JOURNAL OF

NEW HAMPSHIRE WATER WORKS ASSOCIATION

NHWWA

Merrimack Village District's new water treatment plant for the removal of PFAS. Expected date of completion is summer 2020. See full article on page 14.

VOLUME 1 - 2020

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Journal of
New Hampshire Water Works Association

Contents

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November 1, 2019—October 31, 2020

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NEW HAMPSHIRE WATER WORKS ASSOCIATION
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Pandemics and Potential

by Boyd Smith, NHWWA Executive Director

The United States and the world are groaning under the growing weight of the new coronavirus, COVID-19. The rapid spread, lethality and unknown nature of this global threat have shifted the way we think, feel and act, essentially overnight. While schools, restaurants, stores and other businesses have shut their doors or attempt to work remotely, our industry has not missed a beat, adapting and responding magnificently to provide safe and clean drinking water.

Now approaching the end of my second month as Director, I have met plant operators, supervisors, finance and human resources staff, regulators, contractors, suppliers, and partners in sister organizations. From the day I attended the joint NHWWA and New England Water Works Association meeting in January, it has been clear that the drinking water industry is full of competent, modest, generous, and highly trained and educated professionals who are deeply committed to their mission and each other.

My initial assessment is reinforced daily. Operators, trade organizations such as ours, State agencies and others, are sharing information and resources to ensure that safe and clean drinking water continues to flow. From splitting shifts, to online or delayed billings and postponed non-emergency repairs, to alternate compliance sampling locations and training and testing schedules, everyone is working together to solve this enormous problem.

Everywhere I look in the drinking water sector I see courage, focus, commitment and ingenuity, from the national level to local operations. Because of this, I am inspired to prepare for a future when we are even stronger than before.

Here is why I am optimistic:

- In spite of widespread uncertainty and restrictions, our colleagues in New Hampshire and around the country continue to provide clean drinking water, a resource vital to human health

and safety. Everyone in the industry knows this and has committed their careers to meeting the mission. All levels of government know it, as shown by freedom to travel authorizations to provide essential services. Such a cultural level of focus and determination is rare and accomplishes amazing results.

- From operators to regulators, our industry cooperates. This gives us the ability to recognize and solve tough, systemic problems. Whether dealing with the current pandemic or other critical issues such as workforce development, infrastructure funding, emerging contaminants or climate change, the drinking water industry is united.

For our part, we have postponed trainings and events through May 2020, and are working closely with our members and DES partners to maintain the high level of certification and training that are central to the industry's mission. In collaboration with sister organizations and regulatory agencies, we have developed a web page and email program to inform stakeholders through the present crisis and beyond.

Our Board of Directors has committed to complete a strategic plan to guide our actions for the next three years. We expect to: evaluate your training needs and how to best meet them, including on-line learning; address workforce development and infrastructure investment (including preparing for climate change); and develop public communications that raise understanding of and appreciation for the drinking water industry. Our effort will be funded in part by tax credits sold through a grant award from the NH Community Development Finance Authority. We will reach out widely for input to improve our planning.

Thank you for your commitment and service, and for continuing to support the NH Water Works Association as we work through these unprecedented times together. Please do not hesitate to contact me BSmith@NHWWA.org or 603-415-3959 if you have any questions, concerns, or ideas.

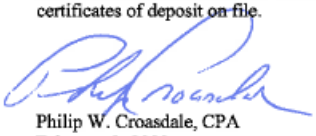
NH Water Works Association
Fiscal Year 2019 Financial Statement

Philip W. Croasdale, CPA
185 Westwood Drive
Manchester, NH 03103
603-792-2800

To the Board of Directors
New Hampshire Water Works Association, Inc.
18 North Main Street, Suite 308
Concord, NH 03301

This is to certify that I have compiled the statement of activities and cash and cash equivalents of the New Hampshire Water Works Association, Inc. for the year ended October 31, 2019.

I have reconciled the account balances to those presented in the cash disbursement and receipts journals. I found the checkbook balances of the general, money market and legislative accounts to agree with the bank statements as of October 31, 2019 and the balance shown in the savings accounts to agree with the certificates of deposit on file.



Philip W. Croasdale, CPA
February 3, 2020

NEW HAMPSHIRE WATER WORKS ASSOCIATION, INC.
STATEMENT OF ACTIVITIES
FOR THE YEAR ENDED OCTOBER 31, 2019

	General Account	Legislative Account	Combined
Revenue and support:			
NHWWA membership fees	$ 18,177	$ 27,052	$ 45,229
State and local grants	35,750	-	35,750
Trade fair and exposition	46,953	-	46,953
Operator trainings	19,424	-	19,424
Basic operator course	22,714	-	22,714
Technical seminars	12,920	-	12,920
Field trips and outings	10,347	-	10,347
Publications	13,290	-	13,290
NEWWA Mission sharing	2,000	-	2,000
Interest and investment income	305	158	462
Other	342	-	342
Total revenue and support	182,221	27,209	209,430
Expenses:			
Program services:			
Training and seminars	44,328	-	44,328
Events and activities	45,381	-	45,381
Publications	5,215	-	5,215
Drinking water festival	4,311	-	4,311
General:			
Salaries, wages and benefits	78,193	532	78,724
Payroll taxes	5,811	-	5,811
Rent	5,400	-	5,400
Office supplies	11,979	36	12,014
Insurance	6,398	-	6,398
Professional Services	1,077	-	1,077
Travel	602	-	602
Taxes, filing fees	974	-	974
Miscellaneous	1,015	250	1,265
Total program services and support	210,685	818	211,503
Net revenue (loss) and support	$ (28,464)	$ 26,391	$ (2,073)

