

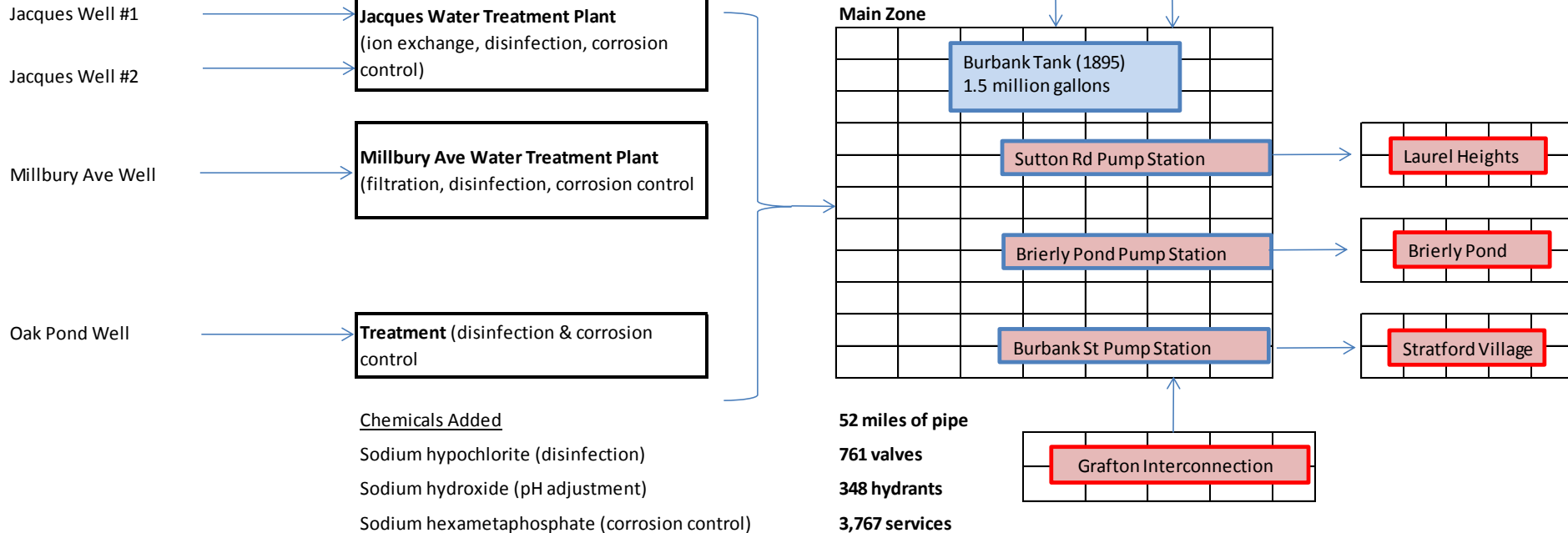
Presentation to Millbury Board of Health Millbury, Massachusetts July 8, 2020

Stephen Olson, P.E.
Director of Operations, MA

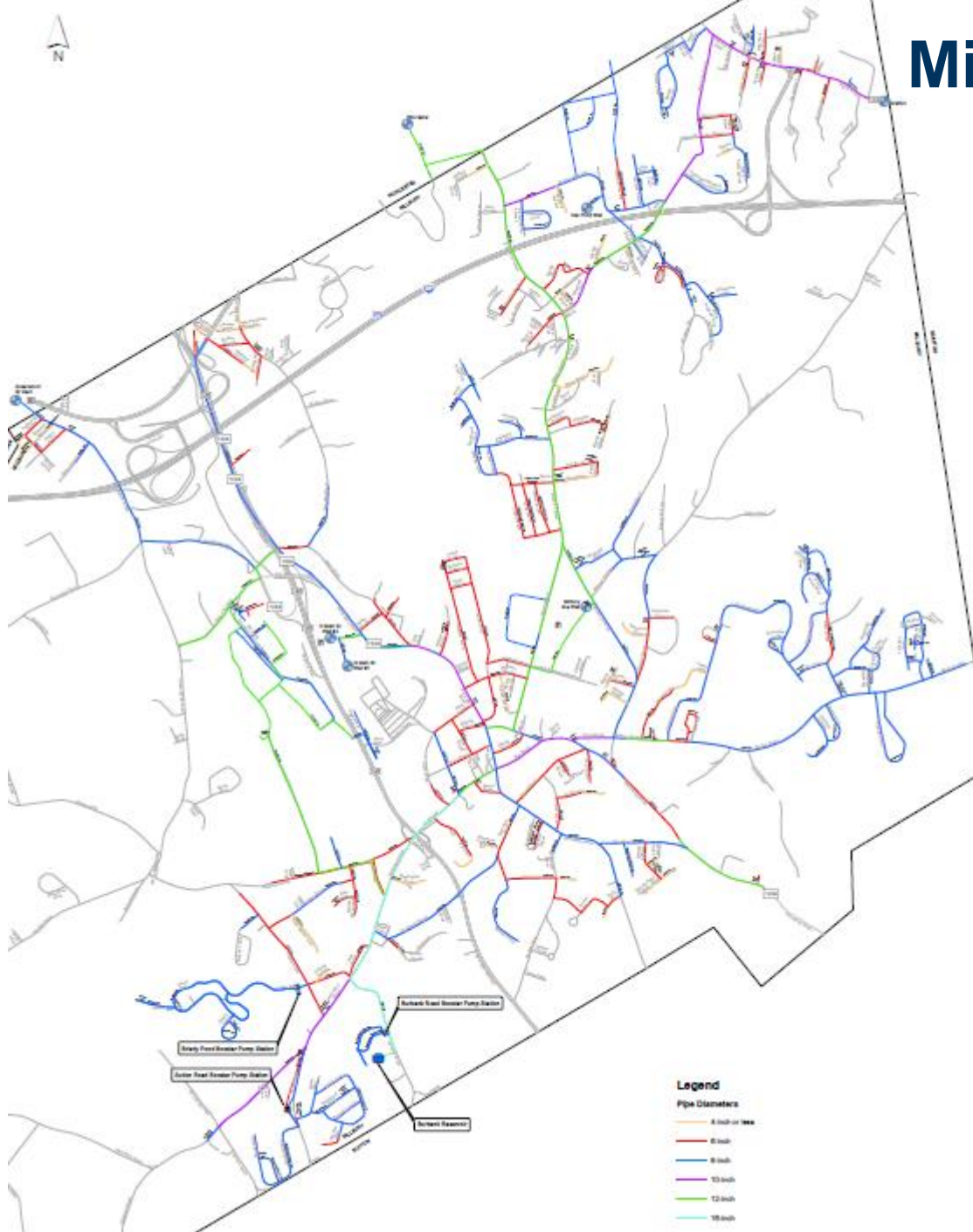
Paul Lawson
Manager of Operations, Millbury/Oxford

