What money is available for riparian area improvements on your property?

Continuous Conservation Reserve Program (CRP) is a federal program that provides annual payments to agricultural landowners to fence and plant trees within the riparian area. The program also provides cost-share money to off-set the cost of trees and fencing.

Conservation Reserve Enhancement Program (CREP) is very similar to continuous CRP except it is designed specifically for streams that provide habitat for anadromous (sea-going) fish such as salmon or steelhead. CREP provides greater annual payments and signing bonuses.

Wetlands Reserve Program is designed to provide opportunities to landowners to protect, restore, and enhance wetlands. This program offers three options including permanent easments, 30-year easments, or 10-year restoration cost-share agreements.

319 Grants and Centennial Clean Water Funds are available to all non-profit or government organizations in the state. Landowners can work with a conservation district or a local non-profit group to obtain money to make riparian area improvements on their property.

Additional programs are available. Contact the Department of Ecology, your conservation district, or USDA Service Center for more information.

Eastern Washington Conservation District & USDA Service Center Offices

County	Conservation District Office	USDA Service Center
Adams	(509) 659-1553	(509) 659-1761
Asotin	(509) 758-8012	(509) 758-8012
Columbia	(509) 382-4773	(509) 382-2421
Ferry	(509) 775-3473	(509) 775-3473
Franklin	(509) 545-8546	(509) 545-8546
Garfield (Pomeroy CD)	(509) 843-1998	(509) 843-1997
Grant (Upper Grant CD)	(509) 754-2463	(509) 754-2463
Lincoln	(509) 725-4181	(509) 725-4501
Pend Oreille	(509) 447-5370	(509) 447-4217
Spokane	(509) 535-7274	(509) 924-7350
Stevens	(509) 685-0937	(509) 685-0858
Walla Walla	(509) 522-6340	(509) 522-6347
Whitman (Whitman CD)	(509) 397-4636	(509) 397-4301
Whitman (Palouse CD)	(509) 332-4101	——
Whitman (Palouse-Rock Lk CD)	(509) 648-3680	(509) 648-3680
Whitman (Pine Creek CD)	(509) 285-5122	——

Check out the following website for more info: http://www.scc.wa.gov/districts/map/

WASHINGTON STATE DEPARTMENT OF ECOLOGY

Riparian Restoration

A Collection of Landowner's Perspectives

Riparian Restoration
A Collection of Landowner's Perspectives

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Bart noted that the projects are new and will get more use in the future, and then Butch and Bart will know if the project has helped in other ways. In addition, Butch and Bart appreciate the ability to take water off existing wells.

Meadow Creek after the project

The work also has been a plus for the environment. One project area used to have "lots of bare ground showing, but now it is covered with grass." Even though Butch and Bart acknowledge that enough time has not passed to notice anything other than growing grass, they know that wildlife habitat has been protected by fencing off portions of the creeks. As a result of protecting the wildlife habitat, they may someday be able to lease the property to the local hunting club.

When asked about any other benefits of the project, Butch joked "By not having to worry about being in compliance, I can sleep at night."

Challenges

One of the biggest challenges was needing to get the calves across the creek without damaging it. They "needed to have a working crossing without being detrimental to the rest of the operation." They knew they didn't want to have a culvert for a crossing, so after talking with the Washington Department of Fish and Wildlife and the Department of Ecology, they came up with a plan for the hardened crossing.

Weeds are another challenge. False indigo is a class B weed that is common in the area, and Butch and Bart knew it would grow up and take over the stream banks in their project areas. The challenge will be to see if they can find some method that might control, or at least slow down, the false indigo.

Their Recommendations

Butch and Bart would "absolutely" recommend a similar project because "the money is a good fit." Butch also felt that the agencies involved were "interested in what we wanted and there were not near as many hoops to jump through as I had thought," Bart said. Butch and Bart found that "people like Chad Atkins from the Department of Ecology and the conservation district were good and easy to work with."

Butch advises getting into compliance. "It is better to be proactive than reactive," he said. Similar projects are possible if you "think out of the box and don't make it so complicated. Nothing is as ever bad as it sounds, you just need to get started."

"It is economical to be in compliance."

Tube gates hung from cable next to hardened crossing

The Klaveano Ranch

Butch Klaveano & Bart Gingerich

Pomeroy, Washington

Bart Gingerich

Butch Klaveano

"It is much better to be proactive than reactive… Nothing is ever bad as it sounds; you just need to get started."

Located on Meadow Creek next to the highway near Central Ferry, Butch Klaveano and Bart Gingerich knew their cattle ranch was highly visible from the highway and they were concerned that without management changes, "the Department of Ecology may show up and fine them." Butch and Bart knew they were out of compliance with state water quality laws, so they started looking around for financial assistance. The goals for their operation did not fit in with the federal government programs, but then they heard about funding available through the Pomeroy Conservation District. The conservation district funding helped Butch and Bart to make management changes so that they would be in compliance at three sites on Deadman and Meadow creeks.

Their Approach

Butch and Bart began their projects in the spring of 2003 with a combination of fencing, off-site watering systems, and a hardened crossing. Off-site water systems were installed where cattle were heavily concentrated and they installed fence in order to allow for controlled grazing. They installed approximately 500 feet of wire fence and 700 feet of board fence. To supply water away from the creek, Butch and Bart tapped into existing water sources, which required a total of 1,620 feet of pipe to be put in and buried among the project sites. Butch and Bart needed to place fences across Meadow Creek, so they hung a tube gate from a cable across the creek at two locations. This design enables them to raise the gates during high water by tightening turnbuckles attached to the cable (see picture lower right). They then created a hardened crossing between the tube gates.

Both men feel they need to use their money and the government's money responsibly. Butch and Bart contributed 20 percent of the cost. They got the remaining money from the Pomeroy Conservation District. According to Butch, "I don't know if it would have been possible without the grant." The conservation district also hired a Department of Ecology Washington Conservation Corps crew for three and half days to help construct the fence. Butch figures that the projects cost about $7.60 per cow, which he believes is "economical to be in compliance." Butch also believes that "you need to put in perspective what it costs over 10 years."

