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CITY COUNCIL REPORT

TO: Rick Naimark
Deputy City Manager

FROM: John A. Trujillo
Acting Public Works Director

SUBJECT: NATIONAL SCIENCE FOUNDATION GRANT ON CLIMATE CHANGE AND
ENGINEERED SYSTEMS

This report provides the Finance, Efficiency, Innovation, and Sustainability (FEIS) Subcommittee with information on a proposed National Science Foundation (NSF) Grant on Climate Change and Engineered Systems. Staff requests that the Subcommittee recommend City Council approval for the City of Phoenix to serve as one of three demonstration communities from across the country for this grant.

THE ISSUE

Phoenix has been recognized as a leader in environmental stewardship and sustainability and has a long history of implementing pollution control and natural resource conservation programs. The City's sustainability programs have also helped reduce greenhouse gas (GHG) emissions in City operations and the community. In December 2008, the City Council adopted a goal to reduce GHG emissions from City operations to 5 percent below the 2005 levels by 2015. The Climate Action Plan was finalized in 2009 and included continuation and expansion of the City's sustainability programs that are ensuring the City will meet its GHG reduction goal.

The Alliance for Innovation, in partnership with ASU, has invited the City to partner in the NSF's Climate Change Education Partnership.

OTHER INFORMATION

Cities have recognized that climate projections of heat waves and storms pose threats to the health, safety and economic wellbeing of their residents. They are increasingly focusing on the impacts of climate change, assessing specific climate vulnerabilities, developing strategies to adapt, and taking actions to prepare for impacts. Emergency preparedness plans, sound land-use and transportation planning, wildfire prevention measures, water supply diversification and solid infrastructure all represent efforts that bolster climate resilience. The City of Phoenix is a member of the Urban Sustainability Directors Network Western Adaptation Alliance of 10 communities, including Aspen CO, Boulder County CO, Denver CO, Flagstaff AZ, Fort Collins CO, Las Vegas NV, Park City UT, Salt Lake City UT and Tucson AZ. The Alliance collaborates on climate adaptation, mitigation and resiliency strategies for the unique climate impacts of the American West.

The Alliance for Innovation, along with a national group of university climate scientists, is applying for this NSF grant that would explore how to educate university engineering students, K-12 youth and local governments regarding how climate change may impact infrastructure stability or define further infrastructure requirements.

The NSF is seeking to support a coordinated national alliance of Climate Change Education Partnerships that will focus around either continuous geographic regions that are expected to experience similar climate change impacts, or around scientific themes that relate to specific types of climate change processes and impacts. The primary goal of the program is to foster in learners of all ages a deeper understanding of, and engagement with, the complex processes of the climate system and the potential impacts of a changing climate, through activities that lead to development, evaluation, dissemination, and increased adoption of effective, high quality educational programs and resources.

This grant is consistent with, and will enhance, the City's climate adaptation, mitigation and resiliency efforts.

ACTION REQUESTED

This report requests that the FEIS Subcommittee recommend City Council approval for the City of Phoenix to serve as one of three demonstration communities from across the country for the NSF Grant on Climate Change and Engineered Systems.