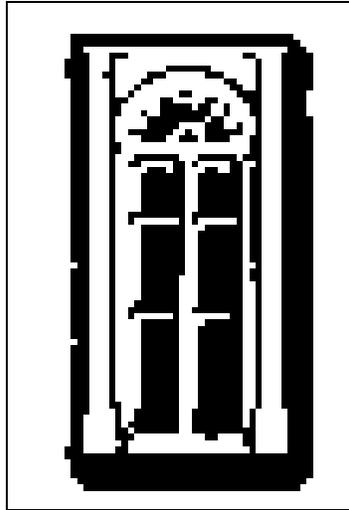


**City of Bardstown
2010 Stormwater Quality Management Plan**

Second Program Term
2010 to 2015



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URS

City of Bardstown
2010 Stormwater Quality Management Plan

Minimum Control Measures

The objective of the City of Bardstown's sMS4 program is to maintain or improve the quality of the waters of the Commonwealth of Kentucky to the Maximum Extent Practicable (MEP). To accomplish this objective, several goals were established to serve as a fundamental basis for the stormwater management programs. The goals include:

- Develop and maintain program activities and focus new endeavors to benefit and protect the City of Bardstown's stormwater resources.
- Emphasize public and staff education, awareness and reporting as the primary management practices.
- Engage in a collaborative effort with KYTC to cost effectively develop resources and programs to address the requirements of the sMS4 program.
- Enforce erosion prevention and sediment control (EPSC) practices and programs pursuant to the City's ordinance.
- Promote effective use of appropriate structural and non-structural stormwater management practices for new development and redevelopment.

This Stormwater Quality Management Plan (SWQMP) will outline programs and measures that the City of Bardstown will implement in the 2010-2015 permit cycle. In the previous permit cycle, the City encountered accomplishments, challenges and issues that have shaped their program, as described here:

Accomplishments from the first permit cycle that are attributable to the City of Bardstown's sMS4 program are:

- Active coordination with KYTC, to develop and define, at that time, the co-permittee relationship and partner activities for earlier permit years. sMS4 program products that the City expressed interest included: education materials, public survey, erosion prevention and sediment control training, BMP plan preparation training and revision of the Environmental Handbook fact sheets with respect to municipal operations. In return, the City informally committed to perform mapping and screening activities, for state highways within the sMS4 jurisdiction.
- Development and passage of drainage control and illicit discharge ordinances to reduce stormwater pollution. These ordinances are available on the City's website, www.cityofbardstown.org.
- Broadcasting stormwater educational materials to the public through the local cable television station.
- Recycling, street sweeping and other municipal services document measurable quantities to quantify impact on local receiving waters.
- Regular participation in the Kentucky MS4 Workgroup and other MS4 related meetings.
- Staff and local construction industry participation in the Kentucky Erosion Prevention and Sediment Control (KEPSC) Qualified Inspector course.

The primary challenge the City faces with regard to the sMS4 program is funding. The City has explored funding options, including amending the drainage control ordinance to include a stormwater management fund. Although the amended ordinance was drafted, it was not approved, and stormwater program funding is limited to allocations from the general fund and engineering department. Funding continues to be a challenge in meeting program requirements. The City is committed to meeting permit requirements, and has established strategies to meet program challenges. These include:

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- Educating the members of the local elected officials about the sMS4 program and the impact of this program on the City of Bardstown.
- Rely on formal and informal cooperative efforts with KYTC and other Kentucky sMS4 communities to establish and implement cost effective activities, including public education campaigns.

City of Bardstovwn 2010 Stormwater Quality Management Plan

MCM 1: Public Education and Outreach

Summary

The City of Bardstovwn engages in several activities to educate the general public and target audiences of stormwater quality impacts. The primary focus of the City's public education campaign will include:

- Continuing broadcasting public service announcements on various stormwater topics.
- Updating web based information via a stormwater web page.
- Educating elected officials about the Stormwater Quality Management Plan and its implementation.
- Participating in the Kentucky Stormwater Association (KSA).

Best Management Practices (BMPs)

Task 1.A.1 Public Service Announcements

The City of Bardstovwn will continue to provide public service announcements on various stormwater topics. These announcements will be broadcast through the City's public cable channel to the community a minimum of once a week for the first year of the permit cycle. In subsequent years the content and frequency of the announcements will be adjusted based on their effectiveness. Public service announcements will be customized from existing or available public data.

Tasks 1.A.2 Website

Currently, the City of Bardstovwn's website includes pages for each department, including the Engineering Department, which manages the stormwater program. The City of Bardstovwn will create a stormwater web page or modify the current page and update it as needed to communicate stormwater education messages and programs to residents. A special portion will be dedicated to public education on the stormwater permit and water quality.



Tasks 1.A.3 Educate and Inform Officials About SWQMP

City Engineering staff will continue to coordinate with elected officials and educate them on SMS4 program regulations and program implementation. Elected officials will be updated at least annually through regular City Council meetings to maintain program direction. Updates to the Mayor and City Council also allow the City to consider the budget for future activities.

