

WVDEP  
Division of Water & Waste Management  
601 57<sup>th</sup> Street, SE  
Charleston, WV 25304  
Attn: Michelle Finney

April 26, 2013

RE: WV NPDES Permit No. WV0116025  
General Permit Registration No. WVR030023  
Town of Star City

Dear Ms. Finney,

Attached please find Star city's revised and condensed SWMP and a copy of the proposed Storm Water 934 Ordinance that is to have a first reading on April, 30<sup>th</sup>, 2013.

17.bb I have requested that the SWMP be posted with the most current Annual report on the web site.

19o This item has been address in the proposed Ordinance in Article 934.20 (o), if the final 0.4" cannot be managed on site then mitigation shall be at a ratio of 1:2. Star City is a very small town and finding mitigation sites may prove to be difficult the most reasonable approach is a cash settlement into a fund designated for major storm water improvements. There are several areas within the Town in need of Capitol Storm Water Improvements.

19.t This item has been address in the proposed Ordinance in Article 934.23- 934.26, Star City has already started a data base noting all the Storm Water Detention systems currently operating, all of the systems installed since 2012 have been required to have formal maintenance agreements, the proposed Ordinance, once passed, will give the town the enforcement to inspect the other systems.

MCM5, a.ii Site and Neighborhood Design The Planning and Zoning committee have made some changes requiring vegetative Buffers and requiring 10% of each lot to be green space but this items does need expanded on. The plan is to get the proposed Storm water Ordinance passed, then the town will work on getting funding for the Storm Water Program and to work on Site and Neighborhood Design.

The Town will include the results of the April 30, 2013 first reading of the proposed Ordinance in the 2012-2013 annual Report. Please feel free to contact me concerning this application. I am send this electronically and I am putting a hard copy in the mail. thanks you for your time and consideration.

Respectfully submitted by  
CTL Engineering of West Virginia, Inc.



Kathleen O'Brien  
Civil Site Designer & MS4 Consultant



**National Pollutant Discharge Elimination System (NPDES)**

**Storm Water Management Program  
Site Registration Form  
for  
West Virginia  
Municipal Separate Storm Sewer Systems (MS4s)  
General Permit WV0116025**

**West Virginia Department of Environmental Protection  
Division of Water and Waste Management – MS4 Program  
601 57<sup>th</sup> Street, SE  
Charleston, WV 25304**

Prepared for

**The Town of Star City, West Virginia  
370 Broadway Avenue  
Star City, West Virginia 26505  
304-599-3550**

Prepared by  
CTL Engineering of West Virginia, Inc.  
733 Fairmont Road, Morgantown, West Virginia 26501  
304-292-1135

Revised  
April 26, 2013

## Section I. General Information

### MS4 Operator

Part II A.

1.a. Name of City, County or other public entity that operates a small MS4:

*Town of Star City, West Virginia*

1.b. Mailing Address:

*370 Broadway Avenue, Star City, WV 26505*

Local staff contact, person responsible for overall program implementation and coordination.  
(This is the person DEP will contact as the need arises for more information and/or details about your stormwater management program or general questions concerning stormwater in your community.)

1.c. Name Kathleen O'Brien, CTL Engineering of West Virginia, Inc.

1.d. Title Civil site Designer & MS4 Consultant

1.e. Phone: 304-292-1135

1.f. E-mail address ; [kobrien@ctleng.com](mailto:kobrien@ctleng.com)

### Certification

47CSR10

By completing and submitting this application, I have reviewed and understand and agree to the terms and conditions of #WV0116025 small MS4 General Permit issued on June 22, 2009. I understand that provisions of the MS4 general permit are enforceable by law. Violations of any term and condition of the general permit and/or other applicable law or regulations can lead to enforcement action.

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 gather and evaluate 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, 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.

2.a. Authorized signature

*Allen R. Sharp*  
(Mayor or Principle Executive Officer)

2.b. Print name *Mayor Allen Sharp*

2.c. Title : *Mayor of Star City*

2.d. Date

*April 22, 2013*

West Virginia small MS4 general permit site registration application

**Co-permittees** (Complete this section if co-permitting with another MS4 entity)  
Part III. A.

- 3.a. Name of MS4 Operator: N/A
- 3.b. Contact person
- 3.c. Telephone
- 3.d. Address
- 3.e. Email address
- 3.f. Have legal agreements been finalized between co-permittees?
- 3.g. If yes, provide agreement with this application. (With signatures)

## Section II. Storm Sewer System

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### Description of storm sewer system

- 4.a. Area (in acres) that drains into the MS4 from outside the corporate or jurisdictional boundaries:  
*Drainage area outside of Star City that drains into Star City is 1,026.91 Acres*
- 4.b. Area (in acres) within current corporate or jurisdictional boundaries:  
*Area within Star City is 303.4 Acres*
- 4.c. For all MS4s, population (using the most recent U.S. Census data) for area served:  
(Universities: give current enrollment plus staff and faculty. Transportation agencies: give population of your MS4 in urbanized areas. Prisons; give current inmate plus staff population.)  
*The 2010 census listed Star City as having a population of 1,825 people*

Part IV.B.

- 4.d. Latitude and Longitude of representative outfall:  
Longitude- 39 Degrees: 39 Minutes: 47 Seconds:  
Latitude- 79 Degrees: 59 Minutes: 16 Seconds:

Part IV.B.

- 4.e. Describe the physical location of your representative outfall. If a street address is not possible use cross street descriptions.  
*The Fenwick storm line enters natural water way west of Broadway Street between Farifield and Fewick Streets and is an open channel that goes through several sections of culverts before entering the Monongahela river approximately 2,400 feet north of the Star City Bridge over the river.*

Part IV.B.

- 4.f. Describe your monitoring plan to include the frequency and parameters.  
*The Incoming bi-yearly sample for the Fenwick Storm line is taken in storm manhole FW #1 Storm/Sanitary manhole just west of the corporate line between Star City and Morgantown. The Fenwick Storm line outfall is sampled bi-yearly in an open channel near the river. The following locations are sampled annually*  
*Selwyn Incoming is sampled out of an inlet close to the corporate boundary with Morgantown*  
*Selwyn outfall is sampled out of an open channel close to the River.*  
*Stafford outfall is sampled out of an open channel close to the River.*



University outfall is sampled out of the pipe discharging into the River.  
Leeway outfall is sampled out of the pipe discharging into the River  
Mon. Blvd. outfall is sampled out of the pipe discharging into the River  
The following Parameters will be used, PH, hardness, conductivity, Ammonia, Potassium, TSS, TDS,  
Fluorides, Total phosphorous, total Kjeldahl nitrogen, nitrate nitrogen, nitrite nitrogen, oil & grease,  
And Fecal coliform, note Total Aluminum was dropped per WVDEP request

### Storm Sewer Infrastructure

Provide the most accurate number possible.

5.a. Storm sewers, in feet	43,062'
5.b. Open ditches, in feet	12,780'
5.c. Outfalls	7+
5.d. Catch basins	200
5.e. Detention* facilities	7
5.f. Retention** facilities	0
5.g. Treatment facilities	0
5.h. Regional stormwater facilities	0

- 6.a. Does your MS4 receive stormwater discharges from WVDOT storm sewer system, roads or right-of-ways? YES
- 6.b. Does your MS4 discharge into WVDOT storm sewer systems or right-of-ways?  
YES  
WVDOT owned roads within Star City  
WV Route 7 & US 19, Monongalia Boulevard  
WV county Route 55, University Avenue from Boyers to Mansfield  
WV County Route 7/20 Boyers Avenue, from Rt. 7& 19 to WV County 55  
WV County Route 55/4 for 260'  
WV County Route 55/5, Heather Street  
WV County Route 55/6 Lilly Street  
WV County Route 55-7, Brewer Street  
WV County Route 19/31, Saratoga Avenue for 0.15 miles from Monongahela Boulevard
7. Is your MS4 interconnected with another MS4? (Does stormwater flow into or out of your storm sewer system to or from another MS4?) If yes, describe.  
YES  
The Fenwick and Selwyn lines receive piped storm water from the Morgantown Utility Board (MUB) area. Poponoe Run has 953.32 acres in Morgantown and only 109.08 acres of drainage from Star City this major drainage basin has numerous CSO belonging to (MUB) there are numerous sewage lines running along Poponoe Run to MUB's sewage plant located in Star City. Star City has declined to use Poponoe Run as MUB is doing extensive sampling due to the MUB's CSO along that stream. Many of the sewage lines originate in MUB area and mapping of sewage lines has been difficult due to MUB's reluctance in sharing mapping to date MUB has not shared any mapping of storm or sewage lines.

8. Does your municipality contain combined sewer systems?  
Yes
- 9.a. What percentage is drained by Combined Sewer System?  
Two combined manholes have been located on the Fenwick Storm line. MUB has a permitted CSO at the bottom of University Avenue. Star City is unable to determine a percentage as lines are combined with MUB area and MUB has not shared mapping.
- 9.b. What percentage is drained by separate storm sewer system?  
Star City is unable to determine a percentage as lines are combined with MUB area and MUB has not shared mapping. An educated guess would be 98%

#### **Industrial Facilities owned by the MS4 entity**

Part II.C.b.6.d.

- 10.a. Does your MS4 own and/or operate an industrial facility that discharges stormwater into the MS4?  
No, the current facilities used by the Town are not within the MS4.

- 10.b. If yes, how many?

(Item 11 is intentionally empty)

#### **Map Requirements**

Please provide a legible map that identifies the following information:

- 12.a. City, County or jurisdiction boundaries Corporate limits shown.
- 12.b. State or Federal operated vocational/college/university campuses and military institutions N/A
- 12.c. Urban area as defined by the 2000 Census, use 2010 Census data if available
- 12.d. Municipal, County, or State wastewater treatment plants and their associated outfalls
- 12.e. Landfills N/A
- 12.f. Municipal, County or State operated vehicle or fleet maintenance garages N/A
- 12.g. Any other Municipal, County or State operated industrial activities, these could include; salt storage areas, parks and recreational areas, chemical storage areas, etc.
- 12.h. Arterial, Municipal, or State roads
- 12.i. Stormwater discharge points and receiving streams
- 12.j. Streams and waterways within the MS4
- 12.k. Delineation of watershed area that drains into your MS4

Part.II.C.b.3.a.iv.

- 12.l. Submit paper maps folded to 8.5" x 11".

Part.II.C.b.3.a.iv.

- 12.m. Multiple maps must be of the same scale, 1:1000 or 1:2000.

## **Receiving Streams and Impaired Waterbodies/TMDLs**

Part III.D.1

List all named receiving waters within your MS4 jurisdiction. Indicate those identified as impaired pursuant to Clean Water Act Section 303(d). For a listing of West Virginia's impaired water bodies and the source of impairment please use WVDEP's most recent 303d list found at this website:

[http://www.dep.wv.gov/WWE/watershed/IR/Pages/303d\\_305b.aspx](http://www.dep.wv.gov/WWE/watershed/IR/Pages/303d_305b.aspx)

Part III.D.1.a.

### **13. Locations & Pollutants of Concern**

<b>Name of receiving stream</b>	<b>Impaired? Yes or No</b>	<b>Parameters of impairment</b>	<b>Has a TMDL been established? Yes or No</b>
<b>Monongahela River</b> HUC#0502003	<b>Yes</b>	<b>Fecal coliform, Aluminum</b>	<b>YES</b>
<b>Poponoe Run</b>	<b>No</b>		
<b>Several unnamed tributaries</b>	<b>No</b>		

### **\*\*IMPORTANT\*\***

MS4s that discharge into a receiving water which has been listed on the West Virginia Section 303(d) list of impaired waters, and with discharges that contain the pollutant(s) for which the water body is impaired, ***must document in the SWMP how the BMPs will control the discharge of the pollutant(s) of concern.*** They must demonstrate that there will be no increase of the pollutants of concern. As you work your way through, describing the various practices, consider how that BMP will address or control the pollutant of concern.

If your MS4 discharges into a water body with an approved TMDL, and that TMDL contains requirements for control of pollutants from the MS4 stormwater discharges, then your SWMP must include BMPs ***specifically targeted to achieve the wasteload allocations prescribed by the TMDL.*** A monitoring component to assess the effectiveness of the BMPs in achieving the wasteload allocations must also be included in the SWMP. Monitoring shall be specific for the pollutants of concern and be of sufficient frequency to determine if the stormwater BMPs are adequate to meet wasteload allocations. Monitoring can entail a number of activities including but not limited to: outfall monitoring, in-stream monitoring, and/or modeling.

- 14.a. List and quantify the BMPs you plan to implement to address each impairment. For each BMP describe how it is expected to control the pollutant of concern.

**BMPs for Fecal Coliform**

- 1. the Town has approached MUB for information on shared sanitary and storm lines.**
- 2. Monitoring**
- 3. Public outreach on Pet Waste and other contaminants.**

4. The Town is upgrading mapping & providing annual training of public works workers to keep good records, perform good house keeping, spill notification and to report problems should they see them.

Part III.D.1.b & Part III.D.2

- 14.b. Describe your monitoring plan for impaired waterbodies and those with TMDLs. Give locations and frequencies.

There are no impaired water bodies within the Town, but all outfalls discharge into the Monongahela River which is considered an impaired waterbody. The Fenwick line is sampled bi-yearly, the other outfalls are sampled annually. All discharges shall be inspected quarterly. Quarterly inspections of outfalls shall be visual, if any questionable flows are found (bad color, odor, high TSS, signs of oil or other contaminants) the discharge shall be sampled and the line in question investigated to find the source. See the attached Water Shed Map for locations of outfalls. Note Poponoe Run and the Monongahela River are sampled by MUB. Should sampling data show contaminants coming into Star City from Morgantown, MUB will be contacted and a copy of said sampling data shall be sent to MUB.

- 14.c. If visual documentation of removal of pollutant sources, is a component of your plan please describe fully. For example, do you plan to use before and after photos?

Should visual inspection find evidence that could be recorded with a camera pictures will be taken and added to the file and report, including shots taken after the questionable discharge has been stopped.

Evaluating the effectiveness of your SWMP for impaired waterbodies/TMDLs

- 14.d. Explain how your approach is expected to achieve wasteload allocations for waterbodies with established TMDLs. Discuss flow monitoring, outfall monitoring, in-stream monitoring, modeling, and/or other methodology to evaluate effectiveness.

Fecal coliform alone is not a good indicator of sewage discharge into the storm lines as one dead animal in the line or an open ditch can raise the count greatly. The Town will have to look at the monitoring for other indicators of illegal sewage contamination. Our public Outreach program deals with illegal dumping, proper disposal of pet waste and other possible sources of fecal.

- 14.e. Explain how will you determine if your SWMP and mix of BMP's need to be modified to meet wasteload allocations?

The monitoring and inspections of outfalls will tell if the Town's efforts are making a difference and if the Town needs to make changes.

### Section III. Minimum Control Measures

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#### Instructions:

For each Minimum Control Measure (MCM), state your control objective and describe BMPs selected for implementation in your jurisdiction. For each BMP, include a brief description, measurable goals, and milestones as appropriate towards achieving each goal. Indicate if the BMP is part of an existing program and if another entity will share responsibility for implementing that BMP.

In cases where another entity will perform one or more BMPs or components thereof on behalf of the permittee, specifically describe the activities each entity will conduct and include reference to legal agreement where appropriate.

Describe as many BMPs as necessary to fulfill the requirements of the small MS4 General Permit. If you need more space attach additional pages.

#### Measurable Goals

Measurable goals are numeric or narrative standards used to gauge program effectiveness. These are design objectives or goals that quantify the progress of program implementation. For each BMP a measurable goal must be established. Describe what you expect to accomplish or achieve by certain dates or milestones, when you implement that particular BMP. Your expected outcome or accomplishment should be expressed as a measurable goal. You should have a variety of short and long term goals.

Milestones are a quantifiable target to measure progress toward achieving the activity or implementation of that BMP.

Additional guidance on selecting BMPs and developing measurable goals can be found at the following EPA website: [www.epa.gov/npdes/stormwater/measurablegoals/index.htm](http://www.epa.gov/npdes/stormwater/measurablegoals/index.htm)

USEPA's measureable goal guidance can be found here:  
<http://cfpub.epa.gov/npdes/stormwater/measurablegoals/index.cfm>

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

Part II.C.b.1.

#### Responsible Person

Identify the responsible person(s) for implementing this MCM. (There may be more than one person or different departments that provide outreach to various targeted groups. If so, discuss.)

- 15.a. Name: Kathleen OBrien
- 15.b. Title: Civil Site Designer, MS4 Consultant
- 15.c. Department: Civil Engineering

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- 15.d. Address: 733 Fairmont Road, Morgantown, WV 26501  
15.e. Phone number: 304-292-1135  
15.f. Email address: kobrien@ctleng.com

Part II.C.b.1.

- 15.g. State your overall objective for this minimum control measure.  
The overall objective is to educate the public, residents, business and Industry about the Storm Water program, proposed Ordinances, new regulations, good housekeeping practices and to involve them in the program.
- 15.h. State and describe your BMPs. Indicate if BMP are part of your existing program.  
Star City will be sending out newsletters on Storm water issues to all residents, business and industries in the Town. Copies of all newsletters will appear on the Town's web site. The Town is working to include a copy of the SWMP, the proposed Ordinance under consideration and the current Annual Report on the web site. During the past year's town Review meeting the Mayor was going to talk to groups about youth involvement and education, the reading program was mentioned as a possible group of young people that could be introduced to the topic of Storm Water
- 15.i. Is another entity sharing responsibility for the BMP? If so, who?  
No

**MCM Components**

Part II.C.b.1.a.i

- 15.j. Describe your education and outreach strategy targeting the general public.  
The newsletter and the web site will explain the need for the general public to be involved in the Storm Water program to do their part in protecting our waters for the future. Articles will focus on what individuals can do on their own and give them technical information and links to more information on the topics. Star City is a small municipality without a lot of civic groups from which to pull support for the public projects but an effort is being made to get public projects going.