Butch and Bart are happy with the way things turned out. The only thing Butch would have done differently is to start these projects earlier.

Meadow Creek before the project

Benefits

As far as their cattle operation goes, Butch and Bart have noticed that the project's fencing helped during round-up time.

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Acknowledgements

Thank you to all the landowners featured in the following pages for sharing your riparian restoration experiences. The time you provided for interviews and editing text is greatly appreciated. This project was rewarding and enjoyable for the Ecology staff who had the opportunity to work with you and tour your projects. You are leaders in your communities and admirable environmental stewards! Thank you again.

We would also like to thank the many conservation district, Natural Resources Conservation Service, and Farm Service Agency staff. The featured projects may not have been completed without the assistance you provided. We greatly appreciate the following conservation districts and local NRCS offices who recommended the landowners and provided pictures for this booklet.

Adams Conservation District

Asotin County Conservation District

Palouse Conservation District

Palouse-Rock Lake Conservation District

Pend Oreille Conservation District

Pomeroy Conservation District

Spokane County Conservation District

Stevens County Conservation District

Stevens County NRCS Office

Walla Walla County Conservation District

Walla Walla County NRCS Office

yellow-headed black birds can be found now that the cows "aren't smashing the cattails where the birds nest." Now George says the slough is just for wildlife use.

The project has been great for the cattle. Now it is easier for George to move the cows. "They just follow me across," he says. Since the pasture is divided, George is able to rotate his pastures, which allows him to get the most out of his pastures. The cows also don't have to stand in the mud or drink muddy water. George knows "if a cow is taken care of, then less medication will be needed, and if the cows do better, then the calves will be bigger. A happy cow will raise a bigger calf."

George's family also has benefited from the project. Since the cows do not have access to the swimming pond, "the cows aren't mucking up the beach where my kids swim."

Challenges

The expense was a challenge, but George was allowed to build the fence himself to meet the cost share requirements. The project cost a little more than expected due to the amount of gravel that was needed. George also didn't know about some of the cost share that was available until after the project was completed. If he had known about the NRCS's Wetland Reserve Program, he would have fenced off more of the slough and "would have done it sooner."

Planning the project also was difficult at times. For example, there was some disagreement on the fence placement and parts of the crossing design "seemed overkill," but according to George it will last 50 to 100 years. Getting the permits also was a challenge because it was "hard to figure out where to get the permits." The permits eventually were received "after the conservation district's hard work."

Photo courtesy of Pend Oreille Conservation District

Water gap along the slough

His Recommendations

George recommends that other landowners consider a similar project because "it is an improvement." In fact in the near future, George would like to put in three ponds and more fence further up the slough, as well as along his winter feeding area.

George believes that farmers have to have good public relations, too. "We have to be good stewards and take care of the land. No one really owns the land, so we need to take care of it."

"We have to be good stewards and take care of the land. No one really owns the land, so we need to take care of it."

Fencing along the slough

George Stuivenga

The Stuivenga Farm

George Stuivenga
Cusick, Washington

George Stuivenga pastures cattle on both sides of a slough two miles northwest of Cusick. George noticed that his cows didn't want to cross the slough to get to the other pasture and that they could only drink water from one spot without sinking in the mud. On occasion when a cow would go for a drink or cross the slough, it would sink two feet into the mud up to its belly. George was interested in a project that would help his cows get across the slough without getting stuck in the mud, increase pasture use, and improve water quality by preventing water from getting muddy.

"The cows aren't mucking up the beach where my kids swim."

Photo courtesy of Pend Oreille Conservation District

Hardened crossing across the slough

His Approach

To allow the cows to move from one pasture to the other and get a drink without getting stuck, George installed a hardened crossing with a water gap on each side. The water gap is a graveled ramp the cows can walk down to access water in the slough. To keep the cows from trying to cross other sections of the slough and protect wildlife habitat, he installed three quarters of a mile of fence along the slough. The crossing was completed in the fall of 2002, and the fencing was finished in the spring of 2003, just in time to put the cows in the pasture.

The Pend Oreille Conservation District, Kalispel Tribe of Indians, and Washington Department of Fish and Wildlife worked together to provide funding for the project. George also contributed money and labor by putting in the fence. The Natural Resources Conservation Service (NRCS) provided support to the project by designing the hardened crossing to meet their specifications. George is thankful to Russ Fletcher and Charlotte Yergens from the Pend Oreille County Conservation District, Mark Simpson from NRCS, and Ray Entz from the Kalispel Tribe for their help on the project.

Benefits

George has noticed many benefits for the environment since completing his project. "There has been a big improvement. The cows aren't stirring up the mud so the water is cleaner." George has found deer, turtles, ducks, grouse and other birds in the slough and riparian area. "I love seeing the wildlife and treed edges." George believes that more birds such as ducks, red-wing black birds, and

Introduction

Riparian areas are the transition zones between land and surface water that play a vital role in protecting the health of streams, lakes and wetlands. They have unique plant and soil characteristics that are often much different from the land and water they connect. Research has shown that healthy riparian areas:

- slow down flood waters reducing stream bank erosion and damage to property;
- catch debris carried by flood waters;
- help maintain stream flow during the summer months;
- provide habitat for fish as well as many species of birds, amphibians, and wildlife; and help maintain good water quality.

Water quality is improved by riparian corridors because the vegetation filters pollutants such as sediment, nutrients, and bacteria from the water. Riparian vegetation also provides shade which helps to keep water temperatures low and reduce evaporation.

This booklet shares the perspectives of eleven eastern Washington landowners who installed one or more riparian restoration projects. On the following pages you can read why each landowner installed their project, where they went for technical and financial help, how specific problems were solved, and the benefits they have observed as a result. Each story is a result of an interview with the landowner. Every effort was made to communicate the landowner's story from their viewpoint.

Many different methods exist for protecting and restoring riparian corridors. The purpose of this booklet was to share the reasons the projects were installed and the landowners' opinions of the process. For more information about the technical aspects of the projects, please contact the conservation district or Natural Resources Conservation Service office mentioned in the story. To inquire about protecting your riparian area, please contact the conservation district or USDA Service Center in your area using the phone numbers on the back cover of this booklet.

