Brunswick Sewer District Moves into New Administrative Offices

By Aubrey Strause, Verdant Water and Rob Pontau, Brunswick Sewer District

The Brunswick Sewer District moved into its new administrative offices on Pine Tree Road in January 2013, after a seven-month rebuild of the structure. The District originally planned to renovate, not rebuild, the office building, but realized that using a design-build approach would result in a better end product and save them time and money. During the construction period, the District worked out of temporary offices at the former Naval Air Station, just down the road.

The District used Ouellet Associates, Inc., (Brunswick) as a general contractor and construction manager, choosing Harriman Associates (Portland) to provide architectural and system design. The resulting building maintains the footprint of the original structure, but with much improved use of space and increased efficiency. The building features LED lighting, heat pumps for heating and cooling, and excellent insulation, all of which give the building a very “green” feel.

The official Open House was held on July 11. The building’s new conference room includes a wide-screen television, high-tech projector system, and efficient presentation lighting, all of which were on display when MWWCA held its monthly Executive Committee meeting there on July 19. (Thanks for the hospitality!)

Cont’d on page 6
Fall 2013 Conference Registration is Open!
By Aubrey Strause, PE, Verdant Water

The MWWCA 2013 Fall Convention will be held Wednesday through Friday, September 18 - 20, 2013 at the Sugarloaf Resort in the Carrabassett Valley, with the theme “Treatment 101”. The “Treatment 101” Session track on Thursday and Friday will cover different processes that provide wastewater treatment and key operations that support treatment. Other session tracks address regulatory, data management, safety, collection systems, public outreach, and administrative issues and needs that impact our Members. See Pages X and X for the full Session Map.

The Golf Tournament on Wednesday, to benefit Maine’s Ops Challenge Team “Force Maine”, will no doubt draw a crowd, like usual! Registration and sponsorship information is included in the Attendee and Vendor Packets which can be viewed on the MWWCA website http://www.mwwca.org/?p=1289 and here http://www.mwwca.org/?p=1183, respectively.

Vendors will be given multiple blocks of time with attendees throughout both days, a meet and greet period on Thursday afternoon, and a networking opportunity Thursday night in the vendor sponsored hospitality suite. As done in the past, prizes will be raffled during the meet and greet period. During Thursday afternoon technical sessions, a vendor round table is planned for vendors to break away from the booth and network with each other and to provide feedback to the Executive Committee.

The MWWCA Young Professionals Committee is sponsoring the second annual Mentor/Mentee Program on Thursday: information on signing up for this valuable networking and opportunity is on the Registration form. The Young Professionals Committee is also coordinating a “Twitter Chase”, with the goal of encouraging attendee/vendor interaction by increasing the traffic flow to vendor booths. Throughout the day, convention attendees who follow Maine WasteWater (@mwwca) on Twitter will be able to access tweets instructing them to visit a specific vendor booth. Each participating vendor is responsible for having one prize to raffle off to someone in the group of people who show up at their booth. This gives each vendor the opportunity to talk about their products/services. If you have any questions, please email pdrouin@lawpca.org.

MWWCA Members, please note that a vote of Members in attendance will be held during the lunchtime Business Meeting on Thursday, September 19. Please review the Attendee Packet for details.

We look forward to seeing you there!
(Full agenda available on pages 3 & 4)

NEW MCS CLASSES TO START OCTOBER 2013!

JETCC is coordinating the next Management Candidate School and seeking initial interest in this 12-month program designed to train the next generation of managers and supervisors. The fifth year of MCS will be held at the Brunswick Sewer District starting October 16, 2013. Look for formal letters in the mail soon. In the meantime, feel free to contact Leeann Hanson at (207) 253-8020 for more information.

We’ve Come a Long Way, Baby (Mister)!

It is one sign of the times and how much has changed that the 18th Annual Androscoggin River Source to the Sea Trek will be wrapping up this week. 19 Days of paddling will end for the year with an excursion on Merry Meeting Bay. This wonderful event is being held on the river that was once one of the Nation’s ten most polluted and featured in a 1960’s article in National Geographic titled “Of Slime and River”! Take a minute to give yourself a pat on the back for the work you do because Water is Worth It!