Part II.C.a.ii

- 15.k. Describe your education and outreach strategy targeting businesses including home-based and mobile businesses.  
The newsletters and web site will be used to explain how the Proposed Storm Water program will impact residents, business and Industry in Star City. New development & re development rules will be explained, the pollution protection plan will be provided to give everyone "good housekeeping" goals and explain what the enforcement will be if these rules are not followed.

Part II.C.b.1.a.iii.

- 15.l. Describe your education and outreach strategy targeting homeowners, landscapers, and property managers.  
Articles will be tailored to target different groups and be tailored to their situation and how the Storm Water Program will affect their business and practices.

Part II.C.b.1.a.iv

- 15.m. Describe your education and outreach strategy targeting engineers, contractors, developers, review staff, and land use planners.  
Articles will be tailored for this group, the web site will have permit applications and instructions and the Town's Engineering Firm will be available to assist with specific questions and situations

## Schedule

Part II.C.a.1

- 15.n. Provide a schedule for implementing each component, including dates for interim and full implementation.

Several newsletters have been sent out and posted on the web site. Requests for the Revised Storm Water Ordinance, the condensed Storm Water Management Program and the current Annual report to be posted on the web site have been made these documents are in the review stage at present but the Town hopes to have them posted by July of 2013.

## Measurable Goals

Part II.B.4

- 15.o. List and fully describe your Measurable goal(s) for this MCM.

Educate and involve the Public, business and industry to their responsibility regarding storm water discharges, practices and what enforcement measures will be taken if they do not comply. The first Public meeting was held on May 29<sup>th</sup>, 2012 during which several developers posed questions about some wording in the proposed Ordinance regarding boundaries of the SWMP, individual problems relating to storm water and illicit discharges (grass clipping in streets). The ordinance has been modified to clarify the boundaries of the plan, the problem mentioned have been investigated and the revised Ordinance has illicit discharge language and enforcement. The revised Ordinance requires all Construction requiring a Building or grading permit to have a storm Water plan and an E & S Plan.

## Tracking

Part II.C.b.1.c.

- 15.p. Describe your plan to track the activities associated with this MCM.

Records are kept of everyone attending Public meetings or raising a question to Town Council, hits on the web site are documented. records will be kept of all persons and/or businesses that have volunteered on any storm water projects.

## Evaluation

Part II.B.7 & Part II.C.b.1.b.

- 15.q. Explain how you plan to gauge the effectiveness of your public education and outreach efforts.

Effectiveness of the program will be gauged by the number of people and business that join in storm water projects, seek information and actually put it into practical use. Any major Storm Water Improvements will need to be approved by the town, so there will be records. the monitoring program may show improvements as good practices are put into effect and these will be noted.



## Public Involvement and Participation – MCM #2

Part II.C.b.2.

### Responsible Person:

Identify the responsible person(s) for implementing this MCM. There may be more than one person or different departments responsible for various projects. If so, discuss.

- 16.a. Name: Kathleen O'Brien
- 16.b. Title: Civil Site Designer & MS4 Consultant
- 16.c. Department: Civil Engineering
- 16.d. Address: 733 Fairmont Road, Morgantown, WV 26501
- 16.e. Phone number: 304-292-1135
- 16.f. Email address: kobrien@ctleng.com
- 16.g. State your overall objective for this minimum control measure.  
The overall objective is to involve the public, residents, business and Industry in the Storm Water program, proposed Ordinances, new regulations and good housekeeping practices.
- 16.h. State and describe your BMPs. Indicate if the BMP is part of the existing program.  
A public meeting was held to answer questions and the first meeting tabled the proposed Ordinance. A revised Ordinance has been given to Town officials for review and a first reading has been scheduled for 4-30-13.
- 16.i. Is another entity sharing responsibility for the BMP? If so, who?  
No

### MCM Components

Part II.C.b.2.

- 16.j. Describe at least two methods you plan to use to engage the public in your SWMP.
  - 1. The newsletters will request feed back asking what the public, Business and Industry would like more information on and if they would interested in working on a Storm water project or helping a fellow citizen with a project such as a rain garden.
  - 2. Requests will be made at public meetings for increase involvement and feed back.

Part II.C.b.2.a

- 16.k. Describe how you will accommodate public participation in the decision making process for your SWMP.  
Notes will be kept on all public meetings all comments and concerns will be addressed and taken into account as the ordinance is developed and revised.

Part II.C.b.2.b

- 16.l. Describe your communication process for notifying groups of opportunities to become involved in stormwater activities in your watershed(s).  
The newsletter and web site will be the methods used to reach groups, if a group has shown interest in an activity the town would contact that group directly.

Part II.C.b.2.c

16.m. List the URL of your **Stormwater** website.

The Star City web site is [www.starcitywv.com](http://www.starcitywv.com).

### **Schedule**

Part II.C.a.1

16.n. Provide a timeline of implementation of each component of your program for this MCM, including dates for interim and full implementation.

The Town has started sending out newsletters and is working toward doing two per year.

The web site has a section where all the newsletters can be accessed, the town is moving toward having the SWMP, the storm water Ordinance and the current annual report up on the web site. Any storm related problems that are brought to the Town have been investigated and the results of findings have been given to the interested parties.

### **Measurable Goals**

Part IV.A. & Part II.B.4

16.o. List and fully describe your measurable goal(s) for this MCM.

Involve the Public, businesses and Industry in the Storm Water program

### **Tracking**

Part II.B.7.

16.p. Describe your plan for tracking activities associated with this MCM.

The Town is tracking all responses from the Public brought up in Town Council meeting or in the form of storm water complaints. The Town is attempting to monitor the amount of re-cycled oil dropped off at the shop and the amount of recycled material being dropped off at Town hall.

### **Evaluation**

Part II.B.7

16.q. Explain how you plan to gauge the effectiveness of your Public Involvement and Participation program.

Involvement and feedback from the Public will gauge the effectiveness of the program.

### **Illicit Discharge Detection and Elimination – MCM #3**

Part II.C.b.3.

### **Responsible Person**

Identify the responsible person(s) for implementing this MCM. If there is more than one person or department responsible for implementation of this MCM, please discuss.

17.a. Name: Kevin Nuce

17.b. Title: Director of Public Works

17.c. Department: Public Works

17.d. Address: 370 Broadway Street, Star City, WV 26505

17.e. Phone number: 304-599-3550

17.f. Email address: [knuce@starcitywv.com](mailto:knuce@starcitywv.com)

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- 17.g. Is another entity sharing responsibility for the MCM? If so, who?  
No

### **Control Objective & BMPs**

- 17.h. State your overall objective for this MCM.  
The objective is to get the current Stormwater Ordinance approved this document has incorporated the illicit discharge language required along with enforcement criteria.
- 17.i. State and describe your BMPs. Indicate if any BMPs are part of your existing program.  
1. Record keeping of complaints has been started the Director shall log in any complaints, investigations and resolution of any illicit discharges and spills.  
2. Monitoring was started in 2011  
3. Public Works Employees are having Annual training that covers spill reporting, assessment of illicit discharges and good housekeeping measures.

### **MCM Components**

Part II.C.b.3.a.

- 17.j. Do you have a current map of your municipal storm sewer system?  
Yes, the Town has a complete map of the storm system and has started a detail log of storm structures The map is being upgraded when new or more current information becomes available lines are being marked as to size and type, structures are being numbered for easier reference.

Do your map components include/do you plan to include:

Part II.C.b.3.ai

- 17.k. All known storm sewer outfalls? Yes
- 17.l. Receiving waters? Yes
- 17.m. Structural BMP's owned, operated or maintained by the permittee? Yes, but there are none to date
- 17.n. The location and type of all other stormwater conveyances located within the boundaries of the permittees MS4 watershed? Yes
- 17.o. Updating the known connections to the municipal separate storm sewer authorized after July 22, 2009? Yes
- 17.p. Geographic areas that discharge stormwater into the permittees MS4, which may not be located within the municipal boundary? Yes

Part II.C.b.3.b.

- 17.q. Do you have an IDDE Ordinance?  
The intent and wording of a IDDE Ordinance has been incorporated into our proposed Storm Water Ordinance

Part II.C.b.3.b.

- 17.r. Describe your Ordinance review and update procedure, including milestones of IDDE Ordinance review.  
The Town has set May as the month to do our annual review all aspects of our plan shall be reviewed at that time and be discussed as to what changes need to be made. The Mayor, Director of Public Works, the Building Inspector, the Town's Engineering Firm and the Code Enforcement Officer shall attend the review meeting.

West Virginia small MS4 general permit site registration application

Does your IDDE Ordinance prohibit the following:

Part II.C.b.3.ii

- 17.s. Discharges from hyperchlorinated water line flushing? Yes or No. If not, how are these discharges handled when they occur?

Yes, see Proposed Ordinance section 934.14 De-chlorinated water (0.1 ppm or less) can be discharged into the storm system.

- 17.t. Lawn watering and other irrigation runoff? Yes or No. If not, have you addressed lawn watering in your public education and outreach activities?

Yes, see Proposed Ordinance section 934.14, this has been mentioned in our newsletters.

- 17.u. Street, parking lot, and sidewalk wash water, and external building wash down? Yes or No. If not, have you addressed these types of runoff in your public education and outreach activities?

Yes, see Proposed Ordinance section 934.10

Part II.C.b.3.b.v.

- 17.v. Does your IDDE Ordinance include escalating enforcement procedures and actions?

Yes, see Proposed Ordinance section 934.14 and 934.19.

Part II.C.b.3.b.v.

- 17.w. Briefly describe your enforcement strategy.

Any discharge that would cause a violation of a Municipal NPDES Permit and any amendments, revisions or reissuance thereof, either separately considered or when combined with other discharges, is prohibited. The Owner or other responsible party of the property from which the pollutant is found will be notified immediately, by phone by the Director or other officer of the Town. A spill report will be filled by the town at the time and a copy sent to the owner of said property with instructions to stop said discharge within 72 hour, of the original notice by phone. If said discharge is not stopped within 120 hours of the original notice the Town shall take whatever measures are needed to halt the illicit discharge. The responsible party must notify The Town when the discharge has been eliminated and Star City will conduct a follow up investigation and field screening to verify that the discharge has been eliminated, a report of which must be filled at Town Hall with the original spill report. The Director may direct the responsible party to sample and monitor the discharge for a set time period, if deemed necessary to ensure compliance.

Liability for any such discharge, including, but not limited to, the cost of remedial activity, field investigations, sampling, damage to other properties, escalating enforcement and legal actions shall be the responsibility of the person(s) causing or responsible for the discharge. The Town shall seek to have such persons defend, indemnify and hold harmless the Town in any administrative or judicial enforcement action against the Town of Star City relating to such discharge as provided by applicable rules of law.

Part II.C.b.3.c .

- 17.x. Describe your field assessment activities, including how many assessments you plan to conduct each year.

The 6 major outfalls shall be inspected quarterly and sampled annual during dry weather. Other assessment will be made as needed.

Part II.C.b.3.c.i.

17.y. Describe how you will locate "priority areas".

Priority areas will be located based on monitoring data, Industry in the area and any other likely source of contaminate.

Part II.C.b.3.c .iii

17.z. Describe your procedures for characterization of illicit discharges.

The following parameters will be used; PH, hardness, Ammonia, Potassium, total suspended solids, Total dissolved solids, Fluorides, total Phosphorous, total Kjeldahl nitrogen, nitrate nitrogen, nitrite nitrogen, fecal coli form and oil & grease.

Part II.C.b.3.c .iv

17.aa. Describe your procedures for tracing the source of the discharge.

Star city shall assess any complaints, reports or monitoring information indicating a potential illicit discharge, spill or illegal dumping within 24 hours. The Town will contact WVDEP and other related authorities concerning discharges determined to be a threat to Public Health and safety and the Environment and a full scale investigation shall be started. Discharges found that are not a potential threat will be investigated within 15 working days. When a questionable discharge is found it will be traced up the water way and/or pipeline, each storm structure will be checked. When an of the water shed/pipeline is located above the pollutant loading an in-line camera may be used to locate the pipes that may be contributing the questionable discharge. the secondary pipelines or ditches will be followed until the discharge's point of origin is located. Written documentation on the search process shall be kept and shall include photographs, videos, dye testing and any other information gathered.

Part II.C.b.3.c.v

17.bb. Describe your procedures for removing the source of the discharge.

Any discharge that would cause a violation of a Municipal NPDES Permit and any amendments, revisions or reissuance thereof, either separately considered or when combined with other discharges, is prohibited. The Owner or other responsible party of the property from which the pollutant is found will be notified immediately, by phone by the Director or other officer of the Town. A spill report will be filled by the town at the time and a copy sent to the owner of said property with instructions to stop said discharge within 72 hour, of the original notice by phone. If said discharge is not stopped within 120 hours of the original notice the Town shall take whatever measures are needed to halt the illicit discharge. The responsible party must notify The Town when the discharge has been eliminated and Star City will conduct a follow up investigation and field screening to verify that the discharge has been eliminated, a report of which must be filled at Town Hall with the original spill report. The Director may direct the responsible party to sample and monitor the discharge for a set time period, if deemed necessary to ensure compliance.

Liability for any such discharge, including, but not limited to, the cost of remedial activity, field investigations, sampling, damage to other properties, escalating enforcement and legal actions shall be the responsibility of the person(s) causing or responsible for the discharge. The Town shall seek to have such persons defend, indemnify and hold harmless the Town in any administrative or judicial enforcement action against the Town of Star City relating to such discharge as provided by applicable rules of law.

C.b.3.d.

17.cc. Describe how you will inform public employees, businesses and the general public of hazards associated with illegal discharges and improper disposal of waste.

The newsletters and web site shall inform the public about what is an illicit discharge and what the enforcement will be for violating the terms of the ordinance.

Part II.C.b.3.f.

17.dd. Describe your plan to training your staff on the identification and reporting of illicit discharges. Include the number of training sessions planned for each year.

The staff of the public works department are trained yearly since 2011 on the potential hazards of illicit discharges, and the reporting of spills.

### **Schedule**

Part II.C.a.1

17.ee. Describe how and when you will implement each component of program, including dates for interim and full implementation.

Monitoring was started in 2011, training of public works staff was started in 2011, the Storm water Ordinance has been in the works since 2011 and a revised copy has been posted to Town Officials and a first reading scheduled for 4-30-2013. The mapping is an on-going project.

### **Measurable Goals**

Part II.B.4

17.ff. List and fully describe your Measurable goal(s) for this MCM:

1. Educate the public on illicit discharges.

2. Continue to up-grade mapping

3. Continue employee training

4. Continue monitoring

5. Expand on record keeping

### **Tracking:**

Part II.C.b.3.d.ii & Part II.C.b.3.e.

17.gg. Describe your procedures for tracking activities related to each component of this MCM.

1. Public education tracking will show up in less incidents of illicit discharges.

2. Tracking of mapping shows up as improved maps

3. Tracking of Employee training shows up in better records, improved "housekeeping", employees knowledgeable in locating illicit discharges, reporting them, and tracing them.

4. Monitoring records provide tracking.

5. Improved records track progress.

## Evaluation

Part II.B.7

17.hh. Fully explain how you plan to gauge the effectiveness of your IDDE program.

The IDDE program's effectiveness will be gauged by the information gathered on the type and number of spills, illicit discharges identified, inspections conducted, illicit connections removed and any feed back from the public education efforts.

Part II.C.b.4.

### Construction Site Run-off Control – MCM #4

#### Responsible Person:

Identify the responsible person(s) for implementing this MCM. There may be more than one person or different departments responsible for various projects. If so, discuss.

- 18.a. Name: David Friend and CTL Engineering of WV, Inc.  
18.b. Title: Code Enforcement Officer Engineering Firm (contact K. OBrien)  
18.c. Department: Building Permits  
18.d. Address: 370 Broadway Avenue, Star City, WV 56505 733 Fairmont Rd, Morgantown, WV  
18.e. Phone number: 304-599-3550 304-292-1135  
18.f. Email address: dbf7@comcast.net kobrien@ctleng.com
- 18.g. Is another entity sharing responsibility for this MCM? If so, who?  
No

#### Control Objective & BMPs

- 18.h. State your overall objective for this minimum control measure.  
To control run off and reduce pollutants from Construction sites
- 18.i. State and describe your BMPs. Indicate which BMPs are part of your existing program.  
1. Any person performing construction work in the watershed of the Town of Star City shall comply with the provisions of this Article and shall provide an Erosion and Sediment Control Plan as part of the Grading Permit that effectively prevents discharges of pollutants to a storm drain system. See proposed Ordinance 934.13 for complete details on the permitting required which covers: E & S controls, control of waste, appropriate NPDES registration, a site plan, site plan review, public input, site inspections & enforcement and training for contractors.

#### MCM Components

Part II.C.b.4.a.

- 18.j. Do you have an Ordinance to control construction site run-off?  
Upon adoption of the proposed revised Storm Water Ordinance section 934.13 will control construction site run-off. Presently the Building Permit process handles the establishment of E & S controls.

West Virginia small MS4 general permit site registration application



Part II.C.b.4

- 18.k. Does your program regulate disturbance of on acre or more and also less than one acre if part of a larger common plan? Does your Ordinance regulate disturbances of less than one acre? If so, what is the size threshold?

The proposed Revised Storm Water ordinance section 934.13 regulates; sites from 150 square feet to 1,000 square feet requiring a Grading permit with an Erosion and Sediment plan, sites over 1,000 square feet must file a Grading permit and a Storm Water permit, sites over an acre starting in July of 2015 will be required to manage the first one-inch of rain fall with out discharge.

Part II.C.b.4.a.i-ix.

- 18.l. Does your Ordinance contain the nine required components?

The proposed revised Ordinance contains 8 of the nine required components, funding of the Storm Water Program to date has come out of the General Fund, no fees have been assigned to storm water to date or in the proposed Ordinance. Funding options for the program are being explored.

Part II.C.b.4.b.