The Harder Ranch

Jake and Joan Harder
Ritzville, Washington

Photo courtesy of Adams Conservation District

Jake Harder

In the early 1990's, Jake Harder and his wife, Joan, realized their trees were dying and the water level in Cow Creek was low. In addition to raising Hereford cattle, the Harder's consider their ranch a reserve for geese and deer and wanted to protect their habitat. Jake knew he and his wife had to take action to protect what they had.

Photo courtesy of Adams Conservation District

Cow Creek after years of fencing, planting and watering

Their Approach

Work to save the trees along the creek began years ago by fencing off portions of the creek, planting new trees, and watering them during the dry season. Recently, Jake wanted to expand upon his early efforts and "jungle up" another section of his property that was once lined with trees. During the summer of 2003, the Department of Ecology's Washington Conservation Corps helped Jake install more fence, and later in the fall, the crew planted more trees and shrubs.

Within the last two years, the Harders have installed over seven miles of fence, developed several watering troughs, and planted numerous trees and shrubs. Jake fenced off a few wide areas around the riparian corridor so that he could manage them as separate riparian pastures. One or two bulls are grazed within these areas. All the fences and water troughs are built to last because as Jake said, "I will be over 100 in 40 years and I don't want to be fixing fence."

Jake has dedicated several hours of labor and money to the project. For example, when visiting Jake for this interview, he was working on creating a solar-panel stand that will be used to power a pump for a spring in the pasture. Jake also has obtained funding from the Adams Conservation District and the Natural Resources Conservation Service's (NRCS) Environmental Quality Incentive Program (EQIP).

"Any time you can improve your property, save time, and the work is easy to do - it is a good thing. Get started."

Photo courtesy of Adams Conservation District

Cow Creek before the project

Benefits

Although Jake has noticed that managing the cattle and moving the herd around is easier now that the project is in place, the trees and shrubs that were planted and protected are the biggest benefit to the Harders. Not only do the grandkids love to play around the trees, but there appears to have been a change in climate because "it doesn't get nearly as hot," which can be important in the open-channeled scablands of Adams County. Jake feels that the trees and shrubs are "good for the soul," and he joked that they may have saved him some money

Buffer along the North Fork of the Palouse River

Others have benefited from their project too. Bill said that other landowners call him and ask if they can picnic, fish and hunt on their property because they think it is so beautiful. Bill has even given some consideration to offering hunting for a fee on the property to help pay for maintenance and repairs.

Overall, the Wades "feel honored to have completed this project" and have personal satisfaction with the work they've done. As Lou states, she enjoys "the quiet beauty of nature - the wildlife and trees - and not polluting the river."

Challenges

One of the biggest challenges was figuring out how to manage the cattle. How many cows should they have and where and when should they graze them? The Wades solicited help from the WSU Extension office who helped them assess what was best for the land, the cattle, and the plants. Together they designed a management plan on paper, tried it on the ground, and then monitored the results. After a little experimentation they found the right balance. "It's so simple to develop a system that works." The Wades have had a high survival rate of the plants they put in, so they consider themselves very fortunate.

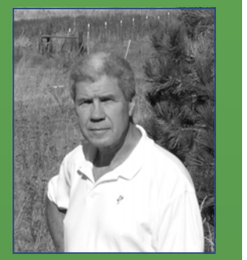
Their Recommendations

The Wades said they would highly recommend other landowners consider a similar project. "It has not been as complicated as it might appear to some," Bill said. It might seem too big at first but start small and slow and learn the steps so you don't repeat any mistakes." They recommend working a plan out on paper first and then you can put it into action.

"At least we are leaving something better than how we found it. It's a mistake not working with the government to take advantage of the programs and funding they offer," Bill said.

"It's a mistake not working with the government to take advantage of the programs and funding they offer."

Riparian vegetation along the North Fork of the Palouse River



Bill Wade

The Wade Ranch

Bill and Lou Wade
Farmington, Washington

Bill and Lou Wade wanted to live in the country where they could enjoy the natural setting. Their goal was to take a piece of land and make it the most productive it could naturally be. "You really don't know what a place can do until you leave it alone," Bill said.

The Wades found and purchased a place along the north fork of the Palouse River. Bill and Lou utilize pasture rotation and other best management practices to graze cattle while protecting the natural setting they so enjoy.

Bill is an inventor and wanted to discover a new way to manage his land. "Because you have always seen something one way doesn't mean it has to continue to be that way. You can reshape it and turn it sideways." Bill and Lou wanted to look at all the options and then determine what would be best for their land -maybe the ground water could be bottled and sold, or maybe they could raise trees or an unconventional type of livestock.

"It's so simple to develop a system that works."

Overview of the Wade's property

Their Approach

The Wades used a combination of fencing, tree and shrub plantings and off-stream watering to achieve their goals. They started their project in 2000 with some fencing and plantings. Since then, they have planted approximately 70,000 shrubs and trees including 15,000 willows and a large number of pine trees. "We continue to work with the Palouse Conservation District. They help us monitor the progress and enhance plant survival," Bill said.

Support for the Wade's project came from many sources. They received a great deal of support in the form of experience and technical assistance from agencies such as the Department of Natural Resources (DNR), Farm Service Agency (FSA), Department of Fish and Wildlife (WDFW), Washington State University (WSU), Natural Resources Conservation Service (NRCS) and Department of Ecology.

"We looked at all the government agencies and tried to figure out a way to interface all the programs that are out there. How could it all be integrated in a way to improve the land and let the government help out? I took all they had to offer to find the best fit for our piece of ground." The Wades decided to use funding from the Continuous Conservation Reserve Program (CRP), the Environmental Quality Incentive Program (EQIP), the Palouse Conservation District and themselves to complete the project.

