Maine WasteWater NEWS

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The President's Corner

By Travis Peaslee, President, MWWCA

As I sat down to write this message, I couldn't help but look back at last year which was deemed "the year of the operator". I thought, what could I make this the "year of? After jotting down a few things I think are important to the organization I ended up with "operators" at the top of the list. In an effort to be more creative I skipped over "operators" and went to other items on my list that included training, infrastructure funding, and expanding cooperation with the water folk. While evaluating these items I realized that the driver for each was our "operators". I reminded myself that this association was created to support and provide training for our operators and has since expanded into other areas designed to ensure that they have the tools, equipment, and organizational support required to do their jobs. I decided not to choose the second best idea(s) and instead would like to just make sure we never lose focus of what the organization is all about and carry "the year of the operator" forward for as long as this organization exist. Being an operator myself I take pride in not only being a member of this great organization, but also being given the opportunity to serve as this year's president. I look forward to the challenges, rewards, and learning experiences that come with the role and will work vigilantly to continue our mission and make our association stronger.

Looking forward to the year to come I am encouraged to see more scheduled training opportunities, plans for expanding public relations, enhancements to our website, more young professional involvement, and a highly engaged government affairs committee. The agenda of MWWCA always seems to grow and is simply a product of the hard work put forth by its membership and volunteers. Instead of listing all of the planned activities and meetings for the year I will simply direct you to our website www.mwwca.org. You can see from the meeting list on the website that there is plenty going on and ample that any member can become involved with. Not only is every one of our members welcome to attend our monthly executive committee meeting to see what goes on "behind the scenes", we are also always looking for people to serve on our committees. If you are interested in either please feel free to contact me directly at tpeaslee@lawpca.org anytime to discuss.

I will end by saying that although I don't have a lot to report on two weeks in to 2013, it is expected to be a busy and productive year and one that I want our entire membership to feel a part of. If you have questions and/or comments for us, want to get more involved, or simply just want to learn more about what's going on feel free to contact any one of our executive committee members.

Take care and I wish you all the best for the coming year.

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*For a complete Board Listing, please visit the MWWCA website at:
www.mwwca.org

Upcoming Board Meeting Dates:

February 28
Senator Inn- Augusta

March 19
Maine Municipal-Augusta

On my Soapbox – Local Pride and You

By Mac Richardson, Newsletter Co-editor

This last Saturday I spent the day at Black Mountain of Maine skiing. What a day! Not only was the ticket $15, but the community atmosphere, helpful lift attendants, and lack of "attitude" made for a fantastic day. If you are a skier and have not checked out Black Mountain in Rumford, you owe it to yourself. Before anyone gets upset that I am promoting this ski area here and ahead of many others (and as far as that goes, go ahead and be mad at me if you want to – this is just my opinion) we have plenty of great ski areas in Maine that I love notably Saddleback, Sugarloaf, Shawnee Peak, Mt. Abram, and Sunday River to name just a few. I also realize that the Noyes Foundation put a lot of money into the resort to help save it from an inglorious death. I am also aware that Squaw Mountain in Greenfield is trying to get going again, and that Saddleback is up for sale, and the Town of Camden puts up quite a lot of support for Camden Snow Bowl.

I guess I am pondering the pride that these communities take in their ski mountains. Sometimes it takes a family like the Berry Family (as in the case of Saddleback) or a foundation (as in Black Mountain), but it is so much more than that. What "it" is all about is finding creative ways to make our communities better, to find ways to collaborate and build the communities we live in. It was so evident at Black Mountain that the ski area survives because people love it, support it, and even volunteer to help make trails and keep the place going. What is important to you? Are there volunteer opportunities that are waiting for you to step up? What resources in your town are just waiting for a little TLC to become a point of pride and possibly enrich the lives of people that live and work there? Each one of us has skills and abilities we can bring to the table, and living here in Maine sometimes we have to find alternative or unusual ways to make things work. I am partial to Maine's great outdoor opportunities, but anything that gets us up off the couch and away from screens is a good thing in my book. In the process look for how you can add a little to the good things that are going on all around you. If that means getting out to ski (and remember MWWCA ski day is a Saddleback this year on **Friday March 8**, and your attendance will help another enterprise that is scratching and clawing to make a go of a resource that serves its community as an economic engine) or helping your town in any one of a hundred different ways, you will feel better for it!