- 18.m. Describe the plan review process for your construction site run off program.

Application Review Process

All applications for a grading permit must be submitted at least 30 days before the start of the project to give the Town time to review the application. Operators of the construction activity are prohibited from commencing construction activity until they receive receipt of written approval of the plans and the pre-construction inspection has taken place. If the plan is revised the revisions must have written approval before construction can start.

a) The Town shall assess the application for compliance under the Town's Ordinances and permits related to stormwater runoff, including the implementation and maintenance of designated minimum control measures.

b) Assess the appropriateness of planned control measures and their effectiveness

c) Provide education and outreach on stormwater pollution prevention, as needed.

d) Check for other permits required by this type of construction, NOI, WVDOT

- 18.n. Describe the inspection process of your construction site run off program.

Construction Site inspections and Enforcement

The Town shall provide written or electronic inspection reports generated from findings in the field. Copies on said reports shall be kept in a file at Town Hall. Based on site inspection findings the Town shall take all necessary follow up actions to ensure compliance in accordance with this Ordinance.

1. Prior to the issue of the grading or Stormwater permit the site must be inspected to ensure all the necessary erosion and sediment controls outlined in the plan are in place and functional. After the site has been inspected and approved the permit will be issued in writing a copy of which must be maintained on site at all times.

2. Inspections during construction shall be done with 48 hours of a significant rainfall and no less than bi-weekly for sites I acre or more. Sites under an acre shall be inspected as needed.

3. Following active construction the site shall be inspected to ensure that all graded areas have reached final stabilization and that all temporary control measures have been removed.

- 18.o. Describe the enforcement process of your construction site run off program.

Enforcement

The Building Inspector, the Director of Public Works, the Mayor and/or the Town's Engineer can issue site violations for non-compliance with this ordinance and shut the site down until the needed repairs are made. Upon re-inspection and approval of remediation the Town will issue a written approval for construction to resume.

Part II.C.b.4.b.

- 18.p. Discuss how your program will address the regulation of both private and public sector construction site run-off.

Each site is viewed individually and the same rules apply for both private and public projects.

Schedule

Part II.C.b.4.a.

- 18.q. The Ordinance shall be reviewed on an annual basis. Describe your Ordinance review and update procedures.

The Town has selected May as the month for the yearly review of the program by the Mayor, Code Enforcement Official, Director of Public Works and the Engineering Firm. The first Review meeting was held in May of 2012. The team will review all construction projects and related concerns, storm problems within the Town, changes that need to be made in the Building permit, inspection and enforcement program, changes needed in other Ordinances. Proposed changes will be submitted to Town Council for comment and approval. Changes will be voted on and adopted as needed.

- 18.r. If your Ordinance does not contain the standards required by the permit, provide a schedule for implementation and measureable goals for getting these components into your Ordinance. Include a mid-point and full implementation date.

It is the Town's goal to get the revised Storm water ordinance passed in 2013, that will give the town the needed direction and enforcement of critical storm water issues. Funding options of the program are being researched and once all the options can be presented to the Town council and the public then collectively a decision on funding can be made hopefully by 2014.

Measurable Goals

Part IV.A. & Part II.B.4

- 18.s. List and fully describe your measurable goal(s) for this minimum control measure.

To control run off and reduce pollutants from Construction sites

Tracking

Part II.B.7.

- 18.t. Describe your plan for tracking activities associated with this minimum control measure.

Building and Grading permits and the related inspection reports of the construction sites will provide the tracking of this MCM.

## **Evaluation**

Part II.B.7

- 18.u. Explain how you plan to gauge the effectiveness of your Construction Site Run-off Control program.  
*The effectiveness of this program will be shown in the quality of the construction sites, in the inspection reports of said sites and the lack of violations issued.*

## **Controlling Run-off from New Development and Redevelopment – MCM #5**

Part II.C.b.5

### **Responsible Person(s):**

Identify the responsible person(s) for implementing this MCM. There may be more than one person or department responsible for various portions of this control measure, If so, discuss.

- 19.a. Name: David Friend and CTL Engineering of WV, Inc.  
19.b. Title: Code Enforcement Officer Engineering Firm (contact K. OBrien)  
19.c. Department: Building Permits  
19.d. Address: 370 Broadway Avenue, Star City, WV 56505 733 Fairmont Rd, Morgantown, WV  
19.e. Phone number: 304-599-3550 304-292-1135  
19.f. Email address: dbf7@comcast.net kobrien@ctleng.com

- 19.g. Is another entity sharing responsibility for this MCM? If so, who?  
No

### **Control Objectives & BMPs**

- 19.h. State your overall objective for this MCM.  
*The overall object of this MCM is to reduce run-off and pollutants from New and Re-Development projects to protect the existing infrastructure and the waters of the state.*

### **MCM Components**

#### ***Watershed Protection Elements***

Part II.C.b.5.ai.

- 19.i. Have you incorporated the six watershed protection elements into your subdivision ordinance or equivalent document? Name the document(s) where each element is found & give the review date for the document. \* If there is no review, describe how you will incorporate the element into your document(s).

Watershed Protection Elements	Name of document that contains the element	*Review Date May 2013
1. Minimizing impervious surfaces	Planning & Zoning Ordinance Article 1321.01 note 7 & 1321.11	May 2013
2. Preserving ecologically sensitive areas	The proposed permitting process will protect Ecologically sensitive areas.	May 2013

3. Reducing thermal impacts	The proposed permitting process will only allow systems that will reduce thermal impacts	May 2013
4. Reducing or avoiding hydromodification	The proposed permitting process will only allow systems that will reduce hydromodification	May 2013
5. Tree protection	Planning & Zoning Ordinance Article 1321.01 note 7 & 1321.11	May 2013
6. Protection of native soils, prevention of compaction of soils	The proposed permitting process will protect Native soil from undue compaction.	May 2013

Part II.C.b.5.a.i.B

19.j. List your quantifiable objectives for each watershed protection element, including time frames to achieve them.

1. Minimizing impervious surfaces has been address to some extent by the established Planning and Zoning Ordinance Article 1321.01 note 7, that requires 10% of the lot must be green space. Article 1321.11 requires a vegetated buffer between strip with trees and shrubs be left between residential and commercial areas. Further education of the public and town officials is needed to have them understand the impacts of the proposed Ordinance Article 934.20 (h), taking effect in July of 2015 on projects over an acre. Site/ neighborhood design and Street/parking design standards need to be incorporated into the Town's Planning and Zoning ordinances by 2017 to minimize imperious areas.
2. The permitting requirements in the proposed Ordinance will protect ecologically sensitive areas, the goal is to have the proposed ordinance passed in 2013.
3. The permitting requirements in the proposed Ordinance will reduce thermal impacts, the goal is to have the proposed ordinance passed in 2013.
4. The permitting requirements in the proposed Ordinance will aid in reducing or avoiding hydromodification by use of BMPs that reduce the flows to at least 10% below pre-existing rates, the goal is to have the proposed ordinance passed in 2013.
5. This Element has been address to some extent by the established Planning and Zoning Ordinance Article 1321.11 which requires a vegetated buffer strip with trees and shrubs to be left between residential and commercial areas. Most of the Town has been developed and there are few areas that are still forested but efforts should be made to maintain what trees are established in areas of proposed development. Site/ neighborhood design and Street/parking design standards need to be incorporated into the Town's Planning and Zoning ordinances by 2017 to protect trees.
6. The permitting requirement in the proposed Ordinance will protect native soils and prevent compaction of soils, the goal is to have the proposed ordinance passed in 2013.

19.k. State and describe your BMPs. Indicate if any BMPs are part of your existing program.

Currently the Town is requiring commercial development to conform to the follow sections of proposed ordinance 934.20 sections a-g, j-m and section 934.23. Upon adoption of our proposed Ordinance the Town will have our Storm water permitting in working order along with enforcement\ as per the Town's NPDES permit recommendations. It is hoped this Ordinance will be passed in 2013.

## ***Site Design Standards***

Part II.C.b.5a.ii.A.1.

- 19.l. Do you have an ordinance or other enforcement mechanism for the required site design standards? If not, what is your schedule of implementation? Include mid-term and full implementation dates for Ordinance review and enactment.

Currently the Town is requiring commercial development to conform to the follow sections of proposed ordinance 934.20 sections a-g, j-m and section 934.23. Upon adoption of our proposed Ordinance the Town will have our Storm water permitting in working order along with enforcement. If the proposed Ordinance is passed in 2013 any site over 150 sq. ft. will be required to have a Grading permit with an Erosion & Sediment Control Plan and sites over 1,000 sq.ft. will be required to have a Grading permit with an Erosion & Sediment Control Plan and a Storm Water Permit requiring a detention system, starting in 2015 sites over an acre will have to manage the 1<sup>st</sup> 1-inch of rainfall in a 24-hr. storm following 48 hrs without rain.

Part II.C.b.5.ii.A.2.i,ii

- 19.m. Does your Ordinance have provisions for reducing pollutant loadings for stormwater discharges from Hot Spots? If the project is a potential hot spot and cannot meet water quality treatment with on-site controls, are there provisions for proper disposal of stormwater discharges at a treatment/disposal facility?

The Proposed Ordinance section 934.20(h) reads as follows:

- a) A project that is a potential hot spot with reasonable potential for pollutant loading(s) must provide must provide water quality treatment for associated pollutants before infiltration. (such as petroleum hydrocarbons at a vehicles fueling station)  
b) A project that is a potential hot spot with reasonable potential for pollutant loading(s) that cannot implement adequate preventative or water quality treatment measures to ensure compliance with groundwater and/or surface water quality standards, must properly convey stormwater to a NPDES-permitted waste water treatment facility or via a licensed waste hauler to a permitted treatment and disposal facility.

Part II.C.b.5.ii.A.2.iii

- 19.n. Do you know where drinking water source protection areas are located within your MS4 watershed? Describe how this information will be kept confidential, and made available to WVDEP only when requested.

Yes there are none, there is city water available in the Star City area.

- 19.o. Describe your program for reducing impervious surfaces.

The existing Planning and Zoning Ordinance Article 1321.01 note 7 requires that 10% of a lot must remain green space & Article 1321.11 requires a 10-foot vegetated buffer strip between commercial and residential areas. Once the SWMP is approved the Town has four years to incorporate other means of reducing impervious areas.

- 19.p. If you choose mitigation/payment in lieu for those projects that cannot implement the one inch runoff reduction requirements, please provide a time frame for creating an inventory of appropriate mitigation projects, and your process to develop standards to value, evaluate, and track transactions.

Projects over an acre that can show solid documentation that they cannot implement the one-inch reduction requirement will be reviewed by the Town and a possible mitigation/payment plans will be discussed and a plan developed on a case by case basis. Mitigation could take the form of storm water improvements within the Town and/or payment into a fund designated for Town Storm water improvements.

934.20(o) Fee in Lieu of Stormwater Management Practices. Where the Director waives all or part of the minimum stormwater management requirements, and the applicant does not complete an approved mitigation project, the applicant shall be required to pay a fee in lieu of stormwater management practices, in an amount as determined by the Director. This amount shall be 1.5 times for the first 0.6-inches and 2 times the cost for remaining 0.4-inches of stormwater management and based on the cubic feet of storage required for stormwater management of the development in question. All of the monetary contributions shall be credited to an appropriate stormwater capital improvements program project, and shall be made by the applicant prior to the issuance of any stormwater permit for the development. The Town tracks all building permits and the mitigation and or payment in lieu will be recorded with the building permit and storm water permitting.

Part II.C.b.5.ii.B.(1)

- 19.q. Describe the planning process for new development and redevelopment projects in your MS4.

934.22 PLAN SUBMISSION AND REVIEW PROCESS.

The plan submission and review process shall be coordinated with and integrated into the Town's planning and permitting process. Following the effective date of this section, no building permit shall be issued without an approved stormwater management plan if required under this article.

(a) The owner/applicant/design engineer for any project that disturbs an acre or greater (including projects of less than one acre that are part of a common plan of development or sale that will disturb, in total one acre or more) must develop and submit a Pre- Application Stormwater Concept Plan. This should be done early in site planning process before infrastructure & lot configuration are locked down.

The Concept Plan should include:

1. Graphic elements showing the general type, location and size of proposed stormwater BMPs that will be used to meet the requirements to manage the first one-inch of rainfall.

2. Narrative & Computations Elements that describe:

a) Site design incentives

b) Conceptual or preliminary computations that show the Target Treatment Volume and the Stormwater BMP types and sizing necessary to control it.

A project specific version of the Design Compliance Spreadsheet shall be included in the submittal.

3. Pre-Application Meeting shall be held for a preliminary review of the concept Plan to discuss site compliance issues, allow for constructive interaction and head off any issues that would cause delays in the approval process.

4a. Review and approval of the Concept plan: Coordinate with other departments & Agency reviews. This review is to ensure there is enough information to ensure complete and compliant Final Storm Water Management Plan. Engineering details and final computations



are not expected at this stage. This review will also allow the Town to review the project for compliance with Zoning, Building and other codes, access to utilities, check potential traffic issues and coordination with other agencies.

4b. Revise Concept Plan in Response to Comments

5. Develop the Final Stormwater Management Plan

6a. Review & Approval of Final Stormwater Management Plan

Coordinate with other Departments & Agency reviews

6b. Revise Final plan in response to comments

Issue permit when all comments have been addressed and approved.

7. Inspection and Verification of post-Construction Stormwater BMPs

Post –construction BMPs shall be inspected at critical stages during construction and a final inspection shall be done to verify that the BMP is installed in accordance with the approved plan and/or any approved field changes.

8. Submit As- Built

As-Built survey should confirm Placement of BMP within easements, proper sizing,

dimensions and materials. Elevations of inlets, outlets, risers, embankments, etc.

Vegetation cover must be established and conform with the planting plan. The as-built must show the location of the permanent access easements for maintenance.

Part II.C.b.5.ii.B(2)&(3)

19.r. Describe your plan review and approval process for new development and redevelopment projects.  
See 19. q section 6a-8.

Part II.C.b.5.ii.C

19.s. Describe your maintenance procedures for structural stormwater control practices including a detailed discussion about maintenance agreements & your ability to enforce them.

The proposed Ordinance Article 934.23 MAINTENANCE OF STORMWATER FACILITIES.

(a) Private stormwater facilities located in private property and within the Town watershed shall be maintained by the owner or other responsible party and shall be repaired and/or replaced by such person when such facilities are no longer functioning as designed.

(b) Disposal of waste from maintenance of private facilities shall be conducted in accordance with applicable federal, state and local laws and regulations.

(c) Records of installation and maintenance and repair shall be retained by the owner or other responsible party for a period of five (5) years and shall be made available to the Director upon request.

(d) The Director may perform corrective or maintenance work, which shall be at the owner's expense, upon any failure to maintain facilities or correct problems with facilities after receiving due reasonable notice from the Director.

(e) Routine maintenance of detention/retention facilities shall be conducted by the owner of the facility in accordance with this article and guidance of the Director.

The proposed Ordinance Article 934.24 INSPECTION.

(a) Stormwater systems within the Town watershed shall be inspected by the Director during and after construction to assure consistency with the approved stormwater management plan. The Town has started a data base of all the storm water facilities in the Town, new facilities will be added each year. Annual inspections shall be made of Storm water facilities to ensure they are being maintained.

(b) All stormwater systems within the Town watershed shall be subject to the authority of the Director to ensure compliance with this article and may be inspected when deemed necessary.



(c) The owner of a private stormwater system, or other responsible party designated by the owner, shall make annual inspections of the facilities, including any detention or retention facility, and maintain records of such inspections for a period of five (5) years.

(d) Whenever necessary to make an inspection to enforce any of the provisions of this article, or whenever the Director has reasonable cause to believe that there exists in any building or upon any premises any condition which may constitute a violation of the provisions of this article, the Director may enter such building or premises at all reasonable times to inspect the same or perform any duty imposed by this article; provided that:

(1) If such building or premises is occupied, he or she first shall present proper credentials and request entry, and

(2) If such building or premises is unoccupied, he or she first shall make a reasonable effort to locate the owner or other persons having charge or control of the building or premises and request entry.

(e) The property owner or occupant has the right to refuse entry but, in the event such entry is refused, the Director is hereby empowered to seek assistance from any court of competent jurisdiction in obtaining such entry and performing such inspection.

(f) Routine or area inspections shall be based upon such reasonable selection processes as may be deemed necessary to carry out the objectives of this Article, including but not limited to, random sampling and/or sampling in areas with evidence of stormwater pollution, illicit discharges, or similar factors.

The proposed Ordinance Article 934.25 SAMPLING.

With the consent of the owner or occupant or with Court order, the Director may establish on any property such devices as are necessary to conduct sampling or metering operations. During all inspections as provided herein, the Director may take any samples deemed necessary to aid in the pursuit of the inquiry or to record the on-site activities, provided that owners or occupants shall be entitled to split samples.

The proposed Ordinance Article 934.26 TESTING AND MONITORING.

(a) Whenever the Director determines that any person engaged in any activity and/or owning or operating any facility may cause or contribute to stormwater pollution or illicit discharges to the stormwater system, the Director may, by written notice, order that such person undertake such monitoring activities and/or analyses and furnish such reports as the Director may require. The written notice shall be served either in person or by certified or registered mail, return receipt required, and shall set forth the basis for such order and shall particularly describe the monitoring activities and/or analyses and reports required. The burden to be borne by the owner or operator, including costs of these activities, analyses and reports, shall bear a reasonable relationship to the need for the monitoring, analyses and reports and the benefits to be obtained. The recipient of such order shall undertake and provide the monitoring, analyses and reports within the time frames set forth in the Order.

