



Delaware River Basin Commission

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Executive Director

Water Management Advisory Committee

MEETING HIGHLIGHTS

Thursday, October 27, 2016

The DRBC Water Management Advisory Committee (WMAC) was called to order at approximately 10:10 am by Dana Olivio, Chair. Materials and presentations from the meeting are available online at http://www.nj.gov/drbc/about/advisory/WMAC_oct272016.html.

ADMINISTRATION

- Ken Najjar, Director of Water Resource Management, welcomed participants to the newly renovated Goddard Conference Room and attendance was taken. Some members participated via web conference and telephone, as noted on the attendance sheet.
- Following nominations from the floor, an election was held for new officers. Jim Mershon will serve as Chair and Kathy Klein as Vice Chair for two year terms (fiscal years 2017 and 2018).
- Applications for the Environmental Organization member vacancy of the WMAC were received by the October 1, 2016 deadline. The selection will be announced once all the applicants are notified. The Fisheries seat remains vacant since no applications were received. Two openings will occur in June 2017: Civic and Agriculture; those openings will be posted on the website early in 2017 with a deadline of April 1, 2017; current members may apply to retain those positions. All WMAC Members and guests are asked to help solicit qualified applicants for vacancies.
- The Committee approved the June 23, 2016 meeting summary.
- Meeting dates for 2017 were selected: Thursday February 23, Thursday June 22 and Tuesday October 24, 2017.
- New Chair, Jim Mershon, presided over the remainder of the meeting.

UPDATES

Ken Najjar provided an update on DRBC activities.

- The Commission's public hearing on November 9, 2016 will include discussion on hydrologic conditions and public comment on potential drought declarations, as well as presentation and public comment on 20 draft dockets; the business meeting will be held on December 14, 2016. Information about the upcoming Commission meetings may be found at: <http://www.nj.gov/drbc/meetings/upcoming/index.html#meeting>
- A public hearing was held on July 27, 2016 subsequent to the May 9th publication of rule revisions to the DRBC fee schedule and water supply charges. The comment period closed on August 12, and staff is developing a comment/response document to address submitted public comments. The Commission may vote on the revisions at the Dec 14 business meeting.
- There are two employment opportunities at DRBC as a result of recent and pending retirements: 1) Director of Finance and Administration, and 2) Water Resource

Engineer/Planner. For details see:

<http://www.nj.gov/drbc/about/staff/employment/index.html#dfa>

Dan Goode, USGS, announced that Delaware and Pennsylvania both received awards from the USGS Cooperative Water Use Science Program's Water Used Data Research program (WUDR). The States' proposed activities were part of the presentations at the June 23, 2016 WMAC meeting.

HYDROLOGIC CONDITIONS

Amy Shallcross, DRBC Water Resource Operations Manager, presented an overview of hydrologic conditions in the basin, including:

- below average precipitation for much of the basin over the last three years.
- status in 11 of 14 groundwater wells is below normal, including 2 at drought warning levels and 2 at drought emergency levels in four PA counties.
- daily mean flow is below normal in many streams and in the Delaware River at Trenton
- NYC-DRB combined storage is at 53%, which is less than the median for this date; supplies in lower basin reservoirs (Beltzville and Blue Marsh) are approaching the Drought Warning level as releases are being used to meet the Trenton flow target
- the salt line (7-day average location of the 250 mg/L chloride concentration) is 14 miles upstream of its usual seasonal position.
- much of the basin is abnormally dry or in a moderate drought condition; precipitation forecasts for the next week are not encouraging; the NOAA seasonal drought outlook predicts that the dry/drought conditions will persist in the upper basin through January 2017.
- the Commission will accept public input on November 9th regarding the persistent dry conditions throughout the basin and potential drought declarations; should conditions worsen, it could be necessary to declare a water supply emergency under section 10.4 of the Compact.

DROUGHT MANAGEMENT IN THE DRB

DRBC: http://www.nj.gov/drbc/library/documents/WMAC/10272016/DRBC_drought-mgmt_shallcross.pdf

Ms. Shallcross made a presentation on the role of and authorities vested in DRBC to manage water resources during dry and drought-conditions. In summary:

- The Commission's drought actions complement the states.
- DRBC's primary role is the conservation of regional reservoir storage for purposes of flow augmentation and salinity control in the Delaware Estuary.
- Plans identify phased reductions in flow objectives, out-of-basin diversions and conservation releases, and additional storage for Commission use in meeting Trenton.
- Plans are automatically implemented based on reservoir storage conditions.
- Major power users must implement consumptive use replacement.

