roads and Streets
- Municipal Fleet (Vehicles and Equipment)
- Vehicle and Equipment Yards
- Municipal Buildings
- Municipal Parking Lots
- Storm Sewer System
- Salt/Sand Storage Areas
- Solid Waste Collection
- Wastewater Collection and Treatment Systems\*
- Drinking Water Treatment and Distribution Systems\*
- Electric Production and Distribution Systems\*
- Natural Gas Distribution Systems\*
- Internet Service Distribution Systems\*

\* Operations managed by Marshall Municipal Utilities (MMU) which is a municipally owned and operated entity which is quasi-separate from the City of Marshall corporate entity.

Additionally, any construction or land disturbance undertaken by City crews or by contractors to the City would be considered "municipal operations".

Note: Marshall Municipal Utilities holds a NPDES permit (#MO-0032883) for their WWTP located at 2232 Watermill Road. This site has 3 permitted outfalls listed in the permit. A copy of this list of outfalls is included in Appendix B. Also included in Appendix B is a copy of the outfall map and list for the MS4 permit (#MO-40062).

### **6.3 Selected BMPs for Municipal Operations**

#### **6.3.1 MS4 Maintenance (including proper management of waste removed from MS4)**

The City of Marshall will operate and maintain its municipal separate storm sewer system (MS4) in order to reduce pollutants discharged from the MS4 to the maximum extent practicable. Municipal Services staff will inspect storm sewers and inlets/catch basins as they conduct their other routine duties. They will clean out pipes and structures from debris and any other pollutants discovered during these inspections. Litter removed from the MS4 will be disposed of in dumpsters. Other floatables and grit will be disposed of according to solid waste management standards.

Metrics related to the operation and maintenance of the MS4 will be collected (i.e. Number of catch basins inspected and/or cleaned, lineal feet of pipe inspected and/or cleaned, man hours spent cleaning ditches, etc) and reported annually.

#### **6.3.2 Streets/Parking Lot Pollution Control**

The City of Marshall will operate and maintain its street system and municipally owned parking lots in a manner to reduce pollutants discharged to the MS4 to the maximum extent practicable. Municipal Services staff will perform regular street and parking lot sweeping. Litter will be picked up as staff and volunteer resources are available.

Metrics related to the streets/parking lot pollution control will be collected (i.e. Number of hours spent street sweeping, number of times parking lots are cleaned, number of man hours spent picking up litter, etc) and reported annually.

#### **6.3.3 Pollution Control for Maintenance/Storage Yards**

The City of Marshall will operate and maintain its municipal maintenance and storage yards in a manner to prevent and/or reduce pollutants discharged from the sites to the MS4 to the maximum extent practicable.

The following is a list of these maintenance and storage yards:

- Municipal Services: 1277 S. Odell Avenue

- Municipal Services: 875 W. North Street
- Municipal Utilities: NW corner of Hwy 65/Hwy 20
- Municipal Utilities: NE corner of Eastwood/Grant
- Municipal Utilities: 200 Block N. Benton
- Parks and Recreation: 1538 East Vest Street
- Municipal Golf Course (managed by Parks and Recreation): 1536 E. Watermill Road

These sites will follow general Good Housekeeping practices related to outdoor storage. They will be inspected annually to review the need for additional site specific BMPs. The results of these inspections will be included in the annual report.

#### 6.3.4 Pollution Control for waste transfer stations

The City of Marshall provides solid waste collection. Currently, there is not a waste transfer station within the MS4 jurisdictional boundary. However, there is one that is in the planning stages to be located at 505 S. Hemlock Avenue. Pollution control will be incorporated into this facility's plan. Once this location is in use, it will be inspected regularly for stormwater pollution. A summary of these inspections will be included in the annual report.

#### 6.3.5 Pollution Control for Fleet and Maintenance Shops

The City of Marshall will operate and maintain its municipal fleet and maintenance shops in a manner to prevent and/or reduce pollutants discharged from these sites to the MS4 to the maximum extent practicable.

Fleet maintenance shops are located at:

- Municipal Services: 1277 S. Odell Avenue
- Municipal Utilities: NW corner of Hwy 65/Hwy 20
- Parks and Recreation: 1538 East Vest Street
- Fire Station: 471 W. Arrow (in truck bay)

Note: Police Department utilizes commercial vehicle maintenance shops for their fleet.

These sites will follow general Good Housekeeping practices. They will be inspected annually to review the need for additional site specific BMPs related to fleet maintenance. The results of these inspections will be included in the annual report.

### 6.3.6 Pollution Control for Salt/Sand Storage

The City of Marshall will operate and maintain its salt/sand storage area in a manner to prevent and/or reduce pollutants discharged from the sites to the MS4 to the maximum extent practicable. Deicing materials are kept at the Municipal Utilities storage yard at Grant/Eastwood. Currently, the materials are stored uncovered. However, a containment berm minimizes the discharge of pollutants from this storage area.

The site will follow general Good Housekeeping practices throughout the year. Additionally cleanup and inspections of the storage area will be conducted after snow events. These sites will be reviewed annually to determine the need for additional site specific BMPs. The results of these inspections will be included in the annual report.

### 6.3.7 Solid Waste Control

The City of Marshall will manage solid waste on and within municipally owned facilities to prevent and/or reduce pollutants discharged from these sites to the MS4 to the maximum extent practicable. This will include trash removal from City rights-of-way, buildings, open space, etc. Solid waste will be properly stored in dumpsters with lids until it can be disposed of by Municipal Services.

### 6.3.8 Pollution Control for Fueling Operations

The City of Marshall will operate and maintain its municipal fueling facilities in a manner to prevent and/or reduce pollutants discharged from these sites to the MS4 to the maximum extent practicable. The following is a list of all locations where there are fuel storage tanks greater than or equal to 55 gallons:

- Municipal Services – 1275 Odell Avenue
- Airport – 1945 Odell Avenue
- Municipal Service Storage – 875 W. North Street
- Park Maintenance Shed (by Osage Field)
- Golf Maintenance Shed (by #7 Tee Box)
- Golf House – 1536 E. Watermill Road
- Parks Equipment Shop – behind 1538 E. Eastwood
- Fire Department - 471 W. Arrow
- Marshall Municipal Utilities (MMU) – Power Plant

- MMU Wastewater Treatment Plant
- MMU Water Treatment Plant

Smaller fuel cans are also stored at many of these locations for use in fueling smaller equipment. A complete list of all tanks greater than or equal to 55 gallons is listed in Appendix C.

