

Methow State of the Riparian

What is a riparian zone? Riparian zones are vegetated areas between water and land that commonly border rivers, creeks, wetlands, and springs. The trees, shrubs, and other plants that grow in riparian zones are adapted to the abundant water and moist soils and are unlikely to be found in drier areas.

Living close to water means plant growth in riparian zones can be very dense and plants typically grow very quickly. Riparian forests include tall canopy trees, medium-sized understory shrubs, and herbaceous ground cover layers. Each layer can contain one or many species that have adapted to their place in the riparian community.

In the Methow, common riparian trees and shrubs include cottonwood, aspen, red-osier dogwood, alder, water birch, and willow. So if you are seeing these species, it's a good bet you are in a riparian zone!



Riparian zones, seen here along the Methow River near Winthrop, play many roles in maintaining watershed health. Along streams, they are commonly associated with floodplains, side channels, springs, and backwaters (photos: J. Crandall and USBR).

Why are riparian zones important? Riparian zones are a buffer between water systems and drier uplands, providing habitat for a variety of mammals, birds, and insects that are attracted to the abundant food and shelter. Riparian zones provide many functions essential to watershed health including:

Shade	Shade helps maintain cool water and air temperatures needed by native fish and wildlife, especially salmon and trout.
Water storage	Riparian soils store water during floods and release it later in the year, increasing late-season stream flow. This is very important in semi-arid places such as the Methow, where low flows can harm fish populations and limit irrigation.
Flood Control	Riparian zones and floodplains slow and spread flood waters, reducing flood damage. They also filter fine sediment, improving water quality for wildlife, drinking, and irrigation.
Bank Stabilization	Riparian trees and shrubs stabilize stream banks with roots, limiting excessive erosion that can damage spawning areas and properties.
Large wood supply	Large wood in and around streams provides cover for fish and other creatures and creates diverse stream habitat through the development of pools and riffles.
Nutrient input	Leaves and insects that fall from riparian vegetation into streams feed aquatic food webs, greatly increasing their productivity.

History of Riparian Clearing

Major changes to the Methow's riparian landscape came along with homesteading in the late 1880s. Valley bottom land was desirable for farming and grazing, and was extensively cleared of shrubs and trees. With this loss of habitat, the benefits provided by healthy riparian zones were diminished.



Winthrop 1894 (Shafer Historical Museum) and the Methow River south of Carlton 1914 (Washington State Historical Society). Agricultural and residential development pushed up against the river, leaving a narrow buffer of riparian vegetation or none at all.



Along with riparian clearing, log jams were removed from the river to enable log drives to streamside mills. Stream clearing continued into the 1970s due to perceived risk of flood damage. Wood removal, coupled with riparian clearing, lead to simplified stream habitat with fewer pools, straighter stream channels, limited floodplain connection, and less cover for fish.

The first log drive on the Methow River, from Mazama to the Rockview Sawmill in 1912 (Shafer Historical Museum).

Recent satellite imagery below shows more extensive riparian vegetation around the Big Valley area (left side of image), compared with limited or no riparian buffer in areas developed for agriculture and residential uses. Although large-scale riparian clearing no longer occurs, some clearing continues on private land, further compromising stream health.



Riparian Restoration in the Methow



Riparian restoration helps replace the habitat lost through decades of riparian vegetation removal. Much of the funding for this effort comes to the valley to support salmon recovery, providing income for a number of local contractors and businesses along the way. Private landowners with streamside property provide critical support for this effort.



Over the past 20 years, over 50 riparian restoration projects have been completed in the valley, with the majority concentrated along the mainstem Methow, Chewuch, and Twisp Rivers. Often, riparian habitat is restored in conjunction with other stream habitat restoration work, such as installing large wood jams or reconnecting side channels and floodplains.

Combined, these projects have planted over 100 acres of riparian habitat along 9 miles of streams and wetland. The size of the projects vary, with large plantings consisting of several acres on down to about $\frac{1}{4}$ acre for a small planting. Over 30,000 native trees and shrubs have been installed with a significant number propagated in local nurseries.