Statement of cash balances:

Cash and cash equivalents, beginning, November 1, 2018	$ 96,197
Less: net loss and support	(2,073)
Cash and cash equivalents, ending, October 31, 2019	$ 94,124

New Water Works Operators in 2019

Currently there are just under 1,000 operators of public water system treatment plants and distribution systems licensed by the State of New Hampshire. New Hampshire operators are required to renew their licenses every two years. 2021 is the next renewal year. License renewal applications need to be submitted to NH Department of Environmental Services (NHDES) by December 31, 2021. Acceptable Criteria for Drinking Water Operator Training Contact Hours can be found on the NHDES website, www.des.nh.gov, on the Water Works Operator Certification Program page, under the category for Training.

Operators renew their certification by obtaining continuing education units (CEU's). New Hampshire Water Works Association (NHWWA) provides its members, and all who are interested, an opportunity to obtain CEU's by attending training sessions throughout the year. CEU's can be obtained by attending NHWWA technical meetings, management seminars, Construction Day, the Drinking Water Exposition & Trade Show, operator trainings, and other special events. These programs offer a variety of technical, operational, managerial and safety training.

The following individuals are those who were newly certified by examination or reciprocity in 2019 and those who advanced in their Treatment and/or Distribution grade.

1A Certification—Treatment and Distribution

Ryan P. Britland
Joanne M. Buckner
Mason E. Caceres
Domenic D. Castaldi, III
Stephen R. Clough
Benjamen A. Custeau
Gary Daniels
Joseph R. Dufour
Kimberly S. Durgin
Brett M. Durham
Bradley Eldridge
Lawrence J. Elliott, Jr.
Alicia J. Graton
Carolyn Halstead
Ian A. Harper
Naomi L. Hastings
Jeremiah J. King
Drew A. Long

Alex R. Maloney
Danielle L. McGrail
Eric R. Messier
Brandon D. Nichols
Zachary B. Orr
Shaunna M. Palumbo
Adam S. Patridge
Jeff C. Pearson
Whitney N. Pendergast
Shannon J. Perkins
Benjamin F. Redden
Nicholas D. Roberts
Gene Schrager
Howard M. Sheats, Jr.
David B. Shumway
Gary E. Smith
Harold M. Smith
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Andy J. Auger
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Todd Bragg
William Brown
Melvin S. Butler
Sean P. Costello
James A. Cray
Thomas J. Decowski
Dylan G. Delisle
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Timothy R. Ellis
David Field
Kyle R. Fox
Chris M. Hogan
Peter M. Howe
Benjamin M. Levesque
Paul M. Levesque
Bram S. Litvinoff
Paul M. Lovely
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Kevin D. Prior
Jaque C. Sandner
Anthony C. Shea
Sylas G. Slayton
Harold M. Smith
Dominic C. Viscariello
Michael J. Warner
William H. White

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James A. Cray
Dylan G. Delisle
Karl J. Duffield
Timothy R. Ellis
Peter M. Howe
Dustin P. Kondelis
Jesse S. LeBlanc
Paul M. Levesque
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Brandon J. Morse
Ryan T. Neville
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Jaque C. Sandner
Anthony C. Shea
Sylas G. Slayton
Michael J. Warner

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Taylor S. Deogburn
Ryan P. Houle
James R. Taylor
Ralph E. Wesinger, III
Jason R. Whitcomb
Tadeausz T. Zedon

Grade II Treatment

Taylor S. Deogburn
John J. Kellett
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James R. Taylor
Ralph E. Wesinger, III

Grade III Distribution

Thomas P. McGrail

Grade III Treatment

William B. Doherty
Glenn A. Sutson
George K. Thomas

Grade IV Distribution

Mark R. Riopelle

Grade IV Treatment

Kim M. Collins
Mark R. Riopelle

Mark your Calendars!

We hope you will join us at the following events.

Fisher Cats Outing, Thursday, June 25, 2020

Construction Field Day, Wednesday, July 29, 2020

NH Drinking Water Expo & Trade Show
Thursday, October 22, 2020

Look for more details to come.

Merrimack Village District's PFAS Journey

by Michael Metcalf, P.E.

Senior Project Engineer, Underwood Engineers, Inc.

CHAPTER ONE

Introduction

On February 26, 2016, a representative from Saint-Gobain Performance Plastics (SGPP) in Merrimack, New Hampshire notified the Drinking Water and Groundwater Bureau (DWGB) of the New Hampshire Department of Environmental Services (NHDES) that perfluorooctanoic acid (PFOA) had been detected at 30 parts per trillion (ppt) at a tap within the SGPP facility. Given that SGPP's water is supplied by the Merrimack Village District (MVD), NHDES immediately contacted MVD to let them know of the detection and the need to sample all their wells for PFOA and related compounds. Thus, began MVD's experience with per- and poly-fluorinated alkyl substances (PFAS), which has dominated MVD's attention since 2016, and will continue to be a major financial, treatment and testing issue for many years to come.

