

# River Science: Who Benefits?



*Process-based management* is a modern tool used around the world. While mostly focused on reducing flood risk by storing or conveying water on floodplains, this tool creates broad, often unaccounted for economic and environmental benefits.

This approach may be most beneficial to cities, towns, and rural landowners at risk of multiple and apparent flood hazards, but other sectors are poised to benefit as well. These include:



Kamimoku International Village. From Wikimedia.org

- **Agriculture**—Reconnecting floodplains may decrease the total amount of agricultural land, but the associated flood management and water supply benefits will increase economic certainty for many agricultural producers across New England. In many processed-based river management programs, flood-compatible agriculture, involving annual crops like rice, corn and tomatoes, can be grown sustainably, taking advantage of seasonal flooding.



Wikimedia.org

- **Recreation**—Activities ranging from hunting and fishing to bird watching and boating may be bolstered if rivers are reconnected to their floodplains. These activities significantly boost local recreation economies and enhance property values when located near urban centers.



E. Peter Steenstra/U. S. Fish and Wildlife Service - Northeast Region

- **Ecosystem**—There are broader environmental benefits from process-based river management programs. The plant and animal communities that occupy floodplains, riparian corridors and rivers of New England are all dependent upon and adapted to seasonal flooding. Elimination of riparian and floodplain wetland habitat, along with the channelization of rivers, is one of the prime causes of a decline in native biodiversity in the region.