



**TOWN OF ORIENTAL**  
 PO Office Box 472  
 Oriental, North Carolina 28571  
 (252) 249-0555 ~ Fax (252) 249-0208  
 www.townoforiental.com  
 manager@townoforiental.com

**RESOLUTION 2023-05 FOR APPROVING LOCAL WATER SUPPLY PLAN**

WHEREAS, North Carolina General Statute 143-355 (l) requires that each unit of local government that provides public water service or that plans to provide public water service and each large community water system shall, either individually or together with other units of local government and large community water systems, prepare and submit a Local Water Supply Plan; and

WHEREAS, as required by the statute and in the interests of sound local planning, a Local Water Supply Plan for the Oriental Water System, has been developed and submitted to the Mayor and Board of the Town of Oriental for approval; and

WHEREAS, Mayor and Board of the Town of Oriental finds that the Local Water Supply Plan is in accordance with the provisions of North Carolina General Statute 143-355 (l) and that it will provide appropriate guidance for the future management of water supplies for the Oriental Water System, as well as useful information to the Department of Environmental Quality for the development of a state water supply plan as required by statute;

NOW, THEREFORE, BE IT RESOLVED by the Mayor and Board of the Town of Oriental that the Local Water Supply Plan entitled, Oriental Local Water Supply Plan dated March 17, 2023, is hereby approved and shall be submitted to the Department of Environmental Quality, Division of Water Resources; and

BE IT FURTHER RESOLVED that the Mayor and Board of the Town of Oriental intends that this plan shall be revised to reflect changes in relevant data and projections at least once every five years or as otherwise requested by the Department, in accordance with the statute and sound planning practice.

This the 4th day of April, 2023.

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Signature: \_\_\_\_\_

ATTEST:

\_\_\_\_\_  
 Diane H. Miller, Clerk

We recognize that the COVID-19 outbreak and resulting travel restrictions will affect water systems and their staff. Please contact the Plan Review Engineer for your river basin (list of Basins and associated engineers) or Linwood Peele at [linwood.peele@ncdenr.gov](mailto:linwood.peele@ncdenr.gov) if you need an extension for submitting your Local Water Supply Plan.

You have successfully updated your 2022 Local Water Supply Plan Update and are nearly finished. Before submitting, we ask that you:

- Verify your [report](#) for accuracy.
- Print a copy of your [report](#) for your records.
- Plans with negative unaccounted-for water will be rejected by the system.
- Once you have performed your review, click the "I'm ready to submit my report" button below to submit your report for review by the NC DWR.

#### Unaccounted-for Water Summary

Water In	
Ground Water Sources	0.1475 MGD
Surface Water Sources	0.0000 MGD
Purchased Water Sources	0.0000 MGD
Total Water In: 0.1475 MGD	
Water Out	
Residential Use	0.0596 MGD
Commercial Use	0.0255 MGD
Industrial Use	0.0000 MGD
Institutional Use	0.0000 MGD
System Process Water	0.0500 MGD
Sales to Other Systems	0.0000 MGD
Total Water Out: 0.1351 MGD	
Unaccounted-for Water	
Total Water In (minus) Total Water Out: <b>0.0124 MGD 8.0 %</b>	

I certify that all auto populated information has been reviewed and any information that was not correct has been updated prior to submission of the Plan.

Upon submission you will receive a confirmation email for your records. Please note, once you submit your 2022 LWSP report you will no longer have access to this system. You will be notified when all materials have been received and our review process begins. If you have completed the items above, please click the button below to submit your report.

**I'm ready to submit my report!**

If you have any questions or require assistance, please contact your Review Engineer, , via email or by phone at .

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:	Oriental	PWSID:	04-69-020
Mailing Address:	PO Box 472 Oriental, NC 28571	Ownership:	Municipality
Contact Person:	Diane H. Miller	Title:	Town Manager
Phone:	252-249-0555	Cell/Mobile:	--
Secondary Contact:	Mike Houston	Phone:	919-812-6088
Mailing Address:	, NC 28525	Cell/Mobile:	--

**Provisional**

### Distribution System

Line Type	Size Range (Inches)	Estimated % of lines
Polyvinyl Chloride	2-10	100.00 %

What are the estimated total miles of distribution system lines? 22 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? 27  
 How old are the oldest meters in this system? 30 Year(s)  
 How many meters for outdoor water use, such as irrigation, are not billed for sewer services? 72  
 What is this system's finished water storage capacity? 0.2750 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.* Yes

### Programs

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

We look for leaks in the distribution system and utilize NCRWA on an as needed basis.

