

CITY OF LEE'S SUMMIT, MISSOURI



STORMWATER MANAGEMENT PLAN

NPDES PERMIT RE-APPLICATION

SUBMITTAL PACKAGE

**Prepared By;
Department of Public Works**

Submitted November 9, 2007

Executive Summary:

The City of Lee's Summit is at the top of the watershed of 11 watersheds within our corporate boundaries. Nine of these watersheds ultimately flow into the Little Blue River. Therefore, what we do or don't do in Lee's Summit has impacts on adjacent corporate jurisdictions and water bodies. Very little of our corporate limits receives runoff from adjacent communities. There are also six (6) reservoirs in or directly adjacent to Lee's Summit. Water quality impacts are readily discernable within our own corporate boundaries. The environmental health of these reservoirs has direct impact on our citizens and as such we must tend these resources wisely. Lee's Summit is unique in that six (6) of the eleven (11) sub-watersheds discharge into local lakes prior to leaving our corporate boundaries. These lakes act as water quality filters in the fact that micro-organisms living in them attack pollutants which would otherwise be discharged from the corporate limits.

We have implemented many of the facets associated with the National Pollutant Discharge Elimination System (NPDES) Phase II permit currently in place. We are generally in a mode of maintenance rather than implementation of the Phase II permit requirements. We are working toward full compliance with an executable plan to improve stormwater quality and manage quantity. Our current plan includes using bonds to correct the Capital Improvement Program (CIP), projects and a stormwater utility to support on-going maintenance and regulatory requirements.

The voters of Lee's Summit recently passed a 15.4 million dollar ballot question to correct structural flooding problems. We plan to place a ballot another question concerning the formation of a stormwater utility on the November 2008 ballot and present another Stormwater Capital Improvement bond initiative on the November 2010 ballot. Lee's Summit is currently evaluating potential "green solutions" as well as traditional gray solutions to correct existing flooding problems located throughout the city.

Lee's Summit has large tracts of undeveloped land within its corporate boundaries. Approximately 6 ½ square miles, (4,180 acres), are owned or controlled by Property Reserve Incorporated, PRI. They have chosen not to develop this property at this point in time. Much of this undeveloped land lies at the top of numerous watersheds. Therefore, we have a unique opportunity to control any future development wisely within these undeveloped areas.

Information on the Permittee:

Name of the Permittee: City of Lee's Summit, Missouri
Type of Entity: City – Municipality
Total Area: 40,763 acres
Mailing Address: 220 SE Green Street, Lee's Summit, MO 64063
Primary Contact: Public Works Director, Charles E. Owsley, PE
Phone Number: 816-969-1800
Secondary Contact: Senior Staff Engineer, T. Scott Edgar, PE
Phone Number: 816-969-1800

Information on the Municipal Separate Storm Sewer System:

MS4 System Location: Lee's Summit, Missouri
Name of Organization: City of Lee's Summit, Missouri
County(ies) Permittee Resides: Cass County and Jackson County
There are no major receiving waters within the permitted area as defined by 10 CSR 20-7.01.

The Little Blue River is on the latest CWA's list of impaired waters. Mercury is the listed contaminant.

Received certification that their SWMP complies with the requirements of Part 3.1: N/A

Information on Adjacent Waterways:

The Permittee is within 100 feet of: Numerous small streams, lakes, and reservoirs
The Permittee is within 100 feet of waters classified as major reservoirs:
Longview Lake, Lake Jacomo (Blue Springs Lake), Raintree Lake, Lake Lee's Summit (Lakewood), Prairie Lee Lake, and Lake Winnebago.

Various locations within the Permittee's area are defined as wetland.

The Permittee has received a CWA, Section 404 permit from the US Army Corps of Engineers for specific jurisdictional wetland impacts on projects affecting same. Stormwater from Lee's Summit does not discharge to a sinkhole.

Information on Critical Areas:

There are threatened or endangered species in the area: See Page 3
The Permittee has met eligibility criteria for protection of threatened or endangered species.

There are critical habitats in the area: See Page 3
The Permittee has met eligibility criteria for protection of critical habitats.

There are historic properties in the area: See Page 3
The Permittee has met eligibility criteria for protection of historic properties.

