

Best Practices for Riparian Corridors

by Laura Lovett and Sarah Phillips

2022

A riparian corridor is the vegetated area next to a creek channel. If you are lucky enough to have one on your property, it comes with wonderful benefits and some added responsibilities.

Riparian habitats are vital biological systems that provide irreplaceable functions for water purification, flood control, fish and wildlife movement, and native habitat. Healthy waterways and their natural habitats are an essential environmental, economic, social, and community asset. They provide access to lands for recreation, protection against potential flood damage, soil stabilization, ground-water recharge, stormwater pollution filtration, and aesthetic benefits. Riparian woodlands along perennial creeks also tend to have low ignition potential. In locations where the plants are hydrated year-round, riparian vegetation may inhibit ignition, diminish fire intensity, and halt or slow the spread of fire.

The Marin Countywide Plan sets goals for conservation of vegetation corridors along existing streams in order to protect and, where possible, restore their natural structure and function. Unfortunately, large portions of existing riparian systems have been eliminated by stream channelization and urban development. Corte Madera Creek is among those that have been channelized for lengthy portions.

A stream conservation area (SCA) is a buffer established to protect the active channel, water quality and flood control functions, and associated fish and wildlife habitat values along streams. There are designated SCAs along perennial, ephemeral and intermittent streams and they include the waters within the channel as well as the stream banks and adjacent uplands. There are limits on what you can do within an SCA. Marin County has had a Stream Conservation Ordinance since the early 1970s. Last revised in 2007, the county is currently in the process of updating this major planning tool, pertaining to the County's unincorporated areas.



Creeks need space to perform naturally. Photo by Charles Kennard

If you have native vegetation along your creek, you should retain at least 75 percent of the overstory and 50 percent of the understory canopy of native riparian vegetation within the riparian habitat. The vegetation needs to be in a well distributed, multi-storied stand composed of diverse species that are similar to those that would grow there naturally. Limit your vegetation treatment to the removal of invasive, dead or dying vegetation and trimming/limbing of woody species to reduce ladder fuels. Avoid any vegetation removal that could reduce stream shading and increase stream temperatures.

Avoid removing large, native riparian hardwood trees, e.g., willow, ash, maple, oak, alder, and box-elder. These trees are difficult to replace and provide essential erosion control and habitat for wildlife. Fell hazardous trees away from adjacent streams or waterbodies and pile the debris outside of the riparian zone.

Do not use herbicides or pesticides in the riparian zone unless they are approved for use in aquatic environments; use those only during low stream flow.

Limit ground disturbance within riparian habitats to the minimum necessary to implement effective treatments that will reduce hazardous fuels. Any bare ground exposed needs to be revegetated immediately with native species. Use biodegradable erosion control measures (no plastic) to keep banks intact and sediment out of the creek channel until the native plants grow in.

Revegetate with native plants. Plant species native to California, which need no fertilizer, and once established, are tolerant of dry summers. They are established when they have put down a deep root system. For the first couple of years, they will need watering. Less frequent, deep watering is preferable to a surface wetting as it encourages roots to grow down. It is best to plant in fall to reduce watering. Regular weeding and protection from deer will increase survival rates.

Creeks need sufficient width and unobstructed flow to carry the runoff from a heavy storm and to prevent flooding on your property. Work with your neighbors to ensure that your stretch of waterway is well maintained and doesn't contain obstructions. With proper care, the riparian zone on your land can be a source of habitat for wildlife, a buffer against erosion, a potential help in wildfire, and of great benefit to our region's salmon and steelhead populations, as well as a wonderful place to enjoy.

Resources:

If you are in unincorporated Marin, the regulations that apply to your property are set forth in the Marin Countywide Plan. Most actions carried out within or near the creek channel will require a creek permit, which can be obtained through Marin County's Department of Public Works.

If you live in an incorporated area of the Ross Valley—within the town limits of Corte Madera, Larkspur, Ross, San Anselmo, or Fairfax—contact your town's Department of Public Works.

If you have dead, invasive, or exotic vegetation, or plants on the fire-prone list, they can be removed without a permit.

If you have native vegetation, follow the creek care rules above. Removing natives is highly discouraged and may trigger the need for a tree removal permit. A permit is not needed to plant natives.

Helpful information can be found through MCSTOPPP, Marin Resource Conservation District, and the Marin chapter of the California Native Plant Society.

Resources

MCSTOPPP publications

<https://mcstoppp.org/2020/03/public-resources> then choose Creek Care, or Gardening *Creek Care, Repairing Streambank Erosion, Erosion Control for the Weekend Warrior*, and more
The county's creek restoration and permitting guide <https://mcstoppp.org/2020/03/creek-restoration-and-permitting/>

Marin RCD

<https://www.marinrcd.org/resources/>

Resources for plans and permits, bank stabilization, vegetation, erosion control and more
RCD Stream Maintenance Guide

Marin chapter, California Native Plant Society

Fire Smart Landscaping: cnpsmarin.org/native-plants/fire-smart-landscaping

Lists of Native Plants for various growing conditions, including riparian habitat:
<https://cnpsmarin.org/native-plants/how-to>

Marin County offers free creek permitting assistance at monthly project coordination meetings to review and guide projects through the environmental and regulatory permit process.

http://www.marinrcd.org/wp/wp-content/uploads/2015/02/MPC_flyer_2016-1.pdf

Contacts for creek permits and information:

Fairfax

(415) 458-2370

Mark Lockaby mlockaby@townoffairfax.org

San Anselmo

(415) 258-4616, 415-258-4646

Sean Condry, scondry@townofsananselmo.org

Ross

(415) 453-8287; (415) 453-1453, ext. 117

Eric Robbe, erobbe@townofross.org

Corte Madera

(415) 927-5057

Cymantha Baroy, cbaroy@tcmmail.org

Larkspur

(415) 927-5017

Julian Skinner, j Skinner@cityoflarkspur.org

Marin County Dept. Public Works

Land Development Division, (415) 473-3755

Sarah Phillips, is the Urban Streams Program Manager for the Marin Resource Conservation District. Contact her at sarah@marinrcd.org for advice on creek care if you live in unincorporated Marin County.

*Any use of text or photographs for other than personal purposes is prohibited without permission from Friends of Corte Madera Creek Watershed Friends of Corte Madera Creek Watershed P.O. Box 415, Larkspur, California 94977
info@friendsofcortemaderacreek.org*