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WV Phase II Watershed Implementation Plan (WIP)
Developed Lands and Industrial Work Group
Kick-off Meeting

Wednesday, May 11, 2011 9:30 a.m. – 11:30 a.m.

A G E N D A

I. Introductions

II. Presentation: Overview of the WV Phase I and II WIP

III. Expectations of Local Partners for Phase II WIP

A. Understand level of effort expected to meet Bay TMDL allocations
B. Describe their plans, measures, and strategies to reduce loads
C. Identify assistance, resources, and authorities needed to implement the plans, measures, and strategies to reduce loads

IV. Discussion of WIP Issues (See attached list)

A. What plans, measures, and strategies have you put into practice to address Bay issues in the past five years?
B. What plans, measures, and strategies have you decided to enact or put into practice in the next two years (or what obligations are you addressing in the near-term)?
C. What plans, measures, and strategies are being discussed or considered for the future?
D. What compliance issues or best management practices do you need information on or have questions about?
E. How will your plans, measures, or strategies be implemented?
    1. Physical infrastructure installation or upgrades (point sources)
    2. Onsite structures for stormwater management
    3. Ordinances
    4. Public Education/Outreach
    5. Collaboration and coordination
    6. Other

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F. What resources are needed for implementation?
   1. Technical Assistance
   2. Collaboration
   3. Public Education and Outreach
   4. Staffing
   5. Funding

G. From the findings above:
   1. Which compliance issues of significant concern? Prioritize
   2. Which strategies are of significant importance? Prioritize
   3. What issues are missing from the list?

V. Upcoming Strategy Meetings and Summit

A. Schedule

B. Objectives

VI. Wrap-up

Developed Lands and Industrial Work Group: WIP Issues

I. Municipal Separate Storm Sewer Systems (MS4)

A. Possible designation for Ranson, Charles Town, and Shepherdstown
B. Must submit stormwater management programs (SWMPs)
C. Accelerate implementation of capture requirements
D. Track land use conversion that result from development
E. Implement SWMP by 2015
F. Must develop stormwater ordinances

II. Construction Stormwater

A. Decreased acreage overtime
B. Loading reductions
C. Subdivision and Stormwater Ordinances

III. Industrial Activity and Mining addressed by permitting and requirements

IV. Non-regulated Developed Lands

A. Stormwater Management
    1. Retrofit existing developed areas to provide enhanced stormwater management
    2. Revise subdivision and stormwater ordinances to complement WIP.
        a) Adopt model stormwater ordinance
        b) Reconcile existing codes and ordinances to remove barriers and make regulations complementary to improving water quality
        c) Determine how to better control pollution loads from new and existing development
        d) Remove grandfathering of previously platted, undeveloped subdivisions to require them to meet subdivision and stormwater requirements
        e) Require stormwater retrofits or enhanced stormwater management at re-development sites
    3. Establish stormwater utilities to facilitate a dedicated funding stream to address stormwater priorities such as maintenance and installation of stormwater management retrofits.
    4. Establish local authority and capacity to regulate post-construction stormwater (through MS4 permit or other options)
    5. Incentivize runoff reduction practices for new and existing developments
    6. Develop performance standards for institutions/public facilities
    7. Build capacity for runoff reduction from public facilities

B. Septic System Management
    1. Build capacity for septic system management through establishment of a management entity
    2. Require regular inspections/maintenance and scheduled pumping
    3. Through education and economic incentives, reduce number of failing septic systems
    4. Increase capacity at wastewater treatment plants for septage reception and treatment
    5. Through education and economic incentives, encourage existing septic system owners to have advanced nitrogen removal technology installed
    6. Mandate conversion to denitrifying septic systems within floodplains and priority watersheds
    7. Require new and replacement septic systems have advanced nitrogen removal technology
    8. Prohibit new septic systems in the 100-year floodplain
    9. Encourage health department to require structures close to streams to have more rigorous pollution prevention controls on septic systems
C. Nutrient Management
    1. Manage fertilizer application on developed lands
    2. Regulate fertilizer application on developed lands
    3. Disincentivize large lawns through turf tax or incentivize tree planting to replace large lawns
    4. Regulations to cease mowing along streams
D. Best Management Practices
    1. Riparian buffers
    2. Streambank restoration
    3. Floodplain restoration
    4. Stormwater infiltration/filtration practices, including rain gardens, swales, and rain barrels
    5. Tree planting and cover
        a) Protect existing trees in general, particularly along stream
        b) Increase tree cover, particularly along stream
        c) Develop Tree Cover Goals/Tree Protection Ordinance
    6. Education on Best Management Practices
        a) Developers/Builders
        b) Institutions and Businesses
        c) Homeowners
        d) Students

E. Capacity Building
   1. Provide counties and local governments with nutrient load goals and the type and amount of BMPs that could be implemented to achieve these goals, with timely updates on local progress
   2. Increase capacity for more stringent enforcement of ordinances and regulations that protect water quality e.g. riparian buffer protection
   3. Enable state or local authority/capacity to regulate post-construction stormwater
   4. At the county level, incentivize runoff reduction practices for new and existing developments, using methods such as:
      a) Assessing lower impact fees for subdivisions designed to minimize runoff
      b) Assessing an impervious cover fee that gives credit for runoff reduction
   5. Provide counties and local governments with WVDEP incentive funds to develop or enhance regulatory and accountability programs
   6. Build capacity in stormwater management among local government staff and practitioners
   7. Create a new, possibly jointly funded, Chesapeake Bay Liaison position in the Eastern Panhandle to actively work with the three counties and several incorporated municipalities to reduce loads from developed lands. If needed, this position could be expanded into a program modeled after Virginia's Chesapeake Bay Local Assistance Program.
   8. The state agencies and Chesapeake NEMO (Network for Education of Municipal Officials) should provide as many tools and resources as possible to increase understanding by municipal and county governments and boards of health that the ordinances, codes and rules that can limit nutrients and sediment from newly developed areas can be enacted and enforced at the local level
   9. Require Comprehensive Plans to include environmental and natural resource elements and Chesapeake Bay TMDL implementation language for jurisdictions within the Potomac basin. This would require an amendment to the state land use planning code.
   10. Enable counties and municipalities to form stormwater utilities to maintain stormwater practices and to fund stormwater retrofits.
   11. Track BMP's
   12. Ongoing working group of stakeholders
   13. Build local capacity (social infrastructure) for voluntary implementation in the form of watershed associations and Community Environmental Management (CEM).
      a) Engage homeowners to promote voluntary implementation
      b) Provide technical assistance to homeowners

