Presidents Address
By Rick Seymour

As a member of the Association over the past 25 years and President for 2006, I have come to know many of you through the Summer Outing, Franklin Training Center and other activities.

As President, I see first hand the dedication, commitment and hard work of the Board of Directors and the Association members. This effort has earned us the reputation as being one of the best associations in New England and the nation. We continue to improve the educational programs for our members, advocate for good legislation and support each other by sharing our considerable knowledge base and everyday practical skills.

As President, my goals for the year are as follows:

- To encourage increased activities in the committees
- To increase the operator base of our membership
- To provide the best services to our membership based on their needs

The NHWPCA Directors have volunteered to be liaisons with each of the committees listed below, for the length of their term in office, thereby establishing continuity and a relationship that fosters long-term growth and increased value. The Directors will be working to encourage the Chairmen and their committees to have regular meetings and provide support as needed. I am requiring that the Directors report on the activities of all the committees at the Board of Directors' monthly meetings. Anyone interested in working on a committee, please contact the Chairman or the Director liaison.

<table>
<thead>
<tr>
<th>COMMITTEE</th>
<th>CHAIRMAN</th>
<th>DIRECTOR LIASON</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activities</td>
<td>Rick Seymour</td>
<td>Rick Seymour</td>
</tr>
<tr>
<td>Communications</td>
<td>Wes Ripple</td>
<td>Steve Clifton</td>
</tr>
<tr>
<td>Education</td>
<td>George Neill</td>
<td>George Neill</td>
</tr>
<tr>
<td>Legislative Affairs</td>
<td>Shelagh Connelly</td>
<td>Kevin MacLean</td>
</tr>
<tr>
<td>Membership</td>
<td>To be Determined</td>
<td>Mike Sullivan</td>
</tr>
<tr>
<td>Operations Challenge</td>
<td>Ed Rushbrook</td>
<td>Ed Rushbrook</td>
</tr>
<tr>
<td>Safety</td>
<td>Tom Neforas</td>
<td>Gerry Curran, Ray Vermette</td>
</tr>
<tr>
<td>Scholarship</td>
<td>Tom White</td>
<td>Scott Butler</td>
</tr>
</tbody>
</table>

As an association, we will work towards increasing the operator base of our membership through better communication with our members to determine what services they would prefer. The Communication Committee and Wes Ripple have been working hard over the past few years to improve Association communication through the use of the Internet with such communication tools as the NHWPCA – e-news and membership surveys.

The strength of any organization is in its members. Help us to work towards increasing operator membership, continue to work towards improving operator training and safety awareness, while addressing member needs. How can you help? By dedicating some time to a committee, if possible. If time is at a premium and you cannot be on a committee, please contact the committee Chair or Director liaison with any suggestions that you have to help the Association succeed in the upcoming year.

Thanks!!
NHWPCA OFFICERS

President: Rick Seymour 1st Director: Ed Rushbrook
V. President: Ray Vermette 2nd Director: Scott Butler
Secretary: George Neill 3rd Director: Mike Sullivan
Treasurer: Steve Clifton Dir. at Large: Gerald Curran
NEWEA Dir.: Sarah Guyette Dir. at Large: Kevin MacLean
Past President: John Grout

Newsletter Committee: Ernest Barham, Chris Hipkiss, Mario Leclerc, Stephanie Rochefort, Thom Steele

COLLECTOR articles to: Tom White, Editor
State of New Hampshire
Dep. Of Environmental Services
P.O. Box 95 Concord, NH 03302-0095

Director's Minutes 1/6/06

Voting members: Kevin MacLean, Ed Rushbrook, Gerry Curran, Scott Butler, Mike Sullivan, Steve Clifton, George Neill, Rick Seymour – non-voting attendees: Wes Ripple (Communications Committee), Ned Beecher (New England Biosolids), Shelagh Connelly (RMI), Sarah Guyette (NEWEA representative).

Regarding Legislation SB346 and HB722, Shelagh Connelly hopes for NHWPCA support on HB722, as amended. Connelly hopes to defeat SB346, and is looking for people to call legislators and influence voting. She would like to know what the Association is doing to take a stand. She feels the Association are the most educated on these issues and should be the people who influence. This legislation outlines changes that will be made, one way or the other, to accommodate groups who feel strongly FOR or AGAINST composting, land applying, stockpiling and top dressing within certain distances of “designated” rivers. Some plants may lose their “Grandfathered” status. People that are antibiosolids are driving perception by the public and the people who know the least about it are eroding the very principle of biosolids. Some directors want the Association to become more active politically. Some directors were uncomfortable making decisions so quickly without having had the opportunity to educate themselves first.

The bill being brought forward is MUCH more stringent than the one in existence. Concern was raised that maybe the Board should encourage to vote “NO” on both, if they are both so much more restrictive and stringent. Ms. Connelly explained that for the sake of compromise and reality that one of these bills would most likely pass, and the Board should encourage a vote for the amended version...

It was stated that a one-page letter based on sound scientific data should be prepared for our review. The “anti’s” are good at creating an emotional firestorm, and legislators vote with what they hear loudest.

There was discussion regarding how the membership would feel about this issue, and it was determined that the Board has dutifully notified the membership through E-news on two different occasions. Ms. Connelly stated that she pays her dues to the Association and would like to know that we are representing her (as a member, not necessarily a biosolids proponent) in our decisions. Comments made were: “People may take an altruistic approach: We’ll recycle because it’s the right thing to do”; “It’s what we’re here for (taking a stand)”; “The board has already made a decision to adopt encouraging beneficial use of biosolids (as the Association donates $1000 annually to NEBRA)”.

Unanimous vote to support a letter from Directors to legislators.

For information regarding the legislation go to: www.gencourt.state.nh.us

Biosolids committee has been non-existent in recent past because of NEBRA and duplication of work performed. Issues surrounding biosolids have been quiet.

Discussion should take place at the next meeting about the mission of the Board and committees. It was determined that each board member should carry through their responsibility to one committee only, through their term, to keep continuity.

