Yankee Ingenuity
Continuing Stories of System Innovations
Wayne Graham, Wastewater Specialist

For years, water and wastewater operators have been required to do more with less, which allowed operators strong in common sense to thrive in their fields. I have seen many innovative ideas and even a few patent worthy inventions in my travels around New England facilities. To set the record straight, I am not talking about duct tape and bailing twine fixes. I see well thought-out and designed solutions to everyday problems. Below are several cases of operators solving large problems, saving money and making life at their second homes (treatment plants) a little easier.

Ken Lacasse, the operator at the Hardwick lagoon facility, has lots of aerators to deal with. Working from the back of a row boat to lift and service these heavy aerators created a safety issue, not to mention being very time consuming. Ken and I spent a year or so trying to come up with an inexpensive design of a motorized work platform. Leave it to Ken and Yankee Ingenuity to find the perfect solution; he found a small pontoon boat for very little money. The pontoon boat was soon outfitted with a battery powered motor and an electric winching system to raise the aerators up to perform maintenance on them. Now 2 people can work side by side servicing aerators.

The Town of Glover had issues with their pump station pumps clogging. An affordable fix was to add a very simple and effective basket system to keep larger solids out of the wet wells. This system was manufactured by Halliday Company and was very reasonably priced. The operator appreciates not getting alarm calls in the middle of the night!

Several Northeast Kingdom plants are using really nice hook gauges to accurately perform flow calibration checks on their effluent meters. A local machine shop builds them to the facility specifications. Looks like the days of lying down on grating trying to keep a square level and getting a head reading are over! These were just a few of the unique and sometimes very simple solutions to difficult problems that operators come up with everyday. If you have interesting solutions that you want to share, send them to me, we will include them in this newsletter 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: VT WARN, GMWEA, VT Wastewater Management Division and of course, VRWA!

(Continued on page 7)
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.

Board of Directors
Ed Savage, Town of West Rutland
Richard Desautels, Colchester FD#2
Rod Lamothe, Castleton Meadows
Paul Carroccio, Piper Ridge Homeowners Association
Harry Hinrichsen, Town of Barre

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
Phil Acebo, Ext. 337, pacebo@vtruralwater.org

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

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

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

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

News Leaks is the official publication of VRWA. It is published quarterly for distribution to operators, owners, managers and board members of water and wastewater systems in Vermont, as well as to association members, water and wastewater service providers, regulators, and other friends. Opinions expressed in the newsletter do not necessarily reflect the views and policies of VRWA.

For advertising rates and submission criteria, please call 800-556-3792. We reserve the right to reject advertising deemed unsuitable. Acceptance of advertising does not constitute endorsement of the advertiser’s products and services, nor do we make any claims or guarantees as to the accuracy or validity of the advertiser’s offer. ©2012 Vermont Rural Water Association.

Letters

Wilmington Wastewater Treatment Plant
P.O. Box 217 Wilmington, VT 05363
Phone:(802) 464-3852 Fax:(802) 464-8348 e-mail wilmington_wastewater@myfairpoint.net

December 23, 2011
Shaun Fielder Executive Director
Vermont Rural Water Association
20 Susie Wilson Road, Suite B
Essex Junction, VT 05452-2827

Dear Shaun,

The Town of Wilmington Wastewater Treatment Plant would like to send our sincere appreciation for the assistance that VRWA provided to us during tropical storm Irene. We would like to especially thank Wayne Graham and Aaron Perez for somehow finding a way to make it to Wilmington to assist us in getting our infrastructure back in service. Wayne was incredibly helpful in getting a vactor truck to Town to cleanout several manholes and sewer mains that were filled with gravel, stones and debris. Wayne spent nearly two days here working with us making our job of getting water and sewer up and running again much, much easier.

Wayne’s knowledge, experience and helpful hand both during Irene and whenever asked is such a valuable asset to us and for that we are very thankful and appreciative.

Sincerely,

John Lazelle, Chief Operator
Wilmington Wastewater Treatment Plant
Utility Management Certification
VRWA Circuit Riders Aaron Perez, Wayne Graham and Brent Desranleau each received their Utility Management Certification. This was accomplished through National Rural Water's Water University Program.

VRWA is planning to offer training on the Utility Management Certification later this year. Please see our future training calendars or visit our website for pertinent updates.

