



MEMORANDUM

TO: Delaware Water Supply Coordinating Council
FROM: Gerald Kauffman (Water Resources Agency)
DATE: February 28, 2012
SUBJECT: Water Supply Self-Sufficiency Projections for Northern New Castle County

Enclosed are projected maximum monthly water demands for 2012 and 2015 for public water utilities in northern New Castle County. According to the Delaware Self Sufficient Water Supply Act, on or before March 1, 2012 the Water Supply Coordinating Council shall review these water demands and vote to determine whether to forward these projections to the Public Service Commission. Please review the enclosed water demand projections and vote by March 1, 2012 whether to approve to forward these projections to the PSC.

The Delaware Self Sufficient Water Supply Act amendments of 2011 (Public Utilities, Chapter 14) state that on or before March 1 of each reporting year (2012), the Water Supply Coordinating Council shall determine and publish for the following projected year (2015), the projected demand for each water utility providing services in the drought sensitive area (New Castle Co. north of C & D Canal).

Before July 1, 2012, each water utility in northern New Castle County shall submit to the WSCC a (1) consumer water conservation plan for the following 3-year period, (2) certification of adequate water supply for the projected year (2015), and (3) water conservation rate structure. After July 1, 2012, the WSCC shall review the water utility's certification of adequate supply and submit a recommendation to the Public Service Commission.

Table 1 summarizes maximum monthly water demands for northern New Castle County projected for the reporting year (2012) and projected year (2015). Peak maximum monthly demands recorded by the water purveyors for the five year period (2007-2011) are used to estimate maximum demands for 2012. Water demands are projected to 2015 based on 0.5% per year increase in population forecast for New Castle County by the Delaware Population Consortium, Annual Population Projections (October 28, 2010).

Table 1. Maximum monthly water demand projections for northern New Castle County, 2012 and 2015

Water Purveyor	2012 Demand (mgd)	2015 Demand (mgd)
Artesian	21.8	22.1
United Water Del.	20.9	21.2
Wilmington	21.4	21.7
Newark	4.1	4.2
New Castle MSC	0.6	0.6
Total	68.8	69.8

Note: Water demands for 2012 are peak maximum monthly demand recorded by purveyors for 5-year period 2007–2011. Water demands for 2015 projected based on 0.5% per year increase in population forecast for New Castle County by Delaware Population Consortium, Oct. 28, 2010. UWD maximum monthly demands are reduced from 23.3 mgd recorded in 2007 to 20.9 mgd due to adjustments for contract maximums and closures of large industrial customers since 2007.

Table 2. Maximum monthly water demands in northern New Castle County

Purveyor	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012 base	2015 proj	2020 proj
Artesian Water Co.	23.1	21.6	23	20.2	20.9	22.8	21.8	21.5	19.2	19.5	19.7	21.8	22.1	22.7
Unit. Water Del.	25.5	24	25.1	22.9	22.0	25.6	23.3	21.7	20.0	18.9	20.4	20.9	21.2	21.7
Wilmington	32.2	29.1	25.5	23.8	25.1	23.7	21.4	21.1	18.3	20.7	21.3	21.4	21.7	22.3
Newark	4.9	4.8	4.3	4	3.6	4.4	4.1	4.1	3.9	3.7	3.9	4.1	4.2	4.3
New Castle MSC	1.2	0.7	1.1	0.5	0.4	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6
subtotal	86.9	80.2	79	71.4	72	77.0	71.1	68.9	61.9	63.4	65.9	68.8	69.8	71.6
-interconnection	-4.3	-2.7	-4.6	-1.7	-1.5	-2.8	-1.7	-0.1	0.0	0.0	0.0	-0.0	-0.0	-0.0
Total (mgd)	82.6	77.5	74.4	69.7	70.5	74.2	69.4	68.8	61.9	63.4	65.9	68.8	69.8	71.6

Note: Base 2012 demand based on peak maximum monthly demand recorded during 5-year period 2007-2011. Projected 2015 and 2020 demands based on 0.5% annual population growth for New Castle County from the Delaware Population Consortium, Annual Population Projections, October 28, 2010. UWD maximum monthly demands are reduced from 23.3 mgd recorded in 2007 to 20.9 mgd due to adjustments for contract maximums and closures of large industrial customers since 2007.