Recent riparian and wetland revegetation on a stream restoration project in the Upper Methow (K. Kirkby).

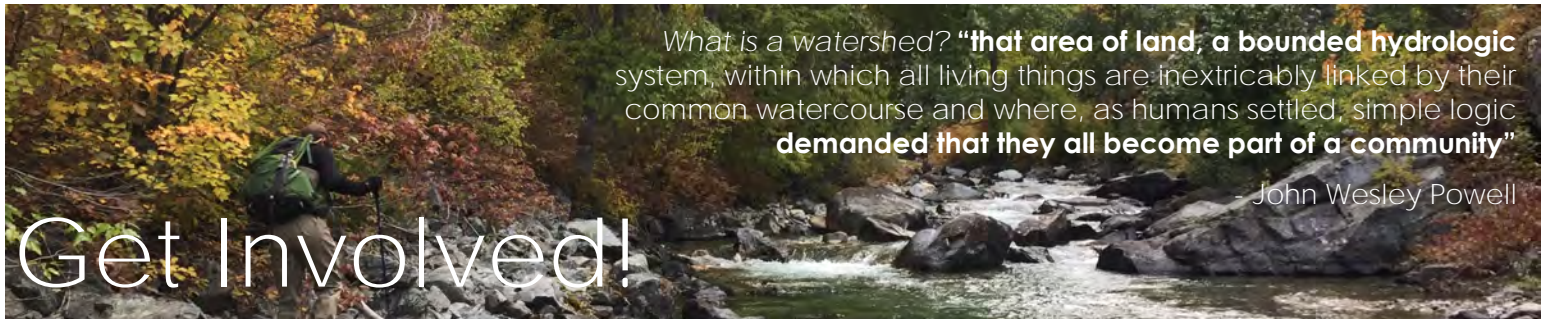
After installation, maintenance is commonly needed to accelerate plant growth and maintain high survival. Watering, mulching, weeding, and fence upkeep are all activities that should occur for at least a few years after planting. With proper maintenance, most plantings in the Methow Valley achieve greater than 75% survival.



Volunteer riparian plantings, as seen here along the banks of Goat Creek, are a great opportunity for community involvement and investment in future generations of both plants and people (National Forest Foundation).

Example of a riparian zone planting along the Twisp River. The plants growing in the foreground were installed several years prior to this photo and are well on their way to providing a host of benefits to the local ecosystem (J. Crandall).





What is a watershed? **“that area of land, a bounded hydrologic system, within which all living things are inextricably linked by their common watercourse and where, as humans settled, simple logic demanded that they all become part of a community”**

John Wesley Powell

Get Involved!

Streamside landowners on small streams and big rivers alike can help restore riparian habitat. Here are some tips to help get you started:

Develop a plan – The first step is to recognize riparian habitat on your land and to protect it from removal or degradation. For guidance on identification and protection or support for planting plan development, contact one of the organizations below! Funding may be available to support larger planting projects.

Plant locally-sourced natives – Native plants are adapted to grow in our climate, are resilient to stresses like drought and fire, and play specific and important roles in stream health. Several nurseries in the valley can supply native plants, including Methow Natives, Wild Hearts Nursery, and Yard Food.

Fencing and irrigation – These maintenance actions are often a critical step to the long-term success of a planting project. Plantings may need to be watered and fenced for several years before they become self-sustaining and able to withstand browsing from local wildlife.

Invasive weed management – Weeding may be needed until plants are well-established. Information on invasive species and removal methods are available from sources such as the Okanogan Conservation District, the Washington Native Plant Society, and the Washington State Noxious Weed Control Board.

Not a streamside landowner? There are opportunities to volunteer to help steward local riparian planting projects. The Methow Conservancy, for example, hosts volunteer parties for planting and maintenance on several restoration projects. Reach out, or check out www.volunteermethow.org.

Want to learn more or get engaged? Groups like those below, among others, can work with landowners to develop, in some cases fund, and implement riparian planting projects.



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CASCADE FISHERIES



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