

Pima County Regional Flood District

Monthly Brown Bag Series

Innovating the Urban Water System:

Decentralized Approaches to Stormwater Mitigation

Courtney Crosson, Assistant Professor

College of Architecture, Planning, and Landscape Architecture, University of Arizona

Wednesday, October 10, 2018: 12:00 - 1:00

201 North Stone Ave, 9th Floor

Globally, cities are facing increased water stress under growing populations, degrading infrastructure, and changing climate patterns. This imbalance between available water resources and projected urban water demands presents tremendous challenges for water resource management, necessitating novel planning and design strategies and tools. Rainwater harvesting (RWH) has been pointed to as one partial answer; however, the capacity of such a solution to address urban water deficits had been largely untested. This talk will investigate two components of decentralized water infrastructure's ability to meet urban water stress: network capacity and regulatory restriction. First, the talk will discuss recent research that evaluates the capacity of Tucson, Arizona to become water independent using rainwater. Remote sensing, localized daily rainfall, and municipal water meter data were used to construct a dynamic model of the city's potential passive and active RWH network. Second, the talk discusses the regulatory hurdles to make such infrastructure a reality at a commercial scale.

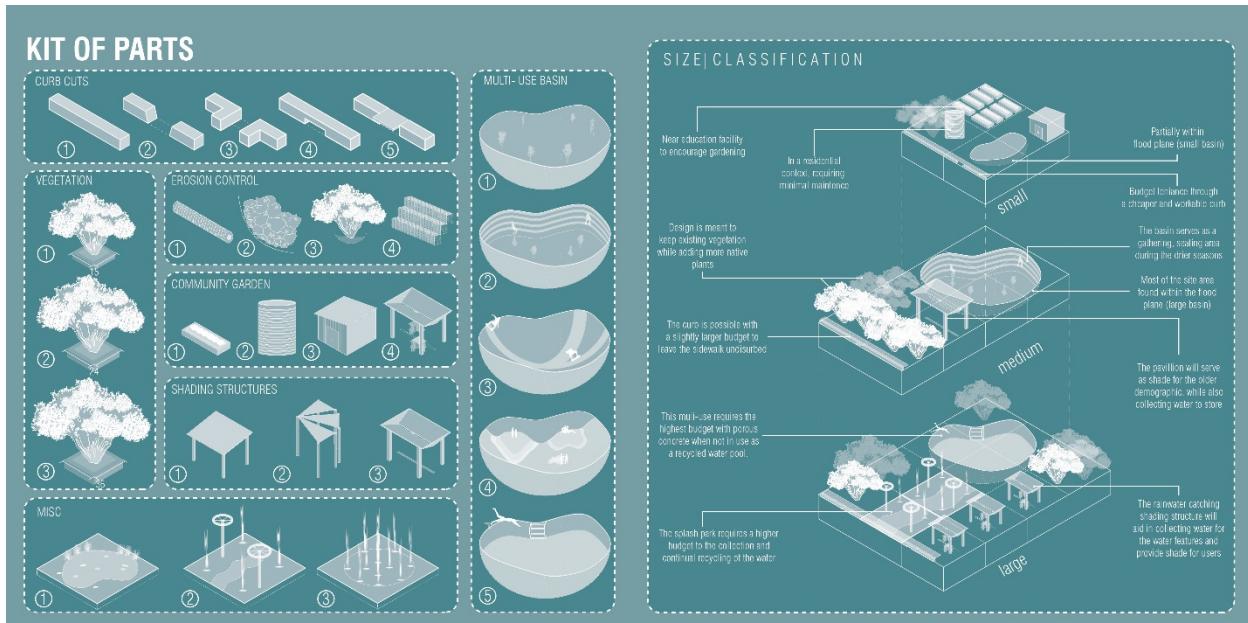


Image: Arch451b instructor: Crosson | students: RJ Castro, Kate Stuterville, Jasmine Tamayo