The Sunapee Wastewater Treatment Facility (WWTF) was originally constructed in 1974 and serves the sewerage populations of Sunapee and New London. After almost 40 years of service, many of the unit treatment processes and facilities were well beyond normal service life and required a high level of maintenance and manual oversight to maintain proper operations. The original facilities included rudimentary headworks (manual bar rack), oxidation ditches, secondary clarifiers, chlorine disinfection and sludge drying beds. Prior to the upgrade the operations staff had modified numerous systems:

- Replaced the original rotors with floating aspirating aerators and mixers
- Replaced gas chlorine system with liquid sodium hypochlorite and added sodium bisulfite dechlorination,
- Added polyaluminum chloride facilities for phosphorus treatment
- Added magnesium hydroxide facilities for supplemental alkalinity and pH adjustment
- Abandoned the sludge drying beds and experimented with geobag sludge dewatering (subsequently relying on liquid sludge disposal at the Concord WWTF)

The primary goals of the upgrade were to address equipment reliability issues, improve treatment efficiency, better position the facility to maintain compliance with current and future more stringent discharge permit requirements, reduce operational costs and provide an improved and safer work space for the staff. The upgrade included the following elements:

- New Process Building housing headworks, sludge dewatering and magnesium hydroxide systems
- Anaerobic selectors to control filaments and improve biological phosphorus uptake
- Covered rotor aerators and dissolved oxygen sensors to increase organic load capacity and reduce electrical costs
- Secondary clarifier equipment rehabilitation and scum handling facilities
- Return/waste sludge pumps
- Septage receiving
- Plant water system

(Continued on page 9)
Editor’s Words

We’re continuing the theme of changes in this edition of The Collector. We’ll probably continue this theme into the winter edition also. Recently, I met the parents of my daughter’s boyfriend (there’s a story!) and got to explain what I do for a living. Judging my audience, I was able to go beyond “I work for the City of Somersworth” and give an in-depth explanation of being part of a team that runs a WWTF and how different it is now from when I first began this journey. We used to have an obnoxiously loud alarm that didn’t give us any information about what the problem was. Now we get a call from that B*@%off who is the computer-voice of our SCADA system and can pull up the plant on our smart phones, see the problem and even make changes to fix the problem. Also, under the category of changes, you will notice that I have a new picture published next to these editor’s words so that you can recognize me and talk to me about newsletter stuff. The big change is no glasses. I have a contact lens in my right eye for distance vision and a contact lens in my left eye for close-up vision. It’s called mono-vision and I am in love love love with it! You can talk to me about that, but I’d rather talk about newsletter stuff.

Stephanie, Somersworth WWTF

Up Coming Events

<table>
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<tr>
<th>Event Date</th>
<th>Event Description</th>
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<tbody>
<tr>
<td>Oct. 7, 2014</td>
<td>NHWPCA Fall Meeting will be at the Sunapee WWTF with lunch at the Mount Sunapee Ski Resort.</td>
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<tr>
<td>Dec. 12, 2014</td>
<td>NHWPCA Winter Meeting will be at the Hampton WWTF with lunch at the Ashworth by the Sea.</td>
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<tr>
<td>Jan. 25-28, 2015</td>
<td>NEWEA 2015 Annual Conference &amp; Exhibit at the Boston Marriott Hotel, Copley Place, Boston, MA.</td>
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Special Thanks to this Issue’s Contributors


NEWSLETTER COMMITTEE

Stephanie Rochefort, Todd Gianotti, Mary Jane Meier, Steve Clifton, Gene Weeks, Kurt Robichaud, Ben Mosher & April Hyde. We welcome additional members. We are looking for meaningful articles for the Wastewater Operator in a timely fashion. Send submission articles for THE COLLECTOR to: Stephanie Rochefort via email at srochefort@somersworth.com.

Editor - Stephanie Rochefort - Layout & Design - Todd Gianotti

"THE COLLECTOR" is the Official Newsletter of the NHWPCA

For more information about the NHWPCA visit our website at www.nhwpca.org
NEWEA Executive Director Retires, Board Appoints New Executive Director

This past September, long time NEWEA Executive Director Elizabeth Cutone announced her retirement. Under her 24 years of leadership, Cutone guided NEWEA to become the premier Water Quality Member Association that it is today. Throughout her tenure, she placed a bold emphasis on volunteer support, member services, program expansion, broader technical reach and public outreach. Always present and driving her motivation was a commitment to improving water quality, elevating the value of water and promoting the significance of the water quality industry. Cutone also strived to enhance NEWEA’s relationships and bridge programs with other organizations that share the vision of a clean water environment for all. This is especially true with NEWEA’s affiliated state associations – like the New Hampshire Water Pollution Control Association.