As determined, committee liaisons are as follows: Communications Committee, Newsletter and Internet – Steve Clifton; Legislative Committee – Kevin MacLean; Membership Committee – Mike Sullivan; Ops Challenge Committee – Ed Rushbrook; Safety Committee – Ray Vermette and Gerry Curran; Scholarship Committee – Scott Butler; Activities Committee – Rick Seymour; Education Committee – George Neill. The Communications Committee will discuss incorporating the Public Relations Committee.

Regarding classes for spring and fall semesters in conjunction with NH DES, it was suggested that the Safety Committee be responsible for presenting a class every training semester.

Regarding the NEWEA representative’s travel expenses, as discussed at the last meeting, each year, the needs will be determined accordingly. This year, the NEWEA representative is approved to be reimbursed for $2000 for combined expenses incurred for the 2006 NEWEA Annual Conference and the 2006 NEWEA spring meeting.

Budget was considered, set for 2006, and UNANIMOUSLY VOTED UPON.

• Regarding the member survey, there were 57 respondents. The majority of respondents felt the main function of the Association is education. All but 2 respondents felt the Association should take a position, politically.

• Unfinished business between Communications Committee and the Board: President’s duties shall reflect that the President will give an address at the winter meeting, annually, to membership, outlining activities and accomplishments from the year.
New Hampshire Water Pollution Control Association
29th Annual Trade Fair

Thursday April 13, 2006
Nashua Sheraton, 11 Tara Boulevard, Nashua, NH

Agenda

8:30 am—1:00pm Exhibits Open 0.2 CEU for all NHWPCA members attending
Displays of the latest environmental products and professional services in the wastewater treatment industry will be open for viewing. There will be no charge for entry and complimentary coffee will be served in the exhibit until 11 am

TECHNICAL SESSIONS: 0.1 CEU awarded for each session to anyone attending

9:30 AM – 10:30 AM Designing, Operating & Maintaining FOG Collection Systems
Presented By Michael Gauthier, Sales Engineer, Highland Tank/Lowe Engineering
This session will deal with interior/exterior grease interceptor technology and theory of operation. The main focus will be on Automatic Grease Interceptors and outdoor large volume Passive Interceptors. The session will outline the need for a properly designed and sized system to minimize the Food Service Establishments impact on the sanitary sewer infrastructure. Proper installation and maintenance issues will be discussed in addition to BMP’s, service schedules and manifesting of records. Question and answer period to follow. This session will prove to be invaluable to treatment plant operators and industrial pretreatment personnel who perform grease trap inspections for their municipalities. Plumbing and building inspectors will also find this session very useful.

11:00 AM – 12:00 PM Panel Discussion on the Impacts of Biosolids & Septage Legislation, Regulations, and Local Ordinances
Panelists: Pat Hannon, DES Biosolids and Septage Program Manager; Shelagh Connelly, RMI & NHWPCA Legislative and Regulatory Affairs Committee Chairperson; Jim Taylor, Superintendent, Merrimack WWTF

Panelists will discuss the current status and future outlook of septage and biosolids recycling in New Hampshire. Find out how new DES rules and recently debated and/or enacted bills introduced during the 2006 legislative session may affect your biosolids recycling and septage management programs. The NHWPCA has taken an active role in this debate. Learn how the Association works on these issues and what your WWTF or town can do to influence this discussion.

12:15 PM —— A Raffle to benefit your Operations Challenge Team will be held in the exhibit area.

1:PM——— Formal Luncheon featuring a New England buffet to include chowder, salad, chicken breast etc.

1:30PM——— Awards Ceremony

Clean Water Week Poster Awards

New England Water Environment Association Awards
Presented by Phyllis Rand—President NEWEA
New Hampshire Operators Receive NEWEA Awards

NEWEA Alfred E. Peloquin Award—Steve Clifton, Underwood Engineers, Inc. Treasurer NHWPCA, well known personality about the State of N.H. received this award for his high level of interest and performance in wastewater operations and he has made a significant contribution to this field.

NEWEA Operators Award—Paula Anania, Portsmouth WWTF received this award for her personal service that has contributed to excellence in plant operations.

Lessons Learned

The following article was submitted by Mark Lavoie, Grade 4 Certified Wastewater Treatment Facility Operator, at Hampton, NH. His article relates to the untreated effluent discharge during May 29th and 30th of 1999 from the Hampton WWTF. The article focuses on what could be done to prevent a similar event and the important duties of an operator in responsible charge of a WWTF.

On a busy Memorial Day weekend, our plant experienced a mishap that caused effluent violations and impacted shellfish waters. I think now that if certain steps and follow up had occurred things might have been different. After having mechanical difficulties with our disinfection system, I had maintenance staff fix the problem and report back to me. After the repairs were made, I assumed everything was taken of and I neglected to see for myself. As it turned out the sodium hypochlorite levels in our storage tank were being misread due to staining inside of the tank. This resulted in the system running out of disinfectant and we ended up not chlorinating for about 18 hours during that Holiday weekend (approx. 1.8 million gallons were discharged without being properly treated). Our new automated alarm system failed to go off and we were not notified of a loss of chlorine.

Looking back I would have done a few things differently to avoid this mishap. First of all I would have followed up with the SCADA/alarm contractor to get adequate O&M manuals and training for the staff so we would have a better understanding of this new and sensitive chlorine monitoring equipment. The repairs of the disinfection equipment that had occurred would have been personally inspected. Additionally I definitely would have notified EPA and DES of the mishap sooner once I understood the seriousness of the situation and probably should have visited the plant on my weekend off just to see what was going on for myself.

I have learned an important lesson from this mishap and that is I have an important job to protect Public Health and Water Quality for the People of New Hampshire and our guests who visit our state. I advise you to learn from the mistakes of others so you don’t end up making them yourself.

Newsletter Committee News

The newly re-energized Newsletter Committee met in mid-January to begin working on this issue of The Collector. With new members come lots of new ideas, but we need your help! This is your newsletter, so please help us out by getting in touch with any committee member with your newsworthy events.