City staff will follow general Good Housekeeping practices as they relate to storage and dispensing of fuel. Fuel storage and dispensing locations will be inspected annually to determine if any additional BMPs are necessary. The results of these inspections will be included in the annual report.

#### 6.3.9 RCRA/CERCLA Substance Management

The City of Marshall will manage hazardous substances that fall under the RCRA/CERCLA regulations.

#### 6.3.10 Paints/Solvents Management

The City of Marshall will manage paints and solvents in a manner to prevent and/or reduce pollutants discharged to the MS4 to the maximum extent practicable. This will apply to any area where these products are stored (maintenance shops) or used.

City staff will follow general Good Housekeeping practices in the storage and use of these products. Paint and solvent storage areas will be inspected annually to determine if any additional BMPs are necessary. The results of these inspections will be included in the annual report.

#### 6.3.11 Petroleum/Petroleum Waste Products Management

The City of Marshall will manage petroleum and petroleum waste products in a manner to prevent and/or reduce pollutants discharged to the MS4 to the maximum extent practicable. This will apply to any area where these products are stored or used including the various locations where fleet maintenance activities occur and transformers throughout the MMU service area. A list of all petroleum and petroleum product locations is included in Appendix C.

City staff will follow general Good Housekeeping practices in the storage and use of petroleum and petroleum waste products. Storage areas will be inspected annually to determine if any additional BMPs are necessary. The results of these inspections will be included in the annual report. Approximate quantities of used oil that is recycled (burned to heat Municipal Services maintenance shop) will also be reported annually.

#### 6.3.12 Water Quality Impacts of Flood Control Projects

The City of Marshall will ensure 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. New flood management projects completed by private developers must follow the post-construction stormwater management ordinance which requires the treatment of the water quality storm. The City of Marshall rarely completes new flood management projects. However, in the event that one is scheduled on the capital projects list, the City will review the plans to determine if the water quality storm has been effectively treated. Any information related to new or retrofitted flood management projects will be included in the annual report.

### **6.4 Employee Training**

The City of Marshall will provide training to employees related to Good Housekeeping in Municipal Operations at least once each year. Historically, stormwater tips have been included in the safety meetings with one safety meeting each year dedicated to stormwater quality protection topics. Stormwater quality protection “tips” are also included with employee paychecks approximately three times each year. This reaches all of the approximately 125 City employees.

In the first year of the permit cycle, the City will develop information to be provided to all new employees related to stormwater quality management. This information will be provided to all new employees at their orientation.

A summary of the number of employees trained and the topics discussed will be included in the annual report.

## **7. General Rationale**

### ***7.1 Decision Process***

The City of Marshall reviewed the General Permit requirements and selected each of the BMPs after reviewing research from notable sources such as the EPA and the Center for Watershed Protection. Programs from other communities were also examined. Various BMPs were selected based on the evidence that they will have a positive impact on targeted pollutants. City staff also examined each BMP for how it could fit into existing activities and mechanisms. The SWMP will be made available for public inspection and comment upon completion.

### ***7.2 Responsible Person***

The person responsible for the overall management and implementation of the permittee's stormwater management program is the City Administrator. Others will be involved in the execution of each of the individual activities in the program.

### ***7.3 Evaluation***

The City of Marshall will report annually on the level of achievement toward all measurable goals. Where applicable, metrics will be documented. Qualitative anecdotal evidence will also be documented where possible.

**APPENDIX A:  
STORMWATER ORDINANCES**

ORDINANCE NO. 7856

AN ORDINANCE ENACTING CHAPTER 33 OF THE CODE OF ORDINANCES OF THE CITY OF MARSHALL, MISSOURI RELATING TO THE MANAGEMENT OF STORM WATER.

BE IT ORDAINED by the Council of the City of Marshall, Missouri, as follows:

Section 1. That there is hereby enacted Chapter 33 as an addition to the Code of Ordinances of the City of Marshall, Missouri, as hereinafter set forth.

CHAPTER 33

STORMWATER MANAGEMENT

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ARTICLE I. GENERAL

**Section 33-100 Intent and Purpose.**

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

**Section 33-110 Responsibility for Administration**

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

**Section 33-120 Definitions.**

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

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

City. The City of Marshall, Missouri.

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

Clearing. Any activity which removes the vegetative surface cover.

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

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

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

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

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

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

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

Drainage Way. Any channel that conveys surface runoff.

Erosion Control. Measures that prevent erosion.

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

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

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

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

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

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

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

**Improvement.** A structure on or other alteration of land.

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

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

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

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

**Natural Stream.** For the purposes of this chapter natural stream shall be defined as a water course containing an ordinary high water mark most typically indicated as either a dashed (intermittent) or solid (perennial) blue line on the USGS 7.5 minute quadrangle maps.

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

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

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

**Person.** A natural person, corporation, partnership or other entity.

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

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

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

Riparian Buffer. An area of land adjacent to a waterway or wetland area, predominantly indicated by vegetation tolerant to occasional inundation or that thrive in close proximity to water. Native vegetation tends to be more dense than in upland areas. The intended purpose of the buffer is to protect water quality through filtration and infiltration, minimize the effects of stream bank erosion and enhance flood protection. After the riparian buffer is platted, the area designated on the plat as the riparian buffer shall be substituted for this definition.

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

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

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

Start of Construction. The first land-disturbing activity associated with a development, including land preparation such as clearing, grading and filling; installation of streets and walkways; excavation for basements, footings, piers or foundations; erection of temporary forms; and installation of accessory buildings such as garages.

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

Stormwater. Any surface flow, runoff, and drainage consisting entirely of water from any form of natural precipitation (such as rain or snow), and resulting from such precipitation.

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

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

Swale. A relatively wide, shallow ditch used to carry stormwater runoff.

Unimproved land. Land in its natural state.

Variance. A grant or relief to a person from the requirements of this article which permits construction in a manner otherwise prohibited by this article where specific enforcement would result in unnecessary hardship.

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

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

#### Section 33-130 Limitations on Liability.

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

**Section 33-140 Conditions, Interpretations, Conflict, Separability.**

A. Conditions. Regulation of stormwater drainage and the attachment of reasonable conditions thereto is an exercise of the valid police power delegated by the State of Missouri to the City. Property owners have the duty of compliance with reasonable policies, regulations, standards and conditions established by the City for design, construction, improvement and restrictive use of the land so as to conform to the physical and economical development of the City, and to promote the health, safety and general welfare of the community at large.

