



State Water Plan Update Statewide Committee Meeting

May 19, 2021
9:00 a.m. - 12:00 p.m.
Virtual Meeting via Microsoft Teams

Committee Members in Attendance:

Kelly Anderson	Jeff Jumper
Len Bradley	Gary Merritt
Carol Collier	Heidi Moltz, Ph.D.
Andrew Dehoff	Kristina Peacock-Jones
Theresa Eberly	Shannon Rossman
Patty Elkis	Trish Salvia
Jennifer Fetter	Heather Smiles
Matthew Genchur	Simeon Suter
Andrew Gutshall	Steve Tambini
Kate Harper	Tim Weston
Richard Harrison	Matthew Wolford

Committee Members Not in Attendance:

Sean Donnelly	Michael Roth
Brian Eckert	Deb Simko
Daniel Gold	Jessica Trimble
Kevin Moore	

Others in Attendance:

Mark Matlock – DEP	Gregory Czarnecki – DCNR
Mike Hill – DEP	Tom Hughes – PEMA
James Horton – DEP	
Summer Kunkel – DEP	Monica Gould - Strategic Consulting Partners
Michelle Moses – DEP	Bob Whitmore - Strategic Consulting Partners
Sean Furjanic – DEP	

Visitors:

Kurt Hausammann	Brent Ramsey	John Seitz
Mary Ellen Ramage	Mike Kyle	Mark Nemitz
Anne Quinn	William Bradford	Nathan Walker
Tim Bruno	Joe Buczynski	Justin Spangler
Alex Ridyard	Charlie Bennett	Becky Bradley
David Wright	Donald Swarts	Chad Pindar
Erin Kepple Adams	Patrick Gehrlein	George Kunkel
Warren Weaver	Jasun Stanton	Robert Shannon

Welcome:

Mark Matlock welcomed everyone to the meeting and explained the meeting was being recorded and provided helpful hints on the use of the technology. Chair Tim Weston welcomed everyone attending the meeting. Attendance was recorded in the Microsoft Teams participant's log.

Minutes:

The minutes of the March 17, 2021 meeting were reviewed. Steve Tambini commented that the minutes reflect he and Drew Dehoff are co-group leaders of the water supply workgroup. He stated the minutes should reflect that Drew is group leader for the workgroup. The minutes of the March 17 meeting were approved on a Steve Tambini / Drew Dehoff motion.

Public Comment:

Chair Weston opened the meeting for public comment. No public comment was offered.

DEP Summary of Activities:

Mark Matlock provided the committee an update of what DEP is working on regarding the State Water Plan Update.

The USGS Water Use Data and Research (WUDR) grant data sharing projects are progressing well. The project for improving Chapter 110 data input is complete and will be deployed soon. 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 second quarter of 2021.

Information Presentations

Five informational presentations were provided to the committee members.

1. Green Infrastructure and Hazard Mitigation – Presentation by Tom Hughes, PEMA.

Each county needs hazard mitigation planning to receive PEMA funding. A new EPA course is being offered to support counties. Hazard mitigation planning also needs integration with state building codes. Council of Governments can help disseminate information to local municipalities. Grants are available for local governments and more activities are fundable with the new funding than were available under previous funding.

- Types of green infrastructure
 - Rainwater harvesting
 - Green streets and alleys
 - Green roofs
 - Green parking
 - Permeable pavements

- Urban tree canopy
- Bioswales
- Planter boxes
- Co-benefits of green infrastructure
 - Air quality
 - Communities
 - Habitat and wildlife
 - Climate resiliency
 - Water quality and quantity
- Integrating green infrastructure into mitigation planning
 - Land conservation
 - Green streets and alleys
 - Urban tree canopy
 - Rain gardens
 - Bioswales
 - Green roofs
- EPA and PEMA are hosting training modules describing water quality and hazard mitigation plan integration
 - Phase I is a series of learning modules describing water quality and hazard mitigation plan integration
 - Phase II is pilot training workshops
 - The pilot workshop will be presented in Pennsylvania on July 16, 2021

