



## The Green Mountain Civil Report

April 2017

### In This Issue

#### Quick Links

[Visit Our Website](#)  
[Archived Newsletters](#)  
[More About Us](#)



VT ASCE is now  
on LinkedIn!

LinkedIn is a great way to stay up to date and connected to all of VT ASCE's members and events.

Help us build our

*Dear ,*

Happy Spring VT ASCE Members & Friends! Warm weather is headed our way, and along with the busy start of construction season we have a fantastic slate of events coming up to kick off the Spring season - we sincerely hope to see you all for at least one of these interesting and topical events.

I'd also like to invite anyone and everyone who might be interested in joining the VT ASCE Board of Directors to please get in touch with myself or someone else on the Board. We will be holding elections next month, and there are several openings where you could have the chance to get more involved in Vermont's engineering community.

Whatever your interests or time commitment, there are a number of ways that you could get involved. We are currently looking to fill roles as Treasurer, New England Regional Delegate, and possibly even more. The VT ASCE Board of Directors is a great way to help shape engineering in Vermont and even nationally, and I speak from experience when saying that it is extremely rewarding both personally and professionally.

In this month's newsletter you'll find:

- [Joint VT ASCE & SEA-VT April Dinner Meeting on the Lake Fairlee Dam Project - April 24](#)
- [104th Annual Meeting of the Vermont Society of Engineers & VT ASCE Joint Meeting - April 27](#)

content by posting  
to [our group!](#)

View our profile on 



[Join ASCE!](#)

Make sure to check out  
ASCE's Continuing  
Education Page.

[Click Here!](#)

**2016 - 2017 Vermont  
ASCE Officers**

Title	Name
Past President	<a href="#">Jessica Louisos, P.E.</a>
President	George N. McCain Jr., P.E
President-Elect	Nathan Pion, P.E.
Treasurer	Christopher Gendron, P.E.
Secretary	Branden Martin, E.I.
Newsletter Editor	<a href="#">Andrea Ameden</a>
New England Council Delegate	Bernard T. Gagnon, P.E.
New	Jessica

ASCE Vermont Section - April 2017 Newsletter

- [2017 Past President Breakfast with ASCE National President-Elect Kristina Swallow - May 10](#)
- [Dam Safety Legislation in Vermont House](#)
- [2017 ASCE Fly-In & Advocating for Infrastructure - WE NEED YOUR HELP!](#)
- [ASCE 2017 Infrastructure Report Card](#)
- [UVM Capstone Design Update](#)
- [ACEC of Vermont Soils Seminar](#)

Thank you for your time, and happy Spring!

George N. McCain Jr., P.E., M.ASCE

**Joint VT ASCE & SEA-VT April Dinner Meeting on  
the Lake Fairlee Dam Project**

Please join us for our joint VT ASCE & SEA-VT April Dinner Meeting on the Lake Fairlee Dam Project by Shawn Patenaude, P.E.

While many projects are relatively "run of the hydro-mill" or typical dam(n) rehab work, the Lake Fairlee project has been quite unique on many levels. From extreme public participation (3 towns came together to gain ownership of the dam from a private owner), to a complex public-private partnership (3 separate bonds votes), to significant permitting challenges (the State initially said no to the concepts), to the fact that this is potentially the first full tear down and build dam project in Vermont in quite some time. It took over 3-1/2 years from the initial engineering project proposal to final construction completion, not to mention there was a camp located at the midspan that needed to be moved for demo/construction of the dam before being placed back after construction was complete.

Shawn is a Senior Dam Engineer and Project Manager for Dubois & King, based out of their Randolph office.

[Click Here to Register Now!](#)

**BEFORE:**

England Council Delegate	Louisos, P.E.
Webmaster	Erik Ailing, P.E.
Membership Committee Chair	Tyler Barnard, E.I.
Geo-Institute Chair	John Stevens, P.E.
VTC Practitioner Advisor	John Lens, P.E.
UVM Practitioner Advisor	Pat Finn, E.I.
Norwich Practitioner Advisor	Chris Rivet, P.E.
Young Member Committee Chair	Dylan Quinn, E.I.
Government Relations Chair	Amanda Hanaway-Corrente, P.E.



**AFTER:**



**We Won!**



The Vermont Section won the Outstanding Section & Branch

Award for Small Sections in 2012 & 2013. This means that we were the BEST small ASCE section in the nation!

