

**City of Parkersburg, WV**  
**West Virginia Department of**  
**Environmental Protection**  
**Storm Water Phase II Program**  
**Storm Water Management Plan**



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# **City of Parkersburg, WV**

## **Engineering Division**

### **Certification**

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, information submitted is, to the best of my knowledge, 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.”

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Justin B. Smith, PE, City Engineer  
City of Parkersburg, WV

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Map of City of Parkersburg, WV

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## ***I. Executive Summary***

The City of Parkersburg (City) is required to submit a Storm Water Management Plan (SWMP) in accordance with 40 CFR Part 122.32 and 47 CSR 10 of the West Virginia Legislative Rules. The document outlines the City's program to develop, implement and enforce a storm water management program designed to reduce the discharge of pollutants to the maximum extent practicable, to protect water quality, and to satisfy the appropriate requirements of the Clean Water Act (CWA) in accordance with the West Virginia Department of Environmental Protection's (WVDEP's) Phase II program. The SWMP addresses the six minimum control measures as required by state regulations. The plan also identifies the City's legal authority to implement the general permit.

## ***II. Legal Authority***

The City's Codified Ordinances provide control of the quality of separate storm water discharge to the City's storm sewer system. Article 1759 addresses storm water discharges and was amended by City Council on July 12, 2005. The City has the legal authority to fully implement its SWMP.

## ***III. Fiscal Resources***

Parkersburg currently uses monies from the City's General Fund to fund the operation and maintenance of the storm water system and to perform necessary capital improvements. The City has appointed a storm water advisory committee to look into ways to fund the development, implementation, and enforcement of the six minimum control measures. An estimated \$60,000 was used annually for storm water related utility work in 2011/12 fiscal year. For the 2012/13 fiscal year the City budgeted \$500,000 for storm water related utility work. The City plans to budget \$300,000 in each subsequent budget year to fund the City's storm water program.

## ***IV. Permit Coverage Area***

Parkersburg is located in Wood County and is included in two watersheds: the Middle Ohio and Little Kanawha Rivers. The SWMP will traverse all areas within the city limits. Parkersburg has a population of 33,099 residents (based on 2000 census data), 218 miles of roadways and 253 storm water outfalls discharging to the waters of the State. The City has a fully separated storm sewer system. The sanitary sewer system is under the authority of the Parkersburg Utility Board. See Appendix A for a map of the City of Parkersburg.

## ***V. Existing Condition of Receiving Streams***

The water quality pollutants identified in the WVDEP's Section 303(d) Total Maximum Daily Load (TMDL) Priority List for the Middle Ohio River include fecal coliform and iron. The water quality pollutants identified in the WVDEP's Section 303(d) TMDL Priority List for the Little Kanawha River include fecal coliform. See Appendix B for WVDEP's Section 303(d) list. Other pollutants typically found in municipal areas

include suspended solids, pesticides, dioxins, pathogens, oil, and grease. The six minimum controls will address the aforementioned water quality pollutants.

#### ***VI. Reporting Requirements***

The City will submit its required report annually during the first term of the permit cycle. The report will include the status of compliance with the permit conditions, an assessment of the appropriateness of the Best Management Practices (BMPs), progress towards achieving the measurable goals for each of the six minimum control measures, a summary of the activities the City will undertake during the reporting cycle, any changes to BMPs or measurable goals, and all relevant data obtained during the reporting period.

#### ***VII. SWMP Development and Approval***

The City retained the services of Burgess & Niple to assist the City in its preparation of the Notice of Intent (NOI), SWMP, and Site Registration Application (SRA) from March 2002 through February 2004. The Notice of Intent was submitted on March 7, 2003. The City's Engineering Department has amended and updated the SWMP to comply with the 2009 WV/NPDES Water Pollution Control Permit.

#### ***VIII. Storm Water Management Program***

The SWMP outlines the six minimum control measures that are expected to result in reductions in pollutants discharged by the City.

The six minimum controls are:

1. Public Education and Outreach
2. Public Involvement and Participation
3. Illicit Discharge Detection and Elimination
4. Controlling Runoff from Construction Sites
5. Controlling Runoff from New Development and Redevelopment
6. Pollution Prevention and Good Housekeeping for Municipal Operations

Each measure will be addressed separately on the following pages. A SWMP schedule has been compiled for the six minimum control measures and is included in Appendix C.

## **1. PUBLIC EDUCATION AND OUTREACH**

The City's Engineering Division has chosen a mix of best management practices (BMPs) to address pesticides, mercury, PCB's, dioxins, fecal coliform, pathogens, grease, oil and suspended solids. The Public Education and Outreach control measure will target homeowners, restaurateurs, industries, businesses, elected officials, policy makers, planning staff and the general public. An informed and knowledgeable community is crucial to the success of the storm water management program. As the public becomes aware of the personal responsibilities expected of them and others in the community, including the individual actions they can take to protect or improve the quality of area waters, a greater compliance with the storm water program will result. The plan has two major initiatives: the formation of partnerships and the use of educational materials.

### ***Strategies***

The City of Parkersburg along with the Cities of Vienna and Williamstown have formed a storm water coalition. This coalition is chair recognized by WVDEP and meets quarterly. The members of the coalition will be sharing responsibilities and preparing joint ventures on the public education and participation MCMs. The brochures, advertisements and public service announcements created will be used by all members.

The public education program will use a variety of strategies to reach a diverse audience. Mass media campaigns will generate a watershed message to a regional audience. Educational materials will include the following:

- Brochures
- Alternative information sources (websites, bumper stickers, posters etc...)
- A library of educational materials
- Public Service Announcement
- Storm Drain stenciling: "No Dumping! Drains to River"
- Economic incentives (business and citizens)

Strategies to educate the general public include the use of the City's website and facebook account, local newspaper advertisements, and a public service announcement on a local television station throughout the Parkersburg area. The City's website will be redesigned and include a new storm water page with a link to educational material this is scheduled for completion by July 2013. The educational newspaper advertisement is scheduled to be printed in May 2013 and the public service announcement will be broadcast in June 2013.

An industrial outreach program will target businesses and industries that significantly impact storm drains (restaurants and garages) through grease and oil releases. The Utility Board has a FOG (fat, oil and grease) program that targets restaurants and includes educational handouts and inspection to ensure compliance. Other business such as dry cleaners, carpet cleaners and other businesses that use potentially hazardous chemicals will receive outreach material emphasizing proper storage and disposal methods for these

chemicals. Information will be sent out annually with business license renewal forms. The City will obtain a list of all licensed businesses in the corporation limits and make a list of all those that would use potentially hazardous chemicals by May 2013. A brochure will be designed with educational material emphasizing proper storage and disposal methods for these chemicals by June 2013. This brochure will be distributed to these target businesses in July of 2013 as part of the business license renewal process. In the fall of 2013 we plan to conduct phone interviews with some of these businesses to evaluate the effectiveness of this outreach effort.