MVD Vital Statistics

MVD supplies water to most of the Town of Merrimack and serves about 25,000 residents through about 6,800 service connections. It is a groundwater system with six active wells installed in sand and gravel aquifers, although there are emergency connections with surface water systems to both the north (Manchester Water Works) and the south (Pennichuck Water Works). Information on the MVD wells is summarized in **Table 1.**

TABLE 1 – MVD WELLS

Well	Capacity	Issues	Status
MVD-1	0 gpm (was 400 gpm)	Screen failure	Decommissioned 2005
MVD-2	1,100 gpm	None, largest, best quality well	On line, permitted for 1,500 gpm
MVD-3	800 gpm	Elevated Fe & Mn	On line, use limited due to elevated Fe/Mn
MVD-4	410 gpm*	PFAS $\geq$ 70 ppt	Off line per DES until WTP constructed
MVD-5*	625 gpm*	PFAS $\geq$ 70 ppt	Off line per DES until WTP constructed
MVD-6	1,500 gpm	VOC contamination	Off line since 1988
MVD-7	500 gpm	Elevated Fe & Mn	On line, w/Fe/Mn WTP
MVD-8	750 gpm	Elevated Fe & Mn	On line, w/Fe/Mn WTP
*Rates if only one well pumped. Wells 4 & 5 are 300 ft apart and operated together at 420 gpm (sustainable yield) to 870 gpm (peak short term yield)			

Prior to 2016, all MVD wells received treatment for corrosion control (lime & a blended phosphate) and disinfection (calcium hypochlorite tablets). Due to high iron and manganese concentrations in Wells #7 & #8, an iron and manganese removal water treatment plant (WTP) was constructed and put on line in 2016.

The MVD distribution system consists of 166 miles of 4" – 20" piping and is divided into two pressure zones, with one storage tank in the main zone, and two tanks (one off-line) in the high-pressure zone. All wells discharge into the main pressure zone, so a booster pump station (Turkey Hill BPS) feeds the high-pressure zone.

Demands follow a typical pattern with the highest use in the summer months. Current and projected water demand in the MVD service area is summarized in **Table 2**.

TABLE 2 – CURRENT & PROJECTED DEMAND

	Current (2008 – 2014)	Projected (2030)
Annual Avg Day Demand	2.2 – 2.3 mgd	2.9 mgd
Summer Avg Day Demand	2.7 – 3.2 mgd	4.1 mgd
Max Day Demand	4.3 – 5.4 mgd	5.9 mgd

With all six active wells operating, the existing supplies can meet the existing max day demand but additional supply is needed to meet the projected future max day demand. Locating and developing additional supply capacity is just one of the many projects that MVD had either completed, in process, or in the planning stage prior to the discovery of PFAS. The need for these other projects did not disappear with the discovery of PFAS in the MVD system. Rather, a busy, proactive agenda was greatly

disrupted by the need to deal with a new, and largely unknown water quality issue.

Journey into the World of PFAS

Much has been written and presented on PFAS in the last four years and it is not the intent of this article to be a treatise on PFAS, but some brief description is in order for context. Per- and poly-fluorinated alkyl substances are a class of chemicals used to make everyday products resistant to stain, heat, oil, grease and water. They consist of a chain of carbon atoms with fluorine atoms bonded to them. Depending on the number of carbon atoms they are often categorized as "long or short chain" compounds. PFAS chemicals are extremely soluble, stable and resistant to break down due to the very strong nature of the carbon-fluorine bond. This makes them very mobile once they have been released into the environment and very difficult to treat. They are often referred to as "forever compounds".

So…what happened at MVD after that phone call from NHDES that PFOA had been detected in the MVD water system? All MVD wells were immediately sampled and tested for PFAS. Initial efforts focused on PFOA and PFOS but other long and short chain compounds were detected as well. The initial sampling effort indicated some level of contamination in all MVD wells (**Table 3**). Based on this result, MVD authorized Underwood Engineers (UE) to evaluate treatment for PFAS removal. Technologies reviewed included ion exchange with synthetic resins, adsorption with granular activated carbon (GAC), reverse osmosis and advanced oxidation. GAC adsorption was by far the most prevalent and effective treatment for PFOA and PFOS, although it was reportedly less effective on the short chains compounds.

TABLE 3 – INITIAL PFAS TESTING RESULTS – MARCH 2016

	PFOA/PFOS Concentration (ppt)					
Date	**MVD Well**					
	MVD-2	**MVD-3**	**MVD-4**	**MVD-5**	**MVD-7**	**MVD-8**
3/31/16	27/ND	N/A*	90/5.6	56/ND	26/ND	9.7/ND
*Off line for cleaning. Subsequent tests showed PFAS contamination.						

Figure 1 shows the MVD system, supply sources and their relative locations to the Merrimack SGPP facility.

