Listening to Landowners:

Conservation Case Studies from Oregon's Willamette Valley

by Paige Fischer
for Defenders of Wildlife
and the Willamette Basin Conservation Project

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By Paige Fischer

Defenders of Wildlife
West Linn, Oregon • Washington D.C.

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FOREWORD: by Bruce Taylor

Defenders of Wildlife has invested a lot of time and effort in recent years in promoting improved conservation incentives for private landowners. We have conducted analyses, organized conferences, published reports, and participated in working groups. We have written bills and herded them through the legislative process. We never pass up an opportunity to remind people in the policy arena about the value of using incentives as a non-regulatory alternative for habitat conservation on private lands.

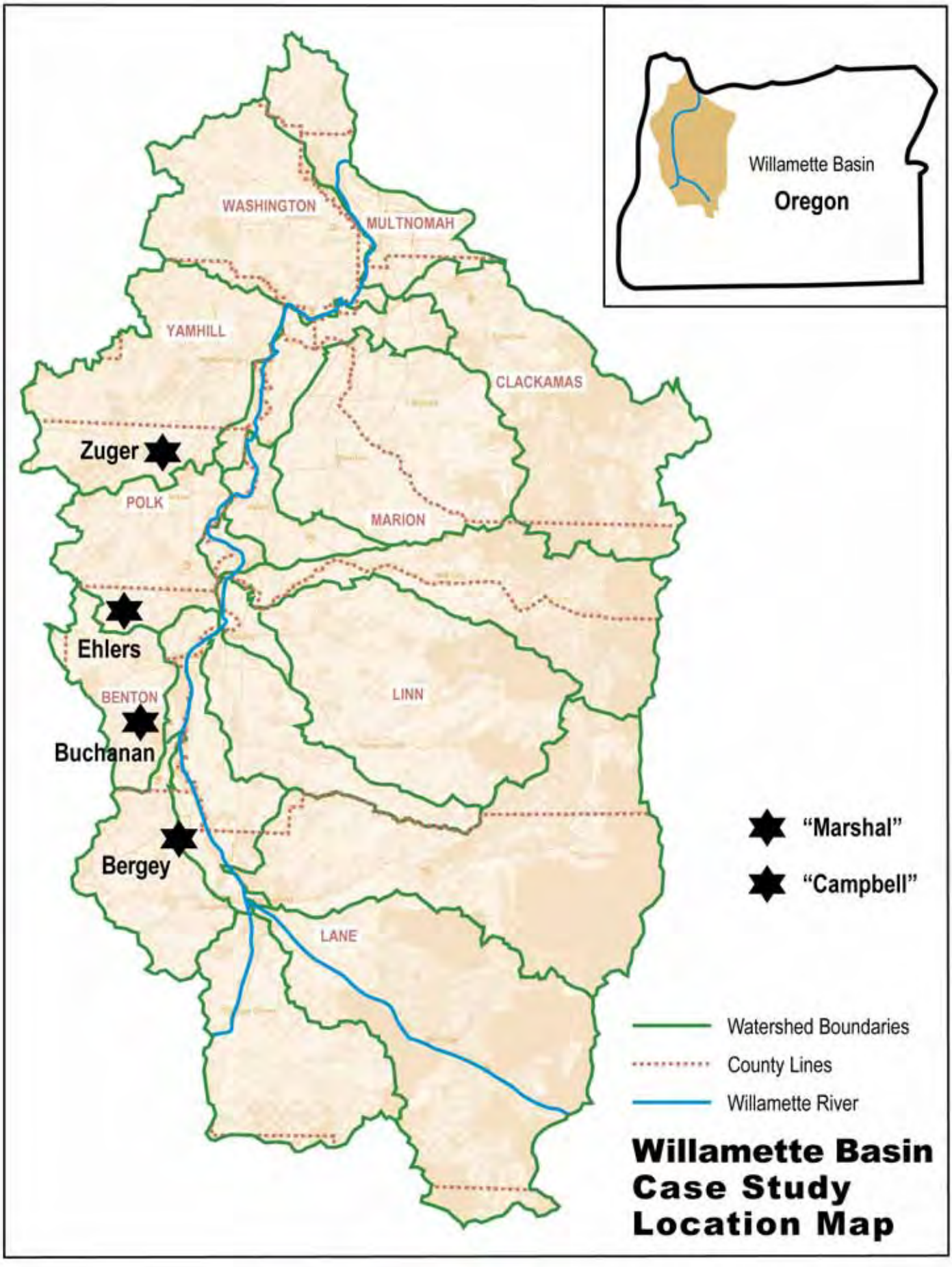
Incentive programs are clearly one of the answers to the real-world challenges involved in conserving biological diversity, according to those of us who spend our days immersed in the politics, policy, and science of conservation biology.

But what about the private landowners we're all counting on to participate in these new and improved conservation incentive programs? What do they think?

With those nagging questions in mind, Defenders of Wildlife set out in mid 2004 to get a reality check. We wanted to explore in more depth what motivated landowners to participate in conservation incentive programs, and what kept them from doing more. We also wanted an objective, third-party review of the issues, unencumbered by our own pre-conceived notions of the answers. With financial support provided by the Meyer Memorial Trust and the National Fish and Wildlife Foundation under the broader umbrella of the Willamette Basin Conservation Project, we opted to focus our examination on landowners in Oregon's Willamette Valley.

We asked Paige Fischer to take on this project because we were familiar with her graduate work at Oregon State University's College of Forestry, a master's thesis with the intriguing title of *"Mental and Biophysical Terrains of Biodiversity: Conservation of Oak Woodland on Family Forests."* In her research, Paige used social science methodology and insights gleaned from hours of field interviews to illuminate the thinking of a class of private landowners who collectively, and often unwittingly, control the future of one of Oregon's most endangered native habitats.

In this collection of case studies, Paige Fischer lets a half-dozen Willamette Valley landowners with widely varying perspectives tell the story of their individual forays into the world of government incentive programs. They told her what worked well, what didn't, and what kind of improvements they would recommend. Paige examines the landowners' experiences and views against the backdrop of current policy in Oregon, summarizes their implications, and outlines some thoughtful suggestions. We hope you will find the results as useful as we have.

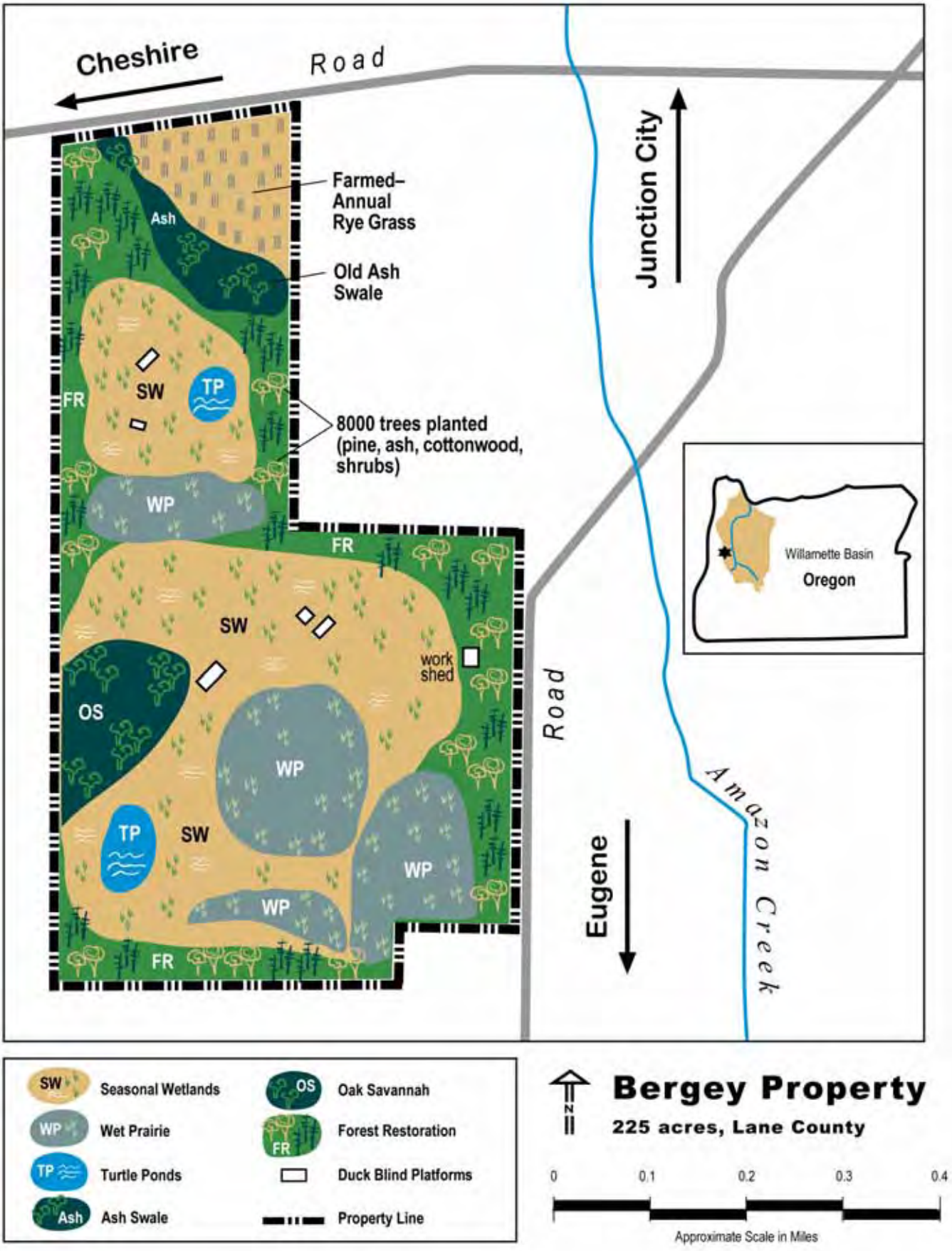

Willamette Basin
Oregon
WASHINGTON
MULTNOMAH
YAMHILL
CLACKAMAS
Zuger
POLK
MARION
Ehlers
BENTON
LINN
Buchanan
Bergey
LANE
"Marshal"
"Campbell"
Watershed Boundaries
County Lines
Willamette River
Willamette Basin
Case Study
Location Map

INTRODUCTION

The Willamette Valley is home to five native habitat types that are at risk of disappearing: oak savanna and woodland, riparian areas, wetlands, native grasslands and prairie, and bottomland hardwood forest. These habitat types are found to a large extent on private lands. To conserve these habitats, policies and programs must provide incentives that encourage, assist and reward conservation efforts by private landowners.