The City of Vienna has implemented an educational training program for area landscapers. Their staff gave area landscapers a storm water training class. The City of Vienna has provided us a list of each landscaper that they trained. They will be doing a shortened follow-up training session yearly for these landscapers.

The education efforts will also targets homeowners about illicit discharges, proper disposal of used motor oil, chemicals pesticides and household products. The City is developing a brochure that will be sent out to homeowners. The brochure will be completed by April of 2013 and distributed in June of 2013. The brochure will be distributed to the finance department to be included in the bills for City fees.

The school education program targets school age children from grades K-5. The City will compile educational information on a CD that will be distributed to local elementary schools for the principals or teachers to use in the classroom. We will also include pencils, stickers, and other items to handout to the children. Teachers will be asked to evaluate this outreach effort and a survey will be included for them to fill out. This educational material will be given to the schools in September of 2013. The City will also hand out educational material to children at City sponsored events such as the farmers market and Arbor Day festivities. A children's page will be added to the City's website that will include fun children's activities to increase awareness to storm water topics.

An outreach program is also being developed to target contractors, engineers, and developers. An educational handout will be developed that's includes information on standards for construction site sediment and erosion control measures, runoff reductions techniques, and storm water treatment and flow control BMPs. Once this brochure has been developed it will be handed out with building permits and contract bid inquiries for city projects. The City will also hand out a copy of the revised storm water ordinances to these groups when they are available.

The City also plans to develop surveys for the public in an effort to direct education and outreach resources more effectively. These surveys will be developed fall 2013 and then distributed in winter of 2013. Once the surveys have been returned and analyzed we will

determine how effective our outreach activities are and any changes that need to be made will be introduced for spring of 2014.

Table 1 identifies the BMPs, schedule, measurable goals and responsible party(s) for the Public Education and Outreach minimum control measure.

**TABLE 1 – PUBLIC EDUCATION AND OUTREACH BMPs**

<b>Best Management Practice</b>	<b>Time Frame</b>	<b>BMP Description</b>	<b>Measurable Goals</b>	<b>Responsibility</b>
Public Outreach/Education General Public	July 2013	Publish storm water related articles and calendar of monthly storm water related events on City website.	Document articles used and date of publication. Track number of visitors to webpage.	Engineering Department
	May 2013	Place flyer/article in the Parkersburg Newspaper.	Record number of copies of materials used, media source, and dates of publication.	Engineering Department
	June 2013	Run public service announcement on a local television station.		Engineering Department
Public Outreach/Education Businesses/Industries	Spring 2013	Make a list of all businesses that would use potentially hazardous chemicals in their operations.	Document list of businesses.	Engineering Department
	Spring 2013	A brochure will be designed with educational material emphasizing proper storage and disposal methods for these chemicals.	Completed brochure.	Engineering Department
	Summer 2013	The brochure will be distributed to these target businesses as part of the business license renewal process and annually thereafter.	Document number of brochures sent out.	Engineering Department
	November 2013	Conduct phone interviews with some of these businesses to evaluate the effectiveness of this outreach effort.	Document phone calls and information received.	Engineering Department

<b>Best Management Practice</b>	<b>Time Frame</b>	<b>BMP Description</b>	<b>Measurable Goals</b>	<b>Responsibility</b>
Public Outreach/Education Homeowners	April 2013	Develop a brochure that will be sent out to homeowners.	Completed brochure.	Engineering Department
	June 2013	Distribute a storm water brochure to homeowners by including it with bills for City fees.	Document number of brochures sent out.	Engineering Department
Public Outreach/Education Children	Fall 2013	Compile educational information on a CD that will be distributed to local elementary schools.	Completed CD and distribution date.	Engineering Department
	Fall 2013	Teachers will be asked to evaluate this outreach effort and a survey will be included for them to fill out.	Completed surveys.	Engineering Department
	Summer 2013	Distribute educational material to children at City sponsored events.	Document number of materials distributed.	Engineering Department
	Summer 2013	A children's page will be added to the City's website.	Track number of visitors to webpage.	Engineering Department
Public Outreach/Education Contractors, Engineers, and Developers	Spring 2013	An educational handout will be developed that's includes information on standards for construction site sediment and erosion control measures, runoff reductions techniques, and storm water treatment and flow control BMPs.	Completed brochure.	Engineering Department
	Spring 2013	Distribute brochure with building permits and with contract bid inquiries for city projects.	Document number of brochures distributed.	Engineering Department
Program Evaluation Method	Winter 2013	Distribute surveys to the public that will be used to evaluate this program.	Document number of surveys returned.	Engineering Department

## **2. PUBLIC PARTICIPATION AND INVOLVEMENT**

The City's Public Participation and Involvement minimum control measure has a large public component. Citizen support is crucial to the success of the SWMP. The measure will involve various socio-economic groups. The public participation program is a key component of the SWMP. Broader public support during the development and decision making process will minimize potential legal challenges. The City's overall goal for this initiative is to seek broader public support for our program than we had under the previous permit term. We will evaluate the effectiveness of this MCM by tracking the number of participants from our various outreach activities and comparing the numbers to those of the previous permit term.

### ***Strategies***

The City has formed the Parkersburg Storm Water Advisory Committee to investigate the need for creating a Storm Water Utility and/or utility fee to meet the future federally mandated requirements. The committee consists of the Mayor, three councilmen, three Parkersburg Utility Board members, the City Engineer, and professional citizens. One of the goals of the board is to have public forums at council meetings to discuss Storm Water issues. The Parkersburg Storm Water Advisory Committee will also participate in the decision making processes involving the development, implementation and update of the SWMP as well as the annual reports. The City of Parkersburg along with the Cities of Vienna and Williamstown have formed a storm water coalition. This coalition is chair recognized by WVDEP and meets quarterly. The members of the coalition will be sharing responsibilities and preparing joint ventures on the public education and participation MCMs.

The City has a Planning Commission that holds regular monthly meetings. Most new development and re-development project go through the planning commission prior to being approved at City council meetings. Planning commission and City council meetings are open to the public and meeting dates and times are advertised in the newspaper. The City's engineering department will contact members of the planning commission to request that questions are solicited for storm water concerns. The City will develop a new plan review checklist that includes an item for public comment. The City's website will also be used to solicit public comments on new development and re-development projects.