2. Building Resilient Infrastructure and Communities (BRIC) – Presented by Tom Hughes, PEMA.

- Building Resilient Infrastructure and Communities (BRIC) will support states and local communities as they undertake hazard mitigation projects, reducing the risks they face from disaster and natural hazards. BRIC is a new FEMA pre-disaster hazard mitigation program that replaces the existing pre-disaster mitigation program.
- The BRIC program supports communities through capability and capacity building, encouraging, and enabling innovation, promoting partnerships, enabling large projects, maintaining flexibility, and providing consistency.
- In 2020 FEMA Non-Disaster Mitigation Grants will provide \$660 million towards community resilience.
- BRIC FY 2020 top five project types included mitigation reconstruction, retrofits, saferooms and shelters, utility infrastructure and flood control.
- Cost sharing requirements
 - i. Generally, FEMA will pay 75% of all eligible costs
 - ii. FEMA will pay 90% for small, impoverished communities (BRIC)
 - iii. FEMA will pay up to 100% for management costs (BRIC)
 - iv. FEMA will pay up to 90% for repetitive loss properties (Flood Mitigation Assistance)
 - v. FEMA will pay up to 100% for severe repetitive lost properties (Flood Mitigation Assistance)

- vi. State will pick-up the 25% non-federal share (Hazard Mitigation Grant Program)
- Helpful websites
 - i. <https://pahmp.com/2020/01/10/3428/>
 - ii. https://pahmp.com/wp-content/uploads/2020/07/PA-HMP-Standard-Operating-Guide_2020.pdf
 - iii. <https://www.dep.pa.gov/Citizens/climate/Pages/PA-Climate-Action-Plan.aspx>
 - iv. http://elibrary.dcnr.pa.gov/GetDocument?docId=1743769&DocName=Climate_Change_Adaptation_Plan_Final_Aug2018.pdf
 - v. <http://s3.amazonaws.com/tmp-map/climate/doc/StudyReport-PaVulnerabilityStudy-ver040317.pdf>
 - vi. <https://www.fema.gov/grants/mitigation/floods>

3. Commonwealth of Pennsylvania Heavy Rain Event Review – Presented by Jeff Jumper, PEMA.

- 2018 was the wettest year in 124 years of records; 63.97 inches of rainfall
- Four of the five top wettest years have been in 2000s
- Flash flooding caused extensive issues in southcentral PA; Nearly 10 inches of rain fell across parts of Lancaster County in 4 hours
- 94% of flood reports are outside of the 100-year floodplain
- Heavy rain events are increasing, the Northeast U.S. leads the country with a 74% increase in heavy rain events over the past five decades
- Heavy rain event is defined as 2 inches or more liquid precipitation in a 24-hour period
- 45 comparison sites were surveyed to compare annual frequency of heavy rain events during the 2010s against the 1980s. 82% of the sites showed an increase in the frequency of heavy rain events
- Updated data is being used to provide research for grants to replace and enhance the IFLOWS system from the 1980s

4. DCNR and Climate Change - Planning for the future – Presentation by Greg Czarnecki, Director of Applied Climate Science.

Climate change is real and impacting the Commonwealth's ecological and recreational resources. Average annual temperatures are projected to increase through the end of the century. By the summer of 2100, State College, PA will feel like Kissimmee, FL does now. Increasing average temperatures will have an impact on human health, agriculture, recreation and tourism, energy, forests, ecosystems, wildlife, and the built infrastructure. The number of days with very heavy precipitation will continue to increase and the average number of days where snowfall could occur will decrease by the end of the century. Increasing temperatures will increase the number of annual growing season days by 10+ days. Most invasives spread and thrive in a changing climate and the typical Pennsylvania species (wild turkey, purple finch) will be on the move northward for cooler climates.

Adaptation options for climate change will include:

- Designing infrastructure to be more resilient to flooding and adapt to changing water levels
- Removing unneeded dams
- Replacing undersized culverts
- Determining recreational and resource carrying capacities and limiting some types of recreation in high-use areas
- Match recreational opportunities with changing site conditions
- Conserving key tracts of land that increase connectivity and provide migration corridors
- Increasing drought monitoring and fire modeling to predict risk and adding more trained firefighters and equipment for wildfire management
- Increasing renewable energy and sustainable transportation
- Carbon capture use and storage
- Forest carbon sequestration

