

Dare Co Rodanthe-Waves-Salvo

2022 ▾

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:	Dare Co Rodanthe-Waves-Salvo	PWSID:	04-28-035
Mailing Address:	P.O. Box 500 Rodanthe, NC 27968	Ownership:	County
Contact Person:	Chuck Budd	Title:	Plant Superintendent
Phone:	252-475-5778	Cell/Mobile:	--

Complete

Distribution System

Line Type	Size Range (Inches)	Estimated % of lines
Polyvinyl Chloride	2-12	100.00 %

What are the estimated total miles of distribution system lines? **26 Miles**

How many feet of distribution lines were replaced during 2022? **0 Feet**

How many feet of new water mains were added during 2022? **0 Feet**

How many meters were replaced in 2022? **14**

How old are the oldest meters in this system? **28 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? **1.2000 Million Gallons**

Has water pressure been inadequate in any part of the system since last update? *Line breaks that were repaired quickly should not be included.* **No**

Programs

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

Does this system have a valve exercise program? **No**

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? **No**

Does this system have a leak detection program? **No**

Water Conservation

What type of rate structure is used? **Increasing Block, Seasonal**

How much reclaimed water does this system use? **0.0000 MGD** For how many connections? **0**

Does this system have an interconnection with another system capable of providing water in an emergency? **No**

The next closest water plant is 30 miles away and there is a stretch of about 15 miles to connect so not feasible.

2. Water Use Information

Service Area

Sub-Basin(s)	% of Service Population	County(s)	% of Service Population
Albemarle Sound (12-1)	100 %	Dare	100 %

What was the year-round population served in 2022? 1,320

What was the seasonal population and months served in 2022? (if applicable) 7,700 (Apr May 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	1,920	0.2900	0	0.0000
Commercial	52	0.0590	0	0.0000
Industrial	0	0.0000	0	0.0000
Institutional	2	0.0030	0	0.0000

How much water was used for system processes (backwash, line cleaning, flushing, etc.)? 0.0920 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	0.2230	0.3540	May	0.5830	0.8080	Sep	0.6050	0.9230
Feb	0.2120	0.2660	Jun	0.8450	0.9510	Oct	0.4060	0.6130
Mar	0.3000	0.5640	Jul	0.8920	1.0480	Nov	0.2750	0.4110
Apr	0.4720	0.6180	Aug	0.8130	1.1550	Dec	0.2580	0.6240

The monthly data comes from a meter in plant and does not count the raw blend flow added to the RO system before that meter which can be as much as 10% but usually about half of that.



Ground Water Sources

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	0.2000	164		0.6250			Regular
2	0.2860	198		0.6250			Regular
3	0.3580	267		0.6250			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	410	395	305	395	12	80	Yes
2	365	293	293	365	8	80	Yes
3							Yes

Are ground water levels monitored? Yes, Monthly

Does this system have a wellhead protection program? Yes

Water Treatment Plants

Plant Name	Permitted Capacity (MGD)	Is Raw Water Metered?	Is Finished Water Output Metered?	Source
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RWS Water Plant 1.2500 Yes Yes Groundwater

Did average daily water production exceed 80% of approved plant capacity for five consecutive days during 2022? No

If yes, was any water conservation implemented?

Did average daily water production exceed 90% of approved plant capacity for five consecutive days during 2022? No

