Storm Water Management Plan

May 12, 2013

Pleasant Valley, Clay County, Missouri

6500 Royal Street

Pleasant Valley, Missouri 64068

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NPDES Phase II Stormwater Permit Application

May 12, 2013

Permittee:

City of Pleasant Valley

6500 Royal Street

Pleasant Valley, Missouri 64068

Located in the following sections:

Section 22, Township 5N, Range 32 W, and the;

Northwest quarter of Section 23, township 51N, Range 32 W and the;

North half of Section 27, Township 51N, Range 32 W.

Approximately at:

39 degrees 13 minutes 00 seconds North Latitude, and;

94 degrees 29 minutes 00 seconds West Longitude

Submitted:

May 12, 2013

Information on the Permittee:

Name of the Permittee: City of Pleasant Valley, Missouri

Type of Entity: Municipality – Fourth Class City

Total Acres (acres): Approximately 800 acres

Mailing Address: 6500 Royal Street, Pleasant Valley, MO 64068

Primary Contact: Chris Cronk, Interim Asst. Director of Public Works

Secondary Contact: Georgia Wenell, City Clerk

Phone number: 816-781-3996

Information on the Municipal Storm Sewer System:

MS 4 System Location: Pleasant Valley

Name of Organization: City of Pleasant Valley

County Permittee Resides: Clay County

The major receiving waters within the permitted area include:

Shoal Creek, Little Shoal Creek, and unnamed tributaries

The receiving waters are on the latest CWA's list of impaired waters: No

Received certification that the SWMP complies with the requirements of Part 3.1: No Records

Information on Adjacent Waterways:

The Permittee is with 100 feet of: creeks and streams

The Permittee is not with 100 feet of waters classified as major reservoirs.

None of the Permittee's area is defined as wetland.

The Permittee has received a CWA, Section 404 permit from the US Army Corps of Engineers:

The City has previously received a CWA, Section 404 permit from the US Army Corps of Engineers for specific work within jurisdiction streams.

Stormwater from Pleasant Valley does not discharge to a known sinkhole.

Information on Critical Areas:

There are threatened or endangered species in the area: none known

The Permittee has met eligibility criteria for protection of threatened or endangered species.

There are critical habitats in the area: none known

The Permittee has met eligibility criteria for protection of critical habitats.

There are no known historic properties in the area.

Storm Water Management Plan:

Summary/Overview of the Program

In the past, stormwater management focused primarily on flood control and the water quality of our nation's lakes, rivers and streams was greatly ignored. In 1972 the United States Congress enacted the Clean Water Act to protect surface waters of the United States from pollution. As a result of the Clean Water Act, the National Pollution Discharge Elimination System (NPDES) was implemented by the Environment Protection Agency.

The NPDES program, as it relates to storm water management was implemented in two (2) phases. In 1990, Phase I of the program was initiated and covered communities with populations in excess of 100,000, construction sites over five (5) acres and 11 industrial categories. In 1999, Phase II of the program was enacted which included communities located in urbanized areas as defined by the United States Bureau of the Census, construction sites that disturb between one (1) or more acres and 11 industrial categories. The City of Pleasant Valley is currently regulated under Phase II of the program.

On April 11, 2003, the City of Pleasant Valley received their NPDES Phase II permit and became a regulated Phase II community. The permit required the City to develop a Storm Water Management Program and Plan (SWMP). It was decided by the elected officials that the Public Works Department would oversee and administer the program. The program includes six (6) minimum control measures:

1. Public Education and Outreach
2. Public Involvement and Participation
3. Illicit Discharge Detection and Elimination
4. Construction Site Runoff Control
5. Post-Construction Runoff Control
6. Municipal Pollution Prevention and Good housekeeping.

In order to ensure that success of the Storm Water Management Plan (SWMP) citizens are strongly encouraged to become involved by routinely checking the City website (pleasantvalleymo.org), picking up brochures at City Hall, participating in hands-on activities such as Nature Day and "Clean Stream" Day and reporting unusual or unlawful activities to the City for further investigation. Please contact the Pleasant Valley Public Works Department at 816.781.6282 for further information.

