SWEMA NEWS

SWEMA's Newsletter Fall 2021

President's Message

Greg Williams

Dear SWEMA members,

It is a little early, but this is my last message of the year I will wish you all Happy Holidays! There is certainly some reason for cheer. Borders are opening, the Astros did not win the World Series (it is too soon to forgive them) and the new Bond movie is very good. We will not quite make the 2021 target for an in-person member's meeting but we are looking at January 2022. Life is getting back to a new normal.

SWEMA is approaching a new normal too. For example, we are looking for a new Marketing Committee (MARC) Chair. Dan Fajman has stepped down after 4 years and we are looking for a replacement. It would be good experience for someone that wants to take the lead on some marketing initiatives. We are also looking for someone to be the Recording Secretary for ASTM E64. This position has been reserved for a SWEMA member and it involves membership on the ASTM E64 Executive Committee and the SWEMA Board of Directors. Anyone interested in either position should contact Laurie Honnigford or me.

Speaking of Laurie, I would like to thank her once again, on behalf of all of us, for her help this year. She keeps SWEMA functioning and provides critical continuity. We would be lost without her.

Getting back to ASTM, the first three new standards are currently out for ballot and, barring any outstanding negatives, could be published in December. These standards will address terminology, sediment and trash performance testing. The first two are the foundation of the other four standards in the pipeline so we should see all of those next year, along with initial progress on filter and field testing standards.

Part of our new normal was executing on our initiatives for the year: brand building and increasing membership. In terms of brand building we are a little behind schedule, due in part to the MARC being on hiatus and the lack of in-person meeting opportunities to spread the word. That said, we

2022 Meeting Schedule

All SWEMA Meetings are held via conference call unless a city/state is listed. Please contact Laurie for conference call log-in and information.

GARC / TCOM*

January 19, 2022 / 2:00 p.m. EST

Via Teams online meeting

SWEMA Membership Meeting

January 25, 2022 / 8:30 a.m. CST

Live and in-person / Austin, TX

GARC / TCOM*

February 16, 2022 / 2:00 EST

Via Teams online meeting

GARC / TCOM*

March 16, 2022 / 2:00 EDT

Via Teams online meeting

**Jay Holtz sends out the invitations to the GARC / TCOM meetings. Send Jay a note if you wish to receive an invitation.* Jay.Holtz@oldcastle.com

Please join us for the membership meetings. Contact Laurie Honnigford for agenda and meeting information at laurie@stormwaterassociation.com.

Clean Water is SWEMA's #1 Priority

have managed to reserve a seat on the ASTM E64 Executive Committee and we are commenting on the new infrastructure bill in Stormwater Solutions magazine.

Our two membership related initiatives have been to reach out to lapsed members and to create more value for membership. Increasing membership remains a challenge, especially as the industry consolidates. We have not brought anyone back to the fold yet but there is still time.

The focus of value creation has been on creating content, which will be described in more detail in the committee update section. We have also constructed a membership backroom that we are just debugging prior to roll out. Much of our activity benefits the industry as whole, which might encourage non-participating companies to join in. The backroom will provide access to resources to give members an edge.

The more people that pitch in the faster we can get things done so I encourage all member organizations to inspire their employees to pitch in. There is no limit to the number of people who can help. In particular it is good experience for younger professionals who can learn what committee work is like and network with others in their field.

Consider the case of Luke Matteson from StormTrap, one of the most recent volunteers on TCOM. Before he started participating in SWEMA a year ago he was a shy 23 year-old and now he is 24 and full of confidence. It could happen to anyone.

I will use the mention of TCOM to segue into my shout out to the Technical Committee and Government Affairs and Regulatory Committees (TCOM and GARC). They remain the heart and soul of SWEMA and they continue to do good work.

Special thanks to Jeremy Fink (Hydro Int'l) and TCOM for putting together an excellent review of the latest International BNMP Database Summary Report. The report included a summary of HDS data for the first time. It was not particularly flattering but TCOM identified why and addressed the issue. Keep your eyes on the Members' Only section for a copy of the summary.

