

- Pg. 1 – Simulated Beaver Structures Provide Many Benefits on Rural Land*
- Pg. 2 – Developing a Conservation Farm Plan Can Make Your Land Work for You*
- Pg. 3 – Native Tree Planting Can Be the First Step towards Conservation Farming*
- Pg. 4 – Cowlitz County VSP Conservation Partners*



Photo Credit: San Francisco Chronicle

The VSP Voice



Simulated Beaver Structures Provide Many Benefits on Rural Land

Beaver populations once numbered in the millions across the North American continent prior to European settlement in the Colonial days. Their prolific numbers were nearly wiped out by trappers throughout the 1700s and 1800s as their fur was used to make hats and their castoreum for making of perfumes.

Unbeknownst to mankind, the absence of these animals from local waterways would remove a critical biological factor that provided important benefits to the natural processes that make up a healthy, functional watershed — and ultimately contributed to the rapid degradation of local water resources across the United States.

Pacific Northwest watersheds are dynamic, ever-changing systems comprised of complex physical, biological, and chemical processes that interact as precipitation collects in a drainage basin, and then uses gravity to follow the contours of the land as it flows back to the

Pacific Ocean to continue the **Water Cycle**.

Natural beaver activity contributes greatly to the survival of native fish & wildlife populations. **Instream habitat complexity** for aquatic life is increased as newly installed wood structures are added to local streams.

Natural beaver activity contributes greatly to

species like amphibians, and benthic macroinvertebrates – visible mollusks, crustaceans, and larval forms of insects, like dragonflies, mayflies, caddisflies, & other nymphs. These benthic macroinvertebrates are a valuable food source for juvenile fish.

Natural and imitation beaver structures



Members of the Northwest Youth Corps construct a Beaver Dam Analog (BDA) structure in the upper reaches of the Coweeman subbasin with the Lower Columbia Fish Enhancement Group.

also provide multiple benefits to mankind, as well. By adding coarse materials into degraded streams, water velocity decreases – permitting the formation of deep, cold pools; allowing fine sediment to settle, thereby improving water quality; reducing risk of flood damage to landowners and communities downstream; and creating a first line of defense against the spread of wildfire.

Beaver structures, whether natural or manmade, also raise

the recovery of dwindling native fish & wildlife populations. The loosely formed dams and complex woody materials returned to the natural watershed system, slow down the flow of waters, forming deep pools behind them, and providing valuable refuge and resting habitat for juvenile and adult salmonids. These same pools provide breeding and rearing habitat for other aquatic

lowered water tables that have resulted over decades from **channel incision** – where down cutting has occurred over time due to the removal of large woody debris from the natural system.

To find out more about BDAs, the NW Youth Corps, and your Regional Fish Enhancement Group contact:

www.nwyouthcorps.org
www.lcfeg.org

Are you interested in Conservation Farming?
Sign up for the VSP today!
Contact: Mark Taylor
taylor@co.cowlitz.wa.us
 or call: (360) 577-3042, Ext. 1-6660

S **Developing a Conservation Farm Plan Can Make Your Land Work for You**

o you've recently inherited farmland from your elders, own acreage out in the countryside, or are in the process of purchasing some, and would like to put your land to work for you.

Property taxes aren't cheap, land use regulations can be confusing, and you'd really like to maximize how you can use your land, but want to be a good steward and protect the beauty and natural functions of the local waterways under your care.

The first step to developing an Individualized Stewardship Plan (ISP) can be as simple as contacting an organization or agency dedicated to helping landowners make the best use of their land.

Cowlitz County Voluntary Stewardship Program (VSP) staff can assist with your planning needs, and can also introduce you to other cooperative partners who can assist with conservation planning and seeking financial assistance through Cost-Share programs.

Conservation Districts (CDs) have been assisting landowners across the U.S. since the "Dust Bowl" era (1945) first brought to our nation's attention the need for soil and natural resource conservation. There are 45 Conservation Districts in Washington State, and Cowlitz Conservation District has friendly, knowledgeable staff available to assist. VSP's and CDs partner with the USDA-Natural Resource Conservation Service (NRCS) who has simplified the Conservation Planning Process down to nine steps.

Step 1. Identify the Problems and Opportunities associated with your land. While many farms may have similar issues that they must address when keeping their land productive, each farm is unique unto itself, and so every conservation farm plan will essentially be an Individualized Stewardship Plan that best addresses the concerns and opportunities unique to your land.

Step 2. Determine Objectives – Conservationists help identify the property owner's goals and objectives, while also taking into consideration the natural resources on the land that may interact with planned farming activities.

Step 3. Inventory Resources – document natural resource critical areas, which for VSP include: wetlands, frequently flooded areas, critical aquifer recharge areas, priority fish & wildlife, habitat, and

geologically hazardous areas.

Step 4. Analyze Resource Data – conservationists can provide technical assistance with plan development so that the land's limitations and potential can best be evaluated in order to allow farms to maximize production without degrading natural resources. Best Management Practices (BMPs) based on science can help reduce soil erosion; prevent loss of valuable farm land through stabilization of collapsing streambanks; protect water by reducing sediment transport; enhance habitat for fish, wildlife, & native pollinators; and improve soil health. The accumulative result – regenerative farming practices that increase farm productivity over the long haul, while protecting water quality and conserving & enhancing natural resources.

Step 5. Formulate Alternatives – the NRCS lists over 160 BMPs

to select from when developing conservation plans. Resource issues identified by landowners are taken into account, along with additional resource issues that might also need addressed. Farm production needed to keep the business economically viable is also considered while formulating alternatives to resolve issues through a well-thought-out conservation plan.