5. Stormwater Management Update – Presented by Sean Furjanic, P.E., DEP.

- Municipal Separate Storm Sewer System (MS4) Program
 - i. 600 Pollutant Reduction Plans and Total Maximum Daily Load Plans were submitted to DEP in September 2017
 - ii. Plans identify Best Management Practices (BMPs) to be implemented over five years to achieve a 10% sediment load reduction
 - iii. 90% of the plans have been reviewed and approved
 - iv. Many municipalities collaborated in developing their plans
 - v. The most popular BMP chosen has been stream restoration projects
- Chapter 102
 - i. New requirement is the use of DEP's Post-Construction Stormwater Management (PCSM) Spreadsheet for water quality
 - ii. New requirement is recognition of evapotranspiration credits for vegetated BMPs
 - iii. New requirement is use of BMP outflow pollutant concentrations instead of percent removal
 - iv. There is an incentive for counties having a current approved Act 167 plan
- PCSM Manual
 - i. Work to update the 2006 Stormwater BMP Manual began in October 2017; the focus is on resilience of BMPs and protection from larger storms
 - ii. Preliminary draft has been completed and reviewed by DEP, County Conservation District staff and transportation agencies
 - iii. Possible publication as a draft technical guidance document in late 2021

Workgroup Updates

- 1. Stormwater Management and Flood Mitigation** – Update provided by Len Bradley.
The workgroup has identified a list of concerns relevant to these issues and have developed a list of questions that need additional information for the group to research.
- 2. Water Supply** – Update provided by Drew Dehoff.
The workgroup is identifying the focus for their discussions and are identifying additional data that is needed.
- 3. Emerging Contaminants** – Update provided by Trisha Salvia.
The workgroup has identified the scope of their work and what information is needed to complete their work and what additional information they may need. They are working with DEP staff to identify what current information is available and related needs on this topic.
- 4. Water Management and Land Use Management** – Update provided by Kate Harper.
The workgroup will be meeting soon.
- 5. Coordination Among State Agencies** – Update provided by Carol Collier.
The workgroup is developing a spreadsheet of which agencies are involved in water management and their responsibilities. The goal is to identify needs within the various systems and what will make the system better.

Chair Weston stated his goal is that each workgroup will be able to provide an update of what has occurred since the previous statewide water plan and provide specific recommendations on what needs to happen to move the plan forward.

Regional Committee Updates

Draft priorities developed by each regional committee were shared with the Statewide Committee.

Delaware Region – Priorities were reviewed by Kate Harper, Delaware Region representative.

Strengthen the link between land use and water resources management

Linking land use decisions and water resources management to sustain and enhance the quality of life in the Delaware River basin is a top priority of the committee. The development and distribution of water resource information and data will help strengthen the link between land use, soil, and water resources management among multiple stakeholders. These educational initiatives would improve how water resources management, soil and vegetation conservation, flood controls, stormwater management, and sewage management relate to land use decisions, infrastructure funding, construction decisions, and grant decisions. The goal of these efforts is to preserve, protect, restore, and enhance the quality, quantity, and availability of clean, sustainable water supplies for the people, businesses, and ecological needs of the Commonwealth.

Regional planning and land use coordination and collaboration

“Think regionally and act locally” is a priority for the committee. The committee’s solutions to the region’s water issues focus on developing regional coordination and planning to address stormwater management, climate change, water quality, water availability, water diversion, aquifers, healthy soils, and vegetation, protecting fish and wildlife habitats, and protecting recreation areas. Solutions are developed through regional planning efforts, education and outreach with policy makers and the community, along with adequate funding. Water planning should be considered on a holistic watershed basis considering both droughts and floods. A One Water concept that can further educate the community and increase collaboration among stakeholders for integrated water resources planning. Growth in rural and suburban areas continues to place stress on water infrastructure; replacement and retrofitting of existing infrastructure and development of new infrastructure can be a challenge in both urban and suburban communities; larger scale coordination efforts between local, state, and federal entities can help ensure more of the region’s needs are being accounted for during the planning phase and available resources can be maximized.

Lower Susquehanna Region – Priorities were reviewed by Mark Matlock.

Reduce or prevent point and nonpoint source pollution with a focus on currently impaired water resources

Reduce existing point and nonpoint source pollution in the region’s significant number of impaired water resources. Focus added attention on currently impaired water resources. Prevent new water pollution throughout the region for all sources. Implement active solutions to reduce pollution by forming public-private partnerships (P3), engaging willing landowners, targeting funding, and others. Broaden support and advocacy for our water resources through enlisting stakeholders, enhancing partnerships, and coordinating efforts.

Identify and target solutions for potential protection priority water resources

Identify protection priority water resources that may be trending towards impairment for any use, through the collection and analysis of data. Priorities may be determined by looking specifically at emerging contaminants, declining water quality and/or quantity, evolving land use impacts, and flooding issues. Improve the Region’s protection priority water resources through identified targeted solutions that may include education and outreach, asset management, resource improvement, and others.