### Water Conservation

What type of rate structure is used? Increasing Block

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? Yes

## 2. Water Use Information

### Service Area

Sub-Basin(s)	% of Service Population	County(s)	% of Service Population
Neuse River (10-1)	100 %	Pamlico	100 %

What was the year-round population served in 2022? 1,136

System Map: [download](#) 

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	802	0.0596	0	0.0000
Commercial	78	0.0255	0	0.0000
Industrial	0	0.0000	0	0.0000
Institutional	0	0.0000	0	0.0000

How much water was used for system processes (backwash, line cleaning, flushing, etc.)? 0.0500 MGD

Process water went down from previous years due to less backwashing needed at the WTP.

### 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
Pamlico County	04-69-025	0.0000	0	0.2000		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	0.1313	0.1644	May	0.1694	0.3680	Sep	0.1583	0.2860
Feb	0.1363	0.2140	Jun	0.2044	0.2640	Oct	0.1215	0.2780
Mar	0.1524	0.2820	Jul	0.1677	0.2530	Nov	0.1065	0.2110
Apr	0.1533	0.2560	Aug	0.1550	0.2617	Dec	0.1148	0.3215



### 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	0.0579	363	0.1930	0.2520	CUA0		Regular
2	0.0925	355	0.2951	0.1872	CUA0		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	319		284	314	8	60	Yes
2	317		282	312	10	75	Yes

Are ground water levels monitored? Yes, Monthly

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			
Pamlico County	04-69-025	0.0000	0	0.0000		Yes	6	Emergency

Water Treatment Plants

Plant Name	Permitted Capacity (MGD)	Is Raw Water Metered?	Is Finished Water Output Metered?	Source
Oriental Water Treatment Plant	0.3600	Yes	Yes	Ground Water - Castle Hayne Aquifer

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? No

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

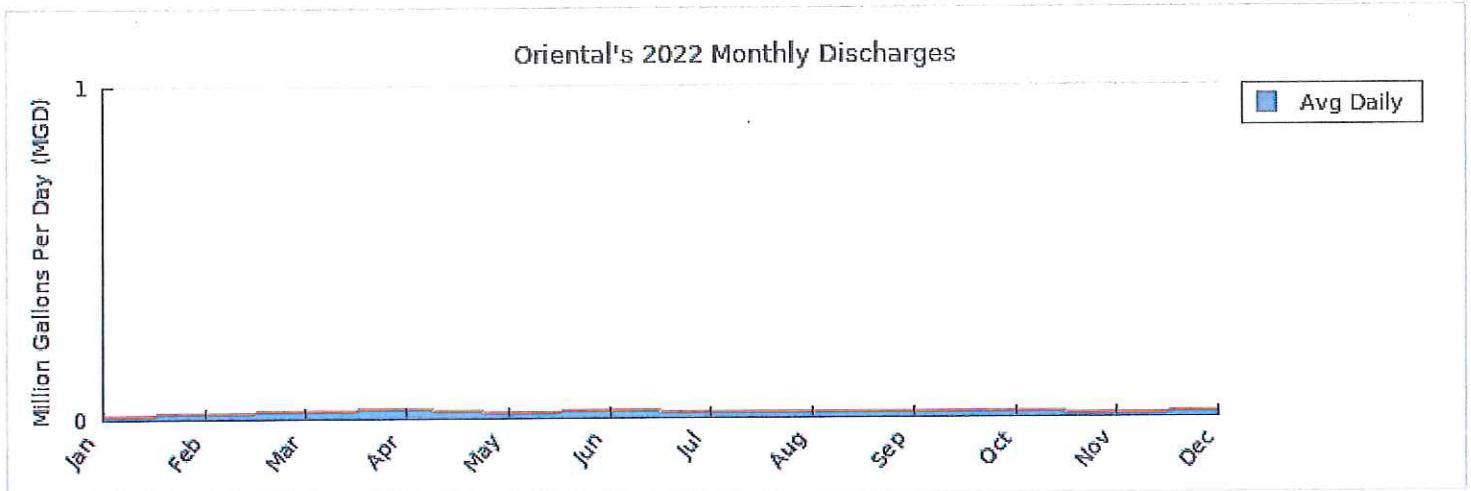
If yes, was any water conservation implemented? No