New York: http://www.nj.gov/drbc/library/documents/WMAC/10272016/NYSDEC_drought_holt.pdf

Michael Holt, NY DEC, Division of Water, presented current hydrologic conditions in NY state where dry conditions persist: western NY is in drought warning; eastern NY is in drought watch; at 62.9% the combined NYC Delaware and Hudson system reservoir storage is below average

(75.5%). Conditions are assessed on a county-basis across 8 regions (Areas I- VIII) based on precipitation, stream flow, groundwater levels except for Area IIA (NYC) where conditions are based on NYC reservoir levels. Mr. Holt also explained the stages of drought (watch and warning) and that the state implements its drought management via local and utility drought contingency plans. Water conservation efforts are voluntary under both Stage 1: Drought Watch and Stage 2: Drought Warning, but under the latter, federal, state and local water resource agencies are notified to prepare for emergency response measures. The state has a Drought Task Force that includes state agencies, USGS and others. NYSDEC is employing social media for conditions reporting and feedback on management efforts.

Pennsylvania: http://www.nj.gov/drbc/library/documents/WMAC/10272016/PADEP_drought_liaghat.pdf

Hoss Liaghat, PA DEP, presented current hydrologic conditions in PA where dry conditions persist primarily in the central counties, as well as in eight counties in the DRB where drought watch status has been declared. The Commonwealth considers precipitation, stream flow, groundwater and soil moisture (Palmer Index) for county-based condition assessment. There is a 3-stage process (watch, warning and emergency), a state-wide monitoring network, and coordination among agencies. PEMA (Pennsylvania Emergency Management Agency) manages water resources during a drought emergency (Ch. 118, 119, 120 of the Emergency Management Code 35 Pa.C.S. §§ 7101-7701 as amended) with coordination and support from DEP's Drought Coordinator and the Drought Task Force.

New Jersey: http://www.nj.gov/drbc/library/documents/WMAC/10272016/NJDEP_drought-mgmt_doughty.pdf

Steve Doughty, NJDEP- Division of Water Supply and Geoscience, presented an overview of drought management in NJ. Water supply indicators were developed in 1999 for 6 regions defined by hydrologic boundaries. Indicators include precipitation, reservoir levels (where applicable), unconfined groundwater levels (3 wells per region), and stream flows, which are weighted based on relative significance as a drinking water source for that region. Rankings include normal, moderately dry, severely dry and extremely dry. Reservoir storage for the regions dependent on those water supply sources are currently low and a drought warning has been declared for the NE, NW, Central and Coastal North regions. The SW region is in drought watch as determined by lower basin reservoirs in PA and NYC-DRB reservoir storage. Groundwater supplies are generally less impacted by short-term dry periods. NJ has also analyzed events in past decades regionally by simulating historic indicators for declared drought conditions.

Delaware: http://www.nj.gov/drbc/library/documents/WMAC/10272016/DNREC_drought-mgmt_barndt.pdf

John Barndt, DE DNREC Division of Water, presented on drought management in Delaware where a small portion of the state –the piedmont province—is reliant on freshwater streams while the majority of the state in the coastal plain relies on ground water. Consequently, drought management efforts often initially focused on the piedmont province (northern New Castle County) where a number of major public surface water supply systems serve the population, e.g., City of Wilmington, City of Newark and SUEZ Water. These surface water supplies are generally the first water sources to be impacted by drought. The state's Water Supply Coordinating Council (WSCC) is chaired by the DNREC Secretary and provides recommendations on water supply statewide. It is the body that recommends a Drought Watch to the Governor. The WSCC, DNREC, Delaware Geological Survey and the University of

Delaware-Water Resource Agency advise or participate with other agency representatives on the Governor’s 8-member Drought Advisory Committee which provides recommendations to the Governor for a Drought Warning or Drought Emergency. The Governor issues all drought declarations. The northern New Castle County drought indicators include precipitation, stream flow on Brandywine and White and Red Clay Creeks, chloride level on the Christina River, and reservoir and groundwater well levels. Conservation measures are voluntary under drought watch and warning, but mandatory in a drought emergency. Delaware has defined a three-phase drought operating plan last updated on September 17, 2014.