In response to Cutone’s announcement, NEWEA’s President and Board of Directors engaged the services of an international executive search firm from which Mary Barry was selected as the new Executive Director, having the vision and experience necessary to lead NEWEA in advancing knowledge, innovation and sound public policy for the protection of the water environment and our quality of life.

Mary Barry

Mary Barry, having led marketing, strategy, partnering and communications programs for national and international environmental and engineering consulting firms based in New England, brings the understanding, experience and relationships necessary to deliver the vision and leadership required for the NEWEA Executive Director” said Brad Moore, NEWEA President. “She is a recognized leader in the New England environmental industry and is known for building partnerships.” Barry has a B.S. in Business Management and Marketing from the University of Massachusetts and an M.A. in Communications Management and Public Relations from Emerson College. She can be reached at mbarry@newea.org or 781-939-0908.

About NEWEA

NEWEA’s mission is to promote education and collaboration while advancing knowledge, innovation and sound public policy for the protection of the water environment and our quality of life.

News Release

For immediate release
Contact: Mary Barry, Executive Director
New England Water Environment Association
(P) 781.939.0908 | (F) 781.939.0907
Mbarry@newea.org | www.newea.org

David Chin retires from EPA New England

This past April, after 35 years of government service, David Chin retired from the Environmental Protection Agency. For anyone that had the pleasure of working with Dave, he will be sorely missed! He had a reputation for going above and beyond in all of his professional work, delivered a high quality product and was well known to work collaboratively with external partners to build skills, improve performance and achieve effective results.

Dave oversaw many drinking water and wastewater programs over the years and there are not enough pages in this article to list them all. Here are just some of the programs for which Dave will be forever remembered:
State & Tribal Assistance Grants (Congressional Earmark Program): Since 1992, the Congressional Earmark Grants Program awarded and manages over 3,000 water infrastructure earmark grants totaling over $5 billion. Dave served as the regional lead for this program and often went above and beyond his position requirements to provide direct hands-on assistance to municipalities and internal staff, guiding them through the very complex grant award and management process. Under Dave’s direction, Region 1 had the highest percentage nation-wide (98.5%) of funds that have been paid out from these grants resulting in the lowest percentage of unliquidated obligations (ULOs) in the country this year. Thanks to Dave’s efforts, Region 1 also ranked first in the nation this year in terms of grant closeout percentage for earmarks (83%). Attaining these high percentages was solely due to Dave’s tremendous skill, abilities and commitment to ensuring that the regional program performs its program management responsibilities at the highest possible level.

Wastewater Operator Training: Thanks to Dave’s innovation, creativity and persistence, he was able to secure much-needed additional funds for priority regional training projects this year. Throughout his career at EPA, Dave has been a passionate advocate for wastewater operator training opportunities and has taken personal responsibility to recognize successfully operated treatment plants. Although funding to support this work hasn’t been available to the region since 2007, Dave has worked collaboratively with each of the New England states to utilize remaining funds on active grants to address wastewater technical training needs annually. A few years ago he identified over $80,000 in available funding from three other Regions to award a grant for wastewater technical assistance and training. Dave’s creativity, innovation and problem-solving abilities resulted in securing much-needed funds from other sources to provide technical training in Region 1 that will benefit the region for years to come.

Operator and Maintenance (O&M) Excellence Awards: Up until 2007, EPA nationally recognized wastewater treatment plant operators through an annual excellence awards program that highlighted outstanding O&M programs at wastewater treatment facilities. Since the national program ended, Dave has continued this very visible recognition program at the regional level. Dave solicited regional nominations from the New England states this year and found a way to creatively recognize accomplishments without dedicated funding or significant program support. Dave works with regional staff to evaluate nominees and select annual recipients and coordinates an annual awards celebration. Dave’s personal dedication to creatively find ways to maintain valuable programs at the regional level is a trademark of his performance and the entire region benefits from his extra time and effort.

Youth in the Environment Program: Although Dave consistently provided mentoring and support for EPA staff, perhaps his most impressive commitment to building the future generations of environmentalists was his management of the Youth and Environment Program. Originally established in 1990, the Youth and the Environment Program introduced low income city youth to career opportunities in the wastewater treatment and environmental fields. The program lost annual funding many years ago, but that did not stop its presence in New England thanks to Dave’s efforts. Dave built a strong and productive partnership with NEIWPCC and the Lowell, MA wastewater treatment facility to promote environmental education and teach high school students the importance of protecting the environment in their own communities. The program provides participating high school students exposure to a wide range of environmental careers and an opportunity for high school students to better understand the environmental problems of their community and how technology can help solve these problems.