GARC continues to be ably run by Jay Holtz (Oldcastle) and to work with as many state agencies as possible to keep MTDs on the radar amidst the ongoing rush towards green infrastructure. Special shout out to Jeremiah Lehman (Contech) for sitting through a number of meetings with FLDEP. I caught a recorded meeting and they are long. They are also frustrating if you are a manufacturer.

There is no way we can build a dam to stop the green wave. The best use of our resources is to build a raft and ride with the wave to a cleaner future. More resources = bigger raft = better ride so join in.

Thank you again for continuing to support SWEMA and for helping to keep our waterways clean. As Longfellow wrote (more or less):

"Thy fate is the common fate of all,
Into each life some rain must fall,
So an MTD you should install."

Best regards,

Greg Williams can be contacted at GWilliams@stormtrap.com or +1 (548) 788-2019

Greg Williams

Greg Williams, Ph.D., P.Eng.
SWEMA President

SWEMA Initiative Updates

SWEMA's REPORT CARD

The SWEMA Government and Regulatory Committee (GARC) and Technical Committee (TCOM) have kept busy due to the dedication of a committed group of active members. The report card will provide you a quick summary of the work underway. If the work is completed (COM), then we have assigned a grade.

If the work is in progress (WIP) then we have used an emoji to indicate the following:

😀 progress is moving in SWEMA's favor. Engagement and outlook is good.

😐 SWEMA has educated / commented on the work being done and some of SWEMA's ideas may have been incorporated. Engagement and outlook is moderate.

😒 SWEMA has not been successful in communicating SWEMA's objectives. Engagement and outlook is poor.

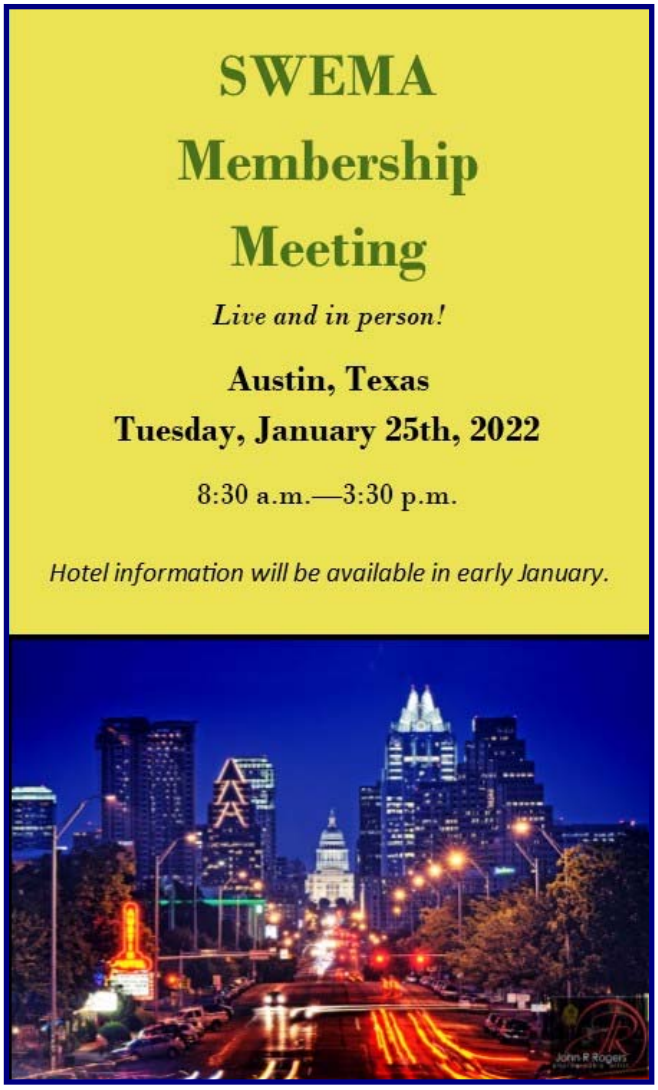
Please join GARC or TCOM to learn about and contribute to these initiatives. It is your opportunity to get involved and help shape the future of the stormwater industry. The more people we have involved, the more influence SWEMA can exert on the regulations and standards that affect the stormwater industry.