Finally, let's all agree to keeping thinking creatively, or to use a tired cliché, "think outside the box" so that our communities can thrive and be places we are proud to call home.

Get Out There and Promote Maine Clean Water Week

By Matt Timberlake, Ted Berry Company

Attention all Maine Wastewater Professionals! Every year the MWWCA sponsors the Maine Clean Water Week Poster contest. Students throughout Maine in grades 3 to 8 participate and winners are awarded cash prizes. In addition, the winners meet the Governor and are recognized at our annual convention in the fall. As part of our public relations mission we are asking any and all MWWCA members who would like to participate to give a brief presentation to their local school. Alternatively a member can contact a local teacher or school official and offer to help them explain the importance of clean water and how posters may be submitted. Anyone interested please contact Matt Timberlake, MWWCA Public Relations Chair at matt@tedberrycompany.com or (207) 897-3348 for a list of participating schools and ideas you may have to engage our next generation and spread the word about the good work we do.

Last year, MWWCA's own John Fancy and Mike Courtenay gave a presentation on microbiology at Thomaston Elementary School and the response was one of the largest set of poster entries ever!

The 2013 NEWEA Annual Conference and Exhibit – This is Where it Begins.

By Scott Firmin, Portland Water District

The Annual Conference and Exhibit is one of the premier events for water quality professionals in New England. The conference delivers technical sessions, access to latest treatment equipment and systems, and networking. This year, however, the excitement level was elevated as NEWEA unveiled a rebranding effort that will lead our profession in the New England region into the future.

The opening session unveiled a year long, intensive effort by NEWEA Leadership and staff to re-brand NEWEA. The re-branding is part of a growing national effort to increase public awareness of the contributions water quality professionals make every hour, every day, and year in and year out. To identify the areas of focus, an intensive survey of members was completed and the results were analyzed. Areas of focus included the importance of engaging the public with a consistent message and ensuring operator engagement in the organization. With help from a marketing professional, this new direction has been captured in NEWEA's exciting new logo.

The NEWEA Logo recognizes the collaborative role our industry members play with the colors representing our workers, our infrastructure, the environment, and the water quality we work to preserve. Along with this new logo, NEWEA is working to deliver a consistent and concise message that highlights the critical nature of our infrastructure, and the pressing needs to address the condition of this aging infrastructure.

To support this effort, NEWEA arranged a special session with WEF Executive Director Jeff Eger. In an inspiring session, Mr. Eger highlighted the importance of our industry to the health of our economy – we provide a critical service. Referring to water and water quality utilities as the silent industry, Mr. Eger shared a series of tools WEF has designed to help our industry deliver a consistent message on the importance of our products and the infrastructure used deliver our services. The **Water's Worth It** campaign has been designed to help deliver this message. Embraced by NEWEA, the **Water's Worth It** message is supported by several national organizations and efforts are underway to launch a multi-million dollar national marketing program designed to make **Water's Worth It** an every-day term. You can learn more and access the **Water's Worth It** toolbox at www.watersworthit.org.

Technical sessions were well attended – often with standing room only. The session topics seemingly addressed every aspect of our industry and ranged from CSO's, collection systems, nutrient removal, stormwater management, plant operations, asset management, energy, and biosolids management. I spoke with several individuals whose favorite session was "Gizmos and Gadgets". This session highlighted low cost, practical, and effective solutions to challenges we face everyday. From improved systems to insert CCTV Inspection Cameras into sewer pipes to innovative solutions to dewatering challenges, the session demonstrated the ingenuity of our operators and water quality professionals. The session finished with a presentation on the use of iPads by operators to capture field data during catch basin cleaning.

The exhibit hall was, as always, a highlight of the conference, providing access to latest in equipment and services. From biosolids services to sewer inspections and repairs, to headworks equipment, aeration systems, instrumentation, pumps of all sizes and shapes, engineering and consulting services; if it's required in the operation and maintenance of our systems and treatment plants, you could find professionals to provide detailed information in the exhibit hall. Coffee breaks

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and post-session networking opportunities were well attended, allowing for information exchange and learning.