Regulatory Requirements (per the MS4 permit):

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

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

The measurable goals for each of the BMPs including, as appropriate, the months and years in which the permittee will undertake required actions, including interim milestones and frequency of the action;

The person primarily responsible for the SWMP, and the person(s) responsible for each minimum control measure if different from the primary responsible person; and

The permittee shall implement a program designed to protect water quality in potentially affected waters and ensure that the permitted activities do not cause a violation of the Water Quality Standards;

Discharges to waters of the state shall not cause a violation of water quality standards rule under 10 CSR 20-7.031, including both specific and general criteria; and

The following general water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:

Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;

Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;

Waters shall be free from substances or conditions in sufficient amounts to cause unsightly color to turbidity, offensive odor prevent full maintenance of beneficial uses;

Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;

There shall be no significant human health hazard from incidental contact with the water;

There shall be no acute toxicity to livestock or wildlife watering;

Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community; and

Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMO, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.

For facilities under the control of the permittee good housekeeping practices shall be maintained to keep solid waste from entry into water of the state to the maximum extent practicable;

All fueling facilities under the control of the permittee shall adhere to applicable federal and state regulations concerning underground storage, above ground storage, and dispensers, including spill prevention, control and counter measurers;

Substances regulated by federal law under the Resource Conservation and Recovery act (RCRA) or the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) that are transported, stored or used for maintenance, cleaning or repair by the permittee shall be managed according to the provisions of RCRA and CERCLA;

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

In addition to the requirements listed above, the permittee shall document the decision process for each minimum control measure and include rationale statements for each BMP and measurable goal defined;

The permittee shall inspect any structures that function to prevent pollution of storm water or to remove pollutants from storm water and the facility in general to ensure that all BMPs are continually implemented and effective, and a monitoring schedule shall be specified in the SWMP document;

The SWMP document shall include interim milestones, measurable goals, an implementation schedule and measures for success; and

The permittee shall develop and fully implement each minimum control measure within five (5) years of receipt of its first MS4 permit. At each reissuance of this MS4 permit, the permittee shall comply with new or revised standards as soon as practicable, but no later than 5 years from the date of reissuance.

Minimum Control Measures:

MCM #1: Public Education and Outreach on Storm Water Impacts

Permit requirement. The permittee shall implement a public education program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of storm water discharge on water bodies and steps the public can take to reduce pollutants in storm water runoff. As part of the SWMP, the public education and outreach program shall include the following information, at a minimum:

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

The target pollutant sources include:

- **Illicit discharges/connections**
- **Lawn & Garden activities**
- **Hazardous waste disposal**
- **Vehicle maintenance**
- **Vehicle washing**
- **Pet waste**
- **Swimming Pool maintenance**

Identification of target audiences for the permittee's education program who are likely to have significant storm water impacts (including commercial, industrial and institutional entities);

The target audience should include:

- **Elected officials**
- **City staff**
- **Citizens**
- **Developers**
- **Home Builders**
- **Business/Industry**
  - **R+L Carriers**
  - **QuikTrip Corporation**
  - **KTTR Services, Inc**
  - **Northland Ready Mix, Inc**
  - **Central Power Systems & Services (Detroit Diesel)**
- **Lawn Service Companies**
- **Trash Haulers**

A plan to inform individuals and households about steps they can take to reduce storm water pollution;

A commitment to continue participation in the Mid-America Regional Council (MARC) water quality public education programs. This includes brochures provided by MARC (distributed by City) and links to the MARC website on the City's web page. MARC also utilizes public signage

(fixed billboards or mobile advertisements attached to KCATA buses). By utilizing a regional planning agency the entire regional (KC metro area) is benefitted globally. Visit the MARC Water Quality website at http://www.marc.org/Environment/Water/index.htm. It includes a section for Home Owners and Local Governments.

Pleasant valley plans to continue its public education program by distributing educational materials to the community and conducting outreach activities. The focus of these efforts will be to educate the public with activities discussing the impacts of stormwater discharges on streams and the steps the public can take to reduce pollutants in stormwater run-off.

Pleasant Valley will continue to inform the public about reducing stormwater pollution by the use of the following examples:

Pleasant Valley Flyer (local news bulletin distributed monthly)

website *(pleasantvalleymo.org)*

brochures (available at City Hall and at special events)

presentations to civic organization and to the local early childhood education school. Reference the DNR video entitled Keeping Our Waters Clean (DNR Video number VID1019) can be downloaded at
http://www.dnr.mo.gov/pubs/index.html#WaterPollution

storm drain placards/signage on storm inlets

MARC's regional advertising campaign

A plan to inform individuals and groups on how to become involved in the SWMP (with activities such as local stream and lake restoration activities);

Pleasant Valley will continue to inform the public about involvement in the SWMP by the following examples:

Recruitment drives at special events (i.e. Nature Day, Clean Streams, etc)

