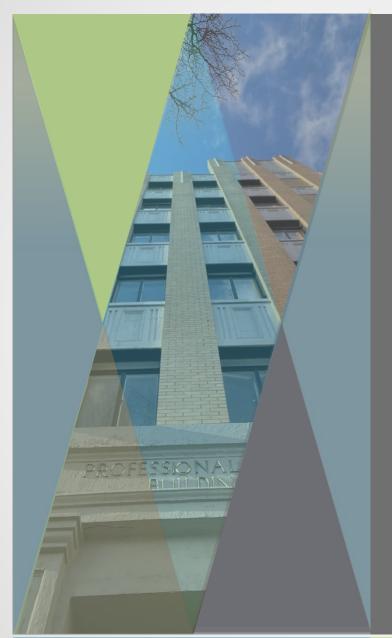


Monthly Meeting November 2023







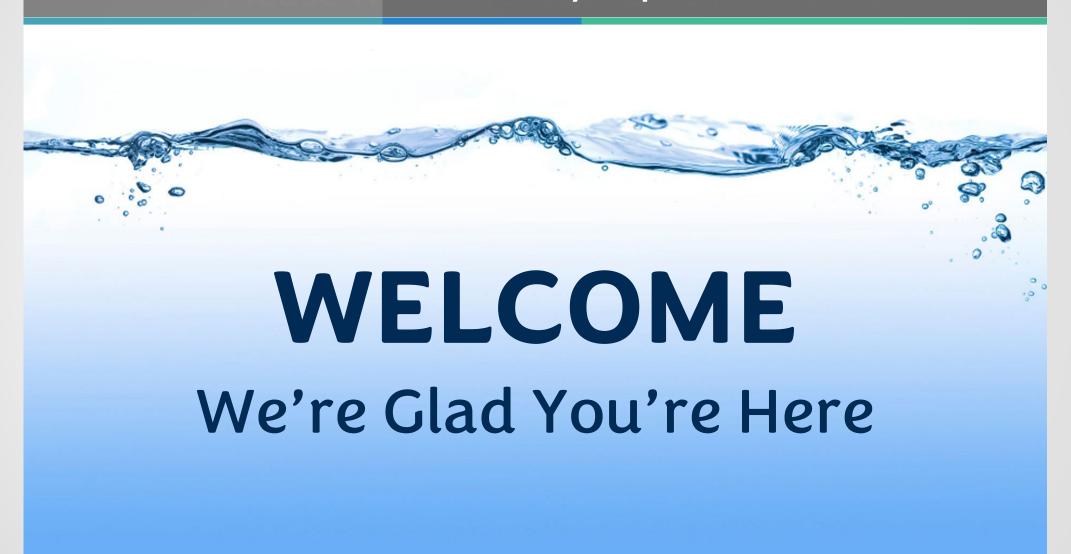


Welcome

GHC Monthly Meeting November 2023

Tereance Moore GHC Vice-Chair

Please Welcome Today's Special Guests



Please Welcome Today's Speakers

City of Hagerstown and Washington County

SPEAKERS: Senior Staff Speakers and Guests



JILL BAKER
Washington County, MD
Director of Planning
and Zoning
747 Northern Ave
Hagerstown, MD 21742
240-313-2433



NANCY HAUSRATH
City of Hagerstown
Director of Utilities
425 East Baltimore St.
Hagerstown, MD 21740
nhausrath@hagerstownmd.org



KATHY MAHER

City of Hagerstown
Director of Planning and
Code Administration
One E. Franklin St. 3rd Floor
Hagerstown, MD 21740
(301) 739-8577 Ext. 140





GUESTS:

DOUG REASER
Washington County Economic
Development



MICHELLE GORDON
Washington County Administrator
(GHC Ex-officio member)



City of Hagerstown Administrator (GHC Ex-officio member)

Water Overview Presentation

by the City of Hagerstown & Washington County

Greater Hagerstown Committee – November 17, 2023

Common terminology

- gpd gallons per day or MGD Million gallons per day
 - Unit of measure used to describe capacity and treatment volumes
- EDU Equivalent Dwelling Unit
 - Unit of measure used to describe the average usage volume of a single dwelling unit.
 - Both the County and City define 1 EDU = 200 gpd.
- MRGA Medium Range Growth Area
 - City of Hagerstown adopted growth area based upon available water and wastewater capacity.
- UGA Urban Growth Area
 - Washington County adopted growth area
- WTP Water Treatment Plant
- WWTP Wastewater Treatment Plan
- PFAs/PFOs Polyfluoroalkyl substances found in fire retardant products (aka forever chemicals)
- Allocation vs. Capacity (Design vs. Sold Capacity)

Where does our water come from?

R C Willson Water Treatment Plant

Raw water is drawn from the Potomac River and treated at the plant.

