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Project Abstract

Goal

Improve the stormwater runoff system to neglect flooding and erosion around The University of Texas campus by means of bioswales and the manipulation of land use. As the University continues to expand the amount of impervious cover grows with it. This expansion has left Waller Creek in dire need of some filtration to the runoff entering the creek. By placing bioswales at strategic locations we hope to negate some of the erosion and filter out some of the pollutants to improve the overall quality of Waller Creek. The water may also be reused on campus. Dr. Barrett outlined several methods that have successfully reduced the concentration of pollutants and runoff volumes. For instance; Bioretention/rain gardens, vegetated swales, and green roofs.

Potential Solution

The Low Impact Development methods will be implemented in the parking lot area between Congress Ave. and Brazos St. which is just east of the Bob Bullock Museum. Bioretention will be applied onto this site in order to help reduce some of the pollutants that runoff from the parking area. The project will require some analysis of the site with ArcGIS software in combination with Hydraulic analysis software to determine the effectiveness of implementing a rain garden.