A Quick Take on Asset Management
Paul Sestito, Water/Wastewater Systems Specialist

In the News Leaks section of our spring newsletter, VRWA Water Systems Specialist Aaron Perez wrote an article titled, “Succession Planning.” In the article, Aaron discussed the importance that planning plays in hiring and retaining qualified individuals to operate and manage water and wastewater systems. Planning for replacement of operators is also an important consideration that was mentioned.

Succession planning is just one (sometimes overlooked) aspect of overall asset management of a utility. Typically, when we think of assets, we think of the physical structures that make up a utility: treatment plants, wells, storage tanks, pipes, pumps, valves, and the list goes on and on. Qualified, certified operators are a necessary part of the infrastructure and, therefore, need to be included in an overall asset management plan.

Recently, I was able to attend the GMWEA conference in Killington. At the conference, I led a class on the topic of asset management and we discussed key areas that utilities should pay attention to in order to effectively manage their water/wastewater systems.

(Continued on page 9)

Thanks To All Who Took Part In The VRWA 2016 Conference And Trade Show Event
Shaun Fielder, Executive Director

It was another exciting and well attended conference and trade show event at the Lake Morey Resort in Fairlee this May. Golf participants on Wednesday afternoon didn’t have perfect weather but a light shower was all that had to be endured on the back nine. Congrats to the winning team of Franzoni, Franzoni, Leblanc and Willis and congrats also to longest drive and closest to the pin winner—yes he took both—Seth Pitryke. Very nice to have folks join the VRWA board and team for dinner on Wednesday night. It is always good to share some personal time over an excellent meal.

The vendor area was extremely busy on Thursday with a near capacity turnout of firms showcasing water sector products and services. To all who conducted trainings sessions a big thank you. This includes Jim Siriano, Ben Montross and Meredith Simard (VT DWGWP), Ashley Lucht and Terisa Thomas (VT FED), and Andrea Ansevin-Allen and Misty Sinsigalli (USDA RD) and Ernie Kelley (VT WMD).

The Vermont Drinking Water Week Taste Contest overall winner, back-to-back year winners, was Champlain Water District. VRWA looks forward to assisting CWD with entry of their water into the Great American Taste Contest at the NRWA Rally in February 2017. Tristan Stewart won the Water Meter Toss sponsored by HD Supply. His toss ended up closest to the marker, within 1 inch!

At the business luncheon all received a concise keynote presentation from Commissioner Schuren, it was an honor having her present and hearing of VT DEC’s many ongoing focus areas. We presented our annual Tony Torchia Award to long time DEC employee Andy Fish. Many of you know Andy from his years as lab and operations expert with wastewater management.

(Continued on page 9)
Since 1982, Vermont Rural Water Association has supported water and wastewater systems across the state. We provide many services, including training, source water protection planning, and onsite assistance.

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20 Susie Wilson Road, Suite B
Essex Junction, Vermont 05452-2827
802-660-4988 voice; 866-378-7213 fax
vrwa@vtruralwater.org; www.vtruralwater.org

Contact Our Staff

Call us at 800-556-3792

Training Specialist
Matt Guerino, Ext. 337, mguerino@vtruralwater.org

Water Systems Specialist
Brent Desranleau, Ext. 322, bdesranleau@vtruralwater.org
Aaron Perez, Ext. 331, aperez@vtruralwater.org

Source Protection Specialist
Liz Royer, Ext. 336, lroyer@vtruralwater.org

Wastewater Specialist
Wayne Graham, Ext. 319, wgraham@vtruralwater.org

Water/Wastewater Specialist
Paul Sestito, Ext. 350, psestito@vtr ruralwater.org

Executive Director
Shaun Fielder, Ext. 315, sfielder@vtruralwater.org

Publication Staff

Tim Russo, Ext. 305, trusso@vtruralwater.org

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News Leaks, Summer 2016
Clean Water Economy Gubernatorial Candidate Forum

