# **Chatham County North Water System**

2016 ~

**Provisional** 

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# 1. System Information

Contact Information

Water System Name: Mailing Address:

Chatham County North Water System

Post Office Box 910

Pittsboro, NC 27312

PWSID: Ownership: 03-19-126

County

Contact Person: Phone:

Larry D. Bridges 919-542-8238

Title: Fax:

6

2

**Public Utilities Director** 

919-542-8282

Distribution System

Line Type Size Range (Inches) Asbestos Cement Ductile Iron 6-24 Galvanized Iron Polyvinyl Chloride

2-12

1.00 % 63 00 %

Estimated % of lines

1.00 %

35.00 %

What are the estimated total miles of distribution system lines? 223 Miles

How many feet of distribution lines were replaced during 2016? 0 Feet

How many feet of new water mains were added during 2016? 14,436 Feet

How many meters were replaced in 2016? 66

How old are the oldest meters in this system? 19 Year(s)

How many meters for outdoor water use, such as irrigation, are not billed for sewer services? 363

What is this system's finished water storage capacity? 3.600 Million Gallons

Has water pressure been inadequate in any part of the system since last update? No

#### Programs

Does this system have a program to work or flush hydrants? Yes, As Needed

Does this system have a valve exercise program? Yes, As Needed

Does this system have a cross-connection program? Yes

Does this system have a program to replace meters? Yes

Does this system have a plumbing retrofit program? No

Does this system have an active water conservation public education program? Yes

Does this system have a leak detection program? No

Water Conservation

What type of rate structure is used? Increasing Block

How much reclaimed water does this system use? 0.000 MGD For how many connections? 0

Does this system have an interconnection with another system capable of providing water in an emergency? Yes

## 2. Water Use Information

Service Area

Sub-Basin(s)

% of Service Population

County(s)

% of Service Population

Haw River (02-1)

99 %

Chatham

100 %

Deep River (02-2)

What was the year-round population served in 2016? 16,668

System Map: keep North Water System Map.pdf

Has this system acquired another system since last report? No

#### Water Use by Type

Type of Use	Metered Connections	Metered Average Use (MGD)	Non-Metered Connections	Non-Metered Estimated Use (MGD)
Residential	6,667	1.024	0	0.000
Commercial	134	0.153	0	0.000
Industrial	21	0.200	0	0.000
Institutional	34	0.024	0	0.000

How much water was used for system processes (backwash, line cleaning, flushing, etc.)? 0.026 MGD

#### Water Sales

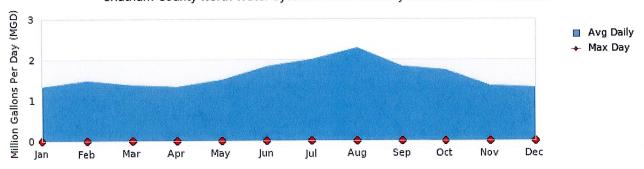
Purchaser	PWSID	Average Daily	Days	Contract			Required to comply with water	Pipe Size (s)	Use
	FWOID	Sold (MGD)	Used	MGD	Expiration	Recurring	use restrictions?	(Inches)	Туре
Chatham County Asbury Water System	40-19- 010	0.000	0				Yes	16&6	Emergency
City of Durham	03-32- 010	0.000	0	3.000	2028	Yes	Yes	16	Emergency
City of Sanford	03-53- 010	0.000	0	0.500		Yes	Yes	8	Emergency
Orange Water and Sewer Authority	03-68- 010	0.000	0				No	16	Emergency
Town of Pittsboro	03-19- 015	0.000	0	0.500		Yes	Yes	6	Emergency

## 3. Water Supply Sources

#### Monthly Withdrawals & Purchases

	Average Daily Use (MGD)	Max Day Use (MGD)		Average Daily Use (MGD)	Max Day Use (MGD)		Average Daily Use (MGD)	Max Day Use (MGD)
Jan	1.321		May	1.489		Sep	1.817	
Feb	1.483		Jun	1.820		Oct	1.725	
Mar	1.374		Jul	2.000		Nov	1.345	
Apr	1.321		Aug	2.285		Dec	1.304	