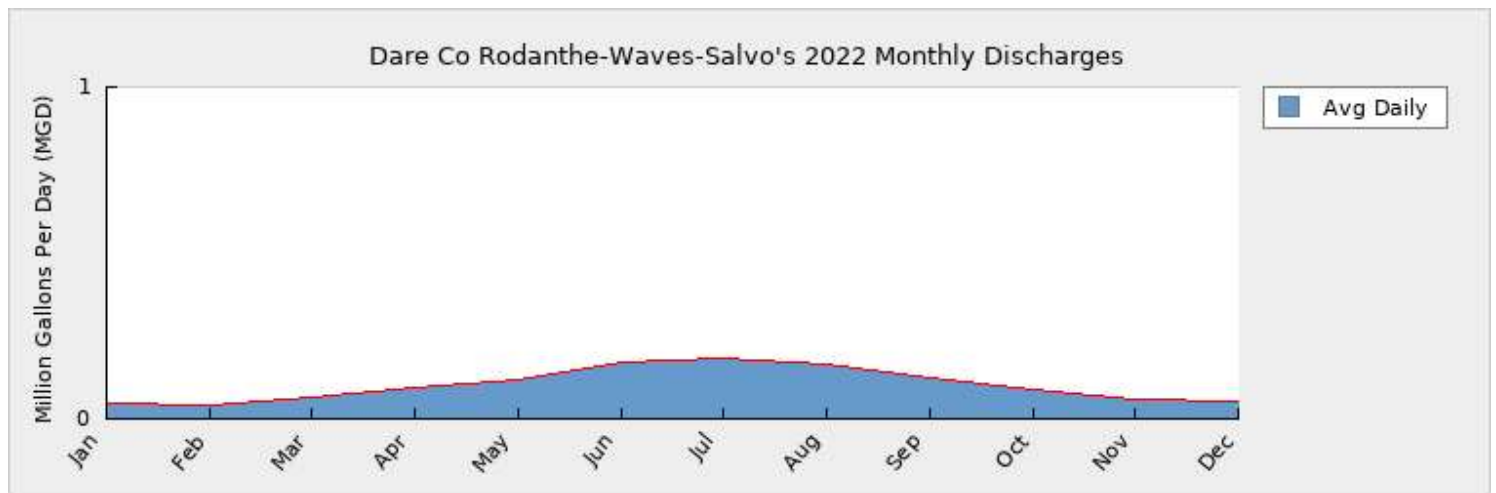
If yes, was any water conservation implemented?

Are peak day demands expected to exceed the water treatment plant capacity in the next 10 years? No

4. Wastewater Information

Monthly Discharges

	Average Daily Discharge (MGD)		Average Daily Discharge (MGD)		Average Daily Discharge (MGD)
Jan	0.0460	May	0.1200	Sep	0.1240
Feb	0.0440	Jun	0.1730	Oct	0.0900
Mar	0.0620	Jul	0.1830	Nov	0.0580
Apr	0.0970	Aug	0.1670	Dec	0.0520



How many sewer connections does this system have? 0

How many water service connections with septic systems does this system have? 1,800

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

Wastewater Permits

Permit Number	Type	Permitted Capacity (MGD)	Design Capacity (MGD)	Average Annual Daily Discharge (MGD)	Maximum Day Discharge (MGD)	Receiving Stream	Receiving Basin
NC0083909	WTP	0.3000	0.3030	0.1000	0.2000	Blackmar Gut/Pasquotank River	Albemarle Sound (12-1)

5. Planning

Projections

	2022	2030	2040	2050	2060	2070
Year-Round Population	1,320	1,330	1,340	1,345	1,350	1,360
Seasonal Population	7,700	7,700	7,700	7,750	7,750	7,800
Residential	0.2900	0.2900	0.2950	0.2950	0.2960	0.3000
Commercial	0.0590	0.0590	0.0600	0.0620	0.0620	0.0650
Industrial	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Institutional	0.0030	0.0040	0.0050	0.0060	0.0060	0.0080
System Process	0.0920	0.0940	0.0950	0.0990	0.0990	0.1020

Unaccounted-for	0.0629	0.0350	0.0350	0.0352	0.0352	0.0355
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The system is at near buildout so only small increases are projected.

Demand v/s Percent of Supply

	2022	2030	2040	2050	2060	2070
Surface Water Supply	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Ground Water Supply	1.8750	1.8750	1.8750	1.8750	1.8750	1.8750
Purchases	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Future Supplies		0.0000	0.0000	0.0000	0.0000	0.0000
Total Available Supply (MGD)	1.8750	1.8750	1.8750	1.8750	1.8750	1.8750
Service Area Demand	0.5069	0.4820	0.4900	0.4972	0.4982	0.5105
Sales	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Future Sales		0.0000	0.0000	0.0000	0.0000	0.0000
Total Demand (MGD)	0.5069	0.4820	0.4900	0.4972	0.4982	0.5105
Demand as Percent of Supply	27%	26%	26%	27%	27%	27%



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 220 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?

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

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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