From Stormwater Management to Stormwater Integration: The Use of Low Impact Development Techniques in the Albuquerque Region

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Purpose of Study

Many cities are now implementing stormwater management techniques that utilize stormwater in urban design while greatly reducing urban runoff and non-point source pollutants. The purpose of this study is to examine those techniques in detail and the feasibility of their implementation in the Albuquerque region. These techniques, often referred to as Low Impact Development (LID), include bio-swales, rain gardens, porous pavement, and curb cuts, among many others.

Polluted stormwater runs into this drain from a nearby parking lot. KT LaBadie's research will look at alternatives to this design that will reduce stormwater runoff and non-point source pollutants. KT received a bachelor's degree in environmental science and psychology from Ohio Wesleyan University in 2003 and then moved to New Mexico. She is currently finishing a dual master's degree in Water Resources and Community and Regional Planning.

Study Underway

Low Impact Development (or re-development) will first be studied in detail to determine the variety of techniques being used across the U.S. Site visits will also be made to a few key cities/developments that are leading the way in this form of stormwater management. Additionally, Albuquerque's stormwater management and stormwater hydrologic cycle will be researched. A focus group will then be held with members of the Stormwater Team, where each of the techniques will be presented and discussed. The support for LID, as well as benefits and concerns, will also be discussed as part of the focus group. The information obtained through the focus group and research phase will then be compiled into a feasibility analysis of using LID techniques in the Albuquerque area.

Benefits

A feasibility analysis of using LID techniques in the Albuquerque region will be produced. These results will be significant in that they will inform stormwater managers, and others related to the field, on techniques that would work well in our region and climate. These results will also be significant since the Stormwater Team will have participated in a facilitated discussion on the implementation of the techniques, which may lead to the incorporation of those techniques in their work. Lastly, these techniques, if implemented, could have a positive impact on water quality and quantity issues in both Albuquerque and other developed areas of New Mexico.