Dave has personally secured funding on an annual basis to keep the program operating, including managing the grant. Securing ever-diminishing discretionary funding for projects like this is a tremendous challenge, and thanks to his dedication, Dave has reached hundreds of students to build environmental awareness and interest in the youth of today. He supplements this limited funding by going over and above to arrange field trips each year to wastewater and drinking water treatment plants for interns and youth in order to make the experience as meaningful as possible to the participants. Similar to other instances where he has sought out other sources of funding for programs he is involved in, Dave single-handedly kept this program alive in the absence of any national funding.

Always demonstrating his enthusiasm and willingness to go the extra mile for others, Dave uses his own personal time to promote recognition of others. Dave was instrumental in the initiation of the concept to create an annual NEWWA award in memory of the late Jerry Healey, a former EPA Drinking Water Branch Chief. This award would be given to individuals that not only promoted the drinking water profession, but also enhanced the relationship between the regulated community and state/federal personnel to further the protection of water supplies and public health. Dave advocated for
Most everybody involved in anything related to Industrial Pretreatment in NH knows George Carlson. George has been the NHDES Industrial Pretreatment Program Supervisor for the last 23 years. George can laugh at the “Supervisor” part, because he’s been a one man program since he came onto the job in 1991. But that has suited George just fine. An engineer and independent-minded worker, George never used the lack of manpower as an excuse to not do the job needed to protect the municipal wastewater treatment plants and the waters into which the treated industrial waters eventually get discharged.

George began his professional journey by getting his BSCE from Clarkson University in 1964 and his MSCE from the University of Maine (Orono) in 1966. His first professional job was as a sanitary/design engineer for Metcalf and Eddy in Boston, MA and he has some colorful stories to tell of life in the City and riding a motorcycle to work. George was involved in the design of some pretty large wastewater treatment plants, including the 50 mgd plant in Rockaway, NY and the 150 mgd plant in Pittsburg, PA.

George subsequently made his way to New Hampshire and worked for several engineering firms in the 70s and early 80s. He talks about his first position with a firm in the state when his office was situated at the Ammon Terminal at Grenier Field Airport in Manchester, a distant memory to the Manchester-Boston Regional Airport that is the hub for air travel today. He also talks about the days when he worked on the Portsmouth Naval Ship Yard industrial waste treatment plant, where they treated every waste except nuclear (pronounced “new-kew-ler”). As George tells it, they were going to have a direct discharge to the ocean, but after consideration of the NPDES requirements they decided to discharge to the Kittery sewer and POTW. In a later position with a firm, George was project manager for construction of the original activated sludge treatment plant at Wolfeboro NH (which is still in use). George came to the state for three years where he worked in the subsurface bureau, but returned to engineering/consulting to run an office as VP and General Manager. George was involved with various design/build projects for wastewater treatment facilities in New Hampshire and Massachusetts.

With 25 years of experience after schooling, George returned to DES for good in 1991. George followed Dan Allen and has handled the industrial pretreatment program ever since. He has focused on educating, assisting and regulating indirect dischargers and municipal industrial pretreatment programs. George developed a close relationship with the regulated community, some of whom have been working in industrial wastewater programs for as long as George has. George saw his job (which didn’t occur too often) he wouldn’t rest until he found someone that did get you that answer. One of Dave’s major qualities was helping others and being a mentor to so many EPA staff over the years. He will always be remembered for taking the initiative to schedule a lunch or breakfast whenever there was a new staff member in the unit and always made people feel comfortable around him. We wish you luck in your retirement Dave! Enjoy your time with your lovely wife, Judy and children, Jessica, Matt and Michelle.

Long time DES employee and NHWPCA member retires after 26 years of dedicated State Service

And he leaves behind big shoes to fill

by Stergios Spanos, NH DES

Most everybody involved in anything related to Industrial Pretreatment in NH knows George Carlson. George has been the NHDES Industrial Pretreatment Program Supervisor for the last 23 years. George can laugh at the “Supervisor” part, because he’s been a one man program since he came onto the job in 1991. But that has suited George just fine. An engineer and independent-minded worker, George never used the lack of manpower as an excuse to not do the job needed to protect the municipal wastewater treatment plants and the waters into which the treated industrial waters eventually get discharged.