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TO: Carol Goolsby, Executive Director
Region 9, Eastern Panhandle Regional Planning & Development Council

FROM: Troy Truax, Vice President

SUBJECT: **Developed Lands and Industrial Work Group – Meeting Summaries, May 11, 2011 and June 8, 2011**
Region 9 Chesapeake Tributary Strategy Development (P.11036.00)

DATE: July 6, 2011

Developed Lands and Industrial Work Group – Kick-off Meeting
May 11, 2011

The purpose of the Kick-off Meeting of the Developed Lands and Industrial Work Group, held on May 11, 2011, was to welcome and introduce work group members, define their respective roles and responsibilities, provide an overview of the West Virginia Department of Environmental Protection's (WVDEP) Chesapeake Bay Total Maximum Daily Load (TMDL) and Phase I Watershed Implementation Plan (WIP), and discuss concerns and opportunities associated with the U.S. Environmental Protection Agency (EPA) Chesapeake Bay TMDL mandate. Another goal of the meeting was to set the course for the work group to subsequently conduct strategy sessions to develop specific work plans for inclusion in the Phase II WIP.

The meeting lasted from 9:30 a.m. until 11:30 a.m., and the following were in attendance:

- Joe Hankins, The Conservation Fund and Jefferson County PSD
- Carla Coffey, EPHBA and The Arcadia Companies
- Jason Gerhart, EPHBA and Gordon Associates
- Kim Shrader, Berkeley County Engineering
- Matthew Pennington, Berkeley County Planning
- Rick Curry, B&R Design
- Alma Gorse, Morgan County Planning
- Jennie Brockman, Jefferson County Planning & Zoning
- Andy Blake, City of Ranson
- John McVey, *The Journal*
- Alana Hartman, West Virginia Department of Environmental Protection (WVDEP)
- Carol Goolsby, Region 9
- Christina Mellors, Tetra Tech
- Troy Truax, Delta Development Group (Delta)
- Lisa Byers, Delta Development Group

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Summary of Key Issues

The following summarizes the meeting discussion and the key outcomes:

- The meeting began with a presentation by Troy Truax, Delta, and Alana Hartman, WVDEP. Troy overviewed the importance of convening the work groups to ensure their collective interests, concerns, and future efforts are well coordinated to formulate a comprehensive approach to achieve the TMDL standards included in the Phase I WIP's implementation process. Alana summarized past Chesapeake Bay activities, significant findings, and goals of the Phase I WIP.

- The group asked if the TMDL is going to change between now and 2025.

  Response: A new model is currently being developed and will be published in July 2011. The goals and objectives of the West Virginia Phase I WIP were accepted by EPA and are now the basis for current and future strategies established to meet these goals and objectives. For the Developed Lands and Industrial Sector, there is not a requirement to reduce loading, but the central objective is that there is no new increase in the Sector's loading. The strategies of the Phase I WIP are designed to balance new growth with voluntary best management practices.

- The group asked if the TMDL will continue to change.

  Response: After this summer, the next time the model will be updated and published is 2017.

- The group asked if the TMDL is lower than the current level of polluting.

  Response: For West Virginia, the collective answer is no, though individual sectors or facilities may exceed pollution goals.

- The group had questions about municipal separate storm sewer systems (MS4s). MS4 requirements are tied to urbanized area designations as determined by the U.S. Census Bureau. What is the definition of an urbanized area and to which local governments does it apply? What are the impacts of being designated an urbanized area and what are the MS4 requirements?

  Response: WVDEP's MS4 Coordinator, Sherri Wilkins, will be invited to the next meeting to brief the group on MS4s and to answer questions.

- Is there funding available to assist with meeting the MS4 requirements?

  Response: WVDEP noted that there is a Chesapeake Bay Implementation Grant that has been available in previous years. Also, EPA, through the National Fish and Wildlife Foundation, provides Small Watershed Grants. Finally, it was noted that MS4 regulations enable a local government entity to set up a stormwater utility.

- The group thought that it was important that the urbanized area designation and MS4 requirements be discussed with the elected officials during their work group meeting. The group also thought that the elected officials should meet collectively on a regular basis to discuss Chesapeake Bay issues.

  Response: The Elected Officials Work Group, that is part of this Region 9 Phase II WIP project, will provide the start of a collective forum to discuss Bay issues. They will also be briefed on the urbanized area designation and MS4 requirements.

- At a recent Eastern Panhandle's Council of Government, it was noted that there was consideration by the group of hiring a central staff person to account for agricultural and stormwater BMPs and to facilitate Chesapeake Bay issues. Region 9 noted that there is an EPA grant available to fund this staff person for one year. This funding will support the position at a ratio of 75 percent to 25 percent local match. Further discussion has occurred on this staff position and Carol Goolsby, Region 9 Executive Director, will present a proposal before her board on Monday, May 16, 2011.

