Trees shade the Wallowa River, cooling the water for fish.

esources is a non-profit that promotes the importance of forest and watershed health to community well-being. Doug again weathered site visits, meetings about design and negotiations. To comply with permit and grant funding requirements, he hired an engineer to do a hydrologic analysis. Twelve thousand dollars later, the design "controlled" the river, rather than restore it to its historic channel.

Doug knew the plan wouldn't work. For more than 60 years, he had seen the Wallowa River shrink, swell and spread. But he kept his mouth shut and deferred to "the experts."

"Much to everyone's relief," says Doug, "one person had the courage to say the plan sucked. Once again," he says, rolling his eyes, "my original plan started to look pretty good."

Still, no person or agency took the lead. "Each time I turned around," says Doug, "there were more problems and delays with ermits and the price tag kept going up."

Perhaps it's his temper, his straight-forward nature or his impatience with inefficiency that have delayed the project and prevented him from restoring his childhood fishing hole, he says. "However, coordination of all these 'experts' and permit and bureaucratic snafus have added their share to the delays."

The willows and other vegetation along the stream bank continue to grow taller and shade the stream. Doug feels the bureaucratic hurdles likewise grow. Once again, he says he considers walking away from the project.

"When I am 85 years old and too old to ranch, my dream is to be able to hobble down to the river and catch a big trout. I have my doubts," he sighs, "that this project will come to fruition. I just hope the trout will still be around."

At publication deadline, The Wetlands Conservancy and Wallowa Resources were working with Doug to restore his stretch of the Wallowa River.

MARK TIPPERMAN AND LORNA WILLIAMSON

Each time we learn how to join together and mend our ties

with our own little place called home, we link our souls with the soils

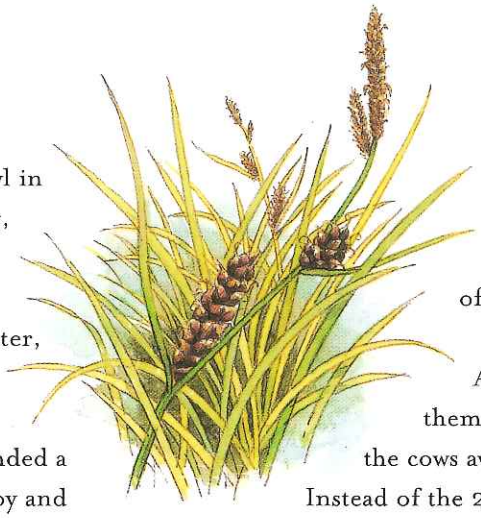
that sustain us, and nurture the network that is shaking the earth."

ELAN SHAPIRO, 1992

VISIBLE PROJECT BOASTS MANY PARTNERS

Urban refugees see instant results

Starkey, Oregon



The traffic and sprawl in Snohomish County, Washington sent Mark Tipperman and Lorna Williamson in search of a quieter, more remote setting. After searching for 400 acres or so east of the mountains, they landed a 2,500-acre ranch along McCoy and Meadow creeks in Oregon's Blue Mountains.

When they bought the Starkey, Oregon property in 1990, Mark and Lorna planned to run some cattle. What they really wanted, however, was to return the land to a more natural state. They thinned some timber and replanted some trees, but McCoy Creek and the meadows surrounding it became the centerpiece for what was to become Eastern Oregon's most visible wetland enhancement project. "I think just about every federal and state resource agency participated in this project," says Mark.

"We can honestly say," adds Lorna, "that we count the people we have worked with as friends. There have been a lot of them."

First, Oregon Department of Fish and Wildlife (ODFW) and the Bonneville Power Administration (BPA) helped them enlarge an exclosure to keep the cows away from McCoy Creek. Instead of the 20-foot corridor constructed by the previous owner, the new fenced-in exclosure protected the creek and the adjacent meadow. Others noticed – and replicated – the Tippermans' early success. "Our project," says Mark, "has inspired other landowners in the area to fence their riparian areas."

Members of the Confederated Tribes of the Umatilla Indian Reservation viewed the Tipperman ranch as a worthy project. The site is believed to have been the largest summer tribal encampment in the Grande Ronde region. The 10 tribes encouraged Mark and Lorna to let the creek wander the way it used to, says Mark, an idea initiated and supported

One year after project completion, McCoy Creek showed most of the characteristics of a stream reach in good condiditon.

by the Natural Resources Conservation Service (NRCS).

Mark and Lorna enrolled 500 acres into the Wetlands Reserve Program (WRP). They paid off the land debt with the WRP compensation. A lawyer seasoned in land use and real estate law, Mark secured tax deductions for the added values he donated to the WRP easement in the form of timber. He also worked with ODFW to develop and sign off on a wildlife management plan that allowed the land to stay in farm-use deferral, so he would not lose his farm tax benefit by establishing the WRP conservation easement.

For the past five years, Mark and Lorna have relied on technical expertise from agency staff in restoring McCoy Creek's flow through the marshy vegetation. "It's worked well," says Mark. "They all discuss and argue and come up with alternatives. Then, we make the final decision, usually by consensus."

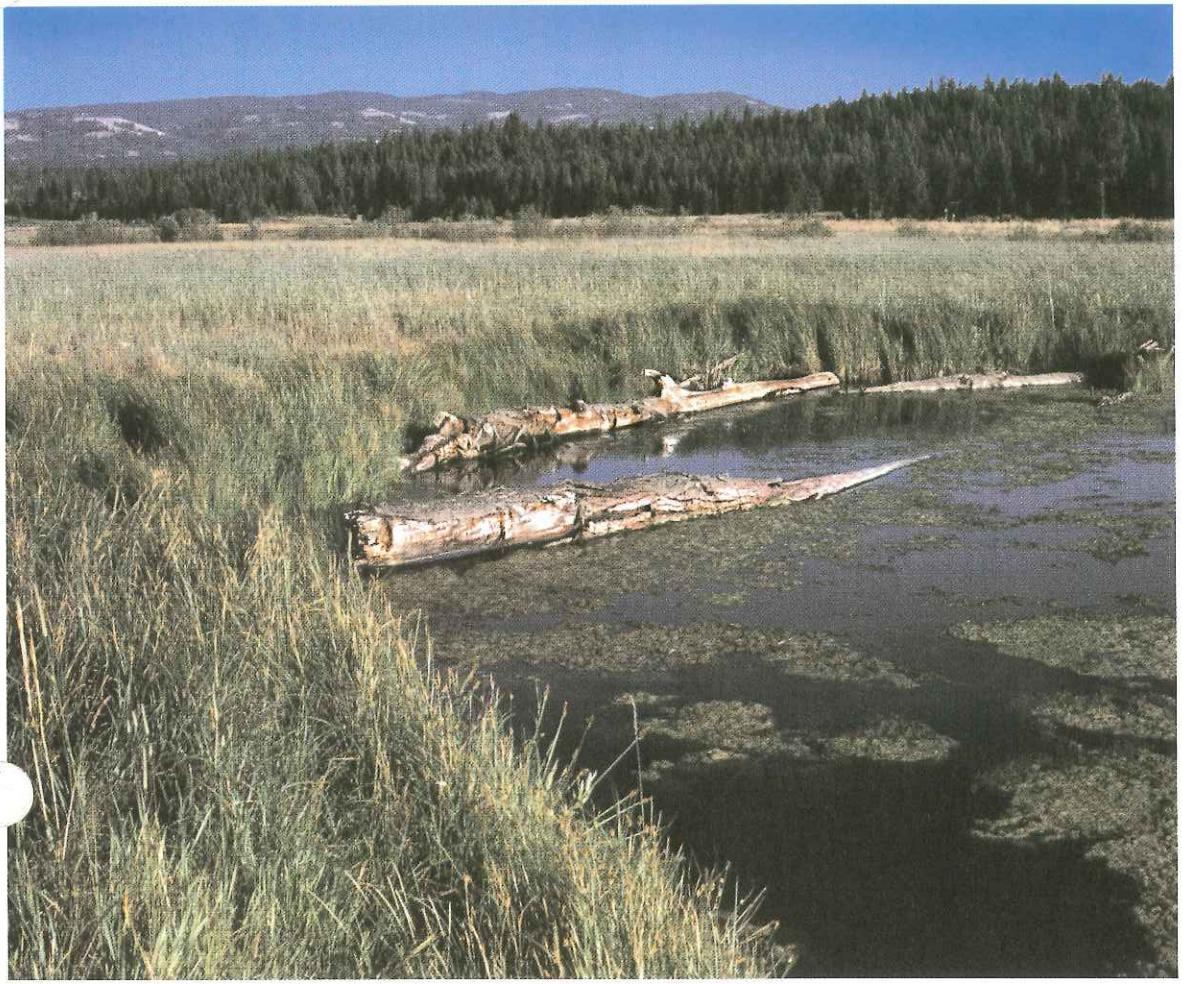
Goals for the project reflect the diversity of partners involved. Mark and Lorna strive to improve fish habitat, protect beavers, restore native meadow and grassland plants, control noxious weeds, boost water quality, reconnect the stream to the floodplain, improve groundwater input and restore the straightened channel into a meandering creek.