The City has completed its 2020 Comprehensive Master Plan Update which includes a section on storm water. Public meetings will provide an opportunity to discuss various viewpoints and provide input concerning appropriate storm water management policies and BMPs included in the plan. The plan is also available for review on the City's website and written comments are being collected via email and mail.

The City will contact local watershed associations such as the Worthington Creek group. We will make these groups aware of opportunities for their direct involvement and assistance in storm water activities that are in their watershed. The City will solicit their assistance for volunteer programs for stream cleanup and riparian planting. The City will research to locate local watershed associations in spring of 2013. The local watershed associations will then be contacted and ask to assist with volunteer programs in spring of 2013. The City will then plan a stream cleanup and riparian planting project in these watersheds in the summers of 2013 and 2014.

The City will also be reaching out to other area groups such as the River City Runners and Bicycle Advisory Board to assist with volunteer monitoring programs. These groups will be ask to report any littered areas or blocked storm drains that they encounter in their day to day activities. The City will log these reports and pass them on to the appropriate departments for necessary action. Follow-up visits will be conducted to ensure that action was taken to resolve these issues.

Community cleanup projects for local streams and riparian corridors will continue to be targeted. These cleanup projects include the City of Parkersburg's Clean up – Green Up Program, the River Sweep program, and the West Virginia Stream Partners programs. Special cleanup events, food and activities will be city sponsored. A recycling program that targets these pollutants will have a major impact on improving rivers and streams.

On the City's web page is a link to e-mail the City with any problems concerning storm water. This link serves as a method for reporting illegal dumping, storm sewer malfunction, questions, or any general issues related to storm water. Any e-mail generated by this link goes directly to the Engineer's Office. There is also a 311 response hotline established to aid enforcement authorities in the identification of polluters.

Table 2 identifies the BMPs, schedule, measurable goals and responsible party(s) for the Public Participation and Involvement minimum control measure.

**TABLE 2 – PUBLIC INVOLVEMENT AND PARTICIPATION BMPs**

<b>Best Management Practice</b>	<b>Time Frame</b>	<b>BMP Description</b>	<b>Measurable Goals</b>	<b>Responsibility</b>
Public Notices	Year 1 to Year 4	Public notice of upcoming meetings and events in print media.	Document publication dates.	Engineering Department
Public Involvement	Year 1 to Year 4	Conduct Parkersburg Storm Water Advisory Committee Meetings	Document the date of meeting, those in attendance, and agenda.	Engineering Department, Utility Board
	Spring 2013	Contact Planning Commission to determine best way to solicit public comments.	Document the date of meeting, those in attendance.	Engineering Department
	Spring 2013	Develop a new plan review checklist that includes an item for public comment	Plan review checklist document.	Engineering Department
	Spring 2013	Research to locate local watershed associations	Documents list of watershed associations.	Engineering Department
	Spring 2013	Contact local watershed associations and ask to assist with volunteer programs.	Document any correspondences or meetings.	Engineering Department
	Summer 2013 to 2014	Plan a stream cleanup and riparian planting project in these watersheds	Document projects.	Engineering Department
	Year 1 to Year 4	Continue to conduct storm water response/ complaint program.	Document the number of written complaints and calls received on the storm water response line. Document the number of problems/incidents resolved.	Engineering Department

<b>Best Management Practice</b>	<b>Time Frame</b>	<b>BMP Description</b>	<b>Measurable Goals</b>	<b>Responsibility</b>
Community Activities	Spring 2013	Reach out to area groups to assist with a volunteer monitoring program.	Document any correspondences or meetings.	Engineering Department
	Year 1 to Year 4	Promote community cleanup projects and encourage recycling.	Document number of cleanup programs conducted and amount of materials recycled.	Engineering Department

### **3. ILLICIT DISCHARGE DETECTION AND ELIMINATION**

The Illicit Discharge Detection and Elimination minimum control measure will involve both municipal staff and local citizens. The program will work to detect and eliminate illicit connections, discharges and improper disposal into the storm sewers. The City has a fully separated storm sewer system. The sanitary sewer system is under the authority of the Parkersburg Utility Board. The City's goal is to maintain 100% separation of the storm and sanitary sewer systems. The City will track the BMP efforts to ensure the effectiveness of this goal.

#### ***Strategies***

The City has digitized copies of all storm sewer maps. An overall map of the City is being developed that identifies the location of all storm sewer outfalls, all waters that receive storm water discharges and structural storm water BMPs owned. This map will also include know private structural storm water BMPs. This map will be completed in the fall of 2013. This map will be updated on an annual basis. Additional information regarding the storm sewer system is currently charted and available on a smaller scale. The storm sewer map is available upon request.

The City is continuing development of a Geographic Information System (GIS). The digital storm sewer maps are being converted to GIS. Data that is generated over time will be entered into the GIS system and used to identify water quality trends and generate reports. The City's Engineering Division has access to historical sampling data. The data will be available to field personnel during inspections. This will be vital in identifying those areas of the city that have a high occurrence of illicit discharges. Data from other City departments including the Public Works, Finance, Development, Police and Fire Departments will also be incorporated into the GIS system in the future. The GIS database system will allow the input of future citizen complaints, dry weather screening and monitoring data. The GIS database system will be completed in Summer of 2014.

The City will continue to develop the Illicit Discharge Detection and Elimination (IDDE) Ordinance. A program to annually review and update the IDDE Ordinance will also be implemented. The IDDE program will work to effectively prohibit and eliminate non-storm water, illegal discharges, and dumping into the storm sewer system to the extent allowable under State and local law. The ordinance will prohibit the categories of non-storm water discharges listed in the NPDES water pollution control permit. The City will develop an enforcement strategy and implement the enforcement provisions of the ordinance.

The City will continue to assess, update and implement the illicit discharge detection and elimination program. The City's Codified Ordinances will be amended to authorize right-of-entry to municipal employees so that they can access private property for inspection in locating suspected sources of illicit discharges. The enforcement actions

that will be taken against those properties found to be in non-compliance or that refuse to allow access to their facilities are varied. They range from cease and desist orders, suspension of water or sewer service, and criminal and civil penalties, including charging the owner of the property for the cost of abatement. The Engineering Division continues to request that industrial facilities and wastewater treatment plants in the area submit their sampling and monitoring results. This data will be included in the GIS system for reference. If future sampling results show elevated levels of a particular pollutant then the City can focus its investigation to determine the source of the illicit discharge.