- There was discussion on a Nutrient Credit Trading Program (NCTP). WVDEP has a draft guidance document available on its website. It will not be finalized until the new TMDL model is published and until sufficient information is available to establish a baseline for the sectors. Geo-spacial land use data is needed to help establish the baseline, though there have been hurdles with assessors approving the release of the data. In general, the developed lands sector is very interested in seeing the NCTP become available for use.

- There was some discussion on point source loading, including an expression of concern over the tight regulation of significant wastewater municipal facilities and those close to the Bay, while nonsignificant wastewater municipal facilities are part of a general permit and could individually be significantly contributing to Bay loading. It was thought that this challenge should be identified in the Phase II WIP.

- There was a recommendation that the Region 9 Chesapeake Bay Summit should highlight positive efforts to reduce loading, as well as areas where the region is falling behind in holding the line on loading.

- There was discussion about the development of a BMP inventory for Region 9 TMDL stakeholders. A BMP inventory should capture who has comprehensive plans, applicable geo-spacial data, stormwater ordinances, and wellhead ordinances geared to Chesapeake Bay concerns and issues.

- It was commented that staffing among the local governments to address Chesapeake Bay issues is lacking, so regulating and permitting are very challenging tasks.

- It was suggested that incentives should be offered for implementing measures that hold the line or reduce loading, such as stormwater ordinances. One such incentive could be tied to insurance. FEMA flood insurance is a possible model. A tax abatement program is another possible incentive. Another could be a land development certification, like the Leadership in Energy & Environmental Design (LEED) program. Another option could be a system of fees, such that if you perform positive actions you get a reduction in fees. Another suggested consideration would be to have stormwater management or other load reduction options regulated through the building permit system. Also suggested as an incentive was to fund the implementation of Community Environmental Management systems in the region. Most of the incentives mentioned may require the state legislation to enact.

- It was suggested that West Virginia may look to Maryland's Standard Plan for stormwater management. The Standard Plan includes multiple environmental site design practices.

- The question was posed whether there are incentives for the Agriculture Sector to implement BMPs. Pennsylvania's Nutrient Credit Trading Program was seen as an incentive in that state.

- Regarding NCTP and the Agriculture Sector, the sector's BMP are being inventoried. Once this inventory is assembled and a baseline is established, then the sector can participate in nutrient credit trading.

- There was a question about whether parcels of protected open space (no-build) could be recognized as such in future modeling or as credits in a trading program.

- In general, it was pointed out that when the water quality of the Chesapeake Bay improves, so also will local water quality.

- Regarding the scheduling of future meetings, July 13th was viewed as a more suitable meeting date than July 6th for the Second Strategy Session. Also, no concerns were expressed in holding the Region 9 Chesapeake Bay Summit on Wednesday, August 31, 2011.

- Finally, it was recommended that sector stakeholders visit the Chesapeake Bay section of Region 9's website. Among its useful information, especially for MS4s, are Low Impact Development Tools and Calculators.

Next Steps

- The WVDEP representatives that administer MS4 and nonpoint source programs will be invited to the First Strategy Session to be held on June 8, 2011.

- The focus of the First Strategy Session will be urbanized area determination, MS4 requirements, and the development of a stormwater BMP Inventory matrix.

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WV Phase II Watershed Implementation Plan (WIP)
Developed Lands and Industrial Work Group
First Strategy Session

Wednesday, June 8, 2011, 9:30 a.m. – 11:30 a.m.

A G E N D A

I. Introductions

II. Municipal Separate Storm Sewer Systems (MS4) – DEP Discussion

A. Possible MS4 designation for Ranson, Charles Town, and Shepherdstown

B. MS4 requirements pertinent to the WIP (pp.35 - 36)

1. Must develop and submit a Storm Water Management Plan (SWMP) with minimum control measures in six categories:
    a) Public education and outreach
    b) Public involvement and participation
    c) Illicit discharge detection and elimination
    d) Controlling runoff from construction sites
    e) Controlling runoff from new development and redevelopment
    f) Pollution prevention and good housekeeping for municipal operations
2. All new discharges in MS4 jurisdictions will be subject to the one inch capture and onsite management requirements
3. For the remaining, most difficult sites, possible option to develop a payment-in-lieu program or offset mitigation to address the runoff reductions
4. Possible incentives (reduction of capture amount) for redevelopment of sites e.g., brownfields, high density, mixed use, and transit oriented development

C. Summary Actions & Contingencies

1. Existing = Martinsburg, Berkeley County, and WVDOH - allocations for existing MS4s = 2010 NA loads - No reduction required (p.29)
2. Rainfall capture requirements for new and redevelopment expected to offset *new urban stormwater loads from development* w/in MS4 and elsewhere w/in Potomac watershed (p.29)
3. MS4 annual reports and Construction Stormwater General Permit (CSGP) program will track area, location, pre-development landuse and BMPs associated w/new/redevelopment. (p.29)

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4. Contingency – DEP will require the necessary level of retrofit in MS4s to attain wasteload goals. Retrofits will meet the capture requirement of .80 inches of rainfall on site with no discharge to surface waters. (p.40)

D. Other Considerations
   1. Establishing a stormwater utility
   2. Training to implement MS4 requirements
   3. Staffing to implement MS4 requirements

III. Construction Stormwater: Summary Actions & Contingencies – DEP Discussion

A. Reconfigure model landuse to accurately portray existing permitted area (p.29)
B. Decreased acreage overtime (2 year milestones) (p.29)
C. Loading reductions from "No Action" commensurate w/BMPs associated with existing permit requirements (p.29)
D. Low Impact Development encouraged in CSGP review (p.29)
E. MS4 annual reports and CSGP program will track area, location, pre-development landuse and BMPs associated w/new/redevelopment. (p.29)
F. Contingency – modify CSGP to require post-construction controls in Bay watershed such as one inch capture requirements (p.41)