A regular highlight of the Annual Conference, the Awards Luncheon on the final day of the conference celebrated the accomplishments of over 60 water quality professionals. Maine was well represented:

Will Benoit ..... Stockholm Junior Water Prize

Howard Carter ..... WEF Fellows

Jon Doucette..... Safety Logo Contest

Force Maine Operations .... Ops. Challenge Div. II - Process Control 1st Place
Challenge Team: Daniel Laflamme, Alex Buechner, Anthony Ellsworth, Scot Lausier, Stacy Thompson

Freeport Sewer District..... Energy Management Award

Cary James..... Public Education Award

Alfred Jellison ..... Alfred E. Peloquin Award

Bradley Moore ..... WEF Service Award

James Oppert ..... WEF Life Membership

Travis Peaslee..... NEWEA Operator Award

George Vercelli ..... WEF Life Membership

The Awards Luncheon was capped off by the transfer of the Presidential Gavel from Maine's own Dan Bisson to the new president Mike Bonomo.

The year ahead will be exciting as NEWEA further develops the re-branding and messaging of the association and our industry. The **Water's Worth It** campaign is expected to grow and to provide our industry with a tool box to communicate the importance of the services we provide. The MWWCA and its volunteers work closely with NEWEA in making these events possible. In closing I encourage you to recognize the effort that NEWEA volunteers and staff put into making the organization and Annual Conference successful. I'm already looking forward to next year, after some sleep…

By the numbers:

The conference has been held at the Boston Copley Place Marriot for 28 years!

Over 1,650 water quality professionals from across New England attended this year's event.

31 Technical Sessions were held – from Preparing for Emergencies to Collection Systems and Nutrient Removal.

The Exhibit Area included 203 booths and included equipment vendors, service providers, and consultants.

The Awards Luncheon recognized the contribution over 60 individuals from across New England.

I gained about 5.5 lbs over a 4 day period….

Freeport Sewer District Earns Energy Efficiency Award

By Brian Cataldo, Woodard & Curran

A significant upgrade to mechanical equipment at the Freeport Sewer District's wastewater treatment plant earned the "Largest Mechanical Project" award from Efficiency Maine. Working with Woodard and Curran, the facility has been able to reduce energy consumption by more than 50% as a result of replacing aging, oversized blowers and pumps.

While much of the savings were generated from replacing multiple types of pumps and the facility's blowers with more efficient models, new control systems and fine tuning the operation were important as well. Immediate energy and cost savings reaching $75,000 per year have been realized. The project was made even more attractive by support received from Efficiency Maine.

The combination resulted in financing costs for the capital improvements that are less than half of the monthly savings.

"Because this upgrade created an immediate cash savings, it has allowed us to pursue additional projects without impacting rates in our community, " explained Leland Arris, General Manager of the Freeport Sewer District. "We've invested the savings in building improvements that further reduce our energy costs and contribute to the long term financial and environmental sustainability of the plant and the District".

Young Professionals Committee – Looking Forward to 2013

By Paul Drouin, YP Committee Chair

Truth be told, I'm still glowing from the success of the Mentor/Mentee Program and the Twitter Chase at the Fall Convention. Everyone involved had a great time, and we look forward to coordinating a similar event this fall. But, we don't want to contain the excitement to just one event, we want to expand! We're taking all the positive energy and using it to start a brainstorming session for this year. The next YP meeting will be held on February 20th at 10:00 at the Lewiston Auburn Water Pollution Control Authority (LAWPCA). We welcome new voices and new ideas to help carry our mission forward. If you plan to attend (or are interested but cannot) please contact me.

One upcoming event to mark on your calendar is the second annual Urban Runoff 5k and walk which will be held in Portland on **April 20th**. Objective of this event include increasing awareness of water pollution and raising money to support clean water education in local schools. MWWCA is planning to have a kid's activity table set up to highlight the importance of wastewater treatment. Join us at the event as a volunteer or register to walk or run. I will be there, and I hope to see many of you as well.

Trivia: What is the pumping rate in gpm of the following piston pump?

Diameter = 10", stroke length = 6", strokes per minute = 30.

A) 293.6 gpm B) 86.9 gpm C) 45.5 gpm D) 62.1 gpm

All correct answers will be entered to win a $25 Visa giftcard! Email pdrouin@lawpca.org with your trivia answers.

Members on the MOVE!

Bolduc goes South

After over 30 years with the City of Saco, the last ten as the city's public works director, Mike Bolduc is getting back into the flow of wastewater treatment as the new Superintendent at the Kennebunk wastewater treatment facility. Mike will be moving into the position long held by Willis Emmons who is able to retire after a long tenure. A past president of the Maine WasteWater Control Association, Mike said that he happy to be back focusing on wastewater treatment. We wish both Willis and Mike the best in their new endeavors!

