



**Agenda for the
Water and Sewer Committee Meeting
July 26, 2023 7:00 PM**

Old Business

- Minutes from previous meeting
- CPI or other index tied to annual rate increase (remove from next meeting agenda)
- PFAS PFOS - Update
- Water and Sewer Capacity Update – no changes
- ENR PER Update – Budget Estimates attached. Staff toured the ECI WWTP near Princess Anne on July 11. Summary attached.
- I and I CB Basin update – Contractor returned to clean and televise areas missed in the first visit discussion. Town had MAU excavate and replace a major leak in the gravity sewer on Cone Branch Drive 7/19/2023.
- Memar Appropriation Application – Staff directed the hydrogeologist to amend the application to request 130 gpd/unit. The consultant is awaiting the final PFOS PFAS testing but has **PRELIMINARY RESULTS** with detection of 2.15, 10 and 26. Missing 1 sample.
- South Church Street lining proposals – approved by board -no action
- SERCAP Rate Study - update
- Springline Replacement Project & RMC Grant Application- update
- Outside meter vault -relocations – update
- Lead and Copper Sampling June 2023 – 3 samples left to reach the 20 required.

New Business

- Monthly Water and Sewer Operating Report
- Middletown Water Conservation Public Alert System – review, original document and 2019 revised document attached.

Middletown, Maryland
Water & Sewer Committee
Minutes
June 22, 2023

Attendees: Bruce Carbaugh, Daphne Gabb, Rich Gallagher, Jennifer Falcinelli, Paul Mantello, Carolyn Spehr

Old Business

CPI or other index tied to annual rate increase

Discussion about an annual rate increase, that would be appropriate. Tying this to the CPI is not reflective of W&S industry/chemical uses but is better than nothing. Town Administrator recommended to wait for rate study and then make recommendations.

SERCAP Rate Study – attachment- The town administrator and director of public works explained the need for a rate study that reviews the town's rates and tap fees as an objective and justifiable recommendation of what should be charged. This study is also needed to develop a non-residential tap fee policy/rate.

Recommendation – Water & Sewer (W&S) rate study to be performed by Southeast Rural Community Assistance Project (SERCAP). There is no charge for this service other than a possible support letter for the organization.

6/22/23 Jean Holloway with SERCAP is working with us on this study. We are in the process of completing a data request. Will also be doing audit of usage and customer data.

PFAS PFOS Update –The town joined a mass tort lawsuit against companies that created the problem. The town board voted to have Bruce Poole represent the town in this PFAS lawsuit.

6/22/23 – Dupont and 3M settled the PFAS lawsuit. Determining how to distribute money.

Updated PFAS testing of well 22 and well 23. **Well 23** is PFBS 4.15 and 5.08 ppt and PFOS is 6.22 and 5.82 ppt. Well 23 is 22 gpm. **Well 22** - PFBS 4.35 and 3.97ppt. We will apply for Maryland Water Infrastructure Financing Association in January for PFAS remediation. Federal government pays for mandatory PFAS testing 2024.

Non-Residential Tap Fee Discussion – This fee is currently based on residential tap fees and meter size, or fixture units. These methods are currently outdated. A rate study is required to develop a comprehensive non-residential tap fee program.

6/22/23 waiting for rate study to be completed. After the rate study, a comprehensive non-residential tap fee program will need to be established. This is time sensitive as we have commercial development soon.

Water and Sewer Capacity Update – no changes. Near future the library and the Green Street Flats triplex housing unit will be using capacity and the Lands of Lancaster development next to Safeway.

ENR/PER Update –6/22/23 To address the high cost of this project (approximately 30 million dollars) the town hired a lobbyist to find funding from the state and federal government. The Bay Restoration Fee (BRF) will pay approximately 66% of the cost which would leave 10-15 million dollars for the town to fund. The town is talking to state and federal elected officials and the Secretaries of Maryland state departments to find more grant funding for this project. After design is complete the town will apply for construction money from BRF in January 2024. The current recommended plant is a Membrane Bio Reactor (MBR). This type of plant will require additional shifts to run the plant, increasing operation costs. Going to visit MBR plant in Westover, MD, on July 11, 2023.

