

State News for NSPE Members

Geotechnical Challenges on Wharf Redevelopment Project

In 2020, significant work was completed on the second phase of the Wharf redevelopment project. One aspect of the project, the foundational work, was carried out by the geotechnical firm Keller, included site dewatering and treatment of contaminated groundwater, in addition to jet grouting, tiebacks and piling, [according to GeoEngineer.org](#). Dewatering the site and treating the contaminated groundwater were complex undertakings. After water authorities denied Keller's request to discharge all of the site water into the combined sewer system, the water had to be discharged into the storm-water system that empties into the Washington Channel. But this required treatment beforehand to remove contaminants such as iron, arsenic and pesticides.

The biggest challenge: severely high levels of naturally occurring iron that precipitates out of the groundwater and rapidly builds up in pipes, pumps, and drainage structures. To keep the iron in solution and preventing it from plugging the filter beds of the treatment system, a chemical iron sequestering agent was injected into the pumping system.

Air Particulate Matter from Metro Found To Be at Risk Levels

A study on air pollution in and around the major subway systems in the US, including Washington's Metrorail, has found air particulate matter at potentially dangerous levels. The air pollution included carbon, iron, and silicon, which is flung up by train brakes and created by the friction between the train wheels and rails, according to the study published in [Environmental Health Perspectives](#). Other trace elements were also found, such as sodium, copper, and zinc at the Capital South Metro station. This raises concern for passengers exposed to the particulate while waiting for trains and more so for Metro employees who breathe the air throughout their shifts.

FAA safety engineer goes public to slam the agency's oversight of Boeing's 737 MAX

Haunted by the two deadly crashes of Boeing 737 MAX jets and his agency's role in approving the plane, veteran Federal Aviation Administration (FAA) safety engineer Joe Jacobsen is stepping forward publicly to give the victims' families "a firsthand account of what the truth is." In a detailed letter sent last month to a family that lost their daughter in the second MAX crash in Ethiopia two years ago this week, and in [interviews with The Seattle Times](#), Jacobsen gave the first personal account by an insider of the federal safety agency's response to the MAX crashes. Jacobsen should have been among the FAA specialists who reviewed the MAX's critical new flight control software during its original certification, which was largely controlled by Boeing. He's confident that he and other FAA engineers would have flagged its serious design flaws.

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Wanted: 2021 NSPE Emerging Leaders



NSPE is fostering a new generation of engineers who can think strategically, build effective teams, and lead successfully through its [Emerging Leaders Program](#). This intensive seven-month, professionally facilitated, virtual program is now accepting applications until **May 31**.

Early-career professionals with 5-8 years of experience who are just beginning to lead and think strategically in the profession are encouraged to apply. The program graduated its [first class of diverse, super achieving professionals](#) in February.

Between August 2021 and February 2022 participants will learn how to be successful at higher levels of leadership responsibility. Participants will engage in 90-minute leadership training sessions each month with learning discussions and

mentoring on topics such as ownership, team development, communication skills, giving/receiving feedback, and presentation skills. There will also be ample networking opportunities with peers and national NSPE national leaders.

[Learn more and apply.](#)

Ethics Webinars for PEs and Those on the Licensure Path



Don't miss NSPE's upcoming ethics webinars on truthfulness and fidelity to employers and clients, with insight from Rebecca Bowman, P.E., Esq., NSPE's senior director for ethics and professional practice and NAFE executive director, and other NSPE ethics experts.

April 7

[Engineering Ethics—Canon III—Truthfulness](#)

Learn from a variety of situations in which circumstances can tempt (and even encourage) engineers to dance around the edges of Canon III.

Presenters: Hugh Veit, P.E., Susan Sprague, P.E., F.NSPE, and Rebecca Bowman, P.E., Esq.

May 5

[Engineering Ethics—Canon IV—Fidelity to Employers/Clients](#)

Examine the duties to employers and clients, and circumstances under which those duties can be pre-empted by higher duties, especially to the public health, safety, and welfare.

Presenters: David Kish, Ph.D., P.E., Jeff Greenfield, Ph.D., P.E., F.NSPE, and Rebecca Bowman, P.E., Esq.

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