Defenders of Wildlife contracted with an independent researcher to interview private landowners as part of the Willamette Basin Conservation Project.The purpose of the interviews was to understand the constraints and opportunities landowners face in conservation and to identify ways to improve landowner assistance programs. The six people interviewed all own lands that support at least one of the Willamette Valley's five at-risk habitat types. Their lands are located in areas that have been identified as conservation priorities by the Oregon Biodiversity Project, The Nature Conservancy, or the Pacific Northwest Ecosystem Research Consortium. The landowners interviewed engage in a variety of primary land uses, including forestry, agriculture, and conservation. They vary in their levels of enthusiasm about conservation and experience with assistance programs. However, they represent a range of backgrounds and perspectives that is typical of landowners who seek out assistance programs for conservation and natural resource management.

In the interviews, landowners shared their goals and motivations for conservation, positive and negative experiences with assistance programs, and suggestions for how to change and improve programs. This report presents portraits of the landowners and their experiences with assistance programs and also makes recommendations for policy changes. The purpose is to educate policy makers, landowners, and the general public about the contribution that private landowners can make toward conservation and the need to tailor assistance programs to landowners' goals and capabilities.



SW Seasonal Wetlands
WP Wet Prairie
TP Turtle Ponds
Ash Ash Swale
OS Oak Savannah
FR Forest Restoration
Duck Blind Platforms
Property Line

N

Bergey Property

225 acres, Lane County

0 0.1 0.2 0.3 0.4

Approximate Scale in Miles

DALE BERGEY: *Leaving a legacy of wetlands through a conservation easement*

County: Lane

Acres: 225

Land use: Formerly farmed wetlands

Habitats: Oak savanna and woodlands, wetlands, riparian areas, native grasslands and prairie

Programs: Wetlands Reserve Program
Oregon Watershed Enhancement Board - Grant
Wildlife Habitat Conservation and Management Program
Partners for Fish and Wildlife Program

Dale Bergey wanted to leave a legacy of wetlands. He opted to do that by placing his land in a permanent conservation easement through the federal Wetlands Reserve Program. "The easement guarantees that this is going to be wetlands forever. It may sound hokey, but my kids can come back here 50 years from now and say 'dad had something to do with this.'"

Dale and his family purchased 225 acres of farmland near the Long Tom River for the sole purpose of habitat restoration. Located within a priority conservation area at the northern edge of the West Eugene Wetlands in Lane County, the land historically supported wet prairie and bottomland hardwood forest. The previous owner farmed rye grass for 40 years before Dale acquired the land. With a grant from the Oregon Watershed Enhancement Board and help from the U.S. Fish and Wildlife Service, the Oregon Department of Fish and Wildlife, the East Lane Soil and Water Conservation District and the Long Tom Watershed Council, Dale is recreating the wetland habitat that once existed there. He has connected natural drainages between creeks and sloughs, established native prairie grasses, and planted riparian shrubs and trees. His goal is to create habitat for migratory waterfowl and songbirds and other native wildlife such as the western pond turtle.

Dale's interest in conservation stems from his love of outdoor recreation. "I'm big time into nature and hiking and hunting," Dale says. "Sometimes people don't understand hunters. You spend so much time out there in the woods, you really come to appreciate nature.

An old mossy tree with the ferns coming out or a squirrel - that part of it, knowing that you can just come out and watch those geese even though the season's been over for three months; it's great."

Money was the limiting factor for Dale's restoration plans. The grant from the Oregon Watershed Enhancement Board was essential. It funded the numerous technical steps, including excavating acres of ponds, planting 8,000 trees, spraying and mowing around the trees, and monitoring water quality in the ponds. However, the work would not have been possible without staff time from the Oregon Department of Fish and Wildlife as part of its Wildlife Habitat Conservation and Management Program and equipment from the U.S. Fish and Wildlife Service as part of its Partners for Fish and Wildlife Program. The Wetlands Reserve Program's conservation easement, purchased by the Natural Resources Conservation Service, helped Dale recoup some of his upfront costs and maintain the project. "Part of how I make this work is that I put it into the conservation easement," which paid him the value of the agricultural rights, according to Dale.

"If I sell the property, that easement stays with it," Dale says. "It'll be wetlands forever. They pay me to not work the land, which basically pays off the property. So now I've got this property restored and I'm loving it. Also, they're going to help me manage it from here on. If one of those dikes breaks, they'll be out here to fix it. There's money out there to get this wet prairie to where we need it."

The involvement of so many agencies created opportunity for the project. "What's so neat is that when you put them all together, these guys look at the big picture," Dale says. "One says 'We've got over 200 acres of habitat restoration going on here and all we have to do is provide free staff.' Another says, 'All we got to do is give them equipment.' So while each agency has a small part, you put them all together and you have one big partnership. It works really well."

At the same time, the number of players also made the project time-consuming and unwieldy. Dale cautions other landowners about the challenge of coordinating grant applications and meetings with multiple agencies and organizations. A "one-stop shop" is one of Dale's suggestions for how to improve landowner assistance programs. He thinks that consolidating all the offerings into a single package that one agency administers would make the conservation process more navigable for landowners.

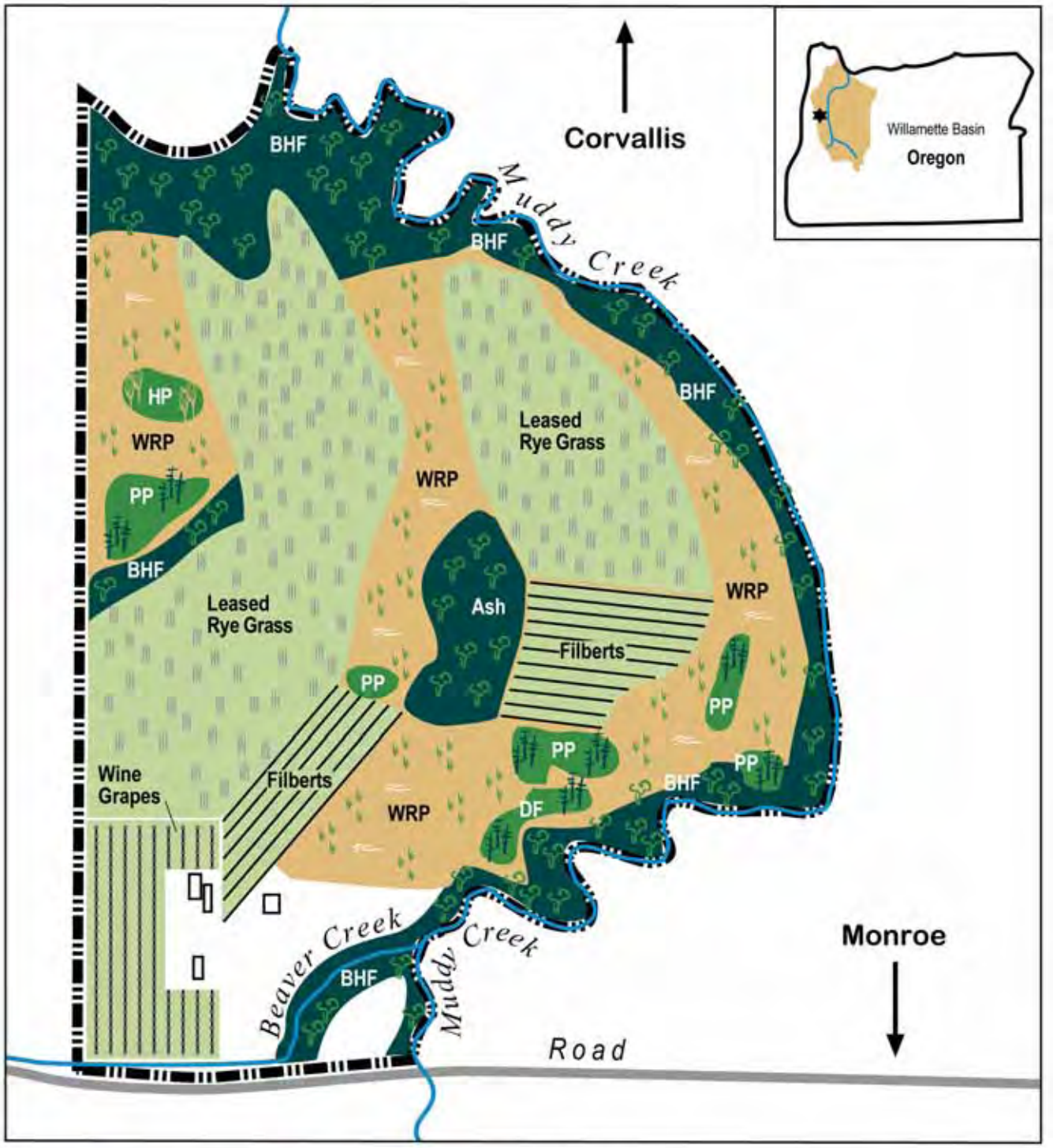
Dale sympathizes with landowners who fear involving the government in their private land management. His neighbor withdrew from the Wetlands Reserve Program just before the final signing of the deal, for fear of forfeiting control over his property and autonomy in his decisions. "Everything you do, from here on out, [the government] wants to know about it," says Dale. "But I'm not going to do anything that doesn't fit the plan anyway, so it doesn't really affect me. Also, they [the Natural Resources Conservation Service] reserve the right to come back and change the agreement at a later date. Some guys interpret it to the letter. But I'm not worried. If they tried to take [my hunting rights] away they would have such a can of worms on their hands."

Dale is less apprehensive than other landowners about interacting with the government. His past job gave him the experience and skills for working with government agencies. "I used to work for the city for so long,"

he says. "I kind of know how things work. I'm used to the politics, red tape and that kind of stuff, so it wasn't a problem for me."

Despite the challenges of working with landowner assistance program, restoration has been a rewarding endeavor for Dale. His eyes light up when he points out the wetland plants reclaiming a pond's edge. "We planted some native seed, but most of this stuff is coming up on its own," he says. "It's amazing. [The agency partners] told me this would happen. They said, 'That stuff is in the soil, it's in the seed bank.' I was like, 'Oh yeah, right.' It's been there for how long, 40 years, 50, 60? I don't know, but the very first year we had native stuff coming up. I mean there's cattails, smartweed, manna grass - stuff that we've never planted and its prime native wetland stuff. The waterfowl just love it."

