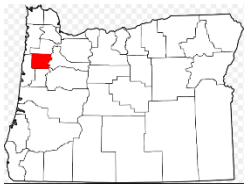
# Strategic Private Lands Conservation Polk County 2018-2023



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POLK

# Section 1. Setting the Stage for Polk County

**Vision:** Deliver the NRCS mission, "Helping People Help the Land" and meet the Secretary of Agriculture's challenge to: "Do Right and Feed Everyone".

**Mission:** Expand partnerships to collectively identify, evaluate and prioritize Polk County resource concerns. Explore solution alternatives and opportunities to leverage funding. Develop strategies to implement effective conservation on the land.

**Purpose:** This document, relays Polk County history of past, present and future conservation efforts. It is a working document that includes annual updates based on input from the Local Work Group (LWG) including progress, emerging issues and shifts in resource priorities identified through the Local Work Group process.

## The Polk County Long Range Plan 2018-2023:

- Explains past and current natural resource concerns and efforts to resolve them through United States Department of Agriculture (USDA) and partner technical and financial assistance.
- Identifies future directions and focus areas based on priority issues.
- Helps prioritize workload and funding invested in conservation projects.
- Helps leverage funding between agencies and conservation partners to more effectively resolve resource concerns.
- Helps improve our landscape perspective by looking beyond traditional practices and consider new opportunities, technology and solutions to solve complex resource concerns in Polk County.
- Tells the story of conservation success.

**The *Polk County Long Range Plan 2018-2023* is posted on the OR NRCS website.**

The Polk County Long Range Plan is a working document that reflects the natural resource concerns in Polk County. Please contact NRCS at the Dallas USDA Service Center with questions or concerns. The document is posted on the OR NRCS website, under Polk County and is available for information, review and comment.

## Background: Geology / Topography and Climate

### Geology/Topography

Polk County is located in northwest Oregon, between the Cascade mountains and the Coast Range in the heart of the Willamette Valley. Dallas is the county seat and the largest town, located in the east-central part of the county. Polk county is bordered by Yamhill, Tillamook, Lincoln, and Benton Counties with the Willamette River as the eastern boundary. The county extends west from the Willamette River to the crest of the Coast Range and is in the Willamette River and Coast Drainage Basins, which drain into the Pacific Ocean. The county is about 470,400 acres or 735 square miles.

The Willamette Valley was formed by two major geologic processes. The first process is accretion from the movement of tectonic plates and the second is volcanism creating the Cascade mountain range. This accretion process created a widely varied terrain. The uplifting of the Cascade Mountains created a barrier to water flow to the south thereby creating the Willamette valley. This region was further impacted by the Missoula floods which occurred about 12,000 years ago. Ice dams that created Lake Missoula in Western Montana, broke and created one of the largest floods in history. Granitic rocks that originated in Montana and Canada can be found throughout the Willamette valley below 400 feet above sea level. The southern portion of the valley accumulated mostly fine sediments resulting in soils having higher