Benefits

The Wades have seen some significant changes on their property in a short amount of time. "It's neat to see the wildflowers and other plants that weren't there when we got the land," Bill said, "The wild plants are coming back." Bill and Lou also have seen an increase in the number of fish, river otter, great blue herons, eagles, osprey and elk. They've even had moose on their property.

on a psychiatrist. "Agriculture can get to be a real drag, so it is good to look at things other than bellowing cows," he said.

Jake also has succeeded in attracting more wildlife to his ranch such as deer, otters, great blue herons, hawks, owls, geese, and beaver. On a few occasions a cougar, golden eagle, or moose have been seen on the ranch. Maybe Jake was too successful attracting wildlife. He now admits that there are too many deer because they are starting to get into people's yards and he knows that the risk of disease in the herd increases as population density increases.

Photo courtesy of Adams Conservation District

Project area after fence installation and before planting

Challenges

Obtaining a permit to install a hardened crossing across Cow Creek took one year, and is remembered by the Harders as being the biggest challenge since they began their efforts. Persistence paid off for Jake and Joan because they kept calling all five agencies involved and asked what needed to be done next.

Getting trees and shrubs established was another challenge. The mice and beaver killed several trees, and the Harders spent a lot of money buying nursery stock that didn't live because it was not adapted to live in the alkaline soils found on their property. Now Jake and Joan use cuttings or transplant trees or shrubs found on their property as much as possible.

The Harders overcame these challenges by "not giving up" because although the "percent that survive is low, enough do survive." Jake also has discovered that if the plants are allowed to "bush up" then the beavers get the suckers and leave the main stem alone.

His Recommendations

If presented with the opportunity to do his project over again, Jake said "I would have done more research when I first got started." Additional research would have reduced the money they spent on buying the wrong nursery stock, and may have helped with some of the paperwork.

Jake recommends that other people do similar projects and believes that riparian restoration is "the number one thing you can do to increase the value of ranch property." Jake and Joan agree that you don't have to do it all at one time and that you will be pleased with the results.

"Any time you can improve your property, save time, and the work is easy to do - it is a good thing," Jake said. "Get started."

Riparian restoration is "the number one thing you can do to increase the value of ranch property."

Photo courtesy of Adams Conservation District

Project area one year after fence installation and planting

Bob Zorb

The Zorb Farm

Bob Zorb
St. John, Washington

Bob Zorb remembers how the creeks and rivers south of St. John used to be brushed and fenced. But in the 1950's people began tearing out the bushes and fences and then planting grain crops. Now he is retired and living in the area once again and remembers about the good times he had pheasant hunting along the Palouse River. "It was a wonderful place to hunt when I was kid, but it's changed," he said. Bob remembers the pride he felt when he would bring home pheasants. The desire to lure pheasants and other wildlife to the area inspired Bob to protect the riparian corridors along his property and replant shrubs and trees.

"You need good management if you are going to have the wildlife."

His Approach

As early as 1992, Bob and his family began planting trees to create pheasant habitat along the Palouse River. However, it wasn't until 1995 that Bob started planting large numbers of trees. He bought about 10,000 trees and shrubs and began planting. Afterwards, Bob's brother took care of the plants by watering and weeding them. Today, nearly 100,000 trees and shrubs in addition to grasses have been planted in a buffer that extends for a couple of miles. The buffer is approximately 100 feet wide. Bob has plans to continue planting trees and shrubs along other creeks that run through his property.

Bob also wanted to provide habitat for other wildlife. To further enhance the habitat for the deer he planted a patch of corn. In addition, selected draws between the rolling Palouse hills were also planted with trees and shrubs. To lessen his work, Bob used Belgian horses to plow rows for the plants on the steep north slopes.

Land leased adjacent to the buffers continues to produce wheat and barley crops. Bob has been able to work with the people who farm his property to set aside ground for the riparian buffer. According to Bob, "one farmer loves hunting so he is glad to offset the ground." Bob moves slow with the other farmers who lease ground around his projects. "I just keep explaining it to them and the benefits it will provide."

Funding for Bob's project came from the Palouse-Rock Lake Conservation District and the Natural Resources Conservation

Newly planted trees and shrubs in buffer along the Palouse River

funding from the programs. As a result of this work, the cows are now evenly distributed throughout the pasture. Ron has also improved water quality which has "resolved any future problems with the regulating agencies."

Couse Creek after project implementation

Economic benefits received from installing the project are not surprising to Ron. "The annual rental payment I receive is more than what I can make with the cows." Ron's property value has also increased now that he has protected the areas along the creek.

Ron has observed several environmental benefits from his projects. "The water is cleaner, there are deeper pools in the creek, the cut banks are healing, there is limited riparian erosion, and my trees are growing," he said. According to Ron his tree survival is 80 percent after three years. The number and diversity of wildlife has increased. "Turkeys, quail and pheasant are always there." Ron has even seen the wildlife use the water troughs. After seeing all these changes, Ron was "shocked to see how the riparian area healed without the cows. I really didn't think cows did that much damage."

Challenges

Paying for the project was a challenge. Receiving funding from the CREP program can take a long time and funds had to go out during the project, but Ron notes that this "has improved somewhat since his first project." Working with the government agencies has taught him a lot of patience. "Start working on it one year before you start the project, especially if doing anything unusual."

His Recommendations

Ron believes that other landowners should consider protecting their riparian corridors because there is a financial benefit now. "If you wait until it is forced down your throat the money will likely not be there. If we keep destroying natural resources, farming will be regulated."

Ron is "getting paid to do what he has always wanted to do" and has peace of mind knowing that he is doing something that might improve the ground. "One hundred years ago, this country looked a lot different. I get satisfaction knowing that the trees and shrubs are growing and capturing sediment and seeing steelhead returning to the creek."

"I get satisfaction knowing that the trees and shrubs are growing and capturing sediment and seeing steelhead returning to the creek."