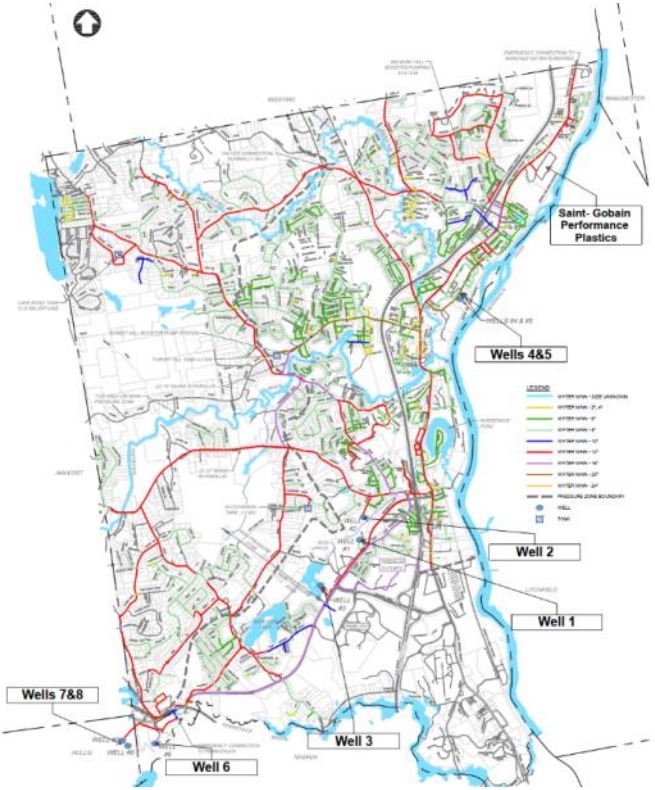


Figure 1 – MVD System and Supply Sources

A major challenge in 2016 was the lack of a standard for any PFAS chemical. A valid standard is critical as it provides a benchmark, both for systems to treat to, and for regulators to regulate to. The only PFAS standards in 2016 were Provisional Health Advisory Levels (HAL's) set by EPA for short term acute exposure; 400 ppt for PFOA and 200 ppt for PFOS. The MVD levels were well below these concentrations, however similar contamination events in NY and VT, and subsequent studies had led to NY setting an interim PFOA standard of 100 ppt while VT set it at 20 ppt. At public meetings instituted by NHDES in Merrimack to discuss the contamination, some MVD users insisted that the only acceptable standard for these man-made contaminants was non-detection. Given this wide disparity there was much pressure put on EPA to come up with a meaningful consistent standard. In May of 2016 EPA set a HAL for lifetime exposure of 70 ppt for PFOA, PFOS, or PFOA + PFOS if both were present. NHDES quickly enacted emergency rule making to adopt this 70 ppt standard as an Ambient Groundwater Quality Standard (AGQS) which is enforceable as an MCL in NH. In June of 2016, NHDES informed MVD that until treatment is in place, Wells #4 and #5, which are operated together as a single source, must be deactivated, locked out and tagged since the levels exceeded the AGQS of 70 ppt.

In response, MVD initiated the following steps:

- Began the process of negotiating a settlement agreement with SGPP to provide funding for treatment of Wells #4 & #5 and other PFAS related costs

- Authorized UE to:

    - Complete a 30% Preliminary Design of a GAC based PFAS WTP for Wells #4 & #5

    - Initiate fast track design, bidding and construction of a booster pump station to allow water from Pennichuck Water Works (PWW) to be pumped to

the hydraulic grade line (HGL) of the MVD system for emergency use if needed to replace the lost capacity of Wells #4 & #5 (existing connection could not meet MVD HGL).

While SGPP agreed to fund the 30% Well #4 & #5 WTP Preliminary Design effort, it was a long process to come to an agreement over what their final financial liability would be. After a nearly two-year process, a settlement agreement was reached in March of 2018 in which SGPP agreed to pay $3.35 Million of the projected $5.1 Million total project cost. This allowed MVD to authorize final design of the WTP.

MVD was under a great deal of pressure from users to not only treat Wells #4 & #5, but also to treat the remaining active MVD wells (#2, #3, #7, & #8) with a goal of non-detection of all PFAS compounds. In July of 2018, MVD authorized UE to conduct a feasibility analysis and provide conceptual cost opinions to treat Wells #2, #3, #7, & #8 for non-detection of PFAS. Once again, GAC was determined to be the best treatment alternative. Iron and manganese treatment for Well #3 was also included as these constituents would interfere with GAC treatment of PFAS. Since the PFOA and PFOS concentrations in these wells was less than 70 ppt, this was a non-regulatory need. Therefore, to reduce cost to the degree possible, the conceptual designs utilized single vessel treatment, with room for expansion, instead of the redundant treatment vessels required for Wells #4 & #5. In December of 2018 a report was issued with a $14.5 million conceptual cost opinion for PFAS treatment of Wells #2, #3, #7, & #8. MVD users used these costs to develop petitioned warrant articles to raise and appropriate this amount which passed overwhelmingly at the March 2019 MVD Annual Meeting, and Preliminary Design was authorized in April of 2019.