The City shall create a program to detect and address illicit connections and illegal dumping into the City's MS4. Procedures shall be created for locating priority areas likely to have illicit discharges, including areas where complaints have been registered in the past. Field assessment activities shall be conducted, including visual inspection of at least one priority outfall during dry wither. During this field visit we will verify outfall locations, identify previously unknown outfalls and attempt to detect illicit discharges. At a minimum one field assessment shall be made each year. The City shall create procedures for identify the nature of and threat posed by any illicit discharges found. Procedures will also be created for tracing the source of an illicit discharge. This will include visual inspections, opening manholes, using mobile cameras and collecting and analyzing water samples. The City will then create procedures for removing these sources of illicit discharges; including notification of appropriate authorities, notification of property owners, follow up inspections, and if necessary enforcement and legal actions. The City shall begin implementing these procedures in the Summer of 2013. The City will prioritize receiving water for field assessments, visual inspections, and outfall screenings in Fall of 2013. These field assessments will then take place beginning in winter of 2014.

The City's 311 response hotline and email link (addressed under Public Participation and Involvement) are being used to record citizen complaints on illicit connections or dumping. The Engineering department keeps a record of calls received, the number and type of spills or discharges identified, inspections made, and any feedback received from public education efforts. A summary of this information will be included in the annual report starting in 2013.

The City has a spill response plan for any non-storm water spills. City supervisors are required to ensure that employees are familiar with the spill response plan and that they receive any necessary training. Small spills are generally handled by internal personnel and do not require an emergency response. Dry cleanup methods are used when necessary and the spilled material and the absorbent are disposed of in compliance with the state and federal environmental regulations. When the spill is considered large or hazardous emergency responders will be called. In Wood county Dupont Chemicals provides a HAZMAT team that will respond for large or hazardous spills.

The City ensure that all field staff who are responsible for identification, investigation, termination, cleanup, and reporting illicit discharges are trained to conduct these activities. Follow up training will be provided an annual basis to address any changes in

procedure, techniques or requirements. The City will document and keep a record of any training provided and the staff trained.

In 2011 the City implemented a user fee. The City set aside \$500, 000 from this fee in July 2012 for the storm water program. This money will be used for funding the IDDE program beginning in 2013.

Table 3 identifies the BMPs, schedule, measurable goals and responsible party(s) for the Illicit Discharge Detection and Elimination minimum control measure.

**TABLE 3 – ILLICIT DISCHARGE DETECTION AND ELIMINATION BMPs**

<b>Best Management Practice</b>	<b>Year</b>	<b>BMP Description</b>	<b>Measurable Goals</b>	<b>Responsibility</b>
Storm Sewer Map	Year 1 to Year 4	Update storm sewer GIS map as necessary.	Document any updates made to storm sewer map.	Engineering Department
Regulations/Enforcement	Year 3 to Year 4	Continue to develop and enact illicit discharge connection ordinance, enforcement procedures and penalties.	Document development.	Engineering Department, City Council
	Year 4	Enforce procedures and penalties.	Document the number of enforcement actions taken.	Engineering Department
	Year 4	Develop program to annually review and update the IDDE Ordinance	Document updates.	Engineering Department, City Council
HHW Recycling	Year 1 to Year 4	Continue to promote HHW recycling.	Document number of brochures/information passed out to the public.	
Illicit Discharge Detection Program	Year 3 to Year 4	Continue to develop detailed illicit discharge detection program and to perform dry weather screening of outfalls, field/dye testing and education of employees and public.	Prepare detailed illicit discharge detection program. Document the number of dry weather outfall screenings conducted.	Engineering Department with DEP assistance

<b>Best Management Practice</b>	<b>Year</b>	<b>BMP Description</b>	<b>Measurable Goals</b>	<b>Responsibility</b>
Public Involvement	Year 1 to Year 4	Continue to record citizen complaints on illicit connections or illegal dumping as part of response/complaint program	Document the number of citizen complaints and the results of actions taken.	Engineering Department
Field Staff Training	Year 3 and Year 4	Provide annual training to field staff for identification, investigation, termination, cleanup, and reporting illicit discharges.	Document and keep a record of any training provided and the staff trained.	Public Works

#### **4. CONTROLLING RUNOFF FROM CONSTRUCTION SITES**

The City recognizes that construction sites can deposit a significant amount of silt and sediment in a short period of time. The Phase II rules require the City to develop and enforce a storm water management program addressing storm water runoff from construction sites. The two major initiatives for this plan are to ensure that contractors are properly educated about the importance of erosion and sediment control and to prevent sediment from being deposited into receiving streams from construction activities. These initiatives will be evaluated using action research which will include spreadsheets documenting and tracking the BMPs the city will be utilizing.

The City currently utilizes the Little Kanawha Conservation District's Erosion and Sediment Control Handbook for Developing Areas (ESCH), the WVDEP Manual and the West Virginia Department of Transportation (WVDOT) Manual to reduce construction pollutants in its storm water runoff. An ordinance requires that land disturbance of one or more acres are regulated. It requires developers to submit a plan that contains measures to reduce soil erosion and practices to control sediments that have already eroded. Project sites that disturb less than an acre of land when the project is part of a larger common plan of sale or development will also be subject to our permitting and storm water approval process beginning in fall of 2013 when the City code is updated.

City staff continues to conduct plan reviews to ensure that the ESCH is followed. Contractors are given a brochure about the City's construction site regulations during the plan review process. Article 1759 was amended on July 12, 2005 and requires the developer to install and maintain those specified measures and practices agreed to in the construction plans. The City Engineer will not sign drainage permits for projects that will require a WV/NPDES registration until he receives documentation that they have obtained the necessary permits. Sites will be inspected for compliance and if found lacking, an inspector may issue a permit violation stop work order, fine or other measure to ensure compliance.

The City code will also be updated to include requirements for construction site operators to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse effects to water quality. The code will also be reviewed to see if there is an established authority for site plan review, site inspections and enforcement and for receipt and consideration of comments submitted by the public. The code will be reviewed in summer of 2013 and the code will be updated in fall of 2013. Ordinance will be reviewed on an annual basis to include any applicable updates in regulations, required clarifications or any necessary improvements. A list of all ordinances and date of adoption will be documented and provided in the annual report.

Adequate funding will be budgeted for site inspections and enforcement of control measures. The City has budgeted \$500, 000 for storm water management in the 2012-2013 fiscal year and \$300,000 in the 2013-2014 fiscal year.