B. Interpretation. The provisions of this chapter shall be the minimum requirements for the protection of the public health, safety and general welfare.

C. Conflict. Conflict with public and private provisions:

1. Public provisions. Where any provision of this chapter imposes restrictions different from those imposed by any other law or regulation, whichever is more restrictive or imposes a higher standard shall control.

2. Private provisions. This chapter is not intended to abrogate any easement, covenant or any other private agreement or restriction; provided, that where the provisions of this chapter are more restrictive or impose higher standards or regulations that such easement, covenant, or other private agreement or restriction, the requirements of this chapter shall govern.

D. Separability. The provisions and sections of this ordinance shall be deemed to be separable, and the invalidity of any portion of this ordinance shall not affect the validity of the remainder.

**Section 33-150. Access to the facilities.**

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

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

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

**Section 33-160 Violations and Penalties.**

In addition to any specific penalties set forth in individual articles, any person found guilty of violating the provisions of this chapter, shall upon conviction be fined not less than one dollar (\$1) and 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, or other appropriate authority, from taking such other lawful action as is necessary to prevent or remedy any violation.

Where a violation is declared a nuisance, all policies and procedures set forth in Chapter 17 shall apply.

**ARTICLE II. STORMWATER MANAGEMENT**

**Section 33-200 General Requirements.**

**A. Design Criteria**

1. Storm Drainage Systems and Facilities: The design procedures stipulated in the KC-APWA 5600 shall be followed insofar as it is applicable. Written justification for all deviations must be prepared and submitted in accordance with the variance procedures set forth in this chapter.

2. Erosion and Sediment Control: The design procedures stipulated in the latest edition of the KC-APWA 5100 shall be followed insofar as it is applicable. Written justification for all deviations must be prepared and submitted in accordance with the variance procedures set forth in this chapter.

B. Standard Drawings: The City Standard Details, as amended from time to time, as well as the Kansas City Metro Chapter of the American Public Works Association, Division 5300, Standard Drawings (KC-APWA 5300) shall be referenced as necessary for design and construction. When the two documents conflict, the City of Marshall Standard Details shall rule.

C. Plan Requirements: Plans shall include all drawings, narratives and computations as outlined in KC-APWA 5100 and 5600.

D. Drainage onto sidewalks. Tributary areas where sidewalks exist or are proposed, and which drain across a public sidewalk, must not exceed three thousand (3,000) square feet of impervious area, including roofs discharging upon paved areas, or nine thousand (9,000) square feet of sodded areas, or in proportional amounts for a combination of such areas. Paved, roofed or other impervious areas exceeding three thousand (3,000) square feet shall be provided with drains for discharge into storm conduits, channels, or street gutters.

E. Downspouts. Downspouts shall not be discharged directly onto sidewalks or entrance ways. When downspouts are connected to the gutterline of the street or the public drainage system, they shall be connected by a method approved by the City. Downspouts shall not discharge within the building setback unless there is a drainage swale established to carry the water to the front or rear of the property or closest natural drainage course. Downspouts may also discharge within the building setback if discharging into a rain garden, rain barrel or other stormwater best management practice.

F. Flow toward streets. Any concentration of surface flow in excess of two (2) cubic feet per second (cfs) for the ten-year frequency rain shall be intercepted before reaching the street right-of-way and shall be carried by a storm drain to connect with a drainage structure at the low point in the street right-of-way or to discharge to a watercourse.

G. Parking lots and garages. Adequate provisions shall be made for the disposal of stormwater from parking lots and garages. Plans shall be submitted for approval to the City to ensure measures are taken to limit the flow of water onto adjoining property or adjacent sidewalks or streets in a quantity that would be detrimental to or inconvenient to persons using the streets or sidewalks.

H. Natural Stream Protection On Developments Platted after January 1, 2008.

1. Natural streams shall be buffered by a twenty-five (25) foot riparian buffer zone plus an additional twenty-five (25) foot building setback. The riparian buffer zone shall be measured from the ordinary high water mark and the building setback shall be measured from the edge of the riparian buffer zone.

2. Riparian buffer zones shall remain undisturbed to the maximum extent practicable. This zone prohibits any land disturbance, clearing, grubbing, or any other construction activities except as necessary for utility construction and road access. Such construction shall minimize disturbance of the stream and riparian buffer zone. Naturally occurring vegetation within the riparian buffer zone shall not be removed, diminished, inhibited, mowed or substantially altered from its natural state or growth.

3. Adjustments in widths of the riparian buffer zone or adjacent building setback may be made when approved by the Subdivision and Development Advisory Board when local conditions justify deviation from the standard widths.

4. Wherever the designated riparian buffer zone must be disturbed, mitigation measures shall be taken to re-establish vegetative filtration and stream stabilization to the maximum extent practicable.

Section 33-210 Permit Required.

A. No stormwater drainage facility shall be constructed, altered or reconstructed without first obtaining approval of plans for said facility. All such construction shall comply with the general requirements and design procedures, as set forth in this chapter, and the criteria of the KC-APWA 5600.

B. No clearing, grading, borrowing or filling of land shall be done without an approved grading plan and issuance of a land disturbance permit. All such work shall also comport with an approved erosion and sediment control plan. No permit may be issued pursuant to this subsection for clearing, grading, borrowing or filling of land on tracts greater than one (1) acre except in conjunction with a building permit issued in accordance with the provisions of Chapter 7 of

the Code of the City of Marshall, Missouri, or in conjunction with a land disturbance permit. Every approval under this subsection for clearing, grading, borrowing or filling of land not in conjunction with a building permit shall expire within one (1) year from the date of issuance. No approval is required for the following activities:

1. Any emergency activity which is immediately necessary for the protection of life, property or natural resources.
2. Existing nursery and agricultural operations conducted as a permitted main or accessory use.
3. Minor construction that does not substantially alter the lay of the land or increase the impervious surface by more than 10%.

C. The City Administrator or his/her designee shall promulgate rules and regulations governing the issuance of the permits required by this section.

D. Duties of property owners and developers; detailed plan required.

1. Prior to the issuance by the City of a building permit for any type of construction, the property owner, the developer or their agent shall have a drainage plan approved by the City in accordance with this chapter. The property owner, developer or their agent shall, at his own expense, submit necessary plans, designs and specifications to the City for review and approval along with a land disturbance permit application on a form provided by the City.
2. Provisions of this section for plan requirement shall be waived provided no land is disturbed and no trees, shrubs, grass or vegetation is destroyed or removed for construction, reconstruction, repair or alteration of any building provided the improvement does not alter or increase the flow of water.