Watering trough

The Schiebe Farm

Ron Schiebe
Anatone, Washington

Ron Schiebe

Ron Schiebe had a winter feeding area for his cows on Couse Creek about 10 miles south of Asotin. Ron sensed that regulatory agencies had an issue with the feeding area being located within the riparian area. At that time, the United States Department of Agriculture (USDA) began the Conservation Reserve Enhancement Program (CREP), and Ron thought it would be "better to adapt and change when the money is available." Change was not a new concept to Ron because he had wanted to develop a pasture rotation program. In addition, in 1998 Ron entered into an agreement with the Governor's Salmon Recovery Office and the Asotin County Conservation District to protect a portion of the upper end of Mill Creek.

Couse Creek before project implementation

"The annual rental payment I receive is more than what I can make with the cows."

His Approach

In the fall of 2001 with the help of CREP, Ron began protecting riparian areas on his property and creating different pastures for pasture rotation. He began by relocating his winter feeding area away from the stream, fencing about 270 acres along the creek to create a riparian buffer, and then planting approximately 38,600 trees and shrubs within the buffer. Ron built most of the fence himself, but then hired people to help complete it. A variety of watering systems were installed, such as placing water troughs at five springs, a well with a storage tank, and a frost-free watering trough for the winter feeding area.

Ron has been working on several riparian projects and will have a total of 35 water troughs and approximately 500 fenced acres when completed. The only things Ron would do differently are change the fencing style and drill more wells. "Springs aren't that great because they barely supply enough water for the cows."

A combination of funding sources was used to complete the projects. The Natural Resources Conservation Service's (NRCS) Environmental Quality Improvement Program (EQIP) was used to help Ron move his winter feeding area. He also used CREP and the continuous Conservation Reserve Program (CRP) to help pay for the fencing, plants, and watering systems. Ron provided some of his own funds and labor on the project, and the conservation district also provided some assistance.

Benefits

The satisfaction of making the changes he has wanted to make for some time is a benefit to Ron. Pasture rotation is possible now that cross fencing and off-stream watering developments have been installed with

Service (NRCS). Bob also provided some of his own resources. The conservation district helped by contracting with a prison crew to help plant the trees, and the NRCS's Conservation Reserve Program (CRP) helped pay for the trees and other materials. "The agencies were very cooperative to work with." said Bob, and he feels that CRP is a good program that has gotten better over the years. Although Bob has spent a lot of his own money on the project, "it will be worth it in the future and I like doing it."

Benefits

Bob has been able to create the "pheasant heaven" that he had wanted and is satisfied with his project. "I had time and I enjoy doing the work," he said. In addition to pheasants, other wildlife such as a large herd of deer and a stray elk and moose visit the area now and then. A pair of golden eagles also nest on the property. Bob believes that "you need good management if you are going to have the wildlife."

Challenges

The mice are the biggest challenge because they chew on the trees and shrubs. To minimize the problem, Bob bought pellets that are used in orchards and kept planting more trees. "You plant more than necessary–one for the wildlife and hope the other will survive," he explained.

Weeds are another challenge. Bob has sprayed and laid down black plastic before planting the trees and shrubs. "You need to give them a good start with weed control and water." Looking back, Bob would have sprayed around the trees two times, but was unable to due to illness.

Overall, Bob has not been disappointed with the project. "I don't disappoint very easily. I have learned by making a mistake and then proceeding in a different direction. You need to learn as you go along," he said.

Established trees and shrubs along the Palouse River

His Recommendations

Bob highly recommends that other landowners consider a similar project because "you increase wildlife, and the trees will catch debris from the river and stop it from washing into the fields." Although Bob realizes that his reason for doing the project is different than most, he believes it is a "good thing." And, according to Bob, "to keep kids out of trouble, take them out hunting."

"It isn't a lot of work if it is something you believe is worth it. I am doing what I like to do."

"You increase wildlife, and the trees will catch debris from the river and stop it from washing into the fields."

Trees and shrubs planted on steep north slopes

Photo courtesy of Peter Grunte

Peter Grunte

The Grunte Property

Peter Grunte
Spokane, Washington

Peter Grunte decided to leave the city and make a life in the country. He found a house and the perfect piece of property in Hangman Valley just outside of Spokane.

Photo courtesy of Spokane County Conservation District

Hangman Creek before the project

Peter owns 35 acres where the meandering Hangman Creek (also known as Latah Creek) passes through. Hangman Creek is well known for the brown plumes of dirt it carries during high flows and frequent flooding in the spring. Despite the risks, this is home to Peter, his wife, a couple of horses and several other pets. Abundant wildlife including deer, beaver, geese, herons, and bald eagles can also be observed on the property. There are even fish in the creek.

"We have a moral requirement to take care of the world we live in and an opportunity to take care of what you have so it will be there in the future."

His Approach

Peter's property includes a sharp bend in the creek where the high bank was quickly eroding. On a couple occasions during high flow Peter lost 10 to 15 feet of the stream bank. Something needed to be done to protect his investment.

Erosion control fabric with barbs

Photo courtesy of Spokane County Conservation

The first attempt involved cabling dead Christmas trees into and along the bank to stabilize the nearly vertical eroding slope. This was a high risk but low cost option. Unfortunately, not long after this attempt the infamous flood of 1997 hit. The trees broke loose because not enough time had passed for sediments to accumulate and build a more stable bank.

The second attempt involved a higher level of engineering. The project involved sloping back the bank and cabling dead trees into the toe of the bank, building barbs to help dissipate the creek's energy (see lower left picture) covering the ground with erosion control fabric, and using rope to secure it in place. Thousands of trees and shrubs were then planted into the fabric. A water system was also built to increase the survival of the riparian plants especially during the hot, dry summers.

The Spokane County Conservation District organized this project and provided much of the labor. The conservation district also coordinated funding from several agencies for the project. Some of the funding came from the Avista Corporation since Avista has an interest in reducing the sediment deposition

had not passed, the first visible benefit was the increase in utilization of the land base without expanding the property." Not only were the cows dispersed throughout the pasture better, but also the calves weighed more, thereby increasing his production rates. Ron was able to document this increase in production because he keeps stringent records of his cattle operation by recording birth weights, weaning weights, body conditions and frame scores, calving intervals, and calving season length. He has found "calves that came from that project area even in a drought year were 18 to 30 pounds heavier."

