



Delaware River Basin Commission

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Steven J. Tambini, P.E.

Executive Director

Advisory Committee on Climate Change

MEETING SUMMARY

Wednesday, 26 January 2022

2:00 pm – 4:00 pm

MEETING ATTENDEES (40)

Members and Alternates (17):

Delaware - Robert Scarborough, Ph.D.; DNREC

New Jersey - Nicholas A. Procopio, Ph.D., GISP; NJDEP

New York - Mark Lowery; NYSDEC; and Alternate Riobart Breen; NYSDEC

Pennsylvania - Scott R. Perry; PADEP*

United States Government - Amanda L. Babson, Ph.D.; NPS

United States Government - Arthur DeGaetano, Ph.D.; NOAA NRCC

New York City - Alan Cohn, NYC DEP

City of Philadelphia - Julia Rockwell, PWD

Partnership for the Delaware Estuary - Danielle Kreeger, Ph.D.

William Brady III, P.E.; Exelon Corporation

James J. Chelius, P.E.; American Water, Inc.

Marjorie B. Kaplan, Dr.P.H.; Rutgers Climate Institute, Rutgers University

Upmanu Lall, Ph.D.; Columbia Water Center, Columbia University

Christopher Linn, AICP; Delaware Valley Regional Planning Commission

Howard Neukrug, P.E.; The Water Center at Penn, University of Pennsylvania

David Velinsky, Ph.D.; Academy of Natural Sciences of Drexel University, Drexel University*

Not Present: John Callahan; Delaware Geological Survey, University of Delaware

**not present for vote to approve prior meeting summary for 8/3/21.*

DRBC Staff (12):

Elizabeth Koniers Brown, Pamela Bush, Fanghui Chen, Kristen Bowman Kavanagh, David Kovach, Chad Pindar, Kevin Pregent, Anthony Preucil, Amy Shallcross, Steve Tambini, Michael Thompson, John Yagecic

Other Attendees (11):

Tsega Anbessie, Stefanie Baxter, Steven Domber, Carl DuPoldt, Stacey Hanrahan, Skelly Holmbeck, Garret Kratina, Hoss Liaghat, Kimberly Long, Preston Luitweiler, Brenan Tarrier

MEETING SUMMARY

Call to Order – Meeting was called to order at 2:03 pm by Howard Neukrug, The Water Center at Penn and Committee Chair, and held with remote attendance only using Zoom webinar and its call-in capabilities.

Member Roll Call – Attendance was taken by Kristen Bowman Kavanagh, DRBC; one committee member was not in attendance as noted above.

Approve Meeting Minutes – Minutes of the 8/3/21 meeting were unanimously approved without discussion, after a motion to approve by Amanda Babson that was seconded by Marjorie Kaplan.

Climate Change Seminar – Kristen Bowman Kavanagh announced that DRBC was working with The Water Center at Penn (WCP) to arrange for a May 11, 2022, webinar as part of WCP Water Exchange Speaker Series that will feature ACCC members. More details to come. Howard Neukrug shared that WCP and the DRBC were also in the early stages of discussing a possible collaboration on a multi-part speaker series on climate change. Ms. Kavanagh also defined the difference between ACCC reserve members with non-expiring terms and non-reserve members with two year terms; this August, non-reserve terms end and DRBC will be posting openings for non-reserve members.

DRBC Announcements – Kristen Bowman Kavanagh provided several announcements on upcoming DRBC meetings including the 2/9/22 Public Hearing, 2/17/22 Water Management Advisory Committee (WMAC) meeting, and the 3/16/22 Regulated Flow Advisory Committee (RFAC) meeting. Details on all meetings are on the DRBC website.

Presentations:

“Historic and Projected Changes in Extreme Rainfall in New Jersey,” by Dr. Art DeGaetano, Committee Member, Professor Earth and Atmospheric Sciences, Cornell U., and Director, NOAA Northeast Regional Climate Center (NRCC) – Dr. DeGaetano gave a presentation on recent analyses he has completed, for both New Jersey and for the Chesapeake Bay Watershed, to estimate future extreme precipitation Intensity-Duration-Frequency (IDF) curves using downscaled ensemble global climate models. The work involved developing a set of adjustment factors for points that were used to convert present day intensity- duration-frequency curves such as those available from NOAA Atlas 14 to values reflecting future climate conditions. An interactive web tool was developed to visualize the results as shown for the [Chesapeake Bay](#). A similar web tool was developed for [New Jersey](#). During a question and answer period afterwards, natural decadal variability and overall trends were discussed as well as differences in predictive accuracy, as well as regionalized differences in calculations and confidence interval methods. Dr. DeGaetano indicated that the trends in rates of change are fairly constant such that the projections have a relatively long shelf life (update after ~20 years to determine various from historical record), and a pretty consistent increase in precipitation of 20/25% was estimated in the Delaware River Basin portion of the NJ analysis since the last Atlas 4 (2000). Generally, extreme rainstorms have grown more severe and frequent.

“DRBC Modeling Updates,” by Amy Shallcross, P.E., DRBC Manager of Water Resource Operations – Amy Shallcross provided a quick update on current climate modeling efforts (currently drought focused) as well as on proposed future efforts that have a broader range that includes surface and groundwater availability, effects of land use/cover changes, flooding, and habitat, among others.

“Water Withdrawal and Consumptive Use Estimates for the Delaware River Basin (1990-2017) With Projections Through 2060” by Michael Thompson, P.E., DRBC Water Resource Engineer – Michael Thompson gave a summary of a report published by DRBC in October 2021 that presents water withdrawal and consumptive use projections out to 2060. The study will assist with water supply planning by predicting water needs and availability. The next studies will go further in depth on possible repeat of drought of record and impact of climate change. Methods of obtaining, classifying, and analyzing water use data were described. The results indicate that peak withdrawals have already occurred in the Delaware River Basin.

“Climate Change Priorities and the DRBC Comprehensive Plan” by Steven Tambini, DRBC Executive Director. Steve Tambini initiated a discussion focusing on DRBC’s relationship to climate change. DRBC will base any of its climate change priorities on available guidance and good science. The committee believes, and DRBC agrees, that top climate change priorities for DRBC are drought management and water sustainability and sea level rise. The presentation included a general review of what the Compact is and the authority it confers, as well as what the Comprehensive Plan is and how it is implemented. The DRBC does not currently have an explicit policy on climate change. A DRBC climate policy would recognize climate change and its impacts, describe how DRBC will effectuate its actions in light of a climate change policy, and include water equity considerations and a formal Climate Action Plan. DRBC is discussing how to adopt and include a climate change policy in its Comprehensive Plan. During the Q&A session, Marjorie Kaplan asked whether a synthesis report on how climate change impacts the Basin would assist DRBC in laying groundwork for moving forward with full policy? Yes, but DRBC would not pause on progressing with a policy before having a completed synthesis report. Jim Chelius asked whether the Compact restricts DRBC actions to mitigation or adaptation; Mr. Tambini said that while regulating emissions is likely not the intent of the Commission, it has broad authority to address issues related to water efficiency. Any actions taken would be aligned with the Commission’s authority. Pam Bush, DRBC Assistant General Counsel, then outlined various authorities Commission has in relation to climate change. Dr. Art Degaetano brought up that a National Climate Assessment is forthcoming, a group that DRBC could work with for climate assessments in the Basin. Although DRBC is not looking for any specific help from the Committee on this topic at this time, feedback is always welcome.

Adjournment – The meeting was adjourned by Howard Neukrug at approximately 3:49 pm (motion by Marjorie Kaplan with a second by Dave Velisnky).