

# Stream Corridors: A Conservation Guide for Private Landowners





# Acknowledgments

This project was funded in part by the Idaho Department of Lands in cooperation with the USDA Forest Service.

In accordance with Federal law and U.S. Department of Agriculture policy, this institution is prohibited from discriminating on the basis of race, color, national origin, sex, age, or disability. (Not all prohibited bases apply to all programs.)

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 1400 Independence Avenue, SW Washington, DC 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

Cover Photo: Chris Boyer, [www.kestrelaerial.com](http://www.kestrelaerial.com)

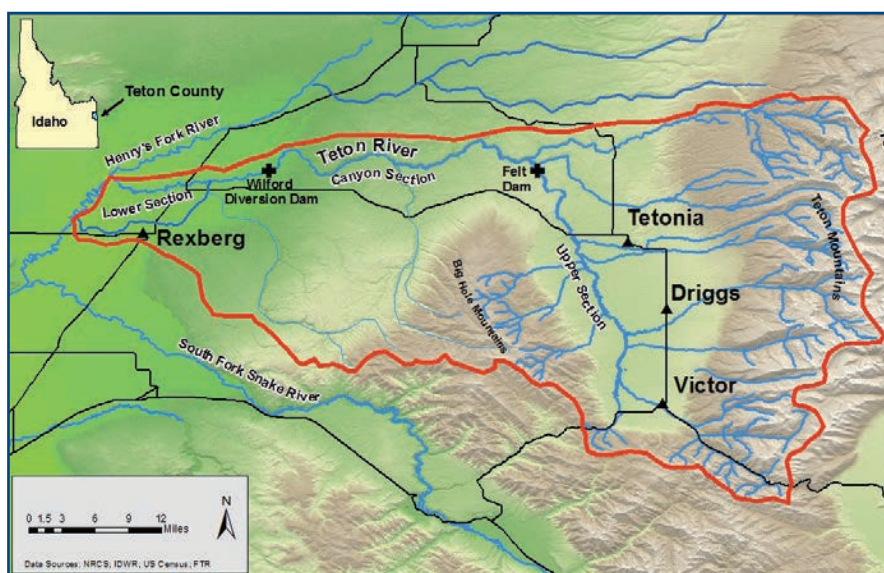
# Contents

Why is Riparian Conservation Important in Teton Valley? _____	3
How to Use This Guide _____	3
Teton Creek: A case study in stream alteration and restoration _____	4
Understanding Riparian Ecosystems _____	5
Considerations for Private Landowners in Riparian Corridors _____	7
Floodplains _____	7
Permitting Requirements _____	7
Property Boundaries & Access Rights _____	8
Water Rights _____	8
How to Steward Riparian Corridors _____	9
Get to Know Your Watershed _____	9
Understand the Importance of Healthy Riparian Corridors _____	9
Ask Questions Prior to Purchasing Land in a Riparian Corridor _____	9
Determine if Your Property is in a Floodplain _____	10
Understand Flood Insurance Rate Maps _____	10
Know Floodplain Development Regulations _____	11
Be a Responsible Riparian Landowner _____	11
Restore Degraded Riparian Forests _____	12
Respect Instream Permitting Requirements _____	12
Seek Help from Certified Professionals _____	13
Incentives and Resources Available for Private Landowners _____	14
Commonly Used Terms _____	15

## Why is Riparian Conservation Important in Teton Valley?

Teton Valley, Idaho, is a melding of the old and new West, where a strong agricultural economy exists alongside a tourism and recreation-based economy. This area encompasses 1,100 square miles spanning from the Idaho/Wyoming border on the western flank of the Teton Mountain Range to the Big Hole Mountains to the west. The watershed is ranked as one of the Greater Yellowstone Ecosystem's highest conservation priorities. It supports extensive wetlands and riparian habitats that are considered strongholds for numerous native species of concern, including Yellowstone Cutthroat Trout, trumpeter swans, and sandhill cranes. Irrigated agriculture is historically and currently the principal land use influencing the natural resources in the Teton Basin. More recently, however, private land is transitioning from agriculture to developments (residential, business, and light industry), which significantly impact riparian health including floodplains and water quality. Stream corridors are desirable places to live, but land use changes and encroaching development can have a significant impact on the health of our streams and overall watershed.

This guide was developed for private landowners in response to the costly Teton Creek Corridor restoration efforts, and the increasing development pressure threatening additional riparian corridors in the Upper Teton River Watershed. Stewardship of riparian ecosystems by private landowners is critical to preserving healthy, functioning riparian corridors for the benefit of people, fish, and wildlife in the Teton Valley.