Dale isn't dismayed by the sacrifices he's made to restore his land, even the financial ones. "The only way I would ever make money on this is if I sold it to someone that wanted to hunt it or put a house on it," he says. But Dale says he doesn't ever want to sell the land. He enjoys it too much for hunting and birding watching. "Someday it will get passed down to my kids," he says. "They may elect to sell it. I don't know how much they'll get out of it with the easement on it. It's not near what regular farmland would sell for. It's an asset, but that's not the main reason I did it. As long as I can break even, it's worthwhile."



WRP Wetland Reserve Program
PP Ponderosa Pine
DF Douglas Fir
HP Hybrid Poplar
BBF Ash Hardwood Bottomland Forest
Ash Forest
Farmed Land
Buildings
Property Line

N

Buchanan Property

460 acres, Benton County

0 0.1 0.2 0.3 0.4 0.5

Approximate Scale in Miles

DAVE BUCHANAN: *Continuing the family tradition of protecting sensitive riparian systems*

County: Benton

Acres: 460

Land use: Agriculture (filberts, wine grapes, grass seed), conservation, forestry (hybrid poplar, Douglas-fir, ponderosa pine)

Habitats: Oak savanna and woodlands, wetlands, riparian areas, bottomland hardwood forest, native grasslands and prairie

Programs: Wetlands Reserve Program

Dave Buchanan is the fourth generation of his family to farm the fertile banks at the confluence of Muddy and Beaver creeks in the Marys River watershed in Benton County. His daughter plans to be the fifth generation. Placing his property in a 30-year conservation easement through the Wetlands Reserve Program allows Dave to protect the habitat values of his land in the near future while giving his daughter a decision-making role in the long term.

A former fish biologist, Dave values the riparian and wetland attributes of his property. While he continues to earn income from cultivating filberts and wine grapes and operating the Tyee Wine Cellars, conservation is his priority. With the help of the Wetlands Reserve Program, he is restoring wet prairies and wetlands and expanding the bottomland hardwood forest on 246 acres of his 460-acre property. In addition, he is creating habitat for specific at-risk species. He is working with a friend to provide habitat for the endangered Fender's blue butterfly by planting its threatened host plant, Kincaid's lupine. He is also planting milkweed for the monarch butterfly and other rare native plants such as Roemer's fescue.

The risk of having his land use restricted because of the presence of threatened and endangered species doesn't worry Dave. "In most cases people will be allowed to farm and do what they have to do," he says. "I think society's laws are going to change some." Dave is more concerned with promoting wildlife diversity. "At this point in my life, I've learned how important ecology is and, in the [Willamette] valley, it's getting limited," he says. "A little oasis like this is so important for a diversity of species. Some species are

starting to disappear. I want to do my little thing to try to keep some of these species going. Certainly, if I have a few species of some kind of rarity on the place, it enhances diversity."

Without the Wetlands Reserve Program, large-scale habitat conservation would be impossible for Dave. "I'm sure those fields would be sitting in rye grass," he admits. Dave needs the financial benefits that the Wetlands Reserve Program provides in exchange for retiring the farmland. "Even though my heart is in the right spot, part of me wants to earn an income too," he says. "It's more a carrot than a stick. I guess that's why it's been successful for landowners - because it gives them the opportunity to do things on a conservation basis."

Following in the footsteps of his father, who opposed flood control efforts to straighten out Muddy Creek, Dave believes working with the land is necessary in order to protect and restore delicate systems like wetlands and riparian areas If you go in with cats [caterpillars] and rat around, it's going to take about five years to get the habitat where it's actually going to help the species," Dave says. "These engineer-driven systems, where you go in with your cats and redesign the whole landscape, aren't good for the species. We've done that in streams, we've straightened them and taken all the wood out of them, and we've screwed them up. I'm much more excited about planting native trees, letting it go and seeing what happens."

With the help of the Wetlands Reserve Program, Dave plugged the ditches that his forefathers created to drain the fields. He stopped cultivating rye grass and grazing livestock. He was pleasantly surprised at how little effort it took to restore the fields to native wet prairie. "We thought we'd have to go in and spray and plant them with native grasses," he says. "But the rye grass drowned in the first year of flooding, and all these native seeds just went, 'poof!' It was their first chance in 60 or 70 years. Holy boom! - immediately we had all this diversity; it was a huge surprise."

While Dave's experience with the Wetlands Reserve Program has been positive, he does see room for improvement, especially in the application and implementation processes. "There's a lot of paperwork and a lot of sitting around and planning," he says. "Once you decide what you want to do, it usually takes a year or so before you can do it because you have to do the survey and have all the meetings and get the permits. I think some farmers get a little tired of all that. It wouldn't be a bad idea if it could be streamlined or written out more simply for farmers."

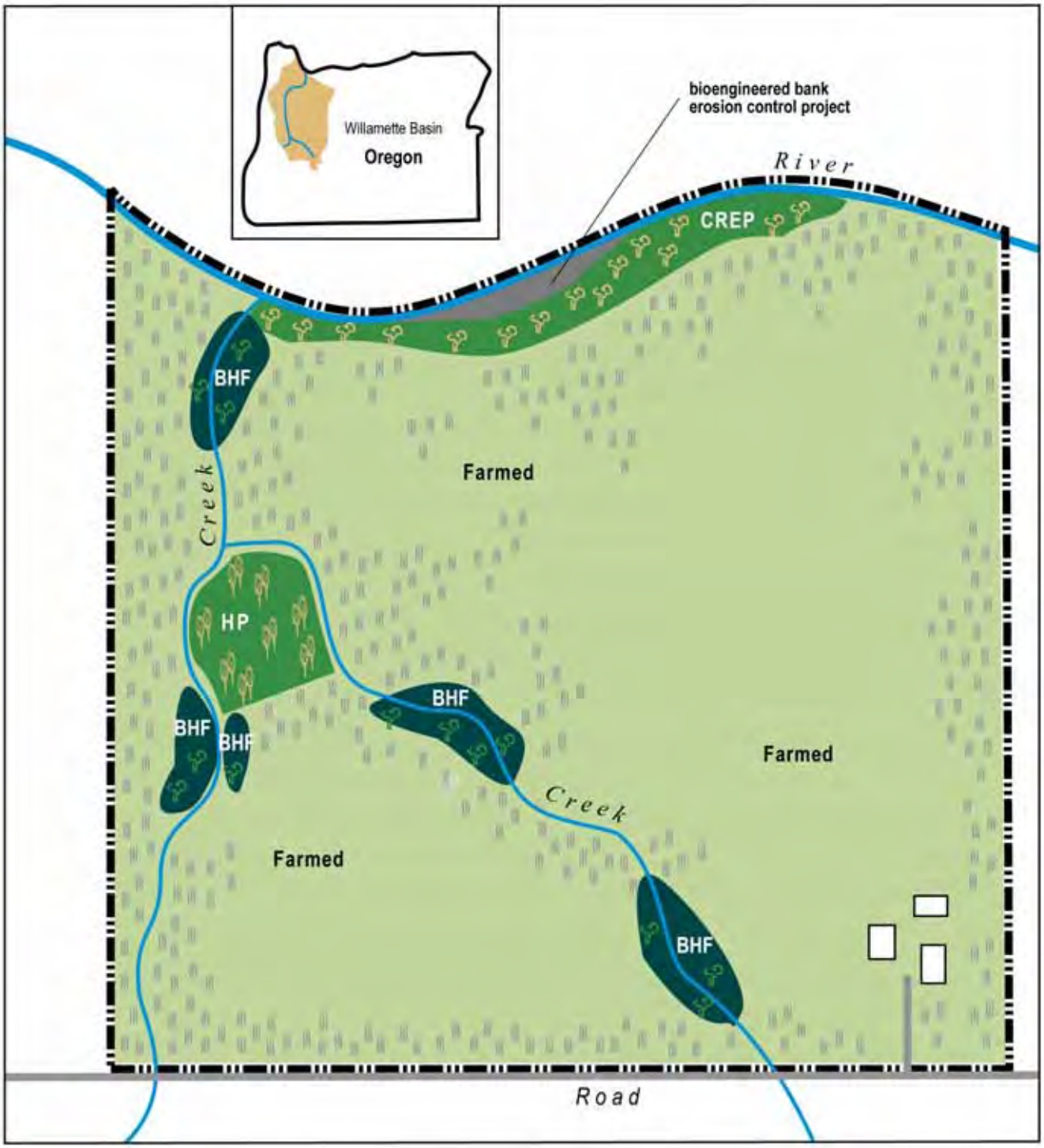
Dave also thinks there needs to be more technical support for landowners. "A third party advocate could get more farmers to sign up and help you get through the process," he says. "We did an awful lot of trial and error in our planning. At a very minimum, somebody ought to put on workshops for farmers. People who have gone through this, like myself, could give talks to landowners that are thinking about it. I would hate to see somebody have to go through all the steps that I did, like not use any Round-up on your trees for the first two years; even if you're satisfied with a 10% survival rate, you won't get one."

Maintenance is another constraint to restoration that Dave thinks programs such as the Wetlands Reserve Program should address more explicitly. "The disadvantage is that after five years, there's no money in the program to keep this stuff going," he says. "If they just had a small program that would help

me recoup some of my costs for spraying to keep the invasives down - a small maintenance type program - it would be helpful."

Finally, programs need to be more selective about the landowners they enroll, according to Dave. "I know landowners that got involved in a conservation program to build a pond to water their livestock," he says. "This one guy, as soon as he got his pond, actually went in there with a cat and destroyed his riparian habitat along the creek. That was a wrong choice of a landowner." In Dave's view, programs should make sure landowners are genuinely motivated to do conservation. "Maybe it's just a matter of, when you sit down with a potential landowner you have them list some things and sign some things and say 'this is the way that I want to do it from a conservation standpoint,'" he suggests.

Dave's dedication to habitat conservation is strong enough that he will pursue it with or without assistance from government programs. His long term vision for his land will require more than the one-time tasks of planting seeds and unplugging dikes; it will involve constant suppression of reed canary grass and other invasive species. "I want to see open prairie out there," says Dave. "That's my goal. What a battle. I don't know if it'll be a reality, but seeing all these natives starting to come up is so exciting; I have enough of a desire to keep this going that I'll fund it myself if I have to."