(b) Within two (2) days of the date of receipt of the order notice, the recipient shall respond personally or in writing advising the Director of the recipient's position with respect to the Order's requirements. Thereafter, the recipient shall be given the opportunity to meet with the Director to review the Order's requirements and revise the Order as the Director may deem necessary. Within Five (5) days of such meeting, the Director shall issue a final written order. Final Orders issued pursuant to this Section may be appealed to the Star City Town Council by the filing of a written appeal with the Mayor within ten (10) days of receipt of the final Order. The appeal notice shall set forth the particular Order requirements or issues being appealed. The Star City Town Council shall

hear the appeal at its earliest practical date and may either affirm, revoke or modify the Order. The decision of the Star City Town Council shall be final, but may be subject to review by a Court of competent Jurisdiction.

(c) In the event the owner or operator of a facility or property fails to conduct the monitoring and/or analyses and furnish the reports required by the Order in the time frames set forth therein, the Director may cause such monitoring and/or analyses to occur. If a violation is found, the Director may assess all costs incurred, including reasonable administrative costs and attorney's fees, to the owner or operator. The Director may pursue judicial action to enforce the Order and recover all costs incurred.

Part II.C.b.5.ii.D

- 19.t. Describe your method of inventory and tracking of stormwater control practices for this MCM.  
See 19s Article 934.24

Part II.C.b.5.ii.E

- 19.u. Describe your inspection protocol for ensuring stormwater control BMPs/practices function as designed and constructed: How many per year? How often?  
See 19s Article 934.24

Part II.C.b.5.b.

- 19.v. Does your MS4 have requirements for street design, parking, and parking lots? If so, which departments regulate this?  
The existing Planning and Zoning Ordinance states the size and minimum number of parking spaces, the Ordinance does not address Street or Parking lot design. The Planning and Zoning committee make changes to the Ordinance.

## **Schedule**

Part II.C.b.5

- 19.w. Describe how and when you will implement each component of this minimum control measure. Include mid-point and full implementation dates for Ordinance revisions, implementation of plan review and approval, inspection and enforcement procedures, and for developing/acquiring and using a tracking system.
1. Minimize Impervious surfaces covered in proposed Ordinance to be adopted in 2013.
  2. Preserve Ecologically sensitive areas covered in proposed Ordinance to be adopted in 2013.
  3. Implement Stormwater management covered in proposed Ordinance to be adopted in 2013.
  4. Prevent hydromodification covered in proposed Ordinance to be adopted in 2013.
  5. Protect Trees this item will be taken up with the Planning and Zoning Committee to be added to future Ordinances.
  6. Prevent compaction of native soils covered in proposed Ordinance to be adopted in 2013.

## **Measurable Goals**

Part IV.A

- 19.x. List and describe your measurable goals for this MCM.  
The goal for this MCM is to reduce run-off from new and re-development sites so the existing infrastructure is not over whelmed and water quality standards are met.

## Evaluation

Part II.B.7

- 19.y. Describe how you plan to gauge the effectiveness of your program for this MCM.  
The effectiveness of this MCM will be gauged by the reduction of flow in storm lines where new or Re-development has occurred.

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

Part II.C.b.6

### Responsible Person(s):

Identify the responsible person(s) for implementing this MCM. There may be more than one person or different departments responsible for various projects. If so, discuss.

- 20.a. Name: Kevin Nuce  
20.b. Title: Director of Public Works  
20.c. Department: Public Works  
20.d. Address: 370 Braodway Avenue, Star City, WV 26505  
20.e. Phone number: 304-599-3550  
20.f. Email address: Knuce@starcitywv.com
- 20.g. Is another entity sharing responsibility for this MCM? If so, who?  
No

### Control Objectives & BMPs

- 20.h. State your overall objective for this MCM.  
The objective for this MCM is to train the Municipal staff in Pollution Protection, good housekeeping, Illicit discharge detection, reporting, investigation and resolution.
- 20.i. State and describe your BMPs. Indicate if any BMPs are part of your existing program.  
1. Training of Municipal staff  
2. A pollution prevention Manual has been created and provided to all staff.

### MCM Components

Part II.C.b.6

- 20.j. List the municipal facilities and their locations owned by your MS4.  
The following properties are owned by the Town of Star City but none of these locations have storage facilities that could be expected to discharge contaminated runoff.  
Town Hall Map 5 parcel 126  
Map 6 Parcel 19 0.0845-acres Hawley Lane  
Map 5 Parcel 92.2 & 93 4.9-acres vacant land deeded to Town.  
Map2 Parcel 302.4 a small strip of property along Westwood Deeded to Town for utilities.  
The Town owns the streets, sanitary collection system, water system and Strom water system within the Corporate limits with the exception of sewage lines belonging to MUB going to the sewage treatment plant in Star city that is owned and operated by MUB.

West Virginia small MS4 general permit site registration application



Part II.C.b.6.a

- 20.k. Briefly describe your operation and maintenance program for each municipal facility.
1. Town Hall the grass is kept cut and general landscaping is done. Minor exterior building maintenance is done as needed.
  2. Hawley Lane is maintained with the rest of the streets.
  3. Map 5 Parcel 92.2 & 93 4.9-acres vacant land deeded to Town is not maintained and the entrance to said property is kept locked.
  4. The Town has a tractor mounted street sweeper that is randomly used as needed. Minor road repairs are performed with major work contracted out. Inlets are cleaned in the fall after leaves have fallen or as needed. Storm and Sewer lines are cleaned as needed. Minor line work is done as needed with large projects contracted out.

Part II.C.b.6.a

- 20.l. Does each site have a pollution prevention plan? Is there a spill response plan included in the pollution prevention plan? If not, provide a time frame for developing pollution prevention plans at all MS4 owned municipal facilities, including mid-point and full completion dates.
- A Pollution Prevention Plan has been developed for the entire Town all Public Works employee have been trained in spill response this is reviewed every year, they have been provided with literature with all the spill response numbers.

Part II.C.b.6.b

- 20.m. Have you identified all the lands owned or operated by your MS4? (Such as parks, road right-of-ways, maintenance yards, and water/sewer/stormwater infrastructure.)
- Yes

Part II.C.b.6.b

- 20.n. Describe your overall pollution control approach policy and procedures for these lands.
- See the attached Star City Pollution Prevention that covers fertilizers, pesticides, and herbicides; sediment and erosion control; landscape maintenance and vegetation disposal; trash management; cleaning and maintenance of building exteriors; chemical and material storage; street sweeping & cleaning of inlets/catch basins.

Part II.C.b.6.c

- 20.o. Describe your training program including your target employees, and how often training occurs.
- The Public Works employees are all required to attend the yearly training meeting held in February, these training sessions started in 2011.
- 20.p. For any industrial facilities owned or operated by your MS4, list each facilities registration number under the WV NPDES General Permit for Storm Water Discharges Associated with Industrial Activities or the individual WV NPDES permit number. If your industrial facilities are not covered under another NPDES permit, you must will prompted to provide additional information below.
- N/A

## Schedule

Part II.C.b.6

- 20.q. Describe how and when you will implement each component of your program for this minimum control measure. Include mid-point and full implementation dates.

These items have already been started and are on-going.

Part II.C.b.6

- 20.r. Describe the inspection schedule for ensuring municipal facilities are in compliance with pollution prevention plans.

Annual inspections will be used to identify the pollution prevention/good housekeeping practices that have been put into place and the improvement that still need to be made.

### **Measurable Goals**

Part IV.A

- 20.s. List and fully describe your measurable goals for this MCM.

Annual training of Public Works employees, development of Good Housekeeping practices as outlined in the Pollution Prevention Manual.

### **Tracking**

Part II.B.7 & Part II.C.b.6.a.iii

- 20.t. Describe your plan for record keeping and tracking of facilities, employee training, pollution prevention plans, and inspections for this MCM.

The Town shall keep records detailing maintenance done, employees trained, inspections done of any kind done in the town.

The Pollution Prevention Manual has been given to Public Works employees, copies are in all the town's vehicles, at the shop and at Town Hall.

### **Evaluation**

Part II.B.7

- 20.u. Explain how you plan to gauge the effectiveness of your good housekeeping/ municipal operations program efforts?

The plans effectiveness shall be gauged by the inspections of the facilities within the Town and the comments of the Public.

### **Industrial Stormwater Coverage for Municipal Operations**

If your facility/s discharges stormwater from any industrial operation that is not covered under another NPDES permit, you must now obtain coverage for those discharges.

- 20.v. For each facility, provide the name and contact information of the operator if applicable.

There are no know Industrial discharges within the Town's Boundary that without a NPDES permit.

- 20.w. For each outlet, list the latitude and longitude to the nearest second and the River Mile Point (if known).

Outlet Number	Longitude			Latitude			River Mile
	Degrees	Minutes	Seconds	Degrees	Minutes	Seconds	

- 20.x. List the Standard Industrial Classification (SIC) Code designated for your facility/s.
- 20.y. List the nature of activity at the industrial facility.
- 20.z. Is there a wet pond at your facility that collects runoff from areas on which industrial activities occur?  
If so, how many acres drain into it?
- 20.aa. Is there a dry pond at your facility that collects runoff from areas on which industrial activities occur?  
If so, how many acres drain into it?
- 20.bb. Do any of your storm water outlets discharge through an oil water separator? If yes, provide the outlet numbers.

Based on your responses to this section, a Discharge Monitoring Report may be issued.

## **ATTACHMENTS**

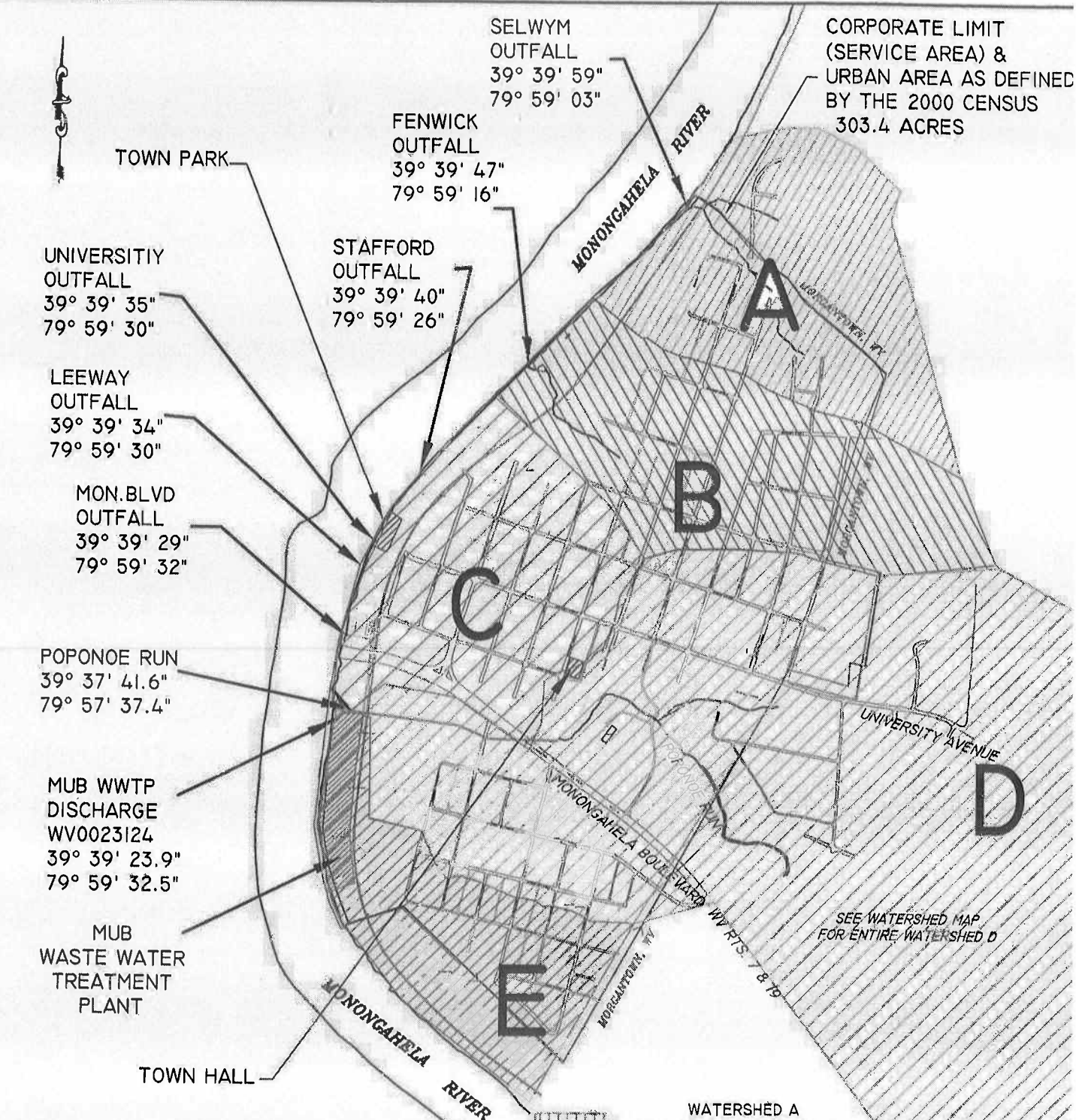
### **WATERSHED MAPS**

#### **STAR CITY STORM WATER PROPOSED ORDINANCE 934**

#### **STAR CITY POLLUTION PREVENTION PLAN**

#### **MONONGAHELA RIVER INFORMATION**





**TOWN OF STAR CITY, WV**  
**SITE MAP**  
SCALE 1" = 1,000'  
JANUARY 2011

PREPARED BY:

**CTL Engineering of  
West Virginia, Inc.**

733 Fairmont Road  
Martinsburg, WV 26001  
Phone: 304/292-1135  
Fax: 304/296-9302

510 C Street  
S. Charleston, WV 25303  
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CIVIL & SITE PLANNING \* SURVEYING &  
MAPPING \* ENVIRONMENTAL \* MINING \*  
GEOTECHNICAL \* TESTING &  
CONSTRUCTION OBSERVATION \*  
LABORATORY \*

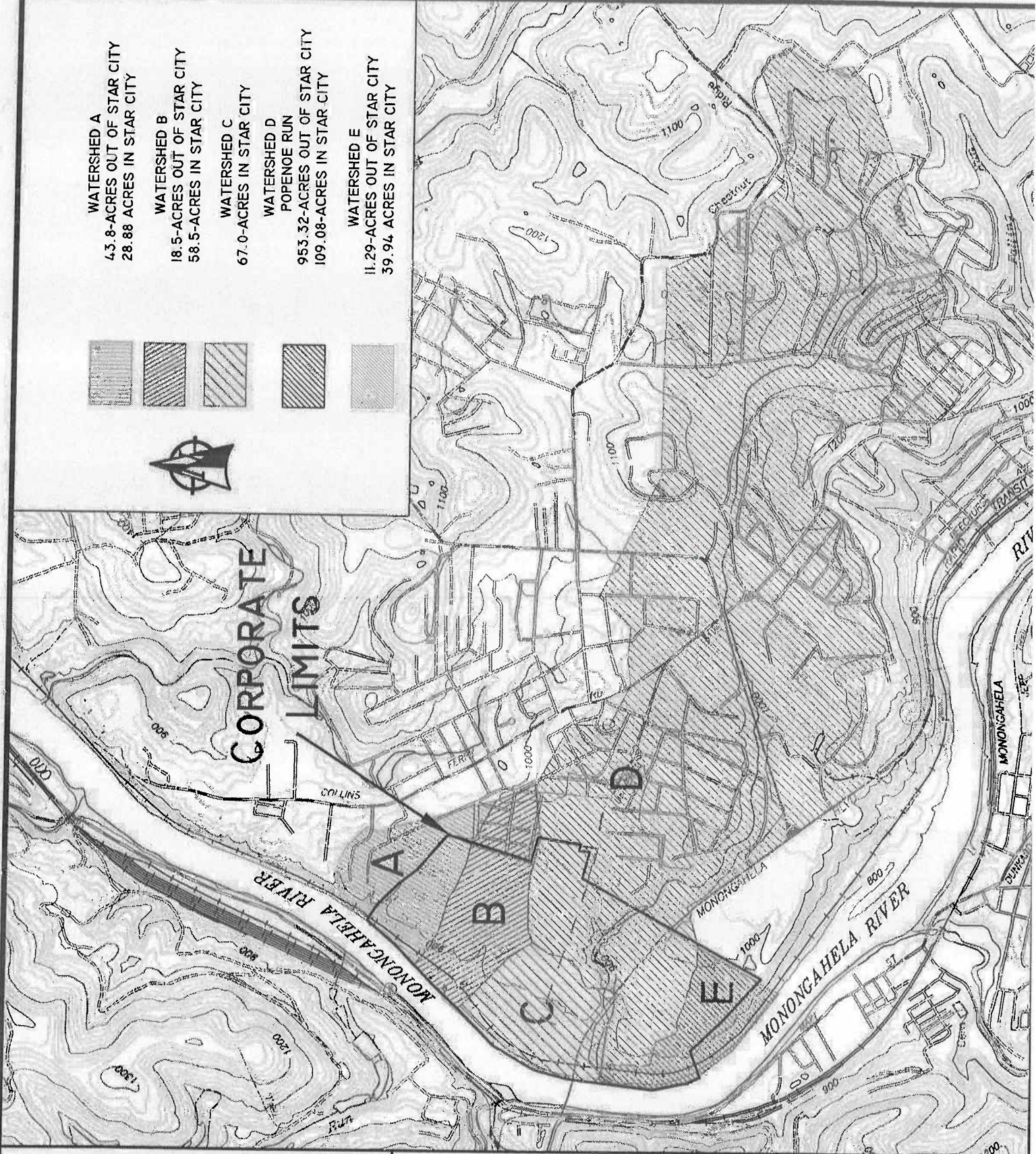




- WATERSHED A  
43.8-ACRES OUT OF STAR CITY  
28.88 ACRES IN STAR CITY
- WATERSHED B  
18.5-ACRES OUT OF STAR CITY  
58.5-ACRES IN STAR CITY
- WATERSHED C  
67.0-ACRES IN STAR CITY
- WATERSHED D  
POPEHOE RUN  
953.32-ACRES OUT OF STAR CITY  
109.08-ACRES IN STAR CITY
- WATERSHED E  
11.29-ACRES OUT OF STAR CITY  
39.94 ACRES IN STAR CITY