## What is a watershed?

A **watershed** is an area of land and the associated network of creeks, rivers, and lakes that all drain to the same point. Watersheds are defined by the topography that influences where water flows—not by city, county, or state boundaries. The Teton River Watershed originates in Wyoming and Idaho with multiple tributaries joining to form the Teton River. On a larger scale, the Teton River Watershed is a sub watershed of the Henry's Fork, and at an even larger scale, the Snake River Watershed.

## How To Use This Guide:

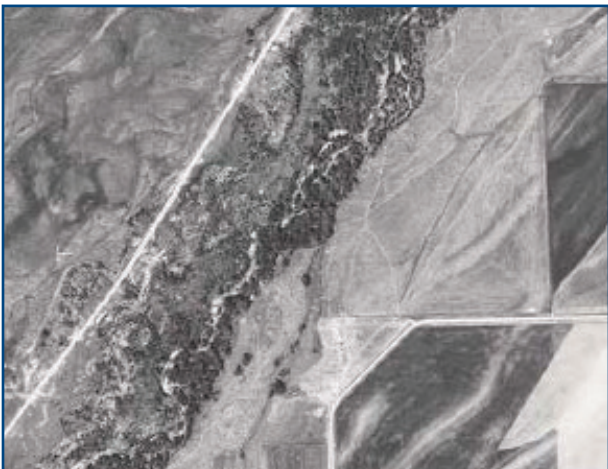
This guide was developed for private landowners to increase stewardship of Teton Valley's riparian corridors for the benefit of fish, people, and wildlife.

- This guide starts with a case study on stream alteration and restoration;
- Provides background information on the structure and function of stream corridors;
- Includes action steps for private landowners; and
- Lists local resources and incentives available.
- Technical terms are depicted in green and definitions are included at the back of this guide under commonly used terms.
- Links to another section of this guide referenced in the text can be found underlined in orange.

# Teton Creek: A case study in stream alteration and restoration

The Teton Creek Corridor (Teton Creek and its associated riparian forest) is one example of a riparian corridor that has been significantly impacted by stream channel alterations, irrigation diversions, poorly-planned residential developments, and associated habitat fragmentation. Beginning in the early 1980s, development pressure began to extend outwards from the city of Driggs, Idaho, and up the Teton Creek Corridor.

Between 1980 and 2004, a significant portion of the Teton Creek Corridor was dramatically altered in order to develop along the creek banks and in an attempt to reduce flood risk. Side channels were closed off and filled in, the main channel was straightened, dredged, and widened, and many acres of riparian vegetation were removed. These actions resulted in significant streambank erosion and caused the main channel to move from side-to-side. This caused an estimated 90,000 tons of sediment to wash and be deposited downstream.



Between 1960 (left) and 2008 (right), the main channel of Teton Creek was straightened, dredged, widened, and cleared of healthy riparian vegetation. This led to a loss of critical riparian habitat, water quality concerns, and increased flooding risk both upstream and downstream of the altered channel.

The removal of acres of riparian vegetation and instream alteration on Teton Creek placed nearby homes and infrastructure at significant risk of damage or loss. To mitigate this threat, more than \$4 million dollars has been invested in stream and floodplain restoration on Teton Creek. While the risk to surrounding homes and infrastructure has been decreased, a great deal of additional work remains to be done. More than 250 buildings built within the Teton Creek floodplain and hundreds of additional structures, including much of the city of Driggs, are still at increased risk of damage or loss when a flood event does occur.



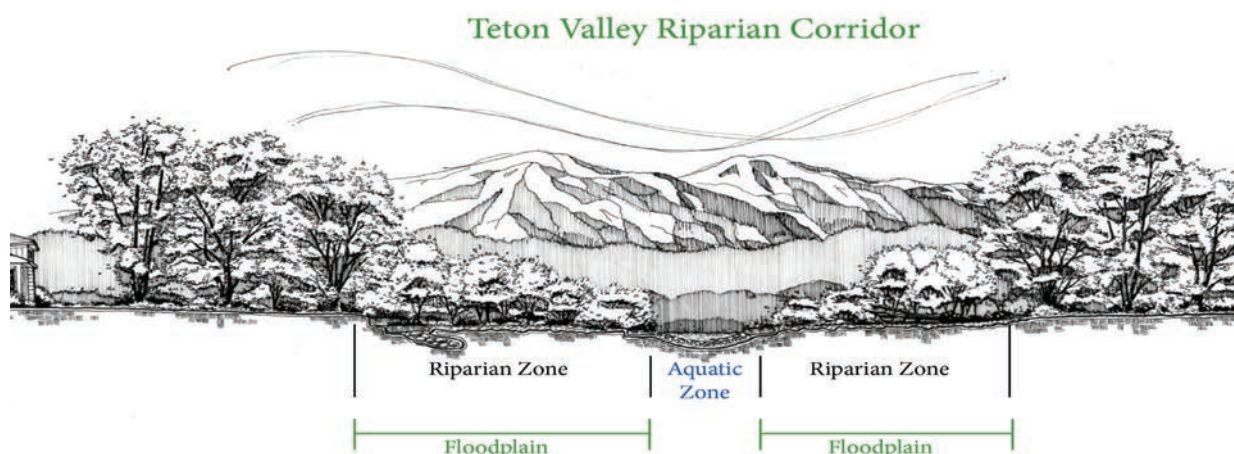
One of several subdivisions in the Teton Creek Corridor east of Driggs, ID. Increasing development pressure in Teton Valley riparian corridors has led to increased flood risk, habitat fragmentation, the loss of healthy stream function, and decreased water quality.