## 104th Annual Meeting of The Vermont Society of Engineers & VT ASCE Joint Meeting

Join VSE and VT ASCE on April 27 for an afternoon and evening of networking and technical presentations at the Country Club of Vermont in Waterbury

Technical presentations will include:

- Lieutenant Colonel Adam Rice, P.E., F-35 Facility Program Manager with the 158th Fighter Wing speaking on "**Challenges facing an Air National Guard Unit to prepare our installation for the arrival for the F-35 Joint Strike Fighter**"
- Student Senior Projects from Norwich University and Vermont Technical College
- **Sheet Pile Retaining Wall Restoration Project** by Shawn P. Kelley, Ph.D., P.E., GeoDesign, Inc.
- **The Ski Haus at Jay Peak Resort** by Robert J. Favali, DuBois & King, Inc.

[Click here for additional details on the presentations](#)

[Click here for registration information](#)



## 2017 "Past President Breakfast" with ASCE National President-Elect Kristina L. Swallow

All members are invited to celebrate our Past Presidents over breakfast at the Capital Plaza Hotel in Montpelier, VT.

ASCE national president-elect Kristina Swallow, P.E., ENV SP, F.ASCE will lead a discussion on her work as Las Vegas public works engineer and national engineering issues. You do not have to be a past president to attend, it is open to all! Don't miss this opportunity to network with other members and the ASCE National President-Elect!

All members are invited to attend to help us celebrate our Past Presidents.

This is a great opportunity to have direct access to one of the top leaders of the society.

[Click here to register or RSVP.](#)



**KRISTINA L. SWALLOW,  
P.E., ENV SP, F.ASCE**

Kristina Swallow is the 2018 ASCE President and Program Manager at City of Las Vegas. Leading a team of engineers responsible for delivering public works projects, Kristina has been with the City of Las Vegas since 2012. She is responsible for negotiating design and construction contracts, reviewing progress of the work, coordination with public and private sector stakeholders, and responding to external comments or questions.

## VT Legislature and Dam Safety Legislation

An important new DAM SAFETY BILL was introduced in the Vermont House. [Information on H.92 can be found by clicking here.](#) We have compiled some [Frequently Asked Questions](#) on this bill. The ASCE Vermont Report Card highlighted some areas for improvement in the way Vermont handles dam. This bill will create a dam registry and information available on Vermont dams. If you have questions on this effort or would like to get more involved in supporting this bill contact Jessica Louisos, [jlouisos@mminc.com](mailto:jlouisos@mminc.com)

As this bill proceeds through the Vermont legislature you may receive emails on it's progress and asking for your support in contacting your representatives.

Please also take the time to fill out the following petition, to show your support for H.92 as it has



been referred to the committee on ways and means.

**[Support H.92 and Vermont Dam Safety Legislation](#)**

**2017 ASCE Fly-In in Washington, D.C. - VT ASCE  
Advocating for Infrastructure and WE NEED YOUR  
HELP!**

The Vermont Section of ASCE participated in the annual National FlyIn. Jessica Louisos, Water Resource Engineer at Milone & MacBroom and Amanda Clayton, Director of Engineering and Environmental Compliance for Burlington International Airport (remotely due to snowstorm) represented the Vermont Section. The event included education on current engineering related bills, funding initiatives, and talking points in preparation for meeting with our congressional delegates. Meetings on the hill were extremely successful with long discussions on how infrastructure funding benefits Vermonters.

The events in Washington coincided with the release of the 2017 Infrastructure Report Card. Take a look at the informative and catchy new format. Consider downloading the app (Senator Sander's staff downloaded it to his ipad). Check out the section on Vermont's infrastructure. <http://www.infrastructurereportcard.org/>

**How you could help... Our Congressional Delegation has asked that we share our stories on how what they are doing in Washington affects Vermonters. Do you have any projects that need funding? or have been successfully completed with federal funding?**



To hear more, share your stories, or get involved in state or federal advocacy contact Jessica [jlouisos@mminc.com](mailto:jlouisos@mminc.com) or Amanda

## ASCE Infrastructure Report Card 2017

ASCE has released their 2017 report card for America's Infrastructure. Every four years, ASCE Report Card depicts the condition and performance of American infrastructure in the familiar form of a school report card - assigning letter grades based on the physical condition and needed investments for improvement.

There's a plethora of information and too much to summarize in just this newsletter, but I encourage everyone to take a look at the following hyperlink to see how ASCE has performed their work. And keep an eye out in future newsletters for spotlights on the categories and how it affects Vermont.