Endangered Species:

County	Species	Status	Habitat
Cass	Mead's Milkweed (Asclepias meadii)	Threatened	Virgin prairies
Jackson / Cass	Barn Owl (Tyto Auriculata)	Endangered	
Jackson	Peregrine Falcon (Falco Peregrinus)	Endangered	

Historic Properties:

Name	Address	Owner	Year Added
Howard Neighborhood Historic District	Bounded by: SE 5 th Street, SE Green Street, SE 7 th Street, & SE Miller Street, Lee's Summit	Private	2007
Lee's Summit Downtown Historic District	Bounded by: 2nd Street, Douglas Street, 4 th Street, & Market Street, Lee's Summit	Private	2007
Longview Farm	11700 and 850 S.W. Longview Rd, Lee's Summit	Private	1985
Saint Paul's Episcopal Church	Fifth and S. Green St, Lee's Summit	Private	1985
Unity School of Christianity Historic District	Jct. US 50 and Colbern Rd, Unity Village	Private	1989

MCM #1: Public Education and Outreach on Stormwater Impacts

4.2.1.1 Permit Requirements

Lee's Summit continues to implement public education program by distributing educational materials to the community and conducting outreach activities. The focus of these efforts is to educate the public with activities discussing the impact of stormwater discharges on water bodies and the steps the public can take to reduce pollutants in stormwater runoff. Some examples of this include the following:

- We cooperate with the school district to present watershed and environmental stewardship presentations and interactive activities with students.
- We distribute environmental stewardship information produced by Mid-America Regional Council, MARC, and other environmental concerns.
- We coordinate and/or participate in several environmental focus groups such as, the Citizens Stormwater Task Force endorsed by City council to provide citizen input into the solution of numerous stormwater problems throughout the city.
- We participate in the Lee's Summit chapter of Choose Environmental Excellence. This group recently hosted a "Green Solutions" town hall meeting to discuss the merits of "green" rather than grey solutions to stormwater management.

4.2.1.2 Decision Process

Lee's Summit developed our stormwater public education and outreach program in cooperation with other jurisdictions in the region. In addition, we solicit public input into program elements through citizen input. A report of recommendations from the Citizen's Stormwater task force is located on the cities website and in the appendix of this report. It contains, among other things recommendations concerning citizen education and involvement in the solution to our stormwater quality and quantity concerns.

We engage the public through information on the cities website, council presentations on local access TV channel, presentations to civic groups, and through brochures and mailings to our citizens.

The public education program is designed to impact the most citizens possible.

4.2.1.2.1

Lee's Summit informs business, civic groups, individuals, and households in the community about the steps they can take to reduce stormwater pollution with the following programs:

Information on Website
Government Channel
Display Posters on Public Transportation
Maintain a Library of Stormwater Educational Materials
Lawn and Garden Activities
Hazardous Waste Disposal
Pet Waste Management
Trash Management
Vehicle Maintenance and Washing
Illicit Discharges
Display Educational Materials at Community Events

*The topics for the brochures will be dependent on the topics in Mid-America Regional Council's (MARC) seasonal campaign for public educational. Additional topics will be included in the program, depending on the immediate needs of the surrounding communities. Detailed information about each seasonal campaign will be included in Lee's Summit's annual report.

4.2.1.2.2

The city web site has become an effective and cost effective means of providing public information and soliciting public input. The City's government channel is another cost effective way to educate the public on stormwater pollution prevention practices. Current slides include proper disposal of hazardous waste and pet waste management. In addition, Lee's Summit informs individuals and groups on how to become involved in the stormwater program by providing those instructions in all materials distributed to the public. This is described in more detail in 4.2.2 Public Involvement/Participation. Articles and commentaries in local newspapers of late have raised public awareness of stormwater pollution issues.

4.2.1.2.3

During the development of the education program, Lee's Summit 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:

- Citizens (Homeowners)
- Development Community
- Home Builders / Contractors
- Lawn Service Companies
- Restaurant Owners and Operators
- Car Wash Owners and Operators
- Service Station and Oil/Lube Business Owners and operators
- Outdoor Sportsmen and Recreational Facility Users

Business Owners
Students & Children
Seniors
Elected Officials
City Staff

4.2.1.2.4

The target pollutant sources having an impact on stormwater quality were identified. The following is a list of these sources:

The following is a list of potential sources of pollutants that have been experienced in the permitted area. (1 = Major impact, 2 = Minor impact, 3 = Not an impact)