Photo: Chris Boyer  
[www.kestrelaerial.com](http://www.kestrelaerial.com)



# Understanding Riparian Ecosystems

A **riparian ecosystem** is the area of land adjacent to a stream, river, lake, or wetland that makes up the transition zone from terrestrial to aquatic ecosystems. It is often characterized by a high water table and is subject to frequent flooding. Examples of riparian ecosystems include stream and river banks, floodplains, and lake shores. Healthy, intact riparian ecosystems are vital to flood and **erosion** control, nutrient cycling, water quality and quantity management, and the protection of fish and wildlife populations.



Riparian ecosystems support a large diversity of plant and animal species and provide numerous ecosystem services, making them an incredibly valuable landscape in the arid Mountain West.

## Riparian Ecosystem Services

Riparian ecosystems in the western United States account for less than 1% of the land area but are among the most productive and valuable ecosystems. Intact riparian ecosystems provide a multitude of benefits, or **ecosystem services**, for people, fish, and wildlife. These include:

### Flood and Erosion Protection

- The extensive root systems of riparian vegetation stabilize streambanks and hold soil in place, reducing erosion and minimizing the side-to-side movement of the stream channel.
- Intact riparian vegetation and undeveloped floodplains act as shock absorbers during flooding events, allowing floodwaters to slow down, release destructive energy, and be absorbed into the ground.
- Riparian vegetation provides resistance to fast moving floodwaters, slowing the water down and reducing downstream flood damage and risk.

### Water Quality Improvement

- Riparian vegetation slows floodwaters and runoff, allowing sediments and nutrients to settle out before entering the stream and being carried downstream.
- Riparian vegetation provides shade, keeping the water cool during the summer months when air temperatures are the highest and stream flows are the lowest. Cold, oxygen-rich water is critical to aquatic life, including Yellowstone Cutthroat Trout.

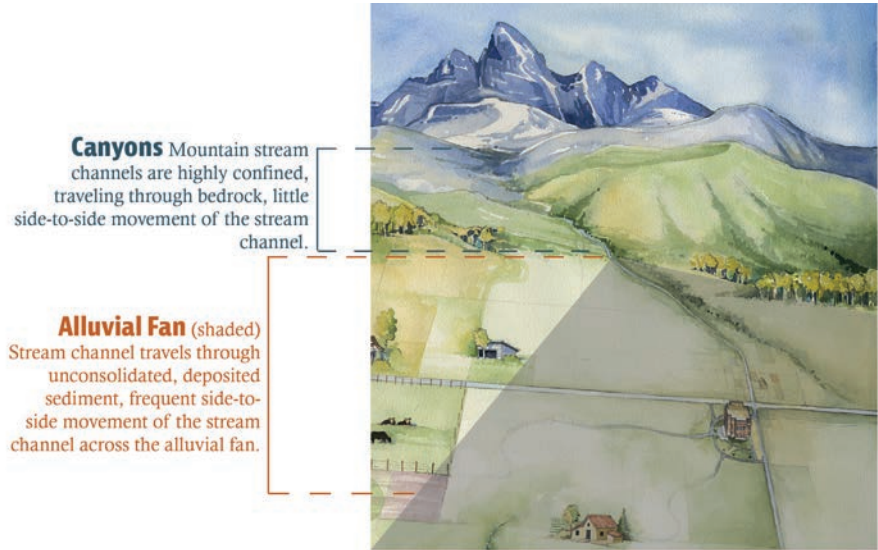
### Critical Habitat

- Riparian vegetation overhanging the stream channel provides shelter for trout, reducing predation.
- Riparian corridors provide critical habitat for numerous resident and migrating wildlife populations. In Teton Valley, these corridors provide habitat for moose, mule deer, and white-tailed deer as well as numerous raptor and songbird species.

# Teton Valley Geology and Stream Formation

In Teton Valley, the tributaries of the Teton River travel through loose *alluvial fan* sediment deposits. Unlike streams that are confined by bedrock, alluvial fans are easily eroded by moving water and stream channels can move easily and quickly from side-to-side across the alluvial fan.

