INTUITION & LOGIC

Spencer Creek Stormwater Improvement Projects, Project SC-3

City of St. Peters, Missouri

Spencer Creek Tributary was a rapidly eroding, urban stream located in St. Peters, Missouri. Advancing bank erosion, driven by systemic channel incision and widening, threatened residential property and infrastructure, including a sanitary sewer line crossing in the channel bed.


Threatened sanitary line

Intuition & Logic was responsible for the channel stabilization design of approximately 1,500 feet of degraded tributary. Stabilization measures rock grade controls to halt channel incision, rock toes to deflect scouring flow, and regrading, fabric, and planting streambanks to a achieve a stable channel cross section. At the upper end of the project reach, a step grade control was designed to protect the threatened sanitary crossing. In addition, the lower 500 feet of the tributary was restored to a natural, meandering planform, based on stable geomorphic relationships.


Drop structure under flow

Completed in the Spring of 2007, the project reach has since been subjected to a series of high flow events and has performed exceptionally well.


Before intervention


Restored channel