E. Review and approval

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

F. Modifications to the plan

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

Sec. 33-220. Developments.

A. Restriction of runoff. The City may require that storm drainage systems for tributary areas upstream of existing storm drainage facilities include on-site stormwater detention facilities limiting the peak discharge to that which would have occurred for the existing land use type prior to a zoning change or prior to development of the area. The City may waive such requirements for detention facilities when the developer makes satisfactory arrangements to improve or provide a downstream drainage system of adequate hydraulic capacity for peak rates of discharge to the system, including discharge from the developer's site, to a point downstream where the rate of total runoff from the site is ten

(10) percent or less of the total runoff rate conveyed by the downstream system measured at the time of system peak rate. The City at its option may allow downstream system improvements, detention and/or fees in-lieu-of construction that provide the same level of control.

B. Alternative improvements. In reviewing petitions for variances from the requirements of this section, the City will consider alternative improvements or types of improvements proposed by developers which the City deems to be equivalent for the purpose of stormwater management.

#### Section 33-230. Construction requirements.

A. Location of structures. In addition to any other requirements set forth by ordinance for construction in designated flood hazard areas, the following restrictions for construction adjacent to all watercourses and other drainage facilities shall apply:

1. No house or building and no other structure shall be constructed within fifty (50) feet of the ordinary high water mark of a watercourse or other drainage facility nor shall any such structure be constructed with openings at an elevation below four (4) feet above the highest bank of a watercourse or top of other drainage facilities which traverse or are adjacent to the parcel being developed.
2. The City may vary the above requirements upon visiting the building site and/or reviewing plans for construction should such revisions not diminish the overall intent of this chapter.

B. Existing storm drains. No cuts shall be made nor fill deposited over existing storm drains nor shall existing storm drains be altered without the approval of the Department of Municipal Services.

#### Section 33-240 Easements and maintenance.

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

B. Maintenance.

1. Public Stormwater Improvements. Maintenance of stormwater sewers, lined drainage channels, detention facilities and related facilities located within public drainage easements shall be the responsibility of the City.

2. Natural Channels. The City may undertake all maintenance activities, deemed necessary, of natural watercourses and other unlined drainage channels located within public drainage easements; however, assumption of such maintenance activities does not relieve the property owner of the responsibility for normal maintenance including debris removal, cutting of vegetation, repair of erosion and removal of silt.

3. Private Stormwater Improvements. Maintenance of stormwater facilities located on private property and not within any public drainage easements shall be the responsibility of the property owners and shall include debris removal and cleaning, cutting of vegetation, repair of erosion, removal of silt and maintenance of structural facilities.

4. Private Detention Facilities.

a. Responsibilities. Owners of land containing private detention facilities shall maintain the facility as it was designed in order to continue the mitigation of the stormwater impacts. This maintenance shall include removal of overgrown vegetation, repair of erosion, repairs to any inlet/outlet structures, and removal of excess silt or any other maintenance deemed necessary to provide the design storage capacity.

b. Nuisance declared. Failure to provide necessary maintenance shall be deemed a nuisance.

c. Stormwater Pollution Prevention. Any owner or operator of a commercial or industrial establishment shall provide, at their own expense, reasonable protection from accidental discharge

of prohibited materials or other wastes into the municipal storm drain system or watercourses through the use of structural and non-structural BMPs. Further, any person responsible for a property or premise, which is, or may be, the source of an illicit discharge, may be required to implement, at said person's expense, additional structural and non-structural BMPs to prevent the further discharge of pollutants to the municipal separate storm sewer system. Compliance with all terms and conditions of a valid NPDES permit authorizing the discharge of storm water associated with industrial activity, to the extent practicable, shall be deemed compliant with the provisions of this section. These BMPs shall be part of a stormwater pollution prevention plan (SWPPP) as necessary for compliance with requirements of the NPDES permit.

**Section 33-250 Interference and damage.**

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

**Section 33-260 Inspection.**

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

**Section 33-270 Remedial work.**

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

**ARTICLE III. ILLICIT DISCHARGE DETECTION AND ELIMINATION**

**Section 33-300 General.**

A. Purpose. The purpose of this ordinance is to provide for the health, safety, and general welfare of the citizens of the City through the regulation of non-storm water discharges to the storm drainage system to the maximum extent practicable as required by federal and state law. This ordinance establishes methods for controlling the introduction of pollutants into the municipal separate storm sewer system (MS4) in order to comply with requirements of the National Pollutant Discharge Elimination System (NPDES) permit process. The objectives of this ordinance are:

1. To regulate the contribution of pollutants to the municipal separate storm sewer system (MS4) by stormwater discharges by any user
2. To prohibit Illicit Connections and Discharges to the MS4
3. To establish legal authority to carry out all inspection, surveillance and monitoring procedures necessary to ensure compliance with this ordinance

B. Applicability. This ordinance shall apply to all water entering the storm drain system generated on any developed and undeveloped lands unless explicitly exempted.

C. Ultimate Responsibility. The standards set forth in this article and promulgated pursuant to this article are minimum standards. Compliance with this article does not insure that there will be no contamination, pollution or unauthorized discharge of pollutants into the waters of the United States. This article shall not create liability on the part of the City or any agent or employee of the City for any damages that result from any discharges, reliance on this article or any administrative decision made under this article.

**Section 33-310 Prohibitions.**

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

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

1. Waterline flushing or other potable water sources;
2. Landscape irrigation or lawn watering;
3. Diverted stream flows;
4. Rising groundwater;
5. Groundwater infiltration;
6. Uncontaminated pumped groundwater;
7. Foundation or footing drains excluding active groundwater de-watering systems;
8. Crawlspace pumps, air conditioning condensation;
9. Springs;
10. Non-commercial washing of vehicles;
11. Natural riparian habitat or wetland flows;
12. Swimming pools if de-chlorinated to less than 1 ppm chlorine;
13. Fire fighting activities;
14. Other water not containing pollutants;
15. Discharges specified by the City as necessary to protect public health and safety;
16. Dye testing if notification is given to the City before the test; and
17. Any non-storm water discharge permitted under an NPDES permit, waiver or waste discharge order issued to the discharger and administered under the authority of the Environmental Protection Agency, provided that the discharger is in full compliance with all requirements of the permit, waiver or order and other applicable laws and regulations, and provided that written approval has been granted for any discharge to the municipal separate storm sewer system.