This means that intact riparian vegetation and associated extensive root systems provide critical structure for streambanks and minimize streambank erosion. Riparian areas in Teton Valley that are absent of vegetation are significantly more unstable. This makes them susceptible to significant erosion and side-to-side channel migration, and increases the risk of damage to nearby homes and infrastructure when flooding events do occur.



*Channel migration* is the natural process of lateral movement of an alluvial river channel across its floodplain, often in unpredictable ways. Here, you can see the unconsolidated streambank made of sand, gravel, and rounded rocks being eroded quickly, resulting in the main channel moving side-to-side. Healthy riparian vegetation and its associated extensive root system minimizes lateral movement of the main channel.

## Riparian Corridor Habitat

In addition to providing stream bank structure, riparian vegetation and intact riparian corridors provide critical habitat for numerous resident and migrating bird, mammal, and insect species, including numerous state-designated *species of greatest conservation need*. Vegetation in riparian corridors in Teton Valley is dominated by cottonwoods, aspen, willows, chokecherry, service berry, and hawthorn.



Riparian corridors in Teton Valley are dominated by cottonwoods, aspen, and willows, creating a green ribbon that can be seen from above.

Photo: Chris Boyer, [www.kestrelaerial.com](http://www.kestrelaerial.com)



## Considerations for Private Landowners in Riparian Corridors

In addition to the *ecosystem services* that intact riparian corridors provide, they are also desirable places to live for a variety of reasons, including recreation, aesthetic value, and agriculture. Due to the unique and critical ecosystem services that intact riparian corridors provide, landowners living or owning land in a riparian corridor must take into consideration a few additional pieces of information: understanding floodplain designations, permitting regulations, property boundaries, and access rights, and water rights.

### Floodplains

*Floodplains* are the low-lying ground adjacent to waterways that are subject to frequent flooding. In Teton Valley, we often see flooding events each spring associated with peak snowmelt runoff. The severity of these flooding events is determined by winter snowfall amounts, the rate at which the mountain snowpack melts, and the condition of the riparian ecosystem. While a severe flooding event is unpredictable and unavoidable, the condition of the riparian ecosystem is easily influenced by decisions made by private landowners and can significantly reduce or magnify the impacts of a flooding event. Due to the risks associated with living in a floodplain, development in floodplains is regulated and proper permitting must be in place before constructions begins (*see page 11 for permitting details*).



Floodplain development regulations are in place to protect landowners from damage and loss when flooding events do occur.

### Permitting Requirements

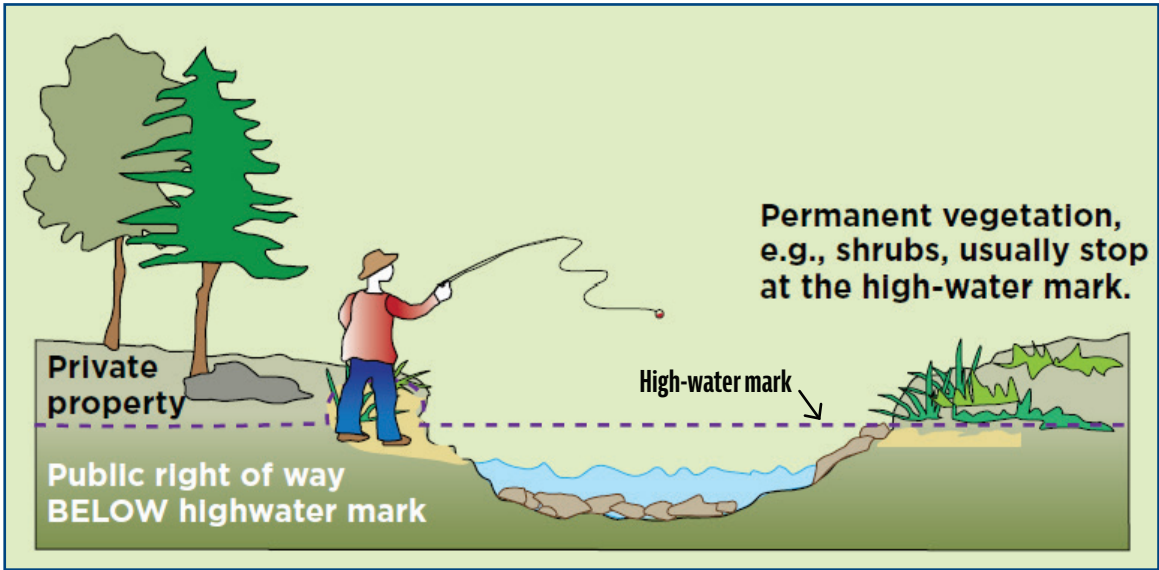
Another consideration for those who own land adjacent to waterways is that any work below the ordinary high-water mark in a creek, river, or wetland always requires a permit. A stream channel alteration—any activity that will “obstruct, diminish, destroy, alter, modify, relocate, or change the natural existing shape or direction of water flow in any stream channel”—requires permitting by the Idaho Department of Water Resources. This includes taking material out of the channel or placing anything in the channel that has the potential to impact flow, even if the modification will have a positive impact on the riparian area. Any work in a wetland or stream requires permitting from the U.S. Army Corps of Engineers. The agency overseeing the permitting process will depend on the specific location and activity. Landowners must submit a joint-agency permit to all oversight agencies.