On June 7, all five Gubernatorial Candidates—Peter Galbraith, Sue Minter, Matt Dunne, Bruce Lisman, and Phil Scott—participated in a 2-hour forum focused on water issues in Vermont. The event was led with LCI and VRWA was one of the event sponsors. It was a productive set of discussions and it was very informative to hear the positions of all candidates on various water issues impacting Vermont at this time. An audio recording of the forum is available at this link:
http://www.mychamplain.net/GubernatorialForum

Vermont Environmental Consortium conducts 5th annual Water Quality Conference at VTC

On June 8, professionals from the Vermont water sector came together to exchange information on water quality. A series of roundtable discussions covered wastewater, storm water – roads and developed lands, agriculture, and resiliency. The presentations showcased and highlighted the many different innovative approaches being implemented in the state at this time on projects leading to improved water quality. Various presentations can be accessed at this link:
http://www.vectogether.org/vec-expo/past-presentations/

EPA Region 1 releases final phosphorus limits for Vermont segments of Lake Champlain

On June 17, 2016 EPA Region 1 released the long awaited TMDLs for Lake Champlain. A press release and details associated can be accessed at this link:
This column details unique solutions to difficult problems that operation specialists come up with every day. Below are several cases of them solving large problems, saving money and making life at their second homes (treatment plants) a little easier.

- We have a lot of wastewater systems using push cameras for sewer line inspections now and a useful method is to insert the camera head into a length (or two) of pvc electrical conduit with a 90 degree sweep at the end. Just insert the sweep into the line to be inspected and push the cable! This allows the camera operator to avoid confined space entries into manholes. Another helpful tool for push cameras is some type of wheeled pipe centering device, several types are available for purchase. These units keep the camera head out of water/debris in the bottom of the pipe, they also allow for longer inspection distances. Finally, if your system uses the Vermont League of Cities and Towns for insurance purposes, they have grants available for a variety of equipment including sewer cameras.

- Daryl Fithian, of Simon Operating Services and his coworkers at the Richford WWTF have been very busy! They made major improvements to the phosphorous removal and sludge handling processes totally in house. The pictures below show the new sludge thickening tank with internal decant pump, polymer injection system and winch assembly. They are also in the process of experimenting with a new phosphorous removal chemical that has not been used in New England before. If you have a lagoon and phosphorus limits, a call to Daryl might be a good idea!
I could do a year’s worth of Yankee Ingenuity stories on the Purpose Energy Digester Facility at Magic Hat Brewery—these operators are always pushing the envelope to make their digester operate better and make more electricity. When you enter their facility, the first thing that catches your eye is a very big flat screen TV that shows their operations in SCADA pictures. But once I got by that impressive display, it’s the smaller things that I started to notice. Every piece of equipment (pumps, motors, flow charts, tanks) has a bar code sticker that is part of their cloud based maintenance program. The operators can scan a piece of equipment’s bar code with their cell phones and access everything about it; run times, history, maintenance records, vendor info, open work orders, safety instructions, ppe required, etc… If they find a problem with equipment they can even generate a work order on the spot to be shared with other operators. This maintenance program is very affordable only requiring a monthly fee instead of purchasing a maintenance program for thousands of dollars.

If you have interesting ideas that you want to share, send them to me; we will include them in News Leaks in the future. I also encourage you to tour other facilities and share ideas; you will find that networking with other operators can be very beneficial. Several organizations can also help;VTWARN, GMWEA, VT Watershed Mgmt. and of course, VRWA!
The purpose of the Vermont Natural Resources Atlas is to provide geographic information about environmental features and sites that the Vermont Agency of Natural Resources (ANR) manages, monitors, permits, or regulates. In addition to standard map navigation tools, the site allows you to link from sites to documents where available, generate reports, export search results, import data, search, measure, mark-up, query map features, and print PDF maps. ANR has been busy making the Atlas the best online mapping tool for Vermont's natural resources. With over 150 map layers available to make your custom map from across all of our departments and other state and municipal agencies, you can use the Atlas to create a robust map for any purpose.

