

In-Stream Habitat Enhancement, Stouffville, Ontario

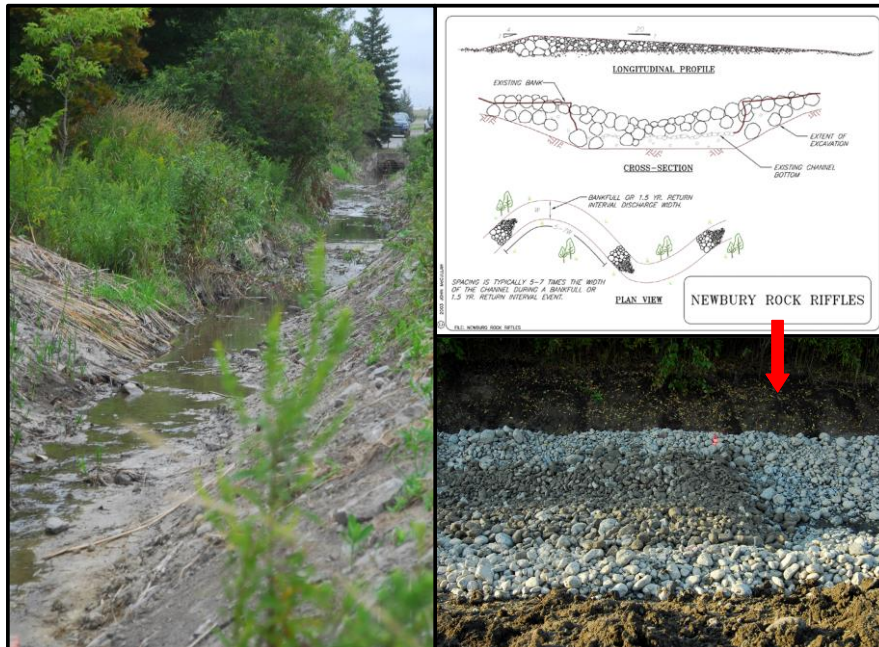
Unauthorized in-stream works conducted on a small stream required a habitat enhancement as part of compensation agreements with the Ontario Ministry of Natural Resources. Because the tributary had been previously realigned and channelized site enhancement opportunities were extremely limited (see photo left below). Habitat enhancement was achieved through the introduction of three riffle-pool pairs placed in the approximately 130 m restoration reach. Following construction of a stable channel base three Newbury-style rock riffle structures (see photos below) were constructed within the channel to create the riffle-pool habitat pairs. Riverstone was used to create the riffles and random boulders were placed in the channel to further supplement habitat. Flow modeling was conducted to ensure that the habitat enhancements would not restrict storm flow through the channel thereby protecting upstream locations from flooding. Bank seeding with native grasses and plantings of containerized native willows along the stream margin were completed to stabilize adjacent banks and provide shade and carbon inputs. Photos at right show the channel with the Newbury structures under construction and the project at completion.



Newbury Rock Riffles Under Construction



Finished Channel



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