IV. Non-regulated Developed Lands: Summary Actions & Contingencies – DEP Discussion

A. Allocations = 2010 NA - No reduction required (p.29)
B. *Future growth anticipated to be offset by voluntary BMPs in non-regulated areas*, in addition to the offsets from the required MS4 controls (p.29)
C. For the time period where stormwater discharges from Jefferson County entities are non-regulated, *WVDEP will track qualified BMPs that are installed through local authority*. *(other counties?)* (p.39)
D. *Contingencies* (if "no net increase" not achieved; 2015 assessment)
   1. Use Residual Designation Authority for MS4 in Jefferson County (p.29)
   2. Pursue a statewide SWMP Program with post construction requirements if EPA Nationwide regulations not finalized. *It has been reported that EPA is finalizing regulation to address post construction impacts outside of MS4 areas.* (pp.29,40)
E. Phase 1 WIP provides "menu" of strategies to be prioritized on the community level, including for (pp.50-53):
   1. Local governments
   2. Homeowners
   3. Septic systems
   4. Institutions
   5. *West Virginia seeks input from the community on these strategies for Phase II WIP development* **See Attachment A: Menu of BMPs**

V. Future Meetings & Actions

Developed Lands and Industrial Work Group – First Strategy Session
June 8, 2011

The purpose of the First Strategy Session of the Developed Lands and Industrial Work Group, held on June 8, 2011, was to begin to develop a work plan for inclusion in the Phase II WIP. The plan will outline the group's goals, objectives, and actions for refining the Phase I WIP strategies and identify solutions for mitigating the Phase I EPA-imposed backstop and oversight measures.

The meeting lasted from 9:30 a.m. until 11:30 a.m., and the following were in attendance:

- Alma Gorse, Morgan County Planning
- Katie See, City of Charles Town
- Rick Curry, B&R Design
- Matthew Pennington, Berkeley County Planning
- Mike Covell, City of Martinsburg Engineering & Planning
- Joseph Sladki, American Public University System, Charles Town
- Roger Goodwin, Jefferson County Engineering Department
- Jennie Brockman, Jefferson County Planning & Zoning
- Michael Schwartz, Freshwater Institute
- Carla Coffey, EPHBA and The Arcadia Companies
- Kristen Ringstaff, EPHBA and William Gordon Associates
- Suzanne Malesic, JCOHOA
- Kim Shrader, Berkeley County Engineering
- Sarah Kleckner, City of Ranson
- Andy Blake, City of Ranson
- Sherry Wilkins, WVDEP
- Teresa Koon, WVDEP
- Carol Goolsby, Region 9
- Sandy Patton, Region 9
- Christina Mellors, Tetra Tech
- Julie Wandling, Tetra Tech
- Troy Truax, Delta
- Lisa Byers, Delta

Summary of Key Issues

The following summarizes the meeting and the key outcomes:

- Troy Truax gave a brief recap of the Kick-off Meeting and some of the issues presented at that meeting, then Sherry Wilkins of WVDEP outlined West Virginia's MS4 program, briefed the group on EPA's proposed Stormwater Rulemaking, and answered questions.
    - Key criteria used by the U.S. Census Bureau to determine an urbanized area include a population of 50,000 and a density of 1,000 persons per square mile. The Census Bureau is not projected to make its determination of urbanized areas until May 2012.
    - The administration of the MS4 program is a permitted function, through a National Pollutant Discharge Elimination System (NPDES) permit.
    - A MS4 community must own a separate stormwater system. Jefferson County does not, so the designation does not apply to the county.

- The question was asked as to what the communities of Charles Town, Ranson, and possibly Shepherdstown should be doing in anticipation of a MS4 designation.

  Response: For Charles Town and Ranson, where the urbanized area designation is likely, it was suggested that they start the process of forming a stormwater utility. Stormwater infrastructure can either be maintained by the property owner when stipulated in a deed or by a municipal utility. It takes time to establish a utility.

- It was cautioned that past experience has demonstrated that it is not feasible to add the MS4 duties to those of the wastewater treatment facility operator. MS4 programs usually have dedicated staff administering them, but there is significant overlap with other municipal functions such as planning, zoning, flood control, and water quality. It is possible that the MS4 communities of Charles Town, Ranson, and Shepherdstown, if applicable, could share a staff person to run their MS4 programs. There are no federal or state programs available to fund this staff person.

- It was noted that EPA is drafting language that will mandate (anticipated by the end of 2012) Stormwater Management Plans with post construction requirements that will apply to areas not covered by MS4 permits. This is being known as the EPA Stormwater Rulemaking. If for some reason EPA does not move forward with this stormwater regulation, then WVDEP will establish stormwater management requirements that would include areas not currently covered by MS4 requirements. The requirements are likely to be the same as those found in the MS4 NPDES permits. The performance standard in these permits is the capture of the 90 percentile rainfall, which averages to a 1 inch capture rate. A recommended way of achieving this goal is by implementing Low Impact Development and green infrastructure principles.

- Some in the group were concerned that the requirements of MS4s will drive development to the non-urban areas that are not governed by MS4 permits. Such development, in areas of lesser regulation, could counteract the holding-the-line on loading achieved by the MS4 communities.

- Local governments can enact their own ordinances, with requirements similar to the MS4 permit, to counteract the perceived incentive for developers to target new activity in non-MS4 areas and to meet WV's obligations in the Bay.