With input from a host of agencies, this restoration project and other conservation practices have expanded to cover virtually the entire 2,500 acres. While the wide range of opinions has strengthened the project design, it also has multiplied the amount of time spent on technical assessments and planning. A private contractor and the NRCS worked on the stream channel morphology and hydrology. The Environmental Protection Agency worked on permitting. ODFW scrutinized fish and wildlife ecology and habitat needs, and constructed and maintained the riparian fence.

Oregon Department of Environmental Quality monitors water quality. The Umatilla Tribe has coordinated and managed the overall project and supplied biological and other analyses. The alphabet soup of funding sources includes Oregon Department of Environmental Quality, US Fish and Wildlife, US Environmental Protection and Natural Resources Conservation, the tribes and BPA. Results have been immediate. "Within one month of the phase one construction," says Lorna, "native sedges and rushes had re-established, and aquatic macro-invertebrates had moved in big-time." Meanwhile, she continues the ongoing task of noxious weeds eradication.

"We can honestly say that we count the people we have worked with as friends. There have been a lot of them."

In August 2001, a new span bridge was under construction to replace an old collaps culvert. The fish-friendly bridge design and construction added Union County and the



US Forest Service to their long list of partners. By summer 2002, phase 2 of the project will be complete and water will be released into the final section of the recreated meandering channel.

Mark reflects upon their good fortune and the tremendous help they receive through their many partnerships: "We feel lucky and proud to be the hosts and particpants in the restoration of this section of McCoy Creek."

This fish habitat log on McCoy Creek was placed by the Confederated Tribes, one of the many partners in the Tippermans' project.

Beaver manipulate water levels and steer the course of the river.

CONSERVING WETLANDS

Wetlands are among the most important ecosystems on earth. They filter the landscape: purifying polluted rivers, preventing and minimizing flooding, protecting shorelines and replenishing groundwater. ◆ Historically, people regarded wetlands as "wastelands," barriers to development, and breeding grounds mosquitoes, insects and disease. Considered useless, wetlands were too shallow to swim in and too wet to farm. People literally and figuratively paved them over for other uses. ◆ In just over two centuries, development has gutted many wetlands. In 1789, about 221 million acres of wetlands covered the lower 48 states, according to the US Fish and Wildlife Service. Now, this area includes 104 million acres of wetlands — less than half of the original acreage. ◆ The Oregon statistics also are staggering. Agriculture, commerce and other developments supplant many acres of former wetlands. Statewide, about 1.4 million acres of wetlands remain — 2 percent of Oregon's total land surface. In the Willamette Valley alone, more than 500 acres of wetlands are lost each year, according to the Oregon State of the Environment Report 2000. ◆ Shorebirds, waterfowl, fish and other wildlife depend on wetlands for survival. ◆ Nationally, 35 percent of all rare and endangered species depend on wetlands. As wetd habitat is destroyed, the number of species threatened with extinction increases. ◆ Gone are many of the species that inhabited these lost wetlands. This elevates the importance of the remaining wetlands, often shifting longstanding patterns. When a wetland is destroyed, for instance, migrating birds may be forced to change traditional migration routes. Similarly, other species must adapt or die. ◆ Even as our appreciation of wetlands grows, they are filled, dredged and drained. Private landowners, often in a strong position to restore and conserve wetlands, are choosing to do so. In conserving wetlands, they can realize financial benefits, including direct income, estate tax reductions and, in some cases, income and property tax reductions. ◆ Landowners have reasons beyond financial incentives to protect wetlands. Some farmers who use flooding as part of their operations improve topsoil retention, accelerate the breakdown of crop residue, decrease weed growth, diminish their need for fertilizers and reduce flood impacts to their agricultural land. Ranchers prevent loss of range land by restoring eroding stream banks, providing alternate watering sites for their animals and fencing wet areas on their property. For those who appreciate wildlife, wetlands that support waterfowl and shorebirds provide spectacular displays. ◆ A growing number of programs help landowners conserve and restore wetlands. Some restoration methods have been used for decades. Others are new. Choosing the right approach depends on a landowner's vision and needs, the wetland's functions and how the particular wetland fits into the larger landscape.

Restoring a Wetland

To begin planning a wetland restoration project, reflect and assess your situation. The clearer the priorities for the land, yourself and the rest of your family, the easier it is to develop a plan.

Start by asking: What is important? Improving wildlife habitat? Or assuring that heirs inherit a livable piece of land that is not a tax burden?

Ask yourself:

- What is the site's potential for restoration?
- What are the limitations of the land?
- What are my land management goals for now and for the future?
- What are my personal and family opportunities and limitations?
- What financial needs do we anticipate now and in the future?

The answers to these questions can lead to a strategy. Further information about community resources can help design that strategy:

- What kinds of technical assistance will help reach my goals?
- Who else can help?
- How can I include these experts in this process?

The clearer you are on what you want to do and what role you want to play in the process, the easier it is to elicit help from other individuals, groups or agencies.

There are many options. You can tailor your strategy to your particular property and circumstances. You can sell or donate the land, lease it or will it to someone. You can develop parts of the land. You can transfer certain property rights and responsibilities to a group, agency or individual through an easement or management agreement. You can manage it yourself or ask someone else to manage it. Common options, with considerations for landowners, are listed in the chart on the following page.

CHOOSING THE BEST OPTIONS

Do you want to protect the wetlands permanently?

Yes

Do you wish to continue to own the property?

Yes

- Conservation easement
- Reserved life estate

No

Do you want compensation?

Yes

SALE:

- At market value
- Bargain sale
- Conservation easement
- Fee title
- Limited development easement
- Option to buy
- Reserved life estate
- Right of first refusal
- Sale by installment

No

DONATION:

- Bequest
- Leaseback
- Outright
- Reserved life estate

No

- Long term lease
- Management agreement
- Mutual agreements
- Current use taxation

Do you want to restrict future use with transfer of title?

Yes

- Conservation easement
- Deed restrictions
- Mutual covenant
- Purchase of development rights

No

- Normal transfer of title

APPROACHES TO LAND CONSERVATION AND PROTECTION

The following section explains techniques landowners use to conserve and protect wetlands. People generally sift through options that fall under three broad categories based on whether they wish to:

1) Maintain or own the property

2) Permanently transfer the title in exchange for payment

3) Transfer the title without compensation.