B. **Illicit connections.**

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

C. **Waste disposal prohibitions.**

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

D. **Connection of sanitary sewer prohibited.**

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

E. **Industrial or construction activity discharges.**

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

F. **Continuing violation.**

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

#### **Section 33-320 Notification of Spills.**

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

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

#### Section 33-330 Regulations and Monitoring.

A. The City Council may, by ordinance, adopt standards identifying best management practices (BMP) for any activity, operation or facility which may cause or contribute to pollution of storm water, the storm drain system, waters of the state or waters of the United States. These standards shall be on file in City Hall. It shall be unlawful for any person undertaking any activity or owning or operating any facility subject to such standards to fail to comply with the standards.

B. The owner or operator of a commercial or industrial establishment shall provide reasonable protection from accidental discharge of prohibited materials or other wastes into the municipal separate storm sewer system or water courses through the use of structural and non-structural BMPs. Any person responsible for property which is or may be the source of an illicit discharge may be required to implement additional structural and non-structural BMPs to prevent further discharge. Compliance with all terms and conditions of a valid NPDES permit authorizing the discharge of stormwater associated with industrial activity to the extent practicable shall be deemed in compliance with provisions of this section. These BMPs shall be a part of the storm water pollution prevention plan as necessary for compliance with the requirements of the NPDES permit.

#### Section 33-340 Nuisance declared.

A. Any discharge in violation of this article is a nuisance.

B. Any illicit connection is a nuisance.

### ARTICLE IV. EROSION AND SEDIMENT CONTROL

#### Section 33-400 General.

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

#### Section 33-410 Clearing and Grading.

A. Clearing and grading of natural resources, such as forests and wetlands, shall not be permitted, except when in compliance with all other chapters of this Code.

B. Clearing techniques that retain natural vegetation and retain natural drainage patterns shall be used.

C. Phasing shall be required on all sites disturbing greater than *thirty* acres, with the size of each phase to be established at plan review.

D. Clearing, except that necessary to establish sediment control devices, shall not begin until all sediment control devices have been installed and have been stabilized.

E Cut and fill slopes shall be *no greater than 2:1*, except as approved by the City to meet other community or environmental objectives.

#### Section 33-420 Erosion Control.

A. Soil must be stabilized within 30 days of clearing or inactivity in construction, unless otherwise authorized.

B. If vegetative erosion control methods, such as seeding, have not become established, the City may require that the site be reseeded, or that a non-vegetative option be employed where possible.

C. On steep slopes or in drainage ways, special techniques that meet the design criteria outlined in KC - APWA Division 5100 shall be used to ensure stabilization.

D. Soil stockpiles must be stabilized or covered at the end of each work day unless otherwise protected from allowing sediment to leave the site.

E. Techniques shall be employed to prevent the blowing of dust or sediment from the site.

F. Techniques that divert upland runoff past disturbed slopes shall be employed.

**Section 33-430 Sediment Controls.**

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

B. Where possible, settling basins shall be designed in a manner that allows adaptation to provide long term stormwater management.

C. Adjacent properties shall be protected by the use of a vegetated buffer strip, in combination with perimeter controls.

**Section 33-440 Waterways and Watercourses.**

A. When a wet watercourse must be crossed regularly during construction, a temporary stream crossing shall be provided, and an approval obtained from the U.S. Army Corps of Engineers.

B. When in-channel work is conducted, the channel shall be stabilized before, during and after work.

C. All on-site stormwater conveyance channels shall be designed according to the criteria outlined in KC - APWA Division 5600 .

D. Stabilization adequate to prevent erosion must be provided at the outlets of all pipes and paved channels.

**Section 33-450. Construction Site Access.**

A. A temporary access road or driveway shall be provided at all sites where a land disturbance permit is required.

B. Other measures may be required in order to ensure that sediment is not tracked onto public streets by construction vehicles, or washed into storm drains.

C. Regardless of the amount of land disturbance at a particular site, it shall be the responsibility of the permit holder and/or property owner to ensure streets open to the public surrounding a permitted site are kept free of excessive debris and sediment throughout the term of the permit. Upon notification that a problem exists, the permit holder and/or property owner shall immediately remedy the issue. If the permit holder and/or property owner fails to remedy such issue, the City may temporarily suspend the permit until the problem has been resolved. If a permit holder and/or property owner does not address the issue after requested, the City may choose to remedy the situation and bill the permit holder and/or property owner for any reasonable associated costs. The permit will remain suspended until said bill is paid. Alternatively, the permit holder and/or property owner may request a hearing with the Subdivision and Development Advisory Board to contest the abatement costs.

**Section 33-460 Inspection.**

A. General: The City may periodically inspect development sites. Through such periodic inspections, the City shall ensure that the Stormwater Pollution Prevention Plan (SWPPP) is properly implemented and any necessary amendments thereto made in order to protect the environment and the public's health, safety and welfare. The erosion and sediment control measures for the site must be maintained by the developer until the site is stabilized.

B. The permittee shall notify the City at least two (2) working days before the following:

1. Start of Construction
2. Site Clearing has been completed
3. Rough Grading has been completed
4. Final Grading has been completed

C. The permittee or his/her agent shall make regular inspections of all control measures in accordance with the inspection schedule outlined on the approved erosion and sediment control plan(s) or in the Stormwater Pollution

Prevention Plan (SWPPP). The purpose of such inspections will be to determine the overall effectiveness of the control plan, and the need for additional control measures and/or maintenance of existing measures. All inspections shall be documented in written form and kept readily on site.

#### Section 33-470 Violations and Penalties.

A. The City may suspend or revoke any permit associated with the site or any permit associated with the person(s) holding the permit(s) for the site for non-compliance with this article.

#### B. Procedure

1. Upon discovery of a violation of this article, the contractor will be notified and given up to seven (7) days to remedy the violation. The owner may request a hearing before the Subdivision and Development Advisory Board to review any violation notice within the given time frame. If such a request is made, the Board shall promptly set a hearing on the matter. Any person aggrieved by a decision of the Subdivision and Development Advisory Board may appeal his decision to the Circuit Court of Saline County.

2. If the violation has not been remedied within the time frame set forth in the notice, the permit(s) will be suspended. Once the violation has been remedied, the suspension will be lifted.

3. If the violation for which the permit(s) was suspended is not corrected within 30 days, the permit(s) shall be revoked and the violation deemed a nuisance.