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	0.0101	May	0.0201	Sep	0.0171
Feb	0.0197	Jun	0.0213	Oct	0.0162
Mar	0.0260	Jul	0.0174	Nov	0.0147
Apr	0.0271	Aug	0.0153	Dec	0.0155



How many sewer connections does this system have? 683

How many water service connections with septic systems does this system have? 109

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

Media was changed out in early 2022, therefore backwash cycles were reduced dramatically. This would explain why monthly discharge totals are much lower than previous years.

Wastewater Permits

Permit Number	Type	Permitted Capacity (MGD)	Design Capacity (MGD)	Average Annual Daily Discharge (MGD)	Maximum Day Discharge (MGD)	Receiving Stream	Receiving Basin
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## 5. Planning

### Projections

	2022	2030	2040	2050	2060	2070
Year-Round Population	1,136	1,152	1,173	1,193	1,212	1,232
Seasonal Population	0	0	0	0	0	0
Residential	0.0596	0.0604	0.0614	0.0624	0.0634	0.0644
Commercial	0.0255	0.0258	0.0263	0.0267	0.0271	0.0276
Industrial	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Institutional	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
System Process	0.0500	0.0507	0.0516	0.0524	0.0532	0.0540
Unaccounted-for	0.0124	0.0126	0.0128	0.0130	0.0132	0.0134

### 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	0.4392	0.4392	0.4392	0.4392	0.4392	0.4392
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)	0.4392	0.4392	0.4392	0.4392	0.4392	0.4392
Service Area Demand	0.1475	0.1495	0.1521	0.1545	0.1569	0.1594
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)	0.1475	0.1495	0.1521	0.1545	0.1569	0.1594
Demand as Percent of Supply	34%	34%	35%	35%	36%	36%



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 52 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? Yes, CCPCUA

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

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: Replace old, outdated infrastructure such as aging waterlines and water meters. Valve replacement is high on the priority list as well.

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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.



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www.townoforiental.com  
manager@townoforiental.com

**RESOLUTION 2023-06 FOR APPROVING WATER SHORTAGE RESPONSE PLAN**

WHEREAS, North Carolina General Statute 143-355 (l) requires that each unit of local government that provides public water service and each large community water system shall develop and implement water conservation measures to respond to drought or other water shortage conditions as set out in a Water Shortage Response Plan and submitted to the Department for review and approval; and

WHEREAS, as required by the statute and in the interests of sound local planning, a Water Shortage Response Plan for Oriental Water System has been developed and submitted to the Mayor and Board of the Town of Oriental for approval; and

WHEREAS, the finds that the Water Shortage Response Plan is in accordance with the provisions of North Carolina General Statute 143-355 (l) and that it will provide appropriate guidance for the future management of water supplies for Oriental Water System, as well as useful information to the Department of Environment and Natural Resources for the development of a state water supply plan as required by statute;

NOW, THEREFORE, BE IT RESOLVED by the Mayor and Board of the Town of Oriental that the Water Shortage Response Plan entitled, Water Shortage Response Plan dated April 4, 2023, is hereby approved and shall be submitted to the Department of Environment and Natural Resources, Division of Water Resources; and

BE IT FURTHER RESOLVED that the Mayor and Board of the Town of Oriental intends that this plan shall be revised to reflect changes in relevant data and projections at least once every five years or as otherwise requested by the Department, in accordance with the statute and sound planning practice.

This the 4th day of April, 2023.

Name: Sally T. Belangia

Title: Mayor

Signature: \_\_\_\_\_

ATTEST:

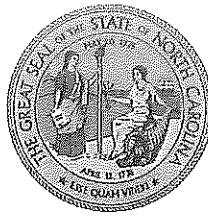
\_\_\_\_\_  
Diane H. Miller, Clerk



ROY COOPER  
Governor

ELIZABETH S. BISER  
Secretary

RICHARD E. ROGERS, JR.  
Director



NORTH CAROLINA  
Environmental Quality

March 1, 2023

*Recd  
3/1/23  
J. Lee*

**Oriental**

Diane H. Miller, Town Manager  
PO Box 472  
Oriental, NC 28571

**Re: Water Shortage Response Plan 5-Year Update**

Dear Water System Manager or Administrator:

All local governments and community water systems subject to G.S. 143-355(l) are required to update their Water Shortage Response Plan (WSRP) based on their procedures for revising and updating their plan in order to improve plan effectiveness and adapt to new circumstances. An updated or reviewed WSRP is due to the Division of Water Resources (DWR) no later than **June 1, 2023**.

