

## Pike Creek Channel Stabilization

Maple Grove, Minnesota  
for the City of Maple Grove



Development in the City of Maple Grove has drastically altered the hydrology of Pike Creek. Runoff that was absorbed by deep rooted native vegetation and slowly reached Pike Creek underground before development now flows to the creek quickly over impervious surfaces and in stormwater pipes, causing extreme fluctuations in creek water levels. The results are severe mass wasting and undercutting of Pike Creek's banks, washing large quantities of sediments and pollutants attached to the sediments into Pike Creek and Pike Lake.

The City of Maple Grove retained the Kestrel Design Group, Inc. in collaboration with Wenck Associates to lead efforts to address the problems caused by the changed hydrology of Pike Creek. A series of citizen advisory and property owner

meetings resulted in full public support of an ecological design solution. A combination of channel widening to increase storage capacity, stream gradient control, hard armor protection where streambanks are subjected to the greatest erosive forces, and soil bioengineering techniques that protect streambanks with deep rooted native vegetation maximize aesthetics, water quality, wildlife habitat and biological health and sustainability. In contrast to traditional stabilization techniques, which deteriorate and weaken with age, soil bioengineering techniques grow into a living, self repairing system that gets stronger with age.

### SERVICES WE PROVIDED

- + Stream Restoration & Natural Channel Design
- + Soil Bioengineering



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