**CORPORATE  
LIMITS**



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MAPPING \* ENVIRONMENTAL \* MINING \*  
GEOTECHNICAL \* TESTING &  
CONSTRUCTION OBSERVATION \*  
LABORATORY \*

## WATERSHED MAP MORGANTOWN NORTH QUAD, WV

TOWN OF STAR CITY  
STAR CITY, WEST VIRGINIA

Drawn By: KO

Approved By: TAD

Date: 01/04/2011

Scale: 1"=2,000'

Sheet No. 1



## Article 934 Stormwater Management – Star City, WV

- |   |  |
|---|--|
| 934.01 DEFINITIONS.                           | 934.18 STORMWATER TAPS.  |
| 934.02 GENERAL.                               | 934.19 ENFORCEMENT.  |
| 934.03 STORMWATER SERVICE CHARGES.            | 934.20 STORMWATER MANAGEMENT AND COMPREHENSIVE DRAINAGE PLANS. |
| 934.04 PROPERTY AFFECTED.                     | 934.21 STORMWATER DESIGN MANUAL.                               |
| 934.05 FLAT RATE CHARGES.                     | 934.22 PLAN SUBMISSION AND REVIEW PROCESS.                     |
| 934.06 CHARGES BASED ON LAND AREA.            | 934.23 MAINTENANCE OF STORMWATER FACILITIES.                   |
| 934.07 BILLING.                               | 934.24 INSPECTION.   |
| 934.08 COLLECTION.                            | 934.25 SAMPLING.   |
| 934.09 USE OF FUNDS.                          | 934.26 TESTING AND MONITORING.                                 |
| 934.10 GENERAL REQUIREMENTS AND PROHIBITIONS. | 934.27 CONCEALMENT.  |
| 934.11 ILLICIT CONNECTIONS.                   | 934.28 ACTS RESULTING IN VIOLATION OF FEDERAL CLEAN WATER ACT. |
| 934.12 OUTDOOR STORAGE AREAS.                 | 934.29 VIOLATIONS DEEMED A PUBLIC NUISANCE.                    |
| 934.13 CONSTRUCTION SITES.                    | 934.30 ADMINISTRATIVE ENFORCEMENT POWERS.                      |
| 934.14 DISCHARGE OF POLLUTANTS.               | 934.31 NON-EXCLUSIVITY OF REMEDIES.                            |
| 934.15 DISCHARGE IN VIOLATION OF PERMIT.      | 934.32 APPEAL.   |
| 934.16 NOTIFICATION OF SPILLS.                | 934.33 DISCLAIMER OF LIABILITY.                                |
| 934.17 CONSTRUCTION.                          |  |

### 934.01 DEFINITIONS.

Unless the context specifically indicates otherwise, the meaning of the terms used herein shall be as follows:

(a) "Best Management Practices (BMPs)" are physical, structural and/or managerial practices that, when used singly or in combination, control site run-off, spillage and leaks, waste disposal and drainage from raw material storage and prevent or reduce the discharge of pollutants directly or indirectly to waters of the State. BMPs may include schedules of activities, prohibition of practices, design standards, educational activities and treatment requirements.

(b) "Town watershed" are those areas within the corporate limits of the Town of Star City, and designated areas outside of those limits, over which ~~surface water naturally drains into the City. Designation of areas outside of the corporate limits of the Town of Star City shall be made by the Director.~~ the Town provides city water and sewage service.

(c) "Director" is the Public Works Director of the Town of Star City.

(d) "Facility" for purposes of Section 934.18 of this article is a building, structure, installation or construction site in which pollutants are produced and/or generated as a result of a process or processes, conducted within the building, structure or installation.

(e) "Footing drain" is a pipe or conduit which is placed around the perimeter of a building foundation or other structures for the purpose of admitting ground water.

(f) "Illicit connection" means any physical connection to a publicly maintained storm drain system which has not been authorized by the Town of Star City from the date of enactment of this article.

(g) "Illicit discharge" means any discharge to a storm drain or into the stormwater collection system that is not composed entirely of stormwater, except discharges pursuant to a NPDES permit, discharges resulting from firefighting activities, and other discharges exempted in this article.

(h) "Impervious area" is land area covered by buildings, pavement, gravel or other material that significantly inhibits stormwater from penetrating the soil.

(i) "Industrial sites" are those sites that contain industrial activities which require NPDES stormwater permits as set forth in 40 CFR 122.26(a) (6).

(j) "Multi-unit property" is a residential, non-residential or commercial property of any size that has located upon the property two or more tenants, at least one of which having no ownership interest in the property.

(k) "New development" is any construction activity upon undisturbed/undeveloped land.

(l) "Non-stormwater" is all flows to the stormwater system not defined as stormwater in this Section 934.01 of this article or as determined by the Director. This includes, but is not limited to, cooling water, process water, ground water from a purge well and swimming pool discharge.

(m) "Pervious area" is all land area that is not impervious.

(n) "Pollutant" means objects including, but not limited to, dredged soil, solid waste, incinerator residue, sewage, garbage, sewage sludge, grease, petroleum products, munitions, chemical waste, biological materials, radioactive materials, heat, wrecked or

discarded equipment, rock, sand, silt, dirt, industrial, municipal and agricultural waste, gasses entrained in water, paints, oil and other automotive fluids, soil, rubbish, debris, materials containing fecal coliform, fecal streptococcus, and enterococcus, heavy metals, hazardous wastes, yard waste from commercial landscaping operations, animal waste, materials that result from the process of building, and offensive matter of any kind, which, when discharged to water, cause or contribute to water pollution.

(o) "Pollution" is the degradation of the physical, thermal, chemical, biological or radioactive properties of the waters of the State and/or the discharge of any pollutant to the waters of the State which will or is likely to create a nuisance or to render such waters harmful, detrimental or injurious to public health, safety or welfare or to the beneficial use of the water and/or the water environment.

(p) "Re-Development" is any reconstruction of or modification to an existing property that requires or would require a building permit under existing ordinance.

(q) "Stormwater" is atmospheric precipitation, surface runoff water, ground water discharge, water from operation of the water distribution system, water used in firefighting, runoff from street sweeping, flows from footing drains and all other discharge sources identified in the Town of Star City stormwater NPDES permit, except as may be defined as non-stormwater by this article.

(r) "Stormwater management" is the process of collection, conveyance, storage, treatment and disposal of stormwater to ensure control of the magnitude and frequency of runoff to minimize the impact of the runoff upon the water quality of the receiving stream and the other hazards associated with flooding.

(s) "Stormwater service charge" shall be determined by Council at such time and such a manner as they deem necessary.

(t) "Stormwater system" is public and private stormwater sewers, drains, ditches, streets, retention/detention ponds, dams, river impoundments and flood control facilities used for collecting and transporting stormwater and non-stormwater.

(u) "User" is a firm, person or property which is the legal owner or occupant of a property that directly or indirectly contributes stormwater or non-stormwater flows to the stormwater system, whether within or outside the corporate limits of the Town of Star City.

#### 934.02 GENERAL.

(a) This article has been enacted to protect and enhance the water quality of our watercourses, water bodies, groundwater and wetlands in a manner pursuant to and consistent with the Clean Water Act and associated federal and state stormwater regulations.

(b) The intent of this article is:

- (1) To control non-stormwater discharges to storm drain systems.
- (2) To reduce pollutants in stormwater discharges.
- (3) To control stormwater runoff by providing design, construction and maintenance criteria for permanent and temporary stormwater facilities.
- (4) To maintain and improve the stormwater collection system in order to protect and improve water quality in the receiving streams and to reduce or eliminate local flooding resulting from stormwater accumulation.
- (5) To fully comply with federal and state statutory and regulatory requirements and schedules regarding stormwater management and the water quality of the receiving streams.

Articles 934.03 – 934.09 are being Reserved and will not be included In this revised Ordinance

#### 934.10 GENERAL REQUIREMENTS AND PROHIBITIONS.

(a) The use of the stormwater collection system shall be the collection and transportation of stormwater.

(b) No person shall place or cause to be placed any pollutant into the stormwater system other than stormwater, unless written approval has been granted by the Director. The Director may refuse to grant approval to discharge non-stormwater into the stormwater system for any reason or combination of reasons.

(c) The Town of Star City shall administer use of the stormwater system to all users within the Town watershed, whether located within or outside Town limits.

(d) No person shall cause or permit the introduction of any pollutant into the stormwater system, whether solid, liquid or gaseous, that will cause:

- (1) Chemical reaction, either directly or indirectly with the materials of construction used in the stormwater system or that will impair the strength or durability of sewers or structures;
- (2) Mechanical action that will destroy or damage sewers or structures;
- (3) Restriction of the normal maintenance and inspection of sewers;
- (4) Danger to public health and safety or to the environment;
- (5) Conditions that create a public nuisance;
- (6) An oil sheen or unusual color;
- (7) Abnormal demand on the stormwater system capacity; or,
- (8) The stormwater system to violate its NPDES permit or applicable receiving water standards and all other Federal, State, and local regulations.

(e) Any person or entity engaged in activities which will or may result in pollutants entering the storm drain system shall undertake best management practices to reduce such pollutants. Examples of such activities include, but are not limited to, ownership and/or operation of facilities that may be a source of pollutants, such as paved parking lots, gasoline stations, industrial facilities, and private roads/streets.

(f) No person shall throw, deposit, leave, maintain or cause to be thrown, deposited, left or maintained any refuse, rubbish, garbage, grease, petroleum products, or other discarded or abandoned objects, articles and accumulations in or upon any street, alley, sidewalk, storm drain inlet, catch basin, conduit or other drainage structures, parking area, or upon any private or public plot of land so that the same might become a pollutant, except where the pollutant is being temporarily stored in properly contained waste receptacles or is part of a well-defined compost system.

(g) No person shall cause or permit any dumpster, solid waste bin, or similar container to leak such that any pollutant is discharged into any street, alley, sidewalk, storm drain, inlet, catch basin, conduit or other drainage structure, or upon any public or private plot of land in the urban watershed.

(h) No person shall use the stormwater system for discharge from any environmental cleanup that is regulated under federal or state law unless approved by the Director. Approval by the Director must be conditioned upon the discharge meeting all criteria for discharge under this chapter. Approval conditions may provide for measures appropriate to prevent harm due to possible exfiltration into the ground adjacent to the system or failure of any pretreatment system for the discharge.



#### 934.11 ILLICIT CONNECTIONS.

It is prohibited to establish, use, maintain or continue illicit connections to the municipal stormwater system, or to commence or continue any illicit discharges to the municipal stormwater system.

#### 934.12 OUTDOOR STORAGE AREAS.

In outdoor areas, no person shall store grease, oil or other hazardous substances in a manner that will or may result in such substances entering the stormwater system. In outdoor areas, no person shall store motor vehicles, machine parts, or other objects in a manner that may leak grease, oil, or other hazardous substances to the stormwater system. To prevent the discharge of hazardous substances to the stormwater system, the Director may require the installation of a spill containment system. Spill containment systems may consist of a system of dikes, walls, barriers, berms, or other devices as required. No person shall operate a spill containment system such that it allows incompatible liquids to mix and thereby create a hazardous condition.

#### 934.13 CONSTRUCTION SITES.

Any person performing construction work in the watershed of the Town of Star City shall comply with the provisions of this Article and shall provide an Erosion and Sediment Control Plan as part of the Grading Permit that effectively prevents discharges of pollutants to a storm drain system.

##### Erosion and Sediment Control Plan

a. Construction Sites over 1,000 square feet must make application for a Stormwater Permit which shall include an Erosion and Sediment Control Plan see section 934.20. Sites under 1,000 square feet shall provide the following:

1. Project name, Name of Owner/Applicant, address of owner or company, phone number, address and tax parcel information on site, Name of operator performing work, address and phone numbers

2. A plat or boundary line survey of the entire site on which construction shall be done showing the area to be disturbed and any storm water inlets or ditches to which they may discharged into.

3. Location and description of existing and proposed features of importance to the project.

4. Proposed start and Completion dates

5. A narrative description of Storm water Controls to be used, soil stabilization, re-vegetation measures and Pollution Prevention Measures.

The Plan must incorporate the design, installation and maintenance of effective erosion controls and sediment controls to minimize the discharge of pollutants at a minimum, such controls must be designed, installed and maintained to:

1. Control storm water volume and velocity within the site to minimize soil erosion;
2. Control stormwater discharges, including both peak flow rates and total stormwater volume, to minimize erosion at outlets, on stream banks and within the downstream channel.
3. Minimize the amount of soil exposed during construction activity;
4. Minimize the disturbance of steep slopes;
5. Minimize sediment discharges from the site taking in to consideration as the mount, frequency, intensity and duration of precipitation, the nature of the resulting stormwater runoff, and soil characteristics, including the range of soil particle sizes expected to be present on site.
6. Provide and maintain natural buffers around surface waters, direct stormwater to vegetated areas to increase sediment removal and maximize stormwater infiltration, unless infeasible: and
7. Minimize soil compaction and, unless infeasible preserve topsoil.
8. Soil Stabilization of disturbed areas must as a minimum be started immediately or within a maximum of 7 days whenever any clearing, excavating or other earth disturbing activities have permanently ceased on any portion of the site, or temporary ceased on any portion of the site and will not resume for a period exceeding 14 calendar days when that area must be seeded and mulched within 7 days.
9. Dewatering discharge activities, including discharges from dewatering of trenches and excavations are prohibited unless managed by appropriate controls.
10. Pollution Prevention Measures shall be designed, installed and maintained to to minimize the discharge of pollutants. At a minimum such measures shall include;
  - a) Minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water and other wash water. Wash water must be treated in a sediment barrier or alternate control that provides equivalent or better treatment prior to discharge.

b) Minimize the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary wastes and other materials on the site to precipitation and to stormwater runoff.

c) Minimize the discharge of pollutants from spills and leaks and implement chemical spill and leak prevention and response procedures.

Prohibited Discharges: The following discharges are illegal:

Concrete washout unless managed by an appropriate control

Washout of stucco, paint, oils, curing compounds, & other construction materials

Fuels, oils or other pollutants used in vehicles & equipment

Soaps or solvents used in vehicles and equipment washing.

### Application Review

All applications for a grading permit must be submitted at least 30 days before the start of the project to give the Town time to review the application. Operators of the construction activity are prohibited from commencing construction activity until they receive receipt of written approval of the plans and the pre-construction inspection has taken place. If the plan is revised the revisions must have written approval before construction can start.

a) The Town shall assess the application for compliance under the Town's Ordinances and permits related to stormwater runoff, including the implementation and maintenance of designated minimum control measures.

b) Assess the appropriateness of planned control measures and their effectiveness

c) Provide education and outreach on stormwater pollution prevention, as needed.

d) Check for other permits required by this type of construction, NOI, WVDOT

### Construction Site inspections and Enforcement

The Town shall provide written or electronic inspection reports generated from findings in the field. Copies on said reports shall be kept in a file at Town Hall. Based on site inspection findings the Town shall take all necessary follow up actions to ensure compliance in accordance with this Ordinance.

1. Prior to the issue of the grading or Stormwater permit the site must be inspected to ensure all the necessary erosion and sediment controls outlined in the plan are in place and functional. After the site has been inspected and approved the permit will be issued in wrtting a copy of which must be maintained on site at all times.

2. Inspections during construction shall be done with 48 hours of a significant rainfall and no less than bi-weekly for sites 1 acre or more. Sites under an acre shall be inspected as needed.

3. Following active construction the site shall be inspected to ensure that all graded areas have reached final stabilization and that all temporary control measures have been removed.

#### Enforcement

The Building Inspector, the Director of Public Works, the Mayor and/or the Town's Engineer can issue site violations for non-compliance with this ordinance and shut the site down until the needed repairs are made. Upon re-inspection and approval of remediation the Town will issue a written approval for construction to resume.

#### 934.14 DISCHARGE OF POLLUTANTS.

Discharges from the following activities will not be considered a source of pollutants to waters of the State when properly managed: water line flushing and other discharges from potable water sources, landscape irrigation and lawn watering, irrigation water, diverted stream flows, rising ground waters, groundwater infiltration to separate storm drains, uncontaminated pumped ground water, foundation and footing drains, roof drains, water from crawl space pumps, residential air conditioning condensation, springs, individual residential and non-profit group car washes, flows from riparian habitats and wetlands, de-chlorinated (0.1ppm or less) swimming pool discharges or flows from firefighting activities and training.

#### 934.15 DISCHARGE IN VIOLATION OF PERMIT.

Any discharge that would cause a violation of a Municipal NPDES Permit and any amendments, revisions or reissuance thereof, either separately considered or when combined with other discharges, is prohibited. The Owner or other responsible party of the property from which the pollutant is found will be notified immediately, by phone by the Director or other officer of the Town. A spill report will be filled by the town at the time and a copy sent to the owner of said property with instructions to stop said discharge within 72 hour, of the original notice by phone. If said discharge is not stopped within 120 hours of the original notice the Town shall take whatever measures are needed to halt the illicit discharge. The responsible party must notify The Town when the discharge has been eliminated and Star City will conduct a follow up investigation and field screening to verify that the discharge has been eliminated, a

report of which must be filled at Town Hall with the original spill report. The Director may direct the responsible party to sample and monitor the discharge for a set time period, if deemed necessary to ensure compliance.

Liability for any such discharge, including, but not limited to, the cost of remedial activity, field investigations, sampling, damage to other properties, escalating enforcement and legal actions shall be the responsibility of the person(s) causing or responsible for the discharge. The Town shall seek to have such persons defend, indemnify and hold harmless the Town in any administrative or judicial enforcement action against the Town of Star City relating to such discharge as provided by applicable rules of law.

