

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.

1. System Information

Contact Information

Water System Name:	Montreat	PWSID:	01-11-484
Mailing Address:	P.O. Box 423 Montreat, NC 28757	Ownership:	Municipality
Contact Person:	Stephen L. Freeman	Title:	ORC
Phone:	828-669-8002	Fax:	828-669-3810
Secondary Contact:	Ron Nalley	Phone:	828-669-8002
Mailing Address:	P.O. Box 423 Montreat, NC 28757	Fax:	828-669-3810

Distribution System

Line Type	Size Range (Inches)	Estimated % of lines
Cast Iron	8	1.00 %
Ductile Iron	6	93.00 %
Galvanized Iron	3	3.00 %
Polyvinyl Chloride	6-8	3.00 %

What are the estimated total miles of distribution system lines? **18 Miles**

How many feet of distribution lines were replaced during 2012? **0 Feet**

How many feet of new water mains were added during 2012? **0 Feet**

How many meters were replaced in 2012? **7**

How old are the oldest meters in this system? **3 Year(s)**

How many meters for outdoor water use, such as irrigation, are not billed for sewer services? **4**

What is this system's finished water storage capacity? **0.600 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, Annually**

Does this system have a valve exercise program? **Yes, 2 Years or More**

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? **Yes**

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

Does this system have a leak detection program? **Yes**

Montreat has a SCADA system that monitors tank levels and reports rapid level drops. In 2010, the Town installed a complete radio read system on all meters that monitors for high usage and reports possible leaks. For locating smaller leaks, the Town uses a listening device.

Water Conservation

What type of rate structure is used? **Flat/Fixed**

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
French Broad River (05-2)	100 %	Buncombe	100 %

What was the year-round population served in 2012? **730**

What was the seasonal population and months served in 2012? (if applicable) **3,000 (Jun Jul Aug Sep)**

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	641	0.051	0	0.000
Commercial	0	0.000	0	0.000
Industrial	0	0.000	0	0.000
Institutional	28	0.030	0	0.000

How much water was used for system processes (backwash, line cleaning, flushing, etc.)? **0.024 MGD**

Water Sales

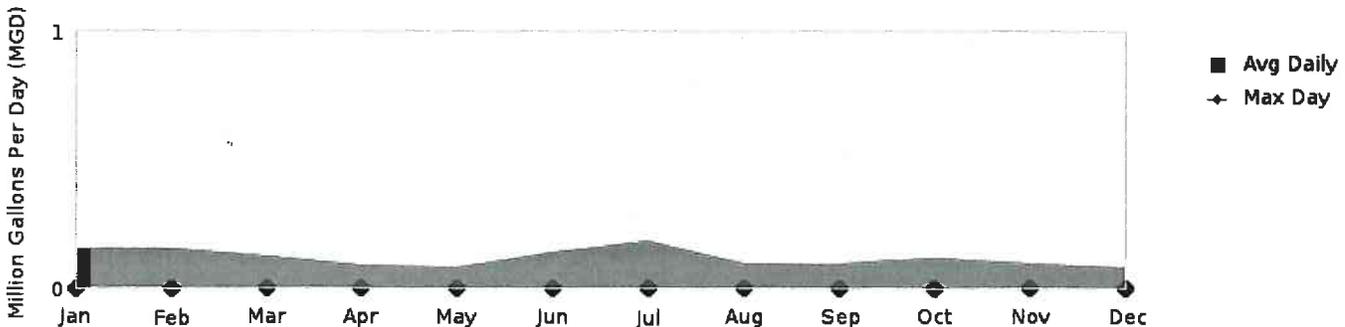
Purchaser	PWSID	Average Daily Sold (MGD)	Days Used	MGD	Contract Expiration	Recurring	Required to comply with water use restrictions?	Pipe Size(s) (Inches)	Use Type
Black Mountain	01-11-020	0.000	0	0.050		Yes	Yes	6	Emergency

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	0.151		May	0.073		Sep	0.091	
Feb	0.147		Jun	0.135		Oct	0.110	
Mar	0.118		Jul	0.176		Nov	0.088	
Apr	0.087		Aug	0.093		Dec	0.073	

Montreat's 2012 Monthly Withdrawals & Purchases



Name or Number	Average Daily Withdrawal (MGD)		Max Day Withdrawal (MGD)	12-Hour Supply (MGD)	CUA Reduction	Year Offline	Use Type
	MGD	Days Used					
1	0.033	365		0.051			Regular
2	0.007	365		0.019			Regular
3	0.004	365		0.012			Regular
4	0.000	0		0.000		1997	Regular
5	0.006	365		0.012			Regular
6	0.021	365		0.036			Regular
A	0.012	365		0.030			Regular
A01	0.002	365		0.022			Regular
B	0.028	365		0.049			Regular

Ground Water Sources (continued)