- 1 Construction activities (sediment, construction chemicals and debris, solid and sanitary wastes)
- 1 Over application of fertilizer, herbicides, pesticides
- 1.5 Improper disposal of paint and household hazardous chemicals
- 1.5 Pet waste contamination
- 1.5 Improper disposal of waste oil, grease, and gasoline disposal
- 1 Trash, debris, and illegal dumping
- 2 Detergents washed into drains
- 2 Snow removal (salt, sand and snow disposal)
- 2 Sanitary sewer overflows
- 2 Infiltration from cracked sanitary sewers
- 2 Failing septic systems
- 2 Sewer service connections to storm drainage system
- 2 Foundation drains connected to storm drainage system
- 2 Downspouts connected to storm drainage system
- 2 Lake or water body used for motor boating
- 2 Spills from roadway accidents or fires
- 1.5 Connected impervious areas covering large acreages (such as malls, institutions with large parking areas)
- 1 Stream bank erosion
- 3 Waste transfer station

The above information is based on Staff's perceptions and reported problems.

4.2.1.2.5

Lee's Summit's outreach strategy is to implement a variety of methods to reach a number of different target audiences multiple times. To change behavior, repetition is important. The mechanisms are described in 4.2.1.2.1 of this permit application include web based information, brochures, and public meetings.

Our current strategy is to partner with other governmental and non-governmental entities to execute the public outreach strategy. The idea is to share information and resources. We work closely with Mid-America regional Council. MARC which hosts environmental awareness and education programs for a wide range of topics presented to public and private groups. Mid-America Regional Council, MARC, is an agency which serves multiple jurisdictions in the Kansas City metropolitan area preparing and distributing environmental and water quality information to the regions population.

The number of people reached by the public education and outreach strategy is approximately 15,000 per year. We currently have 100+ monthly unique connections, different computers, viewing our environmental services web page. Listed below:

<http://www.lees-summit.mo.us/publicworks/environment8.cfm>

Our design and construction manual web page which requires environmental compliance receives 215+ monthly unique connections from different computers.

4.2.1.2.6

The position responsible for overall management and implementation of the permittee's stormwater public education and outreach program is the Public Works Director. Others will be involved in the execution of each of the individual activities in the programs, but most of the activities will be delegated through the Public Works Department.

The Public Works department currently has the following full time positions which implement and/or oversee portions of the Phase II permit requirements.
Environmental Coordinator,
Erosion / Sediment control Inspector
Senior Staff Engineer

4.2.1.2.7

We will measure the success of this effort by gauging citizen knowledge and behaviors concerning waste minimization and environmental restoration. We will also solicit input from citizen groups to gauge the success of the public education and outreach programs. The voters recently approved a bond issue to correct stormwater deficiencies in Lee's Summit by 83%. This is a gauge of public education which was recently conducted in advance of the bond issue.

MCM #2: Public Involvement and Participation

4.2.2.1 Permit Requirements

Lee's Summit complies with State and Local public notice requirements by soliciting public involvement and participation in program elements. All public meeting notifications are currently posted on the web site and on public bulletin boards in City Hall.

4.2.2.2 Decision Process

The decision process involving the Public in our program starts with City Council. Council formed the Stormwater Task Force in 2003 specifically to gather input from the public concerning direction and implementation of Stormwater corrective measures taken within the City of Lee's Summit. This open handed approach continues in presenting the public with ballot issues concerning stormwater and environmental initiatives. A new salt dome was also recently approved by 77% of the voters which will protect water quality from salt brine runoff associated with storage.

4.2.2.2.1

Lee's Summit staff developed the submittal for the stormwater management notice of intent application.

4.2.2.2.2

Lee's Summit actively involves the public in the development and implementation of the stormwater program through a number of different methods including input from SW task Force, civic groups, and citizens. The writer receives public comment almost daily concerning stormwater management ideas and/or requests from impacted citizens and/or businesses.

4.2.2.2.3

The target audiences for the permittee's public involvement program are:

1. Citizens (Homeowners)
2. Watershed Organizations
3. Environmental and Conservation Groups
4. Local Elected Officials
5. Local Government Agencies
6. Contractors, Home Builders, and Developers
7. Youth
8. Teachers
9. Seniors
10. Homeowners Associations

4.2.2.2.4

Lee's Summit plans involve the public through the activities described below:

Ballot Issues
Hold Public Meetings
Expand Stormwater Stenciling Program

We have recently presented stormwater and environmental issues to civic groups to provide information concerning the 15.4 Million dollar bond issue. There are also several citizen groups currently contacting the public to raise awareness of stormwater and environmental concerns and the correction of same. These include: Safer, Greener Lee's Summit, Friend's of Lee's Summit, Stormwater Task Force, Lee's Summit Chapter of Choose Environmental Excellence and Lee's Summit Economic Development Council.