Revised or reviewed plans can be submitted through DWR's Local Water Supply Plan dashboard at <https://www.ncwater.org/WUDC/app/LWSP/dashboard.php>. To review or submit your WSRP update, click the "WSRP" tab after logging in. Your most recent plan can be viewed by clicking the "download" link near the top of the WSRP page. After review and any modification, the updated WSRP can be uploaded by browsing for the new file and then clicking "Upload" button to submit your revised WSRP for review. If no changes are required, please upload the current WSRP or send an electronic copy to the review engineer listed in the following paragraph. DWR will review the WSRP for completeness and send you a letter approving the WSRP. The WSRP will then need to be adopted by your Town Council or Board. A copy of the resolution should then be mailed or sent electronically to your review engineer.

If you have questions about updating or submitting your revised Water Shortage Response Plan, please contact your review engineer, Louis Murray, at 919-707-9017 or [louis.murray@ncdenr.gov](mailto:louis.murray@ncdenr.gov) or other DWR staff at (919) 707-9000. We encourage anyone who needs assistance to contact DWR prior to the deadline. We appreciate this opportunity to work with you to assure that North Carolina can meet its future water needs.

Sincerely,

Handwritten signature of Linwood Peele in black ink.

Linwood Peele  
Water Supply Planning Branch, Supervisor



North Carolina Department of Environmental Quality | Division of Water Resources  
512 North Salisbury Street | 1611 Mail Service Center | Raleigh, North Carolina 27699-1611  
919.707.9000

Town of Oriental

Water Shortage Response Plan Ordinance 2009  
(updated April 2023)

- Section 1. **Purpose.** The purpose of this Plan is to provide for the declaration of official phases of water supply shortages and the implementation of voluntary and mandatory water conservation measures throughout the Utility's service are in the event a shortage is declared.
- Section 2. **Authority to Implement.** When conditions dictate, the Town of Oriental's Public Works Supervisor and the Town Manager under the Direction of the Town's Mayor, may shall implement a Water Shortage Response Plan (WSRP). Conditions, which may require the WSRP to be enacted, are outline in Section 4.
- Town Manager: Diane Miller  
252-249-0555  
[manager@townoforiental.com](mailto:manager@townoforiental.com)
- Public Works Director: Andrew Cox  
252-876-2826  
[andrewcox@townoforiental.com](mailto:andrewcox@townoforiental.com)
- Section 3. **Notification.** When a Water Shortage Response Plan is enacted, the Town of Oriental's Public Works Supervisor shall notify via telephone or cell phone the Town Manager, the Town Mayor, and the Operator in Charge (ORC). In turn, it shall be the duty of the Town Manager and the Mayor of the Town of Oriental to notify all local media outlets (television stations, newspaper(s), radio stations), and to place a notice on the Town's website, and shall initiate an electronic mail notification (e-mail) to be sent to all persons listed on the Town's emergency contact list. Should the emergency last for a period in excess of 72 hours, a direct mail message shall be sent to each customer of the Town's water plant notifying such persons in writing of the existence of the emergency, the Town's chosen solution, and convey other pertinent information regarding the Water Shortage Response Plan implemented. All required response measures shall be included in all written communication with water customers and in all media messages conveyed to the general public.
- Section 4. **Factors Requiring Implementation of the Water Shortage Response Plan.** Several parameters or conditions may require the Town of Oriental to begin the WSRP. These include but may not be limited to significant reductions in well water levels, a significant increase in pump run times for the predetermined total flow at the well(s), contaminants in the water

Phases will be enacted in the following order:

system, acts of terrorism, vandalism, main breaks, and natural disasters. If the factors listed above reduce well water levels or pump run times, or by any event, or combination of events, prevent the water system from delivering water, WSR

Phase I will be enacted if a 20% reduction in normal well water levels is noted or if pump run times increase 20% in order to maintain previous rates or any other event which causes a 20% reduction in the water system's capacity.