I’d like to introduce myself - I’m Stephanie from the Somersworth plant. (That’s who I am at work, at home I’m usually Stephanie from Girl Scouts or Boy Scouts or soccer...) I take care of laboratory and pretreatment and have been doing that for over 15 years. Now speaking of newsworthy events, in Somersworth we got a call right before Super Bowl Sunday from a local reporter asking us to look back in our records for the past few years to see if we experienced a flow spike during half-time. We thought that it was a prank call at first from a next-door neighbor treatment plant, since it seems pretty crazy to think that the whole town would wait until half-time to "go". After confirming that this was a legitimate call, we dutifully did calculations and dug up old flow charts and determined that we did not see a flow spike. The reporter actually used our information in a front-page article on debunking Super Bowl Legends! After that, I dug a little deeper and found out that the source of this particular Urban Legend was when a water main broke in Salt Lake City on Super Bowl Sunday in 1984, causing a big surge of flow. If you ever have a free moment, I recommend doing an internet search on "Wastewater + Urban Legends". Or, better yet, in your next free moment, please give me a call - I also would love to hear about the craziest phone calls that you’ve received at your plant!
Sandra Collucci Retires
By Stephanie Rochefort

I first met Sandra Collucci when I started working at the Somersworth Treatment Plant in the fall of 1990. I was immediately impressed by her meticulous attention to detail as she showed me the daily routine of the laboratory. Sandy had begun working there the previous year, first as a temporary fill-in for a secretary on maternity leave, and shortly thereafter as a full-time employee, taking care of both office and laboratory duties. Our time working together in Somersworth was quite brief, as Sandy took a job as a Laboratory Technician at the new Dover Treatment Plant. Sandy was there in 1991 to see the first drops of flow enter the new plant, and has worked there until her retirement in January, 2006. During her years in Dover, Sandy has earned a Grade II Operator’s License and a NEWEA Laboratory Analyst II Certificate. She has been an active member of the NHWPCA and a founding member of LANH (Laboratory Analysts of New Hampshire). She has been in charge of Dover’s safety program since 1999. Her quality work in Dover contributed to their “Plant of the Year” Award for 2003. The staff at the Dover Plant will miss Sandy’s bubbly personality. She always took care of their needs at coffee break time and decorated the office for each holiday. Sandy treated the staff to a homemade lasagna dinner at Christmas-time each year. She will indeed be sadly missed for all of these personal touches, and for her years of experience and expertise. We wish her a long and happy retirement.

2006 Outstanding Women In Business Award
President of NH Recycling Company Honored

Holderness, New Hampshire—Shelagh Connelly, President of Resource Management, Inc., was honored by NH Business Review and Laconia Savings Bank at the first annual Outstanding Women in Business Awards on Thursday, February 2, 2006. The award recognizes the success and achievements of women in New Hampshire’s business community.

The NH Business Review and Laconia Savings Bank Women In Business Awards were created to honor women leading strong organizations. They are visionary entrepreneurs creating innovation. They are anchors in the community, making a difference for the greater good.

Connelly, a graduate of Wesleyan University, has been president of Resource Management since 1994. Connelly’s career in residuals recycling has now spanned 18 years and she has emerged as a leader in the industry as a member of several professional organizations, legislative committees, task forces and other industry initiatives directed at establishing and maintaining a sustainable environment.

Connelly’s dedication to RMI, her community, the State of New Hampshire and residuals recycling is demonstrated by her prior and current affiliations. Connelly has served as chair or a member of over a dozen Boards and committees concerned with responsible environmental stewardship. Connelly is now serving as the Chairperson of the Committee for Legislative and Regulatory Affairs of the NH Water Pollution Control Association (NHWPCA).

“As president of RMI, Shelagh not only brings integrity, vision and a personal commitment to identifying down-to-earth solutions for organic residuals, but also offers the unique combination of intelligence, wit and the ability to think ‘outside the box’,” said Charley Hanson, RMI principal.

About Resource Management
Celebrating its 12th anniversary, Resource Management, Inc., is the Northeast’s leader in innovative management strategies for agribusiness, topsoil purveyors, landscapers and municipalities. RMI also provides nutrient management planning and has active recycling programs throughout New England and New York, offering a product line under the Heart & Soil® brand that includes organic wood ash, paper mill residuals, biosolids and manufactured topsoil.
Winnipesaukee River Basin Program Honored by EPA
By Chris Hipkiss

During the recent annual awards luncheon in Boston, hosted by the New England Water Environment Association, the Franklin WWTF was presented with a 2005 Regional EPA Operation and Maintenance Excellence Award in the Large Secondary Plant Category. EPA Region 1 includes the states of Vermont, New Hampshire, Maine, Massachusetts, Connecticut and Rhode Island.

The Franklin facility is owned by the State of New Hampshire and operated by Winnipesaukee River Basin Program (WRBP) within the NH Department of Environmental Services. In addition to the treatment facility, the WRBP maintains approximately 60 miles of main interceptor lines along with 14 pumping stations serving the New Hampshire Lakes Region communities of Center Harbor, Moultonboro, Gilford, Meredith, Laconia, Belmont, Sanbornton, Northfield, Tilton and Franklin. The Franklin facility is a secondary activated sludge plant with anaerobic digestion and uses plate and frame presses for dewatering. Following ultraviolet (UV) disinfection the treated wastewater is discharged to the Merrimack River. During high plant flows or anytime the capacity of the UV disinfection system is reached, disinfection can be augmented with a supplemental chlorine tablet system. The plant has a design capacity of 11.5 MGD and a current average daily flow of 6.1 MGD.

Since 1979 the WRBP treatment facility has provided for the septage disposal needs of the ten communities for which the plant was built. In recent years the amount of septage delivered to the plant has increased dramatically. In state fiscal year 2005 a total of 7.8 million gallons of septage was processed from 118 New Hampshire and Vermont communities. Received septage is first dewatered and then feed to the thickeners where it enters the plants solids processing streams. In 2005 the Franklin facility produced 740 dry metric tons of biosolids which were beneficially used thru land application.

The plant went on-line in 1979 and the original chlorine gas disinfection was replaced with a UV system in 1997. The plant underwent a 2.5 million dollar upgrade in 2000 with implementation of SCADA to operate and monitor both the treatment plant as well as the pumping stations. When the plant is not manned, a designated operator is on call and can access the treatment plant as well as the pumping stations from his home using a lap top computer and the operators phone or cable connection. The implementation of SCADA has reduced the number of call backs and the number of routine pumping station checks.