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.
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<td>8:00 to 9:00</td>
<td>SESSION 1: Treatment Process Overview</td>
<td>SESSION 2: Data Collection and Management &amp; the York Sewer District Case Study</td>
<td>SESSION 3: Free Stuff: Apps, Software &amp; Websites You Can Benefit From</td>
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<td>Speakers: Chris Perkins &amp; Kent Nichols (Weston &amp; Sampson)</td>
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<td>SESSION 4: Lagoon Treatment</td>
<td>SESSION 5: Odor Management: the New Regulatory Environment</td>
<td>SESSION 6: On The Job Apps for iPhones, iPads, etc.</td>
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<td>Speaker: Mike Courtenay (Warren Sanitary District)</td>
<td>Speakers: Mary Monahan and Yann O’Gilloith (Olfacto Expert)</td>
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<td>SESSION 7: Fixed Film: RBCs and Trickling Filters</td>
<td>SESSION 8: New Hampshire Great Bay Nitrogen Limits: Science, Development, and Impact</td>
<td>SESSION 9: How to Deal with Media: Emergencies, Public Relations, and Notices</td>
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<td>Speaker: Chuck Applebee (City of Gardiner, ME) and Rob Pontau (Brunswick Sewer District)</td>
<td>Speaker: Dean Peschel (Peschel Consulting)</td>
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<td>Moderator: Mac Richardson (Lewiston Auburn Water Pollution Control Authority)</td>
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<td>SESSION 10: Intrastate Operator Exchange</td>
<td>SESSION 11: Nutrient Removal: Achieving &lt;0.1 mg/L Total Phosphorus</td>
<td>SESSION 12: Manhole Rehabilitation Technology</td>
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<td>SESSION 13: Microalgae Cultivation and Nutrient Recovery</td>
<td>SESSION 14: Case Study of the Long Creek Pump Station, Maine Mall, South Portland, Maine</td>
<td>SESSION 15: Work/Life Balance</td>
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<td>Membrane Bioreactor (MBR) Systems</td>
<td>MSDS Name Change: What Does it Mean for You?</td>
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<td>Speaker: Maria Hamlin (Ovivo MBR Systems)</td>
<td>Speaker: Ed MacDonald (Maine Municipal Association)</td>
<td>Speaker: Stewart Sevey (Eagle Safe Surfaces)</td>
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<td>Basic Math for Treatment Process</td>
<td>Super Oxygenation: Anson-Madison Sanitary District and Kennebunk Sewer District Case Studies</td>
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<td>Speaker: Dick Darling (Maine DEP)</td>
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<td>Speakers: 1. Gene Weeks (Blake Equipment) and 2. Clifford Stueforth (BAU/Hopkins)</td>
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<td>Cellular-Based Telemetry System: Falmouth, Maine Case Study</td>
<td>Baxter Boulevard North Storage Conduit, Portland, Maine</td>
<td>Tools and Techniques for Asset Management and CMOM Compliance</td>
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<td>NARROW GAUGE ROOM Maine DEP Update</td>
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**Speakers:** Brian Kavanah (Director, Division of Water Quality Management) and Maine DEP Staff

**Moderator:** Scott Firmin (Portland Water District)
Update on Non-Dispersibles
By Aubrey Strause, PE, Verdant Water

This feature provides members with a regular update on the work MWWCA is doing to address the issue of non-dispersibles (ND). This refers to consumer products that are often flushed, cause pump clogs, backups, and other interference in collection and treatment systems.

Before I jump into the update, I need to reiterate that our Working Group can use extra people to help with this work. Help can range from updating the MWWCA website with articles on the topic, writing articles for newsletters in other states, soliciting donations to help fund our Pilot Project (see below), taking minutes during meetings, and sharing outreach & education information with folks in other states. Interested people can participate in our meetings by phone to keep up with the conversation and where we are, and help fill in on our national calls. Please contact me or Scott Firmin (information at the end) and we can bring you up to speed.

And, of course, if you’re experiencing problems with wipes in your system, I’m sure that you’re already sending your completed SOP Forms to Scott to document what products you’re finding. Right? (Visit http://www.mwwca.org/?page_id=777 for a summary and to download the SOP Form).

I also want to announce that MWWCA’s “Non-Dispersibles Traveling Demonstration” is available for use at events. This demonstration includes “The Good, The Bad, and The Ugly”, examples of many products with a variety of messages on their packaging, and laminated info sheets that provide a summary and many examples. (See Tim Haskell’s article on page 13). Contact me to coordinate the materials.

June and July featured an explosion of activity. Here’s a recap.

- MWWCA is still working with the Association of the Nonwoven Fabrics Industry (INDA, the association that represents the manufacturers of wipes and other consumer products) on a pilot education campaign to be implemented this year. This is a very slow-moving process and unfortunately, not much has changed since my May update despite lots of meetings, emails, and effort. In mid-July, INDA received an updated proposal from the Maine marketing firm that may assist in the effort. MWWCA has set up an account to receive donations toward the project, which will cost around $100,000, from our partners around the country. INDA will likely foot a large portion of the bill. The ENR Committee has requested that this project be completed by November 15, 2013, so the clock is ticking.
- In June and July, a large number of articles about the dangers of flushing baby wipes and other non-disposable products were published in papers across the country. The most visible of these was USA Today, and closer to home, Howard Carter provided an article to the local Saco paper. Please visit http://www.mwwca.org/?page_id=777 for a full list of articles, with links. If you find articles that MWWCA should add, please send links to me.
- Together with our partners in New Jersey and California, in July, MWWCA participated in developing comments on the 3rd Edition of its Flushability Assessment Guidelines (ED3), led by Scott. In these comments and since submitting them, the water quality groups (including NACWA, WEF, and APWA) are clear and consistent with INDA that we cannot support the ED3 as written, as there is no transparency in testing the products, and the test defined does not represent what really happens to a product once it has been flushed. At press time, we are still waiting for a formal response from INDA. Products with the new “Flushable Certification” mark on packages appeared on shelves the day after the ED3 was published. (See photo on pg 6)
- NACWA hosted a strategy meeting in Washington, DC on July 25, aimed at discussing ED3 and the National Strategy being developed by the water quality associations. INDA had nine executive representatives present, and WEF and APWA also sent technical and executive personnel. MWWCA and our national team partners called into this meeting. INDA’s participation was driven by the strong pushback from the water quality community on ED3 as well as by the onslaught of articles that have drawn attention to this issue.
- I presented part of a free June 19 webcast on nondispersibles that was hosted and sponsored by the Water Environment Federation’s Collection Systems Committee. Other speakers included our partners in California, Washington State, and Washington DC. Even though the webcast was coordinated in a short time, more than 1,000 people joined from 513 locations in 12 countries, making it one of WEF’s biggest this year. A recording of the webcast is available at http://www.wef.org/FlushableorNot/
- MWWCA will participate in a WERF proposal being coordinated by WEF, NACWA, and APWA that will help fund the National Strategy. Unfortunately, MWWCA did not submit a separate proposal to WERF in July for funding toward the “Don’t Flush Baby Wipes” 2013 Pilot Education Campaign. As the deadline approached, it became clear that we didn’t have enough details about (or consensus on) the Scope of Work, the budget, or the timeline to include. There had not yet been a decision about the firm that would be used. INDA was not able to provide resumes for any of its 15-person project team to include in the proposal. These were all critical pieces of the proposal. MWWCA
**Non-Dispersibles cont’d**