Phase II will be enacted if a 40% reduction in normal well water levels is noted or if pump run times increase 40% in order to maintain previous rates or any other even which causes a 40% reduction in the system's capacity.

Phase III will be enacted if a 60% reduction in normal well waters levels is noted or if pump run times increase 60% in order to maintain previous rates or any other event which causes a 60% reduction in the system's capacity.

Section 5. **Water Use Classification.** In order to facilitate a fair and equitable WSRP, every water use will be grouped into one of three classifications.

**Class I- Essential Water Uses**

These uses include but may not be limited to water use required to/for:

- Sustain human life and the lives of domestic pets
- Maintain minimum standards of hygiene and sanitation
- Health care uses necessary for patient care and rehabilitation
- Firefighting, including training and drills as approved by the Town's Mayor

**Class II - Socially or Economically Important Water Uses**

These include but may not be limited to water use required to/for:

- Preserve commercial vegetable gardens, fruit orchards, nursery stock, aquaculture, and livestock maintenance
- Outdoor commercial watering, public or private
- Establishing vegetation, after construction/earth moving activities
- Filling and operation of municipal or private swimming pools provided that these swimming pools serve 25 or more residents
- Operation of commercial car washes, restaurants, Laundromats, clubs, schools, churches and other similar establishments

**Class III- Non-Essential Water Uses**

These uses include but, may not be limited to:

- Operation of water fountains, ornamental pools and recreational swimming pools
- Non-commercial washing of motor vehicles, sidewalks, house, etc
- Non-commercial watering of gardens, lawns, parks, playing fields and other recreational areas

Section 6. **Phased WSRP and Water Use Reduction Goals.** When the WSRP is implemented, the below phased approach will be followed:

**Phase I- Voluntary Conservation**

This phase will be enacted when it is determined that one or more of the parameters outlined in Section 3 is met. If this occurs, the consumers will be notified promptly by any or all of the following: mailers, door hangers, public postings at the Town Hall, Post Offices, Town Website etc. The public will be asked to begin voluntary conservation measures and Class III Non-Essential uses will be halted. Specific conservation measures and tips can be seen on Attachment L

Continued water consumption by Class III, non-essential users will result in a written notice of violation for the first offence and a \$25 fine for each subsequent offense.

If the determining parameters(s) return to seasonal norms, the measures will be lifted. However, failure of the determining parameter(s) to return to the state of seasonal normalcy may require the initiation of Phase II.

**Phase II - Mandatory**

This phase will begin when the Town Public Works Supervisor issues a water shortage advisory. The consumers will be notified by one of the methods noted in Phase I. All users will be required to adhere to the voluntary conservation measures as noted in Attachment 1. Class III uses will be banned. Class II uses will be allowed although outdoor vegetative watering will be limited according to the resident's street address. Even numbered addresses will be allowed to water on even days of the month. Odd numbered addresses will be allowed to water on odd days of the month.

During Phase II, industrial facilities will be required to develop and demonstrate to the Town Manager a water shortage response program. This program should show, at least, a 25% reduction in water usage.

Failure to adhere to the Phase II (Mandatory) required conditions will result in written notice of violation for the first offense and/or a \$50 fine. Thereafter, each violation increases by a factor of \$50. Any violation past a fourth offense shall result in a disruption of water service to the offending party until Phase II has been rescinded.

### Phase III - Emergency

This phase will commence with the issuance of a water shortage emergency declaration from the Town's Public Works Supervisor. Users will be notified by any or all of the methods noted in Phase I. All users will be required to use voluntary conservation measures outlined in "Attachment 1". Class III uses will be banned and Class II uses will be allowed with the exception of vegetative watering. Industrial users will be required to implement their water reduction program immediately.

Failure to comply with the mandates during Phase III will require the offending party to pay \$100 fine for the first offense, \$350 fine for the second offense and disruption of service for the third offense.

In addition, residential users will be allotted 1000 gallons per month per person per connection. If the user uses 1001 -1250 gallons per month per person per connection, a surcharge of 25% will be added to the monthly water bill. If the user uses 1251 - 1500 gallons per month per person per connection, a surcharge of 75% will be added to the monthly water bill. If the user uses 1501 or more gallons per month per person per connection, a surcharge of 150% will be added to the monthly water bill.