WIP = Work in progress COM = Completed	Status		Grade
California Trash Capture Test Protocol	WIP		😀
California Mosquito Control	COM		A
EPA's Trash Stormwater Permit Compendium	COM		A
San Francisco Regional MS4 Permit	WIP		😐
ASCE / EWRI	WIP		😀
ASTM E64	WIP		😀
STEPP	WIP		😀
Virginia Department of Environmental Quality (VADEQ) BMP Clearinghouse	COM		A
Great Lakes Stormwater Collaborative	WIP		😀
New Jersey HDS Test Protocol Revisions and Recertification	COM		A
Washington TAPE Potential Filter Maintenance Requirements	WIP		😀
Massachusetts Department Environmental Protection (MADEP)	WIP		😐
Texas Commission on Environmental Quality (TCEQ)	WIP		😐
Florida Department of Environmental Protection (FLDEP)	COM		B
International BMP Database	COM		A
Stormwater Technology Testing Center (STTC) startup	WIP		😀

SWEMA Initiative Updates (continued)

California Trash Capture Test Protocol

GARC provided comments on the Los Angeles Region Draft Phase I MS4 Permit. Nine specific areas of the permit were addressed including trash capture, the use of traditional compost-based non-proprietary bioretention in nutrient sensitive drainages, and sizing of proprietary systems. Comments also included a request for a clear path to the use of innovative bioretention - high-rate biofiltration - and suggested referencing the Washington State Department of Ecology's TAPE program to validate performance. The Water Board incorporated few of GARC's comments except to allow TAPE-qualified biofiltration if no other means of treatment is feasible. The final permit was adopted in July 2021 and became effective on September 11, 2021.



San Francisco Regional MS4 Permit

The current draft of the San Francisco Bay Municipal Regional Stormwater Permit does not allow innovative bioretention including high-rate biofiltration. GARC provided formal comment on the draft permit asking for innovative stormwater management technologies to be specifically allowed. GARC noted that innovative bioretention in the form of biofiltration and storage meets the full intent of standard bioretention as long as biofiltration systems are vegetated and proven in accordance with the Washington State Department of Ecology's TAPE program. The Water Board will solicit oral comment prior to adoption of the permit. Adoption is expected during the first or second quarter of 2022.

EPA's Trash Stormwater Permit Compendium

The long-awaited EPA Trash Compendium was finally published in April 2021. The document is meant to aid permit writers and provides examples of provisions in existing permits that can serve as models for addressing trash reduction in MS4 permits. It also presents information on best management practices (BMPs) in trash reduction and presents two MS4 permit case studies showcasing clear, specific and measurable trash-related provisions and the related municipal floatables programs. The compendium is ex-

pected to increase trash regulation and promote implementation of structural and non-structural controls. The document has a list of effective trash BMPs that includes catch basin inserts, hydrodynamic devices, and other manufactured treatment systems.

ASCE / EWRI

It came up during the ASCE/EWRI report at the last ASTM executive meeting that the Urban Water Resources Research Council (UWRRC) is looking for members for its media filtration committee. There is an open invitation for SWEMA members to join.

ASTM E64

The transfer of stormwater related work items and standards from Committee C27 Precast Concrete Products to Committee E64 Stormwater Control Measures is now complete. There are currently two active subcommittees: E64.90 Executive Subcommittee and E64.01 Laboratory Valuation Subcommittee.

E64.90 has been actively working on administrative details, including items such as long range planning, promotion (advertising) and setting up liaisons with other groups. Currently there are liaisons with: ASTM D35, ASTM D18, SWEMA, ASCE/EWRI, STEPP and NMSA. In addition, the Executive Committee is looking for a standing participant from SWEMA to be the Recording Secretary and liaison with SWEMA. Contact Greg Williams for more information.