Any work that alters the stream channel requires the correct permitting. See *In Stream Permitting Contacts* on page 12 for more information.

# Property Boundaries & Access Rights

In the state of Idaho, property owners adjacent to a *navigable waterway* own the land up to the *ordinary high-water mark*. The ordinary high-water mark is identified by physical characteristics such as a visible natural line on the stream bank, change of vegetation, or clear change in the character of the soil. The stream bank and river bottom below the ordinary high-water mark are public right of way and open to public use. This means that recreationists can float or wade below the ordinary high-water mark as long as access is gained legally through navigable waterways or public lands, not over private property without permission.



Navigable streams are any streams that, in their high-water state, could be navigated by a boat or small craft. Image: Idaho Department of Fish and Game; Idaho Fishing Seasons & Rules 2019-2021

# Water Rights

In order to divert water from the public waterway, individuals or organizations must have *water rights*. Diverting water from a stream without water rights is against the law and impacts water right holders downstream by removing water that legally belongs to someone else. A water right is associated with a specific parcel of land. Typically, if you have a water right to divert or store water on your land, this will be specified on the deed to your property as a water right or canal share. For more information on water rights, contact the Idaho Department of Water Resources [idwr.idaho.gov/water-rights](http://idwr.idaho.gov/water-rights).



## How to Steward Riparian Corridors

As a private landowner, good riparian *stewardship* begins from the moment you consider purchasing land adjacent to a waterway and continues throughout your time as a landowner. Your individual actions can have a significant impact on riparian corridor health and, in turn, overall watershed health. Together, we can ensure that healthy riparian corridors continue to provide the numerous ecosystem services that people, fish, and wildlife all depend on.



### Get to Know Your Watershed

Take some time to understand where the water in your watershed comes from, where it goes, the seasonal fluctuations, the fish and wildlife species that depend on it, and local water quality and quantity concerns. Seek out learning opportunities and participate in educational events hosted by local nonprofits, organizations, and agencies.

### Understand the Importance of Healthy Riparian Corridors

Healthy, intact riparian corridors provide numerous ecosystem services, including flood and erosion control, nutrient cycling, water quality and quantity management, and critical habitat for fish and wildlife populations. Observe these natural processes on your land to better understand how riparian ecosystems function.



### Ask Questions Prior to Purchasing Land in a Riparian Corridor

- Is the property in a designated floodplain? If yes, what is the probability and severity of flooding events?
- What is the flooding history of the property over the past 100-200 years?
- What is the risk of damage or loss to buildings during flooding events?
- Is flood insurance available for this property, and are you prepared for the additional cost of insuring your property against flooding risk?
- Is the riparian vegetation intact?
- Is there evidence of streambank erosion?

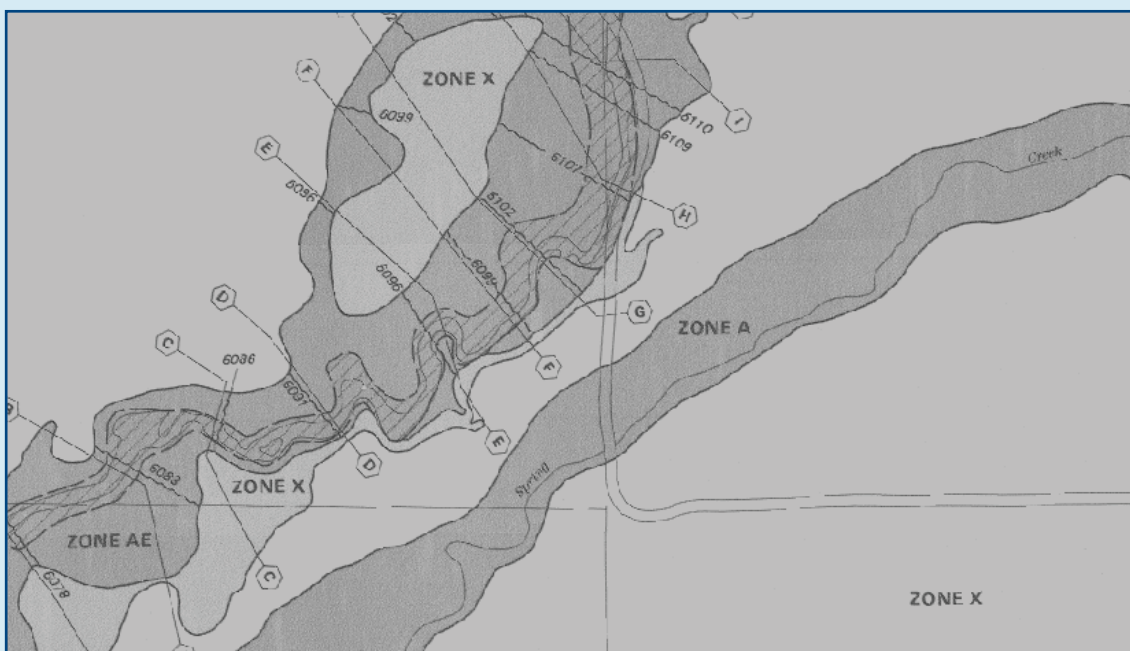
## Determine if Your Property is in a Floodplain