Name or Number	Well Depth (Feet)	Casing Depth (Feet)	Screen Depth (Feet)		Well Diameter (Inches)	Pump Intake Depth (Feet)	Metered?
			Top	Bottom			
1	400	40	0	0	8	225	Yes
2	345	23	0	0	8	125	Yes
3	345	37	0	0	6	150	Yes
4	345	36	0	0	6	150	No
5	305	51	0	0	6	150	Yes
6	545	30	0	0	6	250	Yes
A	500	90	0	0	8	405	Yes
A01	605	95	0	0	6	200	Yes
B	750	85	0	0	8	168	Yes

Are ground water levels monitored? **Yes, Daily**

Does this system have a wellhead protection program? **Yes**

Water Purchases From Other Systems

Seller	PWSID	Average Daily Purchased (MGD)	Days Used	Contract			Required to comply with water use restrictions?	Pipe Size(s) (Inches)	Use Type
				MGD	Expiration	Recurring			
Black Mountain	01-11-020	0.000	0	0.050		Yes	Yes	6	Emergency

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



How many sewer connections does this system have? **672**

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

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

The Metropolitan Sewage District (MSD) is responsible for wastewater collection and treatment for all of Montreat and most of Buncombe County.

Wastewater Interconnections

Water System	PWSID	Type	Average Daily Amount		Contract Maximum (MGD)
			MGD	Days Used	
Metropolitan Sewerage District	01-11-484	Discharging	0.000	365	0.000

The Metropolitan Sewerage District serves all of the Town of Montreat and most of Buncombe County.

5. Planning

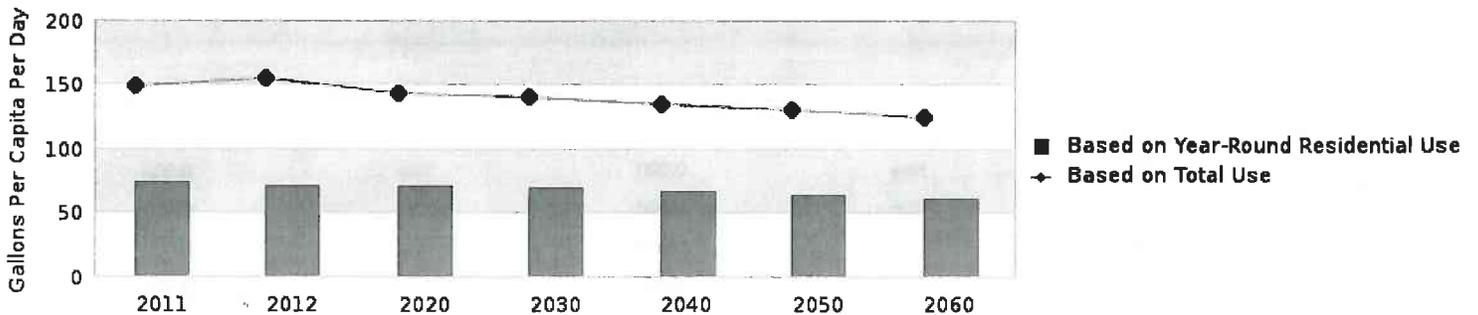
Projections

	2012	2020	2030	2040	2050	2060
Year-Round Population	730	770	815	860	910	965
Seasonal Population	3,000	3,000	3,500	3,500	4,000	4,000
Residential	0.051	0.055	0.056	0.057	0.058	0.059
Commercial	0.000	0.000	0.000	0.000	0.000	0.000
Industrial	0.000	0.000	0.000	0.000	0.000	0.000
Institutional	0.030	0.033	0.034	0.035	0.036	0.037
System Process	0.024	0.010	0.010	0.010	0.010	0.010
Unaccounted-for	0.008	0.013	0.014	0.014	0.014	0.014

Demand v/s Percent of Supply

	2012	2020	2030	2040	2050	2060
Surface Water Supply	0.000	0.000	0.000	0.000	0.000	0.000
Ground Water Supply	0.231	0.231	0.231	0.231	0.231	0.231
Purchases	0.000	0.000	0.000	0.000	0.000	0.000
Future Supplies		0.000	0.000	0.000	0.000	0.000
Total Available Supply (MGD)	0.231	0.231	0.231	0.231	0.231	0.231
Service Area Demand	0.113	0.111	0.114	0.116	0.118	0.120
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)	0.113	0.111	0.114	0.116	0.118	0.120
Demand as Percent of Supply	49%	48%	49%	50%	51%	52%

Montreat'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 70 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? **We plan to add an additional storage tank in the near future.**

What supplies other than the ones listed in future supplies are being considered to meet your future supply needs? **We plan in our Capital Improvement Plan to look for new well sites every three to five years and set monies aside to do so.**

How does the water system intend to implement the demand management and supply planning components above? **We set monies aside and budget according to the Capital Improvement Plan, look for Grant opportunities if available, and work with the Rural Water Association.**

Additional Information

Has this system participated in regional water supply or water use planning? **Yes, Yes, the town has participated in the State drought monitoring program in the past.**

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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