# Chatham County North Water System's 2016 Monthly Withdrawals & Purchases



#### Surface Water Sources

Stream	Reservoir	Average Daily Withdrawal		Maximum Day	Available Raw Water Supply		Usable On-Stream Raw Water Supply
		MGD	Days Used	Withdrawal (MGD)	MGD	* Qualifier	Storage (MG)
Haw River-Jordan Lake	Jordan Lake Reservoir	1.529	365	2.617	3.000	С	896.000

Surface Water Sources (continued)

Use Drainage Area Year Sub-Basin Stream Reservoir Metered? County (sq mi) Offline Type 1,700 Haw River (02-1) Regular Haw River-Jordan Lake Jordan Lake Reservoir Yes Chatham

What is this system's off-stream raw water supply storage capacity? 0 Million gallons

Are surface water sources monitored? Yes, Weekly

Are you required to maintain minimum flows downstream of its intake or dam? No

Does this system anticipate transferring surface water between river basins? Yes

Chatham County holds a 6.0 MGD Jordan Lake allocation but currently can only access the allocation as raw water via the Town of Cary. This is limited to 3.0 MGD under the current contract with Cary.

#### Water Purchases From Other Systems

PWSID	Average Daily Purchased (MGD)	Days Used	MGD	Contract Expiration	Recurring	Required to comply with water use restrictions?	Pipe Size (s) (Inches)	Use Type
40-19- 010	0.000	0				Yes	16	Emergency
03-32- 010	0.101	365	4.000	2028	Yes	Yes	16	Regular
03-53- 010	0.000	0	0.500		Yes	Yes	8	Emergency
03-68- 010	0.000	0	0.000		No	No	16	Emergency
03-19- 015	0.000	0	0.500		Yes	Yes	6	Emergency
	40-19- 010 03-32- 010 03-53- 010 03-68- 010 03-19-	PWSID Daily Purchased (MGD)  40-19- 010 0.000  03-32- 010 0.101  03-53- 010 0.000  03-68- 010 0.000  03-19- 0.000	PWSID         Daily Purchased (MGD)         Days Used           40-19-010         0.000         0           03-32-010         0.101         365           03-53-010         0.000         0           03-68-010         0.000         0           03-19-         0.000         0	PWSID         Daily Purchased (MGD)         Days Used Used (MGD)           40-19-010         0.000         0           03-32-010         0.101         365         4.000           03-53-010         0.000         0         0.500           03-68-010         0.000         0         0.000           03-19-         0.000         0         0.500	PWSID         Daily Purchased (MGD)         Days Used Used Used         MGD         Expiration           40-19-010         0.000         0	PWSID         Daily Purchased (MGD)         Days Used Used (MGD)         MGD         Expiration         Recurring           40-19-010         0.000         0	PWSID         Average Daily Purchased (MGD)         Days Purchased (MGD)         Contract Water Used MGD         Comply with water use restrictions?           40-19-010         0.000         0         Expiration         Recurring         Yes           03-32-010         0.101         365         4.000         2028         Yes         Yes           03-53-010         0.000         0         0.500         Yes         Yes           03-68-010         0.000         0         0.000         No         No         No           03-19-         0.000         0         0.500         Yes         Yes         Yes	PWSID         Average Daily Purchased (MGD)         Days Purchased (MGD)         Used         Contract Water use restrictions?         comply with water use restrictions?         Pipe Size (s) (Inches)           40-19-010         0.000         0         Yes         16           03-32-010         0.101         365         4.000         2028         Yes         Yes         16           03-53-010         0.000         0         0.500         Yes         Yes         8           03-68-010         0.000         0         0.000         No         No         No         16           03-19-         0.000         0         0.500         Yes         Yes         Yes         6

The interlocal agreement with Durham was executed August 21, 2008 for a 20 year period. This was developed as a result of future planning as Chatham County dealt with the drought of 2007-2008 and the prediction of a huge growth period in Chatham County (which did not manifest due to the downturn in the economy). The agreement has a sliding scale:

4/1/09 - 3/31/11 - 0 - 1 MGD

4/1/11 - 3/31/13 - 0 - 2 MGD

4/1/13 - 3/31/15 - 0 - 3 MGD

4/1/15 - 3/31/28 - 0 - 4 MGD

Each year we are required to notify Durham on/before April 1st of our desire to purchase water on a regular basis. To date, our need has only been on as an as-need basis, not every day.