MAINTAINING PROPERTY

CONSERVATION EASEMENTS

Landowners can restrict how land may be used through written agreements, called easements. These become part of the property deed and stay with the land, binding subsequent property owners to the terms of the agreement.

In conservation easements, a landowner retains title to property, but transfers certain property rights to a land trust, government agency or nonprofit conservation organization. Through the easement, the landowner can restrict the type and amount of development on a piece of property in order to protect significant natural features, including wildlife or habitat.

Each conservation easement is tailored to the particular piece of property and the wishes of the landowner. The parties involved can renegotiate the easement if circumstances change.

Advantages

- Easements provide income tax, estate tax and gift tax benefits if the easement is donated / sold at less than market value.
- The property owner retains ownership of the property while potentially receiving income tax, estate tax and property tax reductions.

Disadvantages

- Easements can involve giving up some property usage rights.
- The landowner maintains the land and is responsible for expenses, including taxes.

LEASES

A landowner who is not in a position to manage the wetland as required by a conservation easement can rent the property to a land trust, conservation organization or government agency. Under this option, the landowner can require a tenant to manage the property for a specified period of time. Landowners can structure the lease with or without rental payments.

Advantages

- The landowner can receive payments for the leased property.
- The landowner can protect the land for a specified period without transferring the land to another entity.
- The landowner can terminate the lease if the property is not being used as directed.

Disadvantages

- Leases expire.

Unless provisions are made by the landowner, leases generally allow unrestricted and exclusive control of the land by the organization or agency leasing the property.

MANAGEMENT AGREEMENTS

Landowners can establish a management agreement with a land trust, conservation organization or government agency.

Advantages

- The landowner may be able to receive direct payments or other types of financial assistance.
- The landowner can often use the services of the land trust, conservation organization or agency to develop a site management and maintenance plan.
- It is easier to terminate a lease with a management agreement than with some other arrangements.
- Payments or cost-share maybe available for management or maintenance activities.

Disadvantages

- Management agreements expire.

RESTORATION

Landowners reintroduce water and native vegetation to restore the natural elements of the wetland.

Advantages

- Technical and financial assistance is available for many if not all project expenses.
- Restored wetlands can create views and attract wildlife that boost property values and quality of life.

Disadvantages

- Restoration without outside financial assistance can be expensive.
- Restoration is not always entirely successful.
- Restoration and rehabilitation of a site is generally a long-term commitment.

LIMITED DEVELOPMENT STRATEGIES

A landowner can restrict development to the "least environmentally significant" portions of property and use the proceeds to finance conservation on the remaining land or for other purposes.

Advantages

- A landowner can raise the money necessary to protect the more environmentally sensitive property.
- A landowner can combine conservation and limited development to help meet financial needs.
- A landowner can realize tax advantages by recording an easement over the undeveloped part of the land.

Disadvantages

- It can be difficult to determine which areas of the property are the least sensitive.
- Limiting land development can reduce its profitability.
- Adjacent land use may affect the wetland area.

TRANSFERRING PROPERTY

REMAINDER INTERESTS

A landowner can postpone the transfer of property until after his or her death or after the death of subsequent owners. Through this arrangement, called remainder interest, the landowner can sell or donate property to a land trust or other nonprofit conservation organization.

Advantages

- Landowners enjoy all rights to the property during their lifetime, except those that degrade the natural resource value.
- Landowners provide future protection of the property.
- Donation for conservation purposes qualifies the landowner for a tax deduction, discounted in proportion to the anticipated length of time before the grantee takes over the interest.
- Whether the land is sold or donated, dedication of the remainder interest reduces the burden of the estate taxes.

Disadvantages

- The designation may restrict some uses of the land during the landowner's lifetime that may degrade the natural resource value.

PERMANENT TITLE TRANSFER WITH COMPENSATION

Sale Option

Landowners can choose from these four sale options:

1. **Fair market value:** The landowner sells the property for its fair market value.

2. **Bargain sale:** The landowner sells the property to a land trust, conservation organization or agency at a price below the fair market value. The difference between the sale price and fair market value can be characterized as a donation.

3. **Installment sale:** The landowner sells the property to a land trust or conservation organization where all or part of the consideration is deferred and paid in successive years.

4. **Right of first refusal:** The landowner gives a land trust or conservation organization the option to match a purchase offer and acquire the land if another buyer approaches the landowner.

Advantages

- Sale at full market value allows the landowner to receive full value for property.
- Bargain sales offer a tax deduction and reduction of capital gains taxes to the landowner.

- Installment sales can defer the actual capital gains tax until the purchase with which to pay the tax is in hand.
- Right of first refusal can give land trusts and other conservation organizations time to acquire the funds necessary for purchasing the land.

Disadvantages

- Most land trusts and conservation organizations have limited budgets and can rarely pay full market value for wetlands.
- If the land value has appreciated since it was purchased, the landowner becomes liable for the income tax on the capital gain.

TITLE TRANSFER WITHOUT COMPENSATION

Donation of Land

Landowners can choose from three types of donations:

1. **Outright donation** grants full title and ownership to the conservation organization, community or government agency receiving the donated property.

2. **Donation by deathtime** transfers property through a will.

3. **Donation with a reserved life estate** permits the landowner to use the donated property during his or her lifetime and the lifetimes of designated family members.

Advantages

- Donation provides total protection for a wetland.
- Landowners can receive income tax deductions and possible estate, gift and property tax breaks.
- Land trusts and conservation organizations, which may not have the budget to buy wetlands, can fulfill their mission to protect wetlands.

- Outright donation requires little negotiation and can be completed quickly.
- Donation at deathtime allows the landowner and their family to retain interim control and full use of their property, while ensuring protection after the landowners' death.
- Donation with reserved life estate allows the landowners and their family to continue to live on the land, while ensuring it future protection.

Disadvantages

- The landowner forfeits potential income from the sale of the land.
- Maintenance and other associated costs taken on by the land trust or organization may be more costly than a conservation easement.
- There is no income tax deduction for a donation by deathtime transfer.
- The landowner is responsible for property taxes as long as they remain in possession of the land.
- Many land trusts may not be able to accept the donation without additional funding for an endowment to support long-term management of the property.

Tax relief from donation with a reserved life estate generally applies to farms and personal residences, and in some cases wetlands may not qualify.

GRANT AND TECHNICAL ASSISTANCE PROGRAMS FOR WETLANDS RESTORATION

There are many state and federal programs that provide financial, technical and advisory assistance to landowners. The Grant and Technical Assistance Programs for Wetlands Restoration Chart on page 67 summarizes the elements of each of the state and federal programs. It can help narrow down which programs might meet your needs. Once you have identified a likely match, refer to the program profiles which follow for more details. Then select those that fit. The preceding stories illustrate the use of these programs in projects.