CREP — Conservation Reserve Enhancement Program

HP — Hybrid Poplar

BHF — Bottomland Hardwood Forest

Buildings

Property Line

"Campbell" Property

~1000 acres, Schematic drawing

N

0 0.1 0.2 0.3 0.4 0.5

Approximate Scale in Miles

“MIKE CAMPBELL”: *Farming responsibly while protecting private property rights*

County: Anonymous

Acres: ~1,000

Land use: Agriculture (vegetables, wheat, grass seed), forestry (hybrid poplar), conservation

Habitats: Wetlands, riparian areas, bottomland hardwood forest

Programs: Conservation Reserve Enhancement Program
Oregon Watershed Enhancement Board - Grant

Mike Campbell" (a pseudonym) and his family have farmed their 1,000 acres along a major river in the Willamette Valley for over a century. They have faced floods, droughts, and now, environmental regulations. "It's getting tougher to find the positives in farming with all the restrictions that we're facing," says Mike, "but we enjoy the farm life. It's nice to go out and realize that you've done a good job on your crops. I suppose that's primarily why we do it."

The Campbells grow sweet corn, sugar beets, squash, wheat, and rye grass in the swaths of rich soil between the banks of the river and several tributaries and sloughs."Most of this ground was in big trunks of trees when I was a boy and my dad and my uncle cleared it," Mike says."Those things we did then, we are in no way allowed to do today. I'm glad we did it when we could. If we knew what was coming, we would have cleared more ground."

A few stands of bottomland hardwoods still line the tributaries and sloughs. Mike doesn't see any particular value in them for conservation. "Those are just something that we haven't cleared, partly for flood control," he says. "We could go down there and clear them and farm it, but it wouldn't be much of an advantage to us. Plus, we've got a nice picnic site down there."

Mike recently planted some more hardwoods and shrubs in a 150-foot riparian buffer that he retired from farming through the Conservation Reserve Enhancement Program. The program provided funds for planting and compensation for not farming the land. He filled the remaining 30 feet of the program's

maximum 180-foot riparian buffer strip with grass to catch any agricultural sprays that might drain into the river. He also received an Oregon Watershed Enhancement Board grant for bioengineered erosion control. Mike is happy to have been able to make some effort toward controlling erosion because every winter the river erodes his valuable farmland and reduces his overall acreage.

While Mike has worked on bank stabilization with government agencies since the 1960s, he is reluctant to enter into any other government programs unless it's absolutely necessary. He feels it's a risk to his control over his private management affairs. "I know of projects that have been killed because of agency people coming in and throwing their authority around," he says. "So a lot of guys are reluctant. They wonder, are they dealing with someone upfront or are they dealing with somebody that's going to come around and knife them in the back?"

Mike regrets that he once asked an agency employee to visit his property to confirm that he was complying with the terms of one of his farm operations permits. The employee found that all but of one of his systems was in compliance. "Instead of making a recommendation, they made a threat of a citation," says Mike."But they left the figuring out of how to fix the problem to me. It took me months. Had I not ever talked to them, I wouldn't have had to worry about that."

Mike's objection to many of the landowner assistance programs is that they require "full farm compliance." Mike says that the requirement that all farm operations meet a program's standards, even though the program assists with only one operation, is unfair. "It doesn't address the specific items that you want done," he says. "It entails everything. If you've got a problem, you fix it, and then move on to the next problem. Frankly, it's not going to make a better farmer out of me, having someone looking over my shoulder and saying, 'you're doing a bad job.' I can look out there myself and say, 'I'm doing a bad job.' But I'm going to be the one that fixes it because it's not in my best interest to do a poor job."

Another reason why farmers are hesitant to use landowner assistance programs, according to Mike, is that the terms aren't clear or reliable.Mike says assistance providers change the rules halfway through the application process and take control over projects away from landowners. "This happened to me on the Conservation Reserve Enhancement Program," he says. "They changed a rule and I had to go in and sign off on that. But then there was more paperwork. I thought it was all done and it kept dragging out." He says this is especially true with the cost share programs. "You've got your cost sown, you turn in [your receipts] and expect to be paid. Well, they come back and say, 'Oh, it turns out that isn't allowed.'"

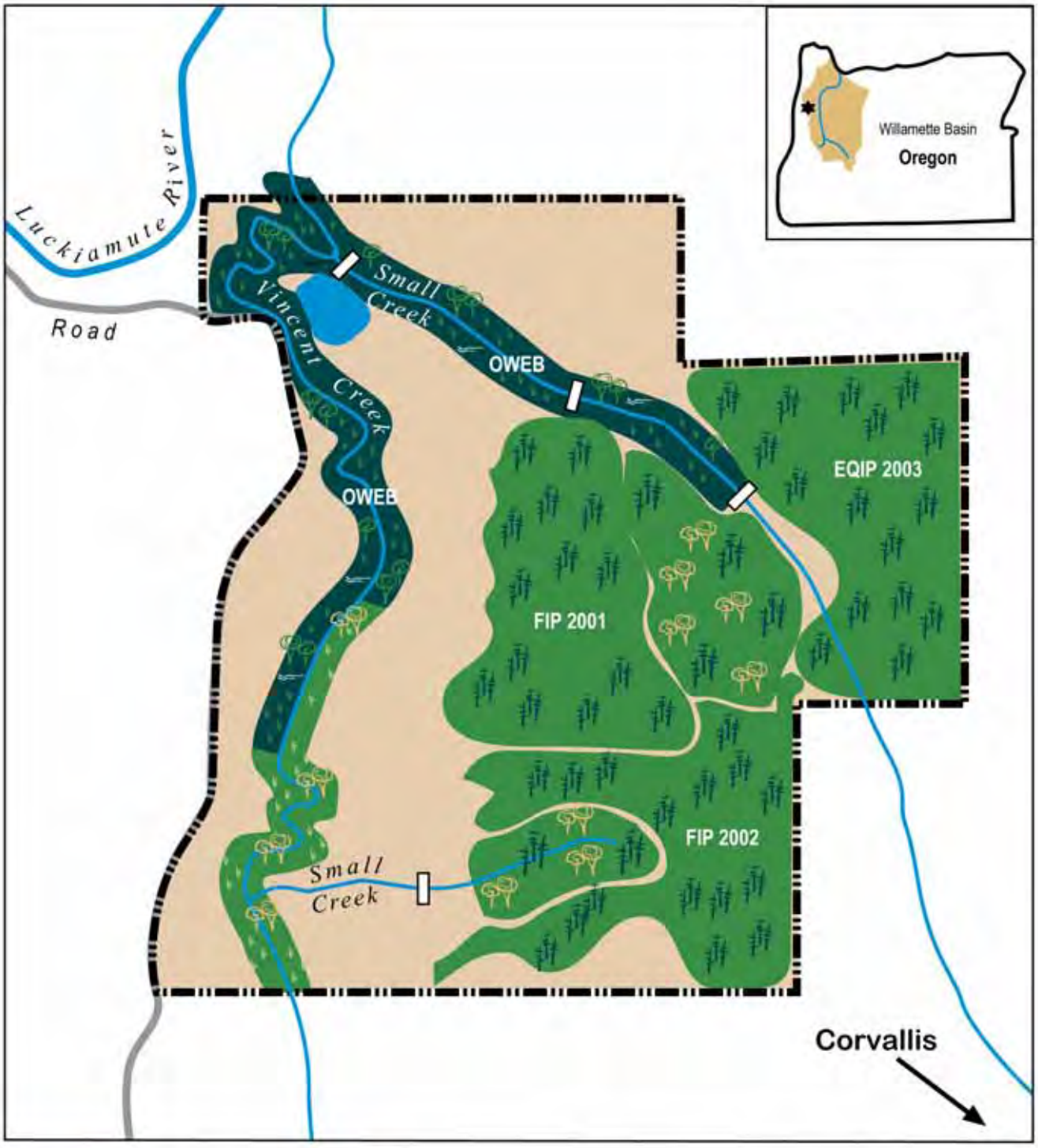
Mike says the success of programs has a lot to do with the personnel: "You need somebody that thinks outside the box, that can look at a program and say, 'OK, we can tweak it; we can get what you want done and still meet the requirements.'" Agencies need to be flexible and must work with landowners if programs are going to meet their needs, according to Mike. He complains that agencies don't pay attention to landowners. "They don't realize there's pretty valid local information out there," he says. "You can tell from some of these new ideas coming from some of the agencies, it's clear that they don't listen to the local input."

Looking out onto one of his intact bottomland hardwood stands, Mike argues that agencies

not only discourage needy landowners from participating in assistance programs, but they also penalize the landowners who are practicing good management. He says forestlands with 70% or more canopy cover don't qualify for the Conservation Reserve Enhancement Program because they're in too good condition. "Where's the incentive for the guy who's already doing a good job to do a better job?" he asks.

Walking along the edge of a field, Mike points out some duck nesting boxes in nearby trees. "We do some wildlife management," he says. "Those boxes attract flying squirrels, owls, wood ducks, starlings, and all sorts of things. We also bring in a government trapper to try to get rid of the beaver problem."

When asked if he would consider enrolling in a landowner assistance program for creating more wildlife habitat, Mike says "We've got our wildlife habitat. We're not getting paid for it. We're not under any obligation to anyone for it. Somebody would have to show me something that would make it look really beneficial to do anything different. But the question I would have to ask first is 'what kinds of strings are attached?'"



FIP — Forestry Incentives Program

EQIP — Environmental Quality Incentives Program

Other Upland Forest

Culvert repair, replacement or removal (OWEB)

OWEB — Riparian Restoration (OWEB)

Existing Riparian Area

Lowlands with mixed habitats (non-forested)

Property Line

N

Ehlers Property

340 acres, Benton County

0 0.1 0.2 0.3 0.4 0.5

Approximate Scale in Miles

DAVE EHLERS: *Restoring oak and riparian habitat in a conifer plantation*

County: Benton

Acres: 340

Land use: Forestry (Douglas-fir, ponderosa pine), conservation

Habitats: Riparian areas, oak woodland

Programs: Stewardship Incentives Program
Forestry Incentives Program
Environmental Quality Incentives Program
Oregon Watershed Enhancement Board - Grant

It started out that I wanted a fish pond - that was the real reason," Dave Ehlers admits when recounting his decision to buy the 340 acres of land that he is reforesting and restoring for wildlife. During his search for property, he learned that he could buy timber land cheaper than the agricultural land he was considering. He would be able to grow a commercial tree crop while he and his family enjoy the land for other reasons. "Now I'm a tree farmer. I'm doing God's work," Dave says playfully. As a friend once told him, "Tree farmers get into heaven for free."