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Lessons That Can Be Learned From a NEAR MISS
by Tietjen Hynes – NHWPCA Safety Committee

If you have been in this business long enough, you have most likely been involved in or observed at least one safety-related NEAR MISS. These situations are normally not reported and the only value is that the operator hopefully will not make the same mistake again. The purpose of this article is to share with you a NEAR MISS in the hope that, by passing this information along, it will someday prevent an actual accident.

The Situation:
Process flows had dropped and pressures had increased in a pressurized influent line. This line contained a plate and frame heat exchanger, which sometimes clogged, so the operator went right to work on removing the blockage. The operator consulted the Lock-Out Tag-Out sheet for cleaning the heat exchanger, locked out the appropriate valves, and opened the heat exchanger. In this case, the heat exchanger was not clogged, so the operator proceeded to pull apart the line leading up to the heat exchanger piece by piece in an effort to locate the suspected blockage. Having no luck in locating a blockage in the line, the frustrated operators removed the valve upstream of heat exchanger and discovered a large foreign item wedged in it. The foreign item, which turned out to be part of a check valve, was successfully removed.

However, before the valve and piping could be reassembled, the pump on the other side of the valve turned on and covered the operators with large volumes of wastewater. The pump was eventually turned off and locked/tagged out. The operators were sent to clean up themselves and the huge mess they had created. No operators were injured or became ill, but one had to climb down the ladder while getting showered with hot influent and all were exposed to raw wastewater that could’ve infected them with an infectious disease.

What Went Wrong?
Proper lock-out procedures were undertaken for the original task, which was cleaning the heat exchanger. But the valve that had been previously and properly locked/tagged, was actually removed during the course of the work. When the scope of the task changed, the operators did not reconsider their lockout situation.

Corrective Action:
Lock-out/Tag-out checklists are often in place for routine maintenance tasks, but should only be considered a starting point. Especially when removing valves or blockages, or when moving from one task to another, operators need to always consider (and reconsider) what might be upstream of where they are working.

Have you or your staff had a Near Miss? To help get the word out so that others may be safe, please contact Patty Passariello (passariellop@wseinc.com or 978-532-1900) to tell us about it. All reports are confidential.
How many operators does it take to start a composite sampler? Sounds like the start of a bad joke. Nope, just the start of a bad day! On a recent hot July day here in Somersworth, the answer was three of us. Dressed in our municipal worker uniforms of jeans and navy blue T-shirts (with the sleeves rolled, did I mention it was HOT?) we marched up to the head of the plant to do battle with the influent composite sampler.

What this sampler was doing wrong was not sampling. Normally, this would be an easy fix – just change the pump tubing. Well, the pump tubing had just been changed the week before. In desperation, we changed it again. Then we watched to see what would happen when a sample was attempted. Now we were getting a ridiculously large sample. This seemed like good progress, so I tried re-programming to get an appropriate sample size. Since there were three of us there to spread out and watch this sample being collected, it was noted that the intake tubing was not flushing clean between samples. Upon closer inspection, we found STUFF in the intake tubing acting like a check-valve to let sample in but not out.

So, we got to work cleaning the STUFF out of the sampling line. Then I realized that we were being stupid because I had purchased 300 feet of sampling line so we may as well just replace the whole line and intake strainer, you think? So with everything new, I programmed and collected a 140 ml sample. Just to double-check, we ran it again and collected 90 mls. Then 220 mls. Then 240 mls. Close enough, time to start the thing and see what happens!

The story goes on and on but I won’t bore you readers. The conclusion is that it’s a new fiscal year and I had budgeted for a new composite sampler so I ordered it! Of course, it’s on backorder so we continue to fight with the old sampler to get our permit required minimum frequency of two influent composite samples each month.

There really are good reasons to spend so much time obsessing about composite samples. First of all, it’s a requirement of our NPDES permit. Enough said, really. But there is the old adage that the results of any testing method can be no better than the sample on which it is performed. These samples and these results allow us to run our plants and to demonstrate how well we’re running our plants. It sure does feel good to record big numbers coming into the plant and single digit numbers going into the river!

What we’re obsessing about is obtaining a representative and defensible composite sample. By representative, I mean a sample that is the appropriate volume for the tests that I need to do. I don’t need a lot of influent sample to run a BOD. I need more effluent sample, but not so much that the bottle is too heavy to carry. We all know that the sample should be collected mid-stream so that we don’t collect stuff from the bottom of the channel or stuff that’s floating. We need to make sure that our intake strainer remains clear so that we’re not filtering the sample. The sample needs to be a 24-hour composite, so the sampler can’t shut off in the middle of the night.