The NRCS has U.S. Farm Bill-funded cost-share programs available to help offset the financial expense of putting conservation practices into

place on the farm.

Step 6. Evaluate Alternatives – conservationists can evaluate current resource issues the landowner wishes to address and explain the various alternatives (BMPs) available **to best resolve issues.**

Steps 7 (Make Decisions) and 8 (Implement the Plan) are self-explanatory and it's up to the landowner to choose their own course of action. **Step 9. Evaluate the Plan** – as conservation planning is an ongoing process, evaluation of the success of conservation practices in place will identify if revisions to the farm plan are needed.

For information regarding USDA-NRCS cost-share programs, and to learn more about your local conservation district visit the following websites:

www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/farmbill

<https://cowlitzcd.wordpress.com/>



*Sunset on the farm at "The Patch" in Woodland, Washington
Photo Credit: The Donald Family*

Native Tree Plantings Can Be the First Step towards Conservation Farming

Deciding to implement conservation farming practices on your land is a step in the right direction towards building a long-lasting legacy of strong land stewardship. And while the USDA-Natural Resource Conservation Service (NRCS) literally outlines over 160 Best Management Practices (BMPs) on their national website, the first step towards deciding how to get started once you've created an Individualized Stewardship Plan (ISP) or Conservation Farming Plan can be as simple as planting native tree seedlings. Before planting native tree seedlings you'll want to do some research. There are a few factors that you'll want to take into consideration as you develop a planting palette (layout) for your land.

You may want to cover the following areas: Who? What? When? Where? Why? How? and How many?

WHO?

Exactly who is going to help me plant hundreds of trees? Planting of tree seedlings can be a lot more physically taxing than you can imagine, if you have never attempted such a project before. As the average age of the American Farmer is 62 years old, you may find that you don't quite have the stamina that you had in your teens and early twenties. It might be best to try to recruit, train, and reward a team of volunteers to assist with the planting. Local schools, churches, community service groups, environmental organizations, and youth groups such as Scouts, 4-H clubs, and FFA chapters, might get involved. You may find anglers, & outdoor enthusiasts who love nature might enjoy helping, as well.

WHAT?

What species of trees should I plant? A natural forested area would have a good mix of coniferous and deciduous trees that will grow to different heights, crown diameters and densities to create a well-vegetated safe-

haven rich in food resource(s), with an abundance of breeding & refuge habitat(s) needed to support a thriving, sustainable population of natural biodiversity.

You'll also need to determine WHAT tools, equipment, and materials will be needed to complete the tree planting project: shovels; possibly power augers for digging holes for larger trees; gloves; wooden stakes, and protective plastic tubes or mesh netting to prevent predation from wildlife & livestock.



**"The best time to plant a tree was 20 years ago.
The second best time is now."
Chinese Proverb
Photo Credit: The Carbon Capture Foundation**

WHEN?

You'll find that local soils that have high clay content can bake rock hard on pastureland during the dryer summer months between heavy rains. It is best to plant during cooler months when moisture content in the soil is adequate to allow for ease of digging.

WHERE?

To determine where to plant your tree seedling, you must first answer the question of "WHY are we planting in the first place?" Trees planted to enhance riparian corridors are planted along streams to provide shade to keep streams cool in order to increase dissolved oxygen levels for fish

and other aquatic species. Native trees planted in the uplands help reduce soil erosion, provide shade for livestock, create food and habitat for insects, birds, and mammals, for aesthetic value (beautiful to look at), to sequester carbon from the atmosphere to offset climate change, or for timber harvest decades down the road. When planting to stabilize highly-erodible, collapsing streambanks, remember to plant species that thrive near water: willows, cottonwoods, red osier dogwood. And don't forget to research and find out the diameter of mature trunks and tree crowns.

Planting seedlings that will develop into huge conifers, Big Leaf maples, or Oregon White oak tree would best be suited at least six feet back from the edge of the stream, unless you are wanting to have mature tree trunks and root systems partially exposed and under cut by rushing waters – which isn't necessarily a bad thing for native fish.

HOW?

How can I achieve my goal? Who can provide me with technical assistance or free trees? Where do we purchase the seedlings? HOW MANY seedlings do we need to get?

One great resource for landowners is *The Carbon Capture Foundation*, a VSP conservation partner. For more information go to:

www.thecarboncapturefoundation.org

Community Events

VSP Ag. Viability Sub-committee Meeting

3rd Thursday of each month 3:00 PM – 4:00 PM – November 18th, 2021

Please join from your computer, tablet or smartphone.

<https://global.gotomeeting.com/join/636446813>

You can also dial in using your phone.

United States: +1 (872) 240-3311 Access Code: 636-446-813

Silver Lake Watershed Advisory Council Mtg.

No Meeting in November

Cowlitz County VSP Work Group Meeting

December 16, 2021 4:00 PM – 5:00 PM

Please join from your computer, tablet or smartphone.

<https://global.gotomeeting.com/join/636446813>

You can also dial in using your phone.

United States: +1 (872) 240-3311 Access Code: 636-446-813

Cowlitz County Voluntary Stewardship Program
Building and Planning
207 Fourth Avenue North, Rm. 100
Kelso, WA 98626-4124

www.co.cowlitz.wa.us/vsp



October 2021 issue!

Cowlitz County VSP

Dedicated to strengthening agriculture viability through conservation farming practices that protect water quality and enhance environmentally critical areas, and to the promotion of productive farmland(s) so that future generations can choose to farm.

Collaborating Conservation Partners... and participating local landowners!



Toutle River at sunrise. Photo Credit: Janean Reynolds