And a resourceful tree farmer Dave is. Even before closing on the property, he began researching landowner assistance programs that could help him manage and restore his land. Within three years he developed a management plan through the Stewardship Incentives Program. He replanted 120 acres logged by the previous owner with commercial tree species through the Forestry Incentives Program and the Environmental Quality Incentives Program, which help offset the costs of management for non-industrial private forest owners. Dave also planted 20 acres of riparian area with hardwoods and conifers, created seasonal ponds for cutthroat trout spawning habitat, and improved fish passage by replacing small culverts with large ones. He undertook these restoration projects with a grant from the Oregon Watershed Enhancement Board and technical assistance from the Oregon Department of Fish and Wildlife and the U.S. Fish and Wildlife Service. Dave also got his pond: a multiple-acre deep-water body complete with stocked fish and a dock, which he put in on his own dime.

"I did these programs because it's a no-brainer," says Dave. "It's free money, free work, free resources." Landowner assistance programs are helping Dave achieve the multiple objectives he has for his land. "The wildlife stuff we wanted to do because we wanted to make this a better place. From an economic standpoint, it makes sense to plant trees. It's also an aesthetic thing, and pure enjoyment for me. It's a recreation thing for me and my family."

Dave's land occupies the ridges and valley of the Vincent Creek drainage, which is a tributary to the Luckiamute River in Benton County. In its current state, the parcel is a timber plantation with conifer stands in varying stages of regeneration. But it is clear from the large, open-crowned oaks that are scattered throughout the conifers and clustered on the hill tops that the land once supported oak woodland and savanna.

Dave's original goal for his land was to have a recreational place that also functions as an investment. "That way the kids won't have to pay any money to run it. They'll manage it and produce timber to continue to make funds," he says. "Eventually, enough money will be saved up and the thing can pay for itself. Potentially, we could stop logging."

Along the way, Dave has come to value the conservation opportunities on the land. "All this is great habitat," he says. "Even if we put it mostly in trees, there's going to be all these little open areas. And that's what the wildlife guys say we really need: habitat diversity. Those oaks and the open lands and the grasslands are what they're really trying to save. And then there's all the other benefits, like water conservation, cutting down on soil erosion, cooling the environment down, taking up carbon dioxide, and producing oxygen."

Dave, a radiologist, admits he's lucky that he's in a lucrative profession. For him, "The economic stress of managing land isn't as great as it would be in other households." Even so, Dave relies greatly on landowner assistance programs. "[The work] would have gotten done eventually," he says, "but we would have had to pay more money, so it may not have happened as quickly."

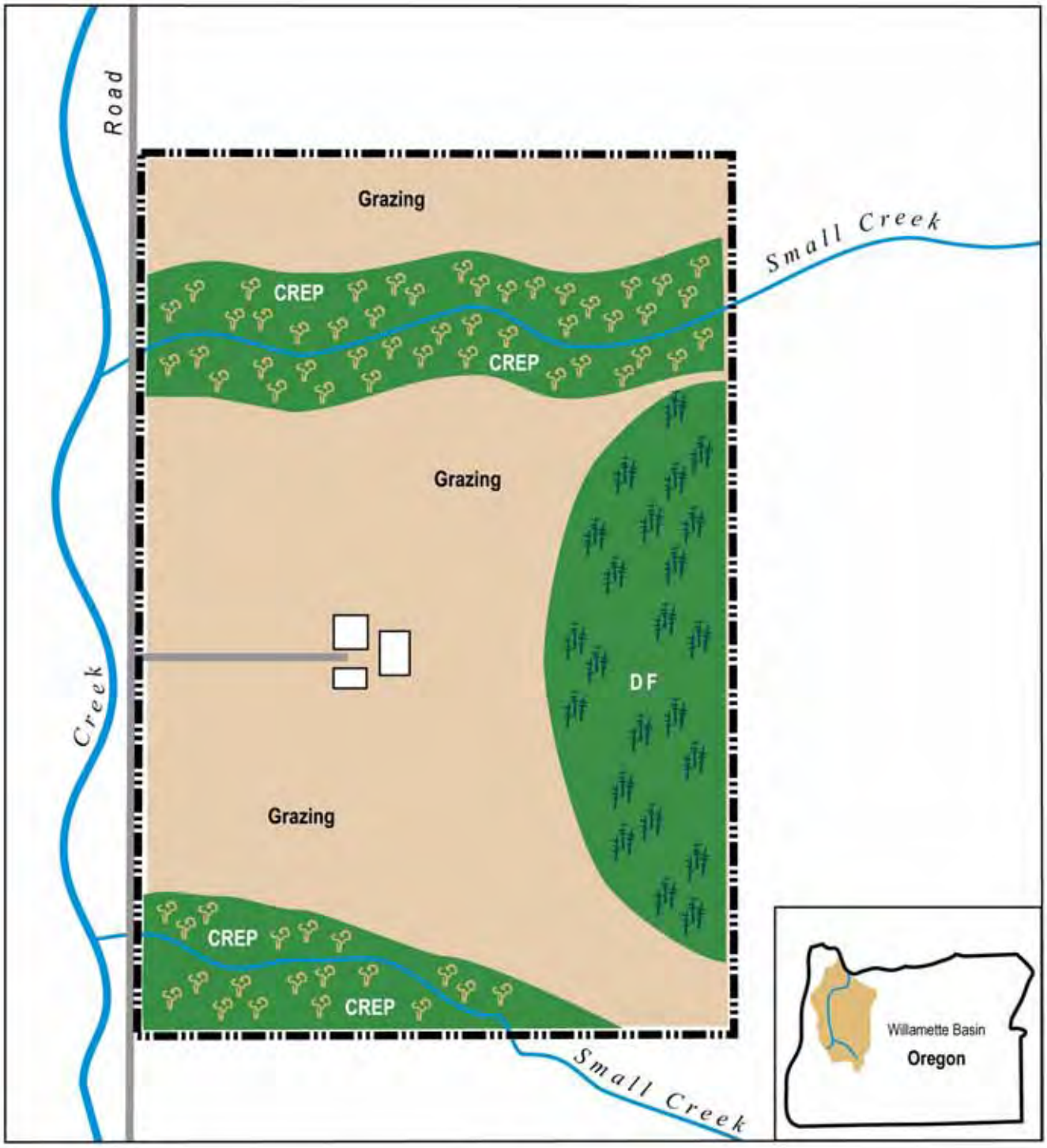
Like many landowners who have experience with assistance programs, Dave acknowledges how daunting the research and application processes are. "There's a bazillion resources out there," he says. "You just have to dig into it a little bit and ask around. That's how I found out about all these different programs. I also talked to people who had participated, and that made me feel more at ease about entering into the programs."

Even though Dave considers himself to be a fairly aggressive negotiator and adept at dealing with government, he feels lucky to have had help. In his view, the Oregon Watershed Enhancement Board grant applications are onerous and not user-friendly. "I never would have gotten this done if those guys from Oregon Department of Fish and Wildlife hadn't held my hand through the whole process."

The average person is at a disadvantage when it comes to landowner assistance programs, Dave says. For instance, the Oregon Department of Fish and Wildlife only focuses on big projects, he says, leaving the majority of people, who have small parcels and modest plans, without support. Also, landowners have to carry costs until the end of the project - a minimum of nine months - to get reimbursed Most people don't have enough money in the bank to do this. Agencies need to develop relationships with contractors who will carry costs and recommend them to

landowners, according to Dave. Finally, Dave senses that most people that are raised out in the country and whose families have lived in rural areas for multiple generations have a strong distrust for government, which prevents them from considering the mostly government-administered landowner assistance programs.

Despite the limitations that Dave recognizes for other landowners, he is satisfied with his own experience with reforesting his timberland. He is also excited about the prospects for enhancing the property's wildlife habitat values, for which he has a new appreciation since participating in the programs. Dave's management plan protects all large oaks on the property as well as setting aside five acres of ridge-top land for oak regeneration. In this oak management area, he will let the existing conifers grow big enough to harvest and then exclusively promote the oaks. In hope of creating a forest of diverse age classes on the rest of his property, Dave is going to practice uneven-aged management. He will selectively harvest conifers and replant logged areas with a mix of species. His goal is to turn his forest into old growth.



CREP Conservation Reserve Enhancement Program

DF Douglas Fir Plantation

Buildings

Property Line

N

"Marshal" Property

~500 acres, Schematic drawing

0 0.1 0.2 0.3 0.4 0.5

Approximate Scale in Miles

“STEVE MARSHAL”: *Overcoming social barriers to conservation in the grazing community*

County: Anonymous

Acres: ~500

Land use: Agriculture (grazing), forestry (Douglas-fir), conservation

Habitats: Riparian areas

Programs: Conservation Reserve Enhancement Program
Oregon Watershed Enhancement Board - Small Grant

People in the grazing industry have hard questions about why we are giving up that land from production," explains "Steve Marshal" (a pseudonym), recounting his decision to set aside more than 50 acres of creek-side grazing land for conservation. "I struggled with it. There's a cultural thing about it: you have that land, you're supposed to be using it. I mean, the pioneers were down there rooting out those rocks and stumps for grazing ground. I was concerned that I was going to be an outcast in my society."

Steve, his wife, and his extended family collectively own about 500 acres of grazing and timber land along a tributary to the Willamette River in an area that is identified as a conservation priority. The grass is green and tall. There is no evidence of cows, even though the Marshals just finished their season of grazing and sold the last of the year's stock several days before.

Despite the stigma that the grazing community places on conservation, the Marshals enrolled in the Conservation Reserve Enhancement Program, which pays rent on every streamside acre that they remove from grazing and replant with native, non-commercial tree species. They also obtained small grants from the Oregon Watershed Enhancement Board to install livestock exclusion fencing along the creeks and pipe water to troughs in the fields.