Presently the Franklin WWTF is in the final stages of engineering design for a 6.9 million upgrade with an anticipated completion date in the spring of 2008. This upgrade includes the replacement of the two plate and frame presses with high solids centrifuges along with major improvements to the HVAC system. The upgrade also includes the replacement of nine of the 25+ year old centrifugal solids handling pumps with positive displacement pumps, each of which will be paired with an in line sludge grinder.

Group tours of the plant can be arranged by calling 603-934-2809.
If It's Not Ammonia, Then What Form Of Nitrogen Is It?
(The secret life of the other three nitrogen players in wastewater.)
by Tim Loftus

This article will review some of the important aspects of the other forms of nitrogen in wastewater – organic nitrogen, nitrate-nitrogen, and nitrite-nitrogen.

Organic nitrogen is somewhat of a misnomer. The term “organic nitrogen” in wastewater does not represent all the nitrogen found in organic matter; it is only a portion of it, mostly consisting of protein, urea, and certain components of cells (like nucleic acids). So when you review organic nitrogen results, you are looking at the results of a test-defined method. Only when all analysts follow the same methods for organic nitrogen analyses can the results be compared.

Fortunately chemists have developed a standardized test to do just that. It is called Total Kjeldahl Nitrogen (TKN) analysis, where the result is the total of the organic nitrogen plus any ammonia-nitrogen in a sample. For TKN, a sample is digested using a particular cocktail of chemicals to convert the organic nitrogen portion of the sample into ammonia. The sample is further distilled and the ammonia concentration is determined using one of the accepted EPA procedures. From a replicate sample, the ammonia-only concentration is determined. The difference between the TKN value (organic and ammonia combined) and the ammonia value will be the organic nitrogen.

Samples for TKN can be collected in either glass or plastic bottles. After a pH adjustment to less than 2 using sulfuric acid and cooled to 4 degrees C, a sample will have a holding time of up to twenty-eight days before analysis.

Typically, less than one percent of the nitrogen in raw wastewater is in the form of nitrates (NO₃⁻) or nitrites (NO₂⁻). So why be concerned about this type of nitrogen? Most of the nitrates and nitrites found in a treatment facility are a result of biological action in the mixed liquor. Under the right conditions in biological treatment, a lot of the organic nitrogen is decomposed into ammonia. Certain bacteria then oxidize the ammonia to nitrite. Other bacteria further oxidize the nitrite to nitrate. As a result, nitrates are very often the most predominant nitrogen compound leaving a biological treatment facility.

Under low oxygen conditions in a wastewater treatment facility or in the environment, some types of microorganisms that require oxygen to survive can scavenge the needed oxygen from nitrate molecules, converting the nitrate to nitrogen gas in the process. Uncontrolled, this can cause a lot of matter to float, either in a wastewater treatment facility clarifier designed for matter to sink, or in the environment where sediment therefore becomes mobile and may locate to undesirable locations downstream.

For NPDES purposes, the only approved procedure for nitrite analysis is a fairly straightforward colorimetric method. After the sample is pH adjusted, the nitrite is reacted with another chemical creating a reddish-purple solution. The intensity of this color is related to the concentration of nitrite. Samples for nitrite analyses can be collected in either glass or plastic containers. Holding time is only forty-eight hours at 4 degrees C.

The most common way to analyze for nitrate in a sample is to convert the nitrate to nitrite either by a cadmium reduction column or by using hydrazine sulfate. The resulting solution is then analyzed for nitrite. A replicate sample with no nitrate-to-nitrite conversion is analyzed for nitrite only and the difference in value between the two samples is the nitrate value. Samples for nitrate/nitrite analyses can be collected in either glass or plastic containers. After a pH adjustment to less than 2 using sulfuric acid and cooled to 4 degrees C, a sample will have a holding time of up to twenty-eight days before analysis.

The analysis of nitrogen is important in assessing the impact of this nutrient on our wastewater facilities and in our local waterways. Knowing which form of nitrogen is prevalent in a system will help in determining the appropriate treatment or remedial actions, if needed.

The information in this article is very general. As usual, check your federal, state, and local regulations. You may have additional requirements that you must meet. Approved methods for NPDES reporting purposes are listed in Chapter 40 of the Code of Federal Regulations, part 136.

If you have any questions, suggestions, or comments, contact NEWEA Lab Practices Committee Chair Tim Loftus at (508) 949-3865 timloftus@msn.com. For more information on the NEWEA Laboratory Practices Committee, please contact Tim Loftus or Elizabeth Cutone, NEWEA Executive Director, 100 Tower Office Park, Woburn, MA 01801, (781) 939-0908, ecutone@newea.org.

**Clean Uniforms**

In their new union contract, the workers at the North Dump & Clump WTP won the added benefit of a weekly uniform service. Every worker will get a clean uniform for each day of the week (Monday through Friday). Each worker will also get their own name monogrammed onto his or her own shirts!

Every Monday the uniform service will pick up the dirty uniforms and drop off the clean ones. How many uniforms does the service need to give each worker to keep him or her in a clean uniform under this schedule?

**Answer:**

Eleven

Each worker needs five clean uniforms to bring him to the next Monday, and every week he drops off five dirty uniforms. Counting the uniform he has on, a total of eleven uniforms are needed to keep the uniform service schedule.
2006 Legislature and NH WWTFs
by Shelagh Connelly, Chair, Legislative/Regulatory Affairs Sub-Committee
Ned Beecher, Executive Director, New England Biosolids and Residuals Assoc. (NEBRA)

NHWPCA is active this year in monitoring legislation that may affect wastewater treatment and solids and septage management. Members of the NHWPCA Legislative and Regulatory Affairs Sub-Committee began sifting through proposed legislation last November to find any bills that may affect the work of NHWPCA members. Four bills were identified as potentially significant, and the Sub-Committee worked within the legislative process to make the concerns of NHWPCA known to the State Senators and Representatives debating the bills.