In addition, my defensible sample needs to meet the language in my permit. The permit language is simply a minimum of eight samples collected proportionally to flow over 24 hours. It’s really easy to obsess over the 24 hour part of the definition. Is it okay if the sample is collected after 23 hours and 50 minutes? What about 24 hours and 12 minutes? The answer is YES – the definition of 24 hours is not that picky!
Increased salaries? The elimination of state reciprocation? Those are just two reasons the wastewater industry should consider a national certification.

In North America, water, wastewater, and distribution and collections systems do not have a national certification program. In some industries — including teaching, nursing, therapy disciplines and interpreting — a national certification has been the norm for years. Should the wastewater industry be standardized under a federal requirement? Would a national certification program serve the greater good of the industry in the future?

The Current Certification System

Under the current wastewater certification system, each state creates criteria to maintain compliance with FRL-6230-8 found in the Federal Register Volume 64 No. 24 Feb. 5, 1999. The ruling is specific to drinking water operator certification, but wastewater certification has also been adopted under this ruling. States were given control over items such as:

- The type of exam that should be given (oral or written)
- The type of operator training, which the EPA evaluates annually
- A fixed renewal cycle term not to exceed 3 years
- Training requirements for certification renewal

That said, state guidelines must follow the operator certification guidelines outlined by Section II of the Operator Certification Guideline.

Reciprocation is an issue that goes hand-in-hand with a national certification program. Reciprocation means an operator who holds a valid license from one state can get credit for that established license in another state. Therefore, the operator only has to apply for reciprocity with the new state. States such as Indiana and Kentucky currently reciprocate with other states, while states such as Florida do not. An operator who wants to move to Florida and operate a facility must meet all of that state’s requirements as a new operator. Though the ex-
As a means to get things done and done right. He was a source for information and if he didn’t know the answer, he said so, and committed to find an answer. This is a philosophy that he is passing on to Alex Ras
torguyeff, his successor.

George is retiring one full month before his wife Carol. In his own words, he’s not sure that’s enough time, but that’s how it is. The two plan to west to see the country. Their western destinations include Montana and Wyoming. Sounds to me like two states with modest industrial activity. No mention of California. They also plan to go to the Grand Ole Opry in Nashville Tennessee, where their appreciation of country music will be satiated. George will keep himself busy with boating and pursuing his interest in antique cars and tractors… though Carol may curb his desire for antique purchases now that they are retired. If that’s not enough they also have 13 grandchildren to keep them busy and out of trouble. Sounds like a lot of opportunity for boat rides. Enjoy your retirement, George, with good health and peace of mind. You’ve earned it!

**Why Do We Need a National Certification Program?**

A national certification program would give the wastewater treatment industry a much needed image boost and add professional credentialing to a highly technical industry. In an August 2013 article in the AW- WA’s Opflo magazine, the authors declared “operators also enjoyed comparatively less earning power than other professions, largely due to the fact that the cost of their services are priced much lower then they’re worth.” The article went on to introduce a Professional Operator (PO) designation much like engineers earn a Professional Engineering (PE) designation.

In addition to a PO designation, a national certification would eliminate the system of state reciprocity. This certification should not be mandated, but serve as an option for operators who might want to keep options open. Operators who must move will have the assurance they can apply for a job without having to take a drastic pay cut while obtaining a new license.

Lastly, a national certification program would include uniform training criteria as developed by the EPA, a national operator association or other entities such as the Association Boards of Certification. ABC has an established voluntary, international operator certification program and has developed model standards of operator certification that provide a framework and benchmark for operator evaluation.

**How Can We Create a National Certification Program?**

The creation of a national certification program has to come from the inside out, meaning the change must be demanded by operators, municipalities that are struggling to hire qualified operators, and states that are willing to divide the piece of the certification fee pie. The industry has widely established the Sacramento State Course as a standard for drinking water and wastewater certification, so course training doesn’t have to change from the established curriculum. However, in addition to these courses, criteria should be set to determine an operator’s knowledge on specialized systems. Imagine having a national certification with a concentration or endorsement for UV Disinfection, Advanced Waste Treatment or Biological Nutrient Removal. With an endorsement addition to a national certification, a hiring municipality can rest assured a candidate is qualified for a particular system.

States can administer the test or use an online program. CEU requirements would be consistent with the law — not more than three years — but that training will be as its current framework within the states. A PO would have to meet ABC program requirements, but each state would have to formally recognize the PO designation.

The future of operations would change forever with a national certification program. And who knows? It could lead to an international program where global water and wastewater communities share talent.

