State Water Plan Update
Upper Middle Susquehanna Water Resources Regional Committee Meeting

January 28, 2021
9:30 a.m. - 12:30 p.m.
Virtual Meeting via Microsoft Teams

Committee Members in Attendance:

Steven Barondeau
Patrick Burke
Jared Dressler
Andrew Gavin
Todd Giddings
Andrew Gutshall
Dennis Hameister
Paul Heasley
Russell James
Beth Kern
Shannon Rossman
Robert Shannon
Jerry Walls
Jim Weaver
Jennifer Whisner
John Yamona
Cathy Yeakel

Committee Members Not in Attendance:

Kurt Hausammann
Tim Horner
Wendy Walter
Stephanie Stoughton
Prasenjit Mitra

Others in Attendance:

Kristina Peacock-Jones - DEP
Mark Matlock - DEP
Mike Hill - DEP
James Horton - DEP
Brian Chalfant – DEP
Summer Kunkel - DEP
Monica Gould - Strategic Consulting Partners
Bob Whitmore - Strategic Consulting Partners

Visitors:

Corey Rilk
Marcia Jan Wendy

Welcome

Mark Matlock, DEP, welcomed everyone to the meeting, explained the meeting was being recorded, and provided helpful hints on the use of the technology. Jerry Walls, Committee Chair, welcomed committee members to the meeting and completed a roll call for attendance.

Public Comment

Chair Walls opened the meeting for public comment. An opportunity to express comments verbally or in the chat box was offered. There was no public comment.

Minutes

The minutes of the October 29, 2020 meeting were reviewed. The minutes were approved as presented on a Dennis Hameister / Todd Giddings motion. The vote was completed by a voice vote.

Committee Membership

Russell James was introduced as a new member of the committee. It was announced that Tim Horner, local government representative passed away in December. Chair Walls asked Mark Matlock to contact Clinton County Planning office for suggestions to replace Tim. Mark also stated Stephanie Stoughton has missed three consecutive meetings and when he has contacted her, she stated she has taken a new position and is not available. Chair Walls requested to remove Stephanie from the committee roster.

DEP State Water Plan Update

Kristina Peacock-Jones, DEP, provided an update on DEP activities. The USGS Water Use Data and Research (WUDR) Grants data sharing projects are progressing well. The project for improving Chapter 110 data input is complete and should go live during the first quarter of 2021. The project involving data sharing between agencies (SRBC, DRBC, and USGS) has been initiated with the IT architecture and data sharing protocols in place. Testing of the data sharing has begun and the project should be fully operational during the first quarter of 2021.

Another one of our data sharing tools, Power BI, has been completed. This data sharing tool will display water use data to the public in a more user-friendly way.

A virtual public hearing was conducted on January 6, 2021 to solicit comments from interested persons on water resources planning issues related to the preparation of the regional component of the State water plan. Written testimony was accepted until January 20, 2021.

Eight individuals provided either oral or written testimony at the public hearing. One individual from the Upper/Middle Susquehanna region offered testimony. DEP staff are in the process of summarizing the comments provided at the public hearing and will provide this information to committee members at the April meeting or as soon as completed.

Regional Components and Action Plans

DEP staff presented summarized points from previous committee meetings on the region's priorities, uniqueness, stormwater management, climate change, and regional projects showcase. The committee discussed the summarized points, provided feedback,

recommended changes, and additional ideas. The discussion produced the following key points for the committee's future discussions.

Specific Regional Priorities

1. Protect important head water habitats and recharge areas of the Upper/Middle Susquehanna basin – recognize the difference between rural and suburban/urban approach to priorities; recognize the importance of water quality and quantity, preservation of recreation areas, and preserving habitats; recognizing the challenges of abandoned mine drainage, large scale forest cutting, flooding and storm water management, and land use and development. Consider reforestation and clear-cutting consequences (recharge/carbon sync).
2. Multi-municipal planning and coordination – assess progress of Integrated Water Resources Planning (IWRP), county wide action plans, sewage management systems, standards for wells, infrastructure to manage water in land use planning, and promote groundwater recharge. Utilize existing source water protection plans and conservation easements with private landowners.

Region's Uniqueness - What are the Upper/Middle Susquehanna region's unique characteristics that are important considerations in the state water planning?

- The Upper/Middle Susquehanna has complex geology and a lot of topographic variation.
- Legacy mining in the region presents problems and opportunities.
- Many smaller communities are present throughout the region and are more likely to be challenged economically.
- Headwaters of two major drainage areas in Pennsylvania - "*The water was clean when it left here, what did you do with it?"*
- Vast number of wetlands, streams, lakes, and ponds. Peat lands that are mined as a valuable resource.
- Forest cover helps to filter our groundwater. Continue good forestry practices to support our headwaters. Trees have the capacity for evapotranspiration of 200 gallons per day (stormwater management).
- Recreation plays a big part in this region. Number of state forests, state game lands, and public lands.

Stormwater Management - What are the region's priorities for stormwater and flood management and preserving water quality?