E64.01 has been busy drafting test protocols for determining the performance of hydrodynamic separators. There are currently three protocols out for ballot: one on terminology, one on sediment requirements and one on trash performance testing. The hope is to get all of these passed and published as standards by the end of 2021. So far it looks good, although there is a negative vote for the trash ballot that could delay passage.

There is a third subcommittee, E64.02 Field Evaluation, which is starting to gear up. Anyone interested in participating should contact the Staff Manager for E64, Franck McConnell or the E64.02 Subcommittee Chair, Jamie Houle. Their e-mails are fmcconnell@astm.org or James.Houle@unh.edu respectively.

STEPP

STEPP continues to meet with some regularity with stakeholders to refine plans to administer the program moving forward. Additionally, the STEPP program is hopeful that the first wave of ASTM standards for HDS testing as well as trash removal will be passed soon so the program can begin to reference them. The recent passing of the national infrastructure spending bill holds significant promise for the STEPP program

SWEMA Initiative Updates (continued)

to receive considerable funding and be deemed a stormwater center of excellence. We hope to know more on STEPPs efforts to secure funding in the coming weeks.

Virginia Department of Environmental Quality (VADEQ) BMP Clearinghouse

In late October 2021, the Virginia Department of Environmental Quality released proposed MTD approval guidance for public comment. The proposal is consistent with recommendations made by the GARC Committee in previous discussions with the Department. The new guidance prescribes a reliance on the nationally relevant field and laboratory protocols of TAPE and NJDEP for technology approval; removes the existing 50% cap on total phosphorus reductions; and encourages innovation within the stormwater management technology space. Implementation of the proposed guidance is expected by December 31, 2021. GARC supports the Department's effort to improve water quality in Virginia with this robust guidance document.

Great Lakes Stormwater Collaborative

The past few months have seen a shakeup at the GLSC. There is a new administrative leader that is helping forge closer ties to the Great Lakes Commission (GLC). The end result is likely to be a program within the GLC as opposed to an independent entity. Part of this evolution involves applying for a grant from the McDougal Family Foundation. The grant would be used to increase the activities of the GLSC, which would mean more sites on the Spotlight Map, more webinars and outreach to grow the GLSC listserv. It would also help with the integration into GLC.

There will also be changes to the GLSCs governance structure and an effort to recruit more people from the end user community into the Collaborative. It will be worthwhile checking back in with the GLSC next year.

New Jersey HDS Test Protocol Revisions and Recertification

There has not been a lot of new news on several proposed edits to the new 2021 HDS protocol. However, conversations with NJCAT suggest NJDEP is likely to adopt the proposed edits and finalize the protocol without additional input from stakeholders. The timeline for doing so is not certain, but we expect the revision to receive final approval soon.

Washington TAPE Potential Filter Maintenance Requirements / Stormwater Technology Testing Center (STTC) startup

In 2020, WA Ecology opened discussion with SWEMA regarding the inclusion of a maintenance longevity assessment to the requirements of the State's TAPE program. These requirements would initially focus on filtration/biofiltration systems and would likely incorporate solids loading capacity as part of the protocol. SWEMA responded in January 2021 with a recommendation letter articulating the major challenges and successes of our combined research experience on the topic. Throughout early 2021, the TAPE Stakeholder Advisory Group and Board of External Reviewers met to discuss ways in which the protocol can better assess maintenance requirements for MTDs.

In August, Ecology created an online survey with 8 proposed methods of dealing with the issue. These options included a range of outcomes such as a "do nothing" approach, acceptance of laboratory protocol results, and requiring future re-certification. This survey was released to SWEMA and distributed across our membership for input. Ecology has not yet communicated the results of the survey or their means of utilizing the information generated by it, but they have agreed to include SWEMA in their deliberations as they proceed.