**Sheldon Primus is a Class A licensed wastewater operator with more than 18 years of industry experience. He is a Certified Occupational Safety Specialist, authorized OSHA outreach instructor, and holds a master’s degrees in public administration with a concentration in environmental policies. He has held positions as a laboratory operator, chief operator, plant superintendent, safety and compliance officer, and industrial pretreatment coordinator.**

Primus is CEO of Utility Compliance Inc. based in Port St. Lucie, Fla., which helps utilities in industrial pretreatment and risk management program compliance, water and wastewater CEU training, as well as occupational safety program development and OSHA outreach training for general industry and construction. He is also an online adjunct instructor for the Environmental Science Department at Florida Gateway College. He can be reached at sheldon@utilitycompliance.net or 888/398-0120.
New Hampshire Department of Environmental Services (NHDES) Drinking Water and Groundwater Bureau (DWGB) and Wastewater Engineering Bureau (WWEB) realize the real value behind asset management (AM) and the importance of having an AM Program. To help communities with AM we are working hard to improve the resources available to New Hampshire water and wastewater systems.

As you are likely aware, the nation’s water infrastructure is in extremely poor condition and changes are needed to correct this problem. A cultural change is needed among all individuals who are closely involved with water infrastructure management, including operators, owners, system decision makers and regulators. The culture we need is one that is proactive rather than reactive to help with the task of overturning this crisis and bringing the water infrastructure back up to the standards that the public expects and deserves. A large part of this cultural change will involve public education and a shift in public perception of water infrastructure. We can no longer be the “out of sight, out of mind” infrastructure!

Please check out the new Drinking Water and Wastewater AM Web Page. On this website you will find tools, forms, publications and other materials to either help communities develop an AM program or to keep AM programs up to date. Please visit the NHDES website at http://des.nh.gov/organization/divisions/water/asset-management.htm for more information.

To encourage communities to get moving on AM programs, both WWEB and DWGB have funding incentive programs. DWGB is providing AM and Financial Planning Grants for the third year in a row. DWGB is currently accepting applications for the next AM grant round. Applications are due by November 28, 2014 and are available on the AM webpage (link above).

Also, for the second year, WWEB is providing Clean Water State Revolving Fund (CWSRF) principal forgiveness for AM program development. For wastewater systems, if a municipality has a project on the 2013 or 2014 CWSRF project priority list, WWEB will provide principal forgiveness if your community commits to developing or has already developed an AM program that meets the requirements included on the AM webpage. NHDES hopes that water and wastewater systems will use these funding opportunities as a springboard to jump-start their AM programs or as a way to continue AM implementation for more sustainable systems.

To further assist communities in AM program development, NHDES will be providing several workshops during which the recipients of AM grants and others will share stories of their experiences, successes and challenges encountered while developing their AM programs. The first workshop is scheduled for Oct. 23rd 2014 at the NHDES offices at 29 Hazen Drive in Concord. The agenda for this workshop includes presentations from communities that have already developed their AM programs. The workshop agenda and registration form are available on the AM website. NHDES will use feedback from this workshop as a springboard for developing the next several AM workshops so join us and bring your ideas and questions with you.

Feel free to contact us to talk about AM or if you are looking for help on how to get started with developing an AM program. For drinking water systems, contact Luis Adorno at 603-271-2472 or at luisadorno@desnh.go. For wastewater systems, contact Sharon Rivard at 603-271-2508 or at Sharon.rivard@desnh.go.
- Yard pump station
- Sludge storage tank aeration
- Centrifuge dewatering system – dewatered sludge to be transported to the Claremont WWTF for composting
- Larger piping to increase peak hydraulic capacity
- SCADA system
- Emergency power diesel generator
- Renovation of existing Operations Building

The project was jointly funded by the Towns of Sunapee and New London. Each Town relied on different sources of funding. Sunapee obtained a 31% grant from USDA Rural Development and financed the remainder with low interest USDA loan and local reserves. New London received an SRF loan with a 25% capitalization grant. The total project capital cost was $8.5 million. The project is being constructed by Penta Corporation and is scheduled to be complete at the end of September. Due to relatively few unexpected change orders on the project, there were adequate contingency funds available to add a new Chemical Building to house sodium hypochlorite, sodium bisulfite and PAC (previously housed in portable wood frame sheds).

OWNER:
Sunapee Water and Sewer Commission
23 Edgemont Road Sunapee, NH 03782

ENGINEER:
Wright-Pierce
230 Commerce Way, Suite 302 Portsmouth, NH 03801

CONTRACTOR:
Penta Corporation
1253 Whittier Highway Moultonboro, NH 03254
Association Name Change Update by John Adie

There will be a ballot mailed out with membership renewals. Two items will be on the ballot for membership voting. The first is the name change from NHWP-CA to NHWEA. The other item will be to change our bylaws to allow us to vote at the Annual Winter Meeting when a vote is required by a majority of our members. The Annual Winter Meeting is by far the most attended meeting year in and year out. The Annual Winter Meeting is a good time and venue to vote on association changing issues / items.