We currently have a storm sewer stenciling program which paints " Dump no waste, drains to stream" in blue paint on the lid of inlets.

4.2.2.2.5

The position responsible for the overall management and implementation of the permittee's stormwater public involvement/participation program is the Public Works Director. Others will be involved in the execution of each of the individual activities in the programs, but most of the activities will be delegated through the Public Works Department.

4.2.2.2.6

Short term evaluation of the success of Public involvement is the positive outcome of the 15.4 million dollar, "No Tax Increase", Stormwater bond question. The long term measurable success will be the voters' response to the proposed Stormwater Utility and future bond issues to fund CIP projects associated with the correction of Stormwater problems. Success could also be measured by the long term commitment of volunteers concerning stormwater quality issues. The Stormwater task Force convened in 2003 has recently been re-activated to provide input into the implementation of the recommendations produced as a result of this groups work in 2003 & 2004.

MCM #3: Illicit Discharge Detection and Elimination

4.2.3.1 Permit Requirement.

4.2.3.1.1

Lee's Summit will formalize a program to implement and enforce the detection and elimination of illicit discharges (as defined in 10 CSR 20-6.200) into our corporate boundaries. We will develop and incorporate an ordinance by December 31, 2008. The ordinance will be submitted with the yearly 2008 compliance report.

4.2.3.1.2

Lee's Summit has developed a storm sewer system map within the Geographic Information System, GIS. This GIS database shows the location of all outfalls. The names and location of all named waters of the State that receive discharges from those outfalls is indicated in the GIS database. This map is included in the appendix of this application.

4.2.3.1.3

Our ordinances and regulations are enforceable by Lee's Summit with appropriate procedures and consequential actions.

4.2.3.1.4

Lee's Summit will formalize and implement a plan using the following methods to detect and address non-stormwater discharges, including illegal dumping to the stormwater system:

Our current activities in this area include a goal of yearly inspections of all storm sewer boxes and discharge points. This is accomplished with a two (2) man crew working four (4) months per year inspecting approximately fifty (50) structures per day. These visual inspections generate approximately five (5) work orders per day.

These work orders are implemented by our stormwater crew which consists of a staff of six (6) full time personnel. We have a two (2) man cleaning crew and four (4) man construction and/or repair crew

Outfall/Manhole Inspection Program
Visual Inspection
Public Reporting

Lee's Summit's program will include dry weather field screening by visual inspection for non-stormwater flows of discharge sources. Our current illicit detection program is not formalized.

We have an on-call environmental consulting firm to advise in matters of compliance and remediation of spills and/or pollutant sources discovered.

The fire department hazardous waste team responds to emergency spills and containment issues. Spill absorbent materials are available at city refueling stations at the various stations throughout the city.

4.2.3.1.5

Lee's Summit informs public employees, businesses and the general public of hazards associated with illegal discharges and improper disposal of waste using the following methods:

Training for City Staff
Conduct Workshops
Distribute Literature
Post Signs on streams
Recycling Program for Household Hazardous Waste
Storm Drain Stenciling
Illegal Dumping Hotline

4.2.3.1.6

Lee's Summit has not identified the following categories of non-stormwater discharges or flows (i.e. illicit discharges) as significant contributors of pollutants to their small MS4: water line flushing, landscape irrigation, diverted stream flows, rising ground waters, uncontaminated ground water infiltration (as defined in 10 CSR 20-6.200), uncontaminated pumped ground water, discharges from potable water sources, foundation drains, air conditioning condensation, springs, water from crawl space pumps, footing drains, lawn watering, flows from riparian habitats and wetlands, and street wash water. Discharges or flows from fire fighting activities are excluded from the effective prohibition against non-stormwater and will only be addressed where they are identified as significant sources of pollutants to waters of the State.

