



**State Water Plan Update
Delaware Water Resources Regional Committee Meeting**

January 11, 2022
9:00 a.m. - 12:00 p.m.
Virtual Meeting via Microsoft Teams

Committee Members in Attendance:

Kelly Anderson	Gary Kribbs
Ed Boscola	Susan Myerov
Mark Bowen	Chad Pindar
Becky Bradley	Jane Rowan
Joseph Buczynski	Peter Rykard
Carol Collier	Eliza Walbridge
Andrew Frankenfield	Nathan Walker
Irvil Kear	

Committee Members Not in Attendance:

Patrice Dume	Mark Nemitz
Kate Harper	Bill Royer
Christopher Norris	Elaine Paul Schaefer
James McCarthy	Christopher Uhland

Others in Attendance:

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

Visitors:

None

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. Chad Pindar, Committee Chair, welcomed all committee members to the meeting. Attendance was recorded through the online participants' log.

Meeting Summary

The meeting summary of the October 12, 2021, meeting was reviewed. Irvil Kear and Mark Bowen suggested some non-substantive changes to the meeting summary. The meeting summary, with approval to make the changes, was approved on a Irvil Kear / Carol Collier motion.

Public Comment

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

DEP Update

Kristina Peacock-Jones provided 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 project involving data sharing between agencies is now operational for SRBC and USGS. Data sharing is still pending with DRBC.

The three draft Critical Area Resource Plans (CARPs) continue to be under development and the drafts are progressing. Two of those CARPs are for the Ohio Regional Committee and one is for the Potomac Regional Committee.

The State Water Plan Atlas from 2009 is being developed into a Story Map as a Digital Atlas. The Digital Atlas should be ready in the first half of 2022.

The eighth Statewide Committee meeting was held on November 17, 2021. The ninth meeting is scheduled for January 19, 2022.

Regional Materials

Mark Matlock shared a cumulative summary of the Delaware Regional Committee's work for the past two years. The committee reviewed the document and made slight revisions to the materials. The revised regional committee materials follow.

Delaware Regional Committee

Specific Regional Priorities

The Delaware region is the most populous region with [over 5.5 million \(43% of Pennsylvania's population\) people calling it home and](#) contains the only estuary in the state, which runs alongside Philadelphia. The large and growing population is going to require holistic coordination between all users to ensure the availability and quality of water as well as addressing stormwater and flooding. These varying and complex needs are partly addressed by entities like the Delaware River Basin Commission and the National Estuaries program but a unified approach to land use and water management is a critical piece of the puzzle.

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 can further educate the community and increase collaboration among stakeholders for integrated water resources planning. Growth in rural, urban, 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.

Region’s Uniqueness

What are the Delaware region’s unique characteristics that are important considerations in the state’s water planning?

- This is the most populated region in the Commonwealth and features a diverse population living in urban, suburban, and rural locations.
- The Delaware region has a large number of impervious surfaces, leading to a greater potential for polluted runoff.
- The region boasts abundant and varied natural and recreational resources.
- The main stem of the Delaware River remains undammed.
- The Delaware basin discharges into the Atlantic Ocean via the Delaware Estuary, which is comprised of a unique ecosystem and a variety of stakeholders, including federal programs like the National Estuary Program, water suppliers, and industrial users. This also means that tidal influences are a consideration in planning efforts for the basin.
- The basin is challenged by the demands of four states and multiple jurisdictions. In 1954, the United States Supreme Court entered a Decree that established certain rights and obligations for New York City and New Jersey concerning

diversions of water out of the Delaware River Basin. Delaware, New Jersey, New York, Pennsylvania, and New York City are all parties to the Decree.

- The Delaware River Basin Commission plays a significant role in the management of water resources in the basin.
- Philadelphia's port is a large freshwater port and is an economic hub of great value but also yields challenges to water resources.

Stormwater and Flood Management

What are the region's concerns and recommendations for stormwater and flood management to preserve water quality?