Task 1.A.4 Partner with the Tree Board

The City of Bardstovwn will partner with the Tree Board to engage local stakeholders in stormwater program decision-making. The Board meetings will provide a forum to distribute educational materials, such as brochures and meeting handouts to public stakeholders in the community. Meeting topics will be coordinated to target the current year's program initiatives and include discussions of highlighted minimum control measures. Benefits of this approach include providing stormwater education to local constituencies by focusing on a particular topic and highlighting specific stormwater quality issues or innovative solutions. The City of Bardstovwn will involve the Board in the implementation and status of the SWQMP.

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Task 1.A.5 Kentucky Stormwater Association

The City of Bardstown will participate in the KSA meetings that are held throughout the year. The KSA is a non-profit corporation with membership from the Kentucky MS4 Workgroup. The meetings provide a forum for discussion and exchange of information, facilitate partnerships with public entities and communities, and seek to develop stormwater program consistency across the Commonwealth. Attendance at regular and/or subcommittee meetings allow for material development, educational benefit and MS4 community collaboration. <http://kystormwater.org/>

Tasks 1.A.6-8 Education Programs

As part of the active education efforts, the City of Bardstown will visit schools to educate students on stormwater issues. Signage will be maintained at Sympson Lake to educate the public on stormwater pollution. In addition, a stormwater educational message will be added to the utility bill and updated four times per year to further educate the public. The City's public education program will prioritize education and outreach efforts to focus on pollutants impairing or threatening the City's waterways.

Tasks 1.B.1–2 Develop and Implement Outreach Strategy

The City of Bardstown is actively involved in stormwater education and outreach to the public. The City will continue to utilize materials made available from the KYTC. Use of these public education materials allows for a consistent statewide stormwater message to multiple target audiences and reduces local development and production costs.

Measurable Goals

The success of public education and outreach efforts will be measured by the following:

- Broadcast public service announcements at least weekly during permit PY 1; thereafter, frequency will be determined by the public outreach strategy.
- Update the City website at least twice a year with relevant information about the program.
- Present to the City Council at least once a year about the Stormwater Quality Management Plan and its implementation.
- Partner with the Tree Board and meet with them at least two times per year.
- Participate in at least 75% of the KSA meetings that are held throughout the year.
- Conduct at least one school visit each year and present educational materials developed through KYTC, maintain signs at Sympson Lake and change the stormwater educational message on the utility bill postcard at least four times per year.
- Continue to develop and implement an outreach strategy with the help of resources provided from the KYTC and KEEC. The City will implement their outreach strategy and evaluate its effectiveness by reviewing the survey results and incorporating public input.

**City of Bardstown
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MCM 2: Public Involvement and Participation

Summary

The City of Bardstown will continue to encourage public involvement and participation in the SMS4 program.

Best Management Practices (BMPs)

Task 2.A.1 Stormwater Call Log

The City of Bardstown will maintain a phone helpline and update the website as needed for residents to identify water quality problems and/or concerns. Calls received will be tracked through a database to document information received from the public.

Task 2.A.2 Multi-media implementation of helpline

The City of Bardstown will list the helpline on the City website by PY 2.

Task 2.A.3 Review Community Survey

The City of Bardstown will review the results of the statewide stormwater program survey conducted through KYTC and KEEC. The City will incorporate the survey results into the public outreach strategy. The City will report the results to the Tree Board and City elected officials.

Task 2.A.4 Community Clean-up Events

The City of Bardstown will promote and facilitate community clean up events, such as the Salt River Watershed Watch group.

Task 2.A.5 Recycling Program

The City of Bardstown will promote and encourage community participation in the local recycling program through the website and public service announcements.

Task 2.A.6 Public Notice and Information Dissemination

The City of Bardstown will promote stormwater public involvement opportunities as they arise in the community. The City will update the website as needed and will provide press releases to the local paper to inform the public.

Task 2.B.1 Support Statewide Stormwater Survey

If KYTC does in fact conduct follow-up surveys, the City of Bardstown will encourage public participation and incorporate the survey results into public outreach strategy updates.

Task 2.B.2-3 Promote Adopt-A-Highway Program

The City of Bardstown will promote volunteer Adopt-A-Highway participation. The City will coordinate with local KYTC staff to encourage local sponsorship and volunteers for the program.

Measurable Goals

The success for public involvement will be measured by the following:

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- Maintain a phone helpline for residents to identify water quality problems and/or concerns and track this information and action taken with a database.
- Analyze local stormwater program survey results to compliment the statewide stormwater survey conducted through KYTC and the University of Kentucky Survey Research Center and provide further information on the education level of residents with respect to stormwater topics. Report survey results to the Tree Board and elected officials.
- Promote and facilitate at least one community clean-up event per year by providing dumpsters and dumpster pick-up.
- Monitor the quantity of materials collected through the recycling program and advertise the program through the website and public service announcements.
- Provide information on utility bills and the website to encourage stormwater education and outreach public participation.
- Track the number of Adopt-A-Highway sponsored roadways and the number of volunteer participants.

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MCM 3: Illicit Discharge Detection and Elimination (IDDE)

Summary

The City of Bardstown adopted an illicit discharge detection and elimination (IDDE) ordinance on September 25, 2007.

Best Management Practices (BMPs)

Task 3.A.1 Illicit Discharge Detection and Elimination Ordinance Update

The City of Bardstown will enhance, if necessary, the illicit discharge detection and elimination program by reviewing and modifying the ordinance.