The Colville River after installation of the water troughs

The environment also benefited from Ron's project. To see what effect, if any, the cows were having on the stream banks, Ron would walk along the river. He observed only a few cattle tracks indicating the cattle were drinking from the water troughs more than the river. Ron's project was reducing the damage to the riparian vegetation and river banks.

Challenges

Ron's project was more complex than some so staying on top of the paperwork and administrative parts of the project were extremely important. At times, Ron felt that there could have been better communication between the local and state agencies. However, what made this project a success was the continued collaboration and communication between Ron and the agencies involved.

His Recommendations

Ron developed this project to meet his needs and desires but, "other methods could include spring development with gravity flow without going to the extent that I did."

Ron has seen great economic and ecologic gains from his project and would "highly recommend off stream watering." With dedication and hard work, Ron was able to help protect the environment while increasing profits for his business.

"The first visible benefit was the increase in utilization of the land base without expanding the property."

Ron's cows using the off-stream watering trough

Photo courtesy of Stevens County Conservation District

Ron Rose

Big Sircle-Little Ranch

Ron Rose

Colville, Washington

Ron Rose and his wife Lora, operate Big Sircle-Little Ranch in Colville. One of their pastures where they graze cattle is located along the Colville River about one mile upstream from Myers Falls Dam. Ron had some goals in mind when he developed his riparian restoration project in the spring of 2003. He wanted to create a project that would lessen the effect his cows would have on the riparian areas along the Colville River; lessen the impact on the steep slopes in his upper pasture areas; and enhance the productivity of his pastures.

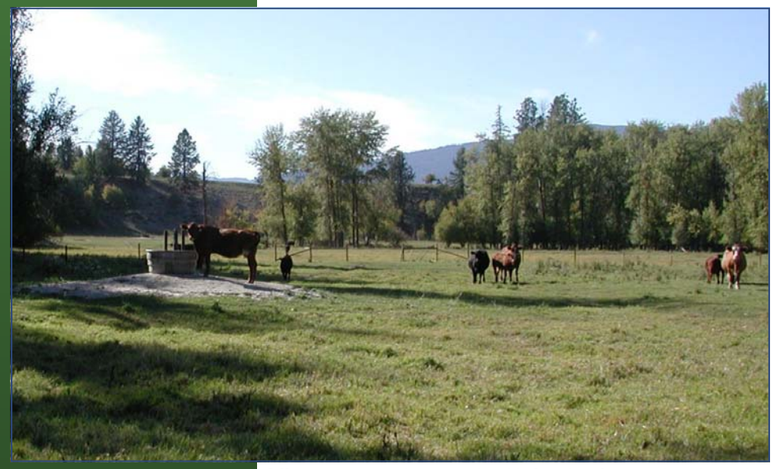
His Approach

To reduce the damage cattle had done in riparian areas, Ron chose to create several different pastures and install six off-stream watering systems on the property. Ron designed a more complex project to meet his goals and supply water to his cattle away from the river in each pasture. This design was critical so that he could rotate pastures to increase their productivity. Ron applied for a permit and drilled a well to supply water to his cattle via 4,500 feet of water lines. He also used heat sinks to protect the water from freezing during winter months when temperatures get as cold as -20° F. "My years of experience have taught me to prepare for the worst of days weather-wise," Ron said.

Ron also had other reasons for designing a more complex project. He wanted to know how important fencing was to his project so his design included an experiment. With the installation of a water meter, Ron will be able to compare water use at the troughs before and after fencing along the river is complete. The results of Ron's experiment will indicate if his cows prefer drinking water from the water troughs, and if providing off-stream water is effective at reducing damage to riparian areas without fencing along the river.

To make his project a reality, Ron partnered with the Stevens County Conservation District, which received a grant from the Department of Ecology to fund the off-stream watering portion of his project. Ron also funded 25 percent of the total project.

"Calves that came from that project area, even in a drought year were 18 to 30 pounds heavier."



Off-stream watering trough with fencing for rotational grazing

Benefits

Within a few months' time Ron had already seen results. "The greatest changes I noticed were the dispersion of the livestock, increased vegetation growth between the high water mark and the low water level, and deer and turkeys using the watering system," he said.

Ron had achieved his goal of enhancing his pastures. "Even though a full season

behind Nine Mile dam. Other funding came from the Spokane Conservation District and the Flood Control Financial Assistance Account Program administered by the Department of Ecology, which seeks opportunities to reduce flood damage. Peter felt he was the beneficiary of all the efforts coming together. "I was impressed with the professionalism, and how easy it was to work with those involved. It was an enjoyable project."

Benefits

The obvious benefit is reducing erosion, and Peter has seen a noticeable reduction in the sediment entering the stream from his bank. This project has also protected the value of Peter's property and investment. The Gruntes have seen significant increases in the property's value. Peter feels that "better management of the land will yield continuing dividends."

Peter is very proud of his project and says it's been a "labor of love." It's been a "very positive experience… to be connected to nature and see the interconnectedness of the whole system." Peter feels that "we have a moral requirement to take care of the world we live in and an opportunity to take care of what you have so it will be there in the future."

Challenges

The biggest challenges have been deer scratching divots in the planting area and beaver nibbling on the willows, but Peter says, "That's part of what is attractive about this place, working with nature." However, Peter did have to protect the small plants with plastic arbor guards.

Photo courtesy of Spokane County Conservation District

Hangman Creek after the project

His Recommendations

Even with the failure of his first attempt, Peter hasn't had any disappointments. "I had a good, positive experience with the government entities (conservation district and Department of Ecology)", he said. "It's our tax dollars working for everyone's best interest." Peter would recommend similar projects to others in a heart beat. Unless you have very deep pockets to hire a consultant, the funding, technical knowledge and experience these agencies offer is invaluable."

"Open your eyes, open your mind, listen, watch. There is an enlightenment that comes with the passage of time and you can seek out the possibilities and opportunities to learn."

"It's our tax dollars working for everyone's best interest."