Many of the mapping layers available in the NR Atlas can be useful to drinking water and wastewater system personnel. Layers can be added to base maps such as topographic maps and aerial imagery. These layers are found mostly in the Drinking Water and Groundwater Protection folder and Watershed Protection folder and include locations of wastewater facilities, sewer service areas, small MS4 areas, and stormwater infrastructure. Stormwater infrastructure is incomplete but may show known CSO outfalls, catchbasins, sanitary lines, and many other stormwater related features.

In regards to drinking water and source protection planning, there are many mapping resources available on the Atlas than can be very helpful in drafting or updating a plan.
Both groundwater and surface water source protection areas (SPAs) are shown in addition to locations of all public water sources. Potential sources of contamination (PSOC) layers could include many in the Waste Management category such as hazardous waste sites, closed landfills, salvage yards, and working underground storage tanks. Other related PSOC layers could be stormwater permits, Act 250 permits, roads, railroads, and impaired waters. The parcel layer is incomplete but can be very useful for helping to figure out landowners within a source protection area. Other layers that could be added to a SPA are conserved lands, contours, and bedrock or surficial geology.

If you are involved with municipal planning, perhaps thinking about good locations for a future public water supply, the Atlas is a great place to start. Data points are available from the groundwater interference study including both drilled bedrock and gravel wells with interference reported. Groundwater that has been reclassified as Class II (Designated Drinking Water) and Class IV (Contaminated) is also mapped. The newest layer is Ground Water Withdrawals that are projected for 2020 and shown by census block. This layer is based on an extensive study completed by USGS to help identify areas where projected growth in Vermont from 2005 to 2020 might affect groundwater availability.

Once you have a base map created, options are available to add GPS data, draw lines and shapes, and to measure various features. The map can then be exported or printed with a title and other notes. If you haven’t checked out the Vermont NR Atlas recently, I encourage you to do so today! This is the link to the newer HTML5 version: http://anrmaps.vermont.gov/websites/anra5/
An older version (Silverlight Viewer) is also available: http://anrmaps.vermont.gov/websites/anra/
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**WHATEVER YOU NEED, WHENEVER YOU NEED IT, NO MATTER WHAT.**
As I discussed in the class, starting an asset management plan from scratch seems like a daunting task. However, any progress made in attempting to move a utility forward is positive, and the utility, community it serves, and the environment all stand to benefit from any improvements.

All systems, no matter the size or type, can benefit from starting asset management planning, or continuing the process if a plan is already in place. If just starting out, start simple, such as an inventory of parts, equipment, etc. You may not be able to identify all the components of your system right away, but gaining any knowledge, and documenting that information, is better than having no data on your system at all. I have talked with some systems and operators who have had new employees, interns, or students (often under the direction of a veteran employee) be the responsible person for creating the asset inventory—what a great way to both create an asset inventory while providing training to a new or potential employee. This is just one of several examples of managing assets that I have seen or heard of from visiting systems throughout the state.

As previously mentioned, creation of an asset management system can seem like a difficult task, especially when facing the day-to-day challenges of everyday operations. Fortunately, there are resources and a great deal of information available from agencies and organizations such as EPA, USDA, and NRWA and VRWA (just to name a few), to aid utilities in managing assets. Managing the assets of your system is necessary in order to operate a sustainable utility!

It was very touching to hear Andy comment on how much the award meant to him given he was a very good friend with Tony. Not often that Andy is left speechless but he was no doubt humbled and honored to receive the award. At the official business meeting Ed Savage reported the 2015 audit was recently completed and the results were favorable and there were no findings.

Thanks to all our sponsors including: Platinum level – E.J. Prescott, Ferguson Waterworks, HD Supply, and Vermont Environmental Consortium. Gold sponsors – DN Tanks and Ti-SALES. Silver Sponsors—Associated Electro-Mechanics, Clean Waters, INC., Ford Meter Box, and Presby Environmental. All at VRWA look forward to the 2017 event and we are confirmed for Lake Morey again next year - please mark your calendars for May 3 & 4, 2017.
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