4.2.3.1.7

Lee's Summit's staff intends to propose an illicit discharge ordinance that will not include a list of other similar occasional incidental non-stormwater discharges (e.g. non-commercial or charity car washes, etc.) that will not be addressed as illicit discharges because they are not reasonably significant

sources of pollutants to the MS4. Should these occasional or incidental non-stormwater discharges be identified in the future, those entities responsible for discharging will be prohibited or conditions placed on them so as to minimize their discharge of pollutants.

4.2.3.2 Decision Process

Lee's Summit will document the decision process in the development of a stormwater illicit discharge detection and elimination program. It will likely include input from focus groups like the Stormwater Task Force.

4.2.3.2.1

Lee's Summit has developed a storm sewer map showing the location of all outfalls and the names and location of all named receiving waters within the corporate boundaries. The City of Lee's Summit ITS department used the following sources to compile the maps:

- As-built drawings
- Piping Schematic Reviews
- Aerial Photography
- Sewer Maintenance Records
- Survey records

The Information Technology, IT, department uses as-built drawings to update the database. These maps are available on the Cities website.

4.2.3.2.2

Lee's Summit will use current and future applicable ordinance(s), including the Design and Construction Manual (Ordinance no. 5813) and section 17-90 of our municipal code to prohibit illicit discharges to the MS4.

This mechanism was selected because ordinances are commonly used by Lee's Summit to establish laws and set forth the enforcement mechanisms. The ordinance will establish legal authority: to regulate the contribution of pollutants to the municipal separate storm sewer system (MS4) of stormwater discharges by any use; to prohibit illicit connections and discharges to the MS4; and to establish legal authority to carry out all inspections, surveillance and monitoring procedures necessary to ensure compliance.

Lee's Summit will formalize and implement the following mechanisms to effectively prohibit illicit discharges to the MS4 on the respective schedule:

City Ordinance(s)
Inspections

4.2.3.2.3

Lee's Summit will set forth in the ordinance(s) enforcement procedures intended to remove the source of the illicit discharge detected.

Lee's Summit will ensure implementation of the mechanisms described in 4.2.3.2.2 above with civil fines and legal actions as allowed and appropriate.

4.2.3.2.4

Lee's Summit will detect and address illicit discharges to the MS4, including discharges from illegal dumping and spills. A dry weather inspection of wet weather conveyances will be a part of the illicit discharge detection inspection program. Our operational crews will be trained to look for indicators of illicit discharge activities. Lee's Summit's program will address on-site sewage disposal systems that flow into the MS4.

4.2.3.2.4.1

Lee's Summit will use the system maps identified in 4.2.3.2.1 above and other data to identify priority areas with likelihood of illicit connections.

4.2.3.2.4.2

In addition to the procedures identified in 4.2.3.1.4 above to identify and trace the source of illicit discharges, Lee's Summit's program will include dry weather field screening for non-stormwater flows.

4.2.3.2.4.3

Lee's Summit will follow the ordinance(s) adopted and the enforcement mechanisms detailed in the ordinance(s) including those legal actions described in 4.2.3.1.3 above to enforce the removal of an identified illicit connection.

4.2.3.2.4.4

The success of the described program will be evaluated annually by analyzing the number of illicit connections discovered and eliminated.

4.2.3.2.5

Lee's Summit has and will continue to inform public employees, business and the general public of hazards associated with illegal discharges and improper disposal of waste through the following methods:

Procedural Training for City Staff
Conduct Workshops
Distribute Literature
Post Signs
Recycling Program for Household Hazardous Waste
Storm Drain Stenciling
Illegal Dumping Hotline

Where applicable the information distributed through these means will coordinate with the information distributed in the Public Education minimum control measure (e.g., consistent/coordinated messages in literature).

4.2.3.2.6

The Public Works Director will be responsible for overall management and implementation of Lee's Summit's stormwater illicit discharge detection and elimination program. Others will be involved in the execution of each of the individual activities in the programs, but most of the activities will be delegated through the Public Works Department.

4.2.3.2.7

Lee's Summit will evaluate the success of the program based on the number of illicit connections found and eliminated.

MCM #4: Construction Site Stormwater Runoff Control

4.2.4.1 Permit Requirements

Lee's Summit has in place a program to reduce sediment pollution in stormwater runoff from construction sites greater than 2000 square feet. Lee's Summit will continue to implement and enforce this program.