#### Water Treatment Plants

Plant Name
Permitted Capacity (MGD)
Is Raw Water Metered? Is Finished Water Ouput Metered? Source

Jordan Lake WTP
3.000
Yes
Yes
Jordan Lake

Did average daily water production exceed 80% of approved plant capacity for five consecutive days during 2016? No

If yes, was any water conservation implemented?

Did average daily water production exceed 90% of approved plant capacity for five consecutive days during 2016? No

If yes, was any water conservation implemented?

Are peak day demands expected to exceed the water treatment plant capacity in the next 10 years? Yes

#### 4. Wastewater Information

#### Monthly Discharges

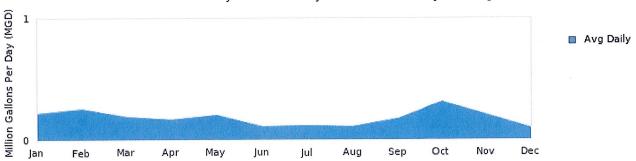
Average Daily Discharge (MGD)			Average Daily Discharge (MGD)	Average Daily Discharge (MGD)	
Jan	0.217	May	0.201	Sep	0.168
Feb	0.252	Jun	0.107	Oct	0.306

<sup>\*</sup> Qualifier: C=Contract Amount, SY20=20-year Safe Yield, SY50=50-year Safe Yield, F=20% of 7Q10 or other instream flow requirement, CUA=Capacity Use Area Permit

 Mar
 0.184
 Jul
 0.116
 Nov
 0.197

 Apr
 0.165
 Aug
 0.102
 Dec
 0.088

## Chatham County North Water System's 2016 Monthly Discharges



How many sewer connections does this system have? 41

How many water service connections with septic systems does this system have? 3,000

Are there plans to build or expand wastewater treatment facilities in the next 10 years? No

#### Wastewater Permits

Permit Number	Permitted Capacity (MGD)	Design Capacity (MGD)	Average Annual Daily Discharge (MGD)	Maximum Day Discharge (MGD)	Receiving Stream	Receiving Basin
NC0035866	0.025	0.025	0.006		Haw River	Haw River (02-1)
NC0084093	0.000	0.000	0.269		Jordan Lake - New Hope arm	Haw River (02-1)

## 5. Planning

#### Projections

	2016	2020	2030	2040	2050	2060
Year-Round Population	16,668	25,883	41,610	57,338	73,998	93,995
Seasonal Population	0	0	0	0	0	0
Residential	1.024	2.400	3.950	5.450	6.970	8.930
Commercial	0.153	0.277	0.531	0.839	1.074	1.374
Industrial	0.200	0.360	0.690	1.090	1.395	1.785
Institutional	0.024	0.083	0.159	0.251	0.321	0.411
System Process	0.026	1.800	2.420	3.460	3.400	4.350
Unaccounted-for	0.199	0.370	0.580	0.830	0.990	1.270

Water use projections (by category) will be consistent with Jordan Lake Partnership documents

#### **Future Supply Sources**

Source Name	PWSID	Source Type	Additional Supply	Year Online	Year Offline	Type
Jordan Lake	03-19-126	Surface	2.000	2020		Regular
Jordan Lake	03-19-126	Surface	5.000	2040		Regular

Currently Chatham County can only access Jordan Lake allocation as raw water via the Town of Cary. Future plans are under evaluation through the Jordan Lake Partnership including the development of a raw water intake structure on Jordan Lake (with up to four partners) and potentially a water treatment facility constructed to serve some or all of the partners. The County has requested an additional 2% Level 1 allocation and a 5% Level 2 allocation from the Jordan Lake Round 4 allocation process. Pending approval by the EMC, Chatham County will move forward with its Western Intake Partners to develop a new intake, transmission lines and potentially a regional water treatment plant serving the identified partners.