- Retrofitting of existing development for stormwater management is currently not a requirement of MS4s nor is it required in WV's Phase I WIP. The Phase I WIP does include the contingency that if new development increases WV's nutrient load, DEP could require retrofits within existing MS4s. EPA could also make this a requirement in their Stormwater Rulemaking.

- There was a question of whether the MS4 permitting will apply to incorporated boundaries of a town/city or its urban growth boundary.

  Response: WVDEP clarified that permitting can apply to areas up to 20 miles from the incorporated community if this area is a watershed flowing into the community.

- WVDEP also noted that the courts have upheld regulations that apply to undeveloped land of a planned development, previously considered to be grandfathered.

- WVDEP clarified that "reasonable assurance" in the WIP means the situation is now being regulated or that the financial capacity and set aside of funding is available to implement strategies to hold-the-line or reduce loading.

- It was clarified that West Virginia's Chesapeake Bay loading with be evaluated every two years (2011, 2013, 2015, 2017, etc.). Decisions on implementing contingencies will occur at these benchmarks.

- The group would appreciate help in communicating to the elected officials that additional staffing and resources will be needed to comply with the MS4 requirements. Needless to say, this will have a financial impact.

- As expressed during the Kick-off Meeting, there was again a suggestion from the group that a central processing person or office should be set-up for the region to address Bay and MS4 issues. This could minimize cost and avoid multiple layers of effort.

- A draft Best Management Practices (BMP) Inventory matrix was handed out for discussion purposes. Data collected from the inventory may be inputted into the Scenario Builder, a computer simulation tool for watershed modeling.
  - It was recommended that the matrix have a section for BMPs that can be quantified in acreage or other area measurements.
  - Jefferson County noted that it is developing an Urban Tree Canopy Plan. This can be indicated in its BMP Inventory.
  - Regarding education and public participation practices, it is important to note that most homeowner associations meet only once a year for an annual meeting.
  - It was asked if there are special provisions for brownfield development. The response was brownfield redevelopment with stormwater management is strongly encouraged.
  - WVDEP noted that two of the most important BMPs are capturing the first one inch of stormwater and riparian buffers to protect waterways.
  - WVDEP pointed out that, relative to the load allocation, there are pluses and minuses to adding septic systems to public wastewater treatment systems. There is potential for a reduction of nitrogen loading, but an addition of phosphorus loading.
  - WVDEP recommended that the BMP inventory include a column noting what resources, authorities, or assistance is needed by local governments to implement a policy or practice or to install a stormwater BMP.

- Other thoughts and suggestions were offered by the work group participants:
  - From the perspective of the consumer and elected officials, it is important to consider what may be the long-term effects of the Chesapeake Bay requirements. It is anticipated than initially new development will prefer to locate in areas without stormwater regulation, but once the entire region is regulated, higher density areas where stormwater management is already addressed, may become more attractive.
  - It was pointed out that a septic system that incorporates denitrification technology can cost two to three times more than a conventional system.
  - Some states are regulating household products, such as water softener chemicals and dish and laundry detergent.

Next Steps

- The BMP Inventory matrix will be revised based on the meeting discussion and will be distributed to the work group participants electronically. Participants will be asked to fill-in the inventory matrix and return it in advance of the next meeting.

- The results of the BMP inventory compilation will be discussed at the next Strategy Session to be held on July 13, 2011.

cc: Alana Hartman

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WV Phase II Watershed Implementation Plan (WIP)
Developed Lands and Industrial Work Group
Second Strategy Session

Wednesday, July 13, 2011, 9:30 a.m. – 11:30 a.m.

A G E N D A

I. Introductions

II. MS4 Follow-up Discussion

III. Importance of Implementing and Tracking BMPs

A. WIP Inclusions/Requirements

1. Rainfall capture requirements for new and redevelopment expected to offset *new urban stormwater loads from development* w/in MS4 and elsewhere w/in Potomac watershed (p.29)
2. Future growth anticipated to be offset by voluntary BMPs in non-regulated areas, in addition to the offsets from the required MS4 controls (p.29)
3. For the time period where stormwater discharges from Jefferson County entities are non-regulated, *WVDEP will track qualified BMPs that are installed through local authority*. (p.39)
4. Phase 1 WIP provides "menu" of strategies to be prioritized on the community level (pp.50-53). *WVDEP seeks input from the community on these strategies for Phase II WIP development.*

B. Chesapeake Bay – Appendix S, (p.S-1): "Therefore, the Chesapeake Bay TMDL assumes and EPA expects that the jurisdictions will accommodate any new or increased loadings of nitrogen, phosphorus, or sediment that lack a specific allocation in the TMDL with appropriate offsets supported by credible and transparent offset programs subject to EPA and independent oversight.

IV. Methodology for Determining Offsets – WVDEP

A. Process

B. Tracking

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V. Tracking Stormwater BMPs

A. WVDEP Urban and Suburban BMP Reporting Form — Attachment A
B. Region 9 Phase II WIP BMP Inventory Matrix — Attachment B
   1. Page 1 Tentative Results — Attachment C
      a) Ordinances/Regulations to ***mandate*** BMP implementation
      b) Education/Public Involvement/Capacity/Tools/Incentives to ***encourage*** BMP implementation
   2. Page 2 Tentative Results — Attachment D
      a) Ordinances and Tools (of Page 1) enable collection of measurable results (of Page 2)
      b) Efficiency of BMP per Scenario Builder
      c) Other factors to be considered, including cost
   3. Missing from the BMP Inventory
      a) Regulation of impervious surface coverage
      b) Others?
   4. Additional thoughts, considerations, concerns?