This issue is of particular concern as more TAPE applicants conduct their testing at designated facilities such as the Ship Canal site in Seattle, which has often underrepresented the expected maintenance longevity of MTDs during their evaluation period. These atypical MTD lifecycles are common even though influent water quality analyses for common pollutants are consistently within TAPE requirements.

Another such pre-approved TAPE testing site, the Stormwater Technology Testing Center (STTC) in Portland, is happily in operation this year and is currently hosting a pilot-phase test unit. This ODOT facility was designed and built with maintenance lifespan analysis in mind, and like the Ship Canal site, it is strategically located to receive drainage from a large catchment basin including areas of highway. Use of data from this site was referenced as one of the potential options in Ecology's survey, and there is concern that the STTC will also produce results that do not represent MTD performance longevity under typical conditions. To promote good science and fair regulatory practice, SWEMA is advocating for the

SWEMA Initiative Updates (continued)

testing of a conventional system to provide baseline data. We are currently evaluating the cost of installing and testing a standard bioretention system at the facility, and we are petitioning STTC stakeholders such as Ecology and the City of Portland to support this effort.

Massachusetts Department Environmental Protection (MADEP)

MADEP has still not released a draft of proposed edits to their stormwater handbook and stormwater standards. They have stated intent to release a draft in July 2021, but no new updates have been provided on how much additional time they will need to complete this process. As of right now, MADEP has no plans to update outdated MTD guidance and does not consider this issue critical enough to address now with limited staff/ resources. This could present a serious hurdle for MTD acceptance unless MADEP is willing to issue updated guidance on MTDs. SWEMA members are encouraged to contact MADEP to express the importance of having a viable path to acceptance for MTDs.

Texas Commission on Environmental Quality (TCEQ)

TCEQ is requiring a 72 hour antecedent time. SWEMA asked TCEQ to consider scientific data for the industry standard of 6 hour antecedent time. At the time of publication we are uncertain of TCEQs position. GARC will continue to monitor the work being done in Texas on this topic.

Florida Department of Environmental Protection (FLDEP)

The Florida Department of Environmental Protection has continued with Technical Advisory Committee (TAC) Meetings throughout 2021. The Stormwater Rule TAC has recently developed a meeting summary report containing recommendations that will be forwarded to the Department. As of this update, the TAC Meeting Summary Report remains in draft form and is expected to be completed soon. GARC members, while not selected as active TAC stakeholders, prepared multiple comment letters for TAC consideration. The Department will evaluate the TAC final recommendations as the new stormwater rule is developed. The new rulemaking process is expected to last 12-18 months or longer. GARC will continue to monitor this process and seek opportunities to participate in future stakeholder engagement.

International BMP Database

This technical note highlights the results from the *International BMP Database 2020 Summary Report* that relate to the performance of manufactured separators and filters. Over the past twenty-five years the International BMP Database (IBMPDB) has become the most complete source of information on stormwater quality control measures available to researchers and regulators. Comprised of user-submitted BMP monitoring projects, this repository provides access to both raw data and statistical tools to interpret hundreds of studies and thousands of storm events. The database is funded by the Water Research Foundation and other partners

and is administered by a network of environmental professionals from consultancies such as Wright Water Engineers, Inc., Geosyntec Consultants, Inc., and Terraphase Engineering, Inc.

Hydrodynamic separators had been studied and included in the database in the past, but the 2020 Summary Report was the first for which there was enough data to also include separate statistics for manufactured filters and manufactured biofiltration systems. These manufactured systems typically operate at a higher hydraulic loading rate than generic systems like sand filters or in-situ bioretention cells. Although the manufactured filters and biofilters showed similar performance to non-proprietary filters and biofilters with regards to metals removal and nitrogen removal, they demonstrated standout performance in the removal of TSS and phosphorus. This document highlights the performance of manufactured BMPs in these areas and provides some context for the results. For example:

- Median TSS concentrations in the effluent from manufactured high rate biofiltration systems were shown to be 6.2 mg/L lower than non-proprietary biofiltration systems. The higher hydraulic loading rates of these manufactured systems also result in comparatively smaller filter system sizes.
- Manufactured filters such as high rate biofiltration and high rate media filters were observed to produce a lower effluent concentration of total phosphorus than bioretention, retention ponds,

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SWEMA Initiative Updates (continued)

grass swales or wetland basins.