I&I Cone Branch Basin – The consultant is behind schedule. Some televising reports are available, however still waiting for full report. At Caroline Dr. and Cone Branch Dr. there is a large inflow of water (approximately 6 gallons per minute) at the main and where laterals meet the main.

6/22/23 – Consultant back cleaning and televising additional areas. Starting to look at remediation of what they find.

Memar Appropriation Application – A meeting was held by MDE with residents of Coblenz Road. MDE requested the town to justify the use of 250 gallon per day (gpd) per unit. The Consultant and DPW submitted a letter defending the use of 250 gpd that included the need for reserve capacity, unregulated contaminants (PFAS) concerns and MDE stating systems should be able to function with their best well out of service. The supplemental information letter was submitted May 22, 2023.

Memar's wells are currently being sampled for PFAS and will be tested again during the 60-day test.

6/22/23 – Memar made the application for water appropriation. MDE is asking to justify the request for 250 gpd which is our policy. Meeting with the developers last week, will continue to pursue 250 gpd allocation to build reserve capacity for our system. MDE's approved allocation for Frederick County is a single-family dwelling with 3 bedrooms uses a planning number 216 gpd. The Director of Public Works sent our old consent agreement with MDE from 2004 telling us to use 250 gpd and 325 gpd MMU for planning purposes. We are trying to do what they told us to do in 2004.

South Church Street Sanitary Sewer - County had to break a clog out of our sewer line, our equipment could not do it. Total cost to clear the root mass \$11,000 (no charge as yet from the county). 2 proposals to line the pipe due to the many cracks in this pipe. The Director of Public Works will make a recommendation on the bids to present to the town board. The low bid cost is \$24,200.

6/22/23 -The town board approved this relining, awarded contract to Pleasant for a cost of \$ 24,200.00.

New Business

Monthly Water & Sewer Operating Report - See the written report for May 2023. Leak on Schoolhouse and Main Street. Usage back down. Springs were 146,882 gpd and now 72,000 gpd as of 6/22. Under 100,000 gpd discharge at the West Sewer Plant, which indicated that the I&I remediation on west end of town was successful.

Lead and Copper Sampling – Begins in June 2023, Town is on a 3-year reduced sampling cycle with a minimum of 21 sample sites. We don't have any lead connections or goosenecks left in the town of Middletown. We must sample homes built between 1983 to 1989 which include Creamery Row, Caroline Drive, Eastern Circle. There are 35 potential houses to sample and sampling must be complete by September 2023. Lead goosenecks are not considered lead service lines. Creamery Row falls into this testing requirement.

Revised Lead & Copper Rule– MDE requires specific spread sheets to use for reporting. Staff will be working on the October 2024 deadline.

Outside Meter Site Locations – 1200 meters still in the basement. Starting 2008 meters installed outside. Staff recommended moving outside for liability for leaks. \$1500 per meter to move it outside. Would cost over a million dollars to move these meters to the curb. Continue on the agenda, investigate this issue further with more information including costs and potential insurance specific for leaks.

Frederick County Chemical Procurement and Bulk Storage – for chemicals – Frederick is paying more for 3 chemicals than we are. For Chlorine, Frederick is paying \$1.15 gallon which is much less than we are paying for this chemical. However, we need to be able to accept bulk deliveries for caustic and chlorine. Exploring what we need to do for potential bulk delivery and cost savings.

SERCAP Rate Study - see above

Reservoir Solar Array and MEA technical Assistance Grant – Solar siting analysis, study the economics, 10 acres to work with near the water tank reservoir. Federal money available for solar array. Town Administer exploring options. MEA offers 0% interest loan for solar arrays.

Spring Line Replacement Project and RMS Grant Application- Already received 250,000 bond bill from Delegate Pippy to replace a portion of the spring line from the well field to I-70 – that is where we experience the most leaks. Letter of intent to Rural Maryland Corporation to apply for additional funds. Max amount

available is \$250,000 based on matching and state money – applied for \$150,000. Application due July 13, 2023. Fast turnaround. 2/3 of spring line is 1893 cast iron. 1930 spring line branches off to Coxey Brown.

Water Quarterly water usage – recommended to review and audit unusually low water usage to verify meters are working properly.