4.2.4.1.1

Lee's Summit requires construction site operators to implement effective erosion and sediment control (ESC) measures. Lee's Summit's Design and Construction Manual (Ordinance no. 5813) authorizes punitive actions which are used to enforce compliance. The Design and Construction Manual is on-line at:

<http://www.lees-summit.mo.us/publicworks/DesignAndConstructionManual.cfm>

The Design and Construction Manual generally consists of Kansas City Metro Chapter of the American Public Works Association, APWA, specifications concerning allowable design methodologies and construction practices.

4.2.4.1.2

We are considering adapting portions of the MARC and KCAPWA "Manual of Best Management Practices for Stormwater Quality". We currently incorporate the APWA "Storm Drainage Systems and Facilities", Section 5600 into our Design and Construction manual.

4.2.4.1.3

Lee's Summit will also require construction site operators to control wastes that may cause adverse impacts to water quality such as:

- Discarded Building Materials
- Concrete Truck Washout
- Sediment
- Litter or Trash

4.2.4.1.4

Lee's Summit has implemented procedures for multi-departmental site plan review, which incorporate consideration of potential water quality impacts.

4.2.4.1.5

Lee's Summit staff does not plan to propose formal procedures in its Ordinance for receipt and consideration of information submitted by the public in the plan review process. However, the public has opportunity to speak concerning

significant proposed projects in City Council sessions and Planning Commission meetings.

4.2.4.1.6

We currently employ six (6) capital Improvement project inspectors, eight (8) development construction inspectors and six (6) building code inspectors. These individuals monitor construction projects within our corporate limits every work day. Lee's Summit has procedures in Ordinance No. 5813, the Design and Construction Manual for site inspection and enforcement of erosion and sediment control, ESC, requirements. Our code enforcement division includes four (4) employees whose primary responsibility is to enforce our codes and ordinances.

4.2.4.2 Decision process

The City of Lee's Summit seeks to be progressive in our approach to improving the quality of life for our residents. This includes the reduction of pollutants to the maximum extent practical. Because loosed sediment carries with it other pollutants, the control of sediment has significant water quality benefits. Therefore we employ a full time erosion and sediment control inspector with specialized training in these areas.

4.2.4.2.1

The Design and Construction Manual (Ordinance 5813) requires the use of effective erosion and sediment control, ESC, on construction sites. The Ordinance outlines the requirements for designers and contractors before, during and after the construction activities. The Ordinance has enforcement measures for those who do not follow the Ordinance. Three cases were taken to Municipal Court in 2006-07.

Other mechanisms that will be available to anyone involved in design and construction of erosion and sediment control activities. Those mechanisms include:

Design Methodologies
BMP Fact Sheets
Construction Specifications
Standard Details
Ordinance
Staff Training

4.2.4.2.2

Lee's Summit ensures compliance with the ordinance by enforcement mechanisms. Lee's Summit will use the following sanctions including non-

monetary penalties, stop work orders, fines, and permit revocation. The vast majority of citations are corrected long before enforcement actions are necessary.

4.2.4.2.3

Lee's Summit will require construction site operators to control wastes that may have adverse impacts on water by implementing appropriate water quality BMPs.

4.2.4.2.4

Lee's Summit has procedures in place for site plan review, including the review of Stormwater pollution prevention plans, SWPPP, which will look at the potential water quality impacts. In addition a stormwater master plan is required on all engineered development projects. We receive approximately three hundred and twenty five, (325) applications for review each year. Approximately sixty (60) of those plan 325 applications result in fully engineered development plans. Lee's Summit has implemented procedures and rationale for those sites that do not require site plan review. All plans are reviewed by multiple departments. Significant development projects are approved by the Planning Commission and City Council prior to issuance of construction permits.

4.2.4.2.5

Lee's Summit staff does not plan to propose procedures in the Lee's Summit ordinance for receipt and consideration of information submitted by the public in the formal plan review process. However, the public has opportunity to speak concerning significant projects proposed in City Council sessions and/or the Planning Commission meetings.

*public receipt
consider. is a
fed & state requirement*

*not
adequate*

4.2.4.2.6

Lee's Summit has implemented procedures for site inspection and enforcement Best Management Practices control measures by way of a dedicated erosion control inspector.

4.2.4.2.7

The position responsible for overall management and implementation of the permittee's stormwater Construction site Stormwater runoff control is the Public Works Director. Others will be involved in the execution of each of the individual activities in the programs, but most of the activities will be delegated through the Public Works Department.

4.2.4.2.8

We measure compliance by the downward trend of citations, fines, and enforcement actions taken against the development community.