Pleasant Valley Flyer (local news bulletin distributed monthly)

website *(pleasantvalleymo.org)*

brochures (available at City Hall and at special events)

presentations to civic organization and to the local early childhood education school

The permittee's outreach strategy, including the mechanisms (e.g. printed brochures, newspapers, media, workshops, etc.) to reach target audiences, and how many people expected to be reached over the permit term;

Recruitment drives at special events (i.e. Nature Day, etc)	**estimated 120 people attend each year**
Pleasant Valley Flyer (local news bulletin distributed monthly)	**estimated 1,000 homes receive this monthly**
website	**unable to quantify**
brochures (available at City Hall and at special events)	**unable to quantify number distributed since 2003**
presentations to civic organization dinners	**approximately 8-14 people attend civic monthly (4th Thursday @ 11:00 am)**
presentations to local early childhood education school (6800 Sobbie Rd)	**approximately 10 classrooms @ 12 students per classroom**

A plan to evaluate the success of this minimum control measure.

It is very difficult to evaluate the increased stormwater knowledge of the target audience. Our approach and belief is that as long as the information is flowing to the target audience knowledge is being gained.

Person Responsible

The person responsible for overall management and implementation of the permittee's stormwater Public Education and Outreach program is the Director of Public Works. Others may be involved in the execution of each of the individual activities in the program.

MCM #2: Public Involvement/Participation:

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

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

Pleasant Valley will comply with State and local public notice requirement when implementing the public involvement and participation program.

Public Meeting was posted and held on June 6, 2011

Public Hearing was posted and held on June 20, 2011

The target audiences for the permittee's public involvement program, including a description of the types of ethnic and economic groups engaged. The permittee is encouraged to actively involve all potentially affected stakeholder groups, including commercial and industrial businesses, trade associations, environmental groups, homeowners associations, and educational organizations, among others; and

The types of public involvement activities included in the permittee's program. Where appropriate, the permittee must consider the following types of public involvement activities;

Citizen Representatives on a storm water management panel;

Publicly posted meetings and/or hearings;

Working with citizen volunteers willing to educate others about the program; and

Volunteer monitoring or stream/lake clean-up activities;

Pleasant Valley held a public hearing on June 20, 2011 and we also plan to establish a "Clean Streams" advisory panel to be populated as follows.

1-Council liaison
1-Public Works Director
2-citizens
1-member of business or industry

It is anticipated that this advisory panel would meet as needed; but, not less than quarterly (four times per year). This panel would be tasked to find fellow volunteers and to provide stream monitoring and periodic stream cleanup.

Mid-America Regional Council (MARC) has a Water Quality Education Grant Program that the City may want to pursue. The program is a 50/50 partnership grant. Grant applications can be downloaded at http://www.marc.org/Environment/Water/grants.htm or call MARC at 816-701-8233. Applications are typically due in February/March.

MARC is also available to speak at your public events.

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

The method of evaluating success of this minimum control measure.

We feel the best opportunity to involve the public is to empower them. Through the use of public meetings, the advisory panel and volunteer monitoring, cleanup and their own public outreach affords us the best opportunity to make this program successful. Success can be measured by number of volunteers actively involvement with the program.

Person Responsible

The person responsible for the overall management and implementation of the permittee's stormwater Public Involvement/Participation program is the Director of Public Works. Others will be involved in the execution of each of the individual activities in the program.

MCM #3: Illicit Discharge Detection and Elimination

Permit requirement. The permittee shall develop, implement and enforce a program to detect and eliminate illicit discharges (as defined in 10 CSR 20-6.200) into the permittee's regulated small MS4. As part of the SWMP document, the permittee's illicit discharge detection and elimination program shall include the development and implementation of, at a minimum;

A storm sewer map showing the location of all outfalls and the names and location of all receiving waters of the state that receive discharges from those outfalls. The permittee shall describe the sources of information used for the map(s), and how the permittee plans to verify the outfall locations with field surveys. If already completed, the permittee shall describe how the map was developed and how the map will be regularly updated. The permittee shall make the map information available to the department upon request;

> **In April 2011, the City used aerial photography, plat maps and field reconnaissance to develop an outfall map. This map is intended to be a dynamic document that should be reviewed and updated as additional outfalls are discovered. The field reconnaissance identified approximately 100 outfalls that have been numbered and cross-referenced for future identification.**
>
> **This map will be reviewed annually or as warranted by public complaint or concern. It is imperative that the map be kept current and a duplicate copy kept in a central and safe location.**