The City's storm management program currently includes a permitting and approval process for grading permits for new development and re-development construction sites. This permitting program is applied to all sites that disturb an area greater than one-fifth acre. Per Ordinance 1759, this process includes plan review that requires plans and specifications be submitted that contain all temporary and permanent soil erosion and sediment control BMPs necessary at the site to comply with the Little Kanawha Conservation District's ESCH and the WVDEP Manual. The plans and specifications must also include the location and size of BMPs and their maintenance requirements during and after construction. The ordinance also allows the City to make routine inspections during construction to ensure compliance with the storm water management plan. The ordinance also allows the City to suspend or revoke the grading permit in the event that the permittee fails to comply with the requirements of the storm water management plan.

The City has methods in place for receipt and consideration of public comments. The City has a planning commission that meets monthly; these meetings are open to the public. Every project that includes zoning or lot consolidations is required to be approved through this commission. The public can also make comments at the City council meetings. These meetings have a public forum where anyone can speak for 5 minutes on any topic that concerns them. These comments are then passed on to the appropriate departments and taken into consideration during the plan review process.

The City will update the storm water management program to include procedures for providing educational and training measures for construction site operators and inspectors. These procedures will include development of a construction site BMPs brochure to be developed in summer of 2013 and implemented in fall of 2013. Procedures will also be developed for keeping records of all regulated construction activities, inspection reports, warning letters, and any other enforcement documentation. These procedures will be developed with the assistance of the Code Dept. in summer of 2013 and implemented in fall of 2013. A summary of inspection and enforcement activities that are conducted shall be included in the annual report.

The City's 311 response hotline (addressed under Public Participation and Involvement) will be used to record citizen complaints on apparent construction site runoff offenses.

Table 4 identifies the BMPs, schedule, measurable goals and responsible party(s) for the Controlling Runoff from Construction Sites minimum control measure.

**TABLE 4 – CONTROLLING RUNOFF FROM CONSTRUCTION SITES BMPs**

<b>Best Management Practice</b>	<b>Year</b>	<b>BMP Description</b>	<b>Measurable Goals</b>	<b>Responsibility</b>
Regulations/Enforcement	Summer 2013	Review existing soil erosion and sediment control ordinance, enforcement procedures and penalties.	Document revisions.	Engineering Department, City Council
	Spring 2013	Revise existing soil erosion and sediment control ordinance, enforcement procedures and penalties.	Document all ordinances and date of adoption.	Engineering Department, City Council
	Year 3 to Year 4	Continue to enforce procedures and penalties.	Document the number of enforcement actions taken. Document the number of stop work orders given.	Engineering Department
Site Inspection	Summer 2013	Review City construction site inspection procedures. Revise or implement new procedures, if required.	Document revisions to site inspection procedures, if required.	Engineering Department
	Year 1 to Year 4	Continue to conduct inspections of construction sites.	Record number of site inspections performed and problems identified.	Engineering Department with DEP assistance
Site Plan Review	Year 1 to Year 4	Continue to conduct review of site plans.	Document the number of total site plans and inadequate site plans reviewed.	Engineering Department

<b>Best Management Practice</b>	<b>Year</b>	<b>BMP Description</b>	<b>Measurable Goals</b>	<b>Responsibility</b>
Education	Spring 2013	Develop construction site brochures.	Document site brochure concepts considered.	Engineering Department
	Summer 2013	Distribute construction site brochures to contractors.	Document the number of contractors that have received brochures.	Engineering Department
Record Keeping	Summer 2013	Develop procedures for keeping records of all regulated construction activities, inspection reports, warning letters, and any other enforcement documentation.	Document procedures.	Engineering Department / Code Department
	Fall 2013	Implement record keeping procedures.	Document procedures.	Engineering Department / Code Department

## **5. CONTROLLING RUNOFF FROM NEW DEVELOPMENT AND REDEVELOPMENT**

The City continues to develop a program to assess, implement and enforce the reduction of pollutants in storm water runoff from new development and redevelopment activities. The program will apply to private and public sector development, including roads. This program will be applied to all sites that disturb a land area one acre or greater, including projects less than one acre that are part of a larger common plan of development. The controls seek to reduce the amount of impervious cover by increasing the amount of natural land set aside for conservation and to use pervious areas for more effective storm water management. The control measures will be addressed through the implementation of watershed protection elements and site and neighborhood design elements. The City's goal is to incorporate all elements for controlling runoff from new development and redevelopment listed in the NPDES permit into the City's ordinances and planning documents. The measurable goal will be the amended documents and the dates they are adopted.

The City will incorporate all elements of the Long-Term Controls into the City's ordinances and planning documents. The City will incorporate the watershed protection elements and site and neighborhood design elements from Part II C.b.5. of the NPDES permit into the subdivision ordinance, the zoning code and the master plan. These documents will include elements to minimize the amount of impervious surfaces; preserve, protect and restore ecologically sensitive areas; implement storm water management practices that reduce thermal impacts on streams; avoid hydromodification of streams caused by development, implement standards to protect trees and other vegetation; and implement policies to protect native soils. The current ordinances will be reviewed in spring of 2013 to determine which elements need to be incorporated into the new ordinances. The City has hired an attorney to assist with the development of new ordinances and planning documents. New ordinances are anticipated to be completed in the summer of 2013 and adopted in the fall of 2013. A review schedule will be created in winter of 2014 for these new ordinances that will require they be reviewed and updated as necessary every two years.

The City has extended the duties and responsibilities of the existing City Tree Commission to include aspects of an urban forestry program. Benefits of such a program would include an increase in treed land, reduction in runoff quantity, improvements in water quality, and aesthetic and shade benefits. Measurable goals for the program include revisions to ordinances both expanding the duties of the existing City Tree Commission and promoting urban forestry in new development and redevelopment, the number of trees planted as a result of urban forestry initiatives, and the increase in forested land within the City.

The City will continue to develop a program to protect water resources by requiring all new and redeveloped projects to control storm water discharge rates, volumes, velocities, durations and temperatures. An ordinance will be developed and enforced to require design standards for all new and redevelopment to keep and manage on site the first one

inch of rainfall from a 24 hour storm preceded by 48 hours of no measureable precipitation when geological and soil conditions permit. The City has hired an attorney to assist with the development of these new ordinances. New ordinances are anticipated to be completed in the summer of 2013 and adopted in the fall of 2013. The City will review structural and non-structural BMPs that will limit runoff. Possible structural BMPs to capture runoff include dry swales, bioretention, rain tanks, permeable pavement and reforestation.

