## New Green Roof Display on USU Campus Engages Students

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Green roof display developed by McKenna Drew, who graduated in May 2017 with a Bachelor of Landscape Architecture. Credit: Dennis Hinkamp/Utah State University.



Middle school students and teachers from the USU STARS! GEAR UP program compared water runoff from traditional verses green roof materials. Credit: Dennis Hinkamp/Utah State University Middle school students and teachers from across the state were the first to see and learn about benefits of green roof construction in urban spaces through a new interactive display on the Utah State University Logan campus. Participants were part of the USU STARS! GEAR UP program, a combined effort of the Colleges of Engineering and Education at USU.

The display, located front of the Quinney College of Natural Resources, measures water runoff from traditional asphalt shingles verses green roof materials. In addition its visual appeal, the green roof portion is covered with a variety of living plants that slow down and cleanse the water runoff during storms. The side-by-side example allows students to see and count water amounts measured as they are coming off each roof. During a simulated rainstorm, the green roof reduced the amount of water running off to a surprising degree.

USU undergraduate student McKenna Drew said that development of the project came out of her experience working with Nancy Mesner, professor in the Department of Watershed Sciences and an Extension Specialist in Water Quality Extension at USU.

Drew said that while "teaching students and educators about ways that they could engage in monitoring water bodies throughout the state of Utah, she saw how effective hands-on activities were for learning."

"I saw an opportunity to implement this type of learning on campus," said Drew. "As a Landscape Architecture student, I thought that a green roof demonstration would be a great start to the potential of many more hands-on learning and research opportunities on USU's main campus," adding that "I have always had a big interest in green infrastructure and storm water management."

Drew was assisted in her project by USU faculty mentors, Nancy Mesner, Bo Yang, an associate professor of Landscape Architecture and Environmental Planning, and Mark Brunson, professor in the Department of Environment & Society and iUTAH Education, Outreach and Diversity director, as well as many others. She graduated in May 2017 with a Bachelor of Landscape Architecture, and now works for the Bureau of Land Management in Salt Lake City, UT.

The project was supported financially by iUTAH, a water research and education program funded by the National Science Foundation. The iUTAH project supports green infrastructure education programs on the University of Utah and Southern Utah University campuses, as well as at USU. They have partnered

with groups such as Utah Water Watch on this project, and other education outreach signage to strengthen and promote an inclusive, diverse, water-wise community in Utah.

"My hope is that instructors on campus, and throughout Cache Valley, will not shy away from utilizing the display as a teaching opportunity and that people can see how easy it is to implement green infrastructure," said Drew. "I also hope that this project is a start to seeing more research displayed and monitored on campus, and am thrilled with the result of the display, thanks to the efforts of facilities, colleagues, mentors, and friends."

Related links: McKenna Drew iUTAH website Utah Water Watch

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