True Mainer returns from Vermont!

Many MWWCA members recognize Norton True from his long association with the New England Water Environment Association and Operations Challenge. After many years working in the Green Mountains, Norton has returned to Maine to open and manage an office for Hoyle Tanner in Winthrop where he will be participating in client management and coordination of wastewater projects as well as providing expertise in value engineering. As a bonus Norton has promised to be involved in the Maine WasteWater Control Association starting with the awards committee. Welcome back Norton!

University of Maine Researcher Looking for Help from Coastal Dischargers

John Peckenham, a faculty member of the University of Maine. Orono and Director of the Maine Water Resources Institute is leading a group on a proposal to study how upland freshwater discharges during both dry and wet periods affect shellfish bed closures and advisories at swimming beaches. Combined sewer overflows and overboard discharges are two sources cited by some as the source of bacteria causing these actions, but other sources clearly exist.
Dr. Peckenham is looking for information on coastal wastewater treatment facilities that have information on that would help with this proposal Discharge volumes from operating plants, water quality data, monitoring records and CSO management data are some of the types of information that would be very useful. Researchers are interested in getting a better handle on WWTP operations and what sort of data has already been gathered. If you or your facility are able to assist in this effort, please contact John Peckenham at jpeck@maine.edu.

2013 MWWCA Meeting/Convention Schedule

DATE	DAY	TIME	EVENT	LOCATION
January 18	FRI	9:00 A.M.	Monthly Meeting	MMA
January 27-30	SUN-WEDS		NEWEA Annual Conference	Boston Marriott Copley Place
February 5&6	TUE-WED		MWUA & MWWCA Joint Conference	Portland – Holiday Inn by the Bay & Cumberland County Civic Center
February 28	THURSDAY	7:30-12:00 P.M.	Legislative Breakfast/Monthly Meeting	Senator Inn - Augusta
March 8	FRI		Ski Day	Saddleback, Rangeley
March 15	FRI	9:00 A.M.	Monthly Meeting	MMA
March 15	FRI	1:00 P.M.	Website Maintenance Training	MMA
March 19	TUES		Maine Water Conference/Stockholm Jr. Entries	Augusta Civic Center, Augusta
April 3 & 4	WED & THUR		North Country Convention	PI Inn & Convention Center
* April 25	THURSDAY	Noon-Lunch	12:45 p.m. Long Range Planning Meeting	Portland – DoubleTree-Hilton
April 26	FRI	8:00 A.M.	MWWCA Spring Conference	Portland – DoubleTree-Hilton
May 17	FRI	9:00 A.M.	Monthly Meeting	MMA
June 2-8	SUN-SAT		Clean Water Week *(Poster Presentation to Governor)*	
June 2-5	SUN-WED		NEWEA Spring Meeting & Exhibition	Ocean Edge Resort, Brewster, Massachusetts
June 21	FRI	9:00 A.M.	Monthly Meeting	Bangor WWTP
July 19	FRI	9:00 A.M.	Monthly Meeting	Augusta Country Club, Manchester
September 18	WEDS	11:00 A.M.	MWWCA Golf Tournament	Sugarloaf/USA
September 19-20	THUS- FRI	8:00 A.M.	MWWCA Fall Convention	Sugarloaf/USA
October 5-9	SUN - WEDS		WEFTEC	Chicago, Illinois
October 2 & 3	WEDS-FRI	8:00 A.M.	MMA Convention	Augusta Civic Center
October 18	FRI	9:00 A.M.	Monthly Meeting	MMA
* November 15	FRI	9:00 A.M.	Budget Workshop/Monthly Meeting	MMA
* December 20	FRI	9:00 A.M.	Monthly Meeting\Christmas Luncheon	MMA

* Lunch Provided

LAWPCA Digestion Project Update

As of early January the project is about 85% complete with all tankage and buildings essentially done. The project remains months ahead of schedule with startup scheduled to begin in April and gas production to follow in May. The project includes two mesophilic anaerobic digesters that will receive thickened primary and waste activated solids, a gas and solids storage tank, digester equipment building housing mixing and circulation pumps, heat exchangers, boilers and solids transfer pumps, gas conditioning building for moisture and hydrogen sulfide removal, and a co-generation building housing two 230 kw engine generator sets. The project when completed is expected to generate nearly half of the electricity used at the wastewater treatment facility.