- Plant design in 1929 was capable of producing up to 20 MGD but only permitted for 15 MGD
- Average demand is 11 MGD while average peak demand reaches 13MGD
- Serves more than 89,000 customers daily to citizens in Hagerstown and surrounding areas
- Consecutive system provider for Towns of Funkstown, Smithsburg, and Williamsport





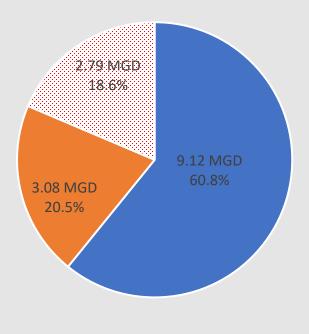
Where does our water come from?

Edgemont Reservoir

- Secondary facility that has the capacity to produce 750,000 gpd
- Treatment of water produced from the reservoir is handled at the W.M. Breichner Water Treatment Plant
- Reservoir was drained in 2016 as a safety precaution due to seepage issues around the toe of the dam
- City is currently evaluating repair costs to determine fiscal prudence in reopening the site.

Current Conditions

Water Usage (2022)



- These figures are based on current water demand not capacity sold.
- When the treatment plant reaches 80% capacity (12 MGD), the City may request an increase in the MDE allocation permit up to 18 MGD.
- The City has recently adopted policies to assist with unexpected withdrawals from individual customers.
- They are working on additional policies to recover underused allocation to help capacity management planning efforts.

Current Challenges

Aging system

- Hagerstown WTP is over 100 years old
- Primary transmission lines are fragile and too small to handle increased water allocations
- Existing distribution lines from the facility are operating at maximum pressure therefore flow cannot be increased without being upgraded
- Hydraulic upgrades will be needed to address system water pressure issues in transmission mains
- Booster station upgrades will be needed for proper distribution
- Estimated cost of needed upgrades: \$80 100 Million

Development pressures

- Increased economic development outside of adopted MRGA
- Increased water usage without notice

Land Use Policies/Regulations

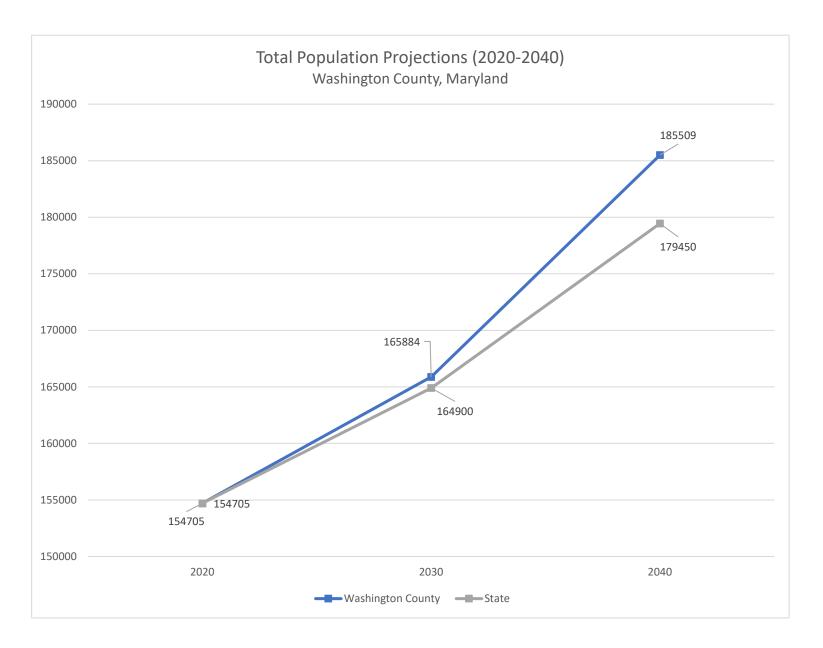
- Broadly defined zoning districts (i.e. Highway Interchange) hinder accurate estimation of utility usage
- County adopted UGA is currently too large to be served by public utilities

Pressure issues in certain locations (fire suppression)

• More attention needs to be given to pressure issues related to fire suppression

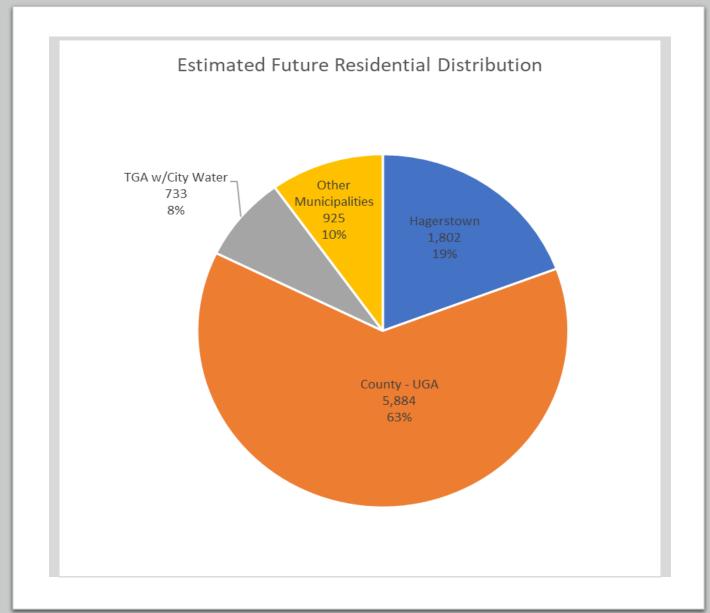
Future Residential Water Demands

The County is projecting about 19,625 new residents between 2020 and 2040. This would create demand for approximately 11,680 new households



Future Residential Water Demands

- Using the County's growth ratio goals with regard to urban vs. rural development (80% urban, 20% rural) that would mean that we would expect about 9,340 new households in the urbanized areas.
- Using municipal projections found in adopted Comprehensive Plans, the County extrapolated the potential distribution of new residential development
- Estimates show that the UGA/MRGA may potentially absorb about 82% of all new residential development in the County over the next 20 years.
- In addition to serving Williamsport and Funkstown, Hagerstown provides wholesale service to Smithsburg. When added to existing forecasted demand, Hagerstown could be providing public water for up to 90% of future urban residential development.



Projected Nonresidential Demand

- Both the City and County Comprehensive Plans project nonresidential water demand to equate to 25% of the overall demand. We extrapolated that to the Towns as well.
- Based on projected residential demand it is estimated that
 - City will need approximately 600 EDU;
 - Towns will need 244 EDU; and
 - County will need approximately 1961 EDUs
- In addition to the previously mentioned residential EDUs.



visionHagerstown 2035

Water Demand Based on Growth Projections - 2019 Status Update

Projected Growth between 2015 and 2035 and Capacity (all in EDU's)

		15 MGD	Potomac	18 MGD
		at	(15 MGD) &	at
		Potomac	Edgemont	Potomac
1	Total Water Supply - Potomac is 15 MGD and Edgemont is 0.7 MGD	75,000	78,500	90,000
2	Existing peak water demand (peak demand in summer months in FY 2019)	61,050	61,050	61,050
3	Available Capacity in the System for New Development [1-2]	13,950	17,450	28,950
4	New residential demand from Map 2-3	4,837	4,837	4,837
5	New non-residential demand from Map 2-3 (assumes 25% of total demand)	1,612	1,612	1,612
	Increased water permit requests by Towns (unused allocation plus increase of 1,700 by			
6	Smithsburg)	2,858	2,858	2,858
7	Water demand from LRGA properties with pre-annexation agreements (total is 998 in 2019)	499	499	499
8	Sub-Total of Projected Demand	9,806	9,806	9,806
9	Capacity Available for Other MRGA growth [line 3 minus line 8]	4,144	7,644	19,144

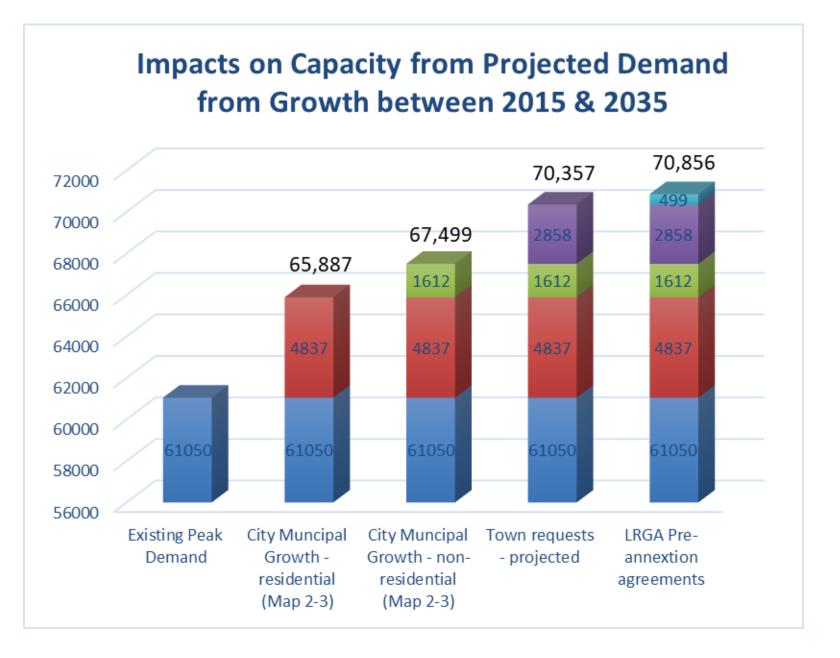
Ultimate Demand if Built Out and Capacity (all in EDU's)

1	Available Water Supplies at Hagerstown WTP	75,000	78,500	90,000
2	Existing Water Demand (peak demand in summer months in FY 2019)	61,050	61,050	61,050
3	Available Capacity in the System for New Development [1-2]	13,950	17,450	28,950
4	Potential new water demand from City and annexable areas (Map 2-3)	6,449	6,449	6,449
	Potential new demand from Towns (2,858) and Prior Annexation Policy approvals outside			
5	MRGA (998 in 2019)	3,856	3,856	3,856
6	Potential demand from residential raw land in MRGA (2019)	6,716	6,716	6,716
7	Potential demand from non-residential raw land in MRGA (2019)	2,474	2,474	2,474
8	Demand from residential pre-annexation agreements in MRGA (2019)	2,222	2,222	2,222
9	Demand from non-residential pre-annexation agreements in MRGA (2019)	158	158	158
10	Total Ultimate Potential New Water Demand in City and MRGA [4+5+6+7+8+9]	21,875	21,875	21,875
11	Capacity Deficit (line 3 minus line 10)	-7,925	-4,425	7,075

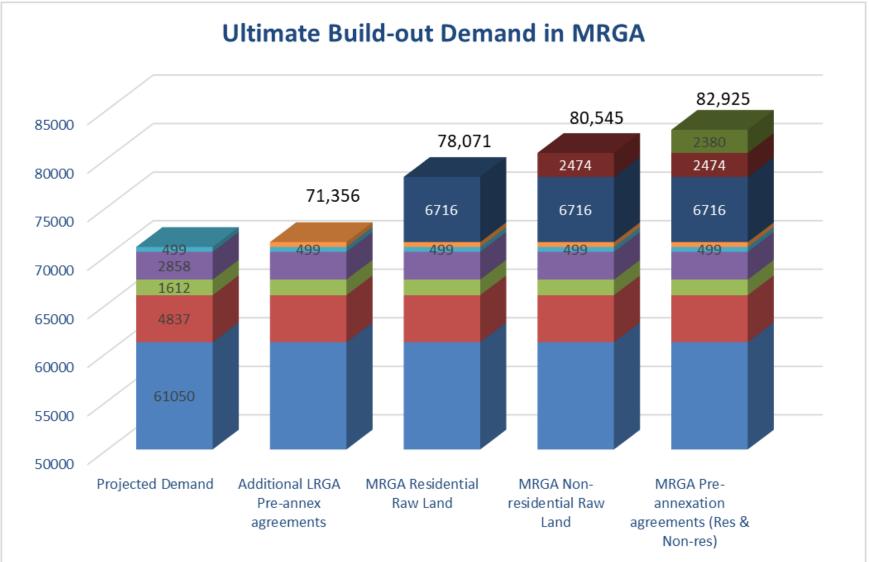
Updated data from Figures 4-6, 4-7, and 4-8 in Comp Plan, with below caveats:

- 1. Used FY 2019 peak demand. Average daily demand was 10.25 MGD in FY 2019.
- 2. Because of changing MDE requirements and funding, Edgemont is no longer viable for capacity planning.
- 3. When reach 80% capacity of plant (12 MGD or 60,000 EDU), the City can request an increase in our permit for Potomac up to 18 MGD total. This increase would require hydrolic upgrade and addressing system pressure issues with transmission mains.
- 4. New estimate for raw land and pre-annexation agreements based on developers, Google map aerials, or Comp Plan land yield formula.

Projected Overall Demand



Ultimate Capacity Demand



Future Challenges

New regulations

- Lead and Copper Revised Rule
- PFAs/PFOs (chemicals found in fire retardant products)
- Disinfectant By-Products
- Fire Protection/Suppression

Aging Infrastructure

- Transmission Mains/Distribution Mains
- Treatment Plant Hydraulic Capacity

Obstacles to Funding

- Realistic Comprehensive Plans
- Updated Water and Sewerage Plan
- Unified Vision for Future Water Planning

Possible Solutions

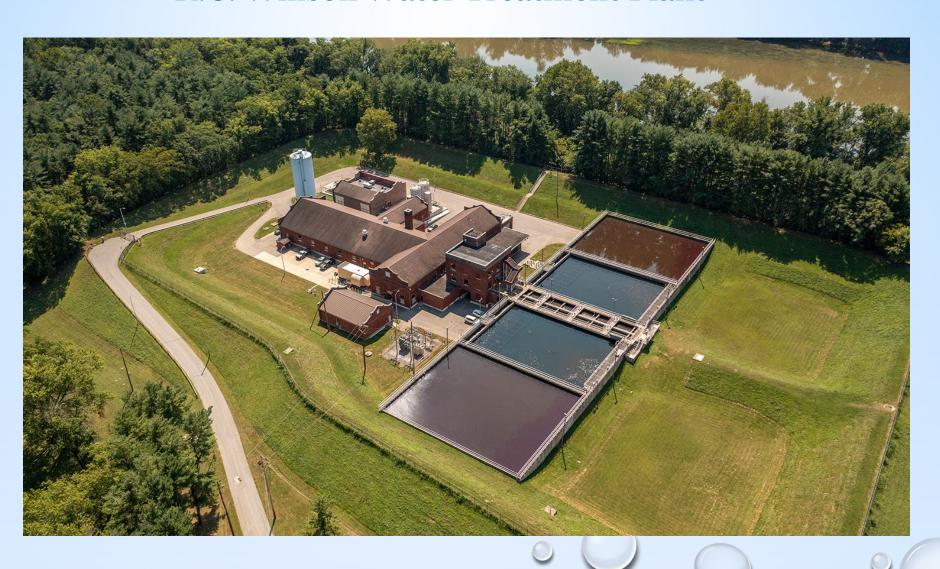
- Systemwide upgrades
 - Upgrade Treatment Plant(s)
 - Upgrade Transmission/Distribution Mains
- Enforce a permit process to limit allocation to prevent unauthorized allocation increases
- Enforce expiration/sunsets on unused EDUs
 - MDE reporting requires utilities to include "sold" allocation in usage calculations even if it isn't used
- Create a WRAP for potable water (water resource allocation plan)
- Review wholesale agreements to determine a realistic allocation for future water service.
- Continually seeking funding opportunities (ARC, MDE, etc)
- Seek outside utility support from jurisdictions outside of Washington County (Antrim Township)







Primary Source: R.C. Willson Water Treatment Plant



- ♦ RCW Plant began operation on Dec 7, 1928
- The original plant had a treatment capacity of 10 MGD
 - ♦ In the 1970's the plant was expanded treatment capacity increased to 20MGD
 - ♦ Appropriation Permit: 15MGD/Avg. Day & 18MGD Peak
 - Between 2008 and 2015 two treatment upgrades were completed to improve reliability, treatability and compliance with treatment regulations
 - ♦ The plant operates 24/7 and produced approximately 10.8MGD in 2022
 - Between FY09 and FY23 the City invested over \$60 million in the water system
 - ♦ Phase 1 of the Transmission Main project was constructed in 2013 to include installation of new valves and 900 feet of 36inch pipe at the RCW plant

 ○

The Treatment Process:

Water enters the plant through the intake structure and travels 450 feet by gravity through two 30-inch pipes. The water is pumped into the pre-settling basins to allow the heavy solids to settle. The water then enters the mixing and coagulation basins and moves onto the sedimentation basins. The water then enters the filters and after filtration to the clear well. Chlorine, Fluoride and Caustic are added to meet drinking water standards before the finished water leaves the Willson Plant through the transmission mains and distribution system mains.





Usage Data – 2022 (million gallons per day MGD)

2022 Usage Data		City Accts	Usage	% Usage	County Accts	Usage	% Usage	
Residential		11,265	1,681,256	16%	15,631	2,409,235	22%	
Residential Multi		1,296	1,173,974	11%	329	546,468	5%	
Residential Commercial		182			54			
Commercial/Industrial		1,023	1 200 040	120/	920	2 650 072	34%	
Public Authority		104	1,300,848	12%	65	3,658,072	34%	
Wholesale				3				
	TOTAL	13,870	4,156,078	39%	17,002	6,613,774	61%	
TOTAL WATER PRODUCED (MGD 2022) 1								

- ♦ The average customer's water usage is 145 gallons per day
- Hagerstown has approximately 500 miles of water pipes and over 2000 fire
 hydrants this system serves approximately 90,000 customers (30,000 taps)

Water Use verses Sold Allocation

PURCHASED ALLOCATION	EDUs
Residential Inside	11,265
Residential Outside	15,631
Non-Residential Inside	17,171
Non-Residential Outside	25,211
Non-Residential Wholesale	3,680
Non-Active (all)	9,192
TOTAL PURCHASED ALLOCATION	82,150
Allocation - Metered Plant Production	53,850
Unavailable Allocation (sold - not being used)	28,300
A11 Um 1 D 1 U	(0.500)
Allocation "Take Back"	(2,500)
Plant Capacity (15MGD)	75,000
Plant Capacity (15MGD)	75,000
Plant Capacity (15MGD) Plant Capacity (20MGD)	75,000 100,000

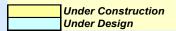
2009 Master
Plan
Summary

Project		Zone	Capacity Diameter/Length	Justification						
				Aged Infrastructure	Regulatory Compliance	Public Safety	Operation & Maintenance	Reliability & Redundancy	Meet Projected Growth	Project Costs (\$ M)
1	West End Tank 1 (Reservoir Replacement)	1	6.4 MG	$\overline{\checkmark}$		V	V		abla	\$5.7
2	West End Tank 2 (Reservoir Replacement)	1	6.4 MG	\checkmark		\checkmark	\checkmark			\$4.4
3	New 36-Inch Mains to Governor Lane (Phase I Transmission Main Replacement)	1	2-36-Inch/~11,000 LF 1-36-Inch/~6,000 LF	\checkmark		$\overline{\checkmark}$	V		\checkmark	\$17.3
4	16-Inch East End Fire Protection Main	1	16-Inch/~6,300 LF			V	V		\checkmark	\$1.5
5	Pump Station #2 Improvements/Relocation (including suction mains)	1 & 2	N/A			\checkmark	V		\checkmark	\$2.0
6	Pump Station #6 Improvements (Modification to 4 Pumps - 2/Zone 5 & 2/Zone 4)	4 & 5	N/A			V	\checkmark	V	\checkmark	\$2.0
7	Zone 1 & 2 Reconfiguration	1 & 2	N/A			\checkmark	V			\$0.8
8	Pump Station Reliability Improvements (Back-up Power)	All	N/A			V	V	I		\$1.0
9A	Zone 2 Storage Facility	2 & 3	1.0 MG			\checkmark	\checkmark		\checkmark	\$3.0
9B	Zone 3 Fire Pumping Facility & Discharge Mains (Base of Zone 2 Tank)	3	N/A			V		V		\$1.0
10	Zone 5 Storage Facility and Piping Improvements	4 & 5	1.0 MG 12-Inch/~3,000 LF		V	V	\checkmark	\checkmark		\$4.5
11	Pump Station #2 Suction Piping Reinforcement	1 & 2	12-Inch/~8,000 LF			\checkmark	\checkmark		\checkmark	\$1.6
12	Zone 1 Main Reinforcement (Jonathan Street, etc.)	1	Various Sizes & Lengths	V		\checkmark	\checkmark	V	\checkmark	\$2.0
13	Zone 2 Looping Mains	2	Various Sizes & Lengths			\checkmark	V		\checkmark	\$2.0
14	Phase II Transmission Main Replacement	1	36-Inch/~17,000 LF	V		V	V	V	\checkmark	\$9.8
15	R.C. Willson Finished Water Pumping Improvements	1	N/A			V		V	\checkmark	\$2.5
16	South Hagerstown Reinforcement Main	1	24-Inch/~9,000 LF			\checkmark			\checkmark	\$3.5
17	South Side Transmission Main	1 & 5	~ 24/16-Inch/~30,000 LF			V				\$8.0
18	Downtown Reinforcement Main	1	16-Inch/~15,000 LF			\checkmark			\checkmark	\$5.8
19	Prison Reinforcement Main	1	16-Inch/~ 11,000 LF			V		\checkmark	\checkmark	\$2.8
TOTAL DISTRIBUTION SYSTEM CIP PROJECT COST \$81.2									¢94.2	

TOTAL DISTRIBUTION SYSTEM CIP PROJECT COST \$81.2

NOTES:

- 1. Current City CIP Includes Phase Improvements at Both Water Treatment Plants Totalling ~ \$20 Million
- 2. List Does Not Include the Following Water System CIP Projects: 1. Water Vehicles and 2. Meter Replacement

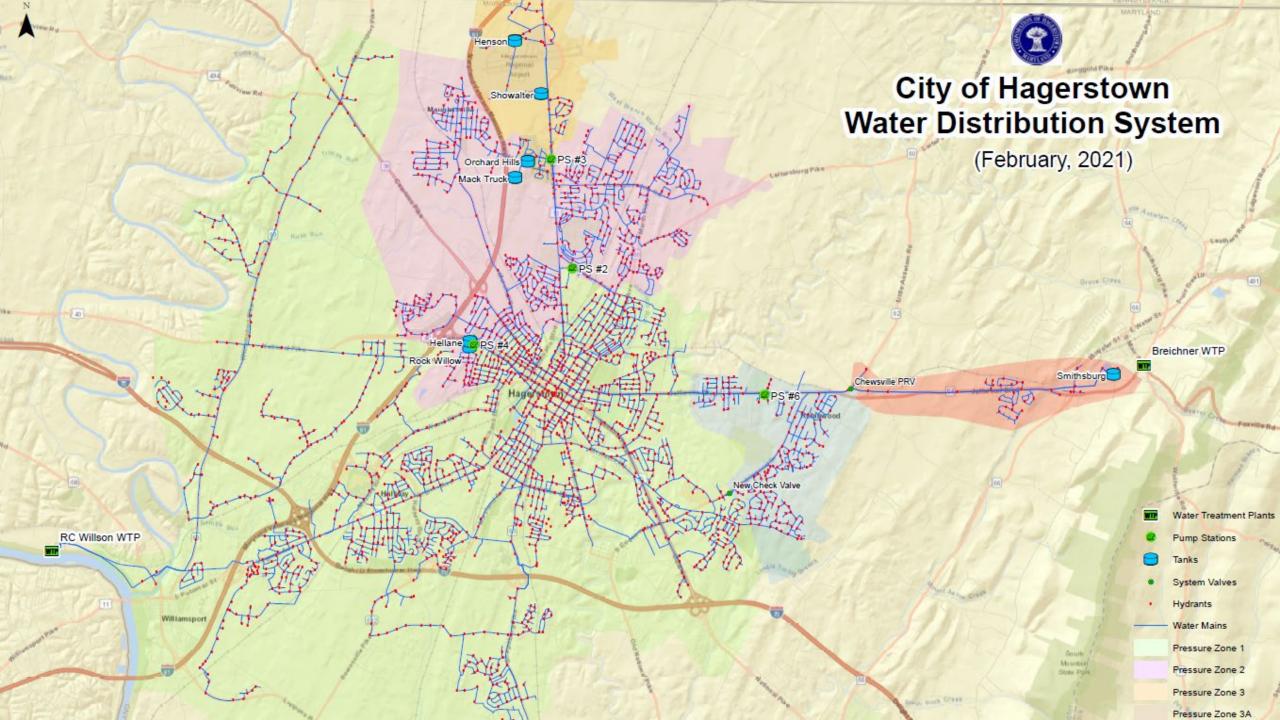


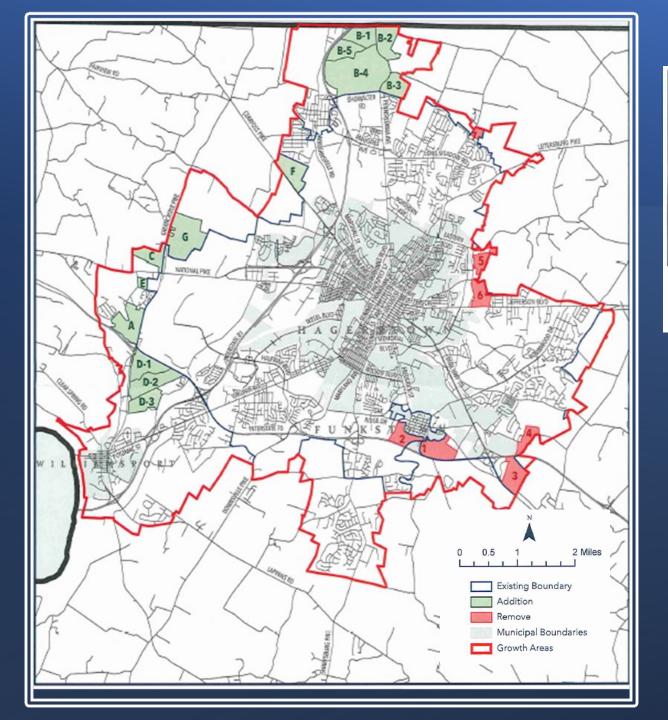
Hagerstown's available allocation:

- ➤ Assuming a plant capacity of 20MGD is 17,850 EDUs
- > Assuming a plant capacity of 15MGD is (4,650) EDUs
- > Sold allocation not being used by customers is 37,492 EDUs (active and nonactive accts)

Needed System Improvements:

- ➤ Needed upgrades are expected to cost \$100Million
- ➤ Upgrade of the treatment capacity at RC Willson \$60Million
- ➤ Replacing the current 24" transmission mains. \$40Million
- ➤ Second Source 5MGD Water Plant on the Antietam \$30Million



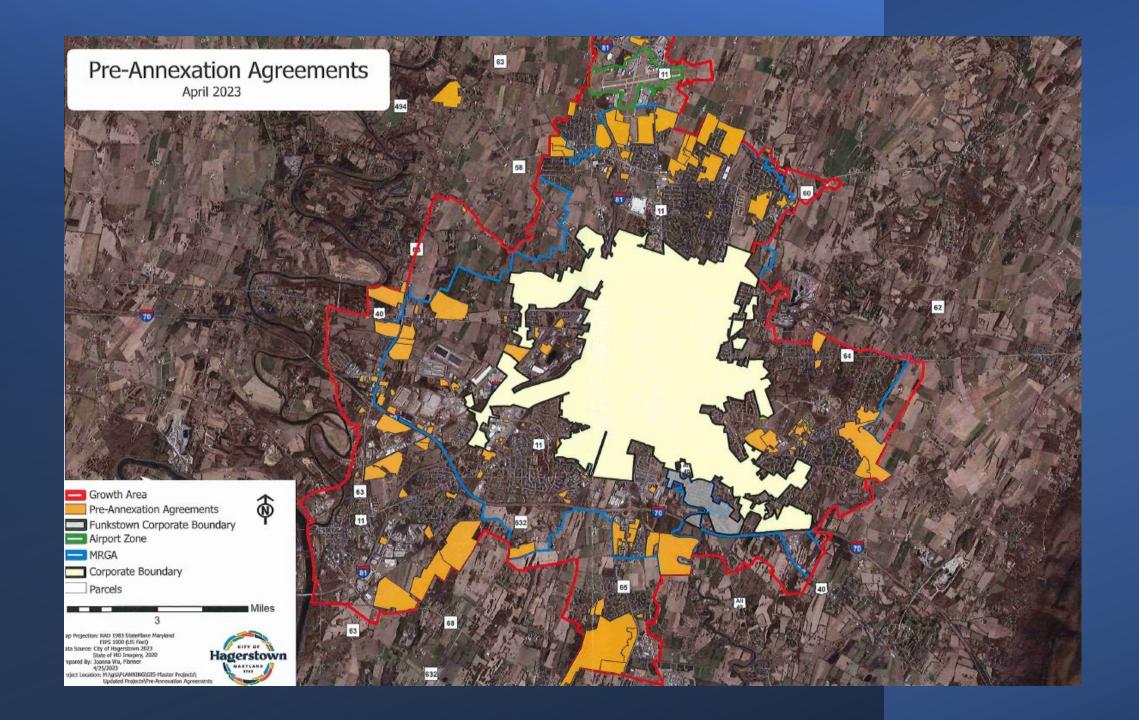


Washington County, Maryland

MRGA DISCUSSION

Reference Name	Area to be Added/Removed	Acreage	Ref	erence Name	Area to be Added/Removed	Acreage
А	Addition	182.65	E		Addition	23.18
B-1	Addition	128.61	F		Addition	147.8
B-2	Addition	147.35	G		Addition	303.29
B-3	Addition	115.23	1		Remove	143.76
B-4	Addition	543.15	2		Remove	92.73
B-5	Addition	118.09	3		Remove	137.9
C	Addition	102.34	4		Remove	72.37
D-1	Addition	154.56	5	and the same	Remove	66.42
D-2	Addition	184.38	6		Remove	98.69
D-3	Addition	121.54	7		Remove	24.46
and the second second			- 10	Water Use ver	ses Sold Allocati	100

Area to be Added/Removed Area Count Sum of Acreage
Addition 13 2272.17
Remove 7 636.32





GHC Monthly Meeting November 2023

GHC Forum & Committee Chairs

(see meeting packet for status updates)

GHC Forum & Committee Chairs:

Education Forum – Alan Mullendore

- Meets 2nd Thursday of every other month, GHC Office or Zoom
- Next meets: January 11th, 2024 at 7:30 a.m.

Membership Committee – Michael Weiss

- Meets as needed
- Next meeting: TBD at 8:00 a.m. ZOOM

GHC Forum & Committee Chairs:

Transportation Forum – Brad Fulton

- Usually Meets 3rd Monday of month or as needed
- Next meeting: November 20th, 7:30 a.m.

Vision Forum – Scott Bowen

- Meets 3rd Thursday of each month, GHC Office or ZOOM
- Next meeting: November 22nd, 8:00 a.m.

Downtown Enhancement Committee – Julie Rohm

- Meets 3rd Wednesday of month, GHC Office or Zoom
- Next meets: January 17th, 8:00 a.m.
- Topic: Discuss initiatives to increase "feet on the street" in downtown

GHC Monthly Meeting November 2023

Announcements and Upcoming GHC Events

Update on Advocacy Efforts:





Our community voices are being heard (Over 2,500 petition signatures and 770 members on Facebook page)

The Acting Superintendent at Antietam National Battlefield expressed gratitude for our participation in Phase I of the Salute event evaluation. They acknowledged and valued our passion for the event and the desire to bring it back to the park.

The NPS, in collaboration with the National Capital Regional Office and the Department of Interior's Collaborative Action and Dispute Resolution Office, is securing extra funding to obtain facilitation services/support for Phase II. This phase will encompass all major event aspects, including addressing fire and life safety concerns in the coming weeks. No response since August on a start date.



Please RSVP as soon as possible so we can plan accordingly

Upcoming Events:

Washington County Community Coalition's



Day In Annapolis

Wednesday, January 31st, 2024

Large Group Meeting 1:00 – 4:00 p.m.

Comptroller of Maryland Office – Assembly Room (80 Calvert St.)

Legislative Reception 4:30 – 6:30 p.m.

Calvert House (58 State Circle)











Upcoming Events:

No Monthly Meeting in December Next GHC Monthly Meeting: Friday, January 26th, 2024

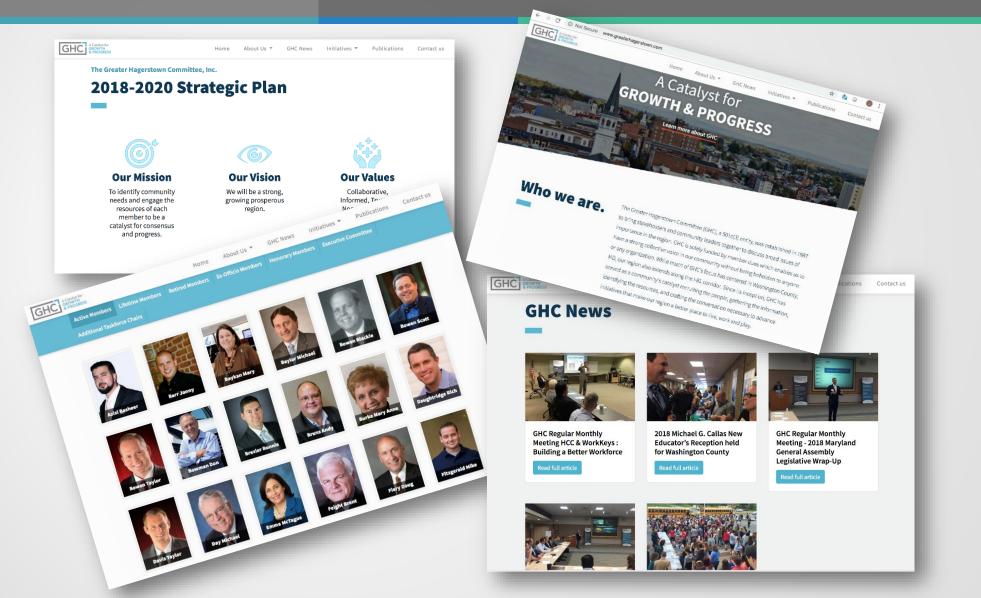
HCC CPB Rooms 211/213 7:30 a.m. to 8:30 a.m.

Topic: TBD



GHC Monthly Meeting November 2023

Check out our website: www.greaterhagerstown.org



Join our Facebook Group:

For GHC Members only

This group page is an informal way for GHC members and staff to share information regarding upcoming events, announcements, GHC members in the News, and fun stuff!



Talk to Erin about joining.

GHC Monthly Meeting October 2023 Adjourned