will continue to look for other grant programs that could be used to support this work and has set up a donation account, as mentioned above.

Scott Firmin (Portland Water District) is coordinating an article for publication in the NEWEA Journal. This feature will summarize the ND issue in an effort to raise regional awareness and hopefully increased engagement through the NEWEA CSC Flushable Subcommittee that he chairs.

- Scott and Aubrey will represent Maine in a Non-Dispersibles presentation and Panel Discussion at WEFTEC 2013 in Chicago, IL in October. WEF blocked out valuable time in the WEFTEC schedule for this panel discussion because of the rapidly-growing interest on the issue, and invited the House of Delegates (HOD) Non Dispersibles Work Group to put together the program and select panelists.
  - MWWCA has submitted two abstracts for consideration at the 2014 NEWEA Annual Conference, which designated “Flushables/ Nondispersibles” as a Hot Topic. A third session may also come together, depending on the number of submissions NEWEA received on this topic.
  - WEF delegate Howard Carter and other members of MWWCA continue to participate in monthly conference calls of the WEF House of Delegates Non-Dispersibles Workgroup.
  - Scott has been receiving completed Pump Clog SOP forms from around the country (!), but we always need more! Go to [http://www.mwwca.org/PumpClogSOP.pdf](http://www.mwwca.org/PumpClogSOP.pdf) to download a blank form.

As you can see, this issue is keeping MWWCA very busy, but we know that these efforts will continue to build support for a national approach that can’t be ignored by INDA or legislative and regulatory leaders. The voices are getting louder and more numerous. Please contact me (aubrey@verdantwater.com) or Scott (sfirmin@pwd.org) if you’d like to get involved.

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**Brunswick Sewer Dist. cont’d**

A great time-lapse video of the demolition and construction of the project can be found on the District’s Facebook page, [https://www.facebook.com/brunswicksewer?ref=hl](https://www.facebook.com/brunswicksewer?ref=hl), which also shows what else the District is up to. Many thanks to Rob Pontau, Assistant General Manager, for contributing to this article.

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**Reminder: Operator Scholarships Available!!**

The MWWCA Personnel Advancement Committee was excited when we recently received an application for the Operator Scholarship program! From whom? Well, you’ll have to wait to find out!

We continue to accept applications for this scholarship, which we would like to award four times a year.

An individual selected for a scholarship must be a current member of the Association. Recipients will be reimbursed for up to 85% of the total cost of tuition, materials, registration and other related costs, up to a maximum of $250.00 per request. Training programs can include JETCC, NEIETC, technical college courses, and similar offerings. Visit [http://www.mwwca.org/?page_id=802](http://www.mwwca.org/?page_id=802) to learn more about the scholarship program, eligibility requirements, and to download an application.
UPCOMING 2013 EVENTS:

**WEF Webcast: “Toward a Renewable Future: Assessing Macro Nutrient Recovery as a Viable Treatment Alternative”**
September 4

**NEWEA’s 8th Annual Water for People Softball Tournament**
September 7 – Cambridge, MA

**WEF Webcast: “Chemical Grouting: Control Infiltration and Sustain Existing Sewer Collection System Assets”**
September 18

**MWWCA Fall Convention – “Treatment 101”**
September 18-20 – Sugarloaf Resort, Carrabassett Valley

**NEWEA Seminar- “Risk Management, Emergency Preparedness, and Business Continuity Planning for Water and Wastewater Utilities – Critical to Operations in these Demanding Times”**
September 25 – Marlborough, MA

**WEFTEC**
October 5-9 – Chicago, Illinois

November 6

(For information on WEF webcasts, visit: http://www.wef.org/Conferences/page_webcasts.aspx?id=115)

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Second Annual Mentoring Program hosted by the Young Professionals Committee