DISCUSSION – In addition to a few requested clarifications during each presentation, participants were invited to ask follow-up questions. D. Goode asked if there were metrics in place to assess if/how PA water use reduction targets were being met. D. Jostenski, PA DEP, responded that there was not a formal system for getting feedback from suppliers regarding reductions, but that information from the regional drinking water programs did get back to Harrisburg. NJDEP mentioned that they have some data to suggest that once drought declarations are made, water use may actually increase. J. Bowers speculated on recent rain events and how soon they might be calculated into the assessment and possible changes to the 30-day averages. D. Goode noted that the WMAC may benefit from additional information on Aquifer Storage and Recovery (ASR) systems and the potential for groundwater storage in the Basin. J. Whitney, EPA Region 2, offered to provide additional information on EPA’s Water Sense Program and how that may inform next generation water conservation efforts.

DRBC indicated that the presentations would subsequently be posted online.

Focus of 2017 Meetings

Building on the list of topics from the 2015 survey, members have indicated interest in the following topics:

Climate effects on water supply	<ul style="list-style-type: none"> • Salt line • Implications of migrating from groundwater to surface water sources /interconnections
Conservation	<ul style="list-style-type: none"> • Beneficial reuse; residential gray-water; conservation techniques • EPA WaterSense program; efficiency standards • Trends in system losses (analysis of audit results)
Storage	<ul style="list-style-type: none"> • Opportunities for increasing reservoir storage • Aquifer Storage and Recovery (ASR)
Consumptive Use	<ul style="list-style-type: none"> • Irrigation/outside water use • Ocean discharge (vs re-use)
Economics of water	<ul style="list-style-type: none"> • Consideration in long-range planning • Conservation-oriented rate structures • Charging for groundwater?

Next Meeting: February 23, 2017

Location: DRBC

WMAC MEETING ATTENDANCE – October 27, 2016

WMAC MEMBER / ALTERNATE	REPRESENTING
Anderson, Kelly*	City of Philadelphia Water Dept.
Barndt, John	Delaware DNREC
Bowers, Jan*	Chester County Water Resources Authority
Bittner, Laura	US Army Corps of Engineers
Cocke, William*	DNREC - Alternate
Eisenbrey, Virginia	Water Utility – Artesian Water - Alternate
Goode, Dan	USGS
Hesson, Molly*	City of Philadelphia Water Dept. - Alternate
Holt, Michael*	NY DEC
Jostenski, David*	PA DEP - Alternate
Kauffman, Jerry	UD-WRA
Klein, Kathy*	WRA - DRB
Liaghat, A. (Hoss)*	Pennsylvania DEP - Alternate
Mershon, Jim	Industry - Merrill Creek Owners Group
Noble, Mary Ellen	Environmental - Delaware Riverkeeper Network
Olivio, Dana	New York City DEP
Olynyk, Carolyn	NJ DEP
Schmitt, Erik*	NY DEC - Alternate
Tatham, Betty	Civic - League of Women Voters
DRBC STAFF	
Najjar, Ken	Water Resource Management
Pindar, Chad	Water Resource Planning
Rupert, Clarke	Communications
Sanchez, Jessica	Water Resource Planning, WMAC Liaison
Shallcross, Amy	Water Resource Operations
Tambini, Steve	Executive Director
GUESTS	REPRESENTING
Baxter, Stephanie	Delaware Geological Survey
Diggins, Allison*	DE DNREC
Doughty, Steve	NJ DEP
Hock, John	NY DEC
McGuire, Meg	Delaware Currents
Mercuri, Matthew*	Mercuri Assoc.
Miri, Joseph	NJ DEP
Strasser, Meredith*	Talon Energy
Tarrier, Brennan*	NYS DEC
Vowinkle, Eric	Rutgers, Dept. of Environmental Sciences
Whitney, Janice*	US EPA Region 2 – WaterSense Partnership Program
* Attended via webinar/phone	

Approved: February 23, 2017