Respectfully submitted,

Jennifer Falcinelli

Middletown WWTP ENR Upgrade
 Construction Cost Estimate
 Preliminary Engineering Report Level of Completion
 Jun-23

Notes:

flow from t 0.35 mgd ratio 0.583333
 flow from \ 0.25 mgd 0.416667

DESCRIPTION	Alternative 1A MBR	Alternative 1B Custom 4-stage	Alternative 1C Oxidation Ditch	BRF eligibility %	Ox. ditch - Estimated BRF funding	
Primary Treatment						
Influent Screen - 2 mm Fine Screen	\$664,000	x	x	100%		considered part of MBR
Biological Treatment						
MBR	\$5,926,000	x	x	100%		
Custom 4-stage	x	\$3,210,000	x	100%		
Oxidation Ditch	x	x	\$4,636,000	100%	\$4,636,000	
Secondary Clarifiers						
Clarifiers (Tanks, Pump station, Distrib. Box)	x	\$2,599,000	\$2,599,000	100%	\$2,599,000	
Filtration						
Filters	x	\$857,000	\$857,000	100%	\$857,000	
Solids Handling						
Digesters	\$2,155,000	\$2,155,000	\$2,155,000	33%	\$700,375	prorated - 50% eligible for west flow, 20% eligible for east flow
Dewatering System	\$1,929,000	\$1,929,000	\$1,929,000	33%	\$626,925	prorated - 50% eligible for west flow, 20% eligible for east flow
Additional Systems						
UV Disinfection	\$431,000	\$431,000	\$431,000			
Influent PS	\$400,000	\$400,000	\$400,000			
Advanced Oxidation	\$2,692,000	\$2,692,000	\$2,692,000			
Influent EQ Tank	\$843,000	x	x			potentially could be considered part of MBR
Chemical Systems						
Micro C	\$129,000	\$129,000	\$129,000	100%	\$129,000	
Chemical Building	\$219,000	\$219,000	\$219,000	100%	\$219,000	
Alum	\$85,000	\$85,000	\$85,000	100%	\$85,000	
Subtotal	\$15,473,000	\$14,706,000	\$16,132,000	61%	\$9,852,300	
Plant-Wide Costs						
Yard Piping 4% of subtotal	\$619,000	\$589,000	\$646,000	61%	\$394,532	
Demolition 1% of subtotal	\$155,000	\$148,000	\$162,000	61%	\$98,938	
Electrical 16% of subtotal	\$2,476,000	\$2,353,000	\$2,582,000	61%	\$1,576,905	
I&C 6% of subtotal	\$929,000	\$883,000	\$968,000	61%	\$591,187	
Sitework 4% of subtotal	\$619,000	\$589,000	\$646,000	61%	\$394,532	
Biolac Demolition x		\$169,000	\$169,000	61%	\$103,213	
Total	\$20,271,000	\$19,437,000	\$21,305,000			\$13,011,607
Contingency 30%	\$6,081,300	\$5,831,100	\$6,391,500			\$3,903,482
TOTAL	\$26,352,300	\$25,268,100	\$27,696,500			\$16,915,090
West PS and FM	\$4,341,000	\$4,341,000	\$4,341,000	61%	\$2,734,830	cost of new ENR plant at West assumed to be more than conveyance, BRF % from East Plant applied here
TOTAL Project	\$30,694,000	\$29,610,000	\$32,038,000			\$19,650,000

**BRF Eligibility Determination for WWTPs
For Projects Starting Construction on or after July 1, 2017
(Based on House Bill 384 of 2017)**

The Department will make its best efforts to reach a resolution on eligibility determination to the satisfaction of all involved parties, while maintaining consistency with the existing laws, regulations and departmental policies. Based on the above, for a project involving ENR upgrades, the following items would be eligible for ENR grants participation:

Process	ENR Eligibility
Headwork/Grit Removal	50% Eligible only if the existing system is lagoon and does not include Headworks/Grit Removal
Decommissioning of treatment lagoon that will no longer be utilized with the new system. The decommissioning method must be consistent with MDE-LMA guidelines.	50% eligible if the existing system is lagoon
Equalization	50% eligible if justified as cost effective measure to reduce the size of the bioreactor.
Primary Clarifier	Not eligible
Secondary Clarifier	100%
Sludge	50% if the process is changed to activated sludge due to the ENR project OR If existing WWTP is already activated sludge, then provided up to 20% subject to justification of increased volume of sludge due to Phosphorus removal
Phosphorus Removal	100%
Nitrogen Removal Bioreactor	100%.
Conventional or Denitrification filter	100%
Disinfection/Post Aeration	Not eligible
Common items such as site work, yard piping, engineering services, etc.	Prorated based on Eligible/Total

Flow Proration (Expansion Adjustment):

ENR participation is limited to the approved design capacity, which is provided below for minor WWTPs. Initially, use the following to prorate for expansion:

$$\% \text{ Eligible} = (\text{Allowable Capacity}/\text{Expanded Capacity})^{0.62}$$

Cost Effectiveness of the Upgrade

To be allowed for funding under the BRF law (§9-1605.2(6)(ii)1), a grantee must demonstrate that the selected ENR process is cost-effective at the approved design capacity using present worth analysis or other equivalent method.

MDE would consider any more cost effective alternative to the ENR process that would achieve the same nutrient reduction goals or better, such as conveyance of the flow to an ENR facility, or groundwater discharge.

Once an alternative has been determined to be as the most cost effective, the following methods will be used to determine the eligibility determination:

Conveyance to an ENR Facility as an Alternative to the Upgrade:

The cost of upgrading the plant to ENR must be compared to the conveyance to an ENR facility that has the capacity to accept the flows.

Eligibility will be determined using the itemized cost in the ENR option and then the resulting ENR percentage is applied to the conveyance system cost.

Converting Surface to Groundwater Discharge:

Converting surface to groundwater discharge can be funded only if it is determined to be more cost effective than to continue the surface discharge.

If groundwater discharge is to be funded, ENR eligibility is determined using the method below for Upgrading WWTP with Groundwater Discharge Permit.

Upgrading WWTP with Groundwater Discharge Permit

Spray or Drip Irrigation with no Surface Discharge:

This can consist of additional treatment, land, or combination of both (whichever is more cost effective) to bring TN to 0 mg/l below the root zone and TP to 0 mg/l before reaching groundwater.

ENR Eligibility:

- Land purchase cost is not eligible.
- Expansion cost is not eligible.
- Possible Eligibility Determination Scenarios:
 1. **WWTP Remains Secondary (≥ 8.1 mg/l TN):** No ENR funding will be provided for any WWTP upgrade. Irrigation system (including winter storage) is 100% ENR eligible.
 2. **WWTP Upgraded to TN between 8 and 3.1 mg/l:** WWTP would be eligible for ENR using the above eligibility determination guidelines for WWTPs. Irrigation system (including winter storage) is ENR eligible at 100%.
 3. **WWTP Upgraded to 3 mg/l TN:** WWTP would be funded by ENR using the above eligibility determination guidelines for WWTPs. Irrigation system (including winter storage) is ENR eligible at 100%.

Spray or Drip Irrigation with Winter Surface Discharge:

This will consist of full ENR treatment upgrade that would produce an annual average concentration of 3 mg/l TN and 0.3 TP. The spray/drip irrigation system performance must achieve TN of 0 mg/l below the root zone and TP of 0 mg/l before reaching groundwater.

ENR Eligibility:

- Land purchase cost is not eligible.
- Expansion cost is not eligible.
- For the project to be funded, WWTP must be upgraded to ENR.
- WWTP would be funded by ENR using the above eligibility determination guidelines for WWTPs. Irrigation system is ENR eligible at 100%.

Other Types of Groundwater Discharge (RI, BIP, onsite, etc.):

This will consist of full ENR treatment upgrade that would produce an annual average concentration of 3 mg/l TN and 0.3 TP.

ENR Eligibility:

- Land purchase cost is not eligible.
- Expansion cost is not eligible.
- For the project to be funded, WWTP must be upgraded to ENR.
- WWTP would be funded by ENR using the above eligibility determination guidelines for WWTPs. No ENR funding would be provided for the disposal system.