During the MWWCA Fall Convention at Sugarloaf, the YP Committee will host its Second Annual Mentoring Program. With participation in the program, young professionals (i.e. members of any age who are within their first 5 years of employment in the environmental field) can take advantage of a discounted one-day registration fee of $50 on Thursday September, 19. Each YP will be paired with an experienced mentor who will accompany them for the day, including technical sessions, lunch, and during the vendor meet and greet. This is an excellent opportunity for the new employees in your company to network and learn about the wastewater industry. The program is designed to engage YPs by providing a structured program and venue for them to recognize the personal and professional benefits of membership and volunteer involvement in MWWCA. Please contact me (pdrouin@lawpca.org) with questions, or if you are interested in being a mentor. The convention attendee packet can be accessed at: http://www.mwwca.org/2013fallattendeepacket.pdf

Paula Drouin
Changes in Wet Weather CSO Related Bypass Permit Conditions
By Scott Firmin, Portland Water District

The Department of Environmental Protection (DEP) is currently reviewing a series of potential permitting changes that could affect sixteen treatment plants across the State that have CSO related bypasses. These treatment plants have permit conditions that regulate daily secondary effluent and the discharge of flows that bypass the secondary treatment process during wet weather events. These facilities provide primary treatment and disinfection to the bypass flows. At some facilities, the primary treated flow is discharged through a separate outfall. At other facilities, the primary treated flow is “blended” with the secondary treated flow and discharged through a common outfall. While the issue and possible changes are still under review, this will likely apply secondary treatment standards to the combined discharge of the total flow at facilities where blending occurs.

The DEP is required to submit all draft permits to the Federal Environmental Protection Agency (EPA) for review and comment. EPA recently provided significant comments to the Rockland, ME permit focused on the management of wet weather flow. These comments seem to be consistent with similar National trends related to the permitting of facilities that “blend” primary treated wet weather flows and secondary effluent prior to discharge.

Following a DEP request to the affected plants for several years of plant performance data, the MWWCA held a stakeholder’s meeting to review the issue. MWWCA representatives discussed the issue with members of DEP in a meeting a few weeks later. It seems very likely that the “blended” discharge will be regulated as a single stream that must meet secondary limits; this will eliminate specific effluent limits related to the internal bypass flows. DEP has provided a draft letter to EPA and is awaiting a final response from the agency that is expected to provide a consistent position across all EPA regions.

Following the response from EPA, the DEP will issue the letter to each of the sixteen facilities. It seems likely that any changes will occur as permits are renewed. Stay tuned for more information as this issue develops.

Thank You Letter from Massebesic Teacher

Matt,

This morning I was greeted by a message from one of my mentor teachers who read your letter in the Sun Journal. Your words made me tear up as I read the much deserved praise you gave my students. I was unaware of the ceremonies time and date until after the fact but I am so proud that my students conducted themselves as they did. Thank you again for the amazing opportunity that the Maine Waste Water Control Association provides for Maine students and for the kind words of praise and encouragement.

Sincerely,
Angela Haven, Massabesic

In Response to Matt Timberlake’s Letter to the Editor of the Sun Journal:

Monday, June 10, 2013

So often I read opinion pieces and letters to the editor of various papers throughout the state listening to people rant and rave about all that is wrong with the world. Recently, I had an opportunity to be a part of one of the things that is not broken and makes me proud to be from Maine.

As the public relations chairman of the Maine Waste Water Control Association, I had the pleasure of coordinating a statewide poster contest for Clean Water Week, which is the first full week in June annually. In 1983, the Maine Legislature made provisions to designate the first full week of June as Maine Clean Water Week.

This year, nearly 300 posters were received from throughout the state, and all three of the winning posters selected were from Angela Haven’s sixth grade class at Massabesic Middle School in East Waterboro.

I had the opportunity to spend a few hours at a ceremony that was held June 3 at the State House with Gov. Paul LePage as the keynote speaker with the three winning students. Those students make me proud to do the work I do. They were respectful, proud, appreciative, smart, funny and all-around great kids.

The winning students, Sofie Irons, Nick Rocray and Faith Ledger, should be very proud of the work they have done. I know I am.

Matt Timberlake, Livermore

http://www.sunjournal.com/news/letters/2013/06/10/m-timberlake-proud-students/1375983
Regional RDA for Commercial, Institutional and Industrial Facilities

On July 10, 2013, the Conservation Law Foundation and several other environmental groups filed a petition insisting that EPA-Region 1 exercise their Residual Designation Authority (RDA) to require all currently unregulated, commercial, institutional and industrial stormwater discharges to impaired water bodies throughout New England to be subject to an NPDES permit pursuant to Section 402(p) of the Clean Water Act. While it is difficult to predict how EPA will respond, similar RDA petitions have been acted on for Long Creek in Portland, Maine, Potash Brook in Burlington, Vermont and for several towns located in the lower Charles River watershed in Massachusetts. EPA has 90 days to decide upon their course of action unless the petitioners consent to extend the timeline.

If EPA decides to exercise their RDA, thousands of commercial retail sites, office parks, schools, colleges, medical facilities and non-manufacturing business or industrial facilities throughout New England would be affected. Any existing commercial, institutional and industrial facility not currently covered under an existing stormwater permit which discharges to an impaired water body could be required to seek permit coverage possibly under a new separate Stormwater General Permit, specifically tailored to the RDA, or an existing General Permit. Certain institutional and manufacturing facilities are already covered under either a small MS4 Stormwater General Permit or the 2011 Multi-Sector General Permit for Industrial Facilities. The RDA will likely require existing unregulated facilities to retroactively implement Best Management Practices (BMPs) to capture and treat stormwater runoff from their impervious surfaces.