To the extent allowable under State, or local law, effectively prohibit, through ordinance, or other regulatory mechanism, non-storm water discharges into the permittee's storm sewer system and implement appropriate enforcement procedures and actions. The permittee shall identify the mechanism (ordinance or other regulatory mechanism) the permittee will use to effectively prohibit illicit discharges into the MS4. If the permittee's ordinance or regulatory mechanism is already developed, include a copy of the relevant sections with the permittee's program; and

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

> **The City has in place the following ordinances to address stormwater pollution**
>
> | | |
> |---|---|
> | **Ordinance 445 (Chapter 220)** | **Prohibiting Littering (curbs/gutters, ponds, lakes and streams)** |
> | **Ordinance 935 (Chapter 225)** | **Solid Waste Management** |

Ordinance 1535 (Chapter 515)	**Grading on Private Property (sediment and erosion control plan)**
Ordinance 2205 (Chapter 700)	**Sanitary Sewers and Sewage Disposal (septic tanks and connections to public sewer)**
Ordinance 2206 (Chapter 705)	**Commercial and Industrial Waste**
Ordinance 2303 (Chapter 530)	**Erosion and Sediment Control**
Ordinance 2807 (Chapters 215 & 227)	**Nuisances (addressing animal carcasses, litter, septic tanks, general water pollution)**
Ordinance 2942 (Chapter 505)	**Mowing and Removal of Trash and Debris**

The City shall further review Chapter 500.140 regarding Swimming Pool Regulations specific to draining or dewatering swimming pools. Although there are not a significant number of swimming pools, there is a public concern regarding the chemicals that are in the water and that ultimately reach the streams. Dechlorination and/or general removal of aqueous chemicals before being discharged to the storm drain system or overland. even if on your own property is recommended for consideration by Council.

Ordinance 2303 as currently adopted references 1994 standards and Chapter 505, Section 505.010 references pre-1980 Kansas City, Missouri standards. The City shall further review adoption of current American Public Works Associations (APWA) Kansas City Metro Chapter specifications regarding stormwater and stormwater related BMP's. The applicable sections are:

Section 5100, Site Work and Erosion and Sediment Control
Section 5600, Storm Drainage Systems & Facilities
Standard Drawings for Erosion and Sediment Control
Storm Drainage BMP Manual

The above documents can be downloaded or viewed at http://kcmetro.apwa.net/chapters/kcmetro/specifications.asp

Procedures for tracing the source of all illicit discharge, including the specific techniques the permittee will use to detect the location of the source;

Education of the other City departments (public works, police, fire, City Hall staff) and their employees will allow them to identify potential sources of illicit discharge while conducting their day-to-day duties throughout the City. Reports should be documented to the Public Works Department (see sample report form). This technique will be utilized on a daily basis.

Inspection upon complaint. This mechanism was selected because ordinances are commonly used by Pleasant Valley to establish laws and set forth the enforcement mechanisms. The

ordinances establish legal authority; to regulate the contribution of pollutants to the municipals 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. Neighborhood/Public Watches are encouraged and the City Police Department keeps records of all formal complaints.

Dry weather observation of outfalls will be utilized to detect suspect illicit discharge(s). This inspection should be conducted at least annually.

Stormwater sampling will be utilized to categorize reaches or areas of changed water conditions. The attached MS4 Stream Sampling Location Map should be used; realizing that this map is dynamic and needs to be adapted based on field observations and results. Stormwater sampling should be conducted at least annually.

Procedures for removing the source of the illicit discharge;

City ordinances will be utilized to require illicit discharges to be removed from the storm sewer system.

A plan to ensure through appropriate enforcement procedures, including fines, and actions that the permittee's illicit discharge ordinance (or other regulatory mechanism) is implemented;

City ordinances will be utilized to require illicit discharges to be removed from the storm sewer system.

A plan to inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste. The permittee shall describe how this plan will coordinate with their public education minimum measure and the pollution prevention/good housekeeping minimum measure programs;

Pleasant Valley will include education and discussion of the types of illicit discharges and the effects on the environment as part of their MCM #1 and MCM #2 programs.

Procedures for program evaluation and assessment of this minimum control measure.

Through the use of permits issued, violations cited, illicit connections found and eliminated and stormwater sampling data assessment, the MCM can be evaluated and compared from that of prior years.

