

Urban Channel Rehabilitation – A Fine Balance

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The physical constraints of creek rehabilitation in an urban environment are well-understood by environmental managers and restoration specialists alike. Budgetary constraints are another universal theme of urban creek restoration and rehabilitation. Balancing these occasionally divergent but equally important project elements are a continual challenge for us all.

The North Clair Creek watershed (Waterloo, Ontario, Canada) has been directly affected by increased urbanization over the decades with evidence of erosion, sedimentation, loss of floodplain connectivity, and degraded habitat. GHD worked with the City of Waterloo under both physical and budgetary constraints to evaluate, design and rehabilitate 1.5 kilometer section of the creek over the course of six years.

In this paper we will layout the decision logic for obtaining the best overall value when balancing optimal channel stability, ecological value, and public use while working within strict physical and budget constraints, presented in terms of the North Clair Creek case study.