Task 3.A.2 Continue sMS4 System Mapping as Needed

The City will incorporate newly detected major outfalls into the sMS4 stormwater system map. The City will create and implement a policy that new storm sewer infrastructure locations and as-builts are provided to the City electronically to facilitate maintenance of the storm sewer system map and to reduce the need for re-mapping activities.

Task 3.A.3 IDDE and Dry Weather Field Screening Plan and Procedures

The City of Bardstown will develop and implement dry weather screening plan and procedures and will track the number of outfalls inspected and will record the observations. Dry weather field screening plan and policies will include steps to visually identify and track a suspected illicit discharge during dry weather conditions.

Task 3.A.4 Eliminate Identified Illicit Discharges

The City will encourage reporting of illicit discharges from cross trained City staff and through the stormwater helpline. The City will take steps to eliminate suspected illicit discharges that are identified or brought to the attention of the City. Follow-up field inspections will be made to verify that the illicit discharge has been eliminated.

Tasks 3.A.5 Public Awareness and Reporting

The City will continue to implement database to track helpline calls associated with illicit discharges.

Task 3.A.6 Spill Response Plan

The City will coordinate efforts with Fire Department and implement the existing Plan. The City will train staff about the City's responsibilities.

Task 3.A.7 Sanitary Sewer Investigation

The City of Bardstown will track reported sanitary sewer overflow (SSO) locations, walk outfalls looking for leaks in the system, develop a database to track reported SSOs and walk main outfalls every year and 20% of the remainder of the system each year.

Task 3.A.8 Training

The City will also continue to train city staff to identify illicit discharges and connections annually. The City will maintain sign-in sheets of cross-training workshops.

Task 3.B.1 IDDE Coordination with KYTC

The City of Bardstown will map and screen stormwater infrastructure as described in Tasks 3.A.2 – 3. Where available, the City of Bardstown will obtain storm system mapping data from the KYTC to use in its sMS4 system map. During the mapping and screening process, the City of Bardstown will coordinate with the KYTC, as needed, to resolve illicit discharges found in state highway right-of-ways.

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Measurable Goals

The success of the City's efforts to eliminate illicit discharges will be measured by the following:

- Review its ordinance and enhance as needed.
- Update the major outfall map each year with any newly detected major outfalls.
- Conduct dry weather field screening annually for all identified hot spots and for 25% of the remaining system and track data.
- Eliminate at least 75% of the identified illicit discharges.
- Utilize the stormwater helpline to track calls and document calls related to illicit discharge issues through the database.
- Coordinate with the Fire Department to implement the local Spill Response Plan.
- Develop a database to track reported sanitary sewer overflows, screen for SSOs by investigating the main outfalls every year and investigating 20% of the remainder of the system each year.
- Cross-train staff to identify illicit discharges and document training occurred.
- Where available, obtain storm system mapping data from the KYTC and in turn will notify the KYTC of illicit discharges found in highway right-of-ways.

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MCM 4: Construction Site Stormwater Runoff Control

Summary

The City of Bardstown adopted a Drainage Control Ordinance to address construction site stormwater runoff on May 23, 2006. The City enforces the ordinance through the Stormwater Management Plan submittal and review process and inspections by the local building inspector and City Code Enforcement Officer. The ordinance allows for stop work orders and penalties of up to \$200 for each offense.

The City of Bardstown utilizes Best Management Practice (BMP) design standards specified in the Drainage Control Ordinance to guide the development community. The Drainage Control Ordinance is available on the City's website.

Best Management Practices

Task 4.A.1 Construction Stormwater Ordinance Update

As part of this ongoing process, the City will review the ordinance during PY 2 and modify the ordinance as needed.

Tasks 4.A.2 Track Construction Projects

The City will enhance its Stormwater Construction Program through developing a tracking mechanism for construction projects. As part of this effort, the City will enhance its database to track construction projects, City inspections, inspection findings, citizen complaints and City enforcement actions. During PY 2 the City staff will be trained on how to populate the database. This tracking system will also help inventory projects and identify sites for inspection.

Task 4.A.3 Review/enhance Checklist for SWPPP Preparation

The City will review its checklist covering the SWPPP preparation, enhance it and distribute the document with each land disturbance permit. The checklist will include EPSC and good housekeeping considerations that are expected to be found within the SWPPP.

Task 4.A.4 Review SWPPPs

The City of Bardstown will conduct reviews of each SWPPP for approval. The City will document the SWPPPs reviewed and the status of the review in the project tracking database from Task 4.A.2.

Tasks 4.A.5 Construction Inspections

As part of the City's efforts to improve water quality, the City will inspect land disturbance projects. The City will identify who from the City will conduct the inspections and what qualifications are required.

The City will use the database developed in Task 4.A.2 to track construction projects and will develop a written protocol regarding who will conduct inspections, the prioritization of inspections, frequency and time of inspections and inspection documentation.

Task 4.B.1 Training for Local Construction Contractors, Designers, Planners and/or Developers

The City will promote the education of the design and development community to comply with the local and state erosion prevention and sediment control requirements through continued training such as KEPSC, the SWPPP preparers course, and similar training. The City will list upcoming training opportunities on the Stormwater webpage.