Minor WWTPs Funded Flow

Row No.	COUNTY	Facility Name	BRF Funded Flow (in NPDES Permit on July 1, 2012- Not to Exceed the Cap) in MGD
1	ALLEGANY	RAWLINGS (Private)	0.143
2	ANNE ARUNDEL	PINEY ORCHARD (Private)	0.700
2	CAROLINE	GREENSBORO WWTP	0.280
3	CAROLINE	RIDGELY WWTP	0.200
4	CAROLINE	PRESTON WWTP	0.115
5	CARROLL	MANCHESTER WWTP	0.500
6	CARROLL	UNION BRIDGE WWTP	0.200
7	CARROLL	NEW WINDSOR WWTP	0.115
8	CECIL	CHERRY HILL WWTP	0.250
9	CECIL	PORT DEPOSIT WWTP	0.150
10	CECIL	CHESAPEAKE CITY WWTP	0.163
11	CECIL	CECILTON WWTP	0.100
12	CECIL	ELK NECK STATE PARK	0.060
13	CECIL	HARBOR VIEW	0.065
14	CECIL	RISING SUN WWTP	0.500
15	CHARLES	CLIFTON ON THE POTOMAC	0.070
16	CHARLES	COLLEGE OF SOUTHERN MD WWTP	0.060
17	DORCHESTER	TWIN CITIES WWTP	0.281
18	DORCHESTER	VIENNA WWTP	0.137
19	FREDERICK	JEFFERSON WWTP	0.300
20	FREDERICK	LEWISTOWN	0.022
21	FREDERICK	MYERSVILLE WWTP	0.300
22	FREDERICK	MIDDLETOWN EAST WWTP	0.250
23	FREDERICK	MIDDLETOWN WWTP	0.250
24	FREDERICK	WOODSBORO WWTP	0.250
25	FREDERICK	NEW MARKET WWTP	0.240
26	FREDERICK	POINT OF ROCKS WWTP	0.230
27	FREDERICK	FOUNTAINDALE WWTP	0.200
28	FREDERICK	MONROVIA WWTP	0.200
29	FREDERICK	MILL BOTTOM WWTP	0.100
30	FREDERICK	PLEASANT BRANCH WWTP	0.100
31	GARRETT	ACCIDENT WWTP	0.095
32	GARRETT	DEEP CREEK LAKE WWTP	2.200
33	GARRETT	TROUT RUN WWTP	0.900
34	KENT	BETTERTON WWTP	0.148
35	KENT	GALENA WWTP	0.080

36	KENT	WORTON - BUTLERTOWN WWTP	0.250
37	KENT	KENNEDYVILLE	0.060
38	KENT	ROCK HALL WWTP	0.480
39	KENT	TOLCHESTER WWTP	0.265
40	PRINCE GERORGE'S	CHELTENHAM BOYS VILLAGE WWTP	0.070
41	QUEEN ANNES	QUEENSTOWN WWTP	0.085
42	QUEEN ANNES	SUDLERSVILLE WWTP	0.200
43	QUEEN ANNES	MILLINGTON WWTP	0.140
44	QUEEN ANNES	CHURCH HILL WWTP	0.080
45	SOMERSET	EASTERN CORRECTIONAL INSTITUTE	0.500
46	SOMERSET	EWELL WWTP	0.065
47	ST MARYS	POINT LOOKOUT STATE PARK WWTP	0.090
48	TALBOT	TRAPPE WWTP	0.200
49	TALBOT	OXFORD WWTP	0.150
50	TALBOT	TALBOT COUNTY REGION V WWTP	0.150
51	WASHINGTON	SMITHSBURG WWTP	0.333
52	WASHINGTON	BOONSBORO WWTP	0.530
53	WASHINGTON	HANCOCK WASTEWATER LAGOON	0.380
54	WASHINGTON	CLEAR SPRING WWTP	0.200
55	WASHINGTON	FUNKSTOWN WWTP	0.200
56	WASHINGTON	ANTIETAM WWTP	0.163
57	WICOMICO	WILLARDS WWTP	0.200
58	WICOMICO	SHARPTOWN WWTP	0.150
59	WICOMICO	PITTSVILLE WWTP	0.115
60	WICOMICO	HEBRON WWTP	0.101