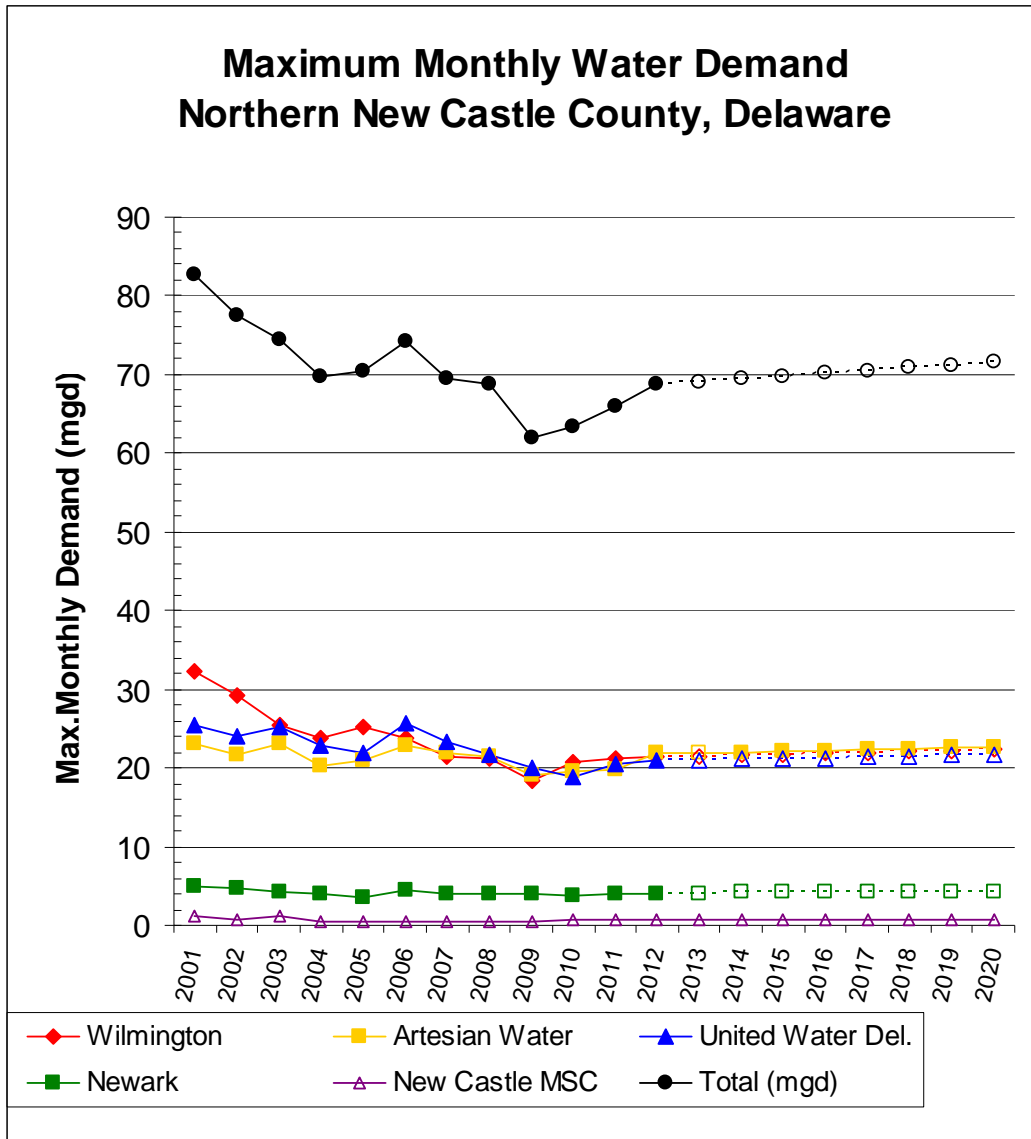


Figure 1. Maximum monthly water demands in northern New Castle County

Demands through 2020 based on 0.5% annual population growth for New Castle County (Del. Pop. Consortium, Oct 2010).