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Measurable Goals

The goals for construction site stormwater run-off success will be measured by the following:

- Review and, if needed, enhance the EPSC ordinance including requirements for qualified inspectors and unique requirements for discharges to high quality waters.
- Enhance construction project tracking database and SWPPP preparation checklist.
- Review each project SWPPP.
- Population of database with construction projects; City inspections conducted; inspection findings and enforcement action; and citizen complaints.
- Develop written protocols for who from the City will conduct inspections, how to prioritize site inspections, what frequency inspections will be conducted and inspection documentation.

The screenshot shows the City of Bardstovwn website. The header includes the city name and navigation links. The main content area is titled 'Commercial Establishment Design Standards'. Below the title is a table of contents for various sections. The first section, 157.01, is 'INTRODUCTION'. The text under this section states that the design standards are intended to be used as a design aid by developers proposing commercial establishments and as an evaluation tool by the Development Review Board and Planning Commission in their review processes. The standards apply to all projects for commercial establishments and are to be used in conjunction with the Nelson County 2020 Comprehensive Plan, Zoning Regulations for All of Nelson County, and Subdivision Regulations for All of Nelson County (Ord 795, passed 1-27-04).

Section	
157.01	Introduction
157.02	Background and justification
157.03	Definitions
157.04	Site design and relationship to surrounding community
157.05	Aesthetic character of buildings
157.06	Development Review Board
157.07	Application submittal forms, requirements and deadlines
157.08	Review procedures
157.09	Appeals
157.10	Violations and enforcement
157.99	Penalty

§ 157.01 INTRODUCTION

The following design standards are intended to be used as a design aid by developers proposing commercial establishments and as an evaluation tool by the Development Review Board and Planning Commission in their review processes. These guidelines apply to all projects, which are processed according to the criteria for proposed development plans and to all projects for commercial establishments. These guidelines are to be used in conjunction with the Nelson County 2020: A Comprehensive Plan, Zoning Regulations for All of Nelson County, and Subdivision Regulations for All of Nelson County. (Ord 795, passed 1-27-04)

City of Bardstovwn's Drainage Ordinance

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

Summary

The City of Bardstown has some post-construction requirements in their Drainage Ordinance.

Best Management Practices (BMPs)

Task 5.A.1 Review and Enhance Post-Construction Stormwater Management Requirements

The City of Bardstown will review and enhance their current regulations to require new and redevelopment construction to address long-term water quality. The new regulations will strengthen post-construction requirements to provide water quality management consistent with KYG20, including the development of a water quality strategy, enforcement mechanisms and maintenance agreements. The City will assess their current ordinances and policies to assess whether there are local impediments to green infrastructure.

Task 5.A.2 Track Post-Construction Facilities

The City will develop a database to inventory post-construction facilities, maintenance, and City enforcement actions. The staff will be trained on how to populate the database.

Tasks 5.A.3-5 Development of BMP Checklist with Review for Post-Construction Considerations and Inspections of Post-Construction BMPs

The City will develop a checklist covering post-construction considerations and conduct a review of plans for post-construction compliance. The City will develop an inspection checklist, will conduct inspections, and document inspection follow-up and enforcement actions through the database tracking system developed in Task 5.A.2.

Tasks 5.B.1 Post-Construction BMP Training

The City will support a local training course on post-construction BMPs and will encourage attendance from local designers.

Measurable Goal

To measure the success of these programs the City of Bardstown will do the following:

- Review and enhance post-construction regulations to be consistent with KYG20, including the development of a water quality strategy, enforcement mechanisms and maintenance agreements.
- Develop a database to track post-construction facilities, facility inspections and plan review.
- Conduct training and track attendance for City staff on database population.
- Develop and distribute a post-construction BMP Plan checklist and review post-construction plans.
- Establish a written protocol for post-construction site inspections and conduct post-construction BMP inspections.
- Support training of local designers for post-construction BMP design.

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MCM 6: Pollution Prevention and Good Housekeeping for Municipal Operations

Summary

The purpose of the Municipal Operation Pollution Prevention Program is to develop and maintain practices that bring the City of Bardstown's municipal facilities into compliance with the KDOW Phase II NPDES Stormwater permit. The stormwater strategy for MCM 6 has the ultimate goal of preventing or reducing pollutant run-off from Municipal Operations. Steps taken toward this goal include:

- Regular street sweeping;
- Catch basin cleaning;
- Storm sewer cleaning conducted upon request or complaint calls;
- Pollution prevention for deicing through calibration of salt-spreading equipment, cover for salt storage and runoff control at salt loading and unloading areas;
- Fleet management and pollution prevention at facilities; and
- Educational opportunities for employees.

Best Management Practices (BMPs)

Task 6.A.1–6 Stormwater Pollution Prevention Plans (SWPPPs)

The City of Bardstown will develop and implement SWPPPs for park and open space mowing and other maintenance operations; facilities management; stormwater system maintenance; herbicides, pesticides and fertilizers use; leaf and woody debris collection; and de-icing operations.

Task 6.A.7–8 sMS4 and Stormwater Management Training

The City will develop and present materials to educate City employees to the requirements of the City's sMS4 program and the basics of stormwater management. The City will provide general and SWPPP specific training for staff as part of the general stormwater program and development of the SWPPP.