## Demand v/s Percent of Supply

	2016	2020	2030	2040	2050	2060
Surface Water Supply	3.000	3.000	3.000	3.000	3.000	3.000
Ground Water Supply	0.000	0.000	0.000	0.000	0.000	0.000
Purchases	4.000	4.000	4.000	4.000	4.000	4.000
Future Supplies		2.000	2.000	7.000	7.000	7.000
Total Available Supply (MGD)	7.000	9.000	9.000	14.000	14.000	14.000
Service Area Demand	1.626	5.290	8.330	11.920	14.150	18.120
Sales	0.000	0.000	0.000	0.000	0.000	0.000
Future Sales		0.000	0.000	0.000	0.000	0.000
Total Demand (MGD)	1.626	5.290	8.330	11.920	14.150	18.120
Demand as Percent of Supply	23%	59%	93%	85%	101%	129%

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The purpose of the above chart is to show a general indication of how the long-term per capita water demand changes over time. The per capita water demand may actually be different than indicated due to seasonal populations and the accuracy of data submitted. Water systems that have calculated long-term per capita water demand based on a methodology that produces different results may submit their information in the notes field.

Your long-term water demand is 61 gallons per capita per day. What demand management practices do you plan to implement to reduce the per capita water demand (i.e. conduct regular water audits, implement a plumbing retrofit program, employ practices such as rainwater harvesting or reclaimed water)? If these practices are covered elsewhere in your plan, indicate where the practices are discussed here.

Are there other demand management practices you will implement to reduce your future supply needs? The interlocal agreement with the City of Durham was executed August 21, 2008 for a 20 year period. This was developed as a result of future planning as Chatham County dealt with the drought of 2007-2008 and the prediction of a huge growth period in Chatham County (which did not manifest due to the downturn in the economy). The agreement has a sliding scale:

4/1/09 - 3/31/11 - 0 to 1 MGD

4/1/11 - 3/31/13 - 0 to 2 MGD

4/1/13 - 3/31/15 - 0 to 3 MGD

4/1/15 - 3/31/28 - 0 to 4 MGD

Each year we are required to notify Durham on/before April 1st of our desire to purchase water on a regular basis. To date, our need has only been on an emergency basis.

What supplies other than the ones listed in future supplies are being considered to meet your future supply needs? NA

How does the water system intend to implement the demand management and supply planning components above? NA

Additional Information

Has this system participated in regional water supply or water use planning? Yes, Jordan Lake Partnership Regional Water Supply Plan

What major water supply reports or studies were used for planning?

Please describe any other needs or issues regarding your water supply sources, any water system deficiencies or needed improvements (storage, treatment, etc.) or your ability to meet present and future water needs. Include both quantity and quality considerations, as well as financial, technical, managerial, permitting, and compliance issues:

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# **Chatham County Southwest Water System**

2016 \

**Provisional** 

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PWSID:

Title:

Fax:

Ownership:

## 1. System Information

**Contact Information** 

Water System Name:

Chatham County Southwest Water System

Mailing Address:

Contact Person:

Phone:

Post Office Box 910

Pittsboro, NC 27312

Larry D. Bridges

919-542-8238

03-19-050

County

**Public Utilities Director** 

919-542-8282

Distribution System

Line Type

Size Range (Inches)

Estimated % of lines 25.00 %

Ductile Iron Polyvinyl Chloride 6-16 2-10

75.00 %

What are the estimated total miles of distribution system lines? 115 Miles

How many feet of distribution lines were replaced during 2016? 0 Feet

How many feet of new water mains were added during 2016? 0 Feet

How many meters were replaced in 2016? 9

How old are the oldest meters in this system? 10 Year(s)

How many meters for outdoor water use, such as irrigation, are not billed for sewer services? 0

What is this system's finished water storage capacity? 0.950 Million Gallons

Has water pressure been inadequate in any part of the system since last update? No

