

Delaware Water Supply Coordinating Council  
May 19, 2016  
Final Meeting Minutes

**ADMINISTRATIVE – John Barndt, Chair**

Mr. Barndt called the meeting to order at 10:13 a.m. and welcomed everyone. The meeting was called to order late due to a traffic jam on Route 1, affecting those traveling from the north. The attendance list is at the end of the meeting minutes.

**REVIEW OF FEBRUARY 4, 2016, DRAFT MEETING MINUTES**

Mr. Barndt asked if anyone had any questions or comments about the February 4, 2016, draft meeting minutes. Minor edits were made prior to the meeting. Mr. Vic Singer motioned to approve and Mr. Joe DiNunzio seconded. All were in favor.

Final minutes will be posted online at <https://egov.delaware.gov/pmc/Event/Details/30632> .

Mr. Barndt made the following announcements:

- The passing of council member, Ms. Dorothy Miller, Coalition of Natural Stream Valleys. Mr. Barndt said he will contact the organization to see if anyone will represent them on the WSCC going forward.
- Mr. Barndt mentioned that he spoke with the Public Service Commission regarding the 2015 Self-Sufficiency Reports and the PSC said they really do not need to receive the Self-Sufficiency Reports unless there is a problem. So the Self-Sufficiency Reports are still at DNREC and will remain there.
- The draft meeting minutes of today's meeting may be out a little later than normal due to scheduling conflicts.
- Mr. Jerry Kauffman sent out an e-mail to the water companies requesting weekly reports for water demand projections. Ms. Stefanie Baxter requested that Artesian and SUEZ also supply the amount of water stored in ASR each week. Mr. Kauffman and Ms. Baxter will work on this together with the water companies.
- Mr. Barndt asked if it worked with everyone's schedules to keep the WSCC meetings on Thursday's or go back to having them on Wednesday's. It was agreed to keep them on Thursday's and also that the tentative date selected for the next meeting on Wednesday, August 3, 2016 mentioned on the meeting agenda would conflict with several schedules so that date will need to be changed.

Mr. Kauffman added regarding Ms. Miller's accomplishments that everyone can visit the University of Delaware's Morris Library and it shows a wonderful display of her papers.

## **WATER CONDITIONS REPORT – Stefanie Baxter, DGS**

Ms. Baxter presented a handout summary as of May 17, 2016, of hydrologic conditions which is considered a snapshot of water conditions and are tracked on a monthly basis (see attachment titled Northern Delaware Drought Advisory Guidelines). Ms. Baxter noted that there were no indicators with any watch or warnings.

As stated in Ms. Baxter's handout:

- Precipitation at the Wilmington Airport was +1.55" for a 12-month period and was -1.10" for a 6-month period.
- Brandywine Creek (30-day moving avg) was at 299 mgd.
- White Clay Creek-Stanton (30-day moving avg) was at 125 mgd; White Clay Creek-Newark (30-day moving avg) was at 59 mgd.
- Well Db24-18 was at 11.80 (fbls) and is normal.
- Water Conditions Index was 7.50.
- Chlorides average – 17.64 ppm as of 5/17/16.
- Hoopes Reservoir (City of Wilmington) was at -3.0 ft as of 5/4/16.
- Newark Reservoir was at -1.0 ft as of 5/4/16.
- Aquifer Storage and Recovery: SUEZ was at 75 mg as of 5/4/16 and AWC was at 44 mg as of 5/3/16 but Joe stated that as of 5/16/16 AWC was at 52 mg.
- Chlorides on the Delaware River as of 5/12/16 are currently at River Mile 70 and the normal is River Mile 68 with very low chlorides at 17.64 ppm.
- NYC DRB Reservoirs (DRBC as of 5/13/16) storage 271.2 bg or 81 bg above drought watch.
- The Kent County Hydrologic Conditions: precipitation Dover 12-month -2.63", 6-month -3.35", 5-month -3.88". Streamflow for the St. Jones at Dover 30-day moving average for April 18 to May 17 at 32 mgd and is normal. Groundwater for Mc51-01a for May 2016 at 12.90 ft below land surface and is below normal.
- The Sussex County Hydrologic Conditions: precipitation Georgetown 12-month +1.48", 6-month +2.66", 5-month +1.13". Streamflow for the Nanticoke River at Bridgeville 30-day moving average for April 18 to May 17 at 72 mgd and is normal. Groundwater for Qe44-01 for May 2016 at 6.70 ft below land surface and is above normal.