4. After two (2) suspensions of a permit for the same site for similar violations, the permit(s) will be revoked. All applicable procedures from other chapters will have to be followed for re-issuance of the permit(s). Additionally, any remediation or abatement costs will be required to be paid prior to re-issuance.

### ARTICLE V. VARIANCES

#### Section 33-500 General.

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

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

~~Section~~ Section 33-510 Conditions.

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

Section 33-520 Procedures.

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

Section 2. That, in all other respects, the Code of Ordinances of the City of Marshall, Missouri, shall remain unchanged.

Section 3. This Ordinance shall be in full force and effect from and after its passage and approval.

Section 4. This Ordinance shall be printed and made available to the public in booklet form and shall not be codified as a part of the published Code of the City of Marshall.

PASSED by the Council of the City of Marshall, Missouri, this 15<sup>th</sup> day of December, 2008.

Conrad J. Spitzer  
President

APPROVED by the Mayor this 15<sup>th</sup> day of December, 2008.

Conrad J. Spitzer  
Mayor

FILED this 15<sup>th</sup> day of December, 2008.

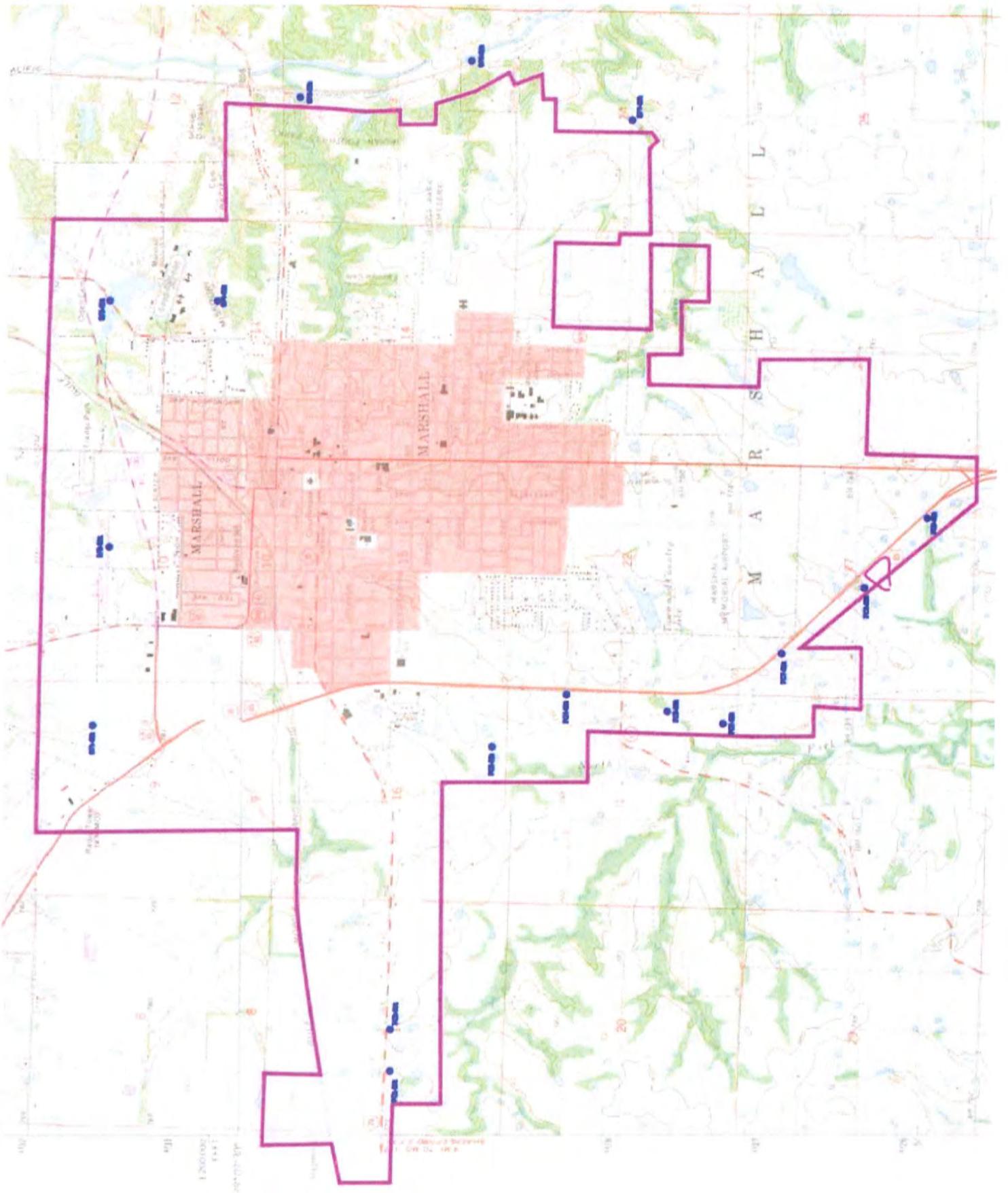
Janet A. Stuebel  
City Clerk

**APPENDIX B:  
NPDES OUTFALLS**

City of Marshall - MS4 Outfalls

May 7, 2013

Outfall #	Discharge PT	Type	Discharges to	Latitude	Longitude	County	Quarter-Quarter	Quarter	Section	Township	Range
1	FC1-001	END OF PIPE	Finney Creek	39.1159	-93.2451	Saline	NE	NE	17	50N	21W
2	FC2-002	END OF PIPE	Finney Creek	39.1158	-93.2423	Saline	NE	NE	17	50N	21W
3	FC3-001	END OF PIPE	Finney Creek	39.1089	-93.2199	Saline	SW	SE	16	50N	21W
4	FC4-001	BOX CULVERT	Finney Creek	39.1047	-93.2136	Saline	SE	SE	21	50N	21W
5	FC5-001	END OF PIPE	Finney Creek	39.0979	-93.2157	Saline	NE	SE	21	50N	21W
6	FC6-001	END OF PIPE	Finney Creek	39.0952	-93.2183	Saline	SE	SE	21	50N	21W
7	FC7-001	BOX CULVERT	Finney Creek	39.0913	-93.2106	Saline	NW	NW	27	50N	21W
8	FC8-001	END OF PIPE	Finney Creek	39.0866	-93.2054	Saline	SW	NE	27	50N	21W
9	FC9-001	BOX CULVERT	Finney Creek	39.0821	-93.1993	Saline	SE	SW	27	50N	21W
10	SF1-001	END OF PIPE	Salt Fork Creek	39.1341	-93.218	Saline	NE	NE	9	50N	21W
11	SF2-001	END OF PIPE	Salt Fork Creek	39.1335	-93.2021	Saline	SW	NE	10	50N	21W
12	SF3-001	BOX CULVERT	Salt Fork Creek	39.1315	-93.1801	Saline	SW	NE	11	50N	21W
13	SF4-001	BOX CULVERT	Salt Fork Creek	39.1268	-93.1823	Saline	NW	SE	11	50N	21W
14	SF5-001	TIMBER BRIDGE	Salt Fork Creek	39.1217	-93.1653	Saline	NW	NE	13	50N	21W
15	SF6-001	BOX CULVERT	Salt Fork Creek	39.1129	-93.1637	Saline	SW	SE	13	50N	21W
16	SF7-001	CONCRETE BRIDGE	Salt Fork Creek	39.1011	-93.1677	Saline	NE	SW	24	50N	21W