Programs

Does this system have a program to work or flush hydrants? Yes, As Needed

Does this system have a valve exercise program? Yes, As Needed

Does this system have a cross-connection program? Yes

Does this system have a program to replace meters? Yes

Does this system have a plumbing retrofit program? No

Does this system have an active water conservation public education program? Yes

Does this system have a leak detection program? No

Water Conservation

What type of rate structure is used? Increasing Block

How much reclaimed water does this system use? 0.000 MGD For how many connections? 0

Does this system have an interconnection with another system capable of providing water in an emergency? Yes

## 2. Water Use Information

Service Area

Sub-Basin(s)

% of Service Population

County(s)

% of Service Population

Deep River (02-2)

100 %

Chatham

100 %

What was the year-round population served in 2016? 2,070

System Map: keep Southwest Water System Map.pdf

Has this system acquired another system since last report? No

#### Water Use by Type

Type of Use	Metered Connections	Metered Average Use (MGD)	Non-Metered Connections	Non-Metered Estimated Use (MGD)
Residential	828	0.092	0	0.000
Commercial	48	0.027	0	0.000
Industrial	53	0.080	0	0.000
Institutional	15	0.009	0	0.000

How much water was used for system processes (backwash, line cleaning, flushing, etc.)? 0.042 MGD

#### Water Sales

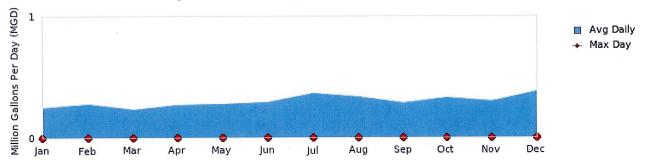
Purchaser PWSII	DWEID	Average Daily Sold	Days	Contract			Required to comply with water	Pipe Size(s)	Use
	PWOID	(MGD)	Used	MGD	Expiration	Recurring	use restrictions?	(Inches) Ty	Type
Moore County	03-63-103	0.011	365	0.025	2019	Yes	Yes	6	Regular

# 3. Water Supply Sources

## Monthly Withdrawals & Purchases

	Average Daily Use (MGD)	Max Day Use (MGD)		Average Daily Use (MGD)	Max Day Use (MGD)		Average Daily Use (MGD)	Max Day Use (MGD)
Jan	0.244		May	0.275		Sep	0.282	
Feb	0.274		Jun	0.290		Oct	0.327	
Mar	0.227		Jul	0.359		Nov	0.298	
Apr	0.264		Aug	0.332		Dec	0.372	

# Chatham County Southwest Water System's 2016 Monthly Withdrawals & Purchases



#### Water Purchases From Other Systems

Seller		Average Daily	Days	Contract			Required to comply with	Pipe Size	Use
	PWSID	Purchased (MGD)	Used	MGD	Expiration	Recurring	water use restrictions?	(s) (Inches)	Type
Chatham County Asbury Water System	40-19- 010	0.000	0				Yes	16	Emergency
Goldston-Gulf Sanitary District	03-19- 025	0.000	0	0.250		Yes	Yes	10	Emergency
Town of Siler City	03-19- 010	0.296	365	0.500		Yes	Yes	8&12	Regular

## 4. Wastewater Information

Monthly Discharges

Average Daily			Average Daily		Average Daily	
Discharge (MGD)			Discharge (MGD)		Discharge (MGD)	
Jan	0.000	May	0.000	Sep	0.000	

Feb	0.000	Jun	0.000	Oct	0.000
Mar	0.000	Jul	0.000	Nov	0.000
Apr	0.000	Aug	0.000	Dec	0.000

## Chatham County Southwest Water System's 2016 Monthly Discharges



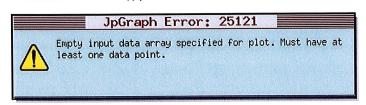
How many sewer connections does this system have? 0

How many water service connections with septic systems does this system have? 944

Are there plans to build or expand wastewater treatment facilities in the next 10 years? No

