



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

October 29, 2020
9:30 a.m. - 12:30 p.m.
Virtual Meeting via Skype

Committee Members in Attendance:

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| Steven Barondeau | Prasenjit Mitra |
| Patrick Burke | Robert Shannon |
| Jared Dressler | Jerry Walls |
| Kurt Hausammann | Wendy Walter |
| Andrew Gavin | Jim Weaver |
| Todd Giddings | Jennifer Whisner |
| Andrew Gutshall | John Yamona |
| Dennis Hameister | Cathy Yeakel |
| Russell James | Shannon Rossman |
| Beth Kern | |

Committee Members Not in Attendance:

Paul Heasley
Stephanie Stoughton
Tim Horner

Others in Attendance:

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

Visitors:

Ellen Kohler
Russell Ludlow
Corey Rilk
Paul Takac
Joanne Tosti-Vasey

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 July 30, 2020 meeting were reviewed. The minutes were approved as presented on an Andrew Gavin / Todd Giddings motion. The vote was completed by a voice vote.

DEP State Water Plan Update

Kristina Peacock-Jones, DEP, provided an update on DEP activities. The USGS Water Use Data and Research Grants data sharing projects are still progressing. The project for improving Chapter 110 data input is about 80% complete. The project involving data sharing between agencies has been initiated and the IT architecture and data sharing protocols are being finalized.

Staff within the Department are gathering noteworthy activities and projects achieved over the past ten years that coincide with the State Water Plan. This information will be spotlighted in the State Water Plan update.

The stormwater program is in the process of developing an updated stormwater best practices manual to incorporate green infrastructure. The Energy Programs Office, who is responsible for updating the Governor's Climate Action Plan, is currently in the revision process for the 2021 iteration of the plan. Valuable input provided by Committee members will be passed along to these DEP programs.

DEP staff are continuing to work on better data sharing tools. One of those tools is Power BI, which will display water use data to the public in a more user-friendly way.

Presentation on POWER BI

Michael Hill, DEP Geologist, provided a visual presentation and overview of Power BI. Power BI is a data sharing tool designed to expand the number of existing online water use report viewers by eliminating the need to crunch a large dataset for a summary report. It is a Microsoft application. The data presents visually the amount of surface and ground water used within the state. It does not assess water availability.

Maps, tables, and charts are available to show water withdrawals, water usage types and a breakdown of water users. The data can be viewed for each Pennsylvania County, state water planning regions, subbasins, and watersheds. The information can be exported to an Excel spreadsheet or csv format.

The current map, charts, and tables show data for 2018. Eventually data will be available for multiple years and show trends in water usage. 2019 data should be available early 2021 when it is confirmed all suppliers have provided their data. Power BI will be available to the public on the DEP website soon. The system is currently completing internal review by IT and Communications staff prior to approval for public use.

Regional Committee Survey Data

A DEP online survey was available for Upper / Middle Susquehanna Regional Committee members to complete prior to the meeting. The survey asked participants to provide open ended responses to two questions on stormwater management and climate change. The survey feedback was reviewed, and Committee members were given an opportunity to provide feedback and suggestions.

The first survey question on stormwater management and summarized survey responses included:

The last State Water Plan update included stormwater management with a focus on flood management. The goal for updating the stormwater management portion is to include a stronger focus on stormwater BMPs, which address both quantity and quality. What other areas of stormwater management do you think should be considered for this update?

- Provide funding for counties to complete Act 167 Stormwater Management Plans, Subdivision & Land Development Ordinance regulations, zoning, and hazard mitigation plans. IWRM
- Consideration of changing storm event frequencies, duration and return frequencies as they relate to BMP design standards.
- Consider quantity and quality with cost/benefit analysis.
- Assess aging infrastructure for high frequency storm events, erosion control, and filtration.
- Stormwater BMPs do not function the same in all areas and some areas need assistance in creating unique BMPs. (ex. Wetland creation or stream bank restoration) Maintenance and upkeep.
- Large amounts of impervious area, huge parking lots from vacant shopping malls, and retrofitting existing aging BMP's.

Committee members comments:

- List captures prior discussions
- Impervious areas are major concern
- Incorporate Green Streets concepts into the plan; trees and green strips/spaces along streets
- We could be more innovative in implementing greener measures regarding stormwater and flood management; improve hydrologic resiliency
- DEP provides clear guidance to consultants on changes to storm water BMPs
- Application of Act 167 - should be enforced, aid counties in developing plans, MS4 program is important