STATE OF MISSOURI  
**DEPARTMENT OF NATURAL RESOURCES**  
MISSOURI CLEAN WATER COMMISSION



## MISSOURI STATE OPERATING PERMIT

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

Permit No.	MO-0032883
Owner: Address:	Marshall Municipal Utilities 75 E. Morgan Street, Marshall, MO 65340
Continuing Authority: Address:	Same as above Same as above
Facility Name: Facility Address:	Marshall Southeast Wastewater Treatment Plant 2232 Watermill Road, Marshall, MO 65340
Legal Description: UTM Coordinates:	See Page 2 See Page 2
Receiving Stream: First Classified Stream and ID: USGS Basin & Sub-watershed No.:	See Page 2 Salt Fork (P) (0893) (10300104 – 070007)

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

### FACILITY DESCRIPTION

See Page 2

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

November 8, 2011  
Effective Date

Sara Parker Pauley, Director, Department of Natural Resources

November 7, 2016  
Expiration Date

John Madros, Director, Water Protection Program

**FACILITY DESCRIPTION (continued):**

Outfall #001 - POTW- SIC # 4952 - **Certified "A" Operator Required**

Extended aeration/activated sludge/ultraviolet disinfection/sludge line stabilization/sludge is land applied by permittee.

Design population equivalent is 70,900.

Design flow is 7.09 MGD.

Actual flow is 2.62 MGD.

Design sludge production is 3980 dry tons/year.

Actual sludge production is 1000 dry tons/year.

Legal Description: NE ¼, NE ¼, Sec. 24, T50N, R21W, Saline County  
UTM Coordinates: X = 486312, Y = 4328552  
Receiving Stream: Salt Fork (P)

Outfall #002 – Outfall Eliminated.

Discharges from this outfall are no longer authorized, and shall be subject to 40 CFR 122.41(m) and reported according to 40 CFR 122.41(m)(3)(i) & (ii).

Outfall #003 - POTW- SIC # 4952

Monitoring of wastewater before pumping to golf course for irrigation.

Legal Description: E ¼, NE ¼, Sec. 24, T50N, R21W, Saline County  
UTM Coordinates: X = 486312, Y = 4328552  
Receiving Stream: Salt Fork (P)  
First Classified Stream and ID: Salt Fork (P) (0893)

Outfall #004 - POTW- SIC # 4952

Irrigation of fully treated wastewater to golf course. Incidental discharge from this irrigation site is authorized by this permit. Such discharges will flow via unnamed tributaries to the same reach of the Salt Fork as the discharge from outfall 001. No additional monitoring of such discharges is required, as monitoring of discharges from outfall 001 is representative.

Legal Description: E ½, SW ¼, Sec. 13, T50N, R21W, Saline County (north of Watermill)  
E ½, NW ¼, Sec. 24, T50W, R21W, Saline County (south of Watermill)  
UTM Coordinates: X = 485352, Y = 4329205  
Receiving Stream: Unnamed tributary to Salt Fork (U)  
First Classified Stream and ID: Salt Fork (P) (0893)

**APPENDIX C:  
FUEL/PETROLEUM PRODUCT/  
PETROLEUM WASTE PRODUCT  
STORAGE INFORMATION**

## Municipal Services Containers

LOCATION	TANK SIZE	PRODUCT TYPE	ABOVE/BELOW GROUND	CONTAINMENT	SWPP
1275 S Odell Ave - MS	6000	Diesel	Below	No	No
1275 S Odell Ave - MS	6000	Diesel	Below	No	No
1275 S Odell Ave - MS	6000	Unleaded	Below	No	No
1275 S Odell Ave - MS	4 each 55	Vehicle Oils	Above	No	No
1275 S Odell Ave - MS	1000	Used Oil	Above	Yes	No
1275 S Odell Ave - MS	10 each 55	Used Oil	Above	No	No
1945 S Odell - Airport	10000	Jet A Fuel	Above	Yes	Yes
1945 S Odell - Airport	10000	100 LL Fuel	Above	Yes	Yes
875 W North St - MS Storage	6000	Road Oils	Above	No	No
875 W North St - MS Storage	6000	Road Oils	Above	No	No
875 W North St - MS Storage	6000	Road Oils	Above	No	No
875 W North St - MS Storage	300	Diesel	Above	No	No