SUMMARY OF GRANT AND TECHNICAL ASSISTANCE PROGRAMS FOR WETLANDS RESTORATION

Program	Financial Assistance	Technical Assistance	Grant Portion of Total Cost	Target Species	Program Affiliation
Access Habitat Program	✓	✓	75%	Wildlife	State
Conservation Reserve Enhancement Program	✓	✓	Greater than 75%	Fish	Federal State
Conservation Reserve Program	✓	✓	25-50%	Fish and wildlife	Federal
Emergency Conservation Program	✓	✓	Greater than 75%	Other	Federal
Environmental Quality Incentives Program	✓	✓	50-75%	Other	Federal
Farm Credit Programs	✓			Other	Federal
Jobs in the Woods	✓	✓	Greater than 75%	Fish and wildlife	Federal
North American Wetlands Conservation Act	✓		25-50%	Wildlife	Federal
Oregon 25% Tax Credit	✓		25%	Fish	Federal
Oregon Watershed Enhancement Board	✓		25-75%	Fish and wildlife	State
Partners for Fish and Wildlife	✓	✓	25-50%	Fish and wildlife	Federal
Wetlands Reserve Program	✓	✓	50-75%	Fish and wildlife	Federal
Wildlife Habitat Incentives Program	✓	✓	50-75%	Fish and wildlife	Federal

GOVERNMENTAL TECHNICAL ASSISTANCE

ACCESS AND HABITAT PROGRAM (AHP)

Landowners with projects that have potential benefit to wildlife habitat or that increase public hunting access on private land can qualify for Oregon Department of Fish and Wildlife Access and Habitat funding. Projects might include: improving vegetation on wild lands, developing water in arid regions, reclaiming habitat by vehicular restrictions or fencing to control movements of wildlife or livestock. Projects can be on public or private land.

The Access and Habitat Program board pays particular attention to projects that reduce economic loss to landowners and those which involve funding commitments from other organizations and agencies. In-kind contributions of labor, equipment and material are also viewed positively.

For more information, contact your local Oregon Department of Fish and Wildlife Office. Information can also be obtained at: www.dfw.state.or.us/ODFWhtml/Wildlife/ahpgm.html

THE CONSERVATION RESERVE ENHANCEMENT PROGRAM (CREP)

The Conservation Reserve Enhancement Program (CREP) is a voluntary program that can provide farmers and ranchers financial incentives, over a period of 10 to 15 years, for removing lands from agricultural production. This joint federal and state program targets significant environmental effects resulting from agriculture. The Oregon CREP was developed to help restore habitat for endangered salmon and trout. The program hopes to restore freshwater riparian habitat along as many as 4,000 miles of stream banks throughout the state.

Program Goals

- Reducing water temperature to natural ambient conditions.
- Reducing sediment and nutrient pollution from agricultural lands adjacent to streams by more than 50 percent.
- Stabilizing the banks along critical salmon and trout streams.
- Restoring stream flow and land formations to their natural state.

Oregon CREP provides landowners wishing to improve conservation practices with four possibilities: annual rent, maintenance incentives, cost-sharing and an incentive for reducing the cumulative impact on the environment.

The maximum annual rental payment is $50,000 per person per year and cannot be higher than local rents for comparable land.

For more information, contact your local USDA Service Center, Soil and Water Conservation District office or the Oregon Watershed Enhancement Board. Information can also be obtained from the Farm Service Agency (FSA) web site at www.fsa.usda.gov/dafp/cepd/crpinfo.html.

CONSERVATION RESERVE PROGRAM (CRP)

The Conservation Reserve Program rents property from eligible landowners who agree to take environmentally sensitive farmland out of agricultural production. The agency shares the cost of the materials, labor and equipment landowners use to establish protective cover on their property. The program is designed to protect environmentally sensitive farmland from erosion, improve water quality, reduce surplus farm commodities and enhance wildlife habitat.

The maximum annual rental payment is $50,000 per person per year and cannot be higher than local rents for comparable land.

The program is administered by the United States Department of Agriculture. For more

information, contact the local Conservation District, watershed council, Natural Resources Conservation Service office or Farm Service Office. Information can also be obtained from the FSA web site at www.fsa.usda.gov/dafp/cepd/crpinfo.html

EMERGENCY WATERSHED PROTECTION (EWP)

Landowners can receive financial and technical assistance to restore watershed areas that have been damaged by floods, fire, drought or other natural occurrences. The Emergency Watershed Protection Program buys floodplain easements and helps landowners with activities that repair conservation practices, remove debris from streams, protect destabilized streambanks and establish cover on critically eroding lands.

The program objective is to protect people from the imminent hazards caused by natural disasters. Thus, people are eligible for assistance even when there is not a national emergency declared.

For more information, contact your local Soil and Water Conservation District, watershed council or Farm Service Agency office. Information can also be obtained from the FSA web site at www.fsa.usda.gov/pas/disaster/ecp.htm

ENVIRONMENTAL QUALITY INCENTIVES PROGRAM (EQIP)

Commercial farmers and ranchers can solve point and non-point source pollution problems through technical, financial and educational assistance from the Environmental Quality Incentives Program. Eligible agricultural producers work on five- to 10-year contracts to establish permanent vegetative cover, retain sediment and stabilize water control structures. The program may share the cost of terraces, filter strips, tree planting, animal waste management facilities and permanent wildlife habitat. Also, incentive payments may be available for land management practices, such as nutrient management, pest management and grazing land management.

Fifty percent of the funding available for the program is targeted at natural resource concerns relating to livestock production. The program is jointly administered by the Natural Resources Conservation Service and the Farm Service Agency.

For more information, contact USDA, Natural Resources Conservation Service. Information can also be obtained from the NRCS web site at www.nhq.nrcs.usda.gov/OPA/F960PA/equipfact.html

FARM SERVICE AGENCY (FSA) FARM CREDIT PROGRAMS

Landowners with Farm Service Agency loans may consider three programs in which the US Fish and Wildlife Service provides technical assistance in conserving wetlands.

Two of these programs involve disposal of inventory farm property obtained through loan failure. The Service reviews these inventory properties and recommends:

- Perpetual conservation easements to protect and restore wetlands and conserve other important natural resources and
- Fee title transfer of inventory properties to state or federal agencies for conservation purposes.

The third area in which the Farm Service Agency provides technical assistance involves property owned by its borrowers. The agency evaluates the natural resource values of property secured through FSA loans and recommends contracts in which borrowers voluntarily set aside lands for conservation in exchange for partial debt cancellation.

The FSA is the primary manager of inventory easements, and receives approximately 40 percent of the fee title transfers. These lands become part of the refuge system. In addition, the FSA restores wetlands and other important habitats on FSA easements and transfer properties.

For more information, contact your local Soil and Water Conservation District, Watershed Council or Farm Service Agency office. Information can also be obtained from the FSA web site at: www.fsa.usda.gov/dafp/cepd/crpinfo.htm

JOBS IN THE WOODS (JIW)

The Jobs in The Woods Program is administered through the Oregon Field Office of the US Fish and Wildlife Service. The program goal is to restore watershed functions and processes in key watersheds, while providing local employment to communities with dislocated forest industry workers. The program funds restoration activities that correct the causes of watershed degradation. The objectives are long-term, sustainable solutions rather than short-term fixes.

The program focuses on adjoining parcels to maximize the positive impacts of watershed restoration.

For more information, contact the Oregon Field Office, US Fish and Wildlife Service in Portland at 503.231.6179 or Klamath Basin Ecosystem Restoration Office at 541.885.8481. Information can also be obtained from the US Fish and Wildlife Service website at www.r.1.fws.gov/jobs/ index.htm

NORTH AMERICAN WETLANDS CONSERVATION GRANT PROGRAM (NAWCA)

Landowners interested in acquiring, restoring, enhancing, managing and creating wetland ecosystems are eligible for funds through the North American Wetlands Conservation Act. The program encourages public-private and state-federal partnerships, with a strong interest in wetland habitats for migratory birds. The landowner or other non-federal partner must provide at least a 50 percent match for both the small grant (up to $50,000) and large grant programs (up to $1 million). The application process is complex and there is a high degree of national competition. A significant amount of lead time, pre-planning and advanced commitment of funding by project partners is required.