Task 6.B.1 KYTC Environmental Handbook

SWPPPs (Tasks 6.A.1–6) will be developed through the use and customization of the KYTC Environmental Handbook. The City plans to utilize the fact sheets in KYTC's Environmental Handbook and updates as available through the KYTC.

Measurable Goals

To measure the success of these programs the City of Bardstown will perform the following:

- Develop the identified SWPPPs and conduct internal evaluations to determine the effectiveness of their implementation.
- Record the number of attendees at training sessions.

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MCM 7: Reporting and Records Retention

Summary

The City of Bardstown intends to implement the following schedule for reporting requirements associated with this SWQMP.

Program Year	Calendar Term/Reporting Period	Bardstown Report Submittal
1	January 1 – December 31, 2010	April 15, 2011
2	January 1 – December 31, 2011	April 15, 2012
3	January 1 – December 31, 2012	April 15, 2013
4	January 1 – December 31, 2013	April 15, 2014
5	January 1 – December 31, 2014	April 15, 2015

The City of Bardstown will post the most recent annual report on the City's website and keep a hard copy record of the three most recent annual reports available at the City Engineer's office.

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SWQMP Measurable Goals Table

Task	BMP - Activity Description	Measurable Goal/ Quantifiable Products	Targets/ Measures of Success	Responsible Parties	PY 1	PY 2	PY 3	PY 4	PY 5
					2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
1. MCM 1 PUBLIC EDUCATION AND OUTREACH									
A. Local MS4 Activities									
1	Public Service Announcements	Through the use of the City's public cable channel, public service announcements on various stormwater topics will be broadcast to the community. Public service announcements will be customized from existing or available public data. Public service announcement content and audience determined by public outreach strategy	Public service announcements are broadcasted at least once/wk for the first permit year and thereafter determined by public outreach strategy.	Stormwater coordinator	<input checked="" type="checkbox"/>				
2	Update website	Update City website to reflect current stormwater program requirements and activities. A special portion of the website will be dedicated to public education on the stormwater permit and water quality.	Website is updated at least twice a year. Counters are installed on the site to track the number of visits. Questions on the survey (Task 2.B.1) will be coordinated with educational material on the website.	Stormwater Coordinator; Website Coordinator	<input checked="" type="checkbox"/>				

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SWQMP Measurable Goals Table

Task	BMP - Activity Description	Measurable Goal/ Quantifiable Products	Targets/ Measures of Success	Responsible Parties	PY 1	PY 2	PY 3	PY 4	PY 5
					2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
3	Educate and inform elected officials about SWQMP and its implementation	Make presentation to City Council to educate them about the sMS4 regulations, program implementation, water quality issues and how they can help educate the public. Utilize the KYTC Stormwater Education Toolkit (Task 1.B.2) to develop message for elected officials.	Presentation to City Council (at least once a year).	Stormwater Coordinator	<input checked="" type="checkbox"/>				
4	Partner with the Tree Board	Develop partnership with the Tree Board which includes community stakeholders, to promote stormwater education and outreach efforts and implementation of the SWQMP.	Develop partnership in PY 1 and meet at least twice a year in subsequent years for SWQMP implementation	Stormwater Coordinator	<input checked="" type="checkbox"/>				
5	Participate in the Kentucky Stormwater Association (KSA)	Participate in the KSA through attendance at regular and/or committee meetings for stormwater program material development, educational benefit, and MS4 community collaboration.	Have a City representative attend at least 75% of the KSA meetings.	Stormwater Coordinator City Engineer	<input checked="" type="checkbox"/>				

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SWQMP Measurable Goals Table

Task	BMP - Activity Description	Measurable Goal/ Quantifiable Products	Targets/ Measures of Success	Responsible Parties	PY 1	PY 2	PY 3	PY 4	PY 5
					2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
6	Conduct school visits to educate students on stormwater issues or supply education material annually	Conduct school visits and incorporate educational materials developed through the KYTC Educational Toolkit (Task 1.B.2).or supply education material to school board for distribution of one stormwater lesson	Conduct at least one school visit annually or supply one stormwater lesson annually.	Stormwater Coordinator	<input checked="" type="checkbox"/>				
7	Maintain water quality signage at Sympson Lake	Maintain signage at lake to educate the public on stormwater pollution.	Maintain signs annually as needed.	Stormwater Coordinator	<input checked="" type="checkbox"/>				
8	Add stormwater educational message to utility bill	Add stormwater educational messages or website URL to utility bill postcards.	Stormwater educational message added to utility bill postcard. Change message at least four times/year.	Stormwater Coordinator; Utility Billing Department		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B. Cooperative Efforts									
1	Continue to develop and implement public outreach strategy	Continue development and implementation of public outreach strategy, including target audience, message, medium for message, and target audience response. Utilize the KYTC Educational Toolkit (Task 1.B.2) to develop strategy.	Survey data indicates changing behavior.	Stormwater Coordinator	<input checked="" type="checkbox"/>				

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SWQMP Measurable Goals Table