VI. Future Meetings & Actions

A. Third Strategy Session – Wednesday, August 3, 2011, 9:30 am–11:30 am
B. Chesapeake Bay Summit
   1. Wednesday, August 31, 2011
   2. Determining and Addressing Gaps in each Sector
      a) Speakers
      b) Panel Discussion

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TO: Carol Goolsby, Executive Director
Region 9, Eastern Panhandle Regional Planning & Development Council

FROM: Troy Truax, Vice President

SUBJECT: **Developed Lands and Industrial Work Group – Meeting Summaries, July 13, 2011 and August 3, 2011**
Region 9 Chesapeake Tributary Strategy Development (P.11036.00)

DATE: September 30, 2011

Developed Lands and Industrial Work Group – Second Strategic Session
July 13, 2011

The purpose of the Second Strategic Session of the Developed Lands and Industrial Work Group, held on July 13, 2011, was to discuss the upcoming Region 9 Chesapeake Bay Summit and the compiled results of the Best Management Practices (BMP) Inventory matrix that was distributed electronically to work group participants.

The meeting lasted from 9:30 a.m. until 11:30 a.m., and the following were in attendance:

- Cindy Brockman, Shepherdstown University
- Jennie Brockman, Jefferson County Planning & Zoning
- Rick Curry, B&R Design
- Roger Goodwin, Jefferson County Engineering Department
- Alma Gorse, Morgan County Planning
- Joe Hankins, The Conservation Fund and Jefferson County PSD
- Sarah Kleckner, City of Ranson
- Matthew Pennington, Berkeley County Planning
- Michael Schwartz, Freshwater Institute
- Katie See, City of Charles Town
- Joseph Sladki, American Public University Systems Charles Town
- Laura Taylor, Eastern Panhandle Organization of HOAs
- Alana Hartman, West Virginia Department of Environmental Protection (WVDEP)
- Carol Goolsby, Region 9
- Sandy Patton, Region 9
- Troy Truax, Delta Development Group (Delta)
- Lisa Byers, Delta Development Group

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Summary of Key Issues

The following summarizes the meeting discussion and key outcomes:

- The meeting began with an overview of the BMPs listed in the Phase I Watershed Implementation Plan (WIP) by Troy Truax, Delta. This was followed by questions on the MS4 Stormwater Program that was discussed at the previous Strategic Session on June 8, 2011.

- There was a question about when the communities would know if they are included in an urbanized area and required to implement a MS4 stormwater program. There was also a question about what are the boundaries of a MS4 community.

  Response: As discussed at the previous strategic session, the U.S. Census Bureau is not projected to make its determination of urbanized areas until May 2012. Secondly, MS4 permitting can apply to areas up to 20 miles from the incorporated community if the area is in a watershed that flows into the community.

- There was a question on initial steps to take in anticipation of being designated a MS4 community.

  Response: It was suggested that the community start to lay the groundwork to form a stormwater utility. It takes time to establish a utility. Once a community receives the MS4 designation, the first task will be developing a stormwater management program. The community will need to map the watershed(s) that flow into its incorporated boundaries, including the topography and its impacts.

- It was noted that Jefferson County is in the early stages of considering a revision to its stormwater ordinance that would incorporate stormwater management performance standards similar to those required of MS4 communities.

- The group noted that they would like to be able to access case studies on MS4 communities fulfilling their designated requirements.

- It was asked how an MS4 designation will dovetail with the Phase II WIP development.

  Response: Communities that have or will receive an MS4 designation are regulated through an NPDES permit and required to develop, implement, and enforce a stormwater program to reduce pollutants in post-construction runoff, as well as address construction site run-off control, pollution prevention and illicit discharge detection, and public education and involvement. These program components will provide the reasonable assurance and measureable results discussed in the WIP.

- The question was posed whether the Region 9 Model Stormwater Ordinance meets the MS4 regulatory requirements?

  Response: It may meet one of the six program requirements, listed in the response to the last question, which is to develop, implement, and enforce a program to reduce pollutants in post-construction runoff. The Region 9 Model Stormwater Ordinance provides the language and potential to meet the MS4 requirement, but depends on how the community edits the ordinance to meet its needs and whether WVDEP approves the community's program and measurable goals.

- The Region 9 Model Stormwater Ordinance addresses both stormwater quality and quantity criteria.

- A question was asked as to whether adopting the Region 9 Model Stormwater Ordinance, with its performance requirements, would negate the need to inventory and track stormwater BMPs.

  Response: This question addresses a process of institutionalizing stormwater management performance standards and determining the reduction efficiency of implementing the standards. This must be considered by WVDEP and EPA. Of note, the Region 9 Model Stormwater Ordinance does not address retrofits, and there is still a need to track the acreage/land area that is meeting the standards.

- For input into Scenario Builder, WVDEP has been and continues to track the land area (acreage) that is affected by the implementation of stormwater BMPs. A letter to the City of Ranson and its land quantification response was provided as an example.

- For MS4 permit holders, WVDEP field verifies at least 20 percent of the BMPs reported.

- It was noted that the Region 9 Chesapeake Bay Program Coordinator can help to track the implementation of stormwater BMPs. To track and verify BMPs, it is very important to associate lat/long coordinates with the managed area.

- There was discussion about how to efficiently collect information on future stormwater BMPs. It was suggested that stormwater BMP information could be collected by a local government when a construction bond is issued.

- A question was raised on the value and purpose of collecting stormwater BMPs.

  Response: The land area managed by stormwater BMPs is periodically entered into the Scenario Builder modeling software, which estimates the impact of the BMPs on the Total Maximum Daily Load (TMDL).