Photo courtesy of Spokane County Conservation District

Hangman Creek one year later

Photo courtesy of Spokane County Conservation District

Rande Kummer

Kummer Farm

Rande Kummer

Deer Park, Washington

Rande Kummer grew up along Bear Creek about seven miles east of Deer Park. Rande began noticing that Bear Creek did not have as many fish as there had been when he was young and he wanted to return the creek to the same condition he remembered. "It was a neat creek with crayfish, fresh water clams, lily pads and a lot of fish," he said.

Photo courtesy of Spokane County Conservation District

Bear Creek before restoration project

His Approach

Rande turned to the Spokane County Conservation District and the Natural Resources Conservation Service (NRCS) to help him achieve his goal. He signed a 15 year Continuous Conservation Reserve Program (CRP) contract to help offset the costs of fencing and setting aside a 35 foot average riparian corridor. The conservation district also contributed some money and arranged for Washington Conservation Corps and correctional facility crews to fence and plant native trees and shrubs. Rande also provided some funds, materials, and labor to install the project components.

Beginning in the summer of 2002, Rande started planting vegetation and installing fence along Bear Creek to restrict cattle access to the creek. Prior to installing approximately 12,000 feet of fencing and four off-stream watering troughs, Rande's cows were "destroying the creek and it was a constant battle to keep them out." Now the problem is with the moose that destroy the fence. Approximately 30,000 trees and shrubs were planted between the summer of 2002 and 2003. The 30 acre project also included a pond and wetland that is home to wood ducks and turtles. Rande did plan for emergencies (water supply problems at the water troughs, etc.) by installing gates to access the creek in some locations.

Photo courtesy of Spokane County Conservation District

Bear Creek one year after restoration project

"You can't say that I'm polluting the water."

and more small birds have also visited the area. In addition, Ben has observed deer raising fawns in the brush, more fish, and an increase in the number of redds (fish nests) in the creek. "There has been an increase in wildlife, and everyone benefits from that."

The more subtle changes that have been noticed are "the creek stays in place in its banks, and is better and healthier." Ben knows that the vegetation he has planted and protected slows down the water, and acts as a huge buffer during floods. Although Ben did lose some of his pasture by putting in the buffer, damage from flooding is "significantly less, so it has balanced out."

Ben has not enjoyed economic benefits yet, but believes that will come when he sells the place. "It will be a showcase place that someone will want to own." For now, Ben's satisfaction is in doing the physical work.

Challenges

"You never know what is going to happen," he said. The three 100-year floods that occurred in 1996, 1997, and 1998 were a large challenge. "I had to do major overhauls in a couple spots after the floods came." According to Ben, animals are another challenge. "The beavers chew the trees down, the rodents chew them off under the snow, and the deer nibble and scratch on them." Ben has been frustrated with the beaver gnawing on the plantings. For example, beaver once gnawed down 300 to 350 trees within two days. As a result, Ben had to plant all over again, but this time he placed wire cages around the trees.

Some adjacent landowners have had negative reactions to Ben's work, but some have had positive reactions, too. Ben knew that people learn by example and he just continued by "marching forward and having his permits and ducks in a row." Reflecting on his project, Ben said, "It was the little things that bit us, but you just have to go with it. That's the part of life you can't change."

His Recommendations

Ben's project has enhanced productivity and the value of his ground, which is why he would recommend other landowners put in a similar project. In addition, Ben notes that riparian protection "is a family project and an educational process for the kids." However, "it's a lot of work planting trees and preparing for beaver, deer and voles. Have a long term plan about how you are going to develop the property," Ben suggests. "If you water here, could you irrigate there?" Ben also cautions people to "be ready when Mother Nature throws you a curve. There will be opportunities that arise, so be flexible so you can capitalize on them."

Riparian restoration "will benefit you and others in ways you don't anticipate. There is a lot of this work to do. The government won't be able to pay for all of it, so people need to make small changes themselves. The most important change is to get livestock off the creek."

Wire cages around trees

"The creek stays in place in its banks, and is better and healthier."

Mill Creek after restoration project

Ben Myren and Nestlè the bull

The Myren Ranch

Ben Myren

Colville, Washington

Located northwest of Colville, Ben Myren raises longhorns near the banks of Mill Creek. Ben's property line between him and his neighbor lies in the middle of Mill Creek, and he wanted to protect his property from eroding away. Since Ben enjoys hunting and fishing, he also wanted to protect his riparian corridor in order to increase wildlife and fish habitat on his property. Raising cows is in Ben's roots and his education in agriculture and environmental studies gave him some ideas on how to manage his herd on his property.

"There has been an increase in wildlife and everyone benefits from that."

His Approach

Ben's project has expanded over the years. He began work in 1995 by picking the worst spots first and working on those. "You do what you think will work, then watch up and downstream and make corrections," he said. Ben created five pastures so that he could rotate the cattle, put in a little over a mile of fence, installed three off site water troughs, and planted about 1000 trees and shrubs. Ben and his wife also created an artistic look to a portion of wood fence which turned out to be a lot of work and more time consuming than they had thought. After all this work was completed, the area was struck by one-hundred year flood events three years in a row. Ben had to begin some of the work all over again. To repair the eroded streambanks left from the floods, Ben used anchored logs and root wads as well as rock.

Ben funded his initial efforts himself. After the floods, Ben obtained help from the Natural Resources Conservation Service (NRCS) and their Environmental Quality Improvement Program (EQIP).

The only thing Ben would do differently is to put cages around all the trees. Following one winter Ben realized that the voles had tunneled under the snow and killed his trees, so he came up with a plan to put two cages around the trees. A one foot tall, small diameter wire cage was placed close to the trunk of the tree, and another larger diameter wire cage at least two feet tall was placed further out from the trunk to protect the tree from beavers and deer.

Benefits

"Some changes have been subtle and some have been dramatic," Ben said. One of the dramatic changes Ben and his family have seen is more diverse wildlife such as four broods of wood ducks, two groups of mallards, and one group of mergansers. Canadian geese, pheasants, a lot of turkeys,

Pastures created for rotational grazing

Benefits

One of the project benefits has been a decrease in the need to clean the screen on the irrigation pump. Before the project was installed, Rande would have to clean out the screens every day when he noticed a drop in water pressure in the irrigation system. Now that the cows have been fenced away from the creek, the irrigation heads are not plugging up and only need to be checked once a week. This saves Rande time. The land rental payment he collects from the CRP contract compensates for the pasture lost by installing the fence, and although Rande admits he could be making out better, the environment is better.

