



Close to nature.
Close to home.

The Bruce Trail Association

Thirty-Mile Creek

BTA mission statement: To provide a public footpath along the Niagara Escarpment and promote protection of the Escarpment and appreciation of its natural beauty



The Power of Water . . .

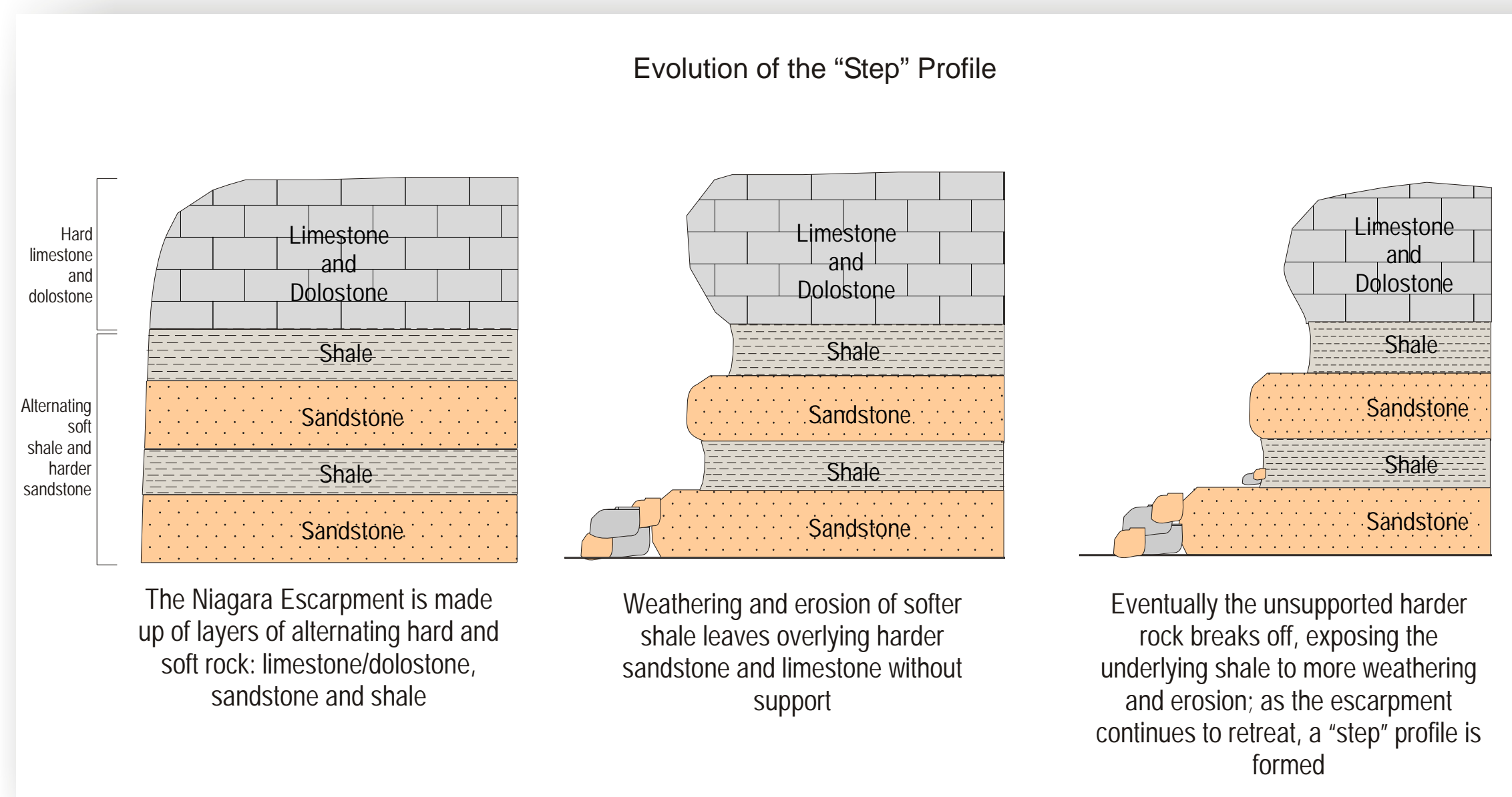
Even small streams like Thirty-Mile Creek can impact the natural environment and human activity

Impacts on the Natural Environment

Thirty-Mile Creek is one of hundreds of rivers that tumble down the Niagara Escarpment. The creek flows through a notch in the capstone of the escarpment (to the south), and then down a 25 metre deep valley over a series of rock ledges.

The “step” effect is created by the alternating hard and soft rock layers that make up the Niagara Escarpment. The uppermost layer (at the “notch”) is hard dolostone and limestone from the Lockport Formation. Below this are the alternating soft shales and harder sandstones of the Grimsby Formation. The sandstone is more resistant to erosion than the shale, leading to the appearance that the river flows over a series of “steps”.

Eventually erosion of the softer shale undercuts the harder layers; the forces of weather and gravity eventually cause the harder rock to break off, and the face of the escarpment continues to retreat.