For more information, contact a local US Fish and Wildlife Service Office. Information can also be obtained at: www.northamerican.fws.gov/nawcahp.html

OREGON 25% TAX CREDIT FOR FISH HABITAT IMPROVEMENT

Landowners interested in improving fish habitat and preventing the loss of fish in irrigation canals by installing fish screens can qualify for tax credits. These amount to 25 percent of the cost for voluntary fish habitat improvements and 50 percent of the cost for required fish screening, bypass or fishway devices. All projects must be pre-certified by Oregon Department of Fish and Wildlife.

For more information contact a local Oregon Department of Fish and Wildlife office. Information can also be obtained at www.leg.state.or.us/ors/315.html.

OREGON WATERSHED ENHANCEMENT PROGRAM (OWEB)

Landowners are eligible for funds to enhance and manage riparian and associated upland areas to improve water quality. Funds also may be used to benefit fish and wildlife. Program funds help implement the Oregon Plan for Salmon and Watersheds.

Landowners or other partners must supply a minimum of 25 percent cost share. Landowners must agree to secure all the necessary permits, continue maintenance of the land and write monitoring reports.

For more information, contact your local Conservation District, watershed council or the Oregon Watershed Enhancement Board office in Salem at 503.986.0178. Information can also be obtained at www.oweb.state.or.us

PARTNERS FOR FISH AND WILDLIFE (PFW)

Private landowners who wish to restore, enhance and manage riparian, wetland, instream and upland habitats can receive technical and financial assistance from the US Fish and Wildlife Service's Partners for Fish and Wildlife Program. The program emphasizes the reestablishment of native vegetation and ecological communities for the benefit of fish and wildlife in concert with the needs and desires of private landowners. Projects must provide benefits to federally threatened and endangered species or species of concern, depleted native fisheries, neotropical migrant birds, waterfowl or the National Wildlife Refuge System. Project contributions are typically limited to 50 percent of project costs.

US Fish and Wildlife Service staff may advise landowners on the design and location of potential restoration projects. They also may design and fund the projects themselves under a voluntary cooperative agreement with the landowner. Under such agreements, the landowner maintains the restoration project for at least 10 years.

For more information, contact the Oregon Field Office of the US Fish and Wildlife Service 503.231.6179. Information can also be obtained from the US Fish and Wildlife Service web site at www.r1.fws.gov/oregon/hcr/pffw.htm

WETLANDS RESERVE PROGRAM (WRP)

Landowners with wetlands in agricultural production can receive payments for restoring and protecting their wetlands through the Wetlands Reserve Program. The program shares the cost of habitat restoration with landowners. It also pays landowners as much as the agricultural value of land for granting a conservation easement and maintaining wetland values. Easements and restoration cost-share agreements establish wetland protection and restoration as the primary land use for the duration of the easement or agreement. In all instances, landowners continue to control access to their land.

The program is offered to high-priority sites, which have the potential to contribute to desired ecosystem functions. These include:

- Agricultural land with restorable wetlands
- Former or degraded wetlands occurring in pasture, range or forest production lands
- Riparian areas that connect with protected wetlands, along streams or other waterways
- Wetlands previously restored by an individual or under another federal or state program that are not protected by long-term easement.

For more information, contact your local Natural Resources Conservation Service office. Information can also be obtained from the NRCS web site at: www.fb-net.org/wrp.html

WILDLIFE HABITAT INCENTIVES PROGRAM (WHIP)

Landowners interested in enhancing wildlife habitat can receive assistance through the Wildlife Habitat Incentives Program. The program provides financial incentives to develop habitat for fish and wildlife on private lands. Participants who agree to implement a wildlife habitat development plan receive cost-share assistance from the US Department of Agriculture (USDA) to begin the project. USDA and program participants share the costs. This agreement generally lasts a minimum of 10 years from the date the contract is signed.

For more information, contact your local Natural Resources Conservation Service or Soil and Water Conservation District. Information can also be obtained from NRCS at www.nrcs.usda.gov/OPA/F960PA/whipfact.html

NON-GOVERNMENTAL TECHNICAL ASSISTANCE

Landowners tackling restoration projects typically complain that they need a single point-person, agreement among agencies and a knowledge of the true costs, restrictions and timelines. The landowners who had a navigator through the process tended to have quicker results, less frustration and greater success. In addition to state and federal agencies, non- profits and watershed councils can provide technical assistance and guidance through the maze of regulatory and funding programs. The following groups helped the landowners in this book. Explore your area for other potential sources of assistance.

COOS WATERSHED ASSOCIATION

The Coos Watershed Association is one of the oldest watershed councils in Oregon. A private, not-for-profit corporation, the Association works with willing landowners in Coos County to implement about $750,000 worth of coordinated stream restoration and road rehabilitation projects each year. They have recently begun working with other private groups to help interested landowners sell easements or title for restorable tidal marshes. For more information, contact the Coos Watershed Association at 541.888.5922.

DUCKS UNLIMITED

Ducks Unlimited is a private, nonprofit, international organization dedicated to conserving wetland habitat for waterfowl. It works with landowners and agencies to encourage habitat development and protection on private and public lands, secures funding for habitat development projects and conducts biological research. For more information, contact Ducks Unlimited at 360.885.2011 or www.ducks.org

KLAMATH BASIN ECOSYSTEM FOUNDATION

Klamath Basin Ecosystem Foundation is a new non-profit organization with a mission "to protect, conserve, and restore the natural resources of the Klamath Basin while promoting the long-term sustainability of the region's economy."

For more information contact the Klamath Basin Ecosystem Foundation at 541.850.1717 or wderyckx@cvc.net

NICOLAI-WICKIUP WATERSHED COUNCIL (NWWC)

Nicolai-Wickiup Watershed Council covers east Clatsop County and all the streams and rivers draining into the Columbia River on the Oregon side. Its boundaries span from the edge of Astoria east to the county line. NWWC works to maintain, enhance and restore existing salmon streams and to improve water flow and quality in slough areas diked for floc control (primarily to create agricultural lands and transit routes, e.g. railroad dike). Coordination for the seven Clatsop County watershed councils is handled by the Columbia River Estuary Study Taskforce (CREST). For more information, contact CREST at 503.325.0435 or www.clatsopwatersheds.org/nickolai.htm

OREGON WATER TRUST

Oregon Water Trust is a private, nonprofit group established in 1993, which acquires consumptive water rights from willing water-right holders and converts them to instream water rights. Oregon Water Trust offers water-right holders a variety of incentives: compensation, funding for irrigation efficiency improvements and protection of water rights from non-use. For more information, contact Oregon Water Trust at 503.227.4419 or www.owt.org

SOUTH COAST LAND CONSERVANCY

The South Coast Land Conservancy is a private organization that advises and financially assists South Coast landowners wishing to protect natural characteristics on privately-owned land. The Conservancy helps landowners identify programs or strategies best suited to a particular site or circumstance, provides a centralized liaison with state and federal funders, serves as technical advisor to the landowner for restoration on protected land and occasionally provides funds. For more information, contact the South Coast Land Conservancy at 541.266.7202.