Ms. Baxter also discussed groundwater levels for Well Db24-18 New Castle County, Well Mc51-01a Kent County and Well Qe44-01 Sussex County and noted that groundwater levels in Kent and New Castle counties are trending to below normal at the end of the normal annual recovery period.

DGS' full analysis is found on <http://www.dgs.udel.edu>.

## **FORECAST SYNOPSIS – Kevin Brinson, Assistant State Climatologist**

Mr. Brinson presented on behalf of State Climatologist, Mr. Dan Leathers (see attachment titled Weather Summary and Forecast).

The last 12 Months Temperature Anomalies (May 2015 – April 2016) all above normal except October 2015. December 2015 felt more like March and last month, April 2016, was a little above normal. March 2016 was quite a bit above normal.

Precipitation up and down. March and April 2016 were on the drier side. That combined with having above normal temperatures is why we were dry at least until the last couple of weeks. Generally dry for the last 72-month period.

Mr. Brinson presented the following Current Drought Monitor information in his Power Point presentation:

### Normal May Rainfall:

- 3.94” in Wilmington
- 4.25” in Dover
- 3.90” in Georgetown

### DEOS May Rainfall (thru 5/18/16)

- 3.20” in Newark
- 3.29” in New Castle
- 3.30” in Dover
- 4.26” in Harrington
- 3.92” in Georgetown
- 4.01” in Lewes

Mr. Brinson then discussed the Last 30 and the Last 90 Day Precipitation Anomalies. He then presented the following Summer Forecast information in his Power Point presentation:

### El Niño Winding Down

- Since January 2016, SST anomalies have decreased in the eastern equatorial Pacific Ocean.
- Since mid-April, near-to-below average SSTs are apparent in the eastern Pacific, while above-average SSTs remain in the central Pacific.

### ENSO Predictions

- El Niño expected to continue to weaken through 2016.
- Most models suggest a transition to ENSO-neutral by May-June-July 2016 with the possibility of La Niña conditions during the Northern Hemisphere fall and winter. La Niña conditions have little impact to Delaware but could allow formation of more hurricanes.
- 75% chance of La Niña this fall and winter.

Mr. Brinson then discussed the NOAA Temperature Outlook and the NOAA Precipitation Outlook for June – August 2016. He said we will see more storms than we did last year but that

doesn't mean we will get a hurricane in Delaware. However, it does mean there are more chances during the normal time of season, September/October.

Mr. Brinson presented the following Summary information in his Power Point presentation:

- Exceptionally warm over the last 12 months.
- Warm "trend" is expected to continue through Spring/Summer.
- Precipitation has been variable, but generally normal to slightly below normal going into 2016 growing season.
- El Niño is weakening; La Niña expected later in 2016.
- Magnitude of La Niña will determine potential impact on our weather later this year.
- Atlantic Hurricane Season Prediction: Near normal (12-14 named storms).
- Summer Predictions: Warm and near normal precipitation.

Mr. Brinson asked if there were any questions. There were none.

## **WATER UTILITY REPORTS**

**Artesian – Joe DiNunzio presented:** Water demands in Northern New Castle County currently at 17 mgd. ASR well – as reported at the last meeting injections did not begin until January 31 because of maintenance. Regarding Ms. Baxter's ASR report, there is 52 mg stored as of 5/16/16, adding about ½ mg per day to storage and will continue to do that until there are demands that suggest that recovery is needed. Will have around 60 mg by the end of May and very well could reach between 70-90 mg in storage before beginning the recovery cycle.

**Newark – Not present.**

**New Castle – Jay Guyer presented:** Everything running as it should. Pretty normal. Average about ½ mgd. 13 mg a month average. All wells good and consistent. Projects that are coming up: first round of filtration system and will be requesting allocation permit; completed the Route 9 water main installation; did the ecologies water main testing last October and currently reviewing that report; planning on taking both tanks out of service this summer, one at a time, for maintenance; completed fire hydrant flushing for the spring last month; received notice a couple of weeks ago that three new apartment complexes have been approved for construction that will put another 213 units in the City plus 34 single family homes.

