



**MEMORDANDUM**

TO: Delaware Water Supply Coordinating Council  
 FROM: Gerald Kauffman (Water Resources Agency)  
 DATE: February 27, 2015  
 SUBJECT: Water Supply Self-Sufficiency Projections for Northern New Castle County

Enclosed are projected maximum monthly water demands for 2015 and 2018 for public water utilities in northern New Castle County. According to the Delaware Self Sufficient Water Supply Act, on or before March 1, 2015 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 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 (2015), the Water Supply Coordinating Council shall determine and publish for the following projected year (2018), the projected demand for each water utility providing services in the drought sensitive area (New Castle County north of C & D Canal).

Before July 1, 2015, each water utility in northern New Castle County shall submit to the WSCC: (1) consumer water conservation plan for the following 3-year period, (2) certification of adequate water supply for the projected year (2018), and (3) water conservation rate structure. After July 1, 2015, 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 (2015) and projected year (2018). Peak maximum monthly demands recorded by the water purveyors for the five year period (2010-2014) are used to estimate maximum demands for 2015. Water demands are projected to 2018 based on 0.5% per year increase in population forecast for New Castle County by the Delaware Population Consortium, Annual Population Projections (2014).

**Table 1.** Maximum monthly water demand projections for northern New Castle County (2015 and 2018)

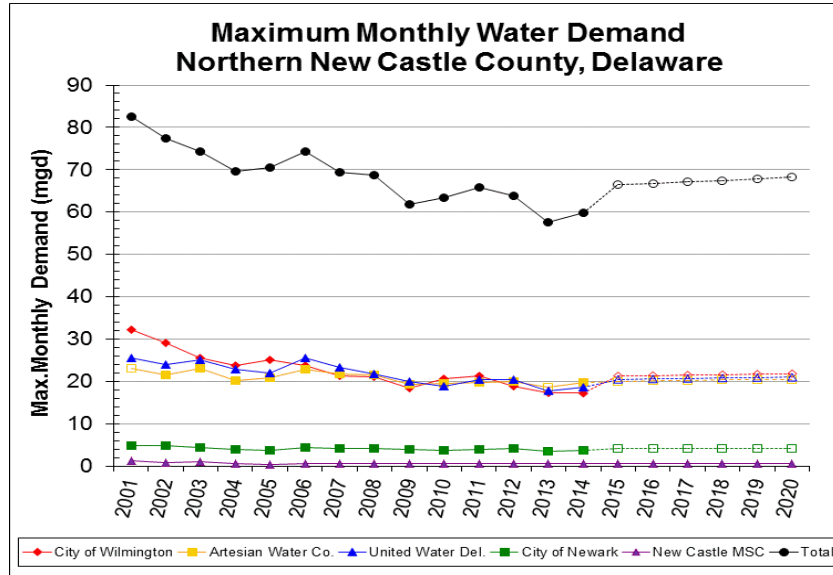
Water Purveyor	2015 Demand (mgd)	2018 Demand (mgd)
Wilmington	21.3	21.6
Artesian Water Co.	20.0	20.3
United Water Del.	20.5	20.8
Newark	4.1	4.2
New Castle MSC	0.6	0.7
<b>Total</b>	<b>66.5</b>	<b>67.6</b>

Note: Water demands projected for 2015 are peak maximum monthly demands recorded by purveyors for 5-year period 2010-2014. Water demands for 2018 are projected based on 0.5% per year increase in population forecast for New Castle County by Delaware Population Consortium (2014) and as projected by the New Castle Municipal Services Commission (MSC).

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

Purveyor	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2018
Wilmington	29.1	25.5	23.8	25.1	26.4	23.7	21.4	21.1	18.3	20.7	21.3	18.8	17.3	17.2	21.3	21.6
Artesian Water Co.	21.6	23.0	20.2	20.9	21.6	22.8	21.8	21.5	19.2	19.5	19.7	20.0	18.6	19.8	20.0	20.3
United Water Del.	24.0	25.1	22.9	22.0	25.4	25.6	23.3	21.7	20.0	18.9	20.4	20.5	17.8	18.6	20.5	20.8
Newark	4.8	4.3	4.0	3.6	4.1	4.4	4.1	4.1	3.9	3.7	3.9	4.1	3.5	3.8	4.1	4.2
New Castle MSC	0.7	1.1	0.5	0.4	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.5	0.5	0.5	0.6	0.7
Subtotal	80.2	79.0	71.4	72.0	78.0	77.0	71.1	68.9	61.9	63.4	65.9	63.9	57.7	59.9	66.5	67.6
-interconnections	-2.7	-4.6	-1.7	-1.5	-1.5	-2.8	-1.7	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total (mgd)</b>	<b>77.5</b>	<b>74.4</b>	<b>69.7</b>	<b>70.5</b>	<b>76.5</b>	<b>74.2</b>	<b>69.4</b>	<b>68.8</b>	<b>61.9</b>	<b>63.4</b>	<b>65.9</b>	<b>63.9</b>	<b>57.7</b>	<b>59.9</b>	<b>66.5</b>	<b>67.6</b>

Note: Base 2015 demands are projected from peak maximum monthly demands recorded during 5-year period 2010-2014. Projected 2018 demand based on 0.5% annual population growth in New Castle Co. (Del. Population Consortium 2014).