SOUTH COAST WATERSHED COUNCIL

The South Coast Watershed Council is the "umbrella" council for all local watershed councils in Curry County, in Southwest Oregon. The Council includes representatives from 10 "sub-watersheds" — along with state and federal agency representatives. The South Coast Council sets priorities, identifies project opportunities and works with landowners in a million-acre county with 10 watersheds. For more information, contact the South Coast Watershed Council at 541.247.2755 or curswcd@harborside.com

WALLOWA RESOURCES

Wallowa Resources, created in 1996, is a Wallowa County community-based nonprofit organization. Wallowa Resources works with the community to demonstrate the benefits of inclusive, collaborative decision-making, reinvestment in natural resources and education about land stewardship. For more information contact Wallowa Resources at 541 426-8053 or wallowa@oregonvos.net. Their website is www.wallowaresources.org

WATERSHED COUNCILS

Watershed councils are locally organized, voluntary, non-regulatory groups established to improve the condition of local watersheds. The councils offer local residents the opportunity to independently evaluate watershed conditions and identify opportunities to restore or enhance the conditions. The councils forge partnerships between residents, local, state and federal agency staff and other groups. Through this integration of local efforts, the state's watersheds can be protected and enhanced. Contact the Oregon Watershed Enhancement Board for a full listing and map of Oregon Watershed Councils at 503.986.0178 or www.oweb.state.or.us

THE WETLANDS CONSERVANCY (TWC)

The Wetlands Conservancy, founded in 1981, is the only statewide land trust with the specific goal of preserving wetlands. The non-profit land trust conserves, protects and restores wetlands, other aquatic systems, and related uplands through education, research, acquisition and promotion of private and public stewardship. TWC accomplishes its goals through land acquisition, preservation and the Stewardship Program. For more information, contact The Wetlands Conservancy at 503.691.1394 or www.wetlandsconservancy.com

REGULATORY AGENCIES

Private landowners who take initiative to protect wetlands benefit from knowing the relevant laws and regulations. Each requirement has exceptions and may have additional provisions. As illustrated in the preceding stories, a knowledge of permit requirements and timelines is essential to wetland conservation and restoration success. If you are unsure of what laws and requirements might affect you, ask the Division of State Lands or local government planning offices and conservation districts. Some of the agencies and non-profits listed in the preceding pages may also be able to help.

US ARMY CORPS OF ENGINEERS

Under Section 404 of the Clean Water Act, the US Army Corps of Engineers (Corps) and the US Environmental Protection Agency (EPA) share the authority over "discharges of dredged or fill material" into waters of the United States."

Waters of the United States include rivers, streams, estuaries, ponds, lakes and wetlands. "Discharge of dredged or fill material" means placement or movement of any kind of material into or within a wetland or other waters of the United States.

Landowners are required to obtain a permit for dredge and fill activities in waters of the United States, regardless of the amount of fill used or area affected by the project.

US ENVIRONMENTAL PROTECTION AGENCY

The Environmental Protection Agency is responsible for assuring that the Clean Water Act provisions (including Section 404 regulation dredge and fill activities) are implemented through regulatory and non-regulatory programs. The agency's mandate under the Clean Water Act is to protect, maintain and restore the nation's waters. This is done through: state delegated permit authority; supporting development of water quality protection programs through funding to states and tribes; and through technical and financial assistance to states, tribes, watershed organizations and other stakeholder interests (agriculture, forestry, fisheries, etc.) to improve protection of aquatic ecosystems.

US DEPARTMENT OF AGRICULTURE

The Wetland Conservation or "Swampbuster" provision of the Food, Agriculture, Conservation and Trade Act of 1990 is intended to discourage the conversion of wetlands for agricultural purposes. A landowner who drains, dredges, fills or otherwise alters wetlands after November 28, 1990, to make possible the production of agricultural commodity on a wetland that was converted after December 23, 1985 is ineligible for many of the US Department of Agriculture programs discussed in this book.

NATIONAL MARINE FISHERIES SERVICE AND US FISH AND WILDLIFE SERVICE

Wetlands are critical habitat for many species currently named on the federal and state endangered species lists. The federal Endangered Species Act prohibits any person from "taking" endangered or threatened

animal species. An endangered species is any species of plant or animal in danger of extinction throughout all or a significant portion of its range.

The US Fish and Wildlife Service administers the federal Endangered Species Act for terrestrial habitats and inland waters. The National Marine Fisheries Service administers the act for coastal and marine species, including anadromous fish.

DIVISION OF STATE LANDS

The Oregon Division of State Lands administers the state Removal-Fill Law and implements the 1989 Wetlands Conservation Act.

The Removal-Fill Law (ORS 196.800-990) requires people who plan to remove or fill material in waters of the state to obtain a permit from the Division of State Lands. Placement of water control structures and dike structures, channel or bank alteration, land clearing, construction or roads and buildings, and backfilling or restoring "ditched" channels are examples of activities that may require a Removal-Fill Permit or General Authorization (a faster type of permit). Waters of the State are similar to Waters of the United States, as described above for the US Army Corps of Engineers. Activities in Waters of the US and State may require a permit from both the Division of State Lands and the Army Corps.

DEPARTMENT OF ENVIRONMENTAL QUALITY

Section 401 of the federal Clean Water Act requires the Oregon Department of Environmental Quality to certify that the proposed activity does not endanger the health of Oregon's streams and wetlands and to confirm that the plan meets water quality laws and standards. The Department of Environmental Quality (DEQ) issues a Water Quality Certification for Corps permits, and projects permitted by the Division of State Lands must also meet water quality standards set by DEQ. Applicants may be required to incorporate

water quality protection measures such as sediment protection, storm water runoff treatment and protection of fish and wildlife into their plans.

OREGON WATER RESOURCES DEPARTMENT

Under state law, all water is publicly owned. A permit must be obtained to use water or store water in a reservoir from any source, whether it is underground or from lakes and streams. A permit from the Oregon Water Resources Department is required before using ground or surface water. The Oregon Department of Environmental Quality, the Oregon Department of Fish and Wildlife and the Oregon Department of Agriculture review applications for diversions of surface water, or where groundwater is hydrologically connected to surface water from areas where sensitive, threatened and endangered species are present. These agencies may request alterations to better protect fish and wildlife species and water quality.

PROJECT PROFILES AND WETLAND RESTORATION TECHNIQUES

Each restoration project has its own character. A project whose primary goal is to attract fish may require different strategies than one seeking to create diverse habitat or to restore the historic path of the river, as the following examples demonstrate.

HALL SLOUGH RESTORATION

DeLorenzo Project

Project Goal: To release land-locked cutthroat trout and allow other salmon species to re-colonize Hall Slough.

Objective: The primary task was to repair an existing dike and create a fish passage over it. The passage was designed to provide fish with access to a large pond and several streams draining into Hall Slough. Historically, the area provided habitat for four species of salmon and searun cutthroat trout.

Project Elements:

- The existing dike, which maintains the pond, was repaired and stabilized. This involved removing non-native vegetation, rebuilding eroded sections and leveling the dike. Biodegradable erosion-control matting was installed. Once stabilized the dike was planted with native grasses and shrubs.
- Four culverts from tributary streams that fed the pond were removed and the natural streambeds were restored.

- A county road culvert, which connected the pond and Hall Slough, was replaced with a larger one to better accommodate fish passage. The culvert size was more-than doubled from 18 inches to 38 inches.
- A fish passage with a water control structure was created along and over the dike. Biodegradable erosion-control matting and wetland plants were installed in the new fish passage.

Maintenance and Monitoring

1. Before construction, computer data loggers were installed in the pond to record changes in water temperature.

2. Water quality and depth are continually monitored.

3. Fish surveys using live traps were conducted before, during and after construction to determine native species migration patterns.

4. Students from the local high school conduct ongoing water quality and fish species monitoring and research projects at the site.

The Northwest Ecological Research Institute and the property owner continually maintain the dike and fish passage and monitor water quality and wildlife at the site.

MCCOY CREEK RESTORATION

Tipperman Project

Project Goal: The goals are to restore historic meandering to the straightened channel, improve fish habitat by adding structure and complexity to the channel, and planting native streamside vegetation.

Project History

Prior to starting the restoration work, the stream conditions were surveyed. The creek was in poor condition, a straightened channel with few or no pools, little streamside vegetation, and high water temperature. The channel could provide neither safety nor adequate food for juvenile fish. High temperatures, combined with lack of pools, could be lethal to spawners.