The petitioners argue that “stormwater runoff from impervious surfaces is a principal contributor to water quality impairments” and “absent such residual designation, attainment of water quality standards is less likely to occur.” Moreover, “an inordinate regulatory burden for attainment of water quality standards falls upon a subset of stormwater dischargers (including MS4s, regulated industrial activities and construction projects) that are currently subject to NPDES permitting requirements.”

If EPA-Region 1 decides not to exert its RDA in response to the current petition, it may be a temporary reprieve, as EPA Headquarters is also working on a national “Stormwater Rule” that will likely impose similar requirements on the same group of facilities. This proposed “rule” has languished for several years, and the rule delay may have precipitated the filing of the RDA petition. EPA announced that it expects to roll out the national rule in the next 18 to 24 months.

MWWWCA Committees Work for You! Government Affairs – Hurry up and Wait!

One of the most active committees of MWWCA is the Government Affairs Committee. Many volunteers typically are called upon at the last minute to testify before the legislature or to attend a workshop session on legislation that could affect our members. When the legislature is in session, the committee along with our hired legislative liaison, John Melrose of Eaton Peabody go into “hyper drive mode” to keep with the always changing, and often unpredictable, law making process in Augusta. This year the committee tracked over 19 bills and testified on a few of the most pressing. Among the ongoing issues that committee is working on is LD 965, commonly know as “the Dig Safe Bill”. In this case the committee is coordinating efforts with the Maine Water Utilities Association (MWUA).

In the last dozen or so years the committee has been proactive in reaching out to legislators, first with a “muffin booth” at the State House and recently with the Legislative Breakfast at the Senator Inn. In the last three years these breakfasts have been joint efforts with MWUA and NEWEA.

Committee efforts do not stop at the state line, however. Your Government Affairs Committee continues to be a leader nationally in engaging our United States Senators and Representatives with initiatives such as the “Washington Fly In” where Maine representatives schedule face to face meetings to be sure that our issues are brought up directly with these decision makers. Obviously this is a costly effort and we are lucky to have nearly a dozen dedicated volunteers attend the sessions each year.

Lastly the Government Affairs Committee works with other committees, such as the Laboratory Committee, the Collection Systems Committee and the Residuals Committee to be sure that our input is timely, technically sound and supported by the majority of our membership. Folks like David Anderson, Chuck Applebee, Travis Peaslee, Scott Firmin, Aubrey Strause and many more deserve our thanks and appreciation for the long hours and determined effort they put in –often behind the scenes. ☺️
We’re All In It Together: Considering The Combined Operation & Maintenance Of Wastewater & Stormwater Systems To Reduce Costs And Improve Water Quality

By Zach Henderson, Project Scientist with Woodard & Curran in Portland, ME (zhenderson@woodardcurran.com)
By Fred Dillon, Stormwater Program Coordinator for the City of South Portland, ME (fdillon@southportland.org)

The quality of Maine’s surface waters has improved considerably since the advent of the Clean Water Act in the early 1970’s. Gone are the days when many of Maine’s rivers and streams served as open sewers for the variety of wastes produced by our collective activities. The construction of municipal and industrial wastewater treatment facilities can be credited for most of the significant improvements to Maine’s water quality over the past several decades. Indeed, water resource protection professionals should take great pride in these notable accomplishments. Unfortunately – and despite the considerable time, effort and expense for water quality restoration efforts thus far – many of Maine’s surface waters still fail to meet state and federal water quality standards. It is increasingly clear that addressing municipal and industrial wastewater discharges alone will not meet these standards in many locations.

Pollution Sources and Relative Impacts on Receiving Water Quality

Wastewater discharges (often referred to as “point sources”) have long been implicated as being at least partly responsible for continuing water quality impairments; however, stormwater runoff (or “nonpoint source pollution”) is now widely recognized as the primary and dominant culprit. According to a recent EPA report, excess nutrients and aquatic habitat degradation are the leading problems for the nation’s rivers and streams. Both of these problems are closely tied to untreated stormwater runoff. Of particular interest to managers of municipal separate storm sewer systems (MS4s) are the effects of urbanization on aquatic health. Stormwater runoff from developed areas carries a variety of pollutants such as lawn chemicals and petroleum products into nearby surface waters while significantly and rapidly increasing stream flows. Extensive research over the last few decades has shown that when watersheds exceed 8-10% of impervious area (i.e., any hardened surfaces that prevent or impede infiltration), stream health begins to decline.

Making the Wastewater-Stormwater Connection

The ongoing and seemingly unrelenting constraints placed on municipal budgets make it increasingly apparent that water resource protection strategies should be considered in a more holistic context. Wastewater and stormwater managers face complex, expensive, and daunting challenges, including increasing regulatory pressure, rising compliance costs, increasing maintenance needs, and a lack of funding for new assets. Is there a better way to plan and meet these challenges?