Groundwater WWTPs Funded Flow

Row No.	COUNTY	Facility Name	BRF Funded Flow (in Permit on July 1, 2012) in MGD
1	ANNE ARUNDEL	MES - CROWNSVILLE HOSPITAL WWTP	0.30000
2	CALVERT	SOLOMONS ISLAND WWTP	0.70000
3	CALVERT	PRINCE FREDERICK WWTP	0.45000
4	CALVERT	PRINCE FREDERICK WWTP NO. 2	0.30000
5	CECIL	NEWARK COUNTRY CLUB	0.10700
6	CHARLES	COBB ISLAND WASTEWATER FACILITY	0.15800
7	PRINCE GEORGE'S	CEDARVILLE MOBILE HOME PARK	0.08010
8	ST MARY'S	ST. CLEMENT'S SHORES WWTP	0.20000
9	ST MARY'S	WICOMICO SHORES WWTP	0.14100

10	TALBOT	MARTINGHAM UTILITIES WWTP & WTP	0.06680
11	WICOMICO	NUTTER'S CROSSING RESIDENTIAL COMMUNITY	0.06684
12	WORCESTER	MYSTIC HARBOUR WATER TREATMENT PLANT	0.25000
13	WORCESTER	RIDDLE FARM WWTP	0.19700
14	WORCESTER	THE LANDINGS SEWAGE TREATMENT FACILITY	0.10000
15	WORCESTER	RIVER RUN WWTP	0.09970
16	WORCESTER	ASSATEAGUE POINTE WWTP	0.06400

original
2008

Restrictions on Water Use
Section 13.04.010

A. The burgess and commissioners may impose reasonable restrictions on the use of water from the municipal water system during periods of short supply, protracted drought, excessive demand or other scarcity of water. Such restrictions may include, but are not limited to, limitations on or prohibitions against the use of water from the municipal water system as determined by the burgess and commissioners. The town administrator may, with the approval of the burgess and commissioners, develop and establish a water conservation public alert system or other system of codes to announce to the public differing levels of water restrictions.

B. Any water use restriction imposed pursuant to this section shall be determined and announced at a regular or special meeting of the burgess and commissioners and shall be published in a newspaper of general circulation in the town.

C. The watering of lawns or grassy areas of property is prohibited at any time between the hours of 9:00 a.m. and 6:00 p.m. during the least restrictive periods of water use under the water conservation public alert system (currently "Code Blue"), and upon written application to the town administrator, the watering of lawns or grassy areas during these hours shall be permitted for the purpose of watering newly seeded or sodded lawns for up to seven days after such seeding or after the installation of sod.

D. Penalties for violating water restrictions:

1. Any person detected connecting to a town fire hydrant for any non-emergency purpose will be subject to a one thousand dollar (\$1,000.00) fine for each offense.
2. Any landlord, tenant, or other individual in possession of real property violating the terms and conditions of any water restriction shall be subject to the following:
 - a. Filling or topping off of pools or outdoor hot tubs during a water restriction period established pursuant to subsection A of this section will constitute a municipal infraction punishable by a fine of five hundred dollars (\$500.00) and disconnection of water service.
 - b. For all other violations of this section, a written warning and notification to refrain from any further violation will be issued for a first offense. Each subsequent offense will constitute a municipal infraction punishable by a fine of one hundred dollars (\$100.00) and disconnection of water service.

E. Any landowner, tenant or individual in possession who has had service disconnected to his or her property pursuant to this section shall not have such service reconnected until the current reconnection fee established by the town is paid. Any further violation of the water restriction by that individual after reconnection of water service shall result in water service again being disconnected to such property, and service shall not be reconnected until the currently established reconnection fee is paid to the town.

Water Conservation Public Alert System

In order to keep Middletown residents informed of our drinking water supply status the Burgess and Commissioners developed the following Public Alert System:

Public Notification of Code Status:

- Water faucet signs at the entrances to town have a color coded water drop. A blue water drop represents Code Blue, a yellow water drop represents Code Yellow and a red water drop represents Code Red.
- The code status will be posted on the town web page and distributed electronically via the web page list serve
- A code status change will be announced in The Citizen newspaper

CODE BLUE: Watering of lawns is *prohibited* between 9am. - 6pm. Ground water conditions are in the normal range.