- Ensure we have good data, USGS stream gages not always active, stream gages placed in PennDOT bridges but when the bridges were repaired the gages were not replaced
- BMPs have good examples of what is working and should be included in the book, also include failures and how they occurred; promote BMPs ground water recharge systems
- Impervious areas are increasing out of step with population changes, old data on storm frequency data
- State funding to assist small municipalities in implementing BMPs
- Penn Vest funding available for storm water management, Mark at DEP has contact information
- Guidance on best practices, condensed into one or two pages to distribute to municipalities, different requirements for rural and suburban locations
- Grants for funding small scale projects in small townships
- Seattle success in using bio swales and other green technologies; support small municipalities in researching alternative ideas
- Reassurance that we are designing BMPs to meet current storms, what are we using for our “design storm event”, duration, frequency, intensity, incorporate infiltration on design
- Retrofitting existing storm water facilities with more explicit emphasis on infiltration
- Design smaller scale granular solutions to stormwater rather than large basin strategies
- Listing of BMPs that are promoting groundwater recharge through infiltration
- Vegetation is one way to increase the effectiveness of bioswales, solutions should be site specific
- Funding
- A contributor to stormwater runoff is the railroads
- Lots of competition for funding for similar projects
- Good forest management practices make a big difference in run-off

The second survey question on climate change and summarized survey responses included:

Now that we have briefly discussed climate change at our July meeting, which aspects of climate change do you think we should focus on in our discussion at the next meeting for consideration in the State Water Plan update?

- The potential/likelihood for increased storm frequency and intensity. How these storms events can and should be handled to reduce risks to safety and environmental impacts. Amount of rain vs. snow. Data based initiatives.
- Risk of Harmful Algal Blooms: The abnormally higher seasonal temperatures experienced have required implementation of Cyanotoxin Management Plans (CMP) as an integrated part of source water protection efforts.
- Preparing to be resilient in terms of both flash flooding and potential decreased groundwater recharge. Discuss the implications of such events and changes in waterway flow.

- Planning for resilience to an amplified drought of record for protection and conservation. Would help to address increased droughts.
- Consider the future risk of deeper droughts brought on by climate change and the measures needed to promote groundwater infiltration and cover crops to maintain aquifers.
- Climate change implications on water supply vulnerability, availability, and reliability should be considered (i.e. increased temperatures and the implications on source water quality and aquatic / ecological health of waterways).

Committee members comments:

- We can anticipate more intense storms; this could create issues with infiltration
- Warming can impact the ecosystem negatively
- #1 and #3 are going to drive the discussion
- Financial impact is missing in the bullet points; small municipalities cannot budget for impact of high intensity storms
- Increased demand on ground water
- Industrial users must maintain infrastructure, but smaller (residential) are not required to maintain infrastructure
- #6 should also consider water quantity issues as supplies become impaired
- High intensity in winter and less in the summer could lead to higher demands from agriculture sectors
- Consider potential changes to the ecosystem
- Consideration of extreme events and how this might impact PA's dams
- Uncertainty in demographic changes and how will these changes impact funding, tax revenue, demographic changes not uniform across the state
- Abnormal storms are increasingly moving the median rain levels so planning must be altered to match the new normal
- Economic impact
- Stress increasing groundwater recharge
- Climate refugees, what will happen if we get an influx of people?
- Do other invasive species fall under the ecological impacts of HABs or CMPs (canary grass, Japanese knotweed)
- Energy moving toward renewable sources, natural gas and fracking based technology might not be as profitable,
- Stress usage of alternative terms and avoid the term climate change, use resiliency, and make it data driven
- #2 HAB's important
- #5 importance of ground water infiltration
- Solar farms growing in interest and can protect groundwater recharge

The third survey question: "Is there a project that comes to mind during the past 10 years geared toward water quantity, water quality, and/or water conservation that you would like to consider use highlighting for the State Water Plan update? Responses were:

- Major BMPs in Centre County that involve farms. The good work of the Soil Conservation Service and the Amish farms in Penn Valley.
- Tioga County-Antrim AMD treatment system and southwestern energy funded AMD treatment system in Fall Brook (also Tioga County)
- SRBC's use of an abandoned quarry along the Susquehanna River
- Contact Ed LeClear at the State College Borough for their example

Committee members comments

- Ferguson Township in the Spring Creek watershed headwaters overlap zoning ordinance, sits overtop all other land use zoning requirements and addresses 19 source areas for public water supply wells and springs and prohibits activities that would damage the quality of groundwater and promotes groundwater recharge
- Beneficial reuse project of the University Area Joint Authority, treating of sewage water so it can be reused; being used at two golf courses, to make snow at ski resort and laundry in a hotel
- Shamokin Creek Restoration Alliance in Northumberland County - limestone holding basins increase PH, remove iron and sulfur from water, managed by volunteers
- Source water protection plans to know where water is coming from, Appalachian Utilities has been producing targeted areas
- Billmeyer Quarry, Lancaster County - repurposing quarries to use as storage asset
- Inclusion of these projects in DEP story map
- Coal mining and remediation efforts

Region's Priorities, IWRP, and Uniqueness

The following summary information was prepared for the Statewide Committee meeting in August.

