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SCHOOL OF
PUBLIC
HEALTH

Hubert Department of Global Health

EMORY

July 22, 2014

To: AASHE STARS Committee

Re: Letter of Affirmation, STARS Innovation Credit for Water Reclamation and Reuse

Dear STARS Committee Members,

This letter is in support of Emory University's STARS Innovation Credit for Leadership in Sustainable Water Practices and to affirm the innovation and impact of the Emory Water Reclamation Facility (WRF).

In December 2013, construction began on the Emory Wastewater Reclamation Facility (WRF). Designed and constructed by Sustainable Water, the WRF will provide non-potable reclaimed water from wastewater diverted from the sewer system draining the campus. The wastewater will be treated in a WaterHub™ system, which uses a combination of traditional treatment approaches (filtration, disinfection) and innovative ecological treatment. The ecological component is a series of indoor and outdoor tidal beds that harbor complex ecosystems of plants and bacteria. As the wastewater moves through these beds, the nutrients and pollutants in the water are broken down and removed. This process produces high-quality reclaimed water that meets all federal, state, and local regulations. The resulting water will be used in the University's steam and chiller plants, for irrigation of the athletic fields, and to flush toilets in the dormitories.

Once completed, the Emory WRF will be the largest on-site reclamation facility on a college campus. The system will divert up to 400,000 gallons of wastewater per day. This will significantly reduce the volume of wastewater entering the DeKalb County sewer system, thereby reducing the burden on the county treatment system. The reclaimed water will displace up to 30% of the overall campus water use and the majority of the campus utility water use. As one of DeKalb County's largest water consumers, this reduction will reduce the overall water consumption for the county, an important benefit in a region that routinely faces drought-driven water shortages.

The Emory WRF will provide many benefits to the University and the surrounding community. In addition to the cost savings and independence from the county water infrastructure, the University will benefit from the opportunity to use the WRF as a research and teaching facility. Faculty input was sought in the design stage of the project to ensure that the facility was accommodating to research and teaching goals. As a result, the facility has sampling ports at all points throughout the treatment process, large open areas appropriate for class groups, and, where possible, the treatment process is visible. Faculty and students will be able to address important, outstanding research questions surrounding reclaimed water in a fully-functioning water treatment system with access to the source, the treatment facility, and the end user. It is also the University's goal that this facility becomes an outreach site, hosting tour groups from the surrounding community and promoting the uptake of alternative water sources. In a water-

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scarce region with an over-burdened water infrastructure, the importance of this goal cannot be underestimated.

As the Director of the Center for Global Safe Water, I am very proud of the steps that Emory has taken to be a leader in sustainability and water reuse. The education and research opportunities afforded by the Emory WRF will ensure that the benefits and lessons of this system spread far beyond the Emory and Atlanta communities. Innovative, local solutions like this facility are a critical component in building a water system that provides access to safe, reliable water for everyone.

Sincerely,

A handwritten signature in cursive script, appearing to read "Christine L. Moe".

Christine L. Moe, PhD

Director, Center for Global Safe Water

Eugene J. Gangarosa Chair of Safe Water and Sanitation, Hubert Department of Global Health
Emory University