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

4.2.5.1 Permit Requirement

4.2.5.1.1

Lee's Summit has developed, implemented, and enforced a program to address stormwater runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale.

4.2.5.1.2

Lee's Summit has developed and implemented strategies, which include a combination of structural and/or non-structural Best Management Practices (BMPs), appropriate for the community. These are outlined in our Stormwater Section Standard operating procedures 1-20, see appendix.

4.2.5.1.3

Lee's Summit uses ordinance(s) # 5813, and other regulatory mechanisms to address post-construction runoff from new development and redevelopment projects to the extent allowable under State or Local law.

4.2.5.1.4

Lee's Summit will enforce maintenance responsibilities of private owners of Best Management Practices, BMP's, retention/detention basins, in place throughout the city.

4.2.5.2 Decision Process

The City of Lee's Summit seeks to be progressive in our approach to improving the quality of life for our residents. We have required peak reduction basins since 1993 on most development projects. The specific design and construction requirements for the detention and/or retention basins become much more stringent since our adoption of APWA standards in 2004.

4.2.5.2.1

Lee's Summit has implemented regulatory procedures to address stormwater runoff from new development and redevelopment projects. There are no areas identified as a priority for regulatory procedures in the fact that the only 303D listed impacted water body adjacent to the City of Lee's Summit is the Little Blue

River with the pollutant impairment noted as mercury. The Little Blue River is a portion of our Northwest corporate boundary.

4.2.5.2.2

Lee's Summit is unique that much of the city, six (6) of the eleven (11) sub-watersheds in our corporate boundaries discharge into local lakes. These lakes act as water quality filters in the fact that micro-organisms living in them attack pollutants which may be discharged from the corporate limits. We encourage the minimization of water quality impacts, and attempt to maintain pre-development runoff conditions by implementation of codes and ordinances.

4.2.5.2.3 Non-Structural Best Management Practices (BMPs)

4.2.5.2.3.1

Lee's Summit implements policies and ordinances that will help minimize water quality impacts. Our parks department owns and/or controls 4.4 miles of stream buffer areas. We have approximately forty nine (49) miles of streams within the city that has regulated floodplains associated with them. Any construction activity within this floodplain requires FEMA and City permitting. If a regulated stream buffer is eliminated by a development project, the City requires compensatory water quality enhancements, (ie. constructed wetlands).

There are nine hundred and ninety three (993) acres of City of Lee's Summit parks and three thousand three hundred and thirty six (3,336) acres of Jackson County parks within the corporate boundaries of Lee's Summit. These park lands filter runoff.

Our Unified Development Ordinance stipulates appropriate land uses for areas within our corporate limits.

We encourage our City operations and grounds crews to leave a natural vegetation buffer along streams and water bodies so that native vegetation and ecological biodiversity can be re-established along the waters edge.

4.2.5.2.3.2

Lee's Summit encourages infill development or re-development in higher density urban areas, and areas with existing storm sewer infrastructure. A large portion of new permitted projects are re-development is occurring as of this writing.

4.2.5.2.3.3

Lee's Summit has implemented education programs for developers and the public about project designs that minimize water quality impacts. These include hosting "Green solutions" town hall meetings and various environmental workshops.

4.2.5.2.3.4

Lee's Summit has implemented other measures such as minimization of the percentage of impervious area after development, (80% maximum by code). Detention and/or retention ponds have been required since 1993 by Ordinance No. 3719 and further by Ordinance no. 5813 and as such these basins provide some water quality measures for development projects. Source control measures often thought of as good housekeeping, preventive maintenance and spill prevention are encouraged by offering Household Hazardous Waste collection days twice monthly nine months out of the year at the Resource recovery Park, (Landfill) within the City.

4.2.5.2.4 Structural BMPs

4.2.5.2.4.1, 2, &3

Lee's Summit has implemented APWA section 5600 which includes multiple stage detention and/or retention basins. The basins must match predevelopment peak flow rates for the 1, 10 & 100 year return events. These multiple stage discharge risers necessary to meet the discharge requirements allows extended detention of the impounded volume. Infiltration practices are not practical in the clay soils typically found in Lee's Summit. Stream buffers are required for any new development with a tributary of 40 acres or more contributing watershed.