**SUEZ – Larry Finnicum presented:** Demands for SUEZ are significantly down. Average days about 14.3 mgd compared to 16.7 mgd this time last year. Much of that is due to the loss of a large industrial customer as well as SUEZ's diligent work in reducing unaccounted for water over the last year. Dropped from 20.7% to 13.7% in 12 months through a variety of projects. Devon tank was put back in service the end of April after being offline for 3 months due to a painting and maintenance project. Finished spring flushing last week. ASR is currently recharging after testing some mechanics of pumping system. Two million in the ASR and will be injecting about 350,000 gallons per day into the ASR from now until the end of summer.

**Wilmington – Not present.**

**Tidewater – Not present.**

**Sussex Shores – Not present.**

**WSCC 13<sup>th</sup> REPORT STATUS UPDATE – John Barndt and Jerry Kauffman**

Mr. Barndt stated the 13<sup>th</sup> Report will be updating the 8<sup>th</sup> Report that made projections of water use in Northern New Castle County. Subcommittee meeting notices were sent out and the meeting was held on Wednesday, May 11, 2016, at the WRA. Subcommittee members included: Ms. Stefanie Baxter, Mr. A. Scott Andres, Mr. Charles Jenner, Mr. Jay Guyer, Mr. Joe DiNunzio, Ms. Virginia Eisenbrey, Mr. Jerry Kauffman, Mr. John Barndt, Mr. Tom Coleman, Mr. Tom deLorimier and Mr. Rob Penman.

Mr. Barndt said we are proposing to use the 2015 numbers that were provided as Water Supply in the Self-Sufficiency Reports. Mr. Barndt said Mr. Kauffman will talk later in the meeting about how we are going to project demand into 2020 and 2030. One of the assumptions made was that Northern New Castle County was in full build out and Mr. Andres provided information (see attached handout). Mr. Kauffman asked Mr. Barndt to walk through the supply columns as presented in the table which came from the Self-Sufficiency Reports. Mr. Barndt stated the following that are all in mgd:

• Artesian	29.0
• SUEZ	28.5
• Wilmington	40.3
• Newark	6.9
• New Castle Misc	<u>1.6</u>
TOTAL	106.3

The maximum demand for 2015 for the 5 water purveyors:

• Artesian	20.0
• SUEZ	20.5
• Wilmington	21.3
• Newark	4.1
• New Castle	<u>0.8</u>
TOTAL	66.7

Mr. Kauffman said there is a healthy surplus and if these projections were done 10-15 years ago before the water purveyors implemented 2 bg of additional storage in Northern New Castle County, you could see there would not be as much in surplus.

Mr. Kauffman also stated the maximum monthly demands for the 2015 base year are from the memorandum that his office proposed in preparation for the Water Supply Self-Sufficiency projections and that memo is posted on their website because that was agreed upon and we

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already had the demands for 2015 as our base. Now the next step of the subcommittee is to project them out through 2020 and 2030.

Mr. Kauffman stated there is a list of footnotes and assumptions that are very complex. He said the bottom line is that the WSCC is responsible for projecting supply and demand assuming worst case report of a drought record, which was defined as 2002, assuming there's instream flow standards in effect along the White Clay Creek for those water purveyors that draw from it and that would be the City of Newark and SUEZ. Mr. Kauffman also stated they're assuming there's not instream flow standards on the Brandywine Creek for Wilmington because they have an entitlement from DRBC that does not require them to do so. The supply is the existing regulatory situation. Mr. Kauffman said we do not have any evidence that would change during the worst case drought on record. He stated we are very conservative with the projections of supply and on the demand side. The next step is to project them out and that's what the table that DGS has prepared and will help to project out.

Mr. DiNunzio said just to get some perspective on the demands the last time this exercise was done 10 years ago, 2010 demands were projected to be 81.6 mgd and 2020 demands 83 mgd.

Mr. Singer said he's had a continuing concern for the last 25 years maintaining the state's opportunity to withdraw from the Brandywine. Mr. Singer stated one concern he had when the Self-Sufficiency Reports came out in draft form was that we were projecting only 3 years into the future without mentioning of the design criteria that we established which is in the distant future. He said what is being demonstrated is a diminished need. In order to maintain our present right it would seem what we need to do is to put the target date for the design requirement farther into the future so that we don't diminish our need as rapidly as this would suggest. He then said it should reflect the future will have bigger population and bigger demand as a result, hopefully with something industrial or with some business use.