- It was noted that changes in land use necessitate stormwater management and can impact the TMDL. Hence, it is important to track changes in land use and to document the BMPs used to manage stormwater for change resulting from new/redevelopment. If this is done by local governments, then there needs to be consistency in the tracking, mapping, and reporting of land use and stormwater BMPs. Similar to Maryland, this could be done on county, regional, or state basis. Potentially, the installation of stormwater BMPs could be reported to the Region 9 Chesapeake Bay Program Coordinator. The Coordinator could facilitate providing consist tracking, mapping, and reporting among the local governments in Region 9.

- In addition to installing stormwater BMPs, it is also important to monitor and maintain them.

- The question was posed as to whether West Virginia needs to be pollution neutral (focused only on offsetting any additional pollutant loading from new land uses and activities) or must it also reduce its overall loading?

  Response: At this time, the strategy for West Virginia's non-regulated Developed and Industrial Lands Sector is one of being pollution neutral, *i.e.*, pollution load reduction is not required, only that new loading is offset by BMPs. This is not necessarily true in other states. Maryland, for instance, must show reductions in critical areas.

- The question was posed as to whether implementing the Region 9 Model Stormwater Ordinance would fulfill the requirement to be pollution neutral.

  Response: If the performance standards of the Region 9 Model Stormwater Ordinance are incorporated into an adopted and enforced ordinance, then new pollutant loading should be reasonably managed onsite and should maintain or improve the pollutant loading reaching the waterways and thus fulfills the requirement to be pollution neutral.

Next Steps

- The BMP Inventory matrix will be updated with newly reported information from the local governments and will be discussed at the next Strategic Session.
- Based on the reporting and findings of the BMP Inventory Matrix, a gap analysis will be developed and shared with the work group.
- The work group will also be briefed on the activities of the Agriculture Sector.
- The group made suggestions on the topics and speakers for the Region 9 Summit. These will be considered. A tentative agenda for the Summit will be developed and discussed at the next Strategic Session.

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INC.

WV Phase II Watershed Implementation Plan (WIP)
Developed Lands & Industrial and Elected Officials Work Group
Third Strategy Session

Wednesday, August 3, 2011, 9:30 a.m. – 11:30 a.m.

A G E N D A

I. Introductions

II. Agriculture/Forest Work Group Update – WV Department of Agriculture and Tetra Tech

III. Scenario Builder and MAST Demonstrations

A. Impact of one priority versus another
B. The role of efficiencies in BMPs

IV. Opportunities for Input into the Phase II WIP

V. BMP Matrix Update

A. Updated BMP Matrix **Attachment A**
B. What the current BMP tracking effort tells us
   1. Need to standardize data collection
   2. What are the gaps? **Attachment B**
   3. What are the opportunities?
C. BMP Matrix Future Use

VI. Region 9 Chesapeake Bay Summit

A. Logistics
   1. Date & Time: Wednesday, August 31, 2011, 8:30 AM to 4:30 PM
   2. Location: Byrd Health Science Center, Martinsburg
B. Invitees
C. Draft Agenda
D. Post-Summit Activities

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Developed Lands and Industrial and Elected Officials Work Groups
Joint Third Strategy Session
August 3, 2011

The purpose of the Joint Strategy Session of the Developed Lands and Industrial Work Group and the Elected Officials Work Group, held on August 3, 2011, was to review the BMP Inventory Matrix and Summit Agenda and to be briefed on the work of the Agriculture Sector and on scenario tools and Chesapeake Bay reporting.

The meeting lasted from 9:30 a.m. until 11:30 a.m., and the following were in attendance:

- Mark Baldwin, City of Martinsburg
- Jennie Brockman, Jefferson County Planning & Zoning
- Mike Covell, City of Martinsburg Engineering & Planning
- Rick Curry, B&R Design
- Jason Gerhart, EPHBA and William Gordon Associates
- Roger Goodwin, Jefferson County Engineering Department
- Alma Gorse, Morgan County Planning Commission
- Joe Hankins, The Conservation Fund and Jefferson County PSD
- Brenda Hutchinson, Morgan County Commission
- Elaine Mauck, Berkeley County Council
- Keith McIntosh, Senator Manchin Staff
- Matthew Pennington, Berkeley County Planning
- Michael Schwartz, Freshwater Institute
- Katie See, City of Charles Town
- Peggy Smith, City of Charles Town
- Bill Stubblefield, Berkeley County Council
- Laura Taylor, Eastern Panhandle Organization of HOAs
- Lyn Widmyer, Jefferson County Commission
- Matt Monroe, West Virginia Department of Agriculture (WVDA)
- Alana Hartman, West Virginia Department of Environmental Protection (WVDEP)
- Carol Goolsby, Region 9
- Christina Mellors, Tetra Tech
- Troy Truax, Delta
- Lisa Byers, Delta

Summary of Key Issues

The following summarizes the meeting and the key outcomes:

- Troy Truax gave a brief overview of the agenda for the session. Next, Matt Monroe, WVDA, outlined the Phase I WIP list of goals for the Agriculture Sector and described the efforts and activities occurring in Region 9. He also answered questions from the participants.
    - It is important to note that all goal activities are voluntary.
    - A central focus of the effort is nutrient management planning. One of the goals is to have nutrient management plans for 95% of the Berkeley and Jefferson County agricultural operations.