The City will also be investigating the development of a program for off-site mitigation and/or payment in lieu of retaining the first inch of rainfall. The City will research these two options for sites that cannot meet the 100% runoff reduction requirement on site in summer of 2013. A decision will be made and ordinances will be written to enforce one or both of these programs in fall of 2013. These programs would be implemented and enforced in the spring of 2014.

Requirements will be developed and incorporated into our City Code that require a project that is a potential hot spot with reasonable potential for pollutant loading to provide water quality treatment for associated pollutants before infiltration. The City is planning to make changes to the City Code in the spring of 2013. The ordinances are anticipated to be adopted in the fall of 2013. The City has developed the following procedure for conveying untreated storm water from "Hot Spots" to disposal facilities. The City owns a vactor truck that will be used to convey untreated storm water from "Hot Spots" to either the waste water treatment facility or to a licensed disposal facility. A hazmat team from DuPont is also available in the county to assist with any hazardous chemicals that may be present in the storm water. This will be implemented when the City Code is updated in the fall of 2013.

The Parkersburg Utility Board has procedures for protecting sources of drinking water. They have identified source water protection areas in the City and have requirements for any new or redevelopment activities occurring in these areas. The City's drinking water plant gets water from multiple ranney collector wells that are 60-70 feet deep. The BMPs concentrate most on removing excess sediment from the storm water and preventing illicit discharges which protects our sources of drinking water. They City will research the procedures that the Parkersburg Utility Board uses and incorporate them into the City's ordinances. This will be implemented when the City Code is updated in the fall of 2013.

City staff will develop project review, approval and enforcement procedures to ensure that all new development and redevelopment projects conform to the aforementioned standards. A maintenance agreement and maintenance plans will be developed by the City for all approved storm water management practices. These agreements will allow the City to conduct inspections of the storm water management practices. An inspection calendar for storm water BMPs will be developed in spring of 2014. The City will also develop an enforcement and response plan to ensure that storm water BMPs are properly maintained. This plan will be developed in winter of 2014 and adopted and enforced starting in the summer of 2014.

Finally, the City will develop a system designed to track storm water management practices deployed at new development and redevelopment projects. The tracking system will include source control storm water management practices, treatment control storm water management practices, coordinates of storm water BMP controls using GPS, digital photographs, maintenance requirement, and inspection information. The City will develop this system in the winter of 2014 and begin implementing the procedures in summer of 2014.

Table 5 identifies the BMPs, schedule, measurable goals and responsible party(s) for the Controlling Runoff from New Development and Redevelopment minimum control measure.

**TABLE 5 – CONTROLLING RUNOFF FROM NEW DEVELOPMENT AND REDEVELOPMENT  
BMPs**

<b>Best Management Practice</b>	<b>Year</b>	<b>BMP Description</b>	<b>Measurable Goals</b>	<b>Responsibility</b>
Regulations/Enforcement	Spring 2013	Review/revise existing soil erosion and sediment control ordinance, enforcement procedures and penalties, as necessary.	Document revisions.	Engineering Department, City Council
	Year 3 to Year 4	Enforce procedures and penalties.	Document the number of enforcement actions taken. Document the number of stop work orders given.	Engineering Department
Watershed Protection	Fall 2013	Incorporate watershed protection elements into the subdivision ordinance, the zoning code and the master plan.	Document revisions to these documents.	Engineering Department, City Council
	Year 4	Inventory changes made for watershed protection.	Document the reduction of impervious surfaces associated with new and redevelopment projects, reduction of thermal impacts to streams, acreage of trees and vegetation preserved, and protection of native soils.	Engineering Department

<b>Best Management Practice</b>	<b>Year</b>	<b>BMP Description</b>	<b>Measurable Goals</b>	<b>Responsibility</b>
Watershed Protection , continued	Year 3	Continue to expand duties and responsibilities of existing City Tree Commission to develop an Urban Forestry Program.	Document ordinance revisions expanding responsibilities of City Tree Commission.	Engineering Department, City Council
	Year 1 to Year 4	Implement and conduct Urban Forestry Program.	Document number of trees installed, increase in treed land, reduction in runoff, and improvements in water quality.	Engineering Department
Site and Neighborhood Design	Year 4	Develop a program to protect water resources by requiring all new and redeveloped projects to control storm water discharge rates, volumes, velocities, durations and temperatures.	Document revisions to all necessary ordinances.	Engineering Department
	Year 4	Develop project review, approval and enforcement procedures to ensure that all new development and redevelopment projects conform to the new design standards	Document revisions.	Engineering Department
	Year 3 to Year 4	Conduct project reviews and approvals for all new development and redevelopment projects.	Document the number of plans reviewed.	Engineering Department
	Year 4	Develop maintenance agreement and maintenance plans for all approved storm water management practices.	Document maintenance agreements and maintenance plans.	Engineering Department
	Year 4	Develop an inspection calendar for storm water BMPs.	Document the inspection calendar.	Engineering Department

<b>Best Management Practice</b>	<b>Year</b>	<b>BMP Description</b>	<b>Measurable Goals</b>	<b>Responsibility</b>
Site and Neighborhood Design, continued	Year 4	Inspect storm water BMPs and compile inspection reports.	Document the inspections and reports. Goal of inspecting each storm water BMP once a permit cycle.	Engineering Department
	Year 4	Develop a system designed to track storm water management practices deployed at new development and redevelopment projects	Document development.	Engineering Department
Assessments	Year 3	Submit to DWWM a report assessing the current street design guidelines and parking requirements that affect the creation of impervious cover.	Document report.	Engineering Department

## **6. POLLUTION PREVENTION AND GOOD HOUSEKEEPING**

The objectives of the City's Pollution Prevention and Good Housekeeping municipal operations program is to reduce pollutant runoff from municipal operations and to train employees to be able to answer general storm water questions from the public. These initiatives will be evaluated using action research which will include spreadsheets documenting and tracking the BMPs the city will be utilizing. The existing vehicle maintenance program requires that all city-owned vehicles be regularly inspected to eliminate the amount of oil, grease, and fluid leaks.

The street sweeping program will be reviewed and modified if necessary. Current street sweeping activities consists of four street sweepers operating five days a week. Each day is comprised of an eight-hour shift per sweeper. The street sweeping is performed as weather permits. Our goal for this BMP is to receive less than ten complaints per year from the public concerning street sweeping.