SB 346 – This bill, as introduced, was opposed by NHWPCA. Senator Martha Fuller-Clark introduced this bill for a few people who believed they were not listened to enough during the adoption of new septage rules in 2005. The original bill mostly discussed septage. It recommended placing into law many details from the septage rules, including requirements for public notices, public hearings, financial responsibility for septage management facilities, and setbacks. Included in the original bill were also several definitions that would have severely impacted biosolids recycling programs. Initially Senator Clark was unwilling to work with NHWPCA to make changes to the bill. However, once several New Hampshire municipalities sent letters opposing the bill, including Manchester, Merrimack, Nashua, Concord, Franklin and Hanover, Sen. Fuller-Clark sought compromise with NHWPCA and an acceptable amendment was agreed upon. This is an example of how effectively municipalities can influence the outcome of legislative bills. It is a significant role that can be played, and shows how important it is for those in the wastewater profession to talk to their legislators.

HB 1373 - This bill supported by NHWPCA. HB 1373 establishes a commission on the recycling and disposal of grease trap waste. It was introduced with DES input and support based on the Septage Task Force recommendation. Fats, oils, and grease (FOG) is becoming an issue at many POTWs, clogging lines and damaging equipment. Improving its removal from sewers depends on having an economical place to use or dispose of it. This bill is a start on improvements and is likely to pass. This bill is an example of NHWPCA participating on a task force and collaborating with other organizations like the NH Association of Septage Haulers (NHASH) and the NH Municipal Association to bring about resource dedicated to dealing with tough issues like grease in sewage treatment.

In recent years the NHWPCA had not been all that active in legislative affairs. However, with the commitment of the Board of Directors to improve our member organization, the Sub-Committee has been charged with monitoring the issues that affect our operations, and to remain active in the process to ensure a positive outcome whenever possible. The Sub-Committee relies heavily on and works closely with NEBRA to achieve these legislative goals. So far it has been a very busy season for the NHWPCA in the legislature this year! For more information on specific bills, or to join the Legislative and Regulatory Affairs Sub-Committee, contact Shelagh Connelly, at RMI 603-536-8900 or shelagh.connelly@rmirecycles.com.

Note: NHWPCA supports NEBRA, the New England Biosolids and Residuals Association, with a donation each year. NEBRA helps ensure that biosolids management options remain viable and economical in New Hampshire. For information on biosolids management, see www.nebiosolids.org or call 323-7654.

THE MAHER CORPORATION
WATER & WASTEWATER
Process Equipment • Pumps • Valves
Actuators & Expansion Joints

Paul H. Sussman

407R Mystic Avenue • Suite 21 • Medford, MA 02155
TEL: 800-456-2437 FAX: 781-396-0239
psussman@themahercorp.com
N. H. DES Employee Recognized for Outstanding Wastewater Training and Technical Assistance

(Boston) - Wes Ripple of the New Hampshire Department of Environmental Services was recently honored with the "2005 State Wastewater On-Site Technical Assistance Provider Award" by EPA.


The EPA award program recognizes state personnel in the wastewater field who have provided invaluable technical assistance and training to municipal wastewater treatment facilities. This award is one way EPA acknowledges the hard work of its state counterparts who provide training and technical assistance to municipal wastewater treatment facilities throughout New England.

Mr. Ripple has been training wastewater treatment plant operators for many years with microbiology analyses as one of his areas of expertise. In addition, Mr. Ripple has been providing technical assistance to many facilities to help them improve their biological nutrient removal capabilities. Mr. Ripple has the professional respect of not only his peers, but more importantly, wastewater treatment plant superintendents and operators throughout New Hampshire and New England.

"The professionals providing technical assistance and training to wastewater treatment plants play a crucial role in ensuring that our lakes and rivers are protected from unnecessary pollution," said Robert W. Varney, regional administrator for EPA's New England Office. "I am proud to acknowledge Wes Ripple's contributions to keeping New Hampshire's rivers, lakes and streams clean."

NHWPCA e-news Seeks to Increase Member Participation

The NHWPCA e-news will soon be approaching its first anniversary on May 3. For those of you who don't know, the e-news, a product of the Communications Committee, is an electronic, bi-weekly newsletter designed to keep the membership informed of the most up-to-date Association news and happenings. Typical content includes the announcement of Board of Director meetings and posting of meeting minutes, committee activities, upcoming events, award announcements, Ops Challenge updates, and more.

The Association is changing, and the e-news will be counted on more than ever to deliver time-sensitive material to the membership. As the Association becomes more proactive and vocal regarding issues affecting the wastewater industry, your opinions are valued even more. For example, the most recent legislative session in Concord produced a number of bills affecting WWTF's, biosolids recycling programs and septage management. The passage or failure of these bills can have a profound effect on the way we do business. Unfortunately, the introduction of this legislation and the negotiations that take place as they progress through the legislature rarely make news. As a result, the majority of treatment plants and the Association membership in general do not hear about a bill or its outcome until after the fact. By then, it's too late to react.

The e-news is attempting to bridge this gap by keeping the membership informed of developments as they happen. It is a valuable tool in obtaining your input and opinions on matters of importance. Your thoughts may influence the direction the Association chooses to take. Currently only about 50% of the Association's members are taking advantage of this free service. To be really effective, we hope to reach at least 75%. It is simple to join. First, you must be a NHWPCA member; second, you need to provide us with an e-mail address. We do the rest. This is a good opportunity to stay abreast of the news and let your opinions be known. To become a subscriber, just send an e-mail to wripple@des.state.nh.us and ask to be placed on the e-news list. Together, we can make a stronger Association.
Exeter Wastewater Collection System—Sewer Rats in the Electronic Age

The action taken by N.H. communities to evaluate, maintain and upgrade their collection systems has been very slow in occurring. The olden days of hearty men laboring over sewer rodders and bucket machines and locating sewer lines by sheer memory is slowly passing. Most of the larger cities have already taken steps to purchase equipment to locate and view sewer lines, and to schedule cleaning and upgrades to sewer collection systems and pump stations.

Most of the smaller towns in N.H. are catching up on this much needed upgrade process and the Town of Exeter is setting an excellent example of how to go about accomplishing this task. Exeter has 1500 manholes and 49 miles of sewer lines. The first requirement is to set aside some money to purchase the necessary equipment to evaluate what you have. Steve Tucker, Utilities Forman for the Town of Exeter, and his crew—Skip McEvoy, Justin Hall and Matt Berube all worked on Exeter’s collection system upgrade process as you will see below.