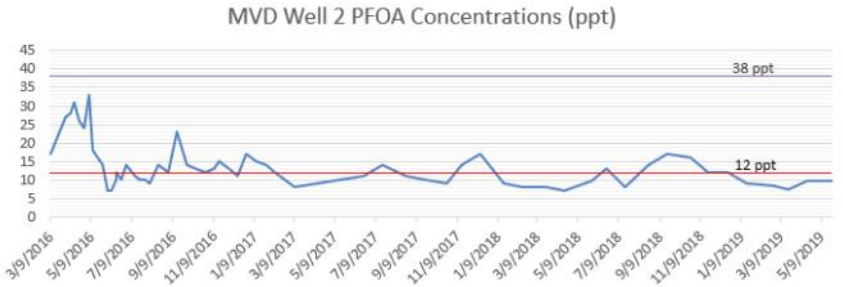
In January of 2019, NHDES, based on direction from the legislature, had proposed new PFAS standards for PFOA and PFOS, and

introduced standards for two other PFAS compounds, perfluorohexanesulfonic acid (PFHxS), and perfluorononanoic acid (PFNA). The concentrations of these compounds in Wells 2, #3, #7, & #8 was well below these levels. However, based on new risk analysis studies on infants and lactating mothers, NHDES dramatically lowered the proposed standards in July of 2019 (**Table 4)** to some of the lowest PFAS standards in the nation.

TABLE 4 – PFAS STANDARDS (ppt)

PFAS Compound	May 2016	Proposed	Proposed
PFOA	70	38	12
PFOS	70	70	15
PFOA + PFOS	70	No Std	No Std
PFHxS	No Std	85	18
PFNA	No Std	23	11

Enactment of these standards will make removal of PFOA in all MVD wells a regulatory need, requiring redundant treatment vessels to be incorporated into the design. **Figure 2** shows the PFOA concentrations in Wells #2, #3, #7, & #8 relative to the proposed standards. UE's designs were altered to include redundant vessels and a preliminary estimate was that this would increase the construction costs by at least $3 million.



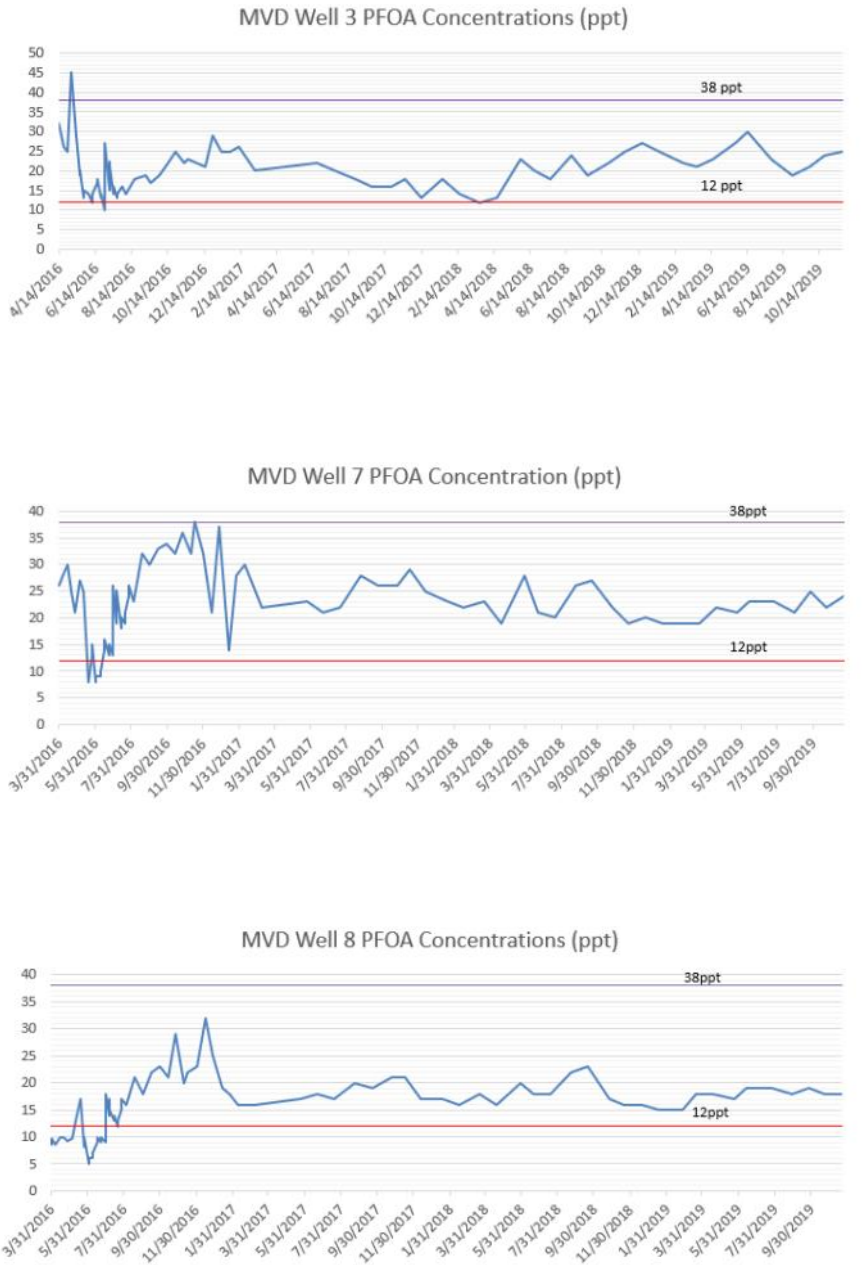


Figure 2 – PFOA Concentrations Relative to Proposed Standards

At the time of the writing of this article in March of 2020, the major milestones achieved by MVD in their continuing PFAS journey are listed below:

- Designed and constructed an emergency booster pump station to allow water from PWW to be pumped into any part of the MVD system (operational February 2017)

- Reached a settlement agreement with SGPP in March 2018 for partial funding of a PFAS removal WTP for Wells #4 and #5, as well as other PFAS related costs.