While Steve is not convinced that there's a connection between agricultural practices and the status of salmon, he's happy to take land that's considered critical habitat out of production for other reasons. The riparian area is very difficult to manage for grazing. "Cows

running up and down the river is a problem," says Steve. "They become wild and resist your efforts to herd them." The creeks also provide habitat to game birds such as pheasant and quail and other wildlife that the Marshals value. Conservation is engrained into the Marshals' approach to management, says Steve. He doesn't use any fertilizer, chemicals, or machines in his fields. "This type of resource can be vastly better managed without all those things," he says. "From an economic standpoint it works out better too. You do stuff that makes the grass healthier, you make more money."

The Conservation Reserve Enhancement Program provides a reasonable economic return on practices that make sense from conservation and management standpoints, which makes it a very attractive program in Steve's view. However, Steve is concerned about his ability to manage his project in the long term. He received very little technical assistance from the Oregon Department of Forestry with planting the trees in his riparian reserve lands. Now he is losing many of his seedlings to competition from the grass. "Agencies say they don't want to interfere in landowners' practices, but they don't realize that people need assistance more than privacy," Steve says. "If I had technical support in the beginning, I wouldn't be having this moisture control problem."

Having so many agencies involved in landowner assistance programs is problematic, says Steve. In his view, the Oregon Department of Forestry didn't provide adequate technical support with his tree planting because they're not invested in it. "While they aren't in charge of the program, they're expected to support it," he says."From an agency standpoint, if it's not your money, how much time are you going to spend on a project?" Steve recommends simplifying assistance programs by consolidating funding and technical support in the same agencies.

Steve also identifies cultural barriers to participation. "There's a bias against programs in the [local] livestock industry," he says. "Out in the Midwest, everyone's farming the program; it's part of their culture, they've been doing it so long. Here, we've never had significant assistance programs in the livestock industry."

More importantly, Steve is concerned that agencies that administer conservation programs and grants aren't in touch with their target groups, especially the grazing community. "Grazing operators are really self-focused and independent; they're not plugged in," he says. "They're just doing their own thing. Most of the people around here who do cattle are not into the business side of it. They're lifestyle-minded; they live in the country, got a little piece of dirt, run some cows. They have no relationship with the Soil and Water Conservation District, the Oregon Watershed Enhancement Board, or watershed councils."

Wearing a weathered cowboy hat and a threadbare western shirt, Steve looks like a rancher. But a college education in biology and a job in water management give him an outsider's perspective on grazing operators.

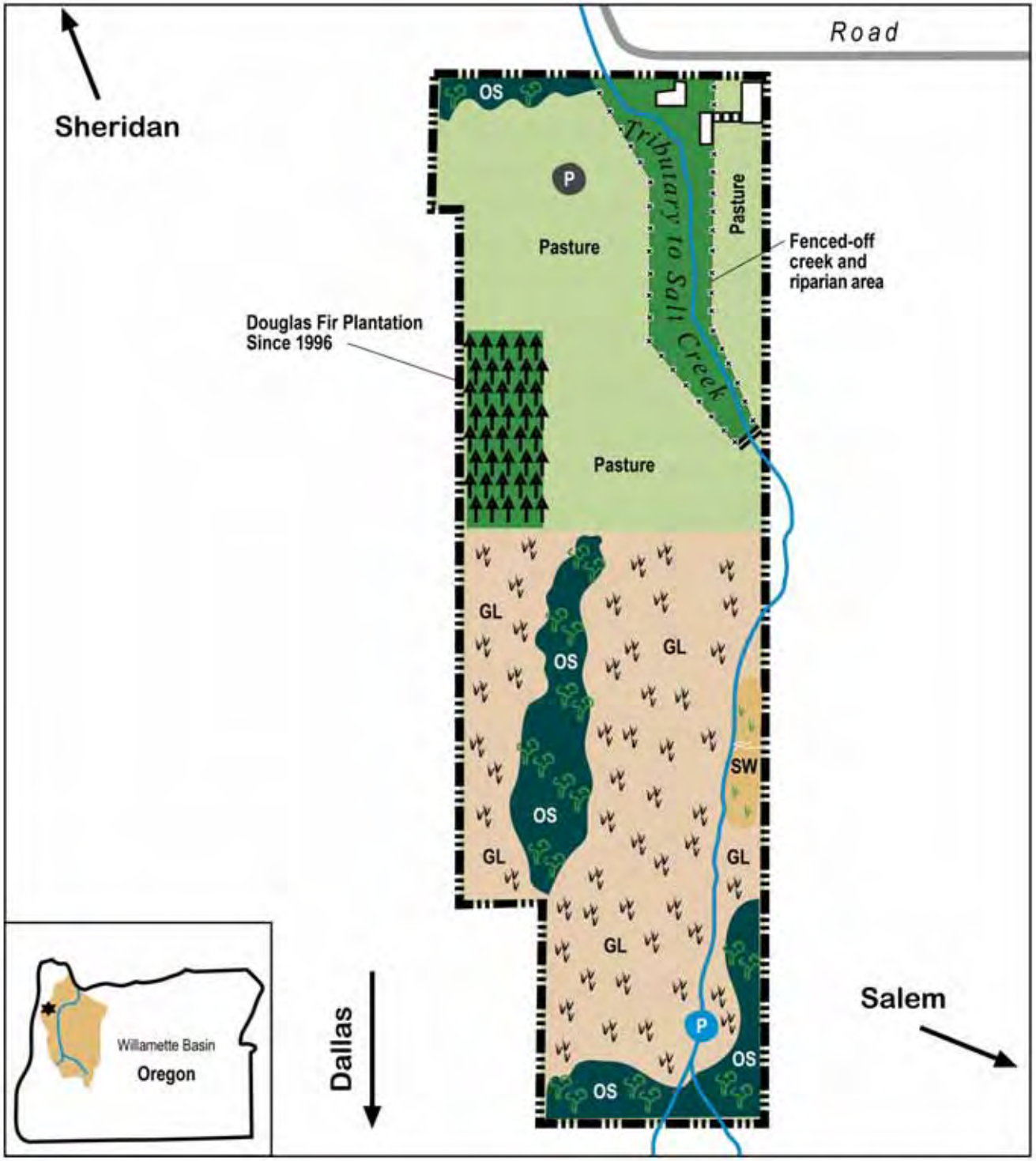
"The reason people irrigate is not that they want to dry the stream up and hurt fish," says Steve. "They think they're doing a good thing. They're not going to stop doing it because someone says it would be nice if we had more salmon." For this reason, Steve thinks the riparian buffer required by the Conservation Reserve Enhancement Program is problematic. "For many people, it's their most productive ground, the highest quality soil, the most significant, central part of what they have."

While most grazing operators aren't compelled by conservation, he admits that because most aren't business-oriented either, "It doesn't mean much to them that the Oregon Watershed Enhancement Board wants to send them a little money every month for changing their management practices."

Steve doesn't know what kinds of incentives will encourage conservation in the agriculture community, but he feels strongly that outreach needs to come from agencies and organizations that grazing operators trust. Those that tout conservation don't have credibility among farmers and grazing operators and shouldn't try to provide assistance for conservation, he says.

"Watershed councils' relationship to the agricultural community is weak," asserts Steve. He says most people in his community aren't familiar with the watershed concept or aware of councils. "The boards of watershed councils are populated by people who are really interested in conservation, not by the average farmer," he says. He also thinks that the Oregon Watershed Enhancement Board is an inappropriate vehicle for assistance to farmers, in part because of its focus on conservation.

Steve thinks that agencies that provide programs to the agricultural community need to have credibility with farmers and grazing operators. "If the target audience is the agricultural community, it's got to come from an agricultural organization," he says. "The soil and water conservation districts and the extension service - these are more rational places for funding to originate from if the work's going to be done on agricultural land."



SW Seasonal Wetlands

GL Grass Lands

P Pond

OS Oak Savannah

Property Line

Wood Production

Buildings

Bridge

N

Zuger Property

102 acres, Polk County

0 0.1 0.2 0.3

Approximate Scale in Miles

CRAIG and YOLANDA ZUGER: *Mimicking natural processes to restore oak savannas*

County: Polk

Acres: 102

Land use: Agriculture (pasture), forestry (Douglas-fir), conservation

Habitats: Oak savanna and woodlands, wetlands, riparian areas, native grasslands and prairies

Programs: Wildlife Habitat Conservation and Management Program
Agricultural Conservation Program (former program with Farm Service Agency)
Forestry Incentives Program (former program with Farm Service Agency)

"How this valley must have looked two or three hundred years ago!" exclaims Craig Zuger, looking out over acres of scrub Oregon white oak with his wife, Yolanda."It was all native grasses and open groves of oak or large singular oak trees. Every time the prairie got hot, natural fires would go through and clean the understory. We're getting good at putting fires out, but the land pays for it in the long run."

Craig and Yolanda own 102 acres of oak woodland and prairie west of Baskett Slough National Wildlife Refuge in Polk County. Their goal is to create the wildlife habitat that was characteristic of the area 200 years ago. "We could probably plant it all in Doug-fir, but we don't see a reason to do that - it's not the best habitat," explains Yolanda. "We're trying to revert it to native habitat because we feel it's the highest and best use for it."

"That's why we've been burning," explains Craig."We'd like to see it return to more of a natural grassland area." In addition to mowing and cutting the exotic species and understory vegetation that are encroaching on their prairies and open woodlands, Craig is using controlled burns to mimic the role that natural fire used to play in thinning oaks and releasing prairie plants. He learned to use fire by burning agricultural fields while growing up on farms in the Willamette Valley. "You have to read the conditions that allow for a safe burn, like when the ground's wet, very early in the spring, and you have to avoid the time when critters are nesting," he says.

The Zugers are also restoring the riparian area along their stream, which they fenced off to livestock in 1995 with the help of a program through the Natural Resources Conservation Service. "I've burned alongside this creek,"

says Craig. "It's absolutely as lush as can be. There's more columbine and lupine." Yolanda agrees: "It's amazing to watch a stream heal. It's just incredible when you see what you can do when you quit screwing with it. How resilient nature can be!"

The Zugers began their most recent restoration efforts in 2003 when they realized that they could afford to use their land for conservation instead of livestock grazing by participating in the Wildlife Habitat Conservation and Management Program with the Oregon Department of Fish and Wildlife. For decades, Yolanda's family had continued to raise sheep for tax reasons despite dwindling economic benefits. "Sheep prices were falling and New Zealand sheep started coming in," Yolanda recounts, "and after a while you were raising sheep all year round to not quite break even." As long as they comply with the conservation objectives and management practices in their wildlife habitat plan, the Zugers can maintain the tax deferral that comes with their Exclusive Farm Use tax assessment without having to engage in a farm activity.

