Purdue University Purdue Campus Wide Sustainable SW Modification Design Update



A stormwater management "kit of parts" helps guide decision-making and align development with longterm water stewardship at Purdue University.

SERVICES Conservation Planning Ecological Restoration Water Strategies When Purdue University was built in 1869, a combined sewer system conveyed wastewater and stormwater directly into the nearby Wabash River. Although campus water infrastructure improved vastly in the ensuing century and a half, a portion of the campus still drained to a combined sewer overflow (CSO) system. A separate sewer system transported stormwater from a larger portion of the campus to a former gravel pit that connects with the groundwater. In 2009, after creating a Stormwater Master Plan calling for improved water stewardship and the elimination of the campus CSO system, the University developed a Campuswide Sustainable Stormwater Modification Design, an overarching strategy to incorporate long-term water stewardship with campus development.

In 2020, as part of a team led by MKSK, Biohabitats helped the University update the Campuswide Sustainable Stormwater Modification Design by developing a stormwater management "kit of parts." The kit presented green infrastructure elements that can be incorporated into future capital improvement projects within various campus landscape typologies. Each element was designed to meet County Stormwater Standards, reduce runoff entering the drainage system at critical points, and provide co-benefits beyond stormwater management. Biohabitats incorporated insights from University planners, engineers, and maintenance teams. The kit included supporting details for each green element, such as proposed costs and operations and maintenance recommendations. The kit was integrated into larger open space planning efforts to guide the selection of appropriate stormwater best management practices for a given campus typology, open space feature, or capital project.