A good G.I.S. program is required to precisely locate all streets, structures, sewer lines, manholes, water structures, etc. and to store this data in a user friendly mapping system. This system should be set up to easily allow an operator to update and manipulate data and maps to suit the purpose at hand, and to be able to generate daily work orders with accurate maps. The Exeter Staff in particular Matt Berube, has done a fine job of understanding their needs and integrating various computer programs, to accomplish this task. A work order has the precise location of the work site on a city map that goes with the work crew to the site.

Major cost savings were realized by the Town when the collection system personnel modified a new trailer to cleanly house the sewer camera and 1000ft. cable and computer with counter space, lighting, heat and a pressurized disinfection system for cleaning equipment. Major equipment needed: sewer camera system and computer with software (Inspector General by Cues accommodates 6 to 36 inch pipe and cable), trailer unit to house and operate equipment from, a small portable generator 3500 watt for trailer power, and misc. other small items to tie everything together. This whole set up cost the Town around $41,000 which is cheaper than purchasing it as a packaged unit or hiring someone else to do the work. Picture on left reveals the inside of the trailer that the staff customized to house, light, heat all the equipment needed.

If you need more information on how to get started on your own custom collection system set up, contact any of these gentlemen at the Town of Exeter WWTF—Ph 603-773-6157
Warner WWTF's Commitment to Improving Water Quality
By Mary Jane Meier

Accepting the idea that a change can do us good is usually a tough sell to most people. Finding your way to keep an open mind and consider the benefits of approaching the same old problem with a new attitude is the key. Over the last few years, quite a change has come to the Warner Village Water District’s wastewater treatment facility. While the series of events that occurred at the Warner WWTF prior to the Spring of 2002 are not the focus of this article, it is important to note the condition of the plant had suffered considerably. A walk through the plant today reveals the hard work and effort expended by Chief Operator Jeremiah Menard and his capable staff of Grade 1 Certified Operators, Dan Burnham and Tom Chandler. Through their combined efforts the Warner WWTF has been transformed as evidenced most recently by winning the US EPA Regional Operations and Maintenance Excellence Award in the Most Improved Plant category in January 2006. The Most Improved Treatment Plant Award category recognizes exceptional efforts by treatment plant personnel and state personnel for their combined efforts to return a facility back to compliance as a result of improved operation and maintenance.

Over the past two years, this high energy team has made substantial changes at the Warner plant and has been instrumental in rebuilding communication and cooperation within the Water District. The transformation resulted from a comprehensive effort expended by the team to study the process and apply their knowledge to revamp the failing treatment systems and infrastructure. The team has systematically addressed the inadequate solids handling, mixing and aeration components of the plant. The results are evidenced by the construction of new chlorination and dechlorination systems housed in separate buildings with adequate ventilation and spill containment. They put forth significant effort to clean out literally years of sludge deposits from the headworks, clarifier, oxidation ditches, chlorine contact tank, the sludge digester, drying beds, as well as the collection system appurtenances. The team studied the contract drawings and restored/replaced valves that had long been abandoned that had crippled the original flexibility of the process control capabilities.

Measurable improvements are noted by the curtailing of TSS, pH and E. coli violations and episodes of inadequate disinfection resulting from solids carry over from the secondary clarifier sludge blanket. The time invested in wasting to clean out the plant paid off considerably when the floods of October 2005 sent record high flows to the plant. The team managed the storm flows without bypassing a drop. Like the Warner team, many operators visited their facilities on their own time as the rain events occurred. Through their efforts damage to infrastructure and the environment was minimized and major potential health crises averted. But none of this would have been possible without the dedication, hard work and hours of toil that have become standard operating procedure for the wastewater professionals at the Warner WWTF. They studied the activated sludge process and implemented changes to grossly reduce the quantity of sludge generated, and now instead of working for the plant, the plant works for them.

Join us in congratulating the Warner team for a well done. The next challenge facing the team is competing against all other US EPA Regional Award winners to gain recognition for their hard work on a National level. There is no limit to what the future may hold for Warner. One thing is known for certain, a change has done a lot of good.
Exeter Wastewater Collection System— Sewer Rats in the Electronic Age

The action taken by N.H. communities to evaluate, maintain and upgrade their collection systems has been very slow in occurring. The olden days of hearty men laboring over sewer rodders and bucket machines and locating sewer lines by sheer memory is slowly passing. Most of the larger cities have already taken steps to purchase equipment to locate and view sewer lines, and to schedule cleaning and upgrades to sewer collection systems and pump stations.

Most of the smaller towns in N.H are catching up on this much needed upgrade process and the Town of Exeter is setting an excellent example of how to go about accomplishing this task. Exeter has 1500 manholes and 49 miles of sewer lines. The first requirement is to set aside some money to purchase the necessary equipment to evaluate what you have. Steve Tucker, Utilities Forman for the Town of Exeter, and his crew— Skip McEvoy, Justin Hall and Matt Berube all worked on Exeter’s collection system upgrade process as you will see below.

A good G.I.S. program is required to precisely locate all streets, structures, sewer lines, manholes, water structures, etc. and to store this data in a user friendly mapping system. This system should be set up to easily allow an operator to update and manipulate data and maps to suit the purpose at hand, and to be able to generate daily work orders with accurate maps. The Exeter Staff in particular Matt Berube, has done a fine job of understanding their needs and integrating various computer programs, to accomplish this task. A work order has the precise location of the work site on a city map that goes with the work crew to the site.

Major cost savings were realized by the Town when the collection system personnel modified a new trailer to cleanly house the sewer camera and 1000ft. cable and computer with counter space, lighting, heat and a pressurized disinfection system for cleaning equipment. Major equipment needed: sewer camera system and computer with software (Inspector General by Cucis accommodates 6 to 36 inch pipe and cable), trailer unit to house and operate equipment from, a small portable generator 3500 watt for trailer power, and misc. other small items to tie everything together. This whole set up cost the Town around $41,000 which is cheaper than purchasing it as a packaged unit or hiring someone else to do the work. Picture on left reveals the inside of the trailer that the staff customized to house, light, heat all the equipment needed.

