

Marys River

A SHOWCASE WATERSHED MANAGEMENT AREA



PRONGHORN ANTELOPE



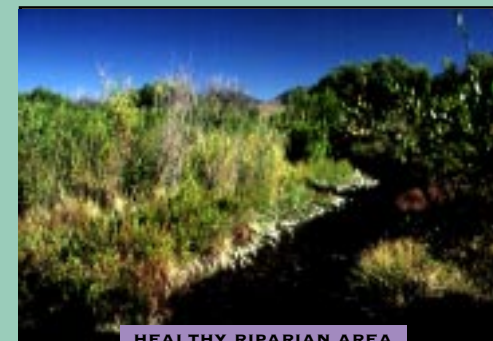
SANDHILL CRANE

INTERNATIONAL CRANE FOUNDATION

A fish might hang out in the shade where the weather is cool and the flow not very strong for most of the day, then dart out to the faster-moving water later in the day to feed. Other species benefit from the variety of vegetation, from the smallest macroinvertebrates (snails, mayflies, caddisflies and so forth) to large mammals, such as deer and antelope. More than 60 species of birds and 23 kinds of mammals can be found in the Marys River watershed. All of them benefit from the healthy habitat along Marys River.

HIDDEN FROM THE EYE

Some important changes can't be seen. As the sediment in the stream flushes through or is trapped, clean gravel is left behind. Clean gravel is vital to the life of aquatic species because fish lay their eggs in the bottom of the stream. The eggs are smaller than the gravel and settle in nicely among the rocks, where they are protected from predators. In the meantime, fresh water continues to flow around them, keeping the eggs oxygenated. If the eggs settle in sediment, they suffocate. Macroinvertebrates also



HEALTHY RIPARIAN AREA

thrive in cool streams with clean bottoms. They're an important link in the food chain, serving as a vital food source for smaller fish.

- Vegetation also acts as a giant sediment trap. Sediment from adjacent uplands is washed into streams. As the sediment is captured, it reinforces and builds the stream-banks. Over time, the channel becomes narrower and deeper, meaning less water is exposed to the sun and wind, keeping it cooler and reducing evaporation. This also makes for some very happy fish because they like the cool water.



LEOPARD FROG

A. ENGELKE, JR.

- Vegetation adds to the variety of habitat. Aquatic species have different habitat needs at different times of their life, and for some of them, different times of the day. The more recent photos show a good mixture of habitats; a point bar, undercut banks, an eddy behind the point bar, extra bends in the stream and additional overhanging vegetation.

HOW YOU CAN HELP

A SHOWCASE PLACE

Marys River is coming back. Many organizations, individuals, and agencies deserve credit for helping to restore this unique desert ecosystem. Through exchanges, conservation easements, changes in



VOLUNTEERS AT MARYS RIVER

land-use practices and lots of plain hard work, Marys River has become the desert aquatic showcase that it is today.

Much work remains to be done before Marys River becomes home to healthy populations of several species, including the Lahontan cutthroat trout.

Other recreational opportunities such as camping, hunting, photography, and more, can again be experienced in the river basin, but not without help.

More monitoring, fence building, bridge construction, interpretive sign installation, and a host of other activities need to be completed before the area can reach its potential. To find out how you can help, please get in touch with BLM's Elko District, 3900 East Idaho St., Elko, Nevada 89801, or by calling (702) 753-0200.

MARYS RIVER — A PARTNERSHIP CONSISTING OF:

Bureau of Land Management

Trout Unlimited

National Fish and Wildlife Foundation

U.S.D.A. Forest Service

Nevada Division of Forestry

Nevada Division of Wildlife

U.S. Geological Survey

U.S. Fish and Wildlife Service

and numerous private companies and individuals

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**U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**



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LAHONTAN CUTTHROAT TROUT

DEANNE TOL

MARYS RIVER flows from snowmelt and springs of the Jarbidge Mountains, thousands of feet up from the desert floor in northeastern Nevada. Marys River is a rarity, a desert home to lahontan cutthroat trout, a flowing lifeline of water to green meadows in an otherwise arid land.

Marys River wasn't always a picture of stream health. Look at the photos taken in 1992 and 1979. What you'll see is a stream in trouble. Stream channels are wide, with little vegetation growing along the bank. Water flows slowly. Little shade is available to help cool the water and provide protection for fish. There are no deep pools in which fish can hide or rest.

Recent photos tell a different story. The most visible and important difference is the vegetation along the streambanks. Usually, what grows along the shoreline is the most important factor in the health of a desert stream.

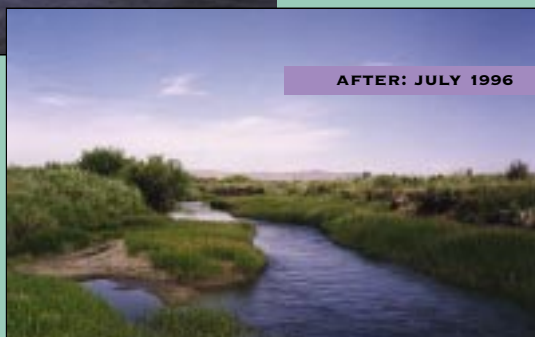


STREAMS NEED GREEN

A watershed is usually no healthier than the vegetation — trees, grasses and shrubs — found in it. Vegetation contributes to healthy watersheds in a variety of ways.

- It provides shade for fish. Fish are sensitive to high temperatures. Most trout can't survive in water temperatures above 75°F. Lahontan cutthroat trout, a subspecies native to northern Nevada, are more resistant to higher temperatures and can survive in water up to 80°F

- Vegetation gives cover to small fish. You know how the food chain works — big fish eat small fish. Cover not only makes a good hiding place for small fish, but it allows them to feed on plankton — the tiny animal and plant life in the water — increasing their odds that they'll grow up to be big fish, too.



- Think of vegetation and soil as a sponge that holds lots of water. When plants thrive along streambanks, they hold the water and spread it into a wider area, rather than allowing it to flush through the system. Water doesn't disappear, it's just held back until it's needed, usually in the dry summer months. Then, the water is released back into the stream, helping to maintain a flow year-round.