Due to the risks associated with living in a floodplain, development in floodplains is regulated by Teton County, Idaho, and the Federal Emergency Management Agency (FEMA) designating where and how landowners can build adjacent to waterways, and what landscaping changes require permitting.

- **FEMA** sets minimum floodplain building standards based on the level of flooding risk present as indicated in *Flood Insurance Rate Maps (FIRMs)*. These maps determine the need for and rates of purchasing flood insurance through the National Flood Insurance Program (NFIP).
- **Teton County, Idaho**, is a participating National Flood Insurance Program community and local flood maps can be found on the Teton County, Idaho GIS website, [tetoncountyidaho.gov](http://tetoncountyidaho.gov). Any construction activities within a stream or designated floodplain must be properly designed and permitted by the appropriate local, state, or federal agency (see permitting section below for details).

## Understand Flood Insurance Rate Maps

Flood Insurance Rate Maps (FIRMs) are a guide for floodplain management decisions and insurance purposes. As a property owner, you can use this tool to identify what flood zone you are in, predicted floodplain boundaries, and base flood elevations. In Teton County, it is important to note that the most current FIRMs are from 1988 and do not reflect the health of the riparian area upstream or downstream of your property, past or current construction activities, or any other changes that may impact flood risk on your property.



Teton County, ID, FIRMs (above) show flood hazard areas ranging from high-hazard to moderate to low hazard, and undetermined areas.

**Zone A and AE** – Zones A and AE are a high-risk areas with a 1% annual chance of being flooded. These zones are also referred to as the Special Flood Hazard Area (SFHA), base flood, or 100-year flood.

**Buildings in Zones A and AE have a 1 in 4 chance of flooding during a 30-year mortgage.**

**Zone X (shaded)** – Areas of moderate flood hazard between the top limit of a 1% annual chance flood event (100 year) and the 0.2 % annual chance flood event (500 year).

**Zone X (unshaded)** – Areas of minimal flood hazard outside the 0.2% annual chance flood.

**Approximately 25% of all flood insurance claims occur outside the 1% floodplain in areas designated with minimal or moderate risk (Zone X, shaded and unshaded).**



## Find Flood Maps for Your Property

FEMA Flood Hazard Mapping: [msc.fema.gov/portal/home](https://msc.fema.gov/portal/home)

Teton County, ID, Flood Maps:

[arcgis.com/apps/webappviewer/index.html?id=a3071622a40e4122b15205d58fc811ba](https://arcgis.com/apps/webappviewer/index.html?id=a3071622a40e4122b15205d58fc811ba)

## Know Floodplain Development Regulations

Any construction in a designated floodplain requires a Floodplain Development Permit in addition to permitting from the U.S. Army Corps of Engineers and Idaho Department of Water Resources. Floodplain Development Permit applications must be submitted to the local government by a landowner and approved prior to starting any development activities. This includes a permitting requirement for removing riparian vegetation within 50 feet of the ordinary high-water mark. For local Flood Damage Prevention Ordinances and Floodplain Development Permit application and fees, contact your local planning administrator.