The vegetation along the creek and in the wetland responded quickly to the change and the creek is a lot cleaner because the filter strip stops anything flowing into it. The grasses have helped to hold the bank in place and the rest of the vegetation has spread back toward the fence line. Rande also has noticed that his project has helped the water flow in Bear Creek. Rande is satisified with his project because "you can't say that I'm polluting the water."

Challenges

Good communication with the NRCS, Farm Service Agency (FSA), and the conservation district, helped to keep challenges associated with the project to a minimum. Planning the project involved several site visits and walking the proposed fence line, but overall, Rande was surprised how fast the project was completed. (All the paper work was signed in one day!) Rande overcame the challenges that did occur by calling Walt. Walt Edelen works for the conservation district and helped plan the project and deal with situations like when the crew started building the fence in the wrong location because the cows had pulled up the flags for the fence line. Today, weeds within the buffer are the main challenge because it is getting harder to get to them.

Photo courtesy of Spokane County Conservation District

Bear Creek before new riparian fence installation (2001)

His Recommendations

The only thing Rande would do differently is to include more of his ground along the creek in the project. "I should have put a little bit more land in CRP in a few spots, but it is hard to tell where the cows are going to be."

Rande believes that being proactive to clean the water is a good thing to do, especially when financial assistance is available. "You need to take advantage of grant opportunities because when Ecology comes and tells you to change, the assistance may not be there." Rande is hoping that by showing his neighbors how his project worked, he can help other landowners take steps to protect their streams.

Being proactive to clean the water is a good thing to do, especially when financial assistance is available.

Photo courtesy of Spokane County Conservation District

New riparian fence along Bear Creek in 2004

The Schulke Farm

Jeff Schulke
Walla Walla, Washington

Photo courtesy of Jeff Schulke

Jeff Schulke

Jeff Schulke realized he needed a better use for his farm ground located next to Dry Creek north of Walla Walla. Jeff "couldn't let it go to waste," but the ground was too wet or too close to the creeks for farming and cows were not a good option for him. Jeff also wanted to make sure that Dry Creek was clean for him and his downstream neighbors.

Photo courtesy of Jeff Schulke

Field without buffer

His Approach

Working with the Natural Resources Conservation Service (NRCS), the Walla Walla County Conservation District, and the Farm Service Agency (FSA) , Jeff has been installing riparian buffers for over two and half years through the United States Department of Agriculture's (USDA) Conservation Reserve Enhancement Program (CREP). Work on Jeff's projects began in December of 2002 and continued again in the spring of 2003. A contractor was hired to do much of the work, which included preparing the soil, laying rows of biodegradable erosion control fabric, and planting shrubs through holes in the fabric. Native grasses were then planted between rows of the fabric. Using this method, 95 percent of the plants have survived. Jeff's contractor even used a Global Positioning System to map the project boundary. Additionally, the CREP program will pay for maintaining the plants for the first five years to ensure the buffer is well established. Jeff was paid by the acre to irrigate the plants for the first year. Originally he used sprinkler irrigation, but he's learned to use a drip system to provide water to the plants' roots.

The CREP contract extends for 15 years. The participant receives an annual rental payment for the acres enrolled plus a sign-up bonus. In addition, there is 100 percent cost share for installing the buffer, as long as the installation adheres to the approved design. Jeff admits that a similar project may not be beneficial for high yielding irrigated crop ground, but "for dryland farming, it is fine."

"The water is cool and clear rather than looking like a chocolate milkshake."

Photo courtesy of Jeff Schulke

Field with buffer next to Dry Creek

The CREP process through the conservation district, NRCS, and FSA "has been smooth" and Jeff plans to enroll more land in the program in the future.

Benefits

Jeff feels that because of projects such as his there is a net benefit to the entire watershed. By replanting native vegetation the creeks are cleaner so the water quality has improved. "The water is cool and clear rather than looking like a chocolate milkshake," he said. The wildlife have also benefited. "There are tons of frogs and toads and the habitat for deer is increased and is amazing." Jeff sees "lots of critters" and to him the trees have made the land less barren.

Another benefit of Jeff's project is his feeling of relief. Now that his project is complete, it is "not a weed patch" and he doesn't have to worry about getting farm equipment stuck. "The heat is off of us. Your anxiety level decreases when you don't have to worry about the crop, erosion, or muddying up the creek as much. You don't have to apply for permits to dig out the ditches so the farm doesn't turn into a swamp," Jeff said. According to Jeff, enrolling in CREP was a "gigantic commitment to give up farm ground," but it gave him a use for ground that was hard to deal with.

Challenges

How to get the grass to grow without weeds is Jeff's challenge. Jeff also noted that it was hard to find the right time of year to plant the trees so that there was the proper moisture. "When it was dry on the top of the hills, the valleys were really wet."

His Recommendations

Jeff knows that his project and CREP are not a "silver bullet" because "the project doesn't pay any more than if I was farming, but it has paid for itself." CREP is an "excellent opportunity and pays for dryland farmers," he added.

Photo courtesy of Walla Walla County Conservation District

New plantings in the buffer

Jeff recommends a similar project if you own property along a small surface stream or an important tributary, because he says tributaries are the conduit or connection between the hills and the main river branches. Installing such a buffer in Jeff's words "is a good use for a riparian area. You don't have the pesticides, nitrates, or sediment in the water." Jeff also believes that if enough people install buffers, then there will not be any mandatory buffers in the future.

For Jeff, his project is rewarding because he sees the riparian areas "turned back to natural areas. It is an exciting thing to see what great-grandparents and grandparents might have seen when they were here."

"It is an exciting thing to see what great-grandparents and grandparents might have seen when they were here."

Photo courtesy of Jeff Schulke

Planted buffer between field and creek