

Biltmore Forest

2017 ▾

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1. System Information

Contact Information

Water System Name:	Biltmore Forest	PWSID:	01-11-030
Mailing Address:	P.O. Box 5352 Asheville, NC 28813	Ownership:	Municipality
Contact Person:	Terry Crouch	Title:	Director of Public Works
Phone:	828-274-3919	Fax:	828-274-8131
Secondary Contact:	Davis CivilSolutions, P.A.	Phone:	828-299-9449
Mailing Address:	135-A Charlotte Hwy. Asheville, NC 28803	Fax:	--

Complete

Distribution System

Line Type	Size Range (Inches)	Estimated % of lines
Ductile Iron	2-6	82.00 %
Ductile Iron	6-8	18.00 %

What are the estimated total miles of distribution system lines? **20 Miles**
 How many feet of distribution lines were replaced during 2017? **0 Feet**
 How many feet of new water mains were added during 2017? **0 Feet**
 How many meters were replaced in 2017? **90**
 How old are the oldest meters in this system? **12 Year(s)**
 How many meters for outdoor water use, such as irrigation, are not billed for sewer services? **155**
 What is this system's finished water storage capacity? **0.000 Million Gallons**
 Has water pressure been inadequate in any part of the system since last update? **No**

The Town of Biltmore Forest purchases all of its water supply from the City of Asheville at three (3) metered connections.

Programs

Does this system have a program to work or flush hydrants? **Yes, Annually**
 Does this system have a valve exercise program? **Yes, Annually**
 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? **Yes**

The Town of Biltmore Forest conducts annual leak detection surveys using Town-owned leak detection equipment.

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**

The Town of Biltmore Forest purchases all of its water supply from the City of Asheville at three (3) connections.

2. Water Use Information

Service Area

Sub-Basin(s)	% of Service Population	County(s)	% of Service Population
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French Broad River (05-2)

100 %

Buncombe

100 %

What was the year-round population served in 2017? 1,526

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	789	0.148	0	0.000
Commercial	9	0.012	0	0.000
Industrial	0	0.000	0	0.000
Institutional	6	0.005	0	0.000

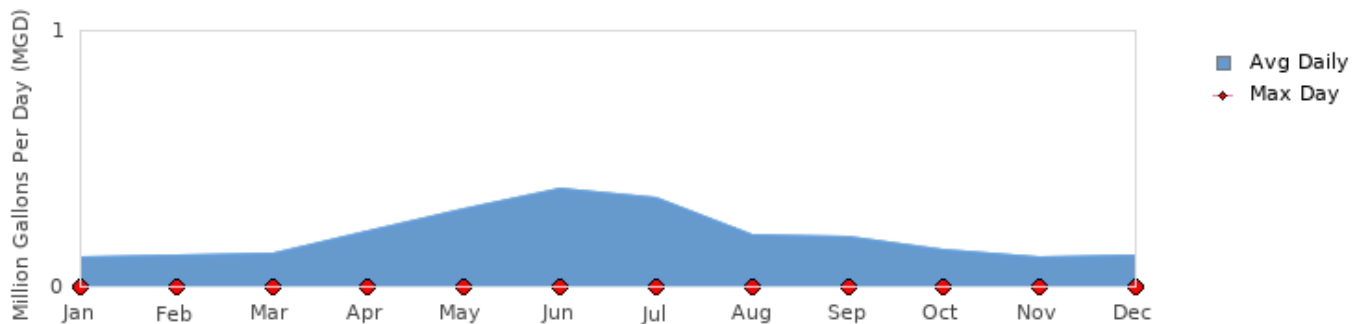
How much water was used for system processes (backwash, line cleaning, flushing, etc.)? 0.000 MGD

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	0.111		May	0.299		Sep	0.195	
Feb	0.118		Jun	0.384		Oct	0.144	
Mar	0.129		Jul	0.344		Nov	0.114	
Apr	0.211		Aug	0.198		Dec	0.119	

Biltmore Forest's 2017 Monthly Withdrawals & Purchases



Water Purchases From Other Systems

Seller	PWSID	Average Daily Purchased (MGD)	Days Used	MGD	Contract Expiration	Recurring	Required to comply with water use restrictions?	Pipe Size(s) (Inches)	Use Type
City of Asheville	01-11-010	0.197	365	0.350	2022	Yes	Yes	6,8	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

Biltmore Forest's 2017 Monthly Discharges



How many sewer connections does this system have? 651

How many water service connections with septic systems does this system have? 6

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

The Town of Biltmore Forest does not own or operate a wastewater collection system and/or treatment system. The Metropolitan Sewerage District (MSD) of Buncombe County owns and operates the wastewater collection and treatment systems. Discharge to MSD is by private property owners.

