

The *Process* of Stream Restoration

Oxbow River & Stream Restoration, Inc.

Fact Sheet 14



Stream restoration...or ecosystem restoration... is a process. A process of understanding and working with nature, of integrating science and interpolating data, of observing natural processes. An adaptive process that relies on multiple disciplines with multiple objectives and with a shared appreciation and knowledge of the natural processes that govern these systems.

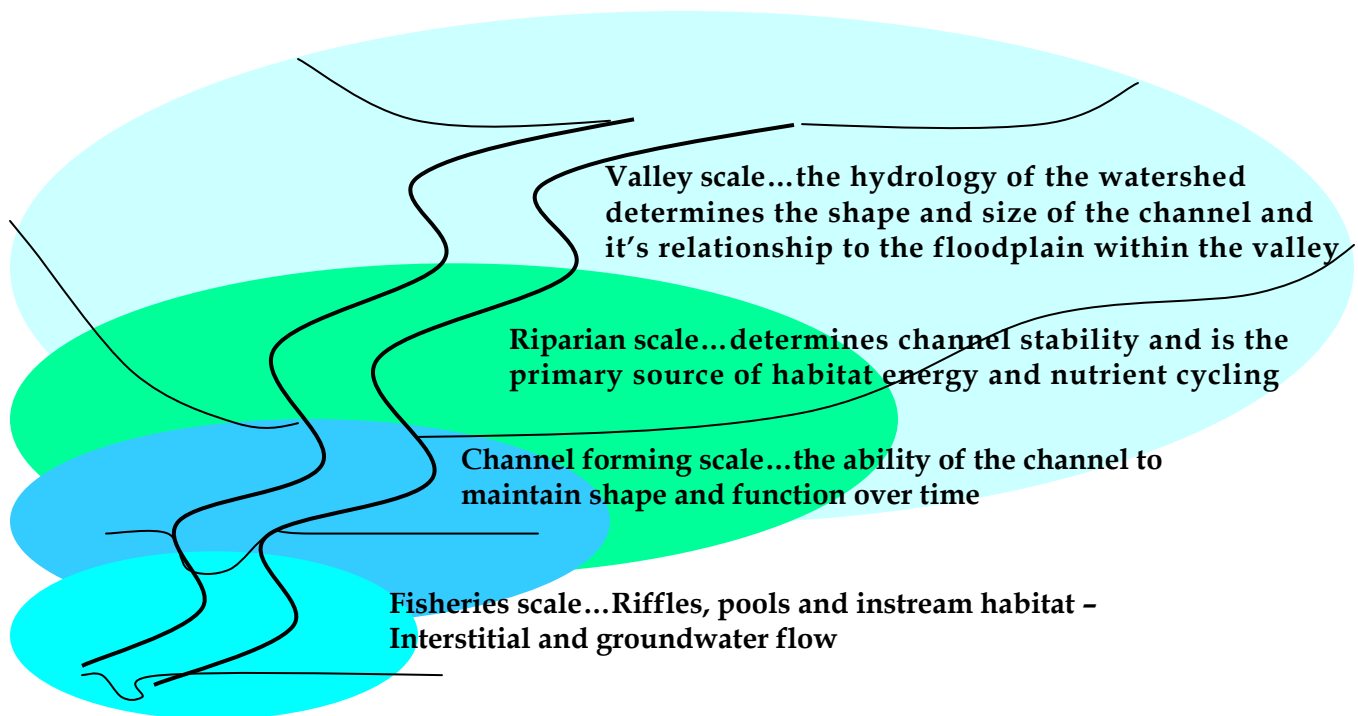
The restoration process starts with an understanding of four major scales of consideration in design. Each of these scales is important in the formation and maintenance of habitat and there is a very different relationship between these spatial scales and habitat use.

The design process starts with data collection and observation by trained and experience professionals. The ability to collect, synthesize and validate field data relevant to desired and natural conditions builds the strength and foundation of the restoration design.

This is not just a data collection exercise, but rather a process in determining and understanding the relevance of the data collected.

A physical survey of the stream system provides a wealth of information about the fluvial processes. This survey provides an accurate illustration of channel planform and cross section at the formation scale, relevant only if it has horizontal and vertical control and it is augmented with field observations of both smaller (fisheries) and larger (riparian) scale habitat processes such as depositional patterns, bed material size, shape and distribution and habitat quality and types.

From an understanding of the watershed hydrology to the critical flows of a riffle - stream restoration requires many important considerations across a broad temporal scale to provide the foundation for ecosystem recovery.



“The stream is only as healthy as the valley through which it flows” H.B.N. Hanes 1975