[2017 ASCE Infrastructure Report Card](#)

## UVM Capstone Design Update

UVM's civil and environmental engineering seniors in our capstone design course are completing their projects with final presentations scheduled for May 9 and 10. We appreciate the support we have had from the practitioner community including engineers, architects, and construction professionals, ranging from direct advising of project teams, in-class presentations, to reviewing the 30% and 60% stage presentations. The projects types are:

- Infrastructure and building improvement projects  
4 Projects
- Flood, seismic, and landslide hazard mitigation  
3 Projects



- Historic bridge rehabilitation and display 1 Project
- Lake Champlain phosphorous mitigation 2 Projects
- Haiti low-cost building panel and water filtration R & D 2 Projects
- Department of Energy Race to Zero Student Competition 1 Project
- Sustainable Montpelier 2030 Competition based design 1 Project

We invite practitioners to the UVM Design Night presentations at the Davis Center on Friday, April 28, 2017 from 4 to 7PM and our final presentations on May 9 (4:30-9PM at Kalkin Hall Room 001) and May 10, 2017 (8:30AM-5PM at Kalkin Hall Room 004). If you plan to attend the May 9 and 10 presentations, please let either John Lens, [jelens@uvm.edu](mailto:jelens@uvm.edu), or Pattie McNatt, [Pattie.McNatt@uvm.edu](mailto:Pattie.McNatt@uvm.edu) know. The presentations will be in 50 minute sessions comprised of approximately 30 minutes of presentation followed by 20 minutes of questions and answers.

We are also interested in suggestions for future capstone projects.

## ACEC of Vermont Soils Seminar - 8 PDH Refresher Course in Field Descriptions of Soil Properties and Estimating Seasonal High Water Table

### THE COURSE:

Field Description of Soils: A course of study in the description and field identification of soils with varying wetness conditions using standards of the National Cooperative Soil Survey. Emphasis on important soil properties in the field related to soil drainage characteristics and on-site waste disposal. Upon completion, the student is expected to be knowledgeable in describing soils and estimating seasonal high water table levels.

**TEXT & PRIMARY REFERENCES (PROVIDED WITH THIS COURSE):**  
Redoximorphic Features for Identifying Aquic Conditions. M. J.

Vespraskas, NC State Universtiy. Tech.Bulletin 301. Dec. 1992.

Field Book for Describing and Sampling Soils. Version 2. USDA-NRCS. Sept. 2002.

Origin and Nature of Soil:

Soil Color and its Significance

Soil Structure

Factors of Soil Formation Features

Redoximorphic Soil

Types of Soil Properties

Soil Series Information

Slope Soil horizons and Boundaries

Soil Consistence

Restrictive Layers

Drainage classes

Permeability

Soil Surveys:

Soil maps- how to use Web Soil Survey

(<http://soils.usda.gov/survey/>) to get soils info Scale, accuracy, and map detail. Exercise using Soil Properties and Septic Rating info in the Orange County Soil Survey.

**WEBINAR CLASS:** Tuesday, May 16 (9:30 AM - 11:30 AM) FIELD DAY- Wednesday, May 17 (8:45 AM - 4 PM):

Describing Soils of Various Parent Material and Drainage Classes- Local sites

**FIELD EXAM AND COURSE REVIEW:**

Student is to 1.) Prepare a complete field description of selected pedons, and 2.) Describe role of parent material and relief on soil drainage characteristics for selected test pits. This is an open book exam.

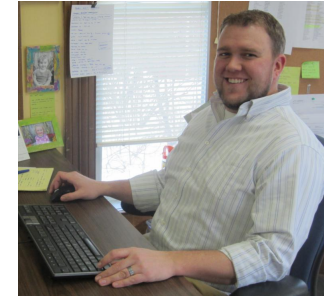
[Click here to register, only 25 spots available](#)

You are welcome to contact me at [Vermont ASCE Newsletter](#) if you have something to contribute to the newsletter. Let us know if you have suggestions on how we may serve you better.