Address the following categories of non-storm water discharges or flows (i.e. Illicit discharges) only if the permitte identifies them as significant contributors of pollutants to the permittee's regulated small MS4; landscape irrigation, rising ground waters, uncontaminated ground water infiltration (as defined in 10 CSR 20-6.200), uncontaminated pumped ground water, discharges from potable water sources, foundation drains, air conditioning condensation, springs, water from crawl space pumps, footing drains,

lawn watering, flows from riparian habitats and wetlands, and street wash water (discharges or flows from emergency fire fighting activities are excluded from the effective prohibition against non-storm water and need only to be addressed where they are significant sources of pollutants to waters of the state).

Pleasant Valley has not identified any of the above mentioned categories of non-stormwater discharges or flows (i.e. illicit discharges) as significant contributors of pollutants to their small MS4;

Pleasant Valley's illicit discharge ordinances does not include a list of occasional incidental non-stormwater discharges (e.g. non-commercial or charity car washes, etc). These occasional discharges 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.

The permittee should inventory, inspect and have enforcement authority for industries and commercial enterprises within their boundary that may contribute pollutants via storm water to the MS4.

We plan to meet with industry and businesses to discuss the following:

1. **Explain the MS4 programs and the requirements of the City**
2. **Inventory and inspect their stormwater drainage system**
3. **Review existing ordinances and regulations with the entity**
4. **Pursue regulatory actions as required through the use of ordinances.**

Responsible Party

The <u>Director of Public Works</u> will be responsible for overall management and implementation of Pleasant Valley's stormwater Illicit Discharge Detection and Elimination program. Others will be involved in the execution of each of the individual activities in the programs.

A plan to ensure compliance with the permittee's erosion and sediment control regulatory mechanism, including the sanctions and enforcement mechanisms the permittee will use to ensure compliance and procedures for when certain sanctions will be sued. Possible sanctions include non-monetary penalties (such as stop work orders), fines, bonding requirements, and /or permit denials for non-compliance; and

A description of how the permittee will evaluate the success of this minimum control measure.

City Ordinance 2303 gives the City the following authority:

1. **permit and associated fee ($50)**
2. **issue stop work order**
3. **discontinue inspections**
4. **withhold Certificates of Occupancy, including temporary Certificates of Occupancy**
5. **obtain from builder and/or developer escrow account or performance bond to cover the cost of erosion control measures (ECM) and short-term (during the construction project) maintenance of the ECMs.**

Responsible Party

The <u>Director of Public Works</u> will be responsible for overall management and implementation of Pleasant Valley's Construction Site Storm Water Runoff Control program. Others will be involved in the execution of each of the individual activities in the programs.

Section 5600, Storm Drainage Systems & Facilities
Standard Drawings for Erosion and Sediment Control
Storm Drainage BMP Manual

The above documents can be downloaded or viewed at
http://kcmetro.apwa.net/chapters/kcmetro/specifications.asp

A plan to ensure adequate long-term operation and maintenance of selected BMPs, including types of agreements between the permittee and other parties such as the post-development landowners or regional authorities;

Through the annual operations budget, Pleasant valley will implement options to help ensure the long-term operation and maintenance of their selected BMPs. These options will help ensure that continued maintenance responsibilities are addressed.

Specific priority areas for this program; and

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

Policies and ordinances that provide requirements and standards to direct growth to identified areas, protect sensitive areas such as wetlands and riparian areas, maintain and/or increase open space (including dedicated funding source for open space acquisition), provide buffers along sensitive water bodies, minimize impervious surfaces, and minimize disturbance of soils and vegetation;

Pleasant Valley will implement regulatory procedures to address stormwater run-off from new development and re-development projects. Other than riparian zones adjacent to the streams, there are no areas identified as a priority for the regulatory procedures.

The City reviewed and passed an ordinance (500.150) effective January 22nd, 2013 for riparian protection zones (commonly referred to as "stream buffers" or "stream setbacks"). Although this is not a current problem the City wanted an ordinance in place for enforcement if necessary.

Policies or ordinances that encourage infill development in higher density urban areas, and areas with existing storm sewer infrastructure, and redevelopment of Brownfield sites or grayfields which may include abandoned malls or similar properties;

No such areas such as these currently exist in Pleasant Valley

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

Other measures such as minimization of the percentage of impervious area after development, use of measures to minimize directly connected impervious areas, site designs that provide for integration of a variety of infiltration practices, and source control measurers often thought of as good housekeeping, preventive maintenance and spill prevention.

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

Practices that provide infiltration, evapotranspiration or re-use such as grassed swales, bio-retention cells, cisterns and green roofs; and

Redevelopment practices such as planter boxes, street retrofits, parking-lot infiltration and green roofs.