Critical Factors: Spring flows range between 60,000 -130,000 gpd. Water table levels in wells are at normal historical levels. **U.S. Drought Monitor for Frederick County Maryland indicate a drought condition of NONE or ABNORMALLY DRY**

CODE YELLOW: Watering of lawns is *prohibited* between 9am. - 6pm. Additional **voluntary** water conservation is requested. Ground water conditions are decreasing at a rapid rate. Residents are requested to follow water conservation practices as outlined in 20 Tips to Prevent Water Waste.

Critical Factors: Spring flows range between 30,000--59,000 gpd. Water table levels in wells are below historic levels and dropping. Water levels in the wells are monitored weekly. **U.S. Drought Monitor for Frederick County Maryland indicate a drought condition of MODERATE or SEVERE**

CODE RED, Level I: Mandatory water restrictions are instituted by the Burgess & Commissioners per section 13.04.010. Severe drought conditions are present. **Violation of these restrictions will result in a \$100 fine and immediate disconnection of water service. No warning will be issued.**

- Watering of grass is prohibited. This includes athletic and/or playing fields.
- Gardens may only be watered with watering cans/buckets or handheld hoses that have an automatic shut off.
- Washing paved surfaces such as streets, roads, sidewalks, driveways, garages, parking areas, tennis courts, and patios is prohibited.
- Use of water for the operation of ornamental fountains, artificial waterfalls, misting machines, and reflecting pools is prohibited, except for systems that continuously recycle water.
- No vehicle washing, including automobiles, trucks, trailers and boats. Except cleaning of emergency vehicles if necessary to preserve the proper functioning and safe operation of the vehicle.
- Private (homeowners) pools and exterior hot tubs may not be filled or topped off.
- Golf courses must have a water conservation plan in effect that shows a 10% reduction in usage, even if they do not use town water. No restriction on effluent usage
- Connecting to town fire hydrants is prohibited, except for emergency purposes.
- All other residential, business and industrial water users are requested to voluntarily reduce water consumption by 10%.
- Any additional restrictions the Burgess and Commissioners deem necessary per section 13.04.010
- ****Use of rain barrels and gray water (i.e. used bath water) is permitted and encouraged.**

Critical Factors: The governor declares a drought emergency, and/or spring flows are below 29,000 gpd and/or the water table levels in wells are far below historic levels and are dropping. **U.S. Drought Monitor for Frederick County Maryland indicate a drought condition of EXTREME or EXCEPTIONAL.** Water levels in wells are monitored bi-weekly.

CODE RED, Level II: Code Red, Level I mandatory water restrictions plus building

restrictions/commercial water use restrictions. **Violation of these restrictions will result in a \$100 fine and immediate disconnection of water service. No warning will be issued.**

- All outside water use of any kind is prohibited;
- All businesses and residents are required to reduce potable water consumption by 10%
- No issuance of building permits
- **Use of rain barrels and gray water (i.e. used bath water) is permitted and encouraged.

Critical Factors: The raw water reservoirs can not be kept full on a daily basis.

Irrigation or Sprinkler Systems

Section 15.18.010

A. No in-ground irrigation or sprinkler system shall be installed after the effective date of the ordinance codified in this chapter without first obtaining from the town a permit authorizing such installation. The permit fee shall be two hundred dollars (\$200.00). Additionally, the applicant shall obtain a plumbing permit from Frederick County.

B. All in-ground irrigation or sprinkler systems installed after the effective date of the ordinance codified in this chapter shall be equipped with and shall only be operated with technological devices which preclude or prevent the system from being used during unnecessary periods or during periods of water restrictions. Such technological devices, sometimes referred to as “smart controllers,” shall include:

1. Rain sensors which prevent the use of the systems during rain or other precipitation events;
2. Ground sensors which measure the moisture in the soil to avoid unnecessary use of the system when the ground moisture is high; and
3. Programmable timer systems to prevent the use of the system during times of water restrictions as established by ordinance or by the burgess and commissioners pursuant to Title 13 of this code;
4. Installer shall provide evidence of training or certification for the design and installation of irrigation systems.

C. The burgess and commissioners shall periodically, but at no less than once every five years, review water conservation technologies and reconsider the requirements of this section in light of the then current technologies.