#### 934.16 NOTIFICATION OF SPILLS.

All persons in charge of a facility or responsible for emergency response for a facility are responsible to train facility personnel, maintain records of such training and maintain notification procedures to assure that immediate notification is provided to the Director upon becoming aware of any suspected, confirmed or unconfirmed release of material, pollutants or waste creating a risk of discharge into the municipal stormwater system or into a receiving stream.

#### 934.17 CONSTRUCTION( on Public Facilities of the Stormwater System)

(a) Only designated Star City employees or parties authorized by the Director may perform construction upon the public facilities of the stormwater system. Public facilities of the system shall include:

- (1) Those facilities that serve two or more properties, including, but not limited to, main pipelines that collect and transmit stormwater from and/or across two or more properties; and,
- (2) All taps or other connections from a private lateral to a public facility of the system.

(b) All public costs and expenses of and incidental to the installation of private stormwater facilities, connections to public facilities, and installation of public facilities to facilitate and convey flows from a specific private facility shall be borne by the owner(s) of the private facility. Payment terms for these costs and expenses shall be designated by the Director.

(c) Parties authorized by the Director to perform construction of or upon the public facilities of the stormwater system shall comply with the design and construction

standards promulgated by the Director. These parties shall allow for inspection of the construction by the Director at all times, and construction shall only occur during normal working hours of the Town of Star City. No facility constructed by an authorized party may be covered or connected to a public facility without specific authorization of the Director. This authority shall be granted by the Director upon satisfaction of the announced design and construction standards.

(d) All public facilities shall, upon authorized completion, be property of the Town of Star City.

(e) A party authorized by the Director to perform construction upon the public facilities of the stormwater system shall meet the following requirements prior to and throughout construction:

- (1) Compliance with all relevant Federal and State labor, employment and environmental laws; and,
- (2) Compliance with all relevant and applicable state laws regarding government construction contracts, including, but not limited to, WV Code §§ 5-22-1, et seq. And 21-5A-1, et seq.; and,
- (3) Full and active policy coverage as certified by the West Virginia Bureau of Employment Programs, Workers' Compensation Division; and,
- (4) Contractor's liability insurance issued by an insurance company with a Best's rating of no less than "A" and certified to the satisfaction of the Director, which may include commercial general, automobile, umbrella and builders risk policies, naming the Town of Star City as an additional insured. Policies and coverage limits and terms required shall be appropriate to the subject construction and shall be designated by the Director; and,
- (5) A construction bond issued by an insurance company with a Best's rating of no less than "A" and certified to the satisfaction of the Director, equal to the estimated cost of the construction and for a term equal to the duration of the construction project. At the discretion of the Director, a bonded party may provide a cumulative general construction bond in satisfaction of this requirement; and,
- (6) A repair bond issued by an insurance company with a Best's rating of no less than "A" and certified to the satisfaction of the Director, in an amount no more than the reasonable estimate of repair costs, as determined by the Director, and for a term of no longer than five years, beginning on the date of substantial project completion. At the discretion of the Director, a bonded party may provide a cumulative general construction bond in satisfaction of this requirement; and,
- (7) Certification of full compliance with all relevant state and local permits and tax rules and regulations, certification of appropriate property rights to perform the

construction, and conveyance to the Town of Star City of appropriate property rights for the completed public facilities.

(8) Nothing in subsections (e)(2),(3),(4), (5) and (6) hereof shall apply to any situation where the Director shall come to an agreement with volunteers or a volunteer group doing work for a qualified not-for-profit entity, whereby the Director will provide engineering, technical or other services and the volunteers will provide the necessary labor without charge to, or liability upon, the Town of Star City. The not-for-profit entity shall be responsible for all costs to the utility associated with such a project.

#### 934.18 STORMWATER TAPS.

(a) The Director or a party authorized by the Director will furnish and install stormwater system taps of the size and at the location requested in writing by an applicant upon a form to be provided by the Director. The applicant shall pay the full cost of the tap installation they will be billed for time and material.

(b) The Director may deny a tap application when the requested tap is proposed to an inadequate public facility.

#### 934.19 ENFORCEMENT.

(a) No person shall construct or maintain any property, residence or business not in compliance with the standards of this article.

(b) The Director and other authorized employees of the Town bearing proper credentials and identification shall be permitted, after reasonable notice, to enter upon all properties for the purposes of inspection, observation, measurement, sampling and testing in accordance with the provisions of this article.

(c) No person or firm shall fail to provide any report or other information or perform any duty required by this article.

(d) The Director is authorized to take appropriate legal action to require compliance with this article.

(e) The Director is authorized to enforce and collect upon the terms of a construction and/or repair bond in the event of default of the conditions described therein.



(f) If, after reasonable notice, a person fails to comply with this article, the Director may cause the work to be done to obtain compliance and shall charge the cost of that work to the person responsible. The responsible person shall pay in full the charged amount within thirty (30) days of the invoice date, or otherwise make arrangements, acceptable to the Director, for full payment of the invoiced amount.

(g) In addition to any other remedy, the Director, after thirty (30) calendar days written notice and five (5) calendar days notice posted on the affected property, is authorized to disconnect water service, sanitary sewer and stormwater sewer services to any property in violation of this article. The notice shall state that persons affected may within five (5) calendar days provide the Director with any information or reasons as to why services should not be disconnected.

(h) The Director is authorized to take all steps necessary to immediately halt any discharge of pollutants which reasonably appear to present an imminent danger to the health or welfare of persons or to the environment.

(i) Persons aggrieved by any determination of the Director in enforcing this Article may appeal that determination to the Star City Town Council or a court of proper jurisdiction. Prosecution shall be stayed pending such an appeal.

#### **934.20 STORMWATER MANAGEMENT AND COMPREHENSIVE DRAINAGE PLANS.**

***(a) The requirements and standards of this section shall apply to all new developments and redevelopment projects. The intent of these regulations is to minimize the discharge and transport of pollutants to storm drain systems and prevent the deterioration of water quality.***

***(b) All new developments and redevelopment projects within the Town watershed shall include stormwater management plans and comprehensive drainage plans as described in this section. These plans shall be subject to the review and approval of the Director.***

***(c) The following activities shall be exempt from the requirements of this section, except that no activity shall be exempt from the management of the discharge of sediment or any other form of water pollution that may leave any parcel or site.***

***(1) Agricultural land management activities;***

**(2) Additions or modifications to existing detached single-family dwellings of a size less than 1,000 square feet; and**

**(3) Activities that result in impervious surface area of less than 3,000 square feet, regardless of the ratio of impervious surface area to total site area. However, a phased construction project shall be measured by the size of all planned or contemplated phases. Each phase may be required to meet the requirements of this article.**

**(d) All new development and redevelopment subject to the provisions of this article shall be required to obtain a stormwater permit unless exempted under the provisions of Section 934.20(c). The Director shall issue a stormwater management permit for plans that meet the requirements of this section and any other requirements of this article. No Town building permit shall be issued without the submission of a stormwater permit issued under the provisions of this article.**

**(e) Technical, administrative or procedural matters may be modified by the Director as needed to meet the objectives and policies defined in this article, so long as such modifications are not contrary to or beyond the intent of the objectives and policies included in this article.**

**(f) Uniform requirements shall be applied to each regulated project site. These requirements shall be based upon the criterion that post development stormwater peak runoff rates of flow must not exceed the pre-development peak runoff rates of flow, a peak runoff rate of flow reduction of ten percent (10%) from the pre-existing peak runoff rate of flow must be achieved.**

**(g) For construction that results in impervious area of 3,000 square feet or more , a stormwater management and comprehensive drainage plan will be required in order to qualify for a stormwater permit. The plan shall include the following information:**

**(1) Descriptive information:**

**A. Title block with:**

- 1. Development name.**
- 2. Owner.**
- 3. Design firm.**
- 4. Legend.**

5. North arrow.
6. Vicinity map.
7. Scale.
8. Sheet numbers.
9. Date.

**B. Topographical features:**

1. Original contours at intervals no greater than two vertical feet.
2. Existing drainage components, i.e., streams, ponds, pipes, etc.
3. Property boundary lines.
4. Existing streets, buildings, and utilities.
5. 100 year flood plain.
6. Off-site drainage entering site.
7. Original drawing no larger than 24-inch x 36-inch and at a scale from 1 inch equals 10 feet to 1 inch equals 50 feet.

**C. Site plan:**

1. Existing and proposed structures, roads, buildings, paved areas.
2. Existing and proposed stormwater management system and components including sizes, lengths, pertinent elevations, etc.
3. Where and how proposed stormwater management system will be connected to existing systems.
4. Location and grade of all swales including cross sections.
5. Location and design of all other Best Management Structures/Implementations.
6. Sediment and Erosion Control measures are required. Refer to the most current edition of the West Virginia Department of Environmental Protection Sediment and Erosion Control manual for acceptable means and methods.
7. Existing and proposed ground cover.
8. Total impervious area.
9. Control release facilities showing cross-sections and profiles.

**D. Final as-built drawings:**

1. Show location, length, sizes, and pertinent elevations of the stormwater management system.
2. All impervious areas shall be accurately depicted.

**3. Failure to provide final as-built drawings within three months of substantial project completion will cause the utility to prepare these drawings. The responsible party shall be charged for this service. The Director may extend this time as deemed necessary.**

**(2) Design standards.**

**A. Flow rates shall be calculated by use of the Rational Method unless sufficient justification for use of another method is approved by the Director.**

**B. The minimum "time of concentration" to be used in the calculations shall be six (6) minutes.**

**C. The ABT & Grigg Method shall be used to determine the volume necessary for detention. Detention structures shall be designed in such a manner that the post-construction peak runoff rate of flow shall be equal to or less than the pre-construction peak runoff rate of flow for 2-year/24-hour, 10-year/24-hour and 25-year/24-hour storms. In all projects, a peak runoff rate of flow reduction of 10% from the pre-existing peak runoff rate of flow must be achieved.**

**(3) Design backup.**

**A. Calculations of volumetric runoff and peak runoff rate of flow for both pre-development and post-development.**

**B. Calculations for stormwater detention/retention facility and other system elements.**

**C. Operation and Maintenance Manual for private stormwater control facilities**

**(4) Sedimentation and erosion control measures are required. Refer to the most current edition of The West Virginia Department of Environmental Protection Sedimentation and Erosion Control Manual for acceptable means and methods.**

(h) Starting July 2015 For any new development or redevelopment disturbing an area of an acre or greater a Stormwater Management and Comprehensive Drainage Plan must be developed that will keep and manage on site the first one inch of rainfall from a 24-hour storm preceded by 48 hours of no measureable precipitation. Runoff volume reduction can be achieved by canopy interception, soil amendments, evaporation,

rainfall harvesting, engineered infiltration, extended filtration and/or evapotranspiration and any combination of the aforementioned practices. This first one inch of rainfall must be 100% managed with no discharge to surface waters, except when the permittee chooses to implement the conditions in paragraph 4 below. This can be achieved through on site utilization of practices to include dry swales, bioretention, rain tanks and cisterns, soil amendments, roof top disconnections, permeable pavement, porous concrete, permeable pavers, reforestation, grass channels, green roofs and other practices that alone or combined will capture the first one inch of rainfall runoff volume. Extended filtration practices that are designed to capture and retain up to one inch of rainfall may discharge volume in excess of the first inch through an under drain system. An Underground Injection Control permit may be required when certain conditions are met.

1) The following additional water quality requirements, as applicable:

a) A project that is a potential hot spot with reasonable potential for pollutant loading(s) must provide water quality treatment for associated pollutants before infiltration. (such as petroleum hydrocarbons at a vehicles fueling station)

b) A project that is a potential hot spot with reasonable potential for pollutant loading(s) that cannot implement adequate preventative or water quality treatment measures to ensure compliance to ensure compliance with groundwater and/or surface water quality standards, must properly convey stormwater to a NPDES-permitted waste water treatment facility or via a licensed waste hauler to a permitted treatment and disposal facility.

2) Incentive Standards; A reduction of 0.2 inches from the one inch runoff reduction standard may be applied to any of the following types of development. Reductions are additive up to a maximum reduction of 0.6 inches for a development that meets four or more of the criteria.

a) Redevelopment

b) Brownfield Redevelopment

c) High Density (>7 units per acre)

d) Vertical Density, (floor to area ratio (FAR) of 2 or >18 units per acre)

e) Mixed Use and Transit Oriented Development  
(within ½ mile of transit)

NOTE: For projects that cannot meet the runoff reduction requirement of the 0.4" after incentives have been applied, two alternatives are available: Off site mitigation or payment in lieu will be applied at a 1:2 ratio for that portion.



3) The Stormwater Permit Application shall include:

A. Title Block With:

1. Development name.
2. Owner.
3. Design firm.
4. Authorized registered professional engineer stamp, signature and date.
5. Legend.
6. North arrow.
7. Vicinity map.
8. Scale.
9. Sheet numbers.
10. Date.
11. Revision numbers and dates.

B. Topographical features:

1. Original and proposed contours at intervals no greater than 2 vertical feet.
2. Existing drainage components, i.e., streams, ponds, pipes, etc.
3. Property boundary lines.
4. Existing streets, buildings, and utilities.
5. 100 year flood plain.
6. Off-site drainage entering site.
7. Original drawing no larger than 24-inch x 36-inch and at a scale from 1 inch equals 10 feet to 1 inch equals 50 feet.

C. Site plan:

1. Existing and proposed structures, roads, buildings, paved areas.
2. Existing and proposed stormwater management system and components including sizes, lengths, pertinent elevations, etc.
3. Where and how proposed stormwater management system will be connected to existing systems.
4. Location, design and grade of all BMPs including cross sections profiles with elevations of critical components.
5. Sedimentation and erosion control measures are required. Refer to the most current edition of The West Virginia Department of Environmental Protection Sedimentation and Erosion Control Manual for acceptable means and methods.
6. Existing and proposed ground cover.
7. Control release facilities showing cross-sections and profiles.

#### D. Narrative and Calculations

- 1) Narrative of storm water management system
- 2) Table of BMPs with target treatment volumes for drainage areas (one inch capture), volume provided, sizing and summary of performance of proposed storm water measures.
- 3) Watershed delineation for pre & post-development conditions with travel times (time of concentration), Cn numbers used for each drainage area pre & post, land use pre & post, peak discharge rates pre & post and soil types for each drainage area.
- 4) Results of soil test pits and/or borings, infiltration tests and groundwater and bedrock elevations
- 5) Detailed Hydraulic calculations for outlet orifices, weirs, spillways, culverts, channel sizing, etc.

#### E. Supporting Documents

- 1) Maintenance Agreement, signed by all parties and recorded
- 2) Maintenance plan for each type of BMP
- 3) Documentation of other required Permits: WVDEP, WVDOT, Army Corps of Engineers, WVDHHR etc.

#### F. Final as-built drawings:

1. Submitted in AutoCAD DXF or DWG file format.
2. Show all revised contours and appropriate "spot elevations".
3. Show location, length, sizes, and pertinent elevations of the stormwater management system.
4. All impervious areas shall be accurately depicted.
5. Failure to provide final as-built drawings within three months of substantial project completion will cause the utility to prepare these drawings. The responsible party shall be charged for this service. The Director may extend this time as deemed necessary.

#### 4) Design standards:

Use the most current edition of the West Virginia Stormwater Design Guidance Manual (Full Nov. 2012-v2) until such time as the Town produces their own Design manual.



5 ) Sedimentation and erosion control measures are required. Refer to the most current edition of The West Virginia Department of Environmental Protection Sedimentation and Erosion Control Manual for acceptable means and methods.

(i) All development and/or redevelopment projects shall minimize the impact to the water environment by applying structural and/or non-structural management practices selected to address site-specific conditions. The minimum requirement for runoff water quality treatment shall be a reduction of 80% of the average post-development total suspended solids and a reduction of 40% of the average post-development phosphorus load.

(j) No construction shall be performed in a manner that will negatively impact the water environment in the vicinity of construction or in other areas, regardless of whether this impact is manifested by flow restrictions, increased runoff, diminishing channel or floodplain storage capacity, harm to aquatic life or any other manifestation of negative impact.

(k) New construction or reconstruction shall be permitted only after temporary or permanent erosion and sediment control management practices have been placed and are operational to the satisfaction of the Director. The Director may halt construction, void a permit, or take other enforcement actions consistent with this section upon a finding of inadequate erosion and sediment control management practices upon a site or property subject to the provisions of this section.

(l) All active construction sites shall be inspected by the owner no less than weekly and within 24 hours after a 0.25 inch rain event to ensure and verify effective erosion and sediment control. The owner shall maintain records of these inspections. The Director may halt construction on properties that do not provide satisfactory proof of compliance with this requirement.

(m) The owner of a completed new development and/or redevelopment construction shall submit to the Director within thirty (30) days of substantial project completion an "as- built" plan of the stormwater management facilities located upon the property/site.

(n) Waivers for Providing Stormwater Management.

(1) Every applicant shall provide for stormwater management as required by this section, unless a waiver of these requirements is granted by the Director. A written request for waiver must be submitted to the Director in a form that he/she

prescribes.

(2) The Director may not waive the minimum requirements for stormwater management of water quality protection.

(3) Any requirements beyond those described in Section 934.20(i) may be waived by the Director, if the Director finds that meeting the minimum on-site stormwater management requirements is not feasible due to the unique natural or existing physical characteristics of a site. A determination that requirements of this regulation cannot be met on site may not be based on the difficulty or cost of implementing measures, but must include multiple criteria that would rule out an adequate combination of the practices set forth to meet these regulations. In instances where alternatives to complete on site management of the first inch of rainfall are chosen, technical justification as to the infeasibility of on site management must be documented. To be eligible for a waiver, the applicant must also demonstrate to the satisfaction of the Director that the waiver will not result in any of the following impacts to downstream waterways:

A. Deterioration of existing culverts, bridges, dams and other structures;

B. Degradation of biological functions or habitat;

C. Accelerated stream bank or streambed erosion; or

D. Increased threat of flood damage to public health, life and/or property.

(4) Where compliance with the full requirements for on-site stormwater management is waived, the applicant shall satisfy stormwater management requirements by accomplishing a mitigation measure approved by the Director. Mitigation measures may include, but are not limited to, the following:

A. Alternative means for on-site management of stormwater discharges that have been established in a stormwater management plan that has been approved by the Director.

