The Channel Migration Easement (CME) program offers landowners an opportunity to sell the right to armor and reinforce riverbanks that are within the river’s 100-year channel migration zone.

A CME is a special form of conservation easement where a landowner continues to use their land while allowing the river to erode and move across the floodplain within the easement boundaries.

**PURPOSE**

The migration of river channels across valley bottoms provides many ecological functions that are valued by Montanans, including flood water storage, improved water quality, and fish and wildlife habitat.

Often the dynamic movement of the river channel is perceived as in conflict with land management activities. However, channel migration easements benefit both the river and its adjacent landowners.

As a practical tool used in many watersheds, the easements help protect the ecological benefits of natural river channel migration while compensating landowners for their land potentially lost to erosion or damaged by flooding.

Typically, restrictions outlined in the easement focus on avoiding the cost and habitat impact of armoring, hardening, or diking the riverbank and floodplain.

*The landowner retains the right to manage the acres for agricultural production, irrigation, recreation, and other uses.*

**BENEFITS**

- **Financial:** Participating landowners can receive income through cash payments and tax credits, and avoid liabilities that may result from future flooding. In contrast, bank armoring is very costly to landowners along large rivers.

- **Soil fertility:** Valley bottoms hold the deepest, richest, most productive soils in the state. This soil fertility is a direct result of streams carrying and depositing new sediments and nutrients on the land and keeping the floodplain hydrated.

- **Improved water quality:** Clean water is not only beneficial to agriculture and fish and wildlife but the growing economic sectors for recreation and tourism.

- **Habitat protection:** Channel migration creates bare ground areas along rivers that serve as critical nursery habitat needed to establish young forests.

- **Water conservation:** Floodplain dikes isolate areas that otherwise have the ability to absorb and hold water for groundwater recharge. Water storage in shallow aquifers supports fisheries as well as municipal, agricultural, and commercial users.

  If the river can’t migrate, cottonwood forests progressively age without reproducing and may eventually die out. These riparian areas provide habitat for nesting, rearing, and migration for 90% of the bird species found in Montana. Forests provide shade for livestock during the summer and thermal protection for livestock and wild ungulates during winter.

- **Flood protection:** The ability to predict the timing and magnitude of runoff and flooding has always been a challenge. One of the best defenses to flooding is maximizing the ability of surrounding land to absorb those additional flows.

**YELLOWSTONE RIVER CHANNEL MIGRATION EASEMENT PROGRAM**

Rivers in Montana are the cornerstone of our economy and quality of life. The Yellowstone River is an irreplaceable natural resource tied to the history and culture of Montana. It supports industry, agriculture, recreation, and fish and wildlife for all.
WHAT DOES CHANNEL MIGRATION LOOK LIKE?

This “channel migration zone” map illustrates the natural movement of the Yellowstone River channel over time. The segment shown shifted considerably in 50 years (to the southeast in this case), creating new patterns of flow, new habitat, and other new features within the floodplain.

MARS’ vision for the channel migration easement program is to keep the river connected to its floodplain by providing the river room to move across its valley like this within the mapped 100-year channel migration zone. Contact MARS today to see if you and your property can benefit from a channel migration conservation easement.

THE PROCESS

Step 1 – Interested landowners meet with MARS to discuss the program and the floodplain property being considered.

Step 2 – An analysis of past river migration patterns is conducted and the results are discussed with the landowner to identify potential easement boundaries and benefits.

Step 3 – Specific easement and financial terms are discussed with all involved parties in an open process that acknowledges the needs of the landowner, MARS, and easement holder.

Step 4 – The channel migration easement is finalized, payment made to the landowner, and papers are filed at the County Courthouse. The easement is monitored over the long-term as prescribed by the agreed-upon terms.

WHO WE ARE

MARS is a nonprofit conservation organization working to conserve Montana’s aquatic resources including streams, riparian areas, wetlands, and watersheds. MARS’ Board includes knowledgeable and experienced natural resource consultants, small businessmen and women, agency specialists and non-profit conservation experts. Our projects enhance stream and wetland functions, conserve clean water, improve fish and wildlife habitat and, where feasible, provide public recreation.

CONTACT US

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YELLOWSTONE RIVER CHANNEL MIGRATION EASEMENTS

A win-win conservation program to benefit you and the environment