- Increased flooding can occur when floodplains are saturated by repeated storms, as well as during acute high intensity events.
- Stormwater management infrastructure often lacks proper maintenance, especially aging infrastructure.
- Strengthen regional planning or watershed-scale planning of water resources to support and enhance recommendations and requirements laid out in the [Department of Environmental Protection's Stormwater Best Management Practices Manual](#).
- Regional authorities should ensure that Act 167 plans and resulting model ordinances do not propose to alleviate flooding on tributaries at the expense of main-stem flooding in accordance with [the act's provisions](#).
- Stakeholders should continue to actively support source water projects that minimize impacts downstream. It is vital that the connection between potential sources for pollution upstream and resultant water quality downstream are understood by the public.
- Water should be considered from a holistic perspective as with the "One Water" movement.
- Storm surge may become an issue in the lower Delaware River as winds and long fetches draw higher waters upstream into the Delaware Estuary Coastal Zone.
- Schuylkill headwaters have coal mine refuse piles that need to be properly managed or removed to minimize the potential for coal tailings runoff into the system.
- Encourage projects that enhance stormwater management on previously developed land.
- Educate the public about stormwater impacts, including the difference between localized flooding versus regional flooding.

Climate Change Adaptation for Water Resources

How are water resources within the region being impacted by climate change and what could we do to adapt?

- Encourage regional authorities to assess the ability of aging infrastructure to handle high-intensity storm events, which are increasingly likely to occur in face of

a changing climate, and implement infrastructure maintenance, as necessary, to mitigate flooding impacts.

- There is an increased risk that droughts will lower the water table and damage upper soil layers; as a result, we must continue to promote healthy soil and groundwater infiltration to maintain aquifers and manage reservoir systems to abate these potential effects on water quality and quantity. Healthy soils absorb more water and are critical in reducing runoff and mitigating the effects of drought.
- Encourage stakeholders to mitigate impacts of sea-level rise, including the impact on port facilities' economic benefit provided to the region, and protect drinking water sources and infrastructure from salt front intrusion in the Delaware Estuary.
- Encourage development of additional scenario models so municipalities can proactively plan for potential outcomes of climate change, which is resulting in significant amounts of riverine and localized flooding. Promote data showing changes in rain frequency and intensity and focus on climate resiliency. Recognize that the increased precipitation and storm frequency will have effects on land use planning.
- Stakeholders should make use of all potential bodies of research and resources such as the Delaware Advisory Committee on Climate Change, which recently formed to develop ideas and tools.
- Climate change can have a number of water quality impacts including thermal impacts affecting dissolved oxygen and water use designations, an increase in both terrestrial and aquatic invasive species, increased erosion due to higher intensity storms resulting in higher turbidity, and changes in vegetation types affecting stream buffers.

Mark Bowen Presentation

Mark Bowen provided a brief presentation of his pilot study. "Inventory of Preparedness: Municipalities and Changing Rainfall Patterns."

- Thirty-one municipalities within the Delaware Estuary were surveyed on preparedness with nine responding. The inventory was postponed three times due to extreme weather and often the municipality did not know who had the information that was requested.
- 100% of the responding municipalities have experienced increased flooding associated with a stream or river system and 78% have experienced increasing instances of flooding.
- 67% of the communities are aware of increases in rainfall intensity and annual depth and 44% have had contact with state or county officials regarding adaptation to changing rainfall patterns.
- 78% of the municipalities express a need for assistance with community outreach.
- 89% of the municipalities say their community has been adversely affected by changes in rainfall patterns and 67% say their municipality budget has been adversely affected by changes in rainfall patterns.

- 33% of the municipalities have funding sources for stormwater and flooding and 89% have support available from state government.
- Community concerns include large storms or hurricanes, streambank erosion, water quality and public health, and road maintenance.
- Utility impacts include sewer infiltration and sewer infiltration with surface water.
- Flooding and floodplain impacts include localized street and intersection flooding, rivers and streams flowing over the banks, increased depth of the floodplain, and increased floodproofing of the floodplain.

Logic Model

James Horton, DEP, shared a template of the previous logic model work completed by the committee. The logic model can be used to make the region's priorities actionable and measurable. A logic model is a picture that links the long term and short-term outcomes, or changes and results you hope to achieve, with the program activities and resources available to move the priorities forward.