## 5. Planning

Projections						
	2016	2020	2030	2040	2050	2060
Year-Round Population	2,070	2,601	3,019	3,503	4,066	4,719
Seasonal Population	0	0	0	0	0	0
Residential	0.092	0.104	0.121	0.140	0.163	0.189
Commercial	0.027	0.018	0.021	0.024	0.029	0.033
Industrial	0.080	0.095	0.111	0.129	0.149	0.163
Institutional	0.009	0.006	0.007	0.008	0.010	0.011
System Process	0.042	0.034	0.034	0.034	0.034	0.034
Unaccounted-for	0.034	0.040	0.046	0.052	0.060	0.067
Demand v/s Percent of Supply						
Demand v/s Percent of Supply Demand v/s Percent of Supply	2016	2020	2030	2040	2050	2060
Demand v/s Percent of Supply  Surface Water Supply	2016 0.000	2020 0.000	2030	2040 0.000	2050 0.000	2060
Surface Water Supply	0.000	0.000	0.000	0.000	0.000	0.000
Surface Water Supply Ground Water Supply	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000
Surface Water Supply Ground Water Supply Purchases	0.000 0.000	0.000 0.000 0.500	0.000 0.000 0.500	0.000 0.000 0.500	0.000 0.000 0.500	0.000 0.000 0.500
Surface Water Supply Ground Water Supply Purchases Future Supplies	0.000 0.000 0.500	0.000 0.000 0.500 0.000	0.000 0.000 0.500 0.000	0.000 0.000 0.500 0.000	0.000 0.000 0.500 0.000	0.000 0.000 0.500 0.000
Surface Water Supply Ground Water Supply Purchases Future Supplies Total Available Supply (MGD)	0.000 0.000 0.500	0.000 0.000 0.500 0.000 0.500	0.000 0.000 0.500 0.000 0.500	0.000 0.000 0.500 0.000 0.500	0.000 0.000 0.500 0.000 0.500	0.000 0.000 0.500 0.000 0.500
Surface Water Supply Ground Water Supply Purchases Future Supplies Total Available Supply (MGD) Service Area Demand	0.000 0.000 0.500 0.500 0.284	0.000 0.000 0.500 0.000 0.500 0.297	0.000 0.000 0.500 0.000 0.500 0.340	0.000 0.000 0.500 0.000 0.500 0.387	0.000 0.000 0.500 0.000 0.500 0.445	0.000 0.000 0.500 0.000 0.500 0.497
Surface Water Supply Ground Water Supply Purchases Future Supplies Total Available Supply (MGD) Service Area Demand Sales	0.000 0.000 0.500 0.500 0.284	0.000 0.000 0.500 0.000 0.500 0.297 0.025	0.000 0.000 0.500 0.000 0.500 0.340 0.025	0.000 0.000 0.500 0.000 0.500 0.387 0.025	0.000 0.000 0.500 0.000 0.500 0.445 0.025	0.000 0.000 0.500 0.000 0.500 0.497 0.025



The purpose of the above chart is to show a general indication of how the long-term per capita water demand changes over time. The per capita water demand may actually be different than indicated due to seasonal populations and the accuracy of data submitted. Water systems that have calculated long-term per capita water demand based on a methodology that produces different results may submit their information in the notes field.

Your long-term water demand is 44 gallons per capita per day. What demand management practices do you plan to implement to reduce the per capita water demand (i.e. conduct regular water audits, implement a plumbing retrofit program, employ practices such as rainwater harvesting or reclaimed water)? If these practices are covered elsewhere in your plan, indicate where the practices are discussed here.

Are there other demand management practices you will implement to reduce your future supply needs? NA

What supplies other than the ones listed in future supplies are being considered to meet your future supply needs? Chatham County North System or purchase more water from Siler City and/or the City of Sanford

How does the water system intend to implement the demand management and supply planning components above? NA

#### Additional Information

Has this system participated in regional water supply or water use planning? No

What major water supply reports or studies were used for planning?