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

**Table 3. Maximum monthly water demands in northern New Castle County (1999-2014)**

Purveyor	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
<b>June (mgd)</b>														
City of Wilmington	26.2	24.3	21.5	23.0	25.0	18.7	21.4	19.7	17.0	20.7	19.0	17.9	16.7	17.0
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	18.7	18.0	19.8
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	17.6	17.3	17.6
City of Newark	3.8	4.1	3.5	3.5	4.0	3.9	4.0	3.8	3.8	3.7	3.6	3.6	3.3	3.4
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	0.5	0.4	0.5
Subtotal	72.8	74.0	66.4	69.0	75.0	65.1	71.0	65.8	55.9	61.0	61.2	58.3	55.7	58.3
- interconnections	-1.7	-1.8	-1.7	-1.3	-2.8	-0.9	-0.2	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
<b>Total</b>	<b>71.1</b>	<b>72.2</b>	<b>64.7</b>	<b>67.7</b>	<b>72.2</b>	<b>64.2</b>	<b>70.8</b>	<b>65.8</b>	<b>55.9</b>	<b>61.0</b>	<b>61.2</b>	<b>58.3</b>	<b>55.7</b>	<b>58.3</b>
<b>July (mgd)</b>														
City of Wilmington	26.9	25.5	23.8	23.4	25.7	18.3	21.3	20.8	18.3	19.9	21.3	18.8	17.3	17.2
Artesian Water Co.	21.1	23.0	20.2	19.3	21.1	19.3	21.3	21.5	19.2	19.5	19.7	20.0	18.6	19.1
United Water Del.	23.4	25.1	22.9	22.0	24.9	22.6	22.2	21.7	19.9	17.7	20.4	20.5	17.8	18.6
City of Newark	4.3	4.3	3.8	3.5	4.0	3.7	3.9	3.9	3.9	3.7	3.9	4.1	3.5	3.7
New Castle MSC	0.5	1.1	0.5	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Subtotal	76.2	79.0	71.2	68.6	76.1	64.3	69.2	68.4	61.8	61.3	65.8	63.9	57.7	59.1
- interconnections	-1.5	-3.5	-1.7	-0.8	-2.5	-0.8	-0.3	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
<b>Total</b>	<b>74.7</b>	<b>75.5</b>	<b>69.5</b>	<b>67.8</b>	<b>73.6</b>	<b>63.5</b>	<b>68.9</b>	<b>68.4</b>	<b>61.8</b>	<b>61.3</b>	<b>65.8</b>	<b>63.9</b>	<b>57.7</b>	<b>59.1</b>
<b>August (mgd)</b>														
City of Wilmington	29.1	24.4	23.3	25.1	26.4	23.7	21.0	21.1	17.4	19.9	20.0	17.4	16.1	16.6
Artesian Water Co.	21.6	19.8	19.2	18.2	21.3	22.8	20.5	20.8	18.3	19.0	17.6	18.2	17.5	18.9
United Water Del.	24.0	23.8	21.2	21.3	25.4	25.6	22.4	20.7	20.0	18.9	19.9	19.1	16.1	17.3
City of Newark	4.8	4.2	4.0	3.6	4.1	4.4	4.1	4.1	3.8	3.7	3.5	3.9	3.3	3.8
New Castle MSC	0.7	1.0	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.5	0.5	0.5	0.5	0.5
Subtotal	80.2	73.2	68.1	68.6	77.7	77.0	68.5	67.2	59.9	62.0	61.5	59.1	53.5	57.1
- interconnections	-2.7	-4.6	-1.1	-1.5	-0.9	-1.7	-0.1	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
<b>Total</b>	<b>77.5</b>	<b>68.6</b>	<b>67.0</b>	<b>67.1</b>	<b>76.8</b>	<b>75.3</b>	<b>68.4</b>	<b>67.2</b>	<b>59.9</b>	<b>62.0</b>	<b>61.5</b>	<b>59.1</b>	<b>53.5</b>	<b>57.1</b>