Commercial, industrial and institutional facilities will be required to reduce their monthly water consumption by 25% of the previous 12 month water consumption average to maintain the current water rate for that month. The average water use can be evaluated on an individual basis for facilities with seasonal demand fluctuations. A 10- 24% water use reduction from the previous 12 month water use average will require the Town to impose a 25% surcharge on the monthly water bill. A 0 - 9% water use reduction from the previous 12 month water use average will require the Town to impose a 50% surcharge on the monthly water bill. An increase of 1 - 25% above the previous 12 month water use average will result in a surcharge of 100% added to the next monthly bill. Any amount used above 25% of the previous 12 month average water use will require the Town to add a surcharge of 150% to the monthly bill.

Section 7. **Enforcement.** Enforcement of mandatory conservation will be the responsibility of the Public Works Supervisor under the direction of the Town Manager and the Mayor. Associated fines will be the responsibility of the Town Manager and the Mayor.

- Section 8. **Water Shortage Response Plan Cancellation.** As the determining parameter(s) decrease in severity and return to acceptable levels, the Town will lift the WSRP. The cancellation process will be in the reverse order of the WSRP implementation.
- Section 9. **Review and Comments.** The residents will be given an opportunity to review the WSRP at the Town of Oriental office. Comments can be given in writing to the Town Manager and/or Town Mayor. The ORC for the Town of Oriental shall be responsible for any review/revision of the WSRP.
- Section 10. **Variance.**
- a. Process. Variance request will be given to the Town Manager in writing. This will be presented to the Town Board of Commissioners for considerations.
  - b. Granting. The Town Board of Commissioners will grant variance based on us age, length of time, alternative source, social and economic importance, and impact on water demand.
- Section 11. **Effectiveness of WSRP.** The WSRP effectiveness will be based on the frequency that it is activated, time period in which the activations occur, number of violations/citations handed out, and amount of time taken to raise the% of water capacity .
- Section 12. **Revisions.** The WSRP will be reviewed on a yearly basis and/or after each occurrence of water reductions.
- Section 13. **Effective Date.** The WSRP shall take effect immediately upon approval by the Town Board of Commissioners.

ADOPTED THIS 4th DAY OF April, 2023

ATTEST:

\_\_\_\_\_  
Mayor

\_\_\_\_\_  
Clerk

**Conservation Measures**  
**Water Shortage**  
**Response Ordinance**

Direct Users to adopt the following conservation measures:

**INDOOR RESIDENTIAL USE:**

Conservation for Voluntary and Mandatory Conservation Phases

- Use dishwashers only when they are full. Washing dishes by hand (don't let the tap run!) saves about 25 gallons.
- Adjust water level on clothes washing machines, if possible. Use full loads only, if not adjustable.
- Turn off faucets while brushing teeth, etc. Saves about 5 gallons per day.
- Reduce water used per flush by installing toilet tank displacement inserts, a plastic jug may often be used as an alternative. **DO NOT USE BRICKS** - they disintegrate when soaked and the resulting grit hinders closing of the flap valve.
- Do not use the toilet as a trash can.
- Use sink and tub stoppers to avoid wasting water.
- Keep a bottle of chilled water in the refrigerator for drinking.
- Find and fix leaks in faucets and water-using appliances. Faucets can usually be fixed cheaply and quickly by replacing washers.
- Adapt plumbing with flow-restricting or other water saving devices. These are usually inexpensive and easy to install.
- Learn to read your water meter so you can judge how much water you use and what difference conservation makes.
- Take shorter showers and shallow baths. Saves about 25 gallons.
- Reduce the number of toilet flushes per day. Each flush uses about 5 gallons (2-3 if you have water saving toilets).
- Don't use a garbage disposal.
- Use non-phosphate detergent and save laundry water for lawns and plants.

Conservation for Emergency Conservation or Rationing Phase (In addition to measures listed above).

- Turn off shower while soaping up.
- Use disposable eating utensils.

**OUTDOOR RESIDENTIAL USE**

Conservation for Normal Conditions and Voluntary Conservation Phase

Lawns

- Water before 10:00 am to prevent evaporations which occur during the hottest part of the day. Morning is better than evening, when the dampness encourages growth of fungus.
- Water only when lawn shows signs of wilt. Grass that springs back when stepped on does not need water.
- Water thoroughly: long enough to soak roots, a light sprinkling evaporates quickly and encourages shallow root systems. Water slowly to avoid runoff.
- Don't let the sprinkler run any longer than necessary. In an hour, 600 gallons can be wasted.