Project Elements

- A 1937 aerial photograph and an elevation survey of the meadow identified the former channel.
- The ditch was blocked with a long gravel berm, creating a large meander.
- Portions of the ditch were left connected to the creek for use as refuge for juvenile fish during times of high water.
- Salmon Corps workers planted 10,000 willow, cottonwood, and other native plant shoots.
- The areas that bulldozers and trucks had flattened and compacted were churned, raked and replanted.

Results

Shortly after restoring the old channel, the water leaving the meadow was 5° to 6° F colder than the water entering the meadow. McCoy Creek now ran in its old channel. New beaver dams sprang up overnight in some places, creating new pools and raising the water table to nourish riparian plants. The underground flow of water and deep pools created by beaver dams played a big role in the nearly immediate temperature reduction.

The underground flow of water began immediately when the dam across the old ditch was completed. Water from the creek filtered underground through the dam and came out a short distance downstream.

One year later, McCoy Creek showed most of the characteristics of a stream reach in good condition. The channel is narrower and deeper. The water is colder. The riparian vegetation around the beaver dams has thickened. And the marsh area has expanded outward some 50 feet. Elsewhere, willow and cottonwood starts show new growth, and other greenery pokes up in streamside gravel. Winter and spring floods have stayed in the channel and floodplain without "blowing out" any of the restoration work.

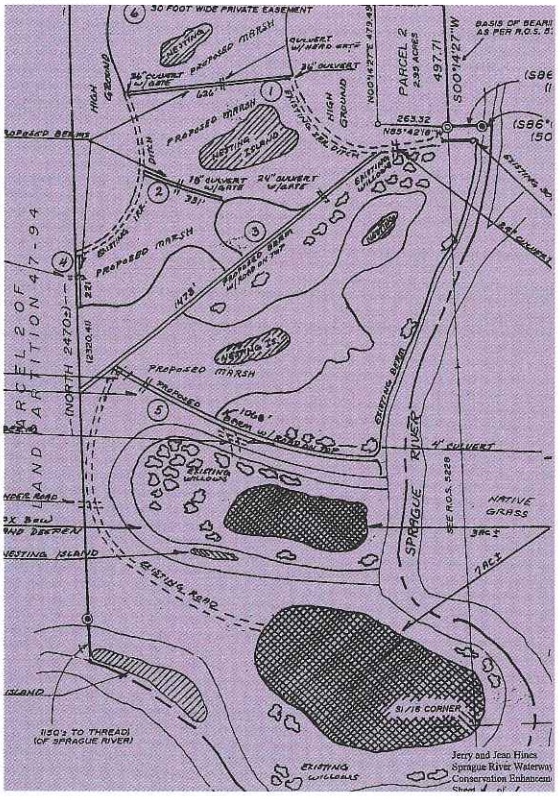
SPRAGUE RIVER WETLAND RESTORATION **Hines Project**

Project Goal: The project is designed to restore historic wetlands and improve wildlife diversity.

Project Elements:

- Swales were reconfigured to create varied depths of water, which would provide diverse habitat and attract a variety of wildlife. Nest islands were created using the excess material from the swale reconfiguration.
- A new berm will be constructed to connect the existing dike and road. The berm will encircle the wetland and enable it to hold water.
- Sediment will be removed from the oxbow to reconnect it to the river and create more wetland habitat.
- New berms and water control structures will be constructed to create wetlands with nesting islands and food plots.

Sprague River Wetland Restoration Plan



WETLAND RESTORATION TECHNIQUES

Every wetland possesses hydrology, hydric soils and wetland vegetation. Wetland restoration involves returning one or more of these three characteristics to a site. Hydric soils form over a long period of time and the soil characteristics are very difficult to create. For this reason, restorations generally take place where the hydric soils have historically existed, but the hydrology or vegetation has been altered.

Wetland restoration often restores the natural hydrology and topography of a site. Sites where there has been excessive logging, uncontrolled cattle grazing or unrestricted off-road vehicle use can be good candidates for restoration. Projects can include planting, removing cattle, fencing streams and wetlands, removing barriers or restoring the water source and/or other wetland properties.

Nine techniques utilized by the landowners in this book are described in the following pages:

Backfilling Ditches

Ditches are dredged through wetlands to gain wet areas or promote irrigation and move water. The dredged material is often piled along the edge of the ditch in piles, known as spoil banks. These can block sheetflow across the marsh and damage or destroy the wetland.

Backfilling can help restore the natural topography and hydrology, which can lead to at least partial restoration of wetlands impacted by ditch construction.

However, completely removing the material from spoil banks can be difficult. In older ditches, especially those dredged through organic substrates, spoil banks can oxidize, which reduces the volume of backfill. In many cases original elevations cannot be achieved.

Constructing Berms

Constructing small dikes or berms can protect adjacent property from natural flooding of a restored wetland.

Controlling Weeds

Thousands of species of plants have been transported beyond their natural ranges, both intentionally and unintentionally. Many introduced species spread prolifically in environments where predation and competition are limited, pushing out the native flora. The undesired plants or weeds can be pulled manually or mechanically or eradicated with herbicides, grazers or pathogens. They can also wither through manipulation of the hydrology or combination of methods.

Weed control can allow re-establishment of native plant communities. Once the introduced plant populations are well established, removal is a labor intensive ongoing task. A combination of biological, manual and mechanical controls, herbicide application and hydrologic manipulations may be required to eradicate the invasive species. Control using herbicides is not always appropriate. Chemical herbicides may damage the native species as well as hinder the restoration. Hydrological manipulation is not always possible.

Excavating

Excavation can restore natural topography and elevations in order to intercept groundwater, reach an intertidal level or establish wetland hydrology. In some cases, sediment previously deposited in a wetland can be removed to restore the wetland.

When landowners strive to create artificial wetlands, they can displace other habitat (i.e., upland habitat). Excavation and removal of excavated material can be expensive. In some circumstances, it is difficult to predict appropriate excavation depths. Excavation to subsoil leaves poor substrate for plant growth.

Installing Water Control Structures

Restoring natural hydrology is important on restoration projects. A landowner may wish to artificially alter water levels with a water control structure when bullfrogs or other invasive species need to be controlled or when the natural hydrology cannot be re-established. Risers or stop-log structures made of plastic or metal help manage the normal flow of water. An emergency spillway, which is a wide trough-like opening in the side of the dike, should be designed into wetland restoration projects if excess water is expected during flood events. These spillways allow water to pass through without damaging the retention structures in high-water events. Since water management is critical, it is important to determine how much if any water should be controlled in your wetland.

Water control structures generally require a lot of maintenance and monitoring, and may create fish passage barriers and entrapment.

Maintaining the Restored Site

Wetland restoration should be designed to be self-sustaining, requiring little or no maintenance. However, most restored wetlands – particularly those with water-control or earthen structures – require some maintenance. Water-control structures need to be checked regularly. Fallen leaves, twigs or other debris may build up around the mouth of the structure. Debris may obstruct the flow and cause the water level to rise. Inspection of the site, particularly during and after a big storm, will allow the landowner to remove materials before problems develop. Constant control of water levels may be required to insure that fish passage is maintained, and no fish are trapped or stranded.

Ditch plugs, dikes and berms also require some care. Established seedings of grasses should be periodically mowed or burned to prevent woody vegetation from compromising the integrity of the structure. Root growth from woody vegetation allows water to penetrate the earthen structure, contributing to the possibility of a washout.