Please describe any other needs or issues regarding your water supply sources, any water system deficiencies or needed improvements (storage, treatment, etc.) or your ability to meet present and future water needs. Include both quantity and quality considerations, as well as financial, technical, managerial, permitting, and compliance issues:

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# **Chatham County Asbury Water System**

2016 ~

**Provisional** 

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## 1. System Information

#### **Contact Information**

Water System Name: Mailing Address:

Chatham County Asbury Water System

Post Office Box 910

Pittsboro, NC 27312

Contact Person: Phone:

Larry D. Bridges 919-542-8238

PWSID:

40-19-010

Ownership: County

Title: Fax:

Public Utilities Director

919-542-8282

Distribution System

Galvanized Iron

Polyvinyl Chloride

Line Type Ductile Iron

Size Range (Inches) 4-16 2 4-16

Estimated % of lines 13.00 % 2.00 %

85.00 %

What are the estimated total miles of distribution system lines? 80 Miles How many feet of distribution lines were replaced during 2016? 0 Feet

How many feet of new water mains were added during 2016? 0 Feet

How many meters were replaced in 2016? 4

How old are the oldest meters in this system? 10 Year(s)

How many meters for outdoor water use, such as irrigation, are not billed for sewer services? 0

What is this system's finished water storage capacity? 0.800 Million Gallons

Has water pressure been inadequate in any part of the system since last update? No

#### Programs

Does this system have a program to work or flush hydrants? Yes, As Needed

Does this system have a valve exercise program? Yes, As Needed

Does this system have a cross-connection program? Yes

Does this system have a program to replace meters? Yes

Does this system have a plumbing retrofit program? No

Does this system have an active water conservation public education program? Yes

Does this system have a leak detection program? No

## Water Conservation

What type of rate structure is used? Increasing Block

How much reclaimed water does this system use? 0.000 MGD For how many connections? 0

Does this system have an interconnection with another system capable of providing water in an emergency? Yes

## 2. Water Use Information

Service Area

Sub-Basin(s)

% of Service Population

County(s)

% of Service Population

Deep River (02-2)

100 %

Chatham

100 %

What was the year-round population served in 2016? 1,070

System Map: keep Asbury Water System Map.pdf

Has this system acquired another system since last report? No

#### Water Use by Type

Type of Use	Metered Connections	Metered Average Use (MGD)	Non-Metered Connections	Non-Metered Estimated Use (MGD)
Residential	428	0.046	0	0.000
Commercial	12	0.003	0	0.000
Industrial	2	0.025	0	0.000
Institutional	11	0.002	0	0.000

How much water was used for system processes (backwash, line cleaning, flushing, etc.)? 0.075 MGD

#### Water Sales

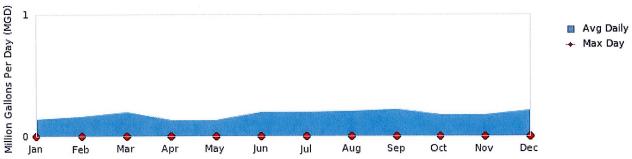
		Average Daily	Days		Contract		Required to comply with	Pipe Size	Use
Purchaser	PWSID	Sold (MGD)	Used	MGD	Expiration	water use restrictions?	use	(s) (Inches)	Type
Chatham County North Water System	03-19- 126	0.000	0				Yes		Emergency

## 3. Water Supply Sources

#### Monthly Withdrawals & Purchases

	Average Daily Use (MGD)	Max Day Use (MGD)		Average Daily Use (MGD)	Max Day Use (MGD)		Average Daily Use (MGD)	Max Day Use (MGD)
Jan	0.131		May	0.129		Sep	0.215	
Feb	0.159		Jun	0.192		Oct	0.169	
Mar	0.195		Jul	0.196		Nov	0.168	
Apr	0.130		Aug	0.203		Dec	0.204	

# Chatham County Asbury Water System's 2016 Monthly Withdrawals & Purchases



## Water Purchases From Other Systems

200	DIMOID	Average Daily	Days		Contract		Required to comply with	Pipe Size	Use
Seller	PWSID	Purchased (MGD)	Used	MGD	Expiration	Recurring	water use restrictions?	(s) (Inches)	Type
Chatham County North Water System	03-19- 126	0.000	0				Yes		Emergency
City of Sanford	03-53- 010	0.174	365	0.400		Yes	Yes	12	Regular