Mr. DiNunzio said to Mr. Singer's point that his suggestion would be that the report is clear that there is a margin to allow for needed and appropriate economic redevelopment in Northern New Castle County. There are sites currently not used that should be redeveloped and this margin should be available for that to occur. Mr. Singer agreed and said that he thinks the target should be farther away than 3 years.

Ms. Lorraine Fleming said that shouldn't it be a matter of precision and the further out it goes the less precise it gets on the projections? Mr. Kauffman reminded Mr. Singer it is going out to 2030.

Mr. Kauffman discussed Mr. Andres' handout which he described as a technical analysis to give guides on how to project 2015 demands out to 2020 and 2030. Mr. Kauffman stated that Mr. Andres went through and took the population estimates from the US Bureau of Census and the Delaware Population Consortium, which is headed up by Mr. Ed Ratledge, and took these numbers all the way back to 1997 and then took the maximum monthly demand data that's been compiled with the assistance of the water purveyors and plotted it. Mr. Kauffman continued to discuss the graph data.

Mr. Kauffman said what's been happening, as Mr. Finnicum mentioned earlier, the water purveyors should be given credit for fixing leaks and reducing unaccounted water use. Mr. Bill Cocke said that he believes the unaccounted for water losses have gone down by only 3-5% while per capita water use has gone down 30%. He also stated that stopping leaks does not explain the decline in water use that it would have to be connected to the flight of industry or some other effect. Mr. J. Kent Barr, Mr. DiNunzio, Mr. Finnicum and Mr. Ed Hallock also commented.

Mr. Kauffman said bottom line is we have good data and we're looking to get the 13<sup>th</sup> Report out soon that memorializes these projections.

The subcommittee will meet again to discuss the data further.

Mr. Hallock asked when the report will go out. Mr. Kauffman replied around June, before the end of the General Assembly. Mr. Barndt said it will go out in the same format as last year's 12<sup>th</sup> Report. Mr. Kauffman said a voice or e-mail vote will be needed in reviewing of the 13<sup>th</sup> Report like in the past. Mr. Singer said voting last year worked very nicely. Ms. Fleming asked when Council should anticipate seeing a draft copy. Mr. Kauffman replied right after Memorial Day. Mr. Barndt said the subcommittee will meet again soon but the draft report is needed first.

Mr. Barndt asked if there was any additional business to be discussed. There was none.

#### **NEXT MEETING – John Barndt**

The next council meeting was listed on the agenda as a tentative date, however, due to scheduling conflicts and the council voting to continue having the meetings on Thursday's, **the next council meeting will be held on Thursday, August 18, 2016, at 10:00 a.m. at the Kent County Administration Building, Room 220.**

#### **ADJOURN**

The meeting adjourned at 11:20 a.m. by Mr. Barndt.

These minutes are not intended to be a detailed record. They are for the use of the Water Supply Coordinating Council members in supplementing their personal notes and recall of Council discussions and presentations and to provide information to Council members unable to attend. Minutes recorded and submitted by Kimberly Burris.

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Attendees are listed below alphabetically, last name first:

Barndt, John – DNREC, Division of Water  
Barr, J. Kent – DRBC  
Baxter, Stefanie – University of Delaware, DGS  
Brinson, Kevin – Asst. State Climatologist  
Chandler, Elizabeth – DNREC, Division of Water  
Cocke, William – DNREC, Division of Water  
deLorimier, Tom – Artesian Water  
Diggins, Allison – DNREC, Division of Water  
DiNunzio, Joseph – Artesian Water  
Eisenbrey, Virginia – Artesian Water  
Finnicum, Larry – SUEZ  
Fleming, Lorraine – Delaware Nature Society  
Guyer, Jay – City of New Castle, Municipal Services Commission  
Hallock, Ed – Department of Public Health, Office of Drinking Water  
Kauffman, Jerry – University of Delaware, Water Resources Agency, Director  
Patone, Pamela – City of New Castle, Municipal Services Commission  
Rudd, John – Office of the State Fire Marshal  
Singer, Victor – Civic League for New Castle County  
Woodward, Amy – Public Service Commission