

Abstract Submission for 5th Canadian River Heritage Conference

Title of Presentation:

Monkman Creek Rehabilitation Project – Lower Fort Garry National Historic Site:
Engineering the Past – A Cultural Resource Management Solution

Category: River Conservation

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Abstract

Monkman Creek, situated about four kilometres south of Selkirk Manitoba, is a natural watercourse that runs across Lower Fort Garry National Historic Site, from the site's western boundary to its eastern boundary, where it empties into the Red River. The creek passes by both modern facilities, such as a Visitor Centre and footpaths used by visitors, and the remains of historically significant building foundations. These foundations are associated with historic buildings and features from the industrial complex that operated from approximately 1845 to 1882 along the creek bank at the outflow to the Red River. The summer of 2005 saw high spring run-off and precipitation causing extensive over-bank flooding. This exacerbated gradual stream bank failures, which had been accumulating for several years. The bank failures, consisting of erosion and mass wasting, resulted in lost access to visitor walkways and possible damage to historic features.

Wardrop Engineering was awarded a contract in August 2005 to undertake design work within the context of a multi-disciplinary team. In addition to the Engineering Consultant, the team consisted of Cultural Resource specialists and representatives from Asset Management, Visitor Services, Department of Fisheries and Oceans, Navigable Waters, and the Prairie Farm Rehabilitation Agency. Past archaeological research of the features along the bank was used to help understand the geomorphology of the creek and contributed to design considerations. The result was that approximately 2,175m³ of earth was excavated and removed from the creek bank in order to stabilize it. The material was removed using a Cat 320C, equipped with a 1.4m bucket and subsequently the excavations were covered by geotextile to reduce erosion. Crushed Ordovician limestone of varying size, obtained from Stonewall quarries, was used to cap the excavation. The channel bottom was reconstructed and erosion-causing obstructions to stream flow were removed or reconfigured to support fish habitat. New plantings were added and a drainage swale was constructed to direct some of the water flow away from the creek.

Restoration of Monkman Creek has resulted in no discernable impact to known cultural features. In fact, the stabilization of the creek bank in areas of recorded archaeological and heritage resources have most likely prolonged their existence. Tree removal from the storehouse, malt kiln, malt barn, and brewery remains will contribute to long-term preservation of these resources by reducing root impacts on their remains. Clearing the trees so the structural remains of the Industrial Complex can be seen will increase visitors' enjoyment and understanding of Lower Fort Garry National Historic Site. Archaeological testing conducted as part of the drainage swale construction yielded evidence of pre-contact habitation in the area, enhancing the story surrounding past occupation of the site.