Task	BMP - Activity Description	Measurable Goal/ Quantifiable Products	Targets/ Measures of Success	Responsible Parties	PY 1	PY 2	PY 3	PY 4	PY 5
					2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
2	Coordinate with KYTC on outreach strategy	Incorporate assistance provided by KYTC/KEEC per the Education Toolkit into public outreach strategy documents.	Incorporate at least two tools provided by KYTC/KEEC.	Stormwater Coordinator	<input checked="" type="checkbox"/>				
2. MCM 2 PUBLIC INVOLVEMENT/PARTICIPATION									
A. Local MS4 Activities									
1	Stormwater call log	Maintain phone helpline for residents to call in identified water quality problems and/or concerns and develop tracking database. Helpline will be administered through routing phone calls to the Stormwater Coordinator/Engineering Department.	Continued response to helpline and documentation of action taken through database	Stormwater Coordinator	<input checked="" type="checkbox"/>				
2	Multi-media implementation of helpline	List helpline on Stormwater website	Have helpline listed on stormwater webpage by PY 2.	Stormwater Coordinator		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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SWQMP Measurable Goals Table

Task	BMP - Activity Description	Measurable Goal/ Quantifiable Products	Targets/ Measures of Success	Responsible Parties	PY 1	PY 2	PY 3	PY 4	PY 5
					2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
3	Review community survey results	Review local stormwater program survey results (baseline survey) from the statewide stormwater survey (Task 2.B.1) and implement into public outreach strategy.	Review baseline survey in PY 1 and report survey results to the Tree Board and elected officials in PY 2. Compare baseline survey with subsequent survey results (anticipated to be provided by KYTC in PY 4) in PY 5. Document behavior change and modify public outreach strategy accordingly.	Stormwater Coordinator	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
4	Community clean-up events	Promote and facilitate community clean-up events such as the Salt River Watershed Watch group.	Promote, provide dumpsters, and dumpster pick-up for at least one community clean-up event per year.	Stormwater Coordinator	<input checked="" type="checkbox"/>				
5	Recycling program	Promote and encourage community participation in the local drop-off recycling program.	Document quantity of materials collected through the recycling program and show increase year to year in materials collected.	Stormwater Coordinator	<input checked="" type="checkbox"/>				

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SWQMP Measurable Goals Table

Task	BMP - Activity Description	Measurable Goal/ Quantifiable Products	Targets/ Measures of Success	Responsible Parties	PY 1	PY 2	PY 3	PY 4	PY 5
					2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
6	Public Notice and Information Dissemination	Advertise and promote stormwater and education outreach efforts	The City will update the City website and provide press releases to the local paper as needed when there are public education and outreach opportunities.	City Engineer, Stormwater Coordinator	<input checked="" type="checkbox"/>				
B. Cooperative Efforts									
1	Support statewide stormwater survey	It is expected that KYTC will conduct additional surveys and analyze results biannually, so City will encourage community participation in subsequent surveys.	Include information on website and utility bills to encourage participation in subsequent surveys.	City Engineer, Stormwater Coordinator	<input checked="" type="checkbox"/>				
2	Facilitate volunteer Adopt-A-Highway participation	Coordinate with local KYTC staff to encourage local sponsorship and volunteers for the Adopt-A-Highway program.	Track the number of Adopt-A-Highway sponsored roadways and participants that occur within the City.	Stormwater Coordinator	<input checked="" type="checkbox"/>				
3	Promote Adopt A Highway Program	Provide information to the public about the Adopt-A-Highway Program	Link on stormwater website	Stormwater Coordinator		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
3. MCM 3 ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE)									
A. Local MS4 Activities									

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SWQMP Measurable Goals Table

Task	BMP - Activity Description	Measurable Goal/ Quantifiable Products	Targets/ Measures of Success	Responsible Parties	PY 1	PY 2	PY 3	PY 4	PY 5
					2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
1	IDDE Ordinance update	Review/modify ordinance to strengthen IDDE program.	Enhance ordinance, if it is determined to be necessary, in PY 2 and then modify as needed in the future.	Stormwater Coordinator/City Attorney/City Council		☑			
2	sMS4 system mapping	The City will incorporate newly detected major outfalls into the sMS4 stormwater system map.	Update MS4 map annually with newly discovered outfalls.	Stormwater Coordinator	☑	☑	☑	☑	☑
3	Illicit discharge detection and elimination field screening plan and procedures that includes dry weather screening	Develop and implement dry weather screening plan and procedures. Track number of outfalls inspected and observations.	Develop plan in PY 2. Monitor all identified hot-spots annually and 25% of remainder of system per year, beginning in PY 2.	Stormwater Coordinator		☑	☑	☑	☑
4	Eliminate identified illicit discharges	Illicit discharges identified during field screening and from helpline will be eliminated. Follow-up field inspections at locations of prior illicit discharges will be conducted.	75% of identified illicit discharges will be eliminated on an annual basis.	Stormwater Coordinator	☑	☑	☑	☑	☑

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SWQMP Measurable Goals Table

