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Tulsa, Okla. High School Student Wins U.S. Stockholm Junior Water Prize, Will Represent the U.S. in International Competition

ALEXANDRIA, Va. – The Water Environment Federation (WEF) proudly announces that Braden Milford has won the 2018 U.S. Stockholm Junior Water Prize (SJWP), the nation's most prestigious youth competition for water-related research.

Milford, a student at Cascia Hall Preparatory School in Tulsa, Okla., developed a system using naturally occurring bacteria to remove heavy metals from contaminated abandoned mine sites. He won \$10,000 and an all-expenses paid trip to Stockholm to represent the United States at the international competition in late August.

Students from 47 states and Puerto Rico competed in the national finals June 16-17 at the University of North Carolina at Charlotte. The Stockholm Junior Water Prize aims to increase students' interest in water issues, research, and careers, as well as to raise awareness about global water challenges. The competition is open to projects focused on improving water quality, water resource management, water protection, and drinking water and wastewater treatment.

The two U.S. runners-up were Anjali Chadha of duPont Manual High School in Louisville, Ky., and Michelle Xing of Great Neck South High School in Lake Success, N.Y., who each received \$1,000. Madeline Kane of the Zoo Academy in Omaha, Neb., received the Bjorn von Euler Innovation in Water Scholarship Award from Xylem Inc. Helen Laird of Interior District Education of Alaska received the James L. Condon Recognition for Environmental Stewardship.

"WEF is proud to support and encourage these young researchers who have chosen to use their talents and energy to develop solutions to protect and preserve our water resources," said Eileen O'Neill, WEF Executive Director. "The inventive approaches these students use to tackle longstanding issues facing the water sector is both impressive and inspiring."

In his winning paper, "Designing a Novel Heavy Metal Bioremediation System Utilizing Immobilized Algae Partnered with Heavy Metal Resistant Microbial Isolates Collected From Contaminated Superfund Mine Sites and Identified with a 16S Ribosomal Subunit Analysis," Milford noted that heavy metal contamination is found at nearly every one of the estimated 500,000 abandoned mine sites in the United States. Of these mine sites, 0.003% are actively funded for cleanup by the U.S. Environmental Protection Agency and cost \$300 million annually. Milford used a five-phase approach to address this problem. After identifying areas of heavy metal concentration along streams near abandoned mine sites and taking samples of the water,

Milford identified heavy metal-resistant bacteria. He then combined the bacteria with algae to develop a heavy metal remediation system.

In the U.S., WEF and its Member Associations organize the regional, state, and national competitions with support from Xylem Inc., who also sponsors the international competition.

For more information on the Stockholm Junior Water Prize, click [here](#). For a list of state winners, click [here](#).

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About WEF

The Water Environment Federation (WEF) is a not-for-profit technical and educational organization of 34,000 individual members and 75 affiliated Member Associations representing water quality professionals around the world. Since 1928, WEF and its members have protected public health and the environment. As a global water sector leader, our mission is to connect water professionals; enrich the expertise of water professionals; increase the awareness of the impact and value of water; and provide a platform for water sector innovation. To learn more, visit www.wef.org.