Millbury Water System Schematic

Aquarion's Millbury Water System



Millbury Water System



AQUARION
Water Company

Stewards of the Environment™

Water Quality

- Aquarion collects over 1,700 water quality samples per year, testing for over 100 compounds.
- Water quality samples are collected from our groundwater supply wells, from the finished water at our treatment plants, and from our distribution system, including customer taps.
- We sample and test our water for various water quality parameters daily, weekly, monthly, quarterly, annually, and tri-annually. In addition, our well stations have on-line water quality analyzers that continuously test and report pH and chlorine levels.
- In June 2020 we completed a round customer tap water lead and copper sampling at 20 residences.
- Annual Water Quality Report found on Aquarion Website and public buildings: <https://www.aquarionwater.com/water-quality>



Water Quality: Emerging Contaminants

- Per- and Poly- Fluoroalkyl Substances (PFAS) have been around since the 1940s and are used in many consumer products based on their resistance to staining, sticking, oil & grease, water, and heat. As a result human exposure can be from food, air, skin contact, and drinking water.



Aquarion's PFAS Timeline

- **September 2019** – made a decision to voluntarily sample all Aquarion MA water systems for an emerging contaminant: PFAS (forever chemical).
- **October 3, 2019** – voluntarily sampled all three water supply locations associated with the Millbury Water System: Millbury Ave WTP, Jacques WTP, Oak Pond Well
- **October 21, 2019** – received sampling results from laboratory:
 - Millbury Ave WTP – 9 ppt (for 6 PFAS)
 - Jacques WTP – not detected (for 6 PFAS)
 - Oak Pond Well – **78 ppt** (for 6 PFAS)
 - **2019 DEP Guideline – 70 ppt (for 6 PFAS)**
- **October 21, 2019** – **immediately turned off the Oak Pond Well.**



Aquarion's PFAS Timeline (cont.)

- **October 22, 2019** – contacted MA DEP. Instructed to perform confirmation sampling.
- **October 25, 2019** – voluntarily conducted confirmation sampling at the Oak Pond Well and sent samples to 2 different laboratories.
- **November 5, 2019** – received confirmation sampling results from the Oak Pond Well:
 - Results – 67 to 92 ppt (for 6 PFAS)
- **November 6, 2019** – began coordinating a public notice for Millbury customers with MA DEP and Millbury Town Officials.
- **December 4, 2019** – submitted a public notice to Millbury customers and posted notice and sampling results on website:
<https://www.aquarionwater.com/water-quality/learn-about-pfas/ma-pfas-faqs>
- **December 12, 2019** – presented to the Millbury BOS



Future Work and Plans

- Oak Pond Well to remain off.
- Complete engineering alternatives analysis for the Oak Pond Well: Treatment, New/Replacement Source
- Quarterly supplemental sampling of the Millbury System.
- Continue to update Aquarion website with new information.

Sample Location	Test Date	All Results Reported as parts per trillion (ppt)						TOTAL PFAS (6)
		PFOA	PFOS	PFHpA	PFHxS	PFNA	PFDA	
Oak Pond Well, POE*	10/3/2019	17	19	31	6	4	1	78
Oak Pond Well, (Finished)**	10/25/2019	14	19	26	4	3	1	67
Oak Pond Well, (Finished)**	Nov-19	17	23	28	5	3	1	78
Oak Pond Well, (Raw)**	10/25/2019	14	20	26	4	3	1	68
Oak Pond Well, (Raw)**	Nov-19	19	28	34	6	4	1	92
Oak Pond Well, (Raw)**	Feb-19	11	11	22	3	ND	ND	47
Oak Pond Well, (Raw)**	May-19	8	9	18	4	2	ND	41

*Oak Pond Well was isolated from the distribution system on 10/21/19, which is the day that PFAS sample results were received.

**Oak Pond Well not supplying customers as of 10/21/19. No water entering the distribution system for customer consumption.

Millbury Ave Well 9 ppt on 10/3/19. All other sources and distribution system sites have been non-detect.

- Continue to coordinate with MA DEP.
- Seeking MA DEP grant funding for Engineering Work.
- DEP proposed regulation: 20 ppt for 6 PFAS.