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					2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
5	Public awareness and reporting	Develop database to track helpline calls associated with illicit discharges (see Task 2.A.1).	Database developed in PY 1. Implement beginning in PY 2 through database analysis incorporated into illicit discharge elimination.	Stormwater Coordinator	☑	☑	☑	☑	☑
6	Spill response plan	Coordinate efforts with Fire Department and implement existing Plan.	Train City staff on City responsibilities in Plan by PY 2.	Stormwater Coordinator	☑	☑	☑	☑	☑
7	Sanitary sewer investigation	Track reported sanitary sewer overflow locations and walk outfalls looking for leaks in system.	Develop database to track reported SSOs and walk main outfalls every year and 20% of the remainder of the system each year.	City Sewer Department	☑	☑	☑	☑	☑
8	Training	Train designated City staff on identifying illicit discharges.	Maintain sign-in sheet of attendees. Employees receive training annually.	Stormwater Coordinator	☑	☑	☑	☑	☑
B. Cooperative Efforts									
1	IDDE Coordination with KYTC	Obtain mapping data from KYTC where available. Coordinate elimination of illicit discharges found within state highway right of way with KYTC.	Where available, obtain stormwater system mapping data from KYTC. Notify KYTC of illicit discharges found in right-of-ways.	Stormwater Coordinator	☑	☑	☑	☑	☑

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SWQMP Measurable Goals Table

Task	BMP - Activity Description	Measurable Goal/ Quantifiable Products	Targets/ Measures of Success	Responsible Parties	PY 1	PY 2	PY 3	PY 4	PY 5
					2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
4. MCM 4 CONSTRUCTION SITE STORM WATER RUNOFF CONTROL									
A. Local MS4 Activities									
1	Construction stormwater management ordinance update	Review/modify ordinance to strengthen construction stormwater management program.	Enhance ordinance in PY 2, as needed.	Stormwater Coordinator/City Attorney/City Council		<input checked="" type="checkbox"/>			
2	Track construction projects	Enhance existing database to track construction projects, City inspections, City inspection findings, citizen complaints, and City enforcement actions. Staff trained on how to populate database.	Enhance database in PY 2 and perform training and begin implementation in PY 2.	Stormwater Coordinator, City Engineer		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
3	Enhance and continue implementation of City checklist for SWPPP preparation	Review and modify, as needed, a checklist covering the EPSC and good housekeeping considerations that are expected to be found within the SWPPP.	Checklist modified and distributed with each land disturbance permit.	Stormwater Coordinator, City Engineer	<input checked="" type="checkbox"/>				
4	Review SWPPPs	Conduct review of each SWPPP for approval.	Use construction project tracking database to note the SWPPPs reviewed and the status of the review.	Stormwater Coordinator, City Engineer	<input checked="" type="checkbox"/>				
5	Inspect land disturbance projects	Use database developed in Task 4.A.2 to identify projects requiring inspections.	Inspectors review database weekly to view project listings.	Stormwater Coordinator, City Engineer		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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SWQMP Measurable Goals Table

Task	BMP - Activity Description	Measurable Goal/ Quantifiable Products	Targets/ Measures of Success	Responsible Parties	PY 1	PY 2	PY 3	PY 4	PY 5
					2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
		Identify who from the City will conduct the inspections and what qualifications are required.	City will establish written protocol.	Stormwater Coordinator, City Engineer	<input checked="" type="checkbox"/>				
		Develop protocol for determining prioritization of inspections, frequency and time of inspection, and inspection documentation.	City will establish written protocol.	Stormwater Coordinator, City Engineer	<input checked="" type="checkbox"/>				
		Document inspection follow-up and enforcement actions through database tracking system developed in Task 4.A.2.	City will populate database in accordance with inspection findings.	Stormwater Coordinator, City Engineer		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B. Cooperative Efforts									
1	Training for local construction contractors, designers, planners and/or developers	Encourage local design and construction community to participate in training to comply with local and state construction site stormwater runoff control requirements. Encourage KEPSC qualified inspector course, SWPPP preparers course or similar training.	Promote training sessions as available locally on stormwater website.	Stormwater Coordinator, City Engineer		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
5. MCM 5 POST-CONSTRUCTION STORM WATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT									
A. Local MS4 Activities									

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SWQMP Measurable Goals Table

Task	BMP - Activity Description	Measurable Goal/ Quantifiable Products	Targets/ Measures of Success	Responsible Parties	PY 1	PY 2	PY 3	PY 4	PY 5
					2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
1	Review and enhance post-construction stormwater management requirements	Require new development and redevelopment to address long-term water quality management consistent with KYG20.	Develop stormwater quality management strategy in PY 1 and enhanced regulations in PY 2.	Stormwater Coordinator, City Engineer, City Attorney	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
2	Track post-construction facilities	Develop database to inventory post-construction facilities, maintenance, and City enforcement actions. Staff trained on how to populate database.	Develop database and perform training in PY 2.	Stormwater Coordinator, City Engineer		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
3	Develop post-construction stormwater management checklist	Develop checklist covering post-construction considerations that need to be submitted with plans.	Develop checklist and distribute with each land disturbance permit.	Stormwater Coordinator, City Engineer		<input checked="" type="checkbox"/>			
4	Review post-construction considerations	Conduct review of post-construction plans for compliance.	Using tracking database described in Task 5.A.2 and checklist developed in Task 5.A.3, note the Post-construction Plans reviewed and status of the review.	Stormwater Coordinator, City Engineer, City Planning		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
5	Inspect post-construction BMPs	Use database developed in Task 5.A.2 to identify projects requiring inspections.	Inspectors review database twice a year to view project listings.	Stormwater Coordinator, City Engineer		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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SWQMP Measurable Goals Table