Wastewater Interconnections

Water System	PWSID	Type	Average Daily Amount		Contract Maximum (MGD)
			MGD	Days Used	
Town of Biltmore Forest	01-11-030	Discharging	0.000	0	0.000

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5. Planning

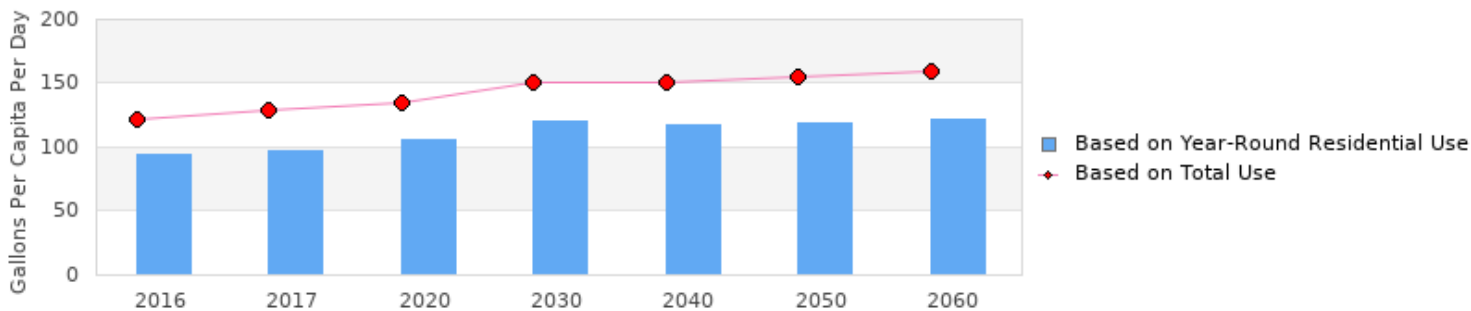
Projections

	2017	2020	2030	2040	2050	2060
Year-Round Population	1,526	1,610	1,650	1,710	1,760	1,810
Seasonal Population	0	0	0	0	0	0
Residential	0.148	0.170	0.198	0.200	0.210	0.220
Commercial	0.012	0.020	0.021	0.024	0.027	0.030
Industrial	0.000	0.000	0.000	0.000	0.000	0.000
Institutional	0.005	0.007	0.008	0.010	0.012	0.014
System Process	0.000	0.000	0.000	0.000	0.000	0.000
Unaccounted-for	0.032	0.019	0.022	0.022	0.024	0.025

Demand v/s Percent of Supply

	2017	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	0.350	0.350	0.350	0.350	0.350	0.350
Future Supplies		0.000	0.000	0.000	0.000	0.000
Total Available Supply (MGD)	0.350	0.350	0.350	0.350	0.350	0.350
Service Area Demand	0.197	0.216	0.249	0.256	0.273	0.289
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)	0.197	0.216	0.249	0.256	0.273	0.289
Demand as Percent of Supply	56%	62%	71%	73%	78%	83%

Biltmore Forest's Projected Gallons Per Capita Per Day (GPCD) Over Time



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 97 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 Town of Biltmore Forest plans to continue participation in water conservation meetings with the City of Asheville and continue to follow the planning and conservation efforts of the City. The Town has limited area available for growth with only one (1) significant parcel left for future development, and therefore does not anticipate significant increased demand in the future. The Town will continue to replace older meters on a continual basis. The Town replaced over 85% of the water lines in the Forest in 2002, eliminating deficiencies in the system due to aging and/or undersized lines, and will replace the remaining lines as conditions warrant.

What supplies other than the ones listed in future supplies are being considered to meet your future supply needs? The Town of Biltmore Forest does not have the availability of water supply other than purchase from the City of Asheville.

How does the water system intend to implement the demand management and supply planning components above? The Town of Biltmore Forest has an existing and recurring local water purchase agreement and contract with the City of Asheville and plans to continue that agreement as necessary to meet future demands.

Additional Information

Has this system participated in regional water supply or water use planning? Yes, Yes, the Town of Biltmore Forest has participated in water conservation meetings with the City of Asheville. The Town follows the planning efforts of the City of Asheville.

What major water supply reports or studies were used for planning? The Town of Biltmore Forest has only one (1) significant parcel left for future development. There is no additional land in the Forest available for commercial, industrial, or institutional development other than that which currently exists, is privately owned and is restricted to residential development only. There are no plans for extending the corporate limits of the Town. The Town purchases water from the City of Asheville and follows the planning documents of the City.

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 Town of Biltmore Forest is primarily and overwhelmingly residential with limited area for future growth. With an existing local water purchase agreement with the City of Asheville, no future improvements are needed by the Town to meet present and future quantity and quality needs. Over 85% of the water lines in the Forest were replaced in 2002, eliminating any deficiencies in the system due to aging or undersized lines. The City of Asheville has over a 30 million gallon per day supply and their long term demand projections have included and will continue to include the future demographic projections of the Town of Biltmore Forest.

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