### Floodplain Development Permitting Contacts

#### Teton County, Idaho

Planning Administrator  
(208) 354-2593  
[tetoncountyidaho.gov](https://tetoncountyidaho.gov)

#### City of Driggs

Planning and Zoning Administrator  
(208) 354-2362  
[driggsidaho.org](https://driggsidaho.org)

#### City of Victor

Planning and Zoning Director  
(208) 787-2940  
[victorcityidaho.com](https://victorcityidaho.com)

#### City of Teton

(208) 546-2249  
[tetonaidaho.com](https://tetonaidaho.com)

## Be a Responsible Riparian Landowner

Landowners in riparian corridors can complete simple riparian habitat improvements with few resources that can minimize or replace the need for more complex and costly restoration in the future. Projects above the ordinary high-water mark can be completed by private landowners without requiring a permit. Habitat improvements include:

- Promote dense riparian vegetation along the stream bank to stabilize the stream bank, reduce flood energy, and act as a buffer to trap excess nutrients and sediment before they enter the stream.
- Do not remove, cut, or damage riparian vegetation. Locate homes, garages, driveways, and other structures away from the riparian habitat, and outside of the floodplain.
- Minimize the use of pesticides and fertilizers on land adjacent to streams and do not fertilize within 20 feet of water.
- Plant native species in your landscaping and along the streambank.
- Limit or avoid grazing livestock in riparian areas by using off stream watering systems, alternating grazing areas, fencing off riparian areas, and implementing a grazing management plan.

**Keep in mind that any work below the ordinary high-water mark, or that includes the removal of riparian vegetation, requires a permit prior to beginning construction.**



Landowners can complete simple riparian restoration projects that make a big difference. This includes planting native trees and shrubs and fencing off riparian areas that are sensitive to overgrazing and overuse.

## Restore Degraded Riparian Forests

Areas where native riparian vegetation has been removed are prone to erosion, rapid channel migration, and increased flood risk. You can reduce these risks by restoring native riparian vegetation in areas where it has been removed. If the size and scope of the project goes beyond your experience, *seek help from a certified professional*. This may significantly improve the success of your restoration and ensure that you are in compliance with all relevant laws and permitting requirements. Additional considerations for riparian forest restoration include:

- Choose native species that are specifically adapted for riparian areas. Many plants and trees are not well-suited to living in riparian areas. A poorly-planned project can be costly and unsightly if it fails.
- Install irrigation to water the restored vegetation for at least three years while it becomes established. Ensure that your irrigation project uses only legal water rights.
- Use fencing to protect trees and shrubs from browsing or grazing for at least three years while it becomes established.



Restoration on Teton Creek included restoring the stream channel, rebuilding the floodplain, and planting native trees and shrubs in the floodplain to reduce erosion, channel migration, and downstream and upstream flood risk.

## Respect Instream Permitting Requirements

Disregarding permitting requirements is not only illegal, but could also have a negative impact on the riparian habitat and increase the risk of damage or loss in flooding events. Local, state, and federal permitting requirements are developed and enforced on private property to minimize the risk of damage and loss to the individual landowner, minimize damage and loss to landowners and infrastructure upstream and downstream, and to maintain healthy, functioning riparian corridors that are critical to overall watershed health. If you are unsure whether your proposed development requires permitting, contact your local planning and zoning administrator. If you are developing in a floodplain, check with your contractor to ensure that the correct permits are in place.

### In Stream Construction Permitting Contacts:

#### Idaho Department of Water Resources

Eastern Regional Office  
(208) 525-7161  
[easterninfo@idwr.idaho.gov](mailto:easterninfo@idwr.idaho.gov)  
[idwr.idaho.gov/streams](http://idwr.idaho.gov/streams)

#### US Army Corps of Engineers

Idaho Falls Regulatory Office  
(208) 522-1676 or (208) 522-1645  
[usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/Obtain-a-Permit](http://usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/Obtain-a-Permit)



## Seek Help from Certified Professionals

Severely degraded riparian areas may require complex restoration projects to restore healthy stream functions and riparian vegetation. Seek outside help to assess the health of your riparian area, plan, design, and implement your restoration project. Look for engineers and *geomorphologists* that specialize in river specific restoration and contractors/excavators that have experience with riparian restoration projects. Additionally, talk to local organizations with restoration experience and neighbors who have successfully completed restoration projects.



Successful restoration of degraded riparian areas often requires professional help. Look for engineers and geomorphologists that have experience completing stream restoration projects.

## Contacts for Landowners Considering Restoration Projects

### Friends of the Teton River

Friends of the Teton River is a nonprofit organization based in Driggs that has worked with numerous engineers, geomorphologists, and contractors to complete more than 5.5 miles of streambank restoration projects in the Teton River Watershed. Friends of the Teton River can connect you with riparian restoration specialists in the area.

(208) 354-3871

[tetonwater.org](http://tetonwater.org) or [info@tetonwater.org](mailto:info@tetonwater.org)

### Idaho Department of Water Resources

The Idaho Department of Water Resources requires that the stream channels and their environment be protected against alteration for the protection of fish and wildlife habitat, aquatic life, aesthetic beauty, and water quality.

Stream Protection Program

(208) 525-7161

[idwr.idaho.gov/streams](http://idwr.idaho.gov/streams)

### U.S. Army Corps of Engineers

The U.S. Army Corps of Engineers Regulatory Program is designed to protect the nation's aquatic resources, while allowing reasonable development through fair, flexible, and balanced permit decisions.

