

October 24, 2016

CITY COUNCIL STUDY SESSION ITEM

SUBJECT

Cascade Water Alliance Teacher Fellows Update

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POLICY ISSUES

This is an informational briefing regarding the results of a Cascade Water Alliance water efficiency program called the Teacher Fellows program. The program was authorized by the Cascade Water Alliance Board of Directors in 2015, and Teacher Fellows from the Bellevue School District will be in attendance to report on the success of the initial phase of the work. This program supports Council's goal of increased regional leadership, including collaboration with other Cascade member jurisdictions and the Bellevue School District to integrate water resource education into the school district's curriculum.

DIRECTION NEEDED FROM COUNCIL

ACTION

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DIRECTION

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INFORMATION ONLY

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No formal action is required; this is an informational briefing.

BACKGROUND/ANALYSIS

Cascade Water Alliance Water Efficiency Programs

Cascade Water Alliance provides water efficiency programs and services on behalf of Bellevue and Cascade's six other members. In 2015 Cascade's water efficiency program saved approximately 28.9 million gallons of water, 3.1 million kilowatt hours of energy, and 1.9 million pounds of avoided greenhouse gas emissions. The program benefits residents, businesses, schools, and public agencies through a variety of education and outreach, training, and retrofit actions. The program is funded by Cascade's members through a conservation charge assessed based on the population served. The 2016 program budget is \$846,043. Bellevue's share of the 2016 conservation charge payment is \$347,000.

Teacher Fellows Program

Cascade's Teacher Fellows program was authorized by Cascade's Board of Directors in May 2015. The program budget is \$51,400. Teacher Fellows in all four participating school districts – Bellevue, Issaquah, Lake Washington, and Tukwila – completed their units in 2015.

The Cascade Teacher Fellows program recruits a small number of master teachers at the secondary level (grades 6-12) and results in the development of problem-based water resource units, which are embedded into the core curriculum district-wide. Successful units will lead to new units developed with other Fellows at other grade levels and in a range of academic disciplines from chemistry to biology, geography to civics, math to economics, and from current events to global issues. This will help school districts meet education standards, help water resource managers meet conservation goals, and inspire young people to conserve and protect water.

The Teacher Fellows from the Bellevue School District are Maile Morgan and Tamara Traux. Ms. Morgan and Ms. Traux created the World Water Challenge: A year-long quest to meet the water needs of our local and global communities, now, and far into the future. Throughout the year, Bellevue students gained an understanding of the importance of three integrated water systems: a clean water supply, effective wastewater treatment, and the management of polluted stormwater runoff. Water systems and sustainability are the lenses through which students analyzed water challenges facing people in each of the work regions studied and helped students make connections between local and global water issues to envision a more sustainable future. Students examined the effects of a lack of clean water on children in Africa, India's need to reduce pollution and propose solutions for the Ganges River, and China's "Sponge Cities", designed to control flooding and clean stormwater.

Students later analyzed the relationship between economic vitality and ecosystem health in the Puget Sound region, where managing polluted stormwater runoff is a high priority. Using the knowledge gained, students committed to making changes in their own behavior and educating and recruiting family members to take the Personal and Family Water Challenge Pledge.

The Bellevue School District Curriculum Department has approved this unit to be piloted in all 7th grade classrooms in all seven middle schools in the Bellevue School District during the 2016/17 school year. This means that two Teacher Fellows, working in collaboration with an additional 22 social studies teachers will impact the learning of an estimated 1,300 students each year.

Other City of Bellevue Environmental School Programs

In addition to the work being done by Cascade, the City has a long-standing partnership with the Bellevue School District to integrate environmental programs into curriculum and operations. Programs include assistance in developing environmental science curriculum, presentations at science fairs, and facilitation of waste prevention in school facilities. The array of programs offered reach every student in the school district, totaling about 20,000 students in 2015. Please see **Attachment A** for more information on the programs offered.

The City offers assemblies and workshops at all levels and also offers secondary workshops, including a two-day "Powerful Choices" program for all sixth grade students that uses the study of systems as a lens to explore the links between our personal customer choices and the health of the Puget Sound ecosystem.

The content of each day is tailored for the Bellevue area, so this is an opportunity for students to hear relevant information about their community. This past spring the City also piloted a third “Powerful Choices” program for seventh grade that focuses on climate change and features the award-winning Carbon Yeti program, which is a campaign to raise awareness and help residents reduce their individual carbon footprints through behavior change.

ALTERNATIVES

N/A

RECOMMENDATION

N/A

ATTACHMENT(S)

(A) Environmental Resources for Bellevue Schools