Given the specialized skills possessed by wastewater professionals, there is ample justification for giving serious thought to the collective management of some wastewater and stormwater infrastructure. Despite key differences between treating wastewater and stormwater, the unit process paradigm familiar to wastewater professionals is increasingly becoming the norm for stormwater managers as well. Moreover, identifying opportunities for overlap between wastewater and stormwater management programs, particularly related to collection systems operations, could result in considerable savings for municipalities and ultimately better water quality. For example, addressing leaky sanitary sewer pipes is one of the most cost-effective activities for managing urban stormwater pollution. The interconnections and proximity of the collection systems for stormwater and sanitary sewers make investigations for I&I and illicit cross-connections much more cost-effective when addressed together. However, since the municipal/district staffs responsible for wastewater and stormwater management programs are usually separate and the regulatory frameworks for each are distinct, it is often difficult to identify and prioritize infrastructure improvement projects in a way that provides the greatest economic and environmental benefits for a given community.

Potential Approaches for the Joint Management of Wastewater & Stormwater Infrastructure

As the name implies, South Portland’s...
Water Quality cont’d

Water Resource Protection Department (WRP) manages both the City’s wastewater and stormwater infrastructure and has been doing so for over 25 years. Additionally, WRP has primary responsibility for working to restore five streams in South Portland. These streams have been identified by MEDEP as “urban impaired” for not meeting water quality and aquatic habitat standards due to the adverse effects of polluted stormwater runoff. This comprehensive approach has served the City well in the efficient allocation of staff and resources. WRP maintains all publicly owned sewer lines, combined sewers, storm drains and other related stormwater infrastructure in the City. Projects are currently identified and completed based on infrastructure condition and how each project will benefit water quality – primarily by minimizing discharges from the City’s CSOs. WRP is now in the process of considering an asset management system that will prioritize projects based on predictive condition assessment and overall water resource protection goals (e.g., CSO minimization and urban stream restoration).

A more formalized approach being considered by some municipalities in Maine (and elsewhere) is to combine the wastewater and stormwater permitting and planning processes. In an ideal regulatory world, clean water efforts would be coordinated so that permits held by communities work together to maximize benefits at the lowest costs and investments would be made with a clear understanding of the improvements to receiving waters. That is exactly the goal of the new integrated planning framework currently being advocated by EPA. This approach allows communities to look beyond isolated NPDES permit obligations and collectively examine the specific costs and benefits of actions to address discharges from SSOs, CSOs, POTWs and MS4s. At its heart, integrated planning is about identifying all of a community’s water resource protection needs, deciding which ones have the best cost-to-benefit ratio, and staging them in a way that is most appropriate for the community, with a focus on the receiving water. The process will often begin with the question: “What are the most important places for us to maintain or attain water quality standards?” As our understanding of impairments grows, particularly for small urban streams, it is critical that we begin to identify which water resources are most important in providing the greatest economic, public health and environmental benefits. For example, restoring the water quality of a stream adjacent to a public swimming beach might provide much greater community value than trying to restore an urban impaired stream in a heavily urbanized area.

However, integrated planning has challenges that cannot be overlooked. An examination of all impacts to a receiving water (or waters) from a variety of pollutants requires a fairly robust understanding of infrastructure and pollutant sources. Developing a tool that simulates these sources of pollution with sufficient accuracy for management and tracking of results can also represent a considerable investment. For communities that do not yet have a complete understanding of regulatory compliance liability or are not facing “limit-of-technology” nutrient requirements at the POTW, the return on investment may not be fully realized and the investment in science and planning may seem daunting and unnecessary. Additionally, the evaluation of previously loosely regulated components of the Clean Water Act will clearly expand the scrutiny on a community’s existing programs and pollutant sources. For integrated planning to be successful, a certain level of trust that the required investments in capital, planning, public outreach and stakeholder involvement will pay off is needed.

If it’s All About Water Then We’re All in it Together

It’s clear that real and distinct advantages exist in the collective and coordinated management of wastewater and stormwater programs. An approach similar to South Portland’s could allow communities to find cost savings and operational efficiencies that might otherwise not have been apparent. A formalized integrated approach offers greater benefits for each dollar spent through the balanced implementation of water quality improvements focused on the best solution regardless of the source of pollution. For example, recent studies from across the country on the efficacy of municipal pollution prevention actions (like street sweeping and sewer cleaning) are documenting the cost effectiveness of these programs when compared to the diminishing returns from additional point source treatment technologies. Whichever approach a community decides to adopt, holistically considering infrastructure and water resource protection needs may be the only option to truly address water quality impairments and protection of public health. Current deliberations by the MWWCA to change the organization’s name so that it reflects a broader water resource protection mission seem to suggest that others are already thinking in more holistic terms as well. Let’s continue these efforts to remove the (somewhat) arbitrary distinction between the wastewater and stormwater professions. Since we’re all in the business of water resource protection and restoration then ultimately we’re all in it together.
Vertical Mixing
By Gene Weeks, Blake Equipment Co.