- Had 58 private well users connected to the MVD system to replace contaminated wells.

- Designed and initiated construction of a WTP for Wells #4 and #5 utilizing GAC contactors. Substantial completion is expected by the late summer of 2020. See **Figures 3 & 4** for photos of the construction.

- Completed final design of a PFAS removal addition utilizing GAC contactors to the Wells #7 & #8 Iron & Manganese Removal Facility. Expected to be operational by July 2021.

- Completed preliminary design of PFAS removal facilities for Wells #2 and #3. Expected to be operational by July 2022.

- Secured over $14 million in grant and loan funding through the NHDES SRF program and the Drinking and Groundwater Trust Fund for PFAS related infrastructure.

It has been a little over four years since the detection of PFAS in the MVD system. The approximate capital cost for treatment of all the MVD wells is over $18 million and estimates of operation and maintenance costs range from $150,000 to as much as $450,000 per WTP, per year depending on how frequently GAC must be changed out. While MVD's PFAS journey has already been a long hard road, and there is far to go, they have risen to the challenge of

Figure 3 – Well 4 & 5 Access Road

Figure 4 – Well 4 & 5 WTP Structure

both mitigating and funding the PFAS contamination of their groundwater supplies.

Each of the three WTP's are due to be online over the next three years. Chapter 2 of the MVD PFAS Experience will appear in the Fall Journal and will address design issues as well as the construction and operation of the system..

Acknowledgements

This article was written by Michael Metcalf, P.E., Senior Project Manager in the Concord, NH office of Underwood Engineers. However, it could not have been done without all the groundwork, evaluation and design efforts conducted by Lynnette Carney, P.E., Senior Project Engineer, Peter Pitsas, P.E., Project Manager, and Keith Pratt, P.E., President of Underwood Engineers.

The author also gratefully acknowledges the review and comments on the draft of this article by:

Jill Lavoie, Business Manager/Water Quality & Testing Manager – MVD

Ron Miner, Superintendent, MVD

Keith Pratt, P.E., President, UE

Lynnette Carney, P.E., Senior Project Engineer, UE

Tax Credit Program Successful!

$22,075 in Tax Credits Sold!

On June 18, 2019 the New Hampshire Water Works Association (NHWWA) announced that New Hampshire Community Development Finance Authority (CDFA) awarded our Strategic Development Planning Project $29,000 in tax credit funding. It was a great honor to be selected for support by this highly competitive program.

Proceeds from CDFA tax credits will strengthen NHWWA's mission to serve New Hampshire's drinking water industry with educational programs and events, legislative advocacy and communications, and community outreach. During the COVID-19 emergency, we intend to proceed with our planning, and begin implementing in 2020. We will engage our Directors, partners and members to identify and address critical needs, and are thrilled with by the opportunity this award provides.

In addition to strategic planning, CDFA funding will allow us to launch a communications and marketing plan, to identify ways to increase the impact and effectiveness of our communications to better connect with and serve our members and partners in the drinking water industry.

While total pledges were slightly less than our initial goal, we worked closely with CDFA staff to amend the original scope and meet critical outcomes with a slightly lower budget. Throughout the entire process, the CDFA has been supportive of our intentions and goals, flexible in the face of changing needs, and an excellent partner in our quest to make the NHWWA even more effective and sustainable.

Without the generous support of **Merrimack County Savings Bank** and **Cleveland, Waters and Bass, PA** we would not be able to proceed. These local, community-focused organizations demonstrated their commitment to and understanding of the importance of the drinking water industry and the NHWWA's role by quickly and thoughtfully responding to our calls for assistance.

Thank you, also, to our donors **Wright-Pierce**, **Lewis Engineering, PLLC**, and **The Water Office** for their early support.

ADDRESSES OF MANUFACTURERS

(Product Directory begins on page 29)

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AIR VALVES
Stonkus Hydraulics

ALTITUDE VALVES
E.J. Prescott, Inc.
Stonkus Hydraulics

BACKFLOW PREVENTORS
E.J. Prescott, Inc.
Stiles Co., Inc.
Ti-SALES, Inc.

BUTTERLY VALVES
E.J. Prescott, Inc.

CHECK VALVES
E.J. Prescott, Inc.
Smith Pump Co., Inc.
Stiles Co., Inc.
Stonkus Hydraulics
Ti-SALES, Inc.

CHECK VALVES - DOUBLE
E.J. Prescott, Inc.
Stiles Co., Inc.