Idaho Falls Regulatory Office

(208) 522-1676

[www.usace.army.mil/Business-With-Us/Regulatory-Division](http://www.usace.army.mil/Business-With-Us/Regulatory-Division)

# Incentives and resources available for protecting and restoring riparian forests

A number of local, state, and federal resources and incentives are available for landowners wishing to restore and protect riparian areas on their land.

**Idaho Department of Lands** provides statewide technical and educational assistance to help forest owners maintain their property and to create and enhance forest habitat.  
Idaho Department of Lands  
Coeur d'Alene Office  
(208) 769-1525 or [idl.idaho.gov](http://idl.idaho.gov)



**U.S. Fish and Wildlife Service Partners Program** provides a cost-share funding and technical expertise to landowners to help with habitat restoration on private property.  
Idaho Fish and Wildlife Office  
(208) 237-6975 x 104 or [fws.gov/idaho](http://fws.gov/idaho)



**The Natural Resources Conservation Service (NRCS)** offers a cost-share program for eligible agricultural producers throughout the year to address resource concerns related to stream bank erosion and riparian area degradation. USDA is an equal opportunity employer, provider, and lender.  
NRCS Environmental Quality Incentives Program (EQIP)  
NRCS Driggs Field Office  
(208) 354-2680 ext. 103 or [nrcs.usda.gov/wps/portal/nrcs/main/id/programs/financial/eqip](http://nrcs.usda.gov/wps/portal/nrcs/main/id/programs/financial/eqip)



## Local Conservation Nonprofits

**Teton Regional Land Trust** and **Friends of the Teton River** often seek grant funding for riparian restoration and protection projects on private land. Contact each organization to learn more about potential funding sources for riparian restoration projects on private land.



**Teton Regional Land Trust**  
(208) 354-8939  
[info@tetonlandtrust.org](mailto:info@tetonlandtrust.org)  
[tetonlandtrust.org](http://tetonlandtrust.org)



**Friends of the Teton River**  
(208) 354 -3871  
[info@tetonwater.org](mailto:info@tetonwater.org)  
[tetonwater.org](http://tetonwater.org)

## Permanently Protect Riparian Land

Conservation easements can be a great way to conserve riparian areas in perpetuity. Along the Teton River, over half of the river corridor is permanently protected with conservation easements. A conservation easement is a voluntary, legal agreement between a landowner and a land trust that limits certain uses of the land—like large-scale residential subdivision—in order to conserve the natural and traditional values of the land. Landowners can grant conservation easements to protect the natural resources of their property while retaining the rights of private ownership. For information about conservation easements, financial incentives, and potential tax benefits, visit [tetonlandtrust.org](http://tetonlandtrust.org).



## Commonly Used Terms

**Watershed** – An area of land and the associated network of creeks, rivers, and lakes that all drain to the same point.

**Riparian zone** – Land adjacent to rivers and streams, such as floodplains and streambanks, with unique soil and vegetation characteristics.

**Erosion** – The movement of soil, rock, or other dissolved material by water, wind, or other natural processes.

**Floodplain** – Area of low-lying ground adjacent to waterways that are subject to frequent flooding.

**Alluvial fan** – An unconsolidated sedimentary deposit that accumulates at the mouth of a mountain canyon.

**Channel migration** – The lateral movement of an alluvial river channel across its floodplain.

**Ecosystem services** – The direct and indirect benefits to human well-being provided by the natural environment.

**Species of greatest conservation need** – Species in the most need of conservation action often identified by individual states.

**Flood Insurance Rate Maps (FIRMs)** – A map created by the National Flood Insurance Program for floodplain management and insurance purposes.

**National Flood Insurance Program (NFIP)** – A federal program that allows property owners in participating communities to buy insurance to protect against flood losses.

**Ordinary high-water mark** – The high-water mark of a stream that is typically reached on an annual basis often distinguished by vegetation.

**Wetland** – An area of land where water covers the soil or is present at or near the surface of the soil for the entire year.

**Navigable stream** – Any stream that, in the high-water state, could be navigated by a boat or small craft.

**Water rights** – The right to divert public water for beneficial use in accordance with one's priority date.

**Stewardship** – The act of taking care of a resource; in this instance, riparian ecosystems.

**Geomorphologist** – A trained professional that studies the evolution and configuration of landforms.



This guide was produced by  
Friends of the Teton River.

For more information and a digital  
copy of this guide, visit:  
**[tetonwater.org/learn/landowners](http://tetonwater.org/learn/landowners)**

**Contact Us:**

Friends of the Teton River  
PO Box 768  
Driggs, ID 83422  
208.354.3871  
[www.tetonwater.org](http://www.tetonwater.org)