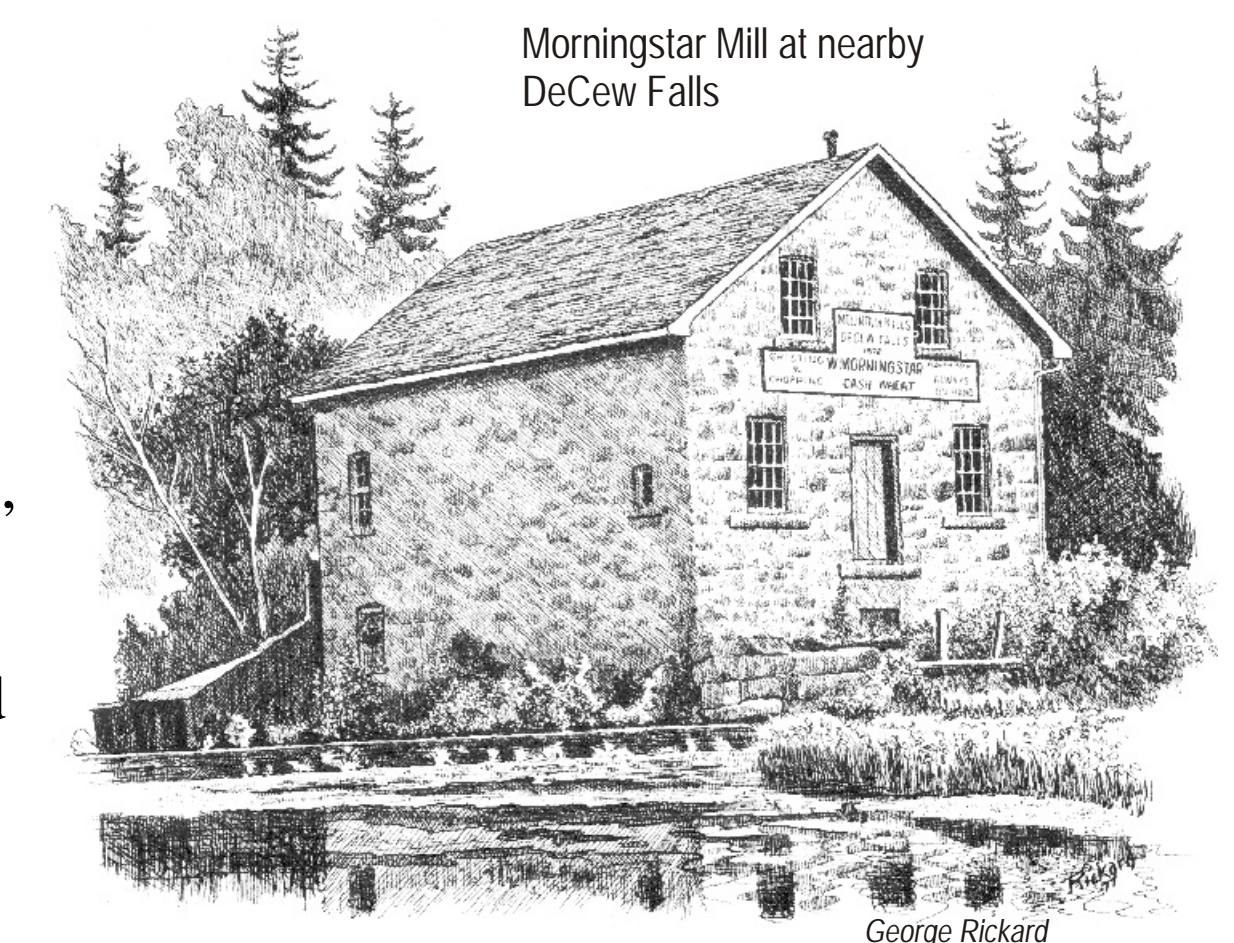


Impacts on the Human Environment

Upstream of the waterfall, tucked under the low cliff by the notch, are the ruins of a water mill.

Streams flowing down the escarpment were an important source of industrial power for early settlers to the area. The streams turned wheels to grind grain and flour, and provided power for saw mills and woolen mills. Some of the first hydroelectric generators in the province were powered by escarpment streams.

More prominent mill sites along the Bruce Trail include DeCew Falls, Balls Falls, Hilton Falls, Cataract, and Inglis Falls, among others.



Environmental Importance of Thirty-Mile Creek

The Thirty-Mile Creek property lies within the *Grimsby Terrace Valley Life Science Area of Natural and Scientific Interest (ANSI)*. 11,000 years ago, this spot was the shoreline of glacial Lake Iroquois, which created the shore bluff in the escarpment caprock just to the south. This shore bluff characterizes the Grimsby Terrace Valley Life Science ANSI.

The southeast corner of the property (in the area of the waterfall) also lies within the Niagara Region's *Beamsville Escarpment Environmentally Sensitive Area (ESA)*, which contains Pignut Hickory, a locally rare species. Other species found on the property are Beech, Red Oak and Shagbark Hickory. The entire Niagara Escarpment was designated a *World Biosphere Reserve* by UNESCO in 1990. The site is also part of the *Niagara Escarpment Parks and Open Spaces System*.

The Thirty-Mile Creek property was purchased by the Bruce Trail Association in 1989 with funds from Ontario's *Niagara Escarpment Land Acquisition and Stewardship Program*. Title was vested in the Ontario Heritage Foundation in 1998. The Bruce Trail Association is a charitable, membership-based, volunteer organisation that manages the property with the assistance of the Niagara Bruce Trail Club and a volunteer Land Steward. Purchase of the property has secured 0.6 km of the Bruce Trail Optimum Route.

For more information about the Bruce Trail, call 1-800-665-HIKE or visit our web site at www.brucetrail.org

Purchase of the interpretive sign was funded by the Natural Areas Protection Program of the Ontario Ministry of Natural Resources

Prepared by the Bruce Trail Association Environment Committee

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