CHEMICAL FEEDERS
BAU/Hopkins
Stiles Co., Inc.

CHLORINATORS
BAU/Hopkins

COMPRESSION PIPE COUPLINGS
Stiles Co., Inc.
Ti-SALES, Inc.

COOPERHORNS
E.J. Prescott, Inc.
Stiles Co., Inc.
Ti-SALES, Inc.

CURB BOXES
E.J. Prescott, Inc.
Stiles Co., Inc.
Ti-SALES, Inc.

CURB & CORPORATION BOXES
E.J. Prescott, Inc.
Stiles Co., Inc.
Ti-SALES, Inc.

DIAPHRAGMS - PUMPS
BAU/Hopkins
E.J. Prescott, Inc.
Epping Well & Pump Co., Inc.
Smith Pump Co., Inc.
Stiles Co., Inc.
Ti-SALES, Inc.

DRILL STEEL & BITS
Stiles Co., Inc.

FITTINGS - BRASS & COPPER
E.J. Prescott, Inc.
Stiles Co., Inc.
Ti-SALES, Inc.

FITTINGS - CAST IRON
E.J. Prescott, Inc.
Ti-SALES, Inc.

FITTINGS - GALV. & BLACK IRON & STEEL
E.J. Prescott, Inc.

FLOW REDUCTION DEVICES
E.J. Prescott, Inc.
Epping Well & Pump Co., Inc.

FLUORIDATION EQUIPMENT
BAU/Hopkins
Ti-SALES, Inc.

GASKETS & PACKING
Stiles Co., Inc.
Ti-SALES, Inc.

GAUGES
Stonkus Hydraulics

HYDRANT MARKERS
E.J. Prescott, Inc.
Stiles Co., Inc.
Ti-SALES, Inc.

HYDRANT PUMPS
E.J. Prescott, Inc.
Ti-SALES, Inc.

HYDRANTS & VALVES
E.J. Prescott, Inc.
Ti-SALES, Inc.

INSTRUMENTS
BAU/Hopkins

LEAD SUBSTITUTES
Stiles Co., Inc.

LOCATING INSTRUMENTS
E.J. Prescott, Inc.
Stiles Co., Inc.
Ti-SALES, Inc.

MANHOLE FRAMES & COVERS
E.J. Prescott, Inc.
Ti-SALES, Inc.

MECHANICAL JOINT MATERIALS
E.J. Prescott, Inc.
Ti-SALES, Inc.

METER - SETTINGS
E.J. Prescott, Inc.
Ferguson Waterworks
Stiles Co., Inc.
Ti-SALES, Inc.

METERS - WATER
E.J. Prescott, Inc.
Epping Well & Pump Co., Inc.
Stiles Co., Inc.
Ti-SALES, Inc.

PAINT
Stiles Co., Inc.
Ti-SALES, Inc.

PIPE - BRASS & COPPER
E.J. Prescott, Inc.
Stiles Co., Inc.
Ti-SALES, Inc.

PIPE CUTTERS
Stiles Co., Inc.
Ti-SALES, Inc.

PIPE - DUCTILE IRON
E.J. Prescott, Inc.

PIPE LINING
E.J. Prescott, Inc.

PRESSURE REGULATING VALVES
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Stiles Co., Inc.
Stonkus Hydraulics
Ti-SALES, Inc.

PUMP CONTROL EQUIPMENT
Epping Well & Pump Co., Inc.
Smith Pump Co., Inc.
Stonkus Hydraulics

PUMPS - CHEMICAL FEED
BAU/Hopkins
E.J. Prescott, Inc.
Epping Well & Pump Co., Inc.
Stiles Co., Inc.
Ti-SALES, Inc.

PUMPS - DITCH
E.J. Prescott, Inc.
Epping Well & Pump Co., Inc.

PUMPS - PORTABLE
R.H. White Construction
Smith Pump Co., Inc.

PUMPS - TURBINE
Maher Services

PURIFICATION EQUIPMENT
BAU/Hopkins
Epping Well & Pump Co., Inc.

REPAIR COUPLINGS
E.J. Prescott, Inc.
Stiles Co., Inc.
Ti-SALES, Inc.

RESERVOIRS - NEW & OLD
Statewide Aquastore, Inc.

SAFETY SIGNALS & SIGNS
E.J. Prescott, Inc.

STRAINERS & FOOT VALVES
Stiles Co., Inc.

TANKS & STANDPIPES
Epping Well & Pump Co., Inc.
Statewide Aquastore, Inc.

TAPPING MACHINES
E.J. Prescott, Inc.
Smith Pump Co., Inc.
Stiles Co., Inc.
Ti-SALES, Inc.

TAPPING SLEEVES & VALVES
E.J. Prescott, Inc.
Stiles Co., Inc.
Ti-SALES, Inc.

TELEMETERING EQUIPMENT
BAU/Hopkins

TEST PLUGS
E.J. Prescott, Inc.
Ti-SALES, Inc.

THAWING MACHINES
E.J. Prescott, Inc.

TOOLS
E.J. Prescott, Inc.
Ti-SALES, Inc.
Stiles Co., Inc.

TORCH BURNERS
E.J. Prescott, Inc.