Upper/Middle Susquehanna Region

Committee's Top Priorities

1. Protect important head water habitats and recharge areas of the Upper/Middle Susquehanna basin - difference between rural and suburban/urban approach to priorities; water quality and quantity, preservation of recreation areas, abandoned mine drainage, minimize large scale forest cutting, preserving habitats, flooding and storm water management, land use and development
2. Multi-municipal planning and coordination - assess progress of IWRP, county wide action plans, sewage management systems, standards for wells, infrastructure to manage water in land use planning

Integrated Water Resources Planning

- Planning needs to involve all players working together, holistic approach, must be flexible

Region's Uniqueness

- Topography of the region; steep slopes, mountain terrain, unique and complex geology
- Legacy mining
- Smaller communities, challenged economically

Committee members comments:

Priorities

- Defining state agency roles, not just DEP, to provide resources and technical assistance; PennDOT run off from roads
- Acquire the financial resources to meet priorities
- Update priorities to use action words
 - Add "recognize" prior to difference
 - Preserve habitat
 - Planning for flooding and stormwater management
 - Some O&M activities have impacts on streams, not just construction and design; PennDOT salting of roads and using of alternative treatments
- Concern the two priorities are clusters of priorities rather than two distinct items
- Real issue is coordinating state agencies to provide a more integrated state plan (DCNR forest clearcutting, PennDOT infrastructure)
- Do we need to limit the number of priorities, perhaps bundling them is the right way
- Senate Bill 790 would authorize dumping of conventional oil and gas drilling waste to treat unpaved roads
- The language surrounding forest could be more generalized to utilize BMPs
- A third priority focusing on infrastructure might be an important consideration. Consider the physical systems and cyber systems (data collection and assimilation)
- Inclusion of language regarding funding
- Headwater habitats and recharge areas; should source water be added
- Separate smaller communities and challenged economically

IWRP

- Bullet is vague
- IWRP or IWRM - terms should be defined

Region's Uniqueness

- Headwaters of two major drainages in PA - water was clean when it left here, what did you do to it?
- Source water is a uniqueness

Resources Provided in Chat

- Univ of Maryland Environmental Finance Center, we are one of 10 centers around the country started by EPA more than 20 years ago. Our center serves EPA Region

3 which includes Pennsylvania. I work on water issues and have been working with communities in the Chesapeake Bay and Delaware River watersheds on stormwater management and MS4 compliance. - Ellen Kohler

- <https://www.epa.gov/G3/learn-about-green-streets#:~:text=A%20green%20street%20is%20a,e.g.%2C%20streets%2C%20sidewalks>
- Green Streets
- <https://www.seattle.gov/Documents/Departments/OPCD/Vault/SouthDowntown/ProposedDesignforWashingtonStreet.pdf>
- <https://www.mywatersheds.org/the-different-types-of-stormwater-s>
- <https://www3.epa.gov/region1/eco/uep/cso.html>
- <https://www.pacounties.org/Media/Pages/One-Water.aspx>
- Billmeyer Quarry in Lancaster County. <https://www.srbc.net/our-work/programs/planning-operations/billmeyer-quarry.html>
- Source Water Protection Plan success story https://www.northcentralpa.com/news/dep-approves-source-water-protection-plan-for-appalachian-utilities-inc-in-clinton-county/article_8298dcfa-7f72-11e7-9195-dfedcbfcc834.html
- <https://www.twp.ferguson.pa.us/planning-zoning/pages/source-water-protection>
- <https://www.amtaorg.com/university-area-joint-authority-beneficial-reuse-project>
- http://www.crcog.net/vertical/sites/%7B6AD7E2DC-ECE4-41CD-B8E1-BAC6A6336348%7D/uploads/BR_Expansion_DRAFT_Report.pdf
- <http://www.shamokin creek.org/>
- <http://www.statecollegepa.us/1152/Planning-Zoning>
- <https://www.pacounties.org/Media/Pages/One-Water.aspx>

Next Steps

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

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

- Summary notes from today's discussion will be provided to Committee members.
- A virtual public hearing is planned for the first week of January, tentatively January 6. There will be two public hearings sessions held in one day and each regional committee's public hearing will last one hour. The am public hearing session will be an opportunity for public input on the Delaware, Potomac, and Lower Susquehanna regions. The afternoon public hearing session will be an opportunity for public input on the Ohio, Great Lakes, and Upper/Middle Susquehanna regions.
- At the January regional committee meeting the Committee members will discuss and vote on part or all the regional water planning priorities, stormwater management priorities, and climate change priorities.
- At the April 2021 regional committee meeting Committee members will finalize the priorities they wish to move forward to the State Committee.

- The State Committee will finalize the updated state water plan at the scheduled meeting in May 2021.

The next meeting of the Upper/Middle Regional Committee will be held on January 28, 2021. It will be a virtual meeting. The April Committee meeting is scheduled for April 29, 2021.

The meeting was adjourned at 12:20 pm on a Pat Burke / Jen Whisner motion.