Definition of "Protection Priority" - water resources prioritized for protection based on potential threats to water quality, for the purpose of setting long-term priorities for where focused efforts towards restoration, best management practices, and protection would provide the most benefit to the watershed.

Mark commented the Lower Susquehanna Committee has used the term “at risk” water resources but DEP believes the term “protection priority” is a better term. The committee will revisit the terms in July.

Potomac Region – The Potomac Committee did not have sufficient members in attendance to formally vote on the priorities. The draft priorities were reviewed by Mark Matlock.

Promote programs and practices that protect water quality and quantity and preserve the ecological integrity of groundwater and surface water

A major priority of the regional committee is to develop land use programs that protect water quality and quantity while preserving the ecological integrity of groundwater and surface water, including springs, streams, lakes, and wetlands. To ensure adequate water resources for present and future generations in the Potomac basin, the committee recommends an approach that encourages municipal programs to collaborate and plan regionally, address land use planning and growth, provide domestic water well construction standards, and implement best management practices to protect water quality and quantity. Completing Phase 3 Watershed Implementation Plans is also a high priority under this objective.

Climate change resiliency especially with regard to stormwater management, flooding, and drought

From a water resources perspective, climate change impacts stormwater management, flooding, and drought. Large intense precipitation events and longer duration storms are increasing stormwater runoff and creating or exacerbating erosion issues. Poor soils in this region have low infiltration rates, leading to less groundwater recharge and increased flooding. Varied storm frequencies may also lead to an increase in droughts.

Promoting stormwater management with the use of riparian buffers, rain gardens, and stream restoration will improve erosion and groundwater recharge. Identify protection priority water resources that may be trending towards impairment for any use, through the collection and analysis of data. Priorities may be determined by looking specifically at emerging contaminants, declining water quality and/or quantity, evolving land use impacts, and flooding issues. Improve the potential protection priority water resources through identified targeted solutions that may include education and outreach, asset management, resource improvement, and others.

Ohio Region – Priorities were reviewed by Mark Matlock.

Inter-agency Water Resource Planning

The committee supports a holistic approach to water quality, quantity, and availability. They believe inter-agency water resources planning can address many water priorities. Organizations that should be involved in inter-agency water planning include federal and state agencies, local municipalities, conservation districts, watershed districts, watershed authorities, nonprofit environmental organizations, and the Army Corp of Engineers. Plans should identify water resources needed to promote and facilitate economic development while maintaining watershed integrity and recreation benefits. They should also evaluate impacts of resource extraction from the Marcellus Shale on water quality, emerging contaminants in water systems, reclaiming of water resources impaired by abandoned mines, and inter-basin transfers of water. Act 167 stormwater planning at the county level is an initial step toward inter-agency water resource planning.

Water Quality and Quantity

The committee believes it is critical to think of water as a single entity which requires an approach that considers both water quality and quantity simultaneously. Stormwater is significantly impacted by climate change and aging infrastructure. Excessive amounts of storm water runoff can damage the quality of the waterways they are entering. Storage, infrastructure upgrades, and treatment are potential solutions but planting additional trees along the banks of tributaries can help as well. Trees mitigate long-term impacts of stormwater and improve water quality. Stormwater is a potential problem for both water quantity and quality and its potential solutions can have impacts on both as well.

Other concerns in the Ohio basin include legacy issues encompassing acid mine drainage and orphaned wells, inter-basin transfers, agricultural activities, and the introduction of larger-scale industry water users in the region have implications on both quantity and quality.

Great Lakes Region – Priorities were reviewed by Matt Wolford.

Protect Water Quality and Quantity in the basin

Lake Erie is vitally important to the prosperity of northwestern Pennsylvania, serving regional domestic, commercial, and industrial needs. The Great Lakes supplies power generation, offers world-class recreational opportunities, and provides transportation and trade access to the entire Great Lakes – St. Lawrence Seaway. As a result, the committee believes that Pennsylvania should have a larger voice in federal legislation and other measures that may impact Lake Erie and Lake Ontario with continued support by the Commonwealth and federal agencies.