The logic model template has the following components.

- Resources
- Activities
- Outputs
- Intermediate outcomes
- Long term outcomes

Committee members developed comments and ideas to be included in a logic model for each of their two priorities and additional comments were included in the chat function.

Comments in the Chat

- Community Tree Management - <https://www.dcnr.pa.gov/Communities/CommunityTreeManagement/Pages/default.aspx>.
- <https://treepennsylvania.org/bare-root-tree-program/>.
- Bare Root Tree Program - the only seasonal grant program for communities in Pennsylvania! The new Bare Root Tree program aims to assist communities in Pennsylvania with increasing the tree canopy.
- <https://treepennsylvania.org/treevitalize-grants-program/>.
Tree Vitalize Grants Program - Please note: Due to funding changes, this program is NOW CLOSED with no plans to re-open. Please visit our Bare Root Tree Grant program page for information on available funding for trees.
- <https://treepennsylvania.org/our-partners/>.
Tree Pennsylvania collaborates with partners from across the Commonwealth and the Nation to create sustainable urban and community forests. Statewide partners: Tree Vitalize PA DCNR, Bureau of Forestry.
- <https://planningpa.org/advocacy/mpc-task-force/>.

MPC Task Force - APA - Pennsylvania Chapter, Chair Gilbert M. Malone, Esq. Malone and Neubaum, 42 Duke Street, York, PA 17401717-843-8001; Email Gilbert Summary Report 2001-2010 MPC Subcommittee, July 2010.

- The Statewide Committee is developing a list of legislative needs. This MPC revision/update should be included.
- Schuylkill Action Network - <https://www.schuylkillwaters.org/>.
- Stroud Water Research Center seeks to advance knowledge and stewardship of freshwater systems through global research, education, and watershed restoration. - <https://stroudcenter.org/>.
- Schuylkill Priority Lands Tool - <https://www.schuylkillwaters.org/projects/schuylkill-priority-lands-tool>.
The Schuylkill Watershed Priority Lands Strategy is a model that recognizes the Land-Water Connection and identifies the highest priority lands to protect.
- https://docs.google.com/presentation/d/1ykFV6prZnD2I2qJtVLQD54hw-GG42KIYvcXVfdg3zXw/edit#slide=id.g9c6418a364_1_41.
- How will forest ecosystems and hydrologic processes in the Delaware River Basin be affected by climate change and land cover change? Dr. Claire Jantz Professor, Geography-Earth Science Director.
- <https://www.nj.gov/drbc/programs/supply/use-demand-projections2060.html> - Delaware River Basin Commission|Water Withdrawal & Consumptive Use Estimates (1990-2017) & Projections Through 2060.
Planning, Basin Water Use, New Report, Publication, Water Withdrawal & Consumptive Use Estimates (1990-2017) & Projections Through 2060.
- Academy's work. - [Delaware River Watershed Initiative | Research at The Academy of Natural Sciences of Drexel University \(ansp.org\)](#) Delaware River Watershed Initiative.
- <https://www.sciencedirect.com/science/article/abs/pii/S0048969721044235> Multiple in-stream stressors degrade biological assemblages in five U.S. regions. Biological assemblages in streams are affected by a wide variety of physical and chemical stressors associated with land-use development.

Next Steps

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

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

- Edits to the committee's developed materials will be updated.
- Within the next week, a public hearing will be scheduled for March 2022. The public hearing will be a full day hearing with each regional committee having one hour to receive public comment. Comments from the public hearing will be available for the Delaware Regional Committee to review at the April meeting.
- A committee vote on approval of the committee's priorities and Story Map materials will be held at the April meeting.

- The approved regional committee documents will be provided to the Statewide Committee.
- Next Statewide Committee meeting is Wednesday, January 19.
- Delaware Regional Committee meetings are scheduled for the following dates in 2022.
 - April 12
 - A July meeting is not scheduled at this time.
 - October 11

The meeting was adjourned at 11:55 on a Mark Bowen / Becky Bradley motion.

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