The NHWPCA would like to thank the following sponsors of the Summer Meeting aboard the M/S Mt. Washington on June 13, 2014:

- A/D Instruments
- Flow Assessment Services
- Resource Management, Inc.
- Underwood Engineers
- Water Industries, Inc.
- Wright-Pierce

The Activities Committee is looking for 3-4 volunteers to join the committee and to participate at the 2015 Summer Meeting. Please contact Mike Theriault at mike.theriault@wright-pierce.com or 603-606-4435 if interested.

A review of the WW Operator Database reveals some interesting information about the staff characteristics at NH WW facilities. The ages of certified operators employed at thirty NH plants were compared. A range was calculated by comparing the age of the youngest staff member to the age of the eldest staff member at each WWTF. Here’s a summary of what the data reveals:

**2014 NHWPCA Summer Meeting**

The facility with the shortest range in operator age is Bristol NH at 8 years. The facility with the greatest range in operator age is Manchester NH at 44 years.

At ten facilities, the range in employee ages is greater than 30 years. Those facilities are Claremont, Franklin, Hooksett, Keene, Lebanon, Merrimack, Nashua, Plymouth, Seabrook and Sunapee.

Stats and Factoids…

**Save The Date Reminders for Upcoming Classes and Training**

**October 21 & 22, 2014** Advanced Activated Sludge Process Control and Optimization Class at the Pease International Tradeport, Portsmouth, NH.

DES is pleased to announce and host 2 days of Advanced Activated Sludge Process Control and Optimization training to be instructed by Eric Wahlberg, P.E. and Ph.D., through his company called Wastewater Technology Trainers, based in Fountain Valley, CA. In addition to his degrees, Eric is also a licensed operator and has been recognized by the Water Environment Federation many times for his research and contributions to wastewater operations, process control and troubleshooting. He is also a nationally recognized expert in primary and secondary clarifier operations.

This class will provide a more in-depth understanding of the activated sludge process with the goal of reducing effluent quality variability and process energy usage. Topics to be covered include wastewater characterization, biological N&P removal, the importance of sludge quality, measuring and controlling sludge quality, WAS flow control, BOD conversion vs. removal, RAS flow optimization, secondary clarifier performance diagnostic testing and state point analysis.

The class will be held at the NHDES seacoast office located at the Pease International Tradeport in Portsmouth, NH. Registration costs $120 and includes lunch for both days. Registration deadline is October 1, 2014. Class size is limited to 35 people.

This class would not be possible without the generosity of these kind sponsors:

- Underwood Engineers
- Utility Partners
- David F. Sulla

(Continued on page back cover)
Hats Off and Congratulations to the following NH WW operators for passing the June 2014 Exams!

Grade 1- Jay Harrington, Cliff Lavigne, Scott Phinney, Christopher Lewis and Marcus Heath
Grade 2- Andy Hautanen, Christian Tarr, Tim Pine, Shane Conlin, Kevin Wotton, Dan Davis and Matthew Miller
Grade 3- Tim Babkirk and Roger Wadleigh
Grade 4- Jason Cairelli, Jason Randall and Heather Beaudoin

NHWPCA’s 25th annual “Silver Anniversary” Golf Tournament
by Fred McNeill

On a beautiful sun drenched early August morning 92 golfers participated in NHWPCA’s 25th annual “Silver Anniversary” Golf Tournament. The tournament was held at the historic Beaver Meadow Golf Course in Concord. The Association is proud to support the City of Concord’s 118 year old municipal course, one of only three municipal courses in New Hampshire. In return, the Association was treated to a well-manicured course, exceptional services from their hardworking staff and delicious meals both before and after our tournament.

The 23 teams battled out for low gross score and several skill prizes including closet-to-the-pin, long drive and straightest drive. A putting contest was also held to support the Association’s scholarship fund. After golf the players enjoyed a steak and chicken cook-out and the awards ceremony. This year Penta Corporation was crowned champion after recording the low round of the day. New England Environmental Equipment, Inc. came in a close second followed by ARCADIS in third. After the awards ceremony a raffle was held in which our sponsors’ generous gifts and contributions were shared. Lastly, Bruins, Patriots and Red Sox tickets were raffled off to lucky winners to help support NHWPCA’s scholarship fund.