- Goal: Move a portion of the poultry litter out of the Chesapeake Bay watershed.
- Goal: Fence 40% of the pastureland to prohibit livestock gaining access to waterways.
- Goal: Establish 12,000 acres, of 35-foot wide buffers, along waterways running through agricultural lands.
- Goal: Establish 813 acres of wetland restoration on agricultural lands.
- Goal: Facilitate widespread education among the agricultural community on the importance of cover crops and no-till operations.
- The reporting of agricultural BMPs is changing. Formerly, credit for BMPs lasted forever, now their duration is five years.
- It has been relatively easy to track agricultural BMPs that were funded by West Virginia's Cost-Share Program. There is now a greater effort to track agricultural BMPs that have not been funded by the Cost-Share Program. A key partner for this effort has been the county conservation districts.
- Determination is being made on how to credit agricultural BMPs, especially those that may not meet the Natural Resources Conservation Services' standards but are functionally-equivalent or almost functionally-equivalent to those standards.
- Agricultural BMPs must be documented by visiting the site, verifying the BMP, and collecting GPS readings. The tracking of agricultural BMPs is just beginning and is labor intensive and time consuming. The question was posed as to whether there is a more efficient/effective way to encourage implementation of agricultural BMPs and to track them. No suggestions or improvements were offered.
- The question was asked about the receptiveness of farmers/agricultural producers to BMP tracking. WVDA noted that there has been a variety of responses.
- This was followed by a question on what are the consequences if the Agriculture Sector does not meet the pre-established goals of the WIP.

  Response: One consequence is the implementation of a backstop to classify Animal Feeding Operations of a certain size, as Concentrated Animal Feeding Operations (CAFOs), which would be regulated by a NPDES permit. Another consequence or backstop is to reduce the wasteload allocation of significant municipal wastewater facilities. This will likely result in the need for additional treatment and updates and in rate increases.
- The question was posed as to whether ownership is considered in tracking agricultural BMPs. It is likely that there is better stewardship practiced on owner-occupied farms than on land leased for agricultural use.
- Also, it was asked whether there is a penalty for agricultural producers that do not implement BMPs.

  Response: The agricultural BMP program is strictly voluntary, so there would not be a penalty.
- There was a suggestion from a participant to tie the implementation of agricultural BMPs to a tax abatement program, such as Clean and Green, or create an incentive program by abating property taxes for those implementing designated agricultural BMPs.

- The developed lands and elected officials work group participants realize the challenge of implementing agricultural BMPs and commend the Agriculture Sector for their efforts.
- One area of commendation is with chicken litter technology, such as the use of char heat and anaerobic digesters.

- The question was asked as to what are the political boundaries for backstops?

  Response: A backstop would apply to the entire area (Chesapeake Bay watershed of West Virginia), but there could be targeted focus as needed.

- One of the participants asked if homeowners are being educated on the importance of testing their soil, so that they do not over-fertilize their lawns.

  Response: As part of their requirements, the MS4 communities are providing this type of educational information. Also, local governments can choose to voluntarily supply educational information to their residents. Watershed groups may have materials ready for distribution or they could help to craft a message that would be distributed via other media.

- A question was raised about WV's progress in considering and enacting legislation, similar to Maryland, that only permits the selling and use of Bay-friendly lawn fertilizer.

- Mini-demonstrations were made by Christina Mellors and Alana Hartman on the Scenario Builder modeling tool, MAST scenario tool, and the ChesapeakeStat reporting website.
  - Scenario Builder is a computer tool that can generate simulations of the past, present, or future state of the watershed to run through the Chesapeake Bay Watershed Model (CBWM). The tool allows for the exploration of potential impacts based on management actions and use of various BMPs. The simulations are based on factors from a wide range of land uses and activities.
  - A new scenario was run doing the summer.
  - The CBWM, which was introduced in the Phase I WIP, is calibrated periodically.
  - MAST, Maryland Assessment and Scenario Tool, is a planning tool that allows the user to experiment with and test the impact of the use of various BMPs. By inputting the use of one or several BMPs, MAST can determine if the inputted combination of BMPs for a defined area will meet loading goals and which BMP or combination of BMPs gives the greatest load reduction. (The MAST tool has been adapted to be used by all the Bay jurisdictions and is now known as CAST.)
  - CAST can be especially useful in West Virginia when a local government considers which BMPs to incorporate into a new or updated ordinance.
  - The ChesapeakeStat website is a program management tool that shows the current status for a selected Bay jurisdiction. It also identifies responsible parties and provides specific, time-bound objectives and transparent reporting of progress.
  - CAST and ChesapeakeStat are tools that can empower decision-makers to experiment with the relative effectiveness of various BMPs and ordinance requirements.

- The agenda, speakers, and logistics for the Region 9 Summit were reviewed and discussed.

- Some summary points were made regarding the local partner involvement process and development of the Phase II WIP:
    - The fundamental strategy for West Virginia is to "hold the line" on pollutant loading.
    - The "big picture" strategy has been developed for the West Virginia bay jurisdiction, but now there needs to be consideration of whether this is individualized at a county or local government level.
    - In response to a question, upstream loading has been quantified so reasonable load allocations at a county level could be quantified.
    - It is fundamentally important to have a baseline of land uses and BMPs.
    - MS4 requirements will need to be integrated with Chesapeake Bay goals.
    - For West Virginia, "reasonable assurance" can only be obtained for permitted entities and practices. Reasonable assurance will be very difficult to obtain for non-regulated entities and practices.
    - Local government resource needs identified during the strategic sessions will be incorporated into the Phase II WIP.
    - Continued public education by local watershed groups is very important.

Next Steps

- A major next step is the Region 9 Summit. Speakers are being confirmed and presentations are being developed.
- The final major next step is the development of the Phase II WIP, which will be a refinement of the Phase I WIP. WIP components addressed during these strategic sessions will update the Phase II WIP. A snapshot of BMP usage for the Developed Lands and Industrial Sector will be provided, as well as a gap analysis and local government resource needs. The local partner involvement process will be documented.

cc: Alana Hartman