The Storm Drainage BMP Manual (APWA KC Metro Chapter) provides a multitude of design options. This document has not been adopted by the City but will be considered before December 2013.

Developers are part of our target audience for Education and Training.

Pleasant Valley will continue to enforce the adopted Kansas City Erosion and Sediment Control Manual, which requires the developer to preserve impervious land areas and the use of BMPs that promote recharge of stormwater into the ground at the site in-lieu of running off the site. This manual outlines the requirements for designers and contractors before, during and after the construction activities.

In addition the City will review and if acceptable adopt current APWA standards prior to December 2013.

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

New construction projects will be tracked by Public Works Department as to the use and implementation of "green" stormwater technologies. City sponsored public works projects utilize "green" technologies and native warm-season grasses where applicable.

Responsible Party

The Director of Public Works will be responsible for overall management and implementation of Pleasant Valley's Post-Construction Storm Water Management in New Development and Re-development program. Others will be involved in the execution of each of the individual activities in the programs.

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

Permit requirement. The permittee shall develop and implement an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations. As part of the SWMP, the pollution prevention/good housekeeping program shall include the following information, at a minimum;

A list of all municipal operations that are impacted by this operation and maintenance program. The permittee shall also include a list of industrial facilities the permittee owns or operates that are subject to NPDES permits for discharge of storm water associated with industrial activity that ultimately discharge to the permittee's MS4. The permittee shall include the permit number or a copy of the industrial application form for each facility;

The City currently owns/operates City Hall (inlcuding Police Station) and City Park at 6500 Royal Street and the Public Works and Fire Station at 6801 Sobbie Road.

The following items will be addressed during this permit period

- **Vehicle/Equipment maintenance (fluid changes, spills, fueling procedures)**
- **Vehicle/Equipment cleaning**
- **Snow Removal (salt & sand)**
- **Building maintenance**
- **Fluid spills associated with roadway accidents**
- **Fire suppression runoff**
- **Disposal of animal carcasses**
- **Recycling : recycling center in parking lot at City Hall**
- **Solid waste management**

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

The Public Works Department will review and inspect short-term BMPs weekly or as required following a rainfall event.

The Public Works Department will annually review and inspect long-term BMPs. Through proper training all City employees should be capable of detecting general BMP failure and reporting it to the Public Works Department.

Controls for reducing or eliminating the discharge of pollutants from streets, roads, highways, municipal parking lots, maintenance and storage yards, waste transfer stations, fleet or maintenance shops with outdoor storage areas, and salt/sand storage locations and snow disposal areas the permittee operates;

Street sweeping

to remove salt/sand from snow management operations,

following traffic accidents resulting in broken glass and/or fluid spills,

as needed following special events (example: Day in the park and 4th of July celebrations)

Periodic curb inlet cleaning

Salt/Sand is stored under roof at the Public Works facility on 6801 Sobbie Road. Truck loading/unloading areas should be swept clean as required to avoid migration off-site.

Controls described in section 4.1.5 through 4.1.8 of this permit;

4.1.5 For facilities under the control of the permittee good housekeeping practices shall be maintained to keep solid waste from entry into water of the state to the maximum extent practicable;

The following City facilities have on-site enclosed dumpsters

City Hall & Police Department (6500 Royal Street)-enclosed trash dumpster and City wide recycling collection stations

City Park (6500 Royal Street)-individual trash cans with lids

Public Works Facility (6801 Sobbie Road)- enclosed trash dumpster

Fire Department (6801 Sobbie Road)- enclosed trash dumpster shared with Public Works

4.1.6 All fueling facilities under the control of the permittee shall adhere to applicable federal and state regulations concerning underground storage, above ground storage, and dispensers, including spill prevention, control and counter measurers;

Other than lawn mowers and powered hand tools such as grass trimmers and chainsaws all City vehicles are fueled at local filling stations. Spill prevention and response will be addressed as part of the employee training program.

4.1.7 Substances regulated by federal law under the Resource Conservation and Recovery act (RCRA) or the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) that are transported, stored or used for maintenance, cleaning or repair by the permittee shall be managed according to the provisions of RCRA and CERCLA;

RCRA and CERCLA requirements will be discussed and reviewed as part of the employee training program. Suggested websites for training information can be found at
http://www.epa.gov/osw/education/train.htm
http://www.epa.gov/superfund/training/hrstrain/htmain/1cercla.htm

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

Paint, solvent, vehicle maintenance products and by-products shall be stored indoors and away from storm drains and permeable surfaces such as grass, bare dirt and gravel. Spill prevention and response will be addressed as part of the employee training program.