Task	BMP - Activity Description	Measurable Goal/ Quantifiable Products	Targets/ Measures of Success	Responsible Parties	PY 1	PY 2	PY 3	PY 4	PY 5
					2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
		Identify who from the City will conduct inspections, qualifications of inspector, and number of inspections to be conducted per year.	City will establish written protocol.	Stormwater Coordinator, City Engineer		☑			
		Develop inspection checklist to be included in the maintenance agreements.	City will establish written protocol.	Stormwater Coordinator, City Engineer		☑			
		Document inspection follow-up and enforcement actions through database tracking system developed in Task 5.A.3.	City will populate database in accordance with inspection findings.	Stormwater Coordinator		☑	☑	☑	☑
B. Cooperative Efforts									
1	Post-construction BMP training	Support post-construction BMP training course for local designers.	Advertise local training courses, as available, and encourage local designers to attend.	Stormwater Coordinator, City Engineer		☑	☑	☑	☑
6. MCM 6 POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS									
A. Local MS4 Activities									
1	Park and open space mowing and other maintenance SWPPP	Develop and implement SWPPP for park and open space operations.	Develop SWPPP in PY 2 and conduct internal evaluations in PYs 3 and 5 to determine effectiveness of implementation.	Stormwater Coordinator/City Parks Department		☑	☑		☑

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SWQMP Measurable Goals Table

Task	BMP - Activity Description	Measurable Goal/ Quantifiable Products	Targets/ Measures of Success	Responsible Parties	PY 1	PY 2	PY 3	PY 4	PY 5
					2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
2	Facilities management SWPPP	Develop and implement SWPPP for each City municipal building including the Operations Building, Water Treatment Plant, Wastewater Treatment Plant, and City Hall.	Develop SWPPP in PY 2 and conduct internal evaluations in PYs 3 and 5 to determine effectiveness of implementation.	Stormwater Coordinator/City Departments		☑	☑		☑
3	Stormwater system maintenance SWPPP	Develop and implement SWPPP for minimizing water quality impacts from road stormwater runoff and from road maintenance activities.	Develop SWPPP in PY 2 and conduct internal evaluations in PYs 3 and 5 to determine effectiveness of implementation.	Stormwater Coordinator/City Street Department		☑	☑		☑
4	Herbicides, pesticides and fertilizers use SWPPP	Develop and implement SWPPP for herbicide, pesticide, and fertilizer use.	Develop SWPPP in PY 2 and conduct internal evaluations in PYs 3 and 5 to determine effectiveness of implementation.	Stormwater Coordinator/City Departments		☑	☑		☑
5	Leaf and woody debris collection SWPPP	Develop and implement SWPPP for leaf and woody debris collection.	Develop SWPPP in PY 2 and conduct internal evaluations in PYs 3 and 5 to determine effectiveness of implementation.	Stormwater Coordinator/City Street Department		☑	☑		☑

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SWQMP Measurable Goals Table

Task	BMP - Activity Description	Measurable Goal/ Quantifiable Products	Targets/ Measures of Success	Responsible Parties	PY 1	PY 2	PY 3	PY 4	PY 5
					2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
6	De-icing operations SWPPP	Develop and implement SWPPP for de-icing operations, including salt storage and application.	Develop SWPPP in PY 2 and conduct internal evaluations in PYs 3 and 5 to determine effectiveness of implementation.	Stormwater Coordinator/City Street Department		☑	☑		☑
7	General sMS4 and stormwater management training	Develop and present materials to educate City employees about the requirements of the City's sMS4 program and the basics of stormwater management.	Develop materials in PY 2 and sign-in sheet with attendance of each City employee for presentations in PYs 2 and 4.	Stormwater Coordinator		☑		☑	
8	Specific SWPPP training	Develop program materials for training on each of the specific SWPPPs.	Identify specific SWPPP training required for each City employee in PY 2 and sign-in sheets indicating that each employee has attended that training through presentations in PYs 2 and 4.	Stormwater Coordinator		☑		☑	
B. Cooperative Efforts									

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					2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
1	KYTC Environmental Handbook	Utilize the KYTC Environmental Handbook and fact sheets for development of SWPPPs (Tasks 6.A.1 - 6.A.6), as available from the KYTC. Coordinate with KYTC to incorporate any new Environmental Handbook fact.	Utilize Environmental Handbook in the Development of SWPPPs in PY 2. Coordinate with KYTC annually for updates.	Stormwater Coordinator	<input checked="" type="checkbox"/>				
Development of MS4 Monitoring Plan									
1	Review available monitoring data	City will review available stream monitoring data	City will summarize findings and utilize for development of monitoring program	Stormwater Coordinator/City Engineer					<input checked="" type="checkbox"/>
2	The City will evaluate options for monitoring program	City will consider the options outlined in the MS4 permit for inclusion in the monitoring plan.	City will develop monitoring plan and submit to KDOW by the end of 2014	Stormwater Coordinator/City Engineer					<input checked="" type="checkbox"/>
Reporting									
A. Local MS4 Activities									
1	City will submit annual report to KDOW	Annual report submitted to KDOW no later than April 15 th .	Annual report submitted to KDOW no later than April 15 th .	Stormwater Coordinator	<input checked="" type="checkbox"/>				

**City of Bardstown
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Certification

"I certify under penalty of law that this document and all of the attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Executed on the 24 day of November 2010.



Mayor Richard Heaton, City of Bardstown