Septic Systems Tips and Helps

Proper care and operation of septic systems is a topic that may not fit cleanly into your day to day job responsibilities, but chances are that you have been asked about these systems. Here is a web site that may help you pass on good information: water.epa.gov/infrastructure/septic/speticsmart.cfm

Crystal Ball: Greg Cataldo Reflects on What's Ahead for the Wastewater Profession in Maine and How Utilities Can Prepare

The wastewater world is changing rapidly. What is sometimes thought of as a slow-moving business is anything but these days. Utilities all over the state and country are struggling with declining federal and state funding support, increasingly complicated and restrictive permits, deteriorating infrastructure, and a rising cost of doing business. This is the most dynamic time in the industry in the last 20 years, and big changes could be on the horizon.

When I started working in this industry in 1993, the idea that you would be able to operate a treatment plant from your home computer was about as far-fetched as flying cars, but today we're seeing new systems built that can be monitored and controlled from mobile phones. And it's not just technology that has changed; regulations and standard practices have changed dramatically. MS4 permits in concert with existing discharge permits will lead to a more global integrated planning process that will encompass not only a municipality's geographic footprint but the watershed it resides in. Increased cooperation and financial proportioning between municipalities and districts will become commonplace.

It won't be news to anyone reading this that tight budgets and a long list of needed improvements have put many utilities in a tough position. Forced to do more with less, people are doing their best, but eventually, something has to give. But all the obvious answers are politically difficult: Raise rates? Not a popular idea. More federal spending? Doesn't seem likely in the near future. What about regionalization? No shortage of challenges there either. So what's the solution?

Unfortunately, it's not simple. The reality is that we're likely to see some combination of higher rates, increasing regionalization or amalgamation, and a new funding or financing model. These changes will impact every utility in Maine, but those who are best prepared will weather the storm more easily.

In order to be ready, the most important thing is to have your financial house in order. That means being open to finding ways to increase revenue either through impact fees, modified rate structures, or slowly increasing rates over time.

It also means taking asset management seriously. Simply knowing the condition of all your assets isn't enough if you don't have a plan for how to make the most of them. A good asset management plan includes prioritized lists of needed investments and ways to reduce risk. For example, you should know where the oldest and most vulnerable pieces of your collection or distribution system are and have a schedule for upgrading the worst sections. As the saying goes, collection systems are not like fine wine, they don't get better with age.

You can also look to technology to help manage costs in the long term. A well-thought-out SCADA system can dramatically change how you staff your treatment plant, improve your facility's reliability, and simplify compliance.

Another way to prepare is to focus on staff development and cross-training. Good utility management relies on contributions from everyone on the team, from the director of the department all the way through the operations staff, maintenance, and billing. Increasing the flexibility and professionalism of everyone on the team yields benefits across the board.

And finally, looking for ways to share resources will become increasingly important. There is relatively little collaboration with water utility entities in many communities, but that will need to change. Duplication of equipment and staff increases costs with limited or no additional effectiveness. Finding a way to share the cost and maximize the value of equipment and staff is an excellent way to reduce long-term costs. The same kind of solution can be applied between communities as well. Jointly owning expensive but not fully utilized equipment and resources offers real cost savings as well.

There's no doubt in my mind that change is coming to the wastewater profession, and ignoring that won't do you any good. Taking steps now to make improvements in the way utilities are managed, the way rates are structured, and how we manage assets will make the biggest difference in how we ride out the storm.

Greg Cataldo retires from Woodard & Curran in March after a 20-year career helping municipalities address infrastructure needs.

Submersible Pump Station Maintenance Data

By Gene Weeks, Blake Equipment

There are a variety of pump station configurations, and there have been books written about pump station maintenance. To narrow the field for the purposes of this brief article, let's assume that we are talking about a duplex submersible pump station. The pump station contains solids handling type pumps pumping through 4" or 6" ductile iron pipe with a separate valve chamber. This is a busy pump station with across the line starters, not VFDs.

In developing a maintenance program for our pump station, one question to ask is: What data do I have about the operation of this pump station, and what data can I obtain? Keeping good records of the pump station data and looking for changes in data is a good way to keep on top of pump station maintenance and to anticipate potential problems. If we have a good SCADA system, at least some of this data may be compiled for us electronically. If we don't, someone will have to physically obtain the data. Obviously we need alarm data. When did each alarm go off? What caused the alarm? What was done to eliminate the alarm condition? What needs to be done to prevent the alarm condition from occurring again?