B. The creation of appropriately designed and constructed stormwater management facility or drainage improvements on other properties, public or private, that currently lack stormwater management facilities.

These alternatives are available in combination or alone for up to 0.6 inches of the original 1-inch at a ratio of 1 to 1.5, than that which would be afforded by the waived on-site practices. If it is proven infeasible to manage on site a portion of all the remaining 0.4-inches, off site mitigation or payment in lieu will be applied at a 1:2 ratio for that portion. There must be a legally obligated entity responsible for the long-term operation and maintenance of the off-site practice. The Director shall, to the maximum extend practical, ensure that the benefits arising from the off-site practice shall be realized in the same basin/watershed as the waived management practice.

**C. The purchase and donation of privately owned lands to the City or the grant of an easement to the City, to be dedicated to preservation, reforestation, and/or the creation of green space, wetlands, or permanent buffer areas to protect water quality and aquatic habitat.**

**(o) Fee in Lieu of Stormwater Management Practices. Where the Director waives all or part of the minimum stormwater management requirements, and the applicant does not complete an approved mitigation project, the applicant shall be required to pay a fee in lieu of stormwater management practices, in an amount as determined by the Director. This amount shall be 1.5 times for the first 0.6-inches and 2 times the cost for remaining 0.4-inches of stormwater management and based on the cubic feet of storage required for stormwater management of the development in question. All of the monetary contributions shall be credited to an appropriate stormwater capital improvements program project, and shall be made by the applicant prior to the issuance of any stormwater permit for the development.**

#### 934.21 STORMWATER DESIGN MANUAL.

(a) The Town of Star City may furnish additional policy, criteria and information including specifications and standards, for the proper implementation of the requirements of this article. The most current edition of the West Virginia Stormwater Design Guidance Manual (Full Nov. 2012-v2) shall be used until such time as the Town creates their own Design Manual.

(b) This manual will include a list of acceptable stormwater treatment practices, including the specific design criteria for each stormwater practice. The manual may be updated and expanded from time to time, at the discretion of the Stormwater Utility, based on improvements to engineering, science, monitoring and local maintenance



experience. Stormwater treatment practices that are designed and constructed in accordance with these design and sizing criteria will be presumed to meet the minimum water quality performance standards.

#### 934.22 PLAN SUBMISSION AND REVIEW PROCESS.

The plan submission and review process shall be coordinated with and integrated into the Town's planning and permitting process. Following the effective date of this section, no building permit shall be issued without an approved stormwater management plan if required under this article.

(a) The owner/applicant/design engineer for any project that disturbs an acre or greater (including projects of less than one acre that are part of a common plan of development or sale that will disturb, in total one acre or more) must develop and submit a Pre-Application Stormwater Concept Plan. This should be done early in site planning process before infrastructure & lot configuration are locked down.

The Concept Plan should include:

1. Graphic elements showing the general type, location and size of proposed stormwater BMPs that will be used to meet the requirements to manage the first one-inch of rainfall.

2. Narrative & Computations Elements that describe:

a) Site design incentives

b) Conceptual or preliminary computations that show the Target Treatment Volume and the Stormwater BMP types and sizing necessary to control it.

A project specific version of the Design Compliance Spreadsheet shall be included in the submittal.

3. Pre-Application Meeting shall be held for a preliminary review of the concept Plan to discuss site compliance issues, allow for constructive interaction and head off any issues that would cause delays in the approval process.

4a. Review and approval of the Concept plan: Coordinate with other departments & Agency reviews. This review is to ensure there is enough information to ensure complete and compliant Final Storm Water Management Plan. Engineering details and final computations are not expected at this stage. This review will also allow the Town to review the project for compliance with Zoning, Building and other codes, access to utilities, check potential traffic issues and coordination with other agencies.

4b. Revise Concept Plan in Response to Comments

5. Develop the Final Stormwater Management Plan

6a. Review & Approval of Final Stormwater Management Plan

Coordinate with other Departments & Agency reviews

6b. Revise Final plan in response to comments. Issue permit when all comments have been addressed and approved.

7. Inspection and Verification of post-Construction Stormwater BMPs

Post –construction BMPs shall be inspected at critical stages during construction and a final inspection shall be done to verify that the BMP is installed in accordance with the approved plan and/or any approved field changes.

8. Submit As- Builts

As-Built survey should confirm Placement of BMP within easements, proper sizing, dimensions and materials. Elevations of inlets, outlets, risers, embankments, etc. Vegetation cover must be established and conform with the planting plan. The as-built must show the location of the permanent access easements for maintenance.

934.23 MAINTENANCE OF STORMWATER FACILITIES.

(a) Private stormwater facilities located in private property and within the Town watershed shall be maintained by the owner or other responsible party and shall be repaired and/or replaced by such person when such facilities are no longer functioning as designed.

(b) Disposal of waste from maintenance of private facilities shall be conducted in accordance with applicable federal, state and local laws and regulations.

(c) Records of installation and maintenance and repair shall be retained by the owner or other responsible party for a period of five (5) years and shall be made available to the Director upon request.

(d) The Director may perform corrective or maintenance work, which shall be at the owner's expense, upon any failure to maintain facilities or correct problems with facilities after receiving due reasonable notice from the Director.

(e) Routine maintenance of detention/retention facilities shall be conducted by the owner of the facility in accordance with this article and guidance of the Director.

934.24 INSPECTION.

(a) Stormwater systems within the Town watershed shall be inspected by the Director during and after construction to assure consistency with the approved stormwater management plan. The Town has started a data base of all the storm water facilities in the Town, new facilities will be added each year. Annual inspections shall be made of Storm water facilities to ensure they are being maintained.

(b) All stormwater systems within the Town watershed shall be subject to the authority of the Director to ensure compliance with this article and may be inspected when deemed necessary.

(c) The owner of a private stormwater system, or other responsible party designated by the owner, shall make annual inspections of the facilities, including any detention or retention facility, and maintain records of such inspections for a period of five (5) years.

(d) Whenever necessary to make an inspection to enforce any of the provisions of this article, or whenever the Director has reasonable cause to believe that there exists in any building or upon any premises any condition which may constitute a violation of the provisions of this article, the Director may enter such building or premises at all reasonable times to inspect the same or perform any duty imposed by this article; provided that:

(1) If such building or premises is occupied, he or she first shall present proper credentials and request entry, and

(2) If such building or premises is unoccupied, he or she first shall make a reasonable effort to locate the owner or other persons having charge or control of the building or premises and request entry.

(e) The property owner or occupant has the right to refuse entry but, in the event such entry is refused, the Director is hereby empowered to seek assistance from any court of competent jurisdiction in obtaining such entry and performing such inspection.

(f) Routine or area inspections shall be based upon such reasonable selection processes as may be deemed necessary to carry out the objectives of this Article, including but not limited to, random sampling and/or sampling in areas with evidence of stormwater pollution, illicit discharges, or similar factors.

#### 934.25 SAMPLING.

With the consent of the owner or occupant or with Court order, the Director may establish on any property such devices as are necessary to conduct sampling or metering operations. During all inspections as provided herein, the Director may take any samples deemed necessary to aid in the pursuit of the inquiry or to record the on-site activities, provided that owners or occupants shall be entitled to split samples.



#### 934.26 TESTING AND MONITORING.

(a) Whenever the Director determines that any person engaged in any activity and/or owning or operating any facility may cause or contribute to stormwater pollution or illicit discharges to the stormwater system, the Director may, by written notice, order that such person undertake such monitoring activities and/or analyses and furnish such reports as the Director may require. The written notice shall be served either in person or by certified or registered mail, return receipt required, and shall set forth the basis for such order and shall particularly describe the monitoring activities and/or analyses and reports required. The burden to be borne by the owner or operator, including costs of these activities, analyses and reports, shall bear a reasonable relationship to the need for the monitoring, analyses and reports and the benefits to be obtained. The recipient of such order shall undertake and provide the monitoring, analyses and reports within the time frames set forth in the Order.

(b) Within two (2) days of the date of receipt of the order notice, the recipient shall respond personally or in writing advising the Director of the recipient's position with respect to the Order's requirements. Thereafter, the recipient shall be given the opportunity to meet with the Director to review the Order's requirements and revise the Order as the Director may deem necessary. Within Five (5) days of such meeting, the Director shall issue a final written order. Final Orders issued pursuant to this Section may be appealed to the Star City Town Council by the filing of a written appeal with the Mayor within ten (10) days of receipt of the final Order. The appeal notice shall set forth the particular Order requirements or issues being appealed. The Star City Town Council shall hear the appeal at its earliest practical date and may either affirm, revoke or modify the Order. The decision of the Star City Town Council shall be final, but may be subject to review by a Court of competent Jurisdiction.

(c) In the event the owner or operator of a facility or property fails to conduct the monitoring and/or analyses and furnish the reports required by the Order in the time frames set forth therein, the Director may cause such monitoring and/or analyses to occur. If a violation is found, the Director may assess all costs incurred, including reasonable administrative costs and attorney's fees, to the owner or operator. The Director may pursue judicial action to enforce the Order and recover all costs incurred.

#### 934.27 CONCEALMENT.

Causing, permitting, aiding, abetting or concealing a violation of any provision of this Article shall constitute a violation of such provision.

#### 934.28 ACTS RESULTING IN VIOLATION OF FEDERAL CLEAN WATER ACT.

Any person who violates any provision of this article, or who discharges waste or wastewater which causes pollution, or who violates any cease and desist order, prohibition, or effluent limitation, also may be in violation of the federal Clean Water Act and may be subject to the sanctions of that Act including civil and criminal penalties.

#### 934.29 VIOLATIONS DEEMED A PUBLIC NUISANCE.

(a) In addition to the penalties hereinbefore provided, any condition caused or permitted to exist in violation of any of the provisions of this article shall be considered a threat to the public health, safety, welfare and the environment, may be declared and deemed a nuisance by the Director and may be summarily abated and/or restored by the Director and/or civil action taken to abate, enjoin or otherwise compel the cessation of such nuisance.

(b) The cost of such abatement and/or restoration shall be borne by the owner of the property and the cost thereof shall be a lien upon and against the property and such lien shall continue in existence until the same shall be paid.

(c) If any violation of this article constitutes a seasonal and recurrent nuisance, the Director shall so declare. Thereafter such seasonal and recurrent nuisance shall be abated every year without the necessity of any further declaration.

(d) In any administrative or civil proceeding under this article in which the City or its agent prevails, the City or its agent may be awarded all costs of investigation, administrative overhead, out-of-pocket expenses, costs of administrative hearings, costs of suit and reasonable attorneys' fees.

#### 934.30 ADMINISTRATIVE ENFORCEMENT POWERS.

(a) In addition to the other enforcement powers and remedies established by this article, the Director has the authority to utilize the following administrative remedies.

(1) Cease and Desist orders. When the Director finds that a discharge has taken place or is likely to take place in violation of this article, the Director may issue an order to cease and desist such discharge, or practice, or operation likely to cause such discharge and direct that those persons not complying shall:

A. Comply with the requirement;

B. Comply with a time schedule for compliance; and/or

C. Take appropriate remedial or preventive action to prevent the violation from recurring.

(2) Notice to clean. Whenever the Director finds any oil, earth dirt, grass, weeds, dead trees, tin cans, rubbish, refuse, waste or any other material of any kind, in or upon the sidewalk abutting or adjoining any parcel of land, or upon any parcel of land or grounds or in close proximity to any open drain or ditch channel, which may result in an increase in pollutants entering the storm drain system or a non-stormwater discharge to the storm drain system, he or she may give notice to the property owner remove and lawfully dispose of such material in any manner that he or she reasonably may provide. The recipient of such notice shall undertake the activities as described in the notice within the time frames set forth therein.

(3) In the event the owner or operator of a facility fails to conduct the activities as described in the notice, the Director may cause such required activities as described in the notice to be performed, and the cost thereof shall be assessed and invoiced to the owner of the property. If the invoice is not paid within sixty (60) days, a lien shall be placed upon and against the property.

#### 934.31 NONEXCLUSIVITY OF REMEDIES.

Remedies under this article are in addition to and do not supersede or limit any and all other remedies, civil or criminal. The remedies provided for herein shall be cumulative and not exclusive.

#### 934.32 APPEAL.

Any person, firm, corporation or organization notified of non-compliance with this article or required to perform monitoring, analyses, reporting and/or corrective activities who is aggrieved by the decision of the Director may appeal such decision in writing to the Star City Town Council within ten (10) days following the effective date of the decision. Upon receipt of such request, the Star City Town Council shall request a report and recommendation from the Director and shall set the matter for administrative hearing at the earliest practical date. At said hearing, the Star City Town Council may hear additional evidence, and may revoke, affirm or modify the earlier decision. Such decision shall be final, subject to appeal to a Court of competent jurisdiction.

#### 934.33 DISCLAIMER OF LIABILITY.

The degree of protection required by this article is considered reasonable for regulatory purposes. The standards set forth herein are minimum standards and this article does not imply that compliance will ensure that there will be no unauthorized discharge of pollutants into the waters of the State. This article shall not create liability on the part of the City, any agent or employee thereof for any damages that result from reliance on this article or any administrative decision lawfully made thereunder.

# **Pollution Protection Plan for Star City, WV**

Ground/Storm Water Protection Plan

## **General Project Information**

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Plan for :  
Mailing Address:

**Town of Star City  
370 Broadway Street  
Star City, WV 26505  
Monongalia County, WV  
(304)599-5080**

Phone Number:

## **Introduction**

This Pollution Protection Plan (PPP) has been prepared for Town of Star City located in, Monongalia County, West Virginia. The plan fulfills requirements described in 47 CSR 58 – Ground/Storm Water Protections Regulations and 40 CFR 122 Storm Water Protection regulations.

Regulations require all establishments holding NPDES permits are required to develop and implement a Pollution Protection Plan (PPP) based on activities that may reasonably be expected to contaminate Ground/Storm Water and /or storm water and procedures designed to protect Ground/Storm Water and /or storm water from identified potential contamination sources. The plan must be maintained on-site at all times.

The PPP may be reviewed at any time by the director of the Division of Environmental Protection (DEP) or his/ her authorized designee. Upon review of the PPP, additional data may be requested to evaluate the plan, and modifications may be required to ensure adequate protection of Ground/Storm Water resources.



## **Inventory of Operations**

Regulations specify that a comprehensive PPP include an inventory of all operations that may reasonably be expected to contaminate the ground/storm water or resources with an indication of the potential for soil and ground/storm water contamination from those operations.

The Town of Star City is a municipality situated on approximately 303.4 acres of land that is adjacent to the Monongahela River and the City of Morgantown, WV. The following inventory identifies the sources of potential ground/storm water contamination and the protection procedures associated with the facility operation. This inventory includes the specified potential contaminants, listed below, to be addressed as required in the regulations.

- Fertilizers/Herbicides/Pesticides
- Batteries/ Battery Acid
- Fuel
- Lubricants (Oil/Grease)
- Vehicle Maintenance & Washing
- De-icing Material Storage & Use
- Road & Parking Lot Maintenance
- Building Maintenance

## **FERTILIZERS/HERBICIDES/PESTICIDES**

### **Pollution Prevention Measures**

- \* The Town of Star City will not store any fertilizers, herbicides or pesticides within the Town. If use of any of these materials is to be done the material will be brought onto the town and removed the same day.
- \* Use these materials sparingly and as directed by the manufacture.
- \* Use only in dry weather,
- \* Use mechanical measures when possible
- \* Disposal of unused fluids will be conducted by a certified contractor and properly collected and disposed off-site.

### **Identified Potential Sources of Ground/Storm water Contamination**

- Incorrect use of noted materials.
- Use of material in wet weather



### **BATTERIES/ BATTERY ACID**

The only potential of contamination would be from the vehicles or equipment (mowers, trucks, dump trucks, Garbage truck etc.) that would be working in the town.

#### **Pollution Prevention Measures**

- \* Batteries and/or battery acid will not be stored within the Town.
- \* Spill kits are deployed at strategic locations.
- Disposal of old batteries will be conducted by a certified contractor and properly collected and disposed off-site.

#### **Identified Potential sources of Ground/Storm Water Contamination**

- Batteries on equipment or vehicles being damage and leaking

### **FUEL**

The only potential for contamination would be from the gas cans, gas powered equipment and trucks that would be working within the Town.

#### **Pollution Prevention Measures**

- \* Fuel will not be stored within the Town, except for small amounts kept in gas cans for re-fueling small gas powered equipment such as weed whackers, chain saws, leaf blowers etc.
- \* Spill kits are deployed at strategic locations.

#### **Identified Potential Sources of Ground/Storm Water Contamination**

- Fuel tanks on the equipment or trucks being damaged and leaking.
- Fuel containers that get knocked over or damaged.
- Disposal of spent fluids or unused fluids is conducted by a certified contractor and properly collected and disposed off-site.

### **LUBRICANTS (OIL/GREASE)**

The only potential for contamination would be from leaking equipment or trucks.

#### **Pollution Prevention Measures**

- \* Lubricants, including oil, and grease will not be stored in the Town.
- \* Spill kits are deployed at strategic locations.

#### **Identified Potential Sources of Ground/Storm Water Contamination**

- Lubricated parts on the equipment being damaged and leaking
- Disposal of spent fluids or unused fluids is conducted by a certified contractor and properly collected and disposed off-site.

## **VEHICLE & EQUIPMENT MAINTENANCE & WASHING**

### **Pollution Prevention Measures**

Town vehicles will be washed in a facility that does not discharge into a water way.

Vehicle maintenance will not be done outside it will be done inside in a facility that can trap any escaping pollutants including parts cleaning fluids.

### **Identified Potential Sources of Ground/Storm Water Contamination**

- Damaged and/or leaking vehicles within the Town
- Disposal of spent fluids or unused fluids is conducted by a certified contractor and properly collected and disposed off-site.