The Zugers have seen many changes since starting their restoration program. "We're up to 50 species of birds," says Craig. "Our newest addition is an acorn woodpecker. With some of the clearing we've done out back to open up the creek area, we have a lot more chorus frogs and rough-skinned newts." The Zugers have also identified the endangered Fender's blue butterfly on their property. "We like having endangered species and we'd like to know if we have more. We're not afraid," says Yolanda. "I know that there are a lot of landowners out there that go to great lengths to not let people find out that there are protected species on their land. Personally, we feel if it's a desirable type of land for that species, that's where it should be able to go."

While Craig and Yolanda are thrilled at the progress they've made toward restoring habitat, they are intimidated by the amount of work that lies ahead. "I don't know, at this rate, that I will ever stay ahead of the game," says Craig, "which raises the question of what can we do on a larger scale to help wildlife and also make things more manageable? We're kind of stalled."

The Zugers thought that entering into the Wildlife Habitat Conservation and Management Program would open the door to more restoration opportunities. But they say no agencies have approached them about doing specific conservation projects. "We'd love it if somebody was there to hold our hand," says Craig, "because there are a lot of things that we know, but I don't want to go out there and, with the best intentions, do something and then screw things up."

"We don't care which program," says Yolanda. "We don't care if we, personally, ever get a penny." The Zugers just want somebody to provide the technical and financial resources that are necessary to implement the restoration goals that they think should be in the interest of both the state and themselves.

Reflecting on what worked with the riparian fencing and the reforestation programs they participated in before, Yolanda recalls that the programs addressed "opportunities that would have been extremely expensive to do on your own, yet there was a high need for it." There was no question about what needed to be done. "At the time, there was a real push to fence off riparian areas," she says. "The guy at the Natural Resources Conservation Service took a personal interest, came out to the property, and pushed things through. It was on a very local level."

Their current options for restoring native prairie and oak savanna are less clear. "Where do you find out about what to do?" wonders Yolanda. The Zugers recommend that agencies create a more streamlined process to attract landowners. "It's confusing for a lot of landowners, all the entities that are involved," according to Yolanda. They say a central hub is needed where landowners can access information, funding, and technical assistance. The hub could be a public or private entity. "We have no aversion to working with anyone," she says, "just as long as we share a common agenda, the ultimate goal, of turning it into the best possible wildlife conservation land."

The Zugers think agencies should be more strategic in providing assistance to landowners for conservation. They feel it was through luck that they enrolled in the Wildlife Habitat Conservation and Management Program. Yolanda inquired about the program after she came across a flier through her job as a realtor. "It almost lessens the importance," says Craig. "It's like 'Oh, you found us, and since you found us, let's get you into the program.'"

"I thought that once we got our wildlife conservation [status] we would get information in the mail from government agencies," says Yolanda. Instead, they feel they've been left on their own. Craig recommends that agencies identify landowners and areas that are conservation opportunities. "There's so much agriculture around, and all the vineyards going up and the grass hay, and then there's these pockets of opportunity, little populations, just like mini-preserves, that you need for the preservation of certain species. They should give these places priority, and a little more consideration."

POLICY IMPLICATIONS AND RECOMMENDATIONS

Policy-makers and program providers need to understand the perspectives and management contexts of landowners, to encourage and reward them for conserving at-risk habitats on their lands. Programs and policies rely on assumptions about the knowledge, motivations, and capacities of the groups they target. These assumptions must reflect prevailing landowner characteristics if programs and policies are to be effective (Schneider and Ingram, 1990 and 1992; Schroedel and Jordan, 1998). What knowledge can landowners contribute to conservation? What opportunities for conservation do landowners offer? What limits landowners' participation in conservation? In this policy section, we attempt to answer these questions to suggest how programs can reach out to landowners more effectively.

As the preceding portraits reveal, landowners have diverse perspectives on conservation and assistance programs. Some landowners are knowledgeable about the habitat types on their lands. Many are willing to manage their lands for conservation purposes if they can meet their other objectives at the same time. All have insightful recommendations for assistance programs. They identify simple inconveniences as well as large-scale strategic and social challenges. They also suggest technical and institutional improvements. This report synthesizes these landowners' insights to identify implications and suggestions for policy change. The findings are not based on formal policy analysis or program evaluations. Instead, the findings are presented as options, from the perspective of landowners, which can be further developed into policy recommendations.

BENEFITS AND OPPORTUNITIES OF ASSISTANCE PROGRAMS

Landowners see a number of benefits and opportunities in assistance programs. Most importantly, almost all of the landowners interviewed acknowledge that they cannot undertake conservation on a large scale without assistance programs. Assistance programs provide not only the financial but also the technical resources necessary for conservation.

Most of the landowners interviewed emphasize the importance of wildlife in describing their reasons for owning land. Assistance programs help them attract the wildlife that they enjoy viewing or hunting. Some even say that conservation programs can help them fulfill a moral responsibility to provide habitat for native wildlife species that are declining in their area. By creating opportunities to make large-scale and permanent conservation improvements, assistance programs allow

landowners to leave a natural legacy for their children and future generations to enjoy.

Landowners also point out the economic benefits of assistance programs. Rental payments and tax incentives allow them to set aside land for conservation yet still earn economic returns that are comparable if not better than those from traditional land uses such as farming and grazing. Financial assistance can help landowners make better use of lands that are marginal for agriculture or forestry.

The reasons these landowners cite for owning land and the benefits they see in assistance programs are similar to what other studies have documented about non-industrial private landowners. Individuals and families that own farm and forest land typically rate amenity objectives such as wildlife, views, and recreation as having value equal to or greater than income production (Bliss and Martin, 1989; Huntsinger and Fortmann, 1990). While many landowners are knowledgeable about the biological diversity of their lands and believe they can improve ecological conditions through management, they feel that external market forces constrain their ability to manage their lands in the way that they want (Fischer and Bliss, 2004).

Finally, landowners appreciate assistance programs for offering "carrot" instead of "stick" approaches to conservation by employing incentives and rewards instead of penalties. Two of the landowners interviewed note what an exceptionally good deal these programs really are. They anticipate that regulations are going to require conservation practices in the near future anyway, so why not voluntarily do them now while technical and financial assistance are available?

BARRIERS AND SUGGESTIONS FOR IMPROVEMENT IN ASSISTANCE PROGRAMS

1. Accessibility

Landowners repeatedly mention the inaccessibility of assistance programs. Not only is it difficult for landowners to find out about government programs and other kinds of assistance, but the application and implementation processes are unnecessarily complex.

Landowners suggest that agencies should publicize programs more widely. Agencies should streamline their application and implementation processes. They should make programs more user-friendly by using language that landowners can understand, require fewer meetings with fewer entities, and improve their response time to landowner requests for information and applications for assistance. Several landowners suggest a role for a third-party advocate to help landowners navigate through different programs and their application and implementation processes.Having access to experienced landowners' advice, perhaps through workshops, would also allow new participants to understand programs and avoid unnecessary challenges that previous participants faced. Landowners also mention that new participants could save time and effort if they had a list of recommended contract workers and techniques for specific conservation activities such as clearing, planting, and spraying.

2. Credibility

The credibility that agencies and organizations have with landowners is a crucial social factor in whether landowners participate in conservation programs, according to the landowners that were interviewed. The landowners indicate that some assistance providers often aren't in touch with their

target groups. They don't know how to encourage conservation because they don't know what motivates landowners. Some ownership groups, like grazing operators, don't want anything to do with organizations that promote conservation, according to one landowner, nor would they enroll in government programs solely for economic benefit. These people are motivated by other values, such as maintaining a simple, unfettered lifestyle based on a straightforward approach to raising cattle. Other groups, such as large-scale farmers, are motivated primarily by economic gain. Only a small subset of landowners that may benefit from assistance programs are motivated by conservation alone.

Private property rights are a major concern for landowners, and the credibility that an organization has with landowners can determine the extent to which fear over losing these rights precludes participation. Some landowners are reluctant to let anyone else share in their rights and in the control of their property. Several landowners mention that they fear they may forfeit some of these rights by entering into agreements with government agencies or inviting government employees onto their properties. However, other landowners would gladly give up a little privacy in order to have better access to technical and other assistance.

The landowners interviewed recommend that programs be consolidated into individual agencies or organizations that have the most credibility with target groups. To maintain that credibility, some landowners say that agencies should market programs based on economic and management benefits, not conservation benefits. However, other landowners believe that agencies should make conservation assistance available only to landowners who are sincerely interested in conservation.

The landowners believe that agencies should work within the credibility that they already have with landowner groups. In addition, they should also learn more about what might motivate different kinds of landowners to engage in conservation. Assistance providers should invest time in gaining an understanding of the knowledge and capacities that landowners have for conservation, their reasons for working the land, and which incentives might encourage management for habitat and natural functions. With this information, agencies can better reach out and tailor their programs to specific ownership groups. In doing so, agencies will improve their credibility with landowners.

3. Program Delivery

Landowners interviewed for this report share a number of views about the institutional barriers to delivery of assistance programs. Similar to their complaints about accessibility, the landowners note that excessive administrative requirements confuse potential participants and discourage them from applying for assistance programs. Most of the landowners say that too many agencies and organizations are involved in the application and implementation processes, although some landowners value the diverse resources that different agencies can contribute to a project. It's difficult for landowners - even those with prior experience with government - to navigate through the application process, negotiate terms, implement conservation changes, and coordinate between all the players. One landowner is so exasperated from his participation in the Conservation Reserve Enhancement Program that he is willing to forego a portion of his rent payments or use his own funds to pay for a consultant to help him with future program applications and projects.

At the same time that landowners want to streamline application processes, some suggest that program criteria aren't strict enough to screen out landowners with other motives unrelated to conservation. They say that some applicants aren't genuinely interested in conservation but just want to tap the financial and technical benefits of programs.They suggest that agencies interview and learn more about potential participants to make sure they share the goals of the conservation programs.