Procedures for the proper disposal of waste removed from the permittee's MS4 and area of jurisdiction, including dredged material, accumulated sediments, floatables, and other debris;

Material is temporarily stored at the City lot located at * Pleasant Valley Road. The Public Works Department has installed a wood-chip berm around the storage area to make sure that the debris does not runoff into the stream. At various intervals the City has a licensed trash hauler come and pick up the material for permanent deposal.**

Procedures to ensure that new flood management projects are assessed for impacts on water quality and existing projects are assessed for incorporation of additional water quality protection devices or practices;

Storm sewer and flood management projects are reviewed by the City Engineer or outside professional engineer along with City staff for compliance.

A government employee training program to prevent and reduce storm water pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and storm water system maintenance. The permittee shall describe any existing, available materials the permittee plans to use such as those available from EPA, State or other organizations. The permittee shall describe how this training program will be coordinated with the outreach programs developed for the public information minimum measure and the illicit discharge minimum measure; and

Employee training shall be provided on a semi-annual basis. Employee sign-in and sign-out will be required for recordkeeping. Each employee is required to obtain at minimum 1-hour of training/education per year.

The training sessions will be coordinated by the Public Works Department and may be conducted by Public Works staff, relevant outside speakers or seminars or in conjunction with other municipalities in a cooperative training effort.

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

Pleasant Valley will evaluate the success of the pollution prevention/good housekeeping minimum control measure by tracking the progress of each measure against the implementation schedule. Each one of the measures described in the permit was chosen based on its implementability by Pleasant Valley staff and impact on water quality.

Responsible Party

The <u>Director of Public Works</u> will be responsible for overall management and implementation of Pleasant Valley's MS4 Pollution Prevention/Good Housekeeping for Municipal Operations

program. Others will be involved in the execution of each of the individual activities in the programs.

Suggested Implementation Schedule

2013

July-September

- Publicly review and officially adopt current APWA KC-Metro Chapter stormwater and BMP standards. Specifically Section 5100, Section 5600 Storm Drainage BMP Manual and Erosion Control standard drawings.
- Publicly review and officially adopt stream corridor setbacks.
- Formalize the "Clean Streams" advisory committee. Hold the first meeting. Report discussions to City Council.
- Update public education items (brochures, website, etc).
- Publish stormwater stewardship articles in the Pleasant Valley Flyer.
- Continue to install storm inlet placards on all storm inlets.
- Conduct dry weather monitoring & sampling.
- Conduct employee training/refresher course on stream stewardship, vehicle & building maintenance standards and procedures. To minimize lost productivity and "losing" you audience it is recommended that these sessions be held to under 30 minutes.
- Review/Update Outfall Map.
- Notify the public of FREE Household Hazardous Waste disposal program.

October-December

- Hold 4th Quarter "Clean Streams" advisory committee meeting. Report discussions to City Council.
- Update/review public education items (brochures, website, etc).
- Publish stormwater stewardship articles in the Pleasant Valley Flyer.
- Continue to install storm inlet placards on all storm inlets.
- Conduct employee training/refresher course on stream stewardship, vehicle & building maintenance standards and procedures. To minimize lost productivity and "losing" you audience it is recommended that these sessions be held to under 30 minutes.

- Review snow removal operations (specifically salt/sand placement) with applicable staff.
- Review/Update Outfall Map.
- Send out site specific letter to the major industries/businesses discussing stormwater management and water quality. Including but not limited to snow removal operations.
- Educational presentation to City Council including a memo summarizing SWMP compliance and status.

2013-2018 (or permit expiration/renewal)

January-March

- Hold 1st Quarter "Clean Streams" advisory committee meeting.
- Update/review public education items (brochures, website, etc).
- Publish stormwater stewardship articles in the Pleasant Valley Flyer.
- Conduct employee training/refresher course on stream stewardship, vehicle & building maintenance standards and procedures. To minimize lost productivity and "losing" you audience it is recommended that these sessions be held to under 30 minutes.
- Review snow removal operations (specifically salt/sand placement) with applicable staff.
- Send out letter to local trash haulers regarding solid waste management and drainage from trash trucks and lawn refuse trucks.
- Send out site specific letter to the major industries/businesses discussing stormwater management and water quality. Including but not limited to snow removal operations.
- Educational presentation to City Council including a memo summarizing SWMP compliance and status.
- Plan for Spring Event (Nature Day or Arbor Day)
- Don't forget about MARC Water Quality Education Grant Program. http://www.marc.org/Environment/Water/grants.htm or call MARC at 816-701-8233.