As part of normal non-alarm data gathering we need the voltage and amperage for each leg of the power for both pumps when the pump is running. This data should be compiled for each trip to the pump station. Particularly we are looking for increases in running amperage over time. This can indicate a variety of potential problems including pump plugging and bearing wear. If our SCADA system does not send us pump running amperage, this may be an easy and inexpensive addition – we should consider it. Hopefully we have data on the running hours for each pump. We are looking for differences in running hours. When there is a significant difference in operating hours between pumps, typically the pump that runs the most hours is pumping the least flow – and we need to find out why. Speaking of flow, can we get the discharge pressure and flow for each pump? Pressure data is relatively easy to obtain in some pump stations. A good wastewater pressure gauge is sufficient if someone is going to the pump station. If the SCADA system is going to transmit pressure data, we will need a pressure transducer tied into our station PLC. Flow meters are relatively expensive, but in some cases they can be retrofitted into the valve chamber. Good pressure and flow data will tell us if the pump is running on or close to the original curve. If it is not, there is a problem. Some possible problems are partially plugged pumps or discharge piping; or pump impeller /wear ring damage. Reduced flow can also cause, or contribute to, pump plugging. We all know that we have to keep the velocity in the discharge pipe at least 2 feet per second. This is true of the pump as well. Low velocity through a pump will cause rags to hang up in the volute and plug the pump.

Most submersible pumps have double shaft seals with a seal leak detection probe between them. Unfortunately, in many installations, when a seal leak is detected all it does is light an indicator light. If we are inspecting the station, these seal leak indicating lights should be on our inspection check list. If we have a SCADA system they should be tied in to the system. If a seal leak light is on, the pump should be pulled and the lower seal changed.

When someone goes to inspect the pump station, they should do so with their eyes open, and with all of their senses on alert. What do we see, hear and feel? Visual inspection data should be part of our data record. Is there a grease mat? Are the float switches free to swing properly? Are the pumps running smoothly, without vibration? Are there any unusual odors? Are all the lights and switches working properly? Is there any unwanted debris in the station? What can we observe with our eyes, ears, and nose that may be indicative of a problem?

Good pump station data records are the foundation of a good pump station maintenance program. We want to anticipate problems whenever possible and deal with them before the crisis not after the crisis. Future articles will address some of the problems our data may reveal and what we can do about them.

This is your newsletter – if you have news you would like to pass along or an opinion to express that would be of interest to the membership of MWWCA we are always interested in receiving material and will make every effort to incorporate your submissions.

Non-Dispersibles Update

By Aubrey Strause, Tata & Howard

It's been a busy month with respect to non-dispersibles ("flushables"). MWWCA's working group on this issue submitted a letter to the Maine legislature's Joint Standing Committee on the Environment and Natural Resources. This letter updated the Committee on progress made since January 2012 with INDA, the group that represents manufacturers of wipes and similar consumer products. Members of the MWWCA group also drafted the document that would becoming the NEWEA Position Paper "Managing Non-Dispersibles in Wastewater), which was ratified at the NEWEA Executive Committee meeting on January 27, 2013. The group has had a conference call with representatives from INDA and is currently planning the next steps, which will include the development of a focused educational program in Maine and follow-up efforts to measure its success. As of press time, MWWCA does not intend to submit new legislation on this issue, but is continuing to engage legislators on the issue. Scott Firmin and legislative advocate represented MWWCA in front of the Committee on Wednesday, February 6 in Augusta, setting the state for the next phase of cooperation between our groups.

Theme for Spring 2013 Conference

The MWWCA Spring conference will be **Friday, April 26, 2013** at the Doubletree by Hilton at the Maine Mall in South Portland, and will have the theme "Integrating Water Quality Approaches". Our Spring 2013 conference will be located in South Portland, ME, right in the middle of the Long Creek Restoration Area. As such, in addition to technical sessions about wastewater operations, the Personnel Advancement Committee has also developed a track of sessions themed around stormwater. We will have Tamara Lee Pinard from the Cumberland County Soil and Water Conservation District speaking about the Long Creek project, Dr. Tom Ballestero from the University of New Hampshire Stormwater Center talking about stormwater treatment systems, a session on two ways to develop a stormwater utility, and many others. The keynote address will be from South Portland's own Fred Dillon, talking about the watershed-based approach to water quality that helped the City develop its programs". Look forward to receiving the detailed conference brochure shortly!

