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For additional information please contact Carolyn Bird, Casco Bay Engineering, 207. 842.2800 or carolynb@cascobayengineering.com.

AUGUSTA - The American Council of Engineering Companies (ACEC) of Maine has announced their 2011 Fall Forum and Engineering Excellence Awards. These awards are the first step in a national competition for the most innovative engineering project in the country.

At this year's event, four firms received awards. Wright-Pierce of Topsham received this year's top honor – "The Grand Conceptor Award". The project for which they were honored was a facility upgrade to the Nokomis Pond Water Treatment Facility to address water quality issues and bring the District into compliance with state and federal regulations. The upgrade design employs a MIEX® Process (Magnetic Ion Exchange), an innovative treatment process that is the first of its kind in use by a New England facility. The Nokomis Pond water treatment facility is the first large-scale magnetic ion exchange application for drinking water treatment in New England. Adding MIEX® Process upstream of the existing slow sand filtration treatment provided a cost effective solution to organics removal that successfully brought the facility into compliance with both current, and projected long-term state and federal standards. Other slow sand water treatment facilities throughout New England are looking to the Newport facility as a model.

Three Honor Awards for Engineering Excellence were presented. The first was to Woodard & Curran for their work at the Paris Utility District Facility Upgrade. The upgrades are in part a result of changing economic conditions in the town of South Paris and the surrounding area. When the facility originally went online in 1975, the design took into consideration treating wastewater from a nearby cannery and tannery as well as the Town of Paris. Since that time, the cannery has closed and numerous road reconstruction projects over the past 30 years have removed a lot of the original storm water infrastructure that were directed to the facility. As a result, the facility became oversized for the actual wastewater stream. The entire facility upgrade was designed to minimize the District's carbon footprint, including effluent water source heat pumps and energy conservation measures like heat recovery systems.

The remaining two Honor Awards for Engineering Excellences went to Haley Aldrich of Portland. The first was for their innovative application of a new geothermal system to heat and cool the new Portland Jetport terminal building. These new engineering approaches resulted in greatly decreased construction costs and an optimally-sized well field, while still delivering substantial efficiency and sustainability gains. Haley & Aldrich engineers designed the geothermal system to take advantage of the unique properties of the Jetport site and building setting, with consideration to climate, building envelope, solar gain, physical orientation, ventilation characteristics, occupancy, lighting and many other factors.

The second Honor Award was for their innovative use of an ultra-lightweight fill (geofoam) and a unique vertical-sided precast pre-stressed concrete panel wall to replace an aging two-lane bridge over the

Presumpscot River and Maine Central Railroad in Falmouth. The geofoam fill/wall panel system allowed fast-track replacement of the Route 100/26 bridge while maintaining traffic flow on a busy transportation corridor. Haley & Aldrich's use of geofoam and the unique application of the vertical panel wall, has never been used on a MaineDOT project.

The last ACEC of Maine award was the Special Recognition Award which went to GZA Geoenvironmental for their innovative embankment preload program as part of the Veteran's Memorial Bridge Design-Build Project in Portland. The South Portland approach for the Veteran's Memorial Bridge faced difficult challenges, including limiting the long-term approach roadway settlement, reducing mudflat impacts to meet environmental permits, and a subsurface profile including up to 90 feet of moderate strength, compressible Marine Clay. At the same time, it was necessary to build a temporary system to support the preload fill while maintaining the overall stability.

The American Council of Engineering Companies thanks these four engineering firms for their continuing efforts to improve, innovate and redesign projects in Maine.