VALVE BOXES
E.J. Prescott, Inc.
Stiles Co., Inc.
Stonkus Hydraulics
Ti-SALES, Inc.

WATER CONSERVATION DEVICES
E.J. Prescott, Inc.
Epping Well & Pump Co., Inc.

WATER METERS
E.J. Prescott, Inc.
Epping Well & Pump Co., Inc.
Stiles Co., Inc.
Ti-SALES, Inc.

WATER SYSTEM OPERATORS
Epping Well & Pump Co., Inc.

WATER TESTING/ANALYTICAL LABORATORY
Epping Well & Pump Co., Inc.

WATER TREATMENT EQUIPMENT
BAU/Hopkins
Epping Well & Pump Co., Inc.

WELLS
Epping Well & Pump Co., Inc.
Maher Services
Smith Pump Co., Inc.

VALVE REPAIR SERVICE
E.J. Prescott, Inc.

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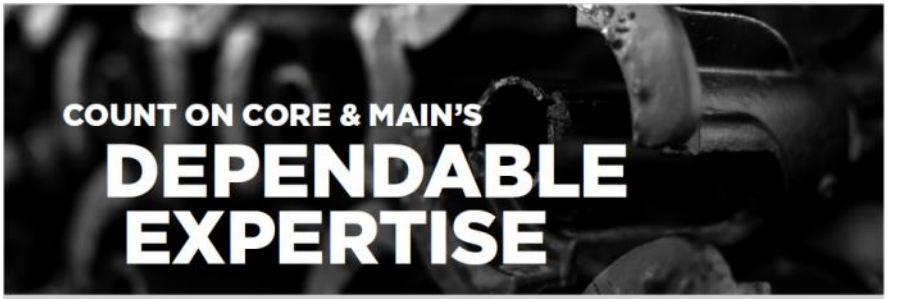

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The Supply House That Knows How To Help!

NHWWA

ADVERTISING RATES—2020

JOURNAL ADVERTISING - two Issues per year.

	Cover Page	Full Page	½ Page	¼ Page	Business Card
Space Size	4.5" X 7.5"	4.5" X 7.5"	4.5" X 3.75"	4.5" X 1.7"	2.25" x 1"
Cost / Year	$380.00	$255.00	$160.00	$130.00	$80.00

Directory of Manufacturers Listing $95/year

Includes names of up to three representatives, contact information and product listing.

NEWSLETTER ADVERTISING - 3 Issues per year.

Ad size: 2.5" x 1.75". $275/year

WEBSITE ADVERTISING

Medium Rectangle—appears on all pages, links to advertiser's site. $525/year

Footer Banner—three ad animation loop, appears on all pages, links to advertiser's site. $395/year

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SPONSORSHIP OPPORTUNITIES

Construction Field Day—July 29, 2020
- includes an ad in an 8.5" X 11" color brochure

NH Drinking Water Expo & Trade Show—October 22, 2020
- General Support, Food & Beverage, and Seminar Room Sponsorships

Please note that billing for advertising will be done once per year. Sponsorships are solicited prior to each event.

Deadlines: Journal Vol. I - April 1 | Journal Vol. II - September 1
Winter Newsletter - February 15 | Summer Newsletter - June 15 | Fall Newsletter - November 15

Have questions about advertising? Contact Sue Kowalski at 603-415-3959 or email info@nhwwa.org

AMERICAN Flow Control recently unveiled the ALPHA Restrained Joint product line consisting of Series 2500 Resilient Wedge Gate Valves in sizes 4"-12" as well as American-Darling and Waterous fire hydrants. Compatible with multiple pipe materials, ALPHA can be quickly and easily installed by one person with one stainless steel bolt.

Contact your local Team EJP sales representative to learn more!

TEAM EJP

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SOLUTIONS

1-800-EJP-24HR
EJPRESCOTT.COM

Concord, NH
603-224-9545
W. Chesterfield, NH
603-256-6466

WHATEVER YOU NEED, WHENEVER YOU NEED IT, NO MATTER WHAT.

Who is digging in your town?

Dig Safe members know.

811 DigSafe MA·ME·NH·RI·VT

Demonstrate your commitment to the safety of your community by protecting your underground utilities from excavation accidents. Dig Safe is a streamlined communication process that notifies you of projects that could potentially damage sewer, water, drainage, fire alarm and traffic control facilities.

- Municipalities with under 100 miles of underground facilities (or street miles) pay only $1.00 per notification. Contact Dig Safe for an estimate.
- No expensive equipment needed - only an email address is required to receive Dig Safe tickets.
- Reduce notices with Dig Safe's digital mapping system.
- 24/7 notification process.
- Electronic and voice-recorded data stored for your legal protection.
- Dig Safe meets or exceeds all of Common Ground Alliance's Best Practice recommendations for the nation's one-call centers.
- Dig Safe's extensive advertising campaign raises awareness to call 811 before digging.
- Dig Safe's detailed education program includes on-site safety seminars for excavators to learn damage prevention strategies and the requirements of the "Dig Safe" law.

Call 811 or visit digsafe.com to learn more about membership.

New Hampshire Water Works
Association
18 N. Main St., Suite 308
Concord, NH 03301

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