Another problem landowners identify is that in some cases agencies without fiscal responsibility are expected to provide program support but have little commitment to ensuring on-the-ground success. One landowner provides the example of the Oregon Department of Forestry, which is supposed to provide technical support for tree planting to landowners enrolled in the Conservation Reserve Enhancement Program. He says that because state foresters are not ultimately accountable for the success of the program, they aren't interested in investing a lot of time and energy in helping landowners to complete specific tasks such as establishing native hardwoods in riparian areas.

Finally, some landowners criticize agencies for not being strategic enough in administering their programs. Instead of reaching out and targeting programs to landowners with high conservation values on their land (a strategic approach), program providers allow chance to determine which lands are enrolled in programs (an opportunistic approach). A landowner who is knowledgeable and motivated enough to apply may receive funding regardless of the conservation value of his or her property.

To solve these organizational and strategic problems, landowners suggest two primary changes to assistance programs: a central hub that provides one-stop program shopping for landowners, and a strategic approach for agencies to identify and pursue landowners with the best conservation opportunities.

a) Central hub for one-stop shopping: Landowners suggest that administering all programs from a single agency, or from fewer agencies, may improve landowner participation. Replacing the current system - in which more than five agencies administer over 20 programs - with one-stop shopping would help eliminate confusion and complication that landowners experience when looking for assistance. This way, landowners who are interested in accessing funding or technical assistance for a specific conservation or management objective could find out about the range of available management practices and assistance programs. Consolidating administration and technical support for programs into single agencies could also solve the problem of lack of commitment by agencies that are not financially invested in programs. In addition, if the agency that serves as the hub has credibility with an ownership group, landowners would be more comfortable participating.

An important question about a one-stop shop approach to program administration is: which agency or organization would be most appropriate to serve as the central hub? Funding for landowner assistance programs comes through multiple government agencies — local, state, and federal — as well as some private organizations. Does a new entity need to be created to serve as the interface between all these funding sources and interested landowners? Can so many organizational cultures and agendas be fused into such a hub? If one agency or organization could serve all landowner groups, which one should take on

this role? Since credibility is a concern, wouldn't a different entity need to administer programs for different ownership groups?

Another issue related to the credibility of assistance providers is the distrust that some landowners have of government agencies. Some landowners prefer to minimize or avoid interaction with government agencies, while other landowners need more technical and/or financial assistance than they can currently get from agencies that deliver or support programs. A coordinated approach to program delivery needs to consider these factors.

While it isn't clear which agency would best serve all ownership groups, landowners do suggest characteristics of agencies that make them effective and trusted assistance providers. Repeatedly, landowners mention the role that dedicated individuals play in their decisions to pursue conservation. In all cases these individuals are experienced, charismatic people with technical expertise, who have worked for an agency or in a community for many years. The agencies that successfully administer landowner assistance programs employ people with social and technical skills and retain them for long periods of time.

When asked where they seek out management advice, many landowners say that the extension service is the most reliable and trusted source. Several farmers indicate that the local soil and water conservation district is the organization they turn to for assistance. A grazing operator says that while the grazing community doesn't typically seek out government assistance, as members of the agricultural community, they would most likely identify with soil and water conservation districts. However, some landowners are frustrated by the lack of experienced staff and high turnover rates in districts.

Some landowners are enthusiastic about working closely with watershed councils and other conservation groups, while others feel that their interests aren't well represented by these groups and are hesitant to engage with any organization they perceive to be focused on conservation. A study of family forest owners' knowledge and beliefs about biodiversity indicates that few landowners are familiar with the watershed concept or know which watershed their lands are located in (Fischer, 2003a). Nonetheless, a broader watershed or ecological perspective plays an important role in prioritizing conservation efforts to ensure their biological effectiveness. Landowners with a special interest in wildlife emphasize how helpful and effective the Oregon Department and Fish and Wildlife and U.S. Fish and Wildlife Service are with providing assistance.

b) Strategic targeting of conservation assistance:
Some of the landowners interviewed suggest that agencies need to be more strategic in delivering assistance if they want to engage owners of lands that are high priorities for conservation. Agencies should prioritize geographic areas and natural resource attributes for conservation assistance, they say. They should seek out landowners to participate in programs and receive assistance based on the size and location of their land and the extent to which it supports high priority native habitats. Assistance programs also need to reward good stewardship of habitats, not just assist with restoring damaged habitats. In addition, agencies should favor landowners that are knowledgeable, capable, and willing to commit time and energy to conservation projects.

Agencies may be able to operate more efficiently by dedicating their limited time and

funds to ownerships with high ecological and social conservation potential. The challenge in identifying such landowners lies in the lack of availability of information and the challenges in obtaining it.

When this project attempted to identify landowners to interview based on ecological factors (at-risk habitat types and location in conservation priority areas), no map indicated, with accuracy, whether specific properties meet these criteria. Ecological factors, such as habitat type, species diversity, structure, and land uses can be entered into digital map layers. Such a digital mapping tool for the Willamette Basin has become available since these landowner interviews were done (www.willametteexplorer.info). However, the new website does not yet include property boundaries and only covers a small part of Oregon.

The social factors that overlay the natural landscape are complex, dynamic, and hard to quantify and map. Obtaining information about landowner knowledge, values, management behaviors, capacities, and motivations involves direct communication with landowners, and is very time consuming and labor-intensive. However, despite the work involved, it is important to obtain social information about landowners and enter it into digital map layers.

Maps of ecological variables can be overlaid on maps with social variables to identify the landowners with the highest potential for conservation. A scoring method can quantify all variables to facilitate identifying the highest priority conservation opportunities. In addition, the overlaid maps can be used to understand the spatial distribution of ownership types and other social factors that impact ecological conditions and the potential for conservation. This approach requires a significant investment of time and funding and personnel with social and technical skills.

In the short term, while ecological factors can be mapped fairly readily but social factors cannot, conservation opportunities can be identified using maps of high priority conservation areas. Owners with lands that have high ecological values can be contacted and offered access to conservation assistance programs, preferably through trusted sources. This strategic approach to program delivery relies on personnel that are technically skilled and socially savvy.

4. Fairness vs. Flexibility

Landowners have conflicting concerns about fairness and flexibility of assistance programs. Several of the landowners interviewed are concerned that assistance providers impose more restrictions on some landowners than others in the same program. One landowner notes that his contract prohibits him from constructing permanent duck-hunting blinds in his new wetlands but his neighbor has no such restriction.

At the same time that landowners are concerned about programs' equal treatment of landowners, they also want programs to be flexible to meet landowners' individual needs. Some landowners feel that conditions for conservation easements and other arrangements are often more rigid than necessary. One landowner is particularly concerned about whole farm compliance requirements of programs like the Environmental Quality Incentives Program. Others want decisions about land use restrictions to be made on a case by case basis.

The landowners that we interviewed do not offer any specific suggestions about how programs can overcome the barriers of

fairness and flexibility. In some ways, their complaints are contradictory. It may be helpful to explore their concerns in more detail to find out whether changes can be made to programs.

5. Financial Burdens

While landowners feel that programs provide adequate financial and technical assistance for initial implementation of conservation projects, they are concerned that programs do not adequately support ongoing maintenance. In particular, landowners fear they do not have the expertise or funds to ensure survival of plantings as program contracts require. These landowners suggest a maintenance fund for ongoing conservation practices. Such a fund could augment the rents and payments that landowners already receive so they can pay for controlling competing vegetation, controlling invasive species, and replacing failed plantings.

Another financial concern is carrying the costs of conservation activities until landowners can get reimbursed at the end of the project. Cost-share programs place a heavy temporary financial burden on landowners. One suggestion that landowners make is for agencies to develop agreements with contractors who will carry costs until projects close and agencies make payments. Another possible solution is a revolving loan fund that landowners can use to cover costs until they can get reimbursed.

CONCLUSIONS AND NEXT STEPS

The Willamette Valley landowners interviewed for this project have diverse opinions and experiences with conservation and assistance programs. From the stories that they shared, this report draws lessons for how programs can better meet their needs. The report describes the opportunities and barriers that landowners see in assistance programs and their suggestions for improvement. It integrates their insights into recommendations for policy. Some of the recommendations may be familiar to people who have worked with landowners on conservation. Many of the landowners' concerns have been stated before, such as those related to financial burdens, flexibility, and accessibility. Others, such as their comments on credibility and program delivery, bring new insights to policy discussions.

The next step that project sponsors could take is to conduct a series of focus groups with landowners, agencies, and conservation organizations. The focus groups would complement the individual interviews by providing an interactive context for discussions of conservation and assistance programs. Focus groups are group interviews, with 6 to 12 individuals, that allow participants to relate ideas and respond to comments by other participants. Such participatory approaches to policy analysis foster mutual problem framing, problem solving, and social learning (Freire, 1970), which are necessary for designing policies that address the real-world needs and capacities of target groups (Fischer, 2003b). The focus groups might shed light on policy implications of the landowners' knowledge about their lands and habitat types, their motivations and capacities for engaging in conservation, and the constraints and opportunities that affect their management decisions. With this additional information, supporters of more effective incentive programs could develop recomm endations for how to better tailor assistance programs to the needs and interests of landowners.

LIMITATIONS OF STUDY METHODS

This project faced two main limitations. Interviewing landowners individually limits the kinds of information obtained. In individual interviews, people's moods and recent experiences influence their responses to questions. Also, with no one else around to check them, people often portray themselves and their activities in an ideal light. In addition, the brevity of individual interviews, often lasting only two to three hours, limits the amount of information one can obtain. Individual interviews may not be the forum most conducive to landowners sharing their visions of ideal assistance programs for conservation. Few landowners appear to have thought enough about "the perfect assistance program" to articulate what such a program would look like in detail. Instead, they share an assortment of concerns, frustrations, and suggestions, which this report merges into policy recommendations.

Another limitation is that of representativeness. While the landowners we interviewed are typical of landowners who use assistance programs, they are not typical of all private landowners. Most of the landowners in our sample do not earn their entire income from their land. Most of the landowners own small to medium-sized parcels and manage for multiple objectives, including income, recreation, conservation, and aesthetics. Most have higher education degrees and professional employment experience. Landowners were identified through assistance providers and other project partners, who are naturally familiar with landowners who have participated in programs. If landowners had been selected randomly from the population of all private landowners, the sample of landowners would have been more balanced. This report would have been able to reach better conclusions on how to make assistance programs more useful to the average private landowner. However, members of a random sample may not have had the level of experience with assistance programs and interest in habitat conservation necessary to contribute meaningfully to policy recommendations.

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