Environmental Merit Award
VRWA was part of a group recognized by EPA Region 1 for response efforts following Tropical Storm Irene. A portion of the award narrative as presented in Boston in April: “…… Despite the communication challenges, the staff of VT DEC persevered, finding ways to contact and assist the public water supplies impacted by the storm. Staff from the Drinking Water Program used home computers and personal cell phones, often calling from ad-hoc meetings in muddy parking lots. With key and timely assistance from Vermont Rural Water Association, the staff reached out to over a hundred water systems in the impacted areas……”

2011 Annual Report
The 2011 VRWA Annual Report is now available. Use the following link to request your copy: http://www.vtruralwater.org/about/report.php

Board Elections
VRWA directors Rod Lamothe and Harry Hinrichsen have been re-elected to three-year terms. Congratulations and thanks to them both.

Annual Conference
On May 2 & 3, we hosted our Annual Conference at the Lake Morey Resort in Fairlee. Nearly 200 individuals attended for another successful event.

Thanks to all who participated in the 11th annual golf tournament on Wednesday and congratulations to the tournament winners: The Ti-Sales team and Pat Gordon! Thursday was full of great training sessions and a busy vendor exhibit area. During lunch, we were honored to present Andre Rouleau (Graniteville) as this year’s Tony Torchia Award winner. Andre was recognized for his dedication to the profession.

We recognized 94 members who celebrated membership anniversaries. Special thanks to founding member and long-time supporter Gilles Blais (Derby) for his many years of service to the rural water community. Also thank you to all of this year’s sponsors for making the event a success:

Platinum Sponsor
E.J. Prescott

Gold Sponsors
Ferguson Waterworks
Leggette, Brashears & Graham, Inc.
Natgun
Ti-SALES

Silver Sponsors
Phelps Engineering
Weston & Sampson

Bronze Sponsors
Associated Electro-Mechanics
ECS Consulting
Ford Meter Box

Please note that we will be returning to the Lake Morey Resort May 1st and 2nd, 2013 for the next Annual Conference and Trade Show.
Sustainability and asset management are key solutions to the financial puzzle facing the U.S. municipal water market, but new thinking is needed to boost investment in water infrastructure, according to a new report issued in mid-June.

Black & Veatch's first "Strategic Directions in the U.S. Water Utility Industry Report" was released during ACE12 in Dallas, TX. The report identifies top challenges in the water and wastewater industry and is based on a comprehensive survey of U.S. utility leaders.

"First and foremost the survey confirms that financial issues, and all issues that drive investment or costs, are front and center with water utility leaders," according to Cindy Wallis-Lage, President of Black & Veatch's global water business. "When asked to rate the importance of major industry issues, survey respondents considered aging water and sewer infrastructure as the most important issue facing our industry, with managing capital costs, funding or availability of capital, and energy costs following closely behind."

Key findings from the water report include:

- More than 75 percent of respondents have taken measures to reduce energy consumption within their utility operations. Electricity used to produce water can account for as much as 30 percent of water utility budgets.
- More than half of survey respondents stated they are implementing asset management improvement programs.
- 85 percent of respondents said average water consumers have little-to-no understanding of the gap between rates paid and the cost of providing water and wastewater services.
- Nearly half of utility leaders believe that customers will probably be willing to pay higher rates needed to pay for capital improvements.
- Despite funding concerns, the majority of utilities are not considering other forms of financing such as public-private partnerships.

"Overcoming today's challenges requires a significant change in how utilities develop and implement strategic and capital plans," said John Chevrette, President of Black & Veatch's management consulting division. "At the same time, consumers must better understand that water and wastewater services are not free or low cost. Rather, these are services that must be paid for in an equitable and responsible manner."
Even though aging infrastructure and funding were the top issues facing the water industry, when asked how specific issues are driving ongoing infrastructure investments, survey respondents indicated that regulatory compliance was by far the strongest driver, with cost containment emerging as the next strongest factor. In recent years, wastewater utilities have been hardest hit by regulation, due to increased wet weather, nutrient reduction and disinfection regulations.

While many utilities have relied on growth and use-based revenue models in the past, that may not be possible going forward. The survey found that growth has slowed for much of the water industry, with the majority of respondents expecting growth of less than 2 percent per year. Expected system growth varied by utility type and area of the country. For example, more utilities in the Northeast expect no change in system size, while some areas have experienced significant population loss.

In an interview at ACE12, Wallis-Lage said water utilities need to broaden their thinking as they search for creative solutions for funding. Those may include tapping into public private partnerships, other private funding sources, and increasing rates to pay for infrastructure improvements.

