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Beaver-related restoration strategies – documented benefits from restoration evaluations

Conserving, promoting, relocating, or mimicking beaver are becoming more recognized as cost-effective approaches to stream restoration. The diversity of goals and objectives continues to grow with habitat improvement projects targeting a broad range of species including fish, amphibians, reptiles, birds, and wildlife as well as producing ecosystems services such as resilience to drought and fire, flood control, water storage, water quality benefits, and increased livestock forage. While the science of how beavers modify riverscapes continues to mature, skepticisms remain of the claimed benefits they provide and whether this approach to stream restoration is necessary. Like all stream restoration approaches, a better understanding of the mechanisms of how dams affect processes will increase our ability to extrapolate to other locations and address a diversity of impairments. We provide an overview of different beaver-related management and restoration strategies, examples of projects currently using these approaches, and summaries of studies documenting the benefits they provide.