What could be an easier job than mixing a liquid that is mostly water in a vented tank? There are many types of equipment offered to mix liquids and all of them work – somewhat. Well, if the job of mixing is so easy, why do some of us have so many issues with the parts of our process that call for mixing? Why do we have sludge buildups where we don’t want them? Why do some of us always seem to have a mixer pulled out for repair? Why are we battling grease layers and piles of rags in our pump stations? Why do we struggle to get a uniform mix of sludge in our sludge basins? One possible answer to these questions is that we are mixing in the wrong orientation. Think of mixing batter for a cake. We could move our mixing spoon in a horizontal circle spinning the batter like water going down a drain, or we could reach down to the bottom of the bowl and bring contents from the bottom of the bowl to the top. Our mixing spoon would still make something like a circle, but a vertical circle, bottom to top – top to bottom. This is much quicker and more effective than a horizontal circle. Try it!

The same principle is true in our wastewater treatment plants. If our mixing equipment is spinning our liquid in a horizontal circle, what is lifting the sludge that tends to settle to the bottom? Nothing is, and some of us have the sludge buildups to prove it. What if the mixing action is so ineffective that only the liquid moves, but the solids settle to the bottom? There are several manufacturers now offering mixing equipment that creates vertically oriented vortices instead of horizontal ones. You and your engineering firm now have a several choices of mixing equipment that will produce much better results than you may be getting from the equipment you have now. Imagine sludge basins with an even distribution of solids. Basins with fine bubble or coarse bubble aeration can have no sludge buildups on the floor or in the corners. Chemicals can be mixed gently and thoroughly without shear forces. Pump stations with vertical mixing can move the grease and rags each pump cycle rather than having them build up and cause problems. Vertical mixing can also save energy, after all the down part of the up and down motion is helped out by gravity.

Speaking of saving energy – what is the biggest energy user in your plant? For many of us the answer to that question is the blowers used with our fine bubble aeration system. Suppose you added a vertical mixing system to those aeration basins, and suppose that mixing system actually mixed the fine bubbles along with the water? What happens if those fine air bubbles stay in the water longer because the mixing action is dragging them back down? Doesn’t it make sense that the Dissolved Oxygen would go up? And maybe the DO would go up enough to allow you to turn down the blowers and save on that electric bill. Some manufacturers of vertical mixing systems are claiming exactly that result.

Is mixer maintenance causing you headaches? Is it your plant that always seems to have a mixer pulled out for maintenance? Some manufacturers of vertical mixing system do not have any motors or even any moving parts in the tank. Maybe the next time you meet with your engineering firm you should ask if vertical mixing could solve problems for you and your plant.

MARK YOUR CALENDARS!

MWWCA Fall Convention
September 18-20
Sugarloaf Resort, Carrabassett Valley

Has MWWCA’s Work On Wipes Benefited Your System?
If so, check out http://www.mwwca.org/?page_id=1328 to learn how you can say “Thanks!”

MWWCA E-Mail Database
All current members of MWWCA should receive periodic e-mails, which may include the most recent newsletter, conference and training announcements, or regulatory updates. If you haven’t received any e-mails from the organization recently, you may wish to update your information in the distribution list by sending your current e-mail address to Joan Kiszely at jkiszely@memun.org. Don’t miss out on the exciting networking and educational opportunities MWWCA provides!
That’s right, sewage sniffing dogs, not to be confused with regular-you-know-what sniffing dogs. They are a rare breed, with only eight trained and certified in the entire country. The dogs are trained to sniff out human fecal matter in water samples, storm drains, rivers, and in our case beaches.

The Town of York community Development Department and several surrounding communities working thorough FB Environmental Associates of Portsmouth, New Hampshire arranged for Environmental Canine Services to test previously identified “hot spots” in York. ECS is based out of Michigan (http://www.ecsk9s.com/) and currently has two dogs trained to seek out and find illicit discharges of human sewage to surface waters.

The York Sewer District assists the Town by testing water samples in our lab and has funded RNA testing on bacteria to try to distinguish between human contamination and the occasional moose, but tests take time and can be extremely costly. ECS was formed in 2009 using dogs as a rapid screening method to test multiple sources of possible illicit discharges.

Given the uniqueness of the event, the Town set up a “meet and great” for the community to come and see the dogs in action, as well as provide an opportunity to have public information media available from various organizations in Town. Hearing this, I immediately called the “Queen of Rags and Wipes” (pretty sure this will get edited) [Editor’s Note: it didn’t.] and asked Aubrey Strause if she could set up the MWWCA booth and its famous Non-Dispersible Wipes Demonstration. Of course, the answer was yes. Coincidentally, Matt Timberlake e-mailed me at the same time to do an article on a different subject, but when he heard “poop sniffing dogs”, he was in too. By the way, during the demonstration, one of the dogs took a particular interest in Matt but I wasn’t fast enough to take a picture. Peter Goodwin, who is a resident of York, was also there for the festivities.

It was a great opportunity to educate approximately 40 attendees on logos and wording used on wipe labels, provide handouts on numerous topics, learn about the Lawns to Lobsters Program (aimed at educating the public about environmentally sound lawn care practices, and gain more exposure on the outstanding work the Maine WasteWater Control Association does to protect and preserve the waters of Maine.