"I think the public is more than willing to pay for those increases when they understand why they are needed," she said. "We haven't necessarily sent that message out there with clarity and purpose to help the end users, whether that's businesses or private households, understand the part they need to play and why they need to be part of the solution as we identify funding."
**Public Water System Construction Applications**
- Construction Permits: $375 per application plus $0.0055 per gallon of design capacity; $150 for amendments
- Treatment Plant applications: $0.003 per gallon of design capacity; $150 for amendments

**Public Water System Source Permit Applications**
- Community: $945 per source; $150 for amendments
- Non-Transient Non-Community: $770 per source; $150 for amendments
- Transient Non-community: $385 per source; $150 for amendments

**Public Water System Operating Fees**
- Community: $0.0439 per 1,000 gallons produced annually
- Non-Transient Non-Community: $0.0355 per 1,000 gallons of water produced annually or $70, whichever is greater
- Transient Non-community: $50 annually
- Bottled Water: $1,390 per permitted facility annually; $150 for amendments

**Public Water System Operator Certificates**
- Class 1: $45 for initial certificate or renewal
- All other classes: $80 for initial certificate or renewal

**Well Driller License**
- Well Driller: $140 for initial application or renewal
- $140 fee shall be paid on an annual basis for the duration of the license

**Large Groundwater Withdrawal**
- For facilities permitted to withdraw groundwater pursuant to 10 V.S.A. § 1418: $2,300.00 annually per facility.

*Please call the Drinking Water and Groundwater Protection Division at (800) 823-6500 or (802) 241-3400 if you have any questions.*

---

**For the genuine article, always insist on EJP.**

Plenty of impostors have tried to imitate EJP— but not one has matched our commitment to service 24/7/365, or our track record of doing whatever it takes to serve our customers.

No one else has made the investment in the technology, inventory and infrastructure needed to serve today’s market. And no one has assembled a team with more integrity and expertise than TEAM EJP.

There’s no substitute for genuine EJP.

**WATER, SEWER, DRAIN & STORMWATER SOLUTIONS**

---

**Drinking Water and Groundwater Protection Division**

Updated Fees · Effective July 1, 2012

The Vermont State Legislature amended the permits and certificates in accordance with Act Number 161 relating to Executive Branch Fees (House Bill H.0769).
“We are pleased to announce that we have secured funding from the Vermont Department of Labor to support our water operator training initiatives...”

“Good News on Rural Water Programs ” continued from page 1

areas we can provide fee service support to your system. Please see our website for additional details. Given the loss of several programs over this past year, we have implemented the fee approach to insure adequate revenue for our association. Moving forward, we anticipate continuing changes and implementation of additional services to insure our continued stability and capability to meet our mission.

Our 2012 Conference was another successful event with the best turnout experienced. We enjoyed a great day of golf and had an amazing set of trainings and a great vendor display area. It is always good to visit with those we consider close partners including all system personnel, company representatives showing their products and services and of course our partners including representatives from EPA Region 1, Vermont USDA, Vermont Department of Environmental Conservation, and other state and federal offices. To all who took extra time out of their schedules to be involved with trainings, thanks.

I do need to apologize to anyone who may have been offended during the business luncheon entertainment. We didn’t take steps to review our comedian’s act in advance of the performance and unfortunately he pushed the envelope a bit too far. This did make a number of attendees uncomfortable. Several expressed their displeasure immediately following and personal apologies have been delivered. While we can’t go back in time to change the performance, we will learn from this situation and be going a different direction for future events to insure a more professional approach. We are planning to head back to Lake Morey next year on May 1st and 2nd, so please mark your calendars.

Some additional positive news was recently received in regards to recognition for VRWA. On behalf of the association, I was lucky enough to accept an Environmental Award in April from EPA Region 1 for outstanding service efforts immediately following Tropical Storm Irene. This award is unique since it was presented to a group including Connecticut DPH - Drinking Water Section, Vermont DEC - Drinking Water and Groundwater Protection Division, and VRWA.

As noted in the award description, “Staff and managers of the Drinking Water Programs in Connecticut and Vermont, along with their partners, played an impressive role in responding to the aftermath of Tropical Storm Irene.” Stephen Perkins (EPA Region 1) presented the award to the group and noted, “This group effort to assist systems is public service at its best.” To all the VRWA team members, please know being recognized by EPA would not be possible without you and our success as an association continues because of your stellar work efforts; thank you.

Contact VRWA Executive Director Shaun Fielder at 802-660-4988 x315 or sfielder@vtruralwater.org

<table>
<thead>
<tr>
<th>Quality</th>
<th>On Tap!</th>
</tr>
</thead>
<tbody>
<tr>
<td>Our Commitment</td>
<td>Our Profession</td>
</tr>
</tbody>
</table>

Ti SALES
Delivers NO LEAD Products to you

Call your Account Manager Dave Harris at 802-236-0369
800-225-4616 www.tisales.com
Serving Vermont since 1963

News Leaks, Summer 2012