- Provide funding for counties and smaller municipalities to complete Act 167 stormwater management plans, subdivision and land development regulations, hazard mitigation plans, and Integrated Water Resource Management (IWRM).
- Consider changing Best Management Practice (BMP) design standards for storm event frequencies, duration, and return frequencies to belter account for the changing climate. Retrofit existing stormwater facilities, promote groundwater infiltration, and recharge areas, smaller-scale granular solutions instead of large basins. Many

options are available, funding mechanism would be helpful (hedge funds and corporate loans available).
- Requires creativity in the permitting process. Sedimentation basins are popular but there are better alternatives available. Smaller projects may be more beneficial. Plan for smaller projects to handle the mandates and look at funding sources available. (banking system/credit market) Wetland banking - is it possible with stormwater?
- Assess aging infrastructure for high-frequency storm events, erosion control and filtration.
- Recognize that stormwater BMPs do not function the same in all geographic areas so solutions cannot be 'one size fits all' for this basin.
- Better understanding of how impervious areas impact stormwater, update BMPs accordingly, and provide guidance on best practices, what works and what does not.
- Incorporate green measures, such as Green Streets into municipal plans. Green roofs are very useful in urbanized areas to capture precipitation. (State College borough building and other buildings on Penn State campus are incorporating green roofs.)
- Act 167 should be enforced with aid provided to counties to develop plans.
- Large scale forest clearing for solar fields reduces the amount of water uptake and can increase sedimentation.
- Vacant shopping malls and corporate properties were zoned and planned for Black Friday shopping and create excessive runoff. How can these parking lots be modified, reused, or retrofitted with new stormwater control measures? Who holds ownership and responsibility? Transfer Development Rights (TDR).
- Educate homeowners on the impacts of stormwater – pervious vs. impervious surfaces, rain gutters retain water on the property (rain barrels).
- Proper maintenance of stormwater control measures – pervious pavement needs to be vacuumed and maintained to function properly, street sweeping for sediment removal, MS4 – maintenance component.
- MS4 Consortium – multiple municipalities within the county. MS4 is not required by all, possibly make voluntary by those not required.
- Ordinances need to be up to date and kept up to date. Create improvements with redevelopment.

Climate Change - What are the impacts of climate the region is experiencing now and how do we manage these events in the future?

- Increased storm frequency and intensity will create issues with infiltration, flash flooding, decreased groundwater recharge.
- Droughts have deeper impacts on groundwater, efforts ought to be made to promote groundwater infiltration.
- Climate change implications on water supply, vulnerability, availability, and reliability ought to be investigated more fully.
- Many smaller municipalities cannot budget for high-intensity storms. Flexibility in response and project development requirements helps to convey the importance of these projects.
- There is an increased risk of harmful algal blooms (HABs).

- There is a high potential impact on local ecosystems.
- Use alternative terms to climate change. Use resiliency and use scientific data to guide the discussion. Education and Outreach – information will be key in helping to make these changes.
- Emphasize the benefits and co-benefits of a project not necessarily the climate change aspects.
- Resiliency and the benefits the ecosystems provide.

Regional Projects Showcase

- Overlay Zoning Ordinance Map Layer – Ferguson Township created an overlay zoning ordinance map that has assisted local developers in building responsibly. This map includes references to the township's 19 water source areas for public water supply and prohibits activities that would damage the quality of the water contained there.
- Beneficial Reuse Program – The University Area Joint Authority has developed a beneficial reuse program that can treat water to an extremely high level of purity. Currently, one million gallons per day of secondary clarified wastewater effluent is directed to Advanced Water Treatment. This treatment includes microfiltration, ozone disinfection, reverse osmosis, ultraviolet light, and chlorination. The water is distributed to a regional transmission system and is used in the community for commercial laundry, car washing, golf course irrigation and to augment stream flow in a distressed tributary of Spring Creek, Slab Cabin Run.
- Passive Mine Drainage Treatment Systems.
- The SCRA has been using Limestone and compost holding basins to increase pH and drop iron and sulfur in water supplies.
- Repurposing Quarries.
- Water storage assets.
- Shamokin Creek Restoration Alliance.
- Limestone holding basins increase pH, drop iron and sulfur.
- Reforestation.
- Green Roofs in State College – Majority of PSU will have green roofs. https://plantscience.psu.edu/research/centers/green-roof
- Conservation District coordination on projects. Summary sent to legislature – highlights for the year.
- Water Education Day. https://www.columbiaccd.org/water-education-day.html
- Dirt and Gravel road program. https://www.dirtandgravel.psu.edu/
- Floating wetland islands in reservoirs. Removal and assimilation of phosphorus – helps control algae and nutrient loading. PA American Water.
- Lycoming County Buyout Program – structures in flood plain. Muncy Resiliency Plan.
- Growing Greener Projects.
- Anthracite Region Stream Remediation. http://epcamr.org/home/

References Provided in the Chat

- Green roof research by Penn State: https://www.columbiaccd.org/water-education-day.html
- Columbia County Water Education Day: www.columbiaccd.org and https://www.wnep.com/article/news/local/columbia-county/power-to-save-water-education-day-for-all-of-columbia-county/523-934e162e-0042-4c59-b44d-80f9c4721a19
- One of Pennsylvania's largest lakes (Harveys Lake) has been removed from the list of impaired waters following years of EPA-funded work to control phosphorus pollution. One of the innovative actions taken to meet the goal was deployment of five floating wetland islands: https://www.epa.gov/pa/floating-wetland-islands-help-restore-large-pennsylvania-lake
- Link to District Highlights page: 2020 PA Conservation District Highlights.pdf
- Eastern Pennsylvania Coalition for Abandoned Mine Reclamation: http://epcamr.org/home/
- Penn State Center for Dirt and Gravel Road Studies: https://www.dirtandgravel.psu.edu/

Next Steps

Chair Walls thanked all committee members for their attendance, participation, and ideas.

Mark Matlock, DEP, provided an overview of the committee's future work.

- Summary notes from today's discussion will be provided to committee members.
- Statewide Committee will be meeting on March 17, 2021.
- At the next regional committee meeting the committee must elect/re-elect the committee chair and vice-chair as required by the committee's bylaws and Act 220.
- The next meeting of the Upper/Middle Regional Committee will be held on April 29, 2021. It will be a virtual meeting. At this meeting it is planned for the committee to vote on the region's priorities for the plan.
- Future meetings are scheduled for July 29 and October 28.

The meeting was adjourned by the Chair at 11:40 a.m.