Thanks to Matt Timberlake (MWWCA Public Relations committee Chair), Sean Ready (Ted Berry Co.), Peter Goodwin (NEWEA State Director with Woodard and Curran) for helping, attending and lending support. Special thanks to Aubrey Strause of Verdant Water (MWWCA Vice President), for her unmatched enthusiasm, energy, and without hesitation, saying yes to helping me at this event.
From time to time, MWWCA learns about members that provide extraordinary service to the industry in the most modest of ways. This feature recognizes just such a person: Walter Parker, lab technician at the Madawaska Wastewater Treatment Facility.

Born in Hartford, Connecticut but raised in many small towns in northern Maine, Walter began his career in Madawaska as a part-time worker in 1978 and moved to full-time in September 1980. His first role was providing general maintenance, including painting, to the new facility (ground broken in 1976) and three pump stations.

“Walter liked to say that when it’s just one guy doing all the painting, by the time he’s done it’s time to start over again,” says Superintendent Bob Dunbar.

By the time Bob joined the Madawaska facility in 1999, Walter had long moved away from maintenance and into the lab, and had been the lab technician since 1988. It was Walter and former Superintendent Joe Bourgoine who showed Bob the ropes at the new plant.

By all accounts, Walter is a very private person, but is known for having a good sense of humor about his ponytail.

“He’s had that thing as long as I’ve known him,” says Bob. “He threatened to cut it off back when he passed his Grade 3 operator exam, but he didn’t!”

Legend has it that when Walter finally did snip off the ponytail some time later, it just about freaked everyone out. The signature ponytail has grown back, and is not likely to get cut off again.

As modest as he is private, Bob knows that Walter will roll his eyes and shake his head when he sees this article. “He’s the most excellent, dedicated employee you could ask for—that’s hard to find these days. When he’s in the lab, I just know it’s being done right, but Walter always says that recognition is for ‘other people’.”

According to Bob, Walter’s diligence helps him tackle the lab Quality Assurance study that Madawaska completes every year. “Everybody else hates doing them, but he just gets it done”, reported Bob. The facility recently received the results of this year’s study, and was pleased to score 100%.

In his personal life, Walter and his wife Joanne like to ride their motorcycles (“He’s got his Yamaha Star bike with him at the plant, today”, added Bob). Thanks to the garage in his new house in Van Buren, he’s got a nice place to keep it. “He’s finally got his own workshop, too,” chuckled Bob. Not bad for an old “maintenance guy”.

On behalf of MWWCA and all people who prize clean water, thank you for your long service and dedication.

Circa 1985, with a very young Walter Parker (left), former Madawaska Superintendent Paul E. Fongemie (center) and Luc Morin (right).
MWWCA Awards Students for Poster Contest
By Matt Timberlake, Public Relations Chair

In 1983 the Maine Legislature made provisions to designate the first full week of June as Maine Clean Water Week. Maine Clean Water Week was created to increase the public’s awareness of the improvements made in the quality of Maine’s waterways. One of the primary reasons the quality of our waterways have so greatly improved is the hard work of Maine’s collection system and wastewater treatment personnel.

In recognition of Maine Clean Water Week (June 3-7, 2013) the Maine Waste-water Control Association again sponsored a poster competition for students in grades 3 through 8. The theme of the competition was “Water Clean Water Means to Me.”

This year nearly 300 posters were received from throughout the state and at the MWWCA spring conference winning posters were selected by the Association’s membership including the top three posters. The winners will be honored at the Association’s 2013 Fall Convention or a school assembly. The top three poster winners receive cash prizes and the top twelve posters will once again be featured in the 2014 MWWCA calendar.

During the judging at the spring conference, it was evident that water colors and posters having a “true Maine theme” were big hits with the members. This year the top three posters all came from Ms. Haven’s 6th grade class in East Waterboro. The talented students in Ms. Haven’s class all used very colorful designs and shared a great message about what clean water means to each of them.

YP Group Represents MWWCA at Urban Runoff 5K

A group of about 10 Association members gathered to participate in the Urban Runoff 5K race and walk on April 20. Several of us stayed for the Green Neighbor Family Festival that follows the race, which focuses on spreading clean water awareness to the public. The main focus of the MWWCA table was to engage children in relevant activities, such as trivia and coloring, while speaking about wastewater. We promoted the Water’s Worth It initiative with handouts, stickers, and buttons. We handed out NEWEA totes, water bottles, and other items. A demonstration and talk about non-dispersibles was the biggest draw to the table, people wanted to know why we had a table full of wipes. We were not surprised to find that most people were unaware that many items labeled “flushable” do not break down like toilet paper and can cause clogs. Some people were even upset, including a few who have had clogged toilets and pipes in their homes due to flushing items that are non-dispersible. Most were surprised to learn that there is no standard definition of “flushable”, and that many products (like baby wipes) should be disposed of in the trash. Many of the children seemed very receptive to the information and understood the difference between wipes and toilet paper. Overall, the event was a tremendous success, and one we look forward to participating in again next year.

Enter to win a $25 gift card by emailing pdrouin@lawpca.org the correct answer to this trivia question:

When using a spectrophotometer to measure chlorine, what wavelength of light should be used?

a 460nm  b. 515nm  c. 540nm  d. 630nm

Congrats to our most recent winner, Susan Jasper from PWD ☺