WANTED!

Do you know someone dedicated to their job? Do they work within a wastewater or stormwater collection system? NOMINATE THEM FOR THE CHARLES PERRY AWARD! Nominations can be made by clicking on the link below. Additional information is available from Mathew Bodwell at Hydro International , 92 Hutchins Dr. Portland, ME 04102 or (207) 756-6200. http://www.mwwca.org/charles-perry-award.htm

MWWCA and MWUA Represent Water Quality Industry at UMO Career Fair

On Wednesday, January 30, 2013, representatives of the MWWCA and the Maine Water Utilities Association attended a Career Fair at the University of Maine in Orono. Darold Wooley from the Lincoln Sanitary District and two Young Professionals from the Bangor Water District attended. Since the event occurred so close to press time, we'll feature more information about this event in a future issue.

Eaton/Peabody Selected as Legislative Advocate

MWWCA has selected the firm of Eaton/Peabody to serve as its legislative advocate for the 2013 Legislative session. Partner John Melrose will be the primary point of contact for MWWCA. Before joining E/P John served in the King administration as Commissioner of the Department of Transportation and previously worked at the Maine Municipal Association serving as Director of Community Development. Between these positions, John founded Maine Tomorrow. Thus John has had plenty of experience in infrastructure and local government.

Portland's Baxter Boulevard North Storage Conduit CSO Project

By Owens A. McCullough, P.E; LEED AP, Vice President, Sebago Technics, Inc.

In 1993, the City of Portland established a Long-Term Control Plan to eliminate 33 of the 39 City-wide Combined Sewer Overflow Projects (CSO), reduce the number of CSO events by 85%, and reduce CSO volumes from 720 million gallons per year (MG/yr) to 87MG/yr. Tier I projects have been completed and Tier II projects will be completed by the end of 2013. The Baxter Boulevard North Storage Conduit (BBNSC) project in the City's Back Cove area is one of these Tier II projects.

The BBNSC project will be the first of five storage projects for the City of Portland and includes 2 million gallons of off-line linear conduit storage along with one new flow regulator at CSO-006, two new diversion structures (CSO-006 and 007), tide gates and new outfalls for CSO–006 and 007. Planning and design began in the summer of 2011 with the selection of the design team to include Sebago Technics, Inc, AECOM, Jordan Environmental and S.W. Cole Engineering. Project work began with field investigations and general planning to evaluate alternative design approaches responsive to anticipated constraints and general site conditions to include:

- A comprehensive geotechnical and environmental investigation to better understand groundwater conditions, soil characteristics, potential environmental implications, and tidal influence.
- Hydraulic modeling to evaluate and optimize storage configurations and alternatives.
- Alternative storage conduit materials to include precast concrete, large diameter PE and PVC piping.
- Potential for sea level rise over the life cycle of the project.

A design approach was selected to include gravity dewatering and approximately 2 million gallons of storage split between Baxter Boulevard (CSO-007) and Payson Park (CSO-006). Through a comprehensive modeling and calibration effort, a design was developed to reduce CSOs at 006 and 007 in a manner that compensated for and reduced overflow at a third location, CSO-005, without the need for physical storage at CSO-005. This approach avoided the need to construct a storage system at CSO-005, which would have resulted in deep excavation, dewatering and overall higher costs. Once the design was solidified, a Computation Fluid Dynamic analysis was completed to assess the performance of the diversion structures and solids deposition/re-suspension. Sea level rise modeling included a 2.25 foot rise in sea level and assessed a level of service for up to a 25-year storm event.

The predicted hydraulic grade line at key locations under existing and post-construction conditions identified the need for mitigation measures to include the bending weirs and tide gates at CSO 006 and 007 diversion structures together with bolted/gasketed manhole covers. To optimize flow performance, a V-bottom channel was incorporated in the storage conduit along with bending weirs and a baffle system in the flow regulator of CSO-006 and -007.

The conduit operations will include passive filling of CSO-006 and 007 tanks and individual dewatering gates at the downstream end of the conduits. One gate will be installed at the linear conduit for CSO-006 and three gates at each barrel section of the CSO-006 conduits. This approach allows for individual dewatering of each conduit. The system controls will be integrated into the both the Portland Water District and City of Portland SCADA systems.