D.

1. The town administrator may issue a cease and desist order precluding the use of any in-ground irrigation or sprinkler system which has been installed without the permit required by this section having first been issued. Application may then be made for a permit, and before such permit is issued, the required permit fee, plus a penalty of two hundred dollars (\$200.00), shall be paid to the town. Upon failure to comply with the cease and desist order, application may be made by the town to the circuit court for Frederick County for injunctive or other appropriate relief.
2. The installation or use of any in-ground irrigation or sprinkler system in violation of this section shall be a municipal infraction and is punishable by a fine of five hundred dollars (\$500.00). Each day that a violation occurs or continues shall be a separate infraction.



Water Conservation Public Alert System

In order to keep Middletown residents informed of our drinking water supply status the Burgess and Commissioners developed the following Public Alert System:

Public Notification of Code Status:

- Water drop signs will be hung from a bracket attached to the Welcome pillars on both ends of Town when drinking water supply status change.
 - The code status will be posted on the town web page and distributed electronically via the web page list serve
 - A code status change will be announced in The Citizen newspaper
-

CODE BLUE: Watering of lawns is *prohibited* between 9am. - 6pm. Ground water conditions are in the normal range.

Critical Factors: Spring flows range between 60,000 -130,000 gpd. Water table levels in wells are at normal historical levels. U.S. Drought Monitor for Frederick County Maryland indicate a drought condition of NONE or ABNORMALLY DRY

CODE YELLOW: Watering of lawns is *prohibited* between 9am. - 6pm. Additional voluntary water conservation is requested. Ground water conditions are decreasing at a rapid rate. Residents are requested to follow water conservation practices as outlined in 20 Tips to Prevent Water Waste.

Critical Factors: Spring flows range between 30,000--59,000 gpd. Water table levels in wells are below historic levels and dropping. Water levels in the wells are monitored weekly. U.S. Drought Monitor for Frederick County Maryland indicate a drought condition of MODERATE or SEVERE

CODE RED, Level I: Mandatory water restrictions are instituted by the Burgess & Commissioners per Section 13.04.010. Severe drought conditions are present. Violation of these restrictions will result in a \$100 fine and immediate disconnection of water service. No warning will be issued.

- Watering of grass is prohibited. This includes athletic and/or playing fields.
- Gardens may only be watered with watering cans/buckets or handheld hoses that have an automatic shut off.
- Washing paved surfaces such as streets, roads, sidewalks, driveways, garages, parking areas, tennis courts, and patios is prohibited.
- Use of water for the operation of ornamental fountains, artificial waterfalls, misting machines,

- and reflecting pools is prohibited, except for systems that continuously recycle water.
- No vehicle washing, including automobiles, trucks, trailers and boats. Except cleaning of emergency vehicles, if necessary, to preserve the proper functioning and safe operation of the vehicle.
- Private (homeowners) pools and exterior hot tubs may not be filled or topped off.
- Golf courses must have a water conservation plan in effect that shows a 10% reduction in usage, even if they do not use town water. No restriction on effluent usage
- Connecting to town fire hydrants is prohibited, except for emergency purposes.
- All other residential, business and industrial water users are requested to voluntarily reduce water consumption by 10%.
- Any additional restrictions the Burgess and Commissioners deem necessary per section 13.04.010
- **Use of rain barrels and gray water (i.e. used bath water) is permitted and encouraged.

Critical Factors: The governor declares a drought emergency, and/or spring flows are below 29,000 gpd and/or the water table levels in wells are far below historic levels and are dropping. U.S. Drought Monitor for Frederick County Maryland indicate a drought condition of EXTREME or EXCEPTIONAL. Water levels in wells are monitored bi-weekly.

CODE RED, Level II: Code Red, Level I mandatory water restrictions plus building restrictions/commercial water use restrictions. Violation of these restrictions will result in a \$100 fine and immediate disconnection of water service. No warning will be issued.

- All outside water use of any kind is prohibited;
- All businesses and residents are required to reduce potable water consumption by 10%
- No issuance of building permits
- **Use of rain barrels and gray water (i.e. used bath water) is permitted and encouraged.

Critical Factors: The raw water reservoirs can not be kept full on a daily basis.