Sincerely,



George N. McCain Jr., P.E., M.ASCE  
ASCE Vermont Section President  
President Vermont ASCE



## Career Opportunities

If your company would like to post a job opening, please follow the link below for more information:

[Posting Jobs with VT ASCE](#)

## Company Sponsors

*Civil & Structural Engineers*  
**DeWolfe**  
 ENGINEERING ASSOCIATES  
INCORPORATED

81 River Street, P.O. Box 1576  
 Montpelier, VT 05602

**Richard S. DeWolfe, PE**  
*President*

400 Cornerstone Dr. Ste. 110  
 Williston, VT 05495  
 Office : 802.876.5022  
 Fax: 802.876.5025

Office: 802.223.4727  
 Cell: 802.248.2800  
 Home: 802.456.1404  
 Fax: 802.223.4740

[rick.dewolfe@dirsteel.com](mailto:rick.dewolfe@dirsteel.com)  
[www.dirsteel.com](http://www.dirsteel.com)



**GEODESIGN**  
 INCORPORATED

**GEOTECHNICAL ENGINEERS · ENVIRONMENTAL CONSULTANTS**

54 MAIN STREET · POST OFFICE BOX 699  
 WINDSOR, VERMONT 05099-0699  
 TELEPHONE: 802.674.2033 · FACSIMILE: 802.674.5943

**SANBORN HEAD**  
www.sanbornhead.com

*Providing technical consulting services to clients in the Energy, Industrial, Solid Waste & Development Markets.*

2 South Main Street, Suite 2  
Randolph, VT 05466  
(802) 728-1000



**MILONE & MACBROOM**

1 South Main Street, 2nd Floor  
Waterbury, VT 05676  
T 802.882.8335  
F 802.882.8346

Contact: Roy Schiff, Ph.D., P.E.  
roys@miloneandmacbroom.com

www.miloneandmacbroom.com

**Specializing In:**  
Hydrology & Hydraulics  
Flood Avoidance & Recovery  
Stream & Floodplain Restoration  
Dam Safety, Repair & Removal  
Stormwater Management  
Bridge & Culvert Design  
Aquatic Organism Passage  
Federal, State & Local Permitting  
FEMA Floodplain & Benefit Cost Analysis

**Other Services:**  
Landscape Architecture  
Planning  
Transportation Engineering  
Civil Engineering  
Structural Engineering

**Stantec**

**Erik N. Alling, PE**  
Transportation Engineer

Stantec  
55 Green Mountain Drive, South Burlington VT 05403  
phone: (802) 864-0223 ext.: 129  
fax: (802) 864-0165  
erik.alling@stantec.com

**ECI**  
ENGINEERS CONSTRUCTION, INC

P.O. BOX 2187 PPHONE: (802) 863-6389  
SO. BURLINGTON, VT 05407 FAX: (802) 862-9703  
E-mail: ken@engineersconstruction.com  
Web Site: www.engineersconstruction.com

**QCQA Labs**  
QCQA LABORATORIES, INC. DRILLING & TESTING SERVICES

toll free 877-250-8347  
fax 518-372-6739  
web www.qcqualabs.com

**Tod Kobik, PE**  
Vice President  
mobile: 518-429-1780  
tkobik@qcqualabs.com

**William Stanton**  
President  
mobile: 518-669-4873  
wstanton@qcqualabs.com

877 Route 4, Schuylerville, NY 12871

**GZA**

**We are Proactive by Design.**  
We are One Company. We are GZA.

**GZA GeoEnvironmental, Inc.**  
5 Commerce Park North Suite 201  
Bedford, NH 03110-6984

T: 603-623-3600  
F: 603-624-9463  
gza.com

*Proactive by Design*

GEOTECHNICAL  
ENVIRONMENTAL  
ECOLOGICAL  
WATER  
CONSTRUCTION MANAGEMENT

www.vhb.com

40 IDX Drive  
Building 100, Suite 200  
South Burlington, VT 05403

**vhb** **David Saladino, PE, AICP**  
Managing Director

dsaladino@vhb.com  
D 802.497.6121 | P 802.497.6100

**Brod Aldrich, PE, F.ASCE**  
President  
baldrich@aeengineers.com

**AE Aldrich + Elliott**  
WATER RESOURCE ENGINEERS

6 Market Place | Essex Junction | VT | (802) 879-7733 x102  
Suite 2 | Vermont 05452 | [AEENGINEERS.COM](http://AEENGINEERS.COM)



- Bridge & Highway Design • Traffic/Transportation • Site Development
- Survey • Inspections/Review • Water/Wastewater
- Construction Management • Peer Reviews

Manchester: 603.668.8223    White River Junction: 802.698.0370  
York: 207.363.0669        Sunapee: 603.873.4039

[Find Out How to Become a Company Sponsor](#)