There were significant pedestrian and traffic control considerations, given the prominent location of the project. The design and construction approach allowed for closure of Baxter Boulevard for ease of construction and to reduce costs. A project specific Traffic Control Plan was developed with feedback from public meetings, and includes provisions for traffic control modifications during construction, should they become necessary. The recreational trail will remain open during construction with the exception of three short time periods for replacement

of CSO-006 and 007 outfalls and installation of a new manhole adjacent to CSO-005. The timing of construction was also a key consideration. Allowing for a winter construction time period minimized disruption of the recreational uses which are most prevalent in the summer and fall of the year.

The BBNSC required several levels of permitting which included City of Portland Historic review, Level II Site Plan approval, Maine Department of Environmental Protection Tier III Natural Resources Protection Act approval and US Army Corps of Engineers approval.

Project bidding was completed in late fall of 2012 followed by award of the contract to Sargent Corporation at a bid price of approximately $9.7 million.

Construction work was initiated in late January 2013 and will be completed by the end of July 2013, well in advance of the December 2013 mandated completion date. At its completion, the BBNSC project will reduce the total overflow volume on CSOs 005, 006 and 007 to less than 15 MG during the typical rainfall year of 1966.

Yarmouth Water Pollution Control Facility's SCADA Upgrade

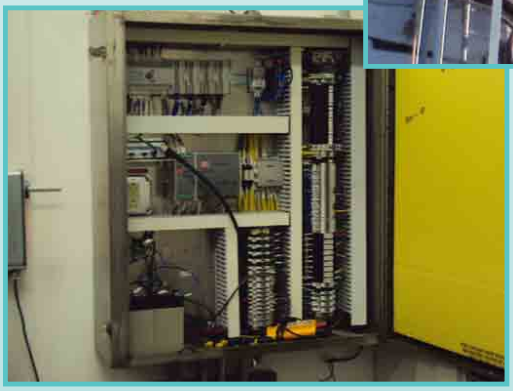
By Tom Connolly, Superintendent, Yarmouth WPCF

When the Yarmouth Water Pollution Control Facility first came on line in 1967, the cutting edge technology of the time for alerting operators to a problem at a pump station was a flashing red light atop the station control panel. Fast forward to a facility upgrade in 1991 and Yarmouth's 30 pump stations were retrofitted with a Healy-Ruff SCADA system. This system served the facility very well indeed, but as with all technology, time and improvements passed it by. The manufacturer even dubbed it "Classic", as in "it's outdated but we can still find parts….maybe." The writing was on the wall that we should consider replacing our "Classic" SCADA.

The needed push to implement the SCADA upgrade came in the form of a letter from the Federal Communication Commission in early 2011 announcing the phasing out of wide band radio frequencies (which our SCADA system used to transmit data) to a new and "improved" narrow band frequency which by law was required to be in place by January 2013. The timing seemed right to not only upgrade the radios we used (via FCC edict) but also to upgrade our "Classic" SCADA system. After all, money was the only obstacle in our way!

Here our situation became complicated. Yarmouth is unique in that there is no sewer user fee in place to fund the O & M of the wastewater system. A portion of the Town Property Tax is allocated to the system, along with any connection fees collected for new customers added to the system. A Reserve Fund provides monies for larger projects, but never enough at one time. Our solution? We would "save up" for two years and do the installation ourselves based on a design build plan from an engineering firm. Acting as our own contractor, we would purchase the specified materials using a bidding process from recommended vendors. Our estimated overall savings would be $50,000.00 or better over the estimated turnkey cost of having a consulting firm do the entire job.

Mounting Repeater Mast



New Non Proprietary PLC Panel

As February passes, we have removed the existing Healy-Ruff SCADA panels, reused their existing stainless steel cabinets and have installed the new non-proprietary PLC panels, narrow band frequency radios, and battery backup systems. We will be working with the radio vendor and consultant as we gear up for the programming of the radios and PLC's as well as the Master Controller Poll at the WPCF.

Having an intelligent, hard-working staff of operators has been crucial to make this work as a "Do It Yourself" project, as well as consultants and vendors who can adapt to the customer's financial needs. We are fortunate to have a partnership of all three groups working to a successful end. We'll update our story with specific details when the project is finished. And we'll continue to maintain our flashing red light site alarms!

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