Thursday, June 24, 2010

## Watershed Protection Department RECOMMENDATION FOR COUNCIL ACTION

Item No. 75

**Subject:** Authorize negotiation and execution of a one-year Interlocal Agreement between the City of Austin and the University of Texas at Austin, Lady Bird Johnson Wildflower Center ("Wildflower Center") for services to study the hydrologic response of green (vegetated) roofs to Austin rainfall events, in the amount not to exceed \$10,000.

**Amount and Source of Funding:** Funding in the amount of \$10,000 is available in the Capital Improvement Project (CIP) budget entitled "Participation With Developers" managed by the Watershed Protection Department.

Fiscal Note: A fiscal note is required

For More Information: Matt Hollon, 974-2212, Roger Glick, 974-2096

**Prior Council Action:** August 27, 2009 - Council passed Resolution No. 20090827-057 directing the City Manager to convene and work with a green roofs stakeholder group to explore the feasibility of offering energy and stormwater credits and other incentives, based on performance, to encourage the creation of green roofs in the City.

Roofs and other impervious surfaces cause increased rainfall runoff and associated channel erosion, flooding, and water quality impairment. Green (vegetated) roofs have been shown to both retain and detain stormwater runoff more effectively than conventional, impervious roofs (e.g., 2009 Penn State study for the US Environmental Protection Agency). Therefore, there is interest in determining if green roofs can be used in Austin to mimic natural hydrologic regimes and reduce the impacts of urbanization.

However, there has been little measurement of the hydrologic response of green roofs in Central Texas, with its subtropical climate and intense rainfall pattern. As a result of this and other, additional considerations, green roofs are not currently given water quality or flood control credit. The proposed Wildflower Center project will specifically collect data to enable a better understanding of the amount of rainfall runoff that green roofs can retain and/or delay. This information will be used by City of Austin Watershed Protection Department staff to calibrate hydrologic models to estimate the quantity of rainfall that green roofs can retain and/or delay on an average annual basis. The Wildflower Center will use existing equipment from a previous study, including multiple model green roof installations and a rainfall simulator, to collect design storm information.