## 4. Wastewater Information

Monthly Discharges

Average Daily Discharge (MGD) Average Daily Discharge (MGD) Average Daily Discharge (MGD)

Jan	0.000	May	0.000	Sep	0.000
Feb	0.000	Jun	0.000	Oct	0.000
Mar	0.000	Jul	0.000	Nov	0.000
Apr	0.000	Aug	0.000	Dec	0.000

# Chatham County Asbury Water System's 2016 Monthly Discharges



How many sewer connections does this system have? 0

How many water service connections with septic systems does this system have? 453

Are there plans to build or expand wastewater treatment facilities in the next 10 years? No

## 5. Planning

Projections						
	2016	2020	2030	2040	2050	2060
Year-Round Population	1,070	1,181	1,371	1,591	1,846	2,143
Seasonal Population	0	0	0	0	0	0
Residential	0.046	0.049	0.057	0.066	0.077	0.089
Commercial	0.003	0.003	0.004	0.004	0.005	0.005
Industrial	0.025	0.021	0.024	0.027	0.030	0.033
Institutional	0.002	0.003	0.004	0.004	0.005	0.005
System Process	0.075	0.044	0.044	0.044	0.044	0.044
Unaccounted-for	0.023	0.022	0.024	0.026	0.029	0.032
Demand v/s Percent of Supply						
	2016	2020	2030	2040	2050	2060
Surface Water Supply	0.000	0.000	0.000	0.000	0.000	0.000
Ground Water Supply	0.000	0.000	0.000	0.000	0.000	0.000
Purchases	0.400	0.400	0.400	0.400	0.400	0.400
Future Supplies		0.000	0.000	0.000	0.000	0.000
Total Available Supply (MGD)	0.400	0.400	0.400	0.400	0.400	0.400
Service Area Demand	0.174	0.142	0.157	0.171	0.190	0.208
Sales	0.000	0.000	0.000	0.000	0.000	0.000
Future Sales		0.000	0.000	0.000	0.000	0.000
Total Demand (MGD)	0.174	0.142	0.157	0.171	0.190	0.208
Demand as Percent of Supply	44%	36%	39%	43%	48%	52%

## JpGraph Error: 25121



Empty input data array specified for plot. Must have at least one data point.

The purpose of the above chart is to show a general indication of how the long-term per capita water demand changes over time. The per capita water demand may actually be different than indicated due to seasonal populations and the accuracy of data submitted. Water systems that have calculated long-term per capita water demand based on a methodology that produces different results may submit their information in the notes field.

Your long-term water demand is 43 gallons per capita per day. What demand management practices do you plan to implement to reduce the per capita water demand (i.e. conduct regular water audits, implement a plumbing retrofit program, employ practices such as rainwater harvesting or reclaimed water)? If these practices are covered elsewhere in your plan, indicate where the practices are discussed here.

Are there other demand management practices you will implement to reduce your future supply needs?

What supplies other than the ones listed in future supplies are being considered to meet your future supply needs? Chatham County will supply water from the North Water System or purchase more water from the City of Sanford

How does the water system intend to implement the demand management and supply planning components above? NA

#### Additional Information

Has this system participated in regional water supply or water use planning? No

What major water supply reports or studies were used for planning?

Please describe any other needs or issues regarding your water supply sources, any water system deficiencies or needed improvements (storage, treatment, etc.) or your ability to meet present and future water needs. Include both quantity and quality considerations, as well as financial, technical, managerial, permitting, and compliance issues:

The Division of Water Resources (DWR) provides the data contained within this Local Water Supply Plan (LWSP) as a courtesy and service to our customers. DWR staff does not field verify data. Neither DWR, nor any other party involved in the preparation of this LWSP attests that the data is completely free of errors and omissions. Furthermore, data users are cautioned that LWSPs labeled **PROVISIONAL** have yet to be reviewed by DWR staff. Subsequent review may result in significant revision. Questions regarding the accuracy or limitations of usage of this data should be directed to the water system and/or DWR.