- By allowing for better control over the planting media composition, manufactured high rate biofiltration can provide a reduced risk of phosphorous export over contractor installed bioretention.
- Volume reduction from infiltration can assist in the overall reduction of pollutant load, but performance varies widely based on site conditions, system design, installation and maintenance.
- The data in the IBMPDB should be screened for conditions or influent concentrations suitable for the BMP type or application. The database is not all inclusive and averages don't necessarily represent performance for any specific technology or BMP. Also, the database does not include current HDS data from field or laboratory testing.

Marketing Committee

After a lengthy term of service, Dan Fajman has stepped down as the Marketing Chair. Thank you Dan, for your service to SWEMA. We appreciate all of your efforts.

We are in need of a new leader to head up this committee. Please contact Greg Williams at GWilliams@stormtrap.com or +1 (548) 788-2019 to volunteer yourself or someone else within your organization.

The Marketing Committee has been working on the social media communications for those items that GARC and TCOM have been developing. Please join both the LinkedIn and Facebook pages. We need people to join in order to get a better search ranking. SWEMA ran a campaign to boost our visibility on LinkedIn. We got 16,526 impressions and SWEMA spent $343.45. There were 143 click-throughs to SWEMA's website from this campaign. The International BMP Database paper was the topic we promoted.

The GARC / TCOM group set up a series of promotional steps to spread SWEMA's message. First, we will post to the "Advocacy/Policy and Position Statements" page of the SWEMA website the documents that the committee has developed. Next, the banner on the home page of the SWEMA website will be changed to highlight the recent work. The third step will be to highlight the document in the next SWEMA newsletter as we have done with the International BMP Database article in this newsletter. The fourth items is to post the finished product to SWEMA's social media platforms. Next, a press release will be sent out to stormwater-related publications. Additionally, we sent out a copy of the document to all SWEMA members and asked that they forward it within their respective companies.

Please join us on LinkedIn and Facebook. LinkedIn Facebook

In 2022 we plan to do more promotion of the things that SWEMA is doing via LinkedIn and Facebook. The next year should be a great year for the stormwater industry.

Dear SWEMA Members,

As 2021 comes to a close, I want to take this opportunity to express my thanks for being allowed to serve as your Executive Director. The past couple of years have been tough for many people but the dedication of SWEMA's members has been remarkable. As our world opens up, I hope we will be able to participate in more industry events and spread SWEMA's message to more people and entities.

SWEMA has moved forward during this time. Collectively we have obtained recognition as key stakeholders in the stormwater management world as a credible body. Recognition by regulatory bodies now includes invitations to sit down at the table for discussions on stormwater issues rather than be relegated to the observation gallery. The program in Virginia has been a long time coming, but we have been able to influence the outcome in our favor. Now we need to monitor Virginia to make sure the line doesn't start moving from the standard that has been set.

I know we are always pleading for additional assistance at the committee level. It is almost cliché to say it, but our members are the heart and soul of this organization. Jay Holtz has done a wonderful job getting many people to dedicate a limited amount of their time to support GARC's overall mission. Jeremy Fink's work in TCOM is commendable. They have produced the International BMP Database review document and have started looking at other topics to cover.

I wish you and your families a very happy New Year. See you in Austin, Texas in January 2022!

Laurie L. Honnigford

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Reminders

- If you want to serve on one of SWEMA's committees, please contact the respective committee chairman.
- Please forward this newsletter to other people within your company. If you want a colleague to receive a copy of the newsletter, please send Laurie Honnigford their contact information.