If you need more information on how to get started on your own custom collection system set up, contact any of these gentlemen at the Town of Exeter WWTF—Ph 603-773-6157

Inside look at the Collection Systems Inspections Van

Skip McEvoy and Justin Hall standing near the Inspection Van
AQUARION
Operating Services

Providing municipalities and industry with water and wastewater contract operations across the nation and
proudly serving the New Hampshire communities of:

Ashland
Claremont
Lincoln
Littleton
Jaffrey
Winchester

Aquarion Operating Services
15 Dartmouth Dr., Suite 300
Auburn, NH 03032
603-792-0000
www.aquarionops.com

Celebrating 24 Years of Municipal Service

Quality and Professional Client Services

Underwood Engineers, Inc.
Civil~Environmental

25 Vaughan Mall, Unit 1, Portsmouth, NH 03801-4012
Tel: (603)436-6192  Fax (603)431-4733
99 North State Street, 2nd Floor, Concord, NH 03301
Tel: (603)230-9898 Fax (603)230-9899
uei@underwoodeng.com

State Aid Grants  Community Development Block Grants
State Revolving Fund  Technical Assistance for Town Meetings
Rural Development Loans and Grants
Safety Corner

Lessons That Can be Learned From A NEAR MISS  by Chris Hipkiss

If you have been in this business long enough there most likely was at least one incident that from a safety standpoint was a near miss. These situations are normally not reported and the only value is that the operator hopefully will not make the same error again. The purpose of this article is to share with you a NEAR MISS with the hope that by passing this information along it will some day prevent an accident report.

The Situation:
During the daily check of the collection system pump stations, using the newly installed SCADA system, the maintenance supervisor notices that pump #1 at a particular lift station is not pumping at its normal capacity. A mechanic and an operator are assigned to go out to the station to investigate.

At the Station:
When entering this station the three motor control centers (MCC) for the pumps are located on the left and numbered #1, #2, and #3 with #1 being closest to the door. The mechanic moved the main disconnect switch for pump #1 to the off position and placed his personnel lock on the switch. He then turned the HOA switch from the auto position to the hand position and pump did not run. He then turned the switch to the off position and began to fill out the lock out tag. While the mechanic was completing the paper work the operator went to the far end of the room went down the ladder to the pump room. When the mechanics reached the pump room the operator had closed and lock out the gate valves on each side of the pump and was preparing to remove the inspection cover. Inspecting the inside of the pump cavity revealed nothing unusual and the pump was buttoned up and the two gate valves opened. As they began to leave the pump room the pump started.

When entering the station from the street the motor controllers are on the left and numbered 1-2-3 respectively. When entering the pump room from the opposite end of the building entrance the pumps are on the left but the first pump is #3 not #1. The pumps were not clearly marked or the original markings had been painted over, take your pick, but the error was assuming the first pump they came to was pump #1.

Corrective Actions:
Ensure that all pumps and motors are clearly and correctly marked. Pumps motors are swapped out and rebuilt so the original motor for pump #1 may now be on pump #3 position. Take the time to view the other pumps and verify that you are working on the correct piece of equipment.

Do you have a near miss story to share? All story material is anonymous and you can reach me at (603)-934-2809 or e-mail me at chipkiss@des.state.nh.us.
<table>
<thead>
<tr>
<th>Date</th>
<th>Course Name</th>
<th>Registrant First and Last Name(s)</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>March 14</td>
<td>Pump Station Management Considerations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>March 15</td>
<td>Pump School Training</td>
<td></td>
<td></td>
</tr>
<tr>
<td>March 15</td>
<td>NH Septage Rule Changes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>March 29</td>
<td>Basic Laboratory Practices and Instruments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>April 5</td>
<td>Current Biosolids Issues</td>
<td></td>
<td></td>
</tr>
<tr>
<td>April 13</td>
<td>NHWPCA Trade Fair</td>
<td></td>
<td></td>
</tr>
<tr>
<td>April 18 &amp; 25</td>
<td>Remedial Mathematics Review- 2 Days Required</td>
<td></td>
<td></td>
</tr>
<tr>
<td>April 19</td>
<td>Fundamentals of Odor in Wastewater Treatment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>April 26</td>
<td>Wet Weather Flow Management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>May 10</td>
<td>Confined Space Entry- class size limited to 20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>May 11</td>
<td>Phosphorous Removal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>May 16</td>
<td>Introduction to Collection Systems</td>
<td></td>
<td></td>
</tr>
<tr>
<td>May 17</td>
<td>Collection System Safety- morning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>May 17</td>
<td>NEWEA Collection System Exam- afternoon</td>
<td></td>
<td></td>
</tr>
<tr>
<td>May 22</td>
<td>Identifying Filamentous Organisms in Activated Sludge</td>
<td></td>
<td></td>
</tr>
<tr>
<td>May 23 &amp; 24</td>
<td>Lagoon Troubleshooting, Operation and Upgrades</td>
<td></td>
<td></td>
</tr>
<tr>
<td>May 25</td>
<td>Applied Wastewater Math Review</td>
<td></td>
<td></td>
</tr>
<tr>
<td>June 1</td>
<td>Adult CPR Certification and Standard First Aid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>June 14</td>
<td>CERTIFICATION EXAMS—ALL GRADES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>June 19</td>
<td>EPA Requirements for Collection Systems</td>
<td></td>
<td></td>
</tr>
<tr>
<td>June 27</td>
<td>Energy Use and Savings for WWTPs</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**NOTE:** See course description sheet for cost of each class. NO CASH ACCEPTED!

This form and the course description are available online at www.des.state.nh.us/wwe/training.htm

**Make checks payable to:** TREASURER-STATE OF NEW HAMPhISIRE

Send enrollment form w/payment to: State of New Hampshire DES – Water Division

ATTN: Wastewater Operations Section

29 Hazen Drive, P.O. Box 95, Concord, NH 03301-0095

Facility Name: ___________________________ Facility Phone: ______________ Date: ___________

Facility Fax: ___________________________ Type of Payment: ______________

Facility E-mail: _________________________

If your Town is to be billed for the classes at the end of the term, you may fax a copy of the course enrollment form to the Wastewater Operations Section at 603-271-4128.
Stirrn, ahead. Will you be ready?