April-June

- Prepare DNR Form 780-1846 Storm Water Annual Report-Small MS4 Systems. This report is due on or before July 28.
- Hold 2nd "Clean Streams" advisory committee meeting. Report discussions to City Council.
- perform street sweeping and inlet cleaning.
- Conduct wet weather monitoring & sampling.
- Update/review public education items (brochures, website, etc).
- Publish stormwater stewardship articles in the Pleasant Valley Flyer.
- Conduct employee training/refresher course on stream stewardship, vehicle & building maintenance standards and procedures. To minimize lost productivity and "losing" you audience it is recommended that these sessions be held to under 30 minutes.
- Send out letter to local landscape and lawn maintenance providers.
- Schedule and conduct a site inspection of the major industries/businesses.
- Educational presentation to City Council including a memo summarizing SWMP compliance and status.
- Plan for Summer Event (ValleyFest or 4th of July celebration)

July-September

- Send in DNR Form 780-1846 Storm Water Annual Report-Small MS4 Systems.
- Publicly review and officially adopt current APWA KC-Metro Chapter stormwater and BMP standards. Recommend ordinance changes as required to City Council.
- Hold 3rd Quarter "Clean Streams" advisory committee meeting. Report discussions to City Council.
- Update public education items (brochures, website, etc).
- Publish stormwater stewardship articles in the Pleasant Valley Flyer.
- Continue to install storm inlet placards on all storm inlets.
- Conduct dry weather monitoring & sampling.

- Conduct employee training/refresher course on stream stewardship, vehicle & building maintenance standards and procedures. To minimize lost productivity and "losing" you audience it is recommended that these sessions be held to under 30 minutes.

- Review/Update Outfall Map.

- Notify the public of FREE Household Hazardous Waste disposal program.

October-December

- Hold 4th Quarter "Clean Streams" advisory committee meeting. Report discussions to City Council.

- Update/review public education items (brochures, website, etc).

- Publish stormwater stewardship articles in the Pleasant Valley Flyer.

- Continue to install storm inlet placards on all storm inlets.

- Conduct employee training/refresher course on stream stewardship, vehicle & building maintenance standards and procedures. To minimize lost productivity and "losing" you audience it is recommended that these sessions be held to under 30 minutes.

- Review snow removal operations (specifically salt/sand placement) with applicable staff.

- Review/Update Outfall Map.

- Send out site specific letter to the major industries/businesses discussing stormwater management and water quality. Including but not limited to snow removal operations.

- Educational presentation to City Council including a memo summarizing SWMP compliance and status.

Illicit Discharge Report Form

City of Pleasant Valley
6500 Royal Street
Pleasant Valley, Missouri 64068

General Location (quadrant of cross streets):_____
_____

Exact Location (be specific or provide sketch):_____
_____
_____

Outside Air Temperature:_____ °F

Days Since Last Rainfall:_____ days

Amount of Last Rainfall_____inches

Pipe/Channel Size:_____ inches

Pipe/Channel Type:_____
(example: metal, plastic, concrete)

Description of
Discharge:_____
_____
_____
_____

Color:_____ Odor:_____ Temperature:_____ °F

Amount of Discharge:_____ per minute
(example: 1 quart per minute or 12 oz per minute)

Inspector: _____
signature

_____ Date: _____
printed name

<<Attach Photographs and/or sketches as required to clearly show location>>

Stream/Stormwater Sampling Report Form

City of Pleasant Valley
6500 Royal Street
Pleasant Valley, Missouri 64068

Sample Test Location Number (per Sampling Map, if applicable):_____

Sample Bottle Id Number (if applicable):_____

General Location (quadrant of cross streets):_____
_____

Exact Location of Sample (be specific or provide sketch):_____
_____
_____
_____

<<Attach Photographs and/or sketches as required to clearly show location>>

Outside Air Temperature:_____°F Water Temperature:_____°F

Date of Last Rainfall:_____, 20___ Amount of Last Rainfall_____inches

Pipe/Channel Size:_____ inches

Pipe/Channel Type:_____
(example: natural stream, metal pipe, plastic pipe, concrete flume, etc)

Sample Collected by: _____
signature

_____ Date: _____ Time:_____
printed name

Sample was delivered to: _____with _____
printed name of person company name
on _____, 20___ at _____ am / pm

<<Attach Laboratory Results once received to this form for recordkeeping>>