



# Waukesha Water Utility

SERVING WAUKESHA SINCE 1886

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DATE: February 7, 2020  
TO: Dan Duchniak  
FROM: Kelly Zylstra  
RE: 2020 Water Supply Status

As of this time, all active supply wells are in service at full capacity. Well 10, after running at half capacity for seven months in 2019, returned to full capacity in October. During 2019 when Well 10 running at half capacity, Well 7 ran during January, March and July, Well 6 was used in February due to a concurrent failure of Well 13, and Well 5 ran in September. Despite 2019 being difficult, we remained in rolling average compliance for gross alpha and combined radium and only demanded non-compliant wells for two months of the calendar year; thus, continuing to comply with our DOJ stipulation order.

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

Station	Design Capacity (gpm)	2019 Actual Capacity (gpm)	Age of Equipment (Years)	Next Rehab <sup>e</sup>	Radium Level pCi/L <sup>f</sup>	On-Site Treatment or Blending	2019 Total Output (/mg <sup>h</sup> )	2019 Total Hours
<b>Well 3</b>	<b>950</b>	<b>746</b>	<b>5<sup>a</sup></b>	<b>2020</b>	<b>2.47</b>	<b>HMO</b>	<b>275,714</b>	<b>6,160</b>
Well 5	1,000	1,131	22	2025	7.75	No	46,766	694
Well 6	1,900	2,133	4	2026	9.82	No	100,890	786
Well 7	750	707	16	2023	4.11 <sup>g</sup>	No	88,666	707
<b>Well 8</b>	<b>1,600</b>	<b>2,012</b>	<b>1<sup>b</sup></b>	<b>2022</b>	<b>2.18</b>	<b>Blending/ HMO</b>	<b>690,451</b>	<b>5,723</b>
Well 9	1,350	1,297	17	2024	11.4	No	2,179	28
<b>Well 10</b>	<b>2,700</b>	<b>1548/2706</b>	<b>&lt;1<sup>c</sup></b>	<b>2021</b>	<b>1.88</b>	<b>HMO</b>	<b>540,106</b>	<b>4,972</b>
<b>Well 11</b>	<b>500</b>	<b>161</b>	<b>7</b>	<b>-</b>	<b>0.73</b>	<b>Blending</b>	<b>27,226</b>	<b>2,823</b>
<b>Well 12</b>	<b>700</b>	<b>559</b>	<b>8</b>	<b>-</b>	<b>1.27</b>	<b>Blending</b>	<b>86,704</b>	<b>2,591</b>
<b>Well 13</b>	<b>750</b>	<b>563</b>	<b>1<sup>d</sup></b>	<b>-</b>	<b>1.1</b>	<b>Shallow Well</b>	<b>187,031</b>	<b>5,524</b>

- <sup>a</sup> #3 Pump and motor placed in service on 9/28/2015
- <sup>b</sup> #8 Pump and motor placed in service in 11/29/2018
- <sup>c</sup> #10 Full capacity pump and motor placed in service on 10/1/2019
- <sup>d</sup> #13 Pump and motor placed in service in 2/19/2019
- <sup>e</sup> Will be modified depending on which wells are approved as emergency sources of supply
- <sup>f</sup> Most recent sample results available from 2019 testing
- <sup>g</sup> Tests from 2017 - 2019 were <5.0 however, have been higher in past so not used regularly as compliant site.
- <sup>h</sup> Million gallons

We can produce up to 17.3 million gallons per day (mgd) with Well No. 10 back to full capacity. Of this, we have available 9.7mgd of radium compliant water when Well No. 10 is at full capacity, and 8.0mgd

when it is at half capacity. In 2019, our average day pumpage was 5.58mgd with our maximum day on July 16, 2019, pumping 7.72mgd.

We have 3.93 million gallons of useable ground storage and 2.68 million gallons of available elevated storage (includes a portion of Hillcrest) to meet peak hour and fire protection demands.