Table 3. Maximum monthly water demands in northern New Castle County (1999-2011)

Purveyor	1999	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
June (mgd)												
Artesian Water Co.		20.5	20.9	18.5	20.9	21.6	20.0	21.8	20.6	17.7	19.4	18.9
United Water Del.		21.9	24.3	22.5	21.2	24.0	22.1	23.3	21.2	17.0	16.6	19.1
Wilmington		26.2	24.3	21.5	23.0	25.0	18.7	21.4	19.7	17.0	20.7	19.0
Newark		3.8	4.1	3.5	3.5	4.0	3.9	4.0	3.8	3.8	3.7	3.6
New Castle MSC		0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.4	0.6	0.6
Subtotal		72.8	74.0	66.4	69.0	75.0	65.1	71.0	65.8	55.9	61.0	61.2
- Del. interconnections		-1.7	-1.8	-1.7	-1.3	-2.8	-0.9	-0.2	-0.0	-0.0	-0.0	-0.0
Total		71.1	72.2	64.7	67.7	72.2	64.2	70.8	65.8	55.9	61.0	61.2
July (mgd)												
Artesian Water Co.	23.1	21.1	23.0	20.2	19.3	21.1	19.3	21.3	21.5	19.2	19.5	19.7
United Water Del.	25.5	23.4	25.1	22.9	22.0	24.9	22.6	22.2	21.7	19.9	17.7	20.4
Wilmington	32.2	26.9	25.5	23.8	23.4	25.7	18.3	21.3	20.8	18.3	19.9	21.3
Newark	4.9	4.3	4.3	3.8	3.5	4.0	3.7	3.9	3.9	3.9	3.7	3.9
New Castle MSC	1.2	0.5	1.1	0.5	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5
Subtotal	86.9	76.2	79.0	71.2	68.6	76.1	64.3	69.2	68.4	61.8	61.3	66.3
- Del. interconnections	-4.3	-1.5	-3.5	-1.7	-0.8	-2.5	-0.8	-0.3	-0.0	-0.0	-0.0	-0.0
Total	82.6	74.7	75.5	69.5	67.8	73.6	63.5	68.9	68.4	61.8	61.3	66.3
August (mgd)												
Artesian Water Co.	17.8	21.6	19.8	19.2	18.2	21.3	22.8	20.5	20.8	18.3	19.0	17.6
United Water Del.	20.6	24.0	23.8	21.2	21.3	25.4	25.6	22.4	20.7	20.0	18.9	19.9
Wilmington	27.8	29.1	24.4	23.3	25.1	26.4	23.7	21.0	21.1	17.4	19.9	20.0
Newark	3.9	4.8	4.2	4.0	3.6	4.1	4.4	4.1	4.1	3.8	3.7	3.5
New Castle MSC	0.6	0.7	1.0	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.5	0.5
Subtotal	70.7	80.2	73.2	68.1	68.6	77.7	77.0	68.5	67.2	59.9	62.0	61.5
- Del. interconnections	-2.8	-2.7	-4.6	-1.1	-1.5	-0.9	-1.7	-0.1	-0.0	-0.0	-0.0	-0.0
Total	67.9	77.5	68.6	67.0	67.1	76.8	75.3	68.4	67.2	59.9	62.0	61.5

Note: UWD maximum monthly demands are reduced from 23.3 mgd recorded in 2007 to 20.9 mgd due to adjustments for contract maximums and closures of large industrial customers since 2007.