Flow Monitoring

How confident are you in your latest flow testing?

Proprietary equipment. Innovative technology. To some companies these are key selling points in providing flow monitoring. But at the end of the day, only a dedicated service provider can give you what you truly need: Accurate flow data.

With years of experience, vast resources and a diversified product network, Severn Trent is the industry leader in flow monitoring. No hype, just results. For consultative services and flow data you can trust, call Severn Trent Services.

211 Gay Street
Manchester, NH 03104
603/623-5120
info@severntrentservices.com
www.severntrentservices.com

NHWPCA Sponsor’s List

AAA PUMP SERVICE, INC.
Paul Croteau (603) 645-8610

A/D INSTRUMENT REPAIR, INC.
Tom McPherson (603) 382-4667 · (603) 382-4608

AQUARION SERVICES COMPANY
Bill Douglas (603) 792-0000 · Fax: (603) 792-0001

BOETTCHER ELECTRIC INSTRUMENT & INDUSTRIAL CONTROLS
Peter A. Boettcher (603) 485-5977 · Fax: (603) 485-4179

CAMP DRESSER & MCKEE, INC.
(603) 222-8300 · Fax: (603) 645-6891

DUFRESNE-HENRY, INC.
(603) 669-8672 · Fax: (603) 669-7636

EASTERN ANALYTICAL
Scott Kelly (603) 228-0525 · Fax: (603) 228-4591

E.R. FIELD, INC.
Rick Field (207) 782-8243 · (207) 782-5277

FLOW ASSESSMENT SERVICES
George Harrington LLC.
(603) 656-9799 Fax: (603) 656-0330

F.R. MAHONY & ASSOC., INC.
Dennis Geran (781) 982-9300 · Fax: (781) 982-6035

HOYLE TANNER & ASSOC., INC.
Nelson Thibault, P.E.
(603) 669-5555 · Fax: (603) 669-4168

HYDROPRESS ENVIRONMENTAL SERVICES, INC.
J. Drew O’Hara (413) 247-9656 · Fax: (413) 247-9401

ITT FLYGT CORP.
John Lord 938-03

THE MAHER CORPORATION
Paul Sussman, Fred Kibble (781) 393-0060 · Fax: (781) 396-0239

NEW ENGLAND ENV. EQUIP.
Dennis Vigliotto (781) 275-1001 · Fax: (781) 275-1002

PISCATAQUA ENVIRONMENTAL
Peter Hellfich (603)-664-7152 Fax(603) 644-7152

PRIMARY MEASUREMENTS INC.
Harry Savage (603)-431-1020 Fax(603)-431-0033

RH WHITE CONSTRUCTION
James McGuigan (603)-424-2506 Fax(603)-424-7624

RIST-FROST SHUMWAY ENGINEERING, P.C.
John Scott (603) 524-4647 · Fax: (603) 528-7653

STULTZ ELECTRIC MOTOR SYS.
Paul Merrill (800) 244-4160 · Fax: (207) 854-0613

DAVID F. SULLIVAN & ASSOC.
Mike Sullivan (603)-474-2484 Fax (603)-474-3682

UNDERWOOD ENGINEERS, INC.
Steve Clifton, Ed Rushbrook (603) 436-6192 · (603) 431-4733

SEVERN TRENT PIPELINE SERVICES, INC.
Carla Proulx (603) 625-1212 · Fax: (603) 623-6680

WASTE, INC.
Ken Bradley (603) 224-6596 · Fax: (603) 224-0093

WATER SYSTEMS OPERATORS.
Joe Damour Keith Gilbert INC
(603)-428-3525 Fax(603)428-3764

WESTON & SAMPSON ENG.
Goodwin, P.E. INC.
1-800-726-7766 · Fax: (603) 433-4358

WHEEELABRATORTECHNOLOGIES
Bio Gro Division
Ann Bosiak (207) 878-8177 · Fax: (207) 878-8179

RESOURCE MANAGEMENT, INC.
Charley Hanson (603) 536-8900 · Fax: (603) 536-8998

WOODARD & CURRAN
Harvey King (603) 624-8700 · Fax: (603) 624-5546

WRIGHT PIERCE
Richard N. Davey, P.E.
(603) 430-3728 · Fax: (603) 430-4038
Looking for a Way to Get Credit for Your Safety Program?

GEORGE W. BURKE, JR. FACILITY SAFETY AWARD

The NEWEA Safety Committee is seeking applicants for the George W. Burke, Jr. Facility Safety Award. This Water Environment Federation (WEF) award is presented through the NEWEA to a selected municipal or industrial wastewater facility in recognition of an on-going safety initiative documented by the development, implementation and/or improvement of a comprehensive safety program. The purpose of the award is to:

To encourage active and effective safety programs in wastewater facilities of all sizes.

To stimulate the collection and reporting of injury data.

To demonstrate the relationship between effective safety programs and improved worker safety.

The Award will be presented to the selected facility at the Awards Luncheon held during the NEWEA Annual Conference in January.

Applications for the Burke Award are due no later than 4:00 p.m. on March 31, 2006 to:

Safety Committee Chairman
New England Water Environment Association
100 Tower Office Park, Suite K
Woburn, Massachusetts 01801

For further information or an application, please contact NEWEA Safety Committee Chairman, Jim Skrabak (617-452-6069 or skrabakjw@cdm.com) or the NEWEA office (781-939-0908 or mail@newea.org). Applications may also be downloaded from the NEWEA website at www.newea.org.

Proud of your Safety Program? Let us know so that we can show it off nationally!
Winchester NH WWTF is one of the small WWTF's trying out the Freeze Dried Sludge in the Bag idea on their indoor sand drying beds. Check later on in the spring to see how Kevin Foley, Chief Plant Operator, is making out with this project.

This portable unit is what is used to mix the waste activated sludge with the polymer prior to entering into the geobag for drying located inside the drying bed area at the Winchester WWTF.

Fran Dominick and Kevin Foley standing next to their geobag partially full of sludge inside the covered sand drying beds at the Winchester WWTF.