We look forward to seeing you on August 6, 2015 at the “Beave” for the 26th annual NHWPCA Golf Tournament. Lastly, a big thank you to all our sponsors listed below who make this tournament such a huge success, thank you for your continued strong support!

Operators, engineers and the municipalities they work for are unique in how they approach evaluating their aging sanitary sewer infrastructure. After all, no two systems are alike. However, wouldn't it be convenient to have a more universal standard in what is determined to require immediate replacement due to deteriorated conditions or what may be unworthy of any repairs in the short term?

It absolutely would be more convenient, and in fact, the National Association of Sewer Service Companies (NASSCO) has already established standards for collecting condition data on existing sanitary sewer pipes, manholes and laterals that can be applied to sewer systems across the nation. By using NASSCO's standards for coding each identified defect, that defect is assigned a condition rating on a scale of 1-5:

**Rating System (NASSCO)**

1 = Excellent - No defects or minor defects present
2 = Good - Minor defects present but have not started to deteriorate
3 = Fair - Moderate defects present that will continue to deteriorate
4 = Poor - Severe defects that will become grade 5 in near future
5 = Immediate Attention Required - Defects present that require immediate attention

NASSCO's standard codes, which have been incorporated into many data collection software packages, provide a common output for the results of inspecting the condition of the sewer. The advantage to using this standard is that it removes some of the subjectivity from determining what should get fixed now and what can wait until later. In fact, the condition ratings are correlated directly to the defect code, so the operator need only enter the correct code for the defect identified and the program returns the rating. This standardized approach also provides results that when revisited years after the data is retrieved can still be understood in terms of the condition of the asset at the time of the original inspection. These established condition ratings make it easier to take action at any point in time rather than trying to base decisions on antiquated field sketches or someone's hand written comments about found defects.

At the NHWPCA summer meeting, some attendees were introduced to NASSCO standards, while others became more familiar with this industry standard for evaluating and making recommendations for sanitary sewer assets. The presentation defined and discussed the importance of sewer condition assessments, provided an introduction to NASSCO with details about their certification programs for pipes (PACP) and manholes (MACP), and described how to put the data to use in regard to a comprehensive collection systems management approach.

NASSCO was formed in 1976 with one goal in mind: To improve the success rate of everyone involved in the pipeline rehabilitation industry through education, technical resources and industry advocacy. They are committed to setting industry standards for the assessment and rehabilitation of underground pipelines. NASSCO created the Pipeline Assessment and Certification Program (PACP), Manhole Assessment and Certification Program (MACP) and the Lateral Assessment and Certification Program (LACP) to provide standardization and consistency in evaluating pipes, manholes and laterals. The data collected can help a municipality in prioritizing, planning and renovating its wastewater collection systems.

The author, Laurie Perkins, is a certified NASSCO instructor with almost 20 years’ experience in collection systems and provides classes to operators, contractors and other engineers several times per year throughout New England. Please contact Laurie at Wright-Pierce (laurie.perkins@wright-pierce.com or 888.621.8156) if you have any questions about the NASSCO program or are interested in learning about and/or attending one of the local NASSCO classes being offered. Her next class is being held September 16-18 in Manchester, NH at the Southern New Hampshire University.
van & Associates, Inc., NHWPCA

For more information, go to www.nhwPCA.org or contact Wes Ripple at Wesley.ripple@des.nh.gov or Mary Jane Meier at MaryJane.meier@des.nh.gov.

October 23, 2014 8 am-3 pm DES presents “Asset Management- Get the Wheels Turning”. Water and WW operators & managers are welcome. Includes an overview of asset management best practices. Learn how your peers got started and identify possible fund sources to make an asset management program your reality. Make checks payable to: State of NH Treasurer Mail directly to NH DES by October 9. Ed credit hours approved for Water & WW programs Cost $25 Held at DES Offices, Concord NH. Registration form is available on the DES web site.

October 29 & 30, 2014 The 16th Annual Pretreatment Coordinators Workshop, EPA New England sponsored workshop will address the varied needs of municipal pretreatment personnel. Basic to advanced pretreatment training, discussions and presentations to be provided by local, state and federal government reps and experts from the private sector. Attendance is open to federal, state and municipal employees and consultants representing approved pretreatment programs. Lunch is included. Registration forms must be postmarked no later than October 15, 2014. All registrations to be sent to: New England Regional Pretreatment Coordinators Association, PO BOX 960937, Boston MA 02196

For more information contact Justin Pimpare at pimpare.justin@epa.gov or 617-918-1531. Make Checks Payable to New England Regional Pretreatment Coordinators Association. Cost $125 Held at Radisson Inn, Chelmsford, MA.