The City will also begin implementing a regular catch basin cleaning plan. Previous budgets have not allowed the City to develop a catch basin cleaning program. The current program addresses the catch basins only when there is a problem or complaint about specific ones. The City owns a jet/vacuum truck that will be utilized for this catch basin cleaning program. The City's mapping is currently being updated to include the location of all catch basins this is expected to be completed in 2013. A schedule will then be developed for catch basin cleaning that will allow all catch basins to be cleaned on a five-year rotating schedule. This schedule will be completed in 2014 and the City will start the cleaning program the following year. Effectiveness of this BMP will be gauged by the number of catch basins cleaned within a year. The goal will be to clean approximately 20% of catch basins per year.

The City's Public Works Department continues to review their storm sewer operation and maintenance procedures. A new training program on municipal operations has been obtained and training will be performed and documented in the fall of 2013. Training includes education on the importance of preventing or reducing storm water pollution, proper building and fleet maintenance, BMPs for construction site runoff control, and spill prevention and clean-up. Follow-up and refresher training will be provided to public works employees once a year.

The City's Streets Maintenance Department will continue to review their road salt program. Modifications will likely provide savings in the amount of salt applied to the roadways and consequently a reduction in the amount applied to our waterways. Additionally, the City will continue to inspect the current containment at salt stockpile facilities once a year.

An Integrated Pest Management (IPM) program for City crews to find alternatives for traditional chemical pesticides will be considered. The program will teach non-chemical pest control. Lawn pesticide application training and information will continue to be offered to municipal employees.

Table 6 identifies the BMPs, schedule, measurable goals and responsible party(s) for the Pollution Prevention and Good Housekeeping minimum control measure.

### **Industrial Storm water Coverage for Municipal Operations**

#### **List of municipal facilities and their locations owned by the MS4**

Maintenance garage/ recycling center: 100 24<sup>th</sup> Street, Parkersburg, WV

Street Department Garage: 2507 Camden Ave., Parkersburg, WV

Buildings and Grounds Department Facility: 917 Ray Street, Parkersburg, WV

Water Treatment Plant: 2201 Keever Street, Parkersburg, WV

Wastewater Plant: 125 19th Street, Parkersburg, WV

The City's maintenance garage/recycling center sends all drains/inlets to the sanitary sewer system. There are no direct connections to the storm sewer system at this location. This location will be inspected in spring of 2013 to determine if additional BMPs are needed to prevent storm water runoff pollution. If necessary new BMPs will be developed and implemented in 2014.

The City's street department garage sends all interior drains/inlets to the sanitary sewer system. There are some storm inlets/catch basins outside the building on the property. The property will be examined and a sampling location will be determined in spring of 2013. A storm water sample will be collected at this location starting in the fall of 2013. This location will then be sampled once every six months as per the NPDES permit requirements in Part II C.b.6.d.

The City's Buildings and Grounds Department Facility has two interior drains that are connected to the storm sewer system. This property will be examined and a sampling location will be determined in spring of 2013. A storm water sample will be collected at this location starting in the fall of 2013. This location will then be sampled once every six months as per the NPDES permit requirements in Part II C.b.6.d.

The City's water treatment plant is operated by the Parkersburg Utility Board which is a separate entity from the City of Parkersburg. The plant does have storm inlets that connect to the storm sewer system and discharge into the Ohio River. The Utility Board will examine the property and a sampling location will be determined in spring of 2013. A storm water sample will be collected at this location starting in the fall of 2013. This location will then be sampled once every six months as per the NPDES permit requirements in Part II C.b.6.d.

The City's wastewater treatment plant is also operated by the Parkersburg Utility Board which is a separate entity from the City of Parkersburg. This facility is permitted under NPDES Permit WV0023213. This permit addresses storm water discharge sampling from the plant proper.

**TABLE 6 – POLLUTION PREVENTION AND GOOD HOUSEKEEPING BMPs**

<b>Best Management Practice</b>	<b>Year</b>	<b>BMP Description</b>	<b>Measurable Goals</b>	<b>Responsibility</b>
Vehicle Maintenance	Year 1 to Year 4	Continue to inspect all city-owned vehicles on routine basis.	Record dates of inspection, issues discovered, and dates corrected.	Public Works
Facility Maintenance	Year 1 To Year 4	Develop an inspection schedule to perform inspections at all municipal facilities to ensure that maintenance standards are being met.	Document inspection schedule. Goal is inspections once a year.	Public Works
	Year 1 to Year 4	Continue to review all maintenance facilities. Eliminate any cross-connections and correct any containment issues.	Record dates of inspection, issues discovered, and dates corrected.	Public Works
Street Sweeping	Year 1 to Year 4	Perform street sweeping on routine basis.	Document the miles of street cleaned, amount of trash removed and frequency of street cleaning.	Public Works
Catch Basin Cleaning	Year 4 2013	Develop a schedule that will allow all catch basins to be cleaned on a four-year rotating schedule.	Document cleaning schedule.	Public Works
	Year 5 2014	Start implementing the cleaning program schedule.	Document the number of catch basins cleaned within a year.	Public Works

<b>Best Management Practice</b>	<b>Year</b>	<b>BMP Description</b>	<b>Measurable Goals</b>	<b>Responsibility</b>
Employee Training	Year 1 to Year 4	Continue to conduct training of city employees on proper maintenance of storm sewer system, education on the importance of preventing or reducing storm water pollution, proper building and fleet maintenance, BMPs for construction site runoff control, and spill prevention and clean-up.	Document the date of training and participants involved. Goal is follow-up/refresher training once per year.	Public Works
Salt Storage/Application	Year 1	Continue to review/revise road salt application and storage program.	Document changes made to program.	Public Works
	Year 1 to Year 4	Conduct road salt application and storage program.	Document the amount of salt/deicing materials applied to roadways.	Public Works
Lawn Chemical Application	Year 3	Review/revise lawn chemical application practices.	Document changes made to program. Develop list of potential instructors and participants.	Public Works
	Year 3 to Year 4	Conduct lawn chemical application training.	Document the date of classes and participants involved.	Public Works
Pest Management	Year 3	Evaluate possible development of IPM program.	Document possible program options. Develop list of potential instructors and participants.	Public Works

<b>Best Management Practice</b>	<b>Year</b>	<b>BMP Description</b>	<b>Measurable Goals</b>	<b>Responsibility</b>
	Year 4	Conduct IPM training, if desired.	Document the date of classes and participants involved.	Public Works

## IX Special Conditions

### Sharing Responsibility

The City of Parkersburg along with the Cities of Vienna and Williamstown have formed a storm water coalition. This coalition is chair recognized by WVDEP and meets quarterly. The members of the coalition will be sharing responsibilities and preparing joint ventures on the public education and participation MCMs. The brochures, advertisements and public service announcements created will be used by all members. The City of Vienna has also done some storm water training with area landscapers that the City of Parkersburg will be including as part of our educational outreach.