Reconnecting Floodplains and Restoring Backwaters, Channels and Bends

Restoring a stream to its natural channel and reconnecting the channel and floodplain can reduce sediment load and flooding downstream, raise the water table, lower water temperature and restore fish and wildlife habitat. Productive backwaters, side channels and meanders can serve as a refuge and nursery for young fish and other aquatic life and improve adjacent wetlands. To re-establish these bends in the river, a landowner can modify or remove barriers, such as flood levees, roads, fences, farm tracks and earth banks. Backwaters and side channels that receive water in high flow events help stabilize banks by reducing erosion. They also recharge groundwater, create habitat for a variety of wildlife species and provide refuge for fish during flooding.

A straightened stream can be reconnected to parts of its former meandering channel by removing dikes or levees that keep it in check. The historic channel can be identified from old photos or by the presence of a residual line of vegetation. This may require heavy equipment and assistance from a geomorphologist or hydrologist.

Removing Culverts

Removing or repairing culverts can be an effective way to increase fish habitat. Culverts can block fish passage by constricting flows, collecting debris that plugs passage and forcing the water to find another path, often one that a fish cannot follow.

In many coastal areas, roads have been built across tidal creeks, separating tidal wetlands from the estuary. Frequently, tidal creek flow is maintained by installation of culverts or pipes, that pass beneath the road. However, these pipes are sometimes too small to allow full tidal flushing of wetlands. Subsequently, the area of tidal wetland that was flooded by the tides prior to culvert installation is reduced. Furthermore, if a culvert is installed with the bottom of the culvert above the level of the creek bed, the culvert will act as a weir, holding water on the wetland. This may cause loss of plants and, in some settings hypersalinity.

Removing Tile

Tile breaking involves removing a section of underground agricultural tile that is draining a wetland basin. Drain tile or field tile is usually made of clay or perforated plastic and buried at a depth of two to six feet. Generally, a backhoe is used to remove or crush a 25- to 50-foot section of tile downstream of the basin. The downstream end or outlet pipe is then plugged with a bag of redi-mix concrete or clean clay fill and the trench is filled. Sometimes, a portion of unperforated tile or riser is connected to the downstream end of the tile line and brought to the surface in order to control the water level. Water will fill the wetland basin until it reaches the mouth of this riser, where it will then flow back through the tile line into the ditch.

LANDOWNER HURDLES AND DIFFICULTIES

While each restoration story in this book has its own set of circumstances, specific to a piece of land and region of the state, many of the landowners share common frustrations. Here are the six most common hurdles and difficulties described by landowners:

1. The process needs to be more user-friendly.

- Agency officials and programs use too much jargon.
- Information and advice is often impractical and does not work within a working farm or ranch.
- Project designs are too restrictive and do not allow for creativity in design and implementation.
- Programs focus primarily on fish and endangered species without necessarily promoting habitat restoration and non-game species.
- The number and length of meetings can seem endless and pointless, especially when landowners are asked to travel long distances to attend.

2. The process is unclear.

- There is no road map or outline of the process from start to finish.
- Landowners sometimes find themselves mediating between federal and state resource agencies over conflicting programs and philosophies.
- Landowners are often confused about hierarchies among agencies, permits and laws.
- There is no central clearinghouse for a landowner to call with questions, clarifications or status of permits.
- Complying with programs requires a host of permits and clearances with agencies who use different definitions for work that will result in similar outcomes.

3. The timeline is uncertain.

- Timeline projections are unrealistic. The entire process can take up to three times longer than anticipated to complete.
- Appraisal and survey delays can put landowners into tight financial binds.

4. Agencies are understaffed.

- Taking a project from start to finish requires a lot of guidance, technical assistance and handholding by someone familiar with the process, wetland restoration, fish and wildlife, regulations and permits. Most agencies do not have enough staff to provide the assistance required by landowners.
- Some agency staff have a very good knowledge of fish and wildlife needs or restoration, but very little understanding of farming or hands-on land management experience. This can lead to miscommunication and misunderstandings.
- Project success can be dependent on personalities and staff expertise and interest.

5. There needs to be more flexibility in management choices and restrictions.

Some landowners find the bureaucratic maze restricts their ability to mow, burn or actively manage their land.

6. There needs to be more flexibility and options in compensations and easements.

- Federal easements do not allow landowners to take deductions for added values, such as timber.
- Under the Wetlands Reserve Program landowners cannot negotiate for the type of easement. The current form leaves the landowner with no recorded easement.
- Programs can penalize farmers for conversion of farmland to wetland. Once land in Oregon enters the Wetlands Reserve Program (WRP), it may lose its "farm use" tax status. Landowners must then pay taxes on fair market value, unless the Oregon Department of Fish and Wildlife signs off on a wildlife management plan.
- US Department of Agriculture administers two different payment programs: the Farm Service Agency's (FSA) "Debt for Nature Program" and the Natural Resources Conservation Service's Wetlands Reserve Program (WRP) have different compensation, standards and requirements. The Debt for Nature Program is only available to ranchers who have defaulted on their loan. It does not provide technical assistance or funding for restoration. The WRP is open to all and provides a lower rate of compensation. WRP provides both technical assistance and funding for restoration.

RECOMMENDATIONS ON HOW TO IMPROVE PROGRAMS

Landowners and natural resource agency staff suggest the following nine improvements to incentive and technical assistance programs:

- Streamline the regulatory and permit processes to be more friendly to the partners. These are not publicly owned lands and even though it is government money, the regulatory process for private partners should be less complicated and intimidating.
- Staff from all federal and state natural resource agencies need to work out their differences and set common landscape, fish and wildlife, and restoration goals before introducing private landowners to the process.
- Allocate money to local offices and eliminate the regional ranking process. Too many hands in the pie dough never gets the pie made.
- Retain agency participation in management after project completion. Many of these projects are artificially maintained wetlands and will require management activity from time to time.
- Develop a good understanding of the physical, biological and social landscape of an area before beginning to work on projects with landowners.
- Check with landowners after project completion to see what worked, what didn't and what, if any, retrofits are needed.
- Improve communication. All parties need to commit to the annual meeting to review management goals and activities required by the programs.
- Consolidate all federal programs involving compensation into a single office.
- Standardize compensation, standards and requirements between all USDA payment programs.

LANDOWNER ADVICE TO OTHER LANDOWNERS

Many of the landowners interviewed experienced delays and frustrations. However, some view themselves as pioneers, blazing a path for others interested in working with government programs. They provide the following advice to fellow landowners:

- Find a non-agency advocate familiar with the process to assist you.
- Assume it will take a lot longer than you think to complete the project.
- Check with all the different agencies before choosing one design. This may save a lot of time, money and frustration in the end.
- Explain the project to neighbors and members of the community. If possible, engage them in the project.
- Subscribe to the *Capitol Press* to learn more about incentive and grant programs.
- Take good photos before, during and after you begin work.
- Learn all the restoration vocabulary and jargon before you start the project. It will save you time in the long run.
- Develop thick skin. The disapproval of neighbors or other community members, who do not understand or support your project, can cause you discomfort.

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Cover photography by Richard Wilhelm

HEROIC TALES *of* WETLAND RESTORATION *tells of 12 rural landowners who changed their farming practices to reclaim wetlands, streams and rivers. Their stories span Oregon from the Columbia River to Cape Blanco, and Bonanza to Bear Valley. They have worked hard to restore oxbows, lush with sedges and cattails, forging partnerships with landowners, state and federal agencies, non-profits and community groups.*

These are passionate people who have overcome obstacles. Many of them view themselves as pioneers, blazing the path for others interested in restoring wetlands. Through their stories, they share pride, successes, frustrations and lessons.

Their tales are part of a larger national story. More than 75 percent of wetlands in the lower 48 states are privately owned, making landowner stewardship a critical part of a wetland conservation strategy.

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