Additionally, the committee recognizes that the region is not composed solely of Lake Erie and Lake Ontario, so efforts must be made to protect water quality throughout the larger region's watersheds. This can be accomplished by analyzing contaminants, evaluating the impacts of storm water management, and agricultural best management practices throughout the region. This will also allow for a better understanding of the impact of climate change on this unique watershed.

Coordinate with Partners

The best way to achieve the larger goals of the committee is to actively engage with partners along multiple political strata. This includes other states, provinces, and other stakeholders including governmental and non-governmental. Coordination should begin with education and outreach to better understand land use impacts and implement best management practices to better maintain the hydrologic integrity of the region. On a local level, municipalities should collaborate toward a regional approach with support from the Pennsylvania Department of Environmental Protection (DEP), whose role would be to encourage open and continual communication and incentivize cooperation through grant funding.

Upper/Middle Susquehanna Region – Priorities reviewed by Andrew Gutshall.

Protect important headwater habitats, enhance recharge areas, and minimize stormwater runoff of the Upper/Middle Susquehanna basin

To care for the water resources in the Upper/Middle Susquehanna basin and ensure a sustainable supply of quality water, important headwater habitats and groundwater recharge areas must be protected. Because much of the basin is forested, the approach should focus on forested land use practices and their effect on area water supplies.

Minimizing large scale forest cutting is a priority to mitigate downstream flooding, preserve forested ecosystem services, and reduce sedimentation. Addressing legacy infrastructure in acid mine drainage areas is also critical to protecting important headwaters and streams. We strongly encourage reuse of degraded/abandoned land such as available industrial or commercial lands. Committee members recognize a different approach must be taken to address water quantity and quality issues between rural and urban/suburban areas within the region. Rural areas strive to protect forest lands, preserve recreation areas and greenways, and protect critical habitat areas. Stormwater quality and quantity concerns in suburban and urban areas may be addressed with green infrastructure through zoning ordinance changes for underutilized and/or vacant commercial property, as well as their associated parking and paved areas.

Working collaboratively with stakeholders including state, county, and municipal government, conservation districts, and watershed associations through education and outreach efforts is essential to advancing sound land use practices that are protective of these headwater areas. As part of a strategy to accomplish this, local governments can promote appropriate municipal ordinances in public water supply recharge areas, which is particularly important in areas with limited availability of quality water. The committee also recommends that statewide water well construction standards be implemented, particularly related to residential well drilling and geothermal bore holes, which will protect and sustain groundwater quality and availability.

Multi-municipal planning and coordination

Land use planning and development are critical to protect headwater habitats, enhance recharge areas, and minimize stormwater runoff. Planning needs to expand with county wide action plans and integrated water resources management throughout a watershed. A regional approach of education and outreach to water resource stakeholders, emphasizing the value of coordinated water quality and quantity planning among municipalities, is critical to protecting all communities. Continue to prioritize upgrading existing aging water infrastructure to maintain water quality, recognizing that parts of the region have experienced a decline in population and as a result many communities are challenged economically. Multi-municipal planning coordination enhances success in preserving water quality and optimizes the use of funding dollars.

Following the review of the priorities for all regions, Chair Weston noted there are common themes throughout the regions. He noted that regions can have more than two priorities if needed, the priorities should not be broad, but specific, and include specific recommendations, actions, and examples when possible.

Resources Provided in the Chat:

- <https://www.climatecentral.org/wgts/CityFutureTemps/index.html>
- Erie County Department of Planning's "Municipal Stormwater Assistance Program" – Coordinate's infrastructure digitalization (long-term asset management) and MS4 MCM implementation among urbanized municipalities surrounding the city of Erie. <https://eriecountypa.gov/departments/planning-and-community-development/programs/municipal-stormwater-assistance/#:~:text=Erie%20County's%20Municipal%20Stormwater%20Assistance,effective%20planning%20across%20the%20region>

Next Steps:

The next steps in the planning process developed by Chair Weston follow:

1. Prioritize and refine the list of priorities.
2. Continue presentations for the full committee on specific topics in the priorities. Since the presentations will be presented in a virtual platform, regional committee members will also be invited to attend.
3. Development of white papers with background information and recommendations on the priorities.

Future Meetings:

The committee has moved to a bi-monthly schedule instead of quarterly meetings. The meeting dates for the Statewide Committee in 2021 are:

- July 21
- September 15
- November 17

Chair Weston thanked the committee members for their participation and ideas during the meeting. The meeting was adjourned at 12:00 pm on an Andrew Gutshall / Matt Wolford motion.