- Allow maximum of one inch of water per week on your lawn. To measure, place cake tins outside to collect rain and water from sprinklers.
- Use pistol-grip nozzles on hoses to avoid waste when watering flowers and shrubs.
- Aerate lawns by punching holes 6 inches apart. This allows water to reach roots rather than run off surfaces.
- Position sprinklers to water the lawn, not the pavement.
- Avoid watering on windy days when the wind not only blows water off target, but also **causes excess evaporation.**
- Keep sprinkler heads clean to prevent uneven watering.
- Adjust hose to simulate a gentle rain. Sprinklers that produce a fine mist waste water through evaporation.
- Know how to turn off an automatic sprinkler system in case of rain.
- Use an alarm clock or stove timer to remind you to shut off sprinklers that don't have timers.

#### Vegetables and Flower Gardens

- Water deeply, slowly and weekly. Most vegetables require moisture to a depth of 6 to 8 **inches.**
- Keep soil loose so water can penetrate easily.
- Keep weeds out to reduce competition for water.
- Put the water where you want it and avoid evaporation by using soil-soakers or slow-running hoses, not sprinklers.

#### Trees and Shrubs

- Water deeply using a soil-soaker or drip-irrigation.
- Water only when needed. Check the depth of soil dryness by digging with a trowel.
- Mulch to reduce evaporation (2" to 3" layer of wood chips, pine needles, grass clippings, or straw keeps the soil cool in the summer).
- Dig troughs around plants to catch and retain water.
- Water trees growing in full sun more often than those in shade.
- Do not use sprinklers. Apply water directly at base.
- Do not fertilize during the summer. Fertilizing increases a plant's need for water.
- Postpone planting until fall or spring when there is generally less need for water.
- Install trickle-drip irrigation systems close to the roots of your plants. By dripping water slowly, the system doesn't spray water in to the air. Use soil probes for large trees.
- Water when cloudy, at night, or even when a light rain is falling.

### **OUTDOOR RESIDENTIAL USE**

#### Conservation for Voluntary Conservation Phase (in addition to measures listed above)

- Don not allow children to play with hose or sprinklers.
- Limit car washing.
- Be ready to catch rainfall that occurs. Place containers under drain sprouts.
- Use leftover household water if available.
- Consider delaying the seeding or sodding of new lawns.
- Determine the amount of water being used outdoors by comparing water bills for summer and winter.

Conservation for Mandatory Conservation Phase (in addition to measures listed above)

- Vegetable gardens and food trees should be given minimal amounts of water on an individual basis only.
- Do not water lawns and inedible plants.
- Do not use sprinklers.

*All outdoor watering is prohibited under Emergency Conservation conditions.*

#### **HOSPITAL AND HEALTH CARE FACILITY USE**

- Reduce laundry usage or services by changing the linens, etc only when necessary to preserve the health of patients or residents.
- Use disposable food service items.
- Eliminate, postpone, or reduce, as they may be appropriate, elective surgical procedures during the period of emergency.

#### **INDUSTRIAL USE**

- Identify and repair all leaky fixtures and water-using equipment. Give special attention to equipment connected directly to water lines, such as processing machines, steam-using machines, washing machines, water-cooled air conditioners, and furnaces.
- Assure that valves and solenoids that control water flows are shut off completely when the water-using cycle is not engaged.
- Adjust water-using equipment to use the minimum amount of water required to achieve its stated purpose.
- Shorten rinse cycles for laundry machines as much as possible; implement lower water levels wherever possible.
- For processing, cooling, and other uses, either re-use water or use water from sources that would not adversely affect public water supplies.
- Advise employees, students, patients, customers, and other users not to flush toilets after every use. Install toilet tank displacement inserts; place flow restrictors in shower heads and faucets; close down automatic flushes overnight.
- Install automatic flushing valves to use as little water as possible or to cycle at longer intervals.
- Place water-saving posters and literature where employees, students, patients, customers', etc will have access to them.
- Check meters on a frequent basis to determine consumptive patterns.
- Review usage patterns to see where other savings can be made.