

Stream Restoration: stream crossings and advancing the state of practice

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A stream crossing is any permanent physical human device used to get from one side of a stream to another, a bridge or culvert, for example. Historically such crossings were designed primarily to meet hydraulic constraints (avoid overtopping, minimize upstream flooding). The result is a long legacy of stream crossings that have ruined local ecosystems and fragmented watersheds. In the latter part of the last century, geomorphic concepts for stream restoration took hold in the United States and elsewhere. These concepts are now being used to restructure the design guidelines for stream crossings. Unfortunately, simple yardsticks do not meet the needs of all sites, however some simple geomorphic yardsticks are being proposed, and if adopted will lead to further degradation of the better habitat streams.

This seminar will introduce stream crossings and their adverse effects, give an overview of geomorphic stream restoration, and then link how geomorphic measures are being adopted into design guidelines and the pitfalls of using simple yardsticks.