## **DE-ICING STORAGE & USE**

### **Pollution Prevention Measures**

- \* The storage of De-icing materials will not be in the Town.
- \* The use of de-icing materials will be kept to a minimum.

### **Identified Potential Sources of Ground/Storm Water Contamination**

- De-icing materials entering the storm system

## **ROAD & PARKING LOT MAINTENANCE**

Road & Parking lot maintenance, including pot hole repair, pavement marking, sealing and re-paving.

Street sweeping and inlet cleaning

### **Pollution Prevention Measures**

- \* Conduct road and parking lot repair during dry weather
- \* Street sweeping is conducted in the Spring to pick up salt, sand and cinders from de-icing and in the fall to aid in leaf removal to keep these pollutants out of the storm water system.
- \* Inlet cleaning is performed annually in the fall after leaves have fallen or as needed.

### **Identified Potential Sources of Ground/Storm Water Contamination**

- De-icing materials entering the storm system
- Leaves and trash entering the storm system
- Sediment entering the storm system

### **BUILDING MAINTENANCE**

The town does some minor exterior repairs to the City Hall/Police Department building and the Rail Trail Restroom building along with yard and landscape maintenance.

### **Pollution Prevention Measures**

- \* All painting will be done with water-based paints and clean up will be done in a sink discharging to the sewer system.
- \* All trash picked up will be disposed of in an acceptable manner and sent to the landfill.

### **Current Active Permits**

<u>PERMIT TYPE</u>	<u>PERMIT NUMBER/ EFFECTIVE DATE</u>
<b>NPDES permit</b>	<b>WV0116025/June 22 2009</b>

### **Additional Information Regarding Existing Ground Water Quality**

- Closest surface water body: **Monongahela River/Popenoe Run**
- Distance to closest surface water body: **Varies**
- Depth of ground water (if known): **Not known**
- Known ground water monitoring wells within 2000 feet: **Not Known**
- Known public or private drinking water wells within 2000 feet: **Morgantown Utility**

**Board (MUB) supplies water services to this area**

- Closest Well Head Protection Area: **Not Known**
- Closest Source Water Protection Area: **Not Known**

### **Waste Clarification**

Ground/Storm Water regulations require facilities to clarify that certain waste disposal activities will not occur. Therefore, this section of the PPP serves as certification that no wastes be used for deicing, fills, or in any manner that could negatively impact soil or Ground/Storm Water, unless provided for in existing regulations.



### **Employee Training**

Employees will be trained and instructed on the components and goals of the PPP and its consistency with other protection plan(s). They will be notified of their individual responsibility to protect Ground/Storm Water.

The training will emphasize good housekeeping practices, spill prevention and response, and proper job procedures designed to protect Ground/Storm Water resources. The locations of facility spill kits, other spill containment equipment, and cleaning supplies will be reviewed. Employee suggestions on new job procedures to protect Ground/Storm Water from identified potential contamination sources will be encouraged during training sessions. Each employee's training will be documented.

### **Quarterly Inspections**

Ground/Storm Water protection regulations require that quarterly inspections be conducted to ensure that all elements and equipment of this PPP are in place, properly functioning, and appropriately managed. Additionally, facility or operational changes and the effectiveness of the employee-training program will be evaluated.

## **SPILL RESPONSE PLAN**

### **Reporting spills**

Should any employee during the course of their regular duties encounter a non-storm water discharge or a chemical spill, regardless of size, shall immediately **contact the director of Public Works.**

The employee and the director of Public works should take steps to determine whether the spill has the potential to affect the environment or endanger public health and safety. If the spill meets any of the criteria then 911 MUST be contacted or the National Response Center at 800-424-8802. The WV State Emergency Spill Notification Center MUST be called at 1-800-642-3074 and WVDEP Fairmont Regional environmental Enforcement Office 304-368-3960.

For Illicit discharges suspected of being sanitary sewage and /or significantly contaminated must be investigated first, eliminated and/or resolved. All illicit discharge investigations must be completely documented and a copy of the report added to the file kept at City Hall.



## Pennsylvania StreamStats

### Streamstats Ungaged Site Report

Date: Tue Dec 7 2010 08:23:10 Mountain Standard Time

Site Location: Pennsylvania

NAD27 Latitude: 39.6561 (39 39 22)

NAD27 Longitude: -79.9926 (-79 59 33)

NAD83 Latitude: 39.6562 (39 39 22)

NAD83 Longitude: -79.9924 (-79 59 33)

Drainage Area: 1.661 mi<sup>2</sup>

Low Flow Basin Characteristics			
100% Low Flow Region 4 (1.66 mi <sup>2</sup> )			
Parameter	Value	Regression Equation Valid Range	
		Min	Max
Drainage Area (square miles)	1.66 (below min value 2.26)	2.26	1400
Mean Basin Elevation (feet)	1090	1050	2580

*Warning: Some parameters are outside the suggested range. Estimates will be extrapolations with unknown errors.*

Mean/Base-flow Basin Characteristics			
100% Statewide Mean and Base Flow (1.66 mi <sup>2</sup> )			
Parameter	Value	Regression Equation Valid Range	
		Min	Max
Drainage Area (square miles)	1.66 (below min value 2.26)	2.26	1720
Mean Basin Elevation (feet)	1090	130	2700
Mean Annual Precipitation (inches)	41.000	33.1	50.4
Percent Carbonate (percent)	0.0000	0	99
Percent Forest (percent)	10.9383	5.1	100
Percent Urban (percent)	83.1613	0	89

*Warning: Some parameters are outside the suggested range. Estimates will be extrapolations with unknown errors.*

Peak Flow Basin Characteristics			
100% Peak Flow Region 4 (1.66 mi <sup>2</sup> )			
Parameter	Value	Regression Equation Valid Range	
		Min	Max
Drainage Area (square miles)	1.66	0.92	1720



Mean Basin Elevation (feet)	1090	533	2700
Percent Carbonate (percent)	0.0000	0	42
Percent Urban (percent)	83.1613 (above max value 67)	0	67
Percent Storage (percent)	0.0000	0	2.4

*Warning: Some parameters are outside the suggested range. Estimates will be extrapolations with unknown errors.*

Low Flow Streamflow Statistics					
Statistic	Flow (ft <sup>3</sup> /s)	Standard Error (percent)	Equivalent years of record	90-Percent Prediction Interval	
				Minimum	Maximum
MZD2Y	0.0462				
M30D2Y	0.0365				
MZD10Y	0.0146				
M30D10Y	0.0297				
M90D10Y	0.0581				

Mean/Base-flow Streamflow Statistics					
Statistic	Flow (ft <sup>3</sup> /s)	Standard Error (percent)	Equivalent years of record	90-Percent Prediction Interval	
				Minimum	Maximum
QA	2.5				
QAH	0.58				
BF10YR	0.66				
BF25YR	0.54				
BF50YR	0.55				

Peak Flow Streamflow Statistics					
Statistic	Flow (ft <sup>3</sup> /s)	Prediction Error (percent)	Equivalent years of record	90-Percent Prediction Interval	
				Minimum	Maximum
PK2	102		4		
PK5	187		7		
PK10	260		10		
PK50			13		
PK100	573		13		
PK500	898		12		



## Basin Characteristics Report

Date: Tue Dec 7 2010 08:21:16 Mountain Standard Time

NAD27 Latitude: 39.6561 (39 39 22)

NAD27 Longitude: -79.9926 (-79 59 33)

NAD83 Latitude: 39.6562 (39 39 22)

NAD83 Longitude: -79.9924 (-79 59 33)

Parameter	Value
Stream density (miles/square mile)	2.02
Depth to rock in feet	4.075
Percent of area covered by forest	10.9383
Total stream length in miles	3.35
Area in square miles	1.661
Unadjusted basin slope, in degrees	5.2639
Mean annual precipitation in inches	41.000
Percent of area covered by lakes, ponds, reservoirs and wetlands	0.0000
Percent of area covered by glacial activity	0.0000
Mean Basin Elevation in feet	1090
Percent of area covered by urban	83.1613
Percent of area covered by carbonate bedrock	0.0000
Adjusted basin slope, in degrees	5.06



## 2010 Section 303(d) List

Stream Name	Stream Code	Criteria Affected	Source	Impaired Size (stream-miles) (lake-acres)	Reach Description	Projected TMDL Year (No Later Than)	2008 list?
Indian Creek	WVLKH-9-J	CNA-Biological	Unknown	7.5	Mouth to RM 7.5	2017	Yes
Bone Creek	WVLKH-9-X	CNA-Biological	Unknown	7.8	entire length	2022	Yes
Middle Fork/South Fork/Hughes	WVLKH-9-AA	CNA-Biological	Unknown	11.0	Entire length	2017	Yes
Beech Run	WVLKH-10-R-4-A	CNA-Biological	Unknown	1.3	Entire length	2022	Yes
<b>STEER CREEK SUBWATERSHED</b>							
Rush Run	WVLKS-4	CNA-Biological	Unknown	3.0	Entire length	2017	Yes
Right Fork/Steer Creek	WVLKS-9	CNA-Biological	Unknown	25.4	Entire length	2017	Yes
Left Fork/Steer Creek	WVLKS-10	CNA-Biological	Unknown	24.5	Entire length	2017	Yes
White Oak Run	WVLKS-10-D	CNA-Biological	Unknown	1.9	Entire length	2017	Yes
Steer Run	WVLKS-10-E	CNA-Biological	Unknown	5.1	Entire length	2017	Yes
Bender Run	WVLKS-10-P	CNA-Biological	Unknown	2.5	Entire length	2017	Yes
<b>WEST FORK SUBWATERSHED</b>							
Laurel Run	WVLKW-15-F	CNA-Biological	Unknown	5.2	Entire length	2022	Yes
Sang Run	WVLKW-15-I-9	CNA-Biological	Unknown	1.6	Entire length	2022	No
<b>LOWER NEW WATERSHED - HUC# 050500004</b>							
				3 stream 14 miles			
Fern Creek	WVKN-11	pH	Unknown	6.2	Entire length	2022	Yes
Hamilton Branch	WVKN-22-D-1	CNA-Biological	Unknown	2.9	Entire length	2022	No
Bowyer Creek	WVKN-26-M	CNA-Biological	Unknown	4.4	Entire length	2022	No
<b>MONONGAHELA WATERSHED - HUC# 050200003</b>							
				18 streams 135 miles			
Monongahela River	WVM	Fecal Coliform	Unknown	37.5	Entire length	2017	Yes
UNT/Camp Run RM 0.79	WVM-2.1-A	CNA-Biological	Unknown	1.5	Entire length	2012	Yes
Dillian Creek	WVM-8-G	pH	Unknown	5.4	Entire length	2012	No
UNT/Kanes Creek RM 2.36	WVM-8-I-0.9	Aluminum (d)	Unknown	0.6	Entire length	2012	No
		pH	Unknown	0.6	Entire length	2012	No

## 2010 Section 303(d) List

Stream Name	Stream Code	Criteria Affected	Source	Impaired Size (stream-miles) (lake-acres)	Reach Description	Projected TMDL Year (No Later Than)	2008 list?
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UNT/Kanes Creek RM 2.49	WVM-8-I-1	Aluminum (d)	Unknown	0.8	Entire length	2012	No
		Iron	Unknown	0.8	Entire length	2012	Yes
		pH	Unknown	0.8	Entire length	2012	Yes
UNT/Deckers Creek RM 18.48	WVM-8-J	Lead	Unknown	1.5	Entire length	2012	Yes
Cobun Creek	WVM-9	pH	Unknown	2.4	RM 7.9 to HW	2012	Yes
Indian Creek	WVM-17	CNA-Biological	Unknown	9.4	Entire length	2012	Yes
Grassy Run	WVM-19-E	CNA-Biological	Unknown	2.5	Entire length	2012	Yes
Paw Paw Creek	WVM-22	CNA-Biological	Unknown	14.4	Entire length	2012	Yes
Buffalo Creek	WVM-23	CNA-Biological	Unknown	30.2	Entire length	2012	Yes
UNT/Finchs Run RM 1.15	WVM-23-B-1	CNA-Biological	Unknown	1.6	Entire length	2012	Yes
UNT/Bethel Run RM 0.81	WVM-23-E-0.5-A	CNA-Biological	Unknown	1.7	Entire length	2012	No
Mahan Run	WVM-23-L	CNA-Biological	Unknown	3.6	Entire length	2012	Yes
Pyles Fork	WVM-23-O	CNA-Biological	Unknown	11.0	Entire length	2012	Yes
Campbell Run	WVM-23-O-7	CNA-Biological	Unknown	3.0	Entire length	2012	Yes
Dents Run	WVM-23-P	CNA-Biological	Unknown	5.1	Entire length	2012	Yes
Whetstone Run	WVM-23-Q	CNA-Biological	Unknown	2.6	Entire length	2012	Yes

## UPPER NEW WATERSHED - HUC# 05050002

2 Lakes 2110 acres 4 streams 81 miles

Bluestone Lake	WVKN-(L1)	PCBs	Unknown	2040.0	Entire length	2017	Yes
East River	WVKN-60	CNA-Biological	Unknown	6.9	RM 16.0 to HW	2022	Yes
<b>BLUESTONE RIVER SUBWATERSHED</b>							
Bluestone River	WVKNB	PCBs	Unknown	67.1	Entire length	2017	Yes
UNT/Jumping Branch RM 2.48	WVKNB-3-C-1-E	CNA-Biological	Unknown	0.9	Entire length	2022	No
Kee Reservoir	WVKNB-12-J-2-(L1)	PCBs	Unknown	70.0	Entire length	2017	Yes
Widemouth Creek	WVKNB-28	Iron (trout) AQ	Unknown	6.6	Entire length	2022	No



## Supplemental Table E - Total Aluminum TMDLs

Stream Name	Stream Code	Criteria	TMDL Date
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**HYDROLOGIC GROUP D****LITTLE KANAWHA WATERSHED - HUC# 05030203**

Little Kanawha River	WVLK	Aluminum (tot)	2000
Reedy Creek	WVLK-25	Aluminum (tot)	2000
Spring Creek	WVLK-31	Aluminum (tot)	2000
Sand Fork	WVLK-86	Aluminum (tot)	2000
Oil Creek	WVLK-94	Aluminum (tot)	2000
Saltlick Creek	WVLK-95	Aluminum (tot)	2000

**LOWER NEW WATERSHED - HUC# 05050004**

Dunloup Creek	WVKN-22	Aluminum (tot)	2002
Meadow Fork	WVKN-22-B	Aluminum (tot)	2002

**MONONGAHELA WATERSHED - HUC# 05020003**

Monongahela River	WVM	Aluminum (tot)	2002
Camp Run	WVM-2.1	Aluminum (tot)	2002
UNT/Monongahela River RM 92.0	WVM-2.6	Aluminum (tot)	2002
Laurel Run	WVM-2.7	Aluminum (tot)	2002
West Run	WVM-3	Aluminum (tot)	2002
Robinson Run	WVM-4	Aluminum (tot)	2004
Crafts Run	WVM-4-A	Aluminum (tot)	2002
UNT/Robinson Run RM 1.09	WVM-4-B	Aluminum (tot)	2002
Scotts Run	WVM-6	Aluminum (tot)	2002
Dents Run	WVM-7	Aluminum (tot)	2002
UNT/Dents Run RM 3.57	WVM-7-C	Aluminum (tot)	2002
Deckers Creek	WVM-8	Aluminum (tot)	2002
Hartman Run	WVM-8-0.5A	Aluminum (tot)	2002



## Supplemental Table E - Manganese TMDLs

Stream Name	Stream Code	Criteria	TMDL Date
<b>HYDROLOGIC GROUP D</b>			
<b>LOWER NEW WATERSHED - HUC# 05050004</b>			
Meadow Fork	WVKN-22-B	Manganese	2002

**MONONGAHELA WATERSHED - HUC# 05020003**

Camp Run	WVM-2.1	Manganese	2002
UNT/Monongahela River RM 93.07	WVM-2.6	Manganese	2002
Laurel Run	WVM-2.7	Manganese	2002
West Run	WVM-3	Manganese	2002
Robinson Run	WVM-4	Manganese	2002
Crafts Run	WVM-4-A	Manganese	2002
UNT/Robinson Run RM 1.09	WVM-4-B	Manganese	2002
Scotts Run	WVM-6	Manganese	2002
Dents Run	WVM-7	Manganese	2002
UNT/Dents Run RM 3.60	WVM-7-C	Manganese	2002
Deckers Creek	WVM-8	Manganese	2002
Hartman Run	WVM-8-0.5A	Manganese	2002
UNT/Deckers Creek RM 5.70	WVM-8-A.7	Manganese	2002
Gladly Run	WVM-8-D	Manganese	2002
Slabcamp Run	WVM-8-F	Manganese	2002
Dillan Creek	WVM-8-G	Manganese	2002
Laurel Run/Deckers Creek	WVM-8-H	Manganese	2002
Kanes Creek	WVM-8-I	Manganese	2002
Owl Creek	WVM-10-D	Manganese	2002
Mays Run	WVM-10-E	Manganese	2002
UNT/Booths Creek RM 6.27	WVM-10-F	Manganese	2002

Supplemental Table E - Manganese TMDLs

Stream Name	Stream Code	Criteria	TMDL Date
Birchfield Run	WVM-15	Manganese	2002
Parker Run	WVM-20	Manganese	2002
UNT/Monongahela River RM 123.45	WVM-20.2	Manganese	2002
Robinson Run	WVM-22-C	Manganese	2002
Mod Run	WVM-23-K	Manganese	2002
Fleming Fork	WVM-23-N-1	Manganese	2002
Whetstone Run	WVM-23-Q	Manganese	2002
Joes Run	WVM-23-R	Manganese	2002
UMT/Monongahela River RM 126.94	WVM-22.9	Manganese	2001
UNT/Monongahela River RM 128.55	WVM-25.9	Manganese	2002