**Marshall Municipal Utilities - Container List**

Page 1 of 3

**POWER PLANT**

Container/Equipment Identification	Type	Gallons	Contents	Containment
Unit 10 fuel tank (VT10) & Unit 11 fuel tank (VT11)	AST	200,000 ea	Fuel oil	concrete
Unit 3 bulk storage tank (IS3)	Integral AST	325	Turbine lube oil	Integral to equip.
Unit 4 bulk storage tank (IS4)	Integral AST	1,050	Turbine lube oil	Integral to equip.
Unit 5 bulk storage tank (IS5)	Integral AST	1,735	Turbine lube oil	Integral to equip.
Unit 6 bulk storage tank (IS6)	Integral AST	2,670	Turbine lube oil	Integral to equip.
Bulk storage tank (HT1), north side of warehouse	AST	300	Used oil	concrete
Converted Diesel Tank (HT2), elliptical split	AST	650 x 2	Diesel fuel	concrete
Unit 10 inlet air cleaner (C10) & Unit 11 inlet air cleaner (C11)	Oil bath	150 each	Filter oil	Integral to equip.
Unit 10 oil filter (F10) & Unit 11 oil filter (F11)	Oil bath	200 each	Filter oil	Integral to equip.
Unit 10 lube oil (HT10) & Unit11 lube oil (HT11)	AST (normally empty)	1,800 each	oil to reuse	inside
Unit 10 day tank (HT10D) & Unit 11 day tank (HT11D)	AST	840 each	Lube oil	inside
Unit 10 oil pan (IS10) & Unit 11 oil pan (IS11), sumps	Integral AST	1,375 each	Lube oil	Integral to equip.
Hilco Hyflow Oil Filters (F10H & F11H)	Oil bath	200 each	Filter oil	Integral to equip.
Units 10 & 11 bldg, 55-gal drum storage (D10-11)	Drums, 1st floor	Up to 440	Used oil	inside
Hazardous Waste Building storage (DHW)	Drums, 2nd floor	Up to 660	New oil	inside
	55-gallon drums	Up to 495	Used oil	inside
	55 gallon drums	Up to 880	Used oil	inside
Transformers				
North St. Pump Station (U1215)	Transformers	320	Transformer oil	outside, no contain.
Miami St. Pump Station (U1216)	Transformers	224	Transformer oil	outside, no contain.
North Side Pellet Bldg. (U1475)	Transformers	255	Transformer oil	outside, no contain.
North Side Units 10 & 11 Bldg. (U1032 & U1134)	Transformers	150 each	Transformer oil	outside, no contain.
Power Plant Transformers				
U1441 & U1442	Transformers	196 each	Transformer oil	inside
U1443	Transformers	168	Transformer oil	inside
U1444 & U1445	Transformers	183 each	Transformer oil	inside
U567, U1599, & U1601	Transformers	56 each	Transformer oil	inside
Storage yard, number of units varies	Transformers	80 +55 each	Transformer oil	outside, no contain.
<b>SUBSTATIONS</b>				
<u>Miami Street Substation</u>				
West Main Transformer	Transformer	6,250	Transformer oil	undergrnd. contain.
West Main Transformer	Tap Changer	150	Transformer oil	underground contain.
West Grounding Transformer	Transformer	373	Transformer oil	underground contain.
East Main Transformer	Transformer	6,015	Transformer oil	underground contain.
East Main Transformer	Tap Changer	280	Transformer oil	underground contain.
East Grounding Transformer	Transformer	280	Transformer oil	underground contain.

North Street Substation

North Power Transformer	Transformer	1,848	Transformer oil	underground contain.
North Power Transformer	Tap Changer	95	Transformer oil	underground contain.
North Grounding Transformer	Transformer	474	Transformer oil	underground contain.
South Power Transformer	Transformer	1,680	Transformer oil	underground contain.
South Power Transformer	Tap Changer	150	Transformer oil	underground contain.
South Grounding Transformer	Transformer	385	Transformer oil	underground contain.
Southeast Substation				
Main Transformer	Transformer	5,735	Transformer oil	underground contain.
Main Transformer	Radiator	545	Transformer oil	underground contain.
Main Transformer	Tap Changer	100	Transformer oil	underground contain.
Grounding Transformer	Transformer	490	Transformer oil	underground contain.
West Substation				
Main Transformer	Transformer	6,410	Transformer oil	underground contain.
Main Transformer	Tap Changer	345	Transformer oil	underground contain.

Electric Distribution @ Service Center

Container/Equipment Identification				
Storage Area, number of units varies	Transformers	2,500 ±	Transformer oil	outside, no contain.
Oil Storage in Garage	55 gallon drums	Up to 440	New/used oil	inside

WASTEWATER TREATMENT PLANT

Container/Equipment Identification				
Unit 9 Fuel Tank (HT1)	AST	2000	Diesel fuel	concrete
Vehicle Fuel Tank #25 (HT2)	AST	300	Diesel fuel	concrete
Vehicle Fuel Tank #46 (HT3)	AST	500	Diesel fuel	concrete
Vehicle Fuel Tank #45 (HT4)	AST	300	Gasoline	concrete
Unit #9 Day Tank in Gen Set Building (HT9D)	AST	192	Lube oil	inside
Generator Building Drum Oil Storage (GBD)	55 gallon drums	Up to 110	Lube oil	inside
Generator Building Drum Sealer Storage (GBS)	55 gallon drums	Up to 165	pavement seal	inside
Garage Drum Storage (GD)	55 gallon drums	Up to 110	Engine oil	inside
Filter Building (FBD)	55 gallon drums	Up to 220	Used oil	inside

Transformers

North Aeration Basin (U1001)	Transformer	210	Transformer oil	outside, no contain.
North Side Gen Set (U178)	Transformer	350	Transformer oil	outside, no contain.
North Side Gen Set (U179)	Transformer	179	Transformer oil	outside, no contain.
North Side Primary Clarifier (U411)	Transformer	99	Transformer oil	outside, no contain.
Northwest Corner Raw Sewage Building (U1391)	Transformer	230	Transformer oil	outside, no contain.
RAS Pump House (U1417)	Transformer	210	Transformer oil	outside, no contain.
South Aeration Basin (U521)	Transformer	210	Transformer oil	outside, no contain.
South Side ABPS (U412)	Transformer	230	Transformer oil	outside, no contain.
Northwest Corner Filter Building (U202)	Transformer	420	Transformer oil	outside, no contain.
Northwest Corner Filter Building (U203)	Transformer	420	Transformer oil	outside, no contain.
West Side Waste Sludge (U1425)	Transformer	99	Transformer oil	outside, no contain.

WATER TREATMENT PLANT

Container/Equipment Identification

Units 7 & 8 Fuel Tank (HT1)	AST	4000	Diesel fuel	concrete
Vehicle Fuel Tank (HT2)	AST	300	Diesel fuel	concrete
Units 7 & 8 day tanks (HT7D & HT8D)	AST	192 each	Diesel fuel	inside
Gen Set Building Drum Storage (DGB)	55 gallon drums	Up to 220	New/used oil	inside

Transformers

East Side Gen Set (U55)	Transformer	350	Transformer oil	outside, no contain.
East Side Gen Set (U56)	Transformer	350	Transformer oil	outside, no contain.
East Side Gen Set (U57)	Transformer	179	Transformer oil	outside, no contain.
Northeast Corner Main Building (U1385)	Transformer	308	Transformer oil	outside, no contain.
Northeast Corner Main Building (U1386)	Transformer	142	Transformer oil	outside, no contain.
East Side Main Building (U957)	Transformer	230	Transformer oil	outside, no contain.