4.2.5.2.5

Lee's Summit has implemented Ordinance No. # 5813, and other regulatory mechanisms to address post-construction runoff from new developments and redevelopments. These mechanisms will help to not only recommend proper practices, but will help enforce the proper use of the practices under certain circumstances.

Lee's Summit will ensure compliance with the ordinances by way of sanctions and enforcement mechanisms. Lee's Summit has implemented the following sanctions in their ordinances:

- Non-Monetary Penalties / Stop work orders
- Fines
- Permit revocation for Non-Compliance

4.2.5.2.6

Lee's Summit will enforce maintenance responsibilities of private owners of Best Management Practices, BMP's, retention/detention basins, in place throughout the city.

4.2.5.2.7

The position responsible for overall management and implementation of the Post-Construction Stormwater Management in New Development and Redevelopment is the Public Works Director. Others will be involved in the execution of each of the individual activities in the programs, but most of the activities will be delegated through the Publics Work Department.

4.2.5.2.8

We will evaluate the success by a downward trend in percentage of citations and fines issued to the development community as a result of education and compliance with ordinances and codes in place.

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

4.2.6.1 Permit Requirement.

4.2.6.1.1

Lee's Summit has developed and will continue to improve and implemented an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations.

4.2.6.1.2

Lee's Summit's program includes employee training to prevent and reduce stormwater pollution from municipal operation activities.

4.2.6.2 Decision Process

Lee's Summit has developed a pollution prevention/good housekeeping program for municipal operations as a matter of course over the years and as a part of our accreditation as an APWA certified agency.

4.2.6.2.1

Lee's Summit has implemented pollution prevention and good housekeeping measures in the following City activities:

Catch Basin Cleaning
Street Sweeping
Recycling Program
Maintenance Schedule
Maintenance Activities
Minimize Pesticides Used
Employee Training

Lee's Summit owns and operates a Landfill and airport both of which have separate NPDES permits on file with MoDNR. They each have specific permit requirements applicable to the individual facility.

4.2.6.2.2

Lee's Summit will formalize and implement an employee-training program in the following areas so as to prevent and reduce stormwater pollution from the following activities:

Park and Open Space Maintenance

Fleet and Building Maintenance
New Construction and Land Disturbances
Stormwater System Maintenance

These activities will be coordinated with the outreach programs developed for the public information and illicit discharge minimum control measures so that a consistent message is presented throughout Lee's Summit's.

4.2.6.2.3

Lee's Summit's program will address the areas identified in the following sections.

4.2.6.2.3.1

The following activities will be implemented to reduce pollutants in the MS4:

Maintenance Schedule
Maintenance Activities
Long-Term Inspection Procedures

4.2.6.2.3.2

Lee's Summit reduces potential pollutants from public operations by street sweeping operations. We have recently constructed a parking garage for City Hall employees and downtown shoppers. Hazardous materials are stored indoors in appropriate spill containment facilities. Our road salt storage is under a covered dome. Our salt/sand mixture is stored on a concrete slab under a tarp to protect from rain events. Fleet maintenance is performed in covered areas with appropriate spill containment. We sweep all streets twice yearly. This encompasses approximately 495 centerline miles of roadways.

The following controls and/or programs have been implemented to reduce or eliminate the discharge of pollutants from facilities owned by Lee's Summit:

Catch Basin Cleaning
Street Sweeping
Recycling Program
Maintenance Schedule
Maintenance Activities
Minimize Pesticides Used talk to parks & operations
Employee Training

4.2.6.2.3.3

Lee's Summit standard procedure for the disposal of dredge spoil, accumulated sediments, floatables, and other debris from our storm sewer system is disposal in the landfill which is regulated by state and federal guidelines.

4.2.6.2.3.4

Lee's Summit is currently evaluating potential "Green Solutions" to correct existing flooding problems located throughout the city

Lee's Summit will review their current regulations concerning flood management to ensure they allow for:

- a. Assessment and implementation of solutions that address impacts to water quality for new projects and;
- b. Review of existing projects for inclusion of water quality aspects.

4.2.6.2.4

The Public Works Director will be responsible for overall management and implementation of the pollution prevention and good housekeeping program for Lee's Summit. Others will be involved in the execution of each of the individual activities in the programs, but most of the activities will be delegated through the Public Works Department.

4.2.3.2.5

Lee's Summit will evaluate the success of the pollution prevention/good housekeeping minimum control measures by compliance by our personnel and acceptance by our citizens.

APPENDIX