### Discharge to Impaired Waters

Receiving Streams and Impaired Water bodies/TMDLs (Total Maximum Daily Load)

Name of receiving stream	Impaired? Yes or No	Parameters of impairment	Established TMDL
Ohio River	Yes	Dioxin, Bacteria, and Iron	No
Little Kanawha River	Yes	Fecal Coliform	No
Pond Run	Yes	CAN-Biological, Fecal Coliform, and Iron	Yes Fecal Coliform, and Iron
Worthington Creek	No		
Holmes Run	No		
Wards Run	No		
Neal Run	No		

BMPs planned to address each impairment:

**Iron-** Iron is a naturally occurring element that's prevalent in the Parkersburg/Wood County area. Though there are receiving streams in West Virginia that receive iron from industrial sites or from acid mine drainage, this is not the case for Parkersburg. The main cause of elevated iron concentrations in storm water are sediment erosion. The BMPs previously discussed addressing storm water runoff from construction sites will also be used to reduce the iron concentrations in receiving waters. In addition the City plans to implement a stream bank stabilization program as a BMP. In the winter of 2014 we will select specific areas with erosion issues. The city will then obtain cooperation from landowners and organize an effort to stabilize the stream bank in the selected area by summer of 2014. This will most likely be

accomplished by planting on the stream bank and re-directing surface flow. The City will begin monitoring the receiving waters in these areas to determine if there are high iron concentrations. Storm water samples will be collected at Worthington Creek before emptying into the Little Kanawha River, Neal Run outfall before emptying into the Little Kanawha River and Pod Run outfall before emptying into the Ohio River.

**Fecal Coliform-** Fecal coliform is an indicator organism that informs municipalities where untreated wastewater may be occurring. Not only are fecal coliforms present in human waste but also in animals waste. The City has a fully separated storm sewer system. The sanitary sewer system is under the authority of the Parkersburg Utility Board. The Utility Board has a FOG (fat, oil and grease) program that minimizes sanitary sewer back-ups and assists with reducing fecal coliform counts by minimizing illicit sewer discharges in the storm water system. The City will perform a visual inspection of at least one priority outfall during dry weather. During this field visit we will verify outfall locations, identify previously unknown outfalls and attempt to detect illicit discharges. At a minimum one field assessment shall be made each year. This should also help to minimize fecal coliform counts by minimizing illicit sewer discharges in the storm water system. These visual inspections will be implemented in the winter of 2014.

The majority of the land within the City of Parkersburg's watershed is urban in nature. Therefore, there is little land available for major livestock areas that could be affecting the receiving water quality. There are geese and other waterfowl prevalent in the area, however there is little that can be done to stop the birds from congregating in and around the watershed. Thus, the only animal wastes that will be targeted are from pets. The City focuses their efforts on pet owners that use the City parks for exercising their pets. "Clean Up After Your Pet" signs are maintained at the City Park as well as six pet waste disposal stations at various parks to encourage pet owners to dispose of pet waste properly.

**Dioxin-** Dioxin is a systematic problem with the Ohio River. The BMPs used for iron and fecal coliform will also be used to address issues with dioxins. The City also has a code against burning trash in the City limits this will also limit dioxin concentrations. The City's fire department will only issue burn permits for the burning of natural vegetation. The City also plan to seek a volunteer to research historical data to find properties sites that housed old industrial plants or other possible sources of environmental pollutants. The City plans to seek this volunteer in fall of 2013. This volunteer will be asked to research historical data such as sanborn mapping and to compile a list of sites that are potential sources of storm water pollution by spring of 2014. The City will then develop BMPs to address these areas and possible contaminants in summer of 2014. One example it that the City will require owners to have an ESA performed prior to doing any development/redevelopment in these areas.

**Conditions not Allowable (CNA) Biological-** This impairment is associated with organic enrichment and sedimentation. High iron concentrations and fecal coliform counts can increase this level. Therefore, the same BMPs used for iron and fecal coliform will address issues with the CNA-biological impairment.

**Bacteria-** Similar to dioxin, bacteria impairment is a systematic issue with the Ohio River. The same BMPs used to address fecal coliform will be used for bacteria.

### **Discharging into Waters with Approved TMDLs**

Currently Pond Run has an established TMDL for iron and fecal coliform. The limits are 15.9 lbs/day for iron and 2.03E +10 counts/day for fecal coliform. The City will implement a storm water monitoring program for Pond Run to assess the effectiveness of the previously mentioned BMPs in achieving the waste load allocations for iron and fecal coliform. Monitoring will be specifically for iron concentrations and fecal coliform counts and will be performed twice a year initially in order to develop a baseline reading. Monitoring will include taking samples from outfall locations and visual documentation with photos taken at the time of sampling. This monitoring and sampling will begin in spring of 2013 and the locations for sampling will be Pond Run outfall before emptying into the Ohio River and where Pond Run comes in the City limits.

If a new TMDL is approved, the City will modify its storm water management program to include BMPs specifically targeted to achieve the waste load allocations prescribed by the TMDL within six months. The City will first review the applicable TMDL to see if it includes requirements for control of storm water discharges this will take place in the first month. During months two and three BMPs will be researched to find appropriate methods to achieve the wasteload allocations prescribed by the TMDL. In months four and five BMPs will be chosen and any changes necessary to the City ordinances or other documents will be made in order to start implementation of the chosen BMPs. In the sixth month the BMPs will begin to be implemented. The City will also include a monitoring component to assess the effectiveness of the BMPs in achieving the waste load allocations during month six.

### **Endangered and Threatened Species**

The City contacted Barbara Douglas from the US Fish and Wildlife Service to ascertain if the MS4 discharges to streams where federally endangered or threatened species are present. There are endangered mussels present in our discharge streams. However according to Ms. Douglas our storm water should pose no threat or be a major issue for these species. We will continue to sample and test our outfalls to watch for high pollution concentrations that may be harmful to these mussels.

### **Storm water Monitoring**

The City will monitor storm water from the Pond Run outfall once every six months, during the spring and fall seasons. The Pond Run outfall is located in one of the most densely populated sections of the City. This outfall will be monitored for the parameters included in Part IV.B of the permit as well as for iron concentration and fecal coliform counts. This sampling will be implemented starting in the fall of 2012. Storm water samples will be collected during the “first flush” of rainfall runoff as described in the permit.

# *Appendix A*

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## *City of Parkersburg Map*



*Appendix B*

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*West Virginia 303d Stream Assessment List*

*Appendix C*

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*Storm Water Management Plan Schedule*