



Waukesha Water Utility

SERVING WAUKESHA SINCE 1886

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DATE: April 8, 2019

TO: Dan Duchniak

FROM: Kelly Zylstra

RE: 2019 Water Supply Status

As we enter the peak pumping season of 2019, all active supply wells will be in service with Well No. 10 running at half capacity for a few months. We had a shaft break on Well No. 13 in January, covered under warranty from the work done in 2018, however due to the nature of the fix it was able to be back in service by the third week of February. Well 10 continues to experience phase issues with the incoming power from We Energies; however was placed on line March 28th at reduced capacity.

The table below shows well capacity, radium levels, and anticipated well pump rehabilitations.

Station	Design Capacity (gpm)	2018 Actual Capacity (gpm)	Age of Equipment (Years)	Next Rehab ^e	Radium Level pCi/L ^f	On-Site Treatment or Blending	2018 Total Output (/mg ^h)	2018 Total Hours
Well 3	950	774	4^a	2020	2.48	HMO	255,273	5,497
Well 5	1,000	1,150	21	2024	5.23	No	25,879	376
Well 6	1,900	2,311	3	2026	6.69	No	44,016	318
Well 7	750	705	15	2023	3.45 ^g	No	12,263	290
Well 8	1,600	1,778	<1^b	2022	2.8	Blending/HMO	457,906	4,320
Well 9	1,350	1,288	16	2025	8.95	No	1,155	15
Well 10	2,700	2704	<1^c	2021	3.54	HMO	973,015	6,000
Well 11	500	158	6	-	0.30	Blending	28,023	2,980
Well 12	700	545	7	-	1.14	Blending	96,091	2,947
Well 13	750	550	<1^d	-	0.4	Shallow Well	182,157	5,548

- ^a #3 Pump and motor placed in service on 9/28/2015
- ^b #8 Pump and motor placed in service in 11/29/2018
- ^c #10 Temp pump and motor placed in well on 1/23/2019 however not able to run due to phase issues
- ^d #13 Pump and motor placed in service in 7/24/2018
- ^e Will be modified depending on which wells are approved as emergency sources of supply
- ^f Most recent sample result available from 2018 testing
- ^g Tests from 2017 and 2018 were <5.0 however, have been higher in previous year.
- ^h Million gallons

We are capable of producing up to 17.1 million gallons per day (mgd) with Well No. 10 back to full capacity. Of this 17.1mgd capacity, we have available 9.3mgd of radium compliant water when Well No. 10 is at full capacity, and 7.6mgd when it is at half capacity.

In 2018, our average day pumpage was 5.6mgd with our maximum day on August 25, 2018, pumping 8.5mgd. In addition to well pumpage capacity, we have 7.7 million gallons of ground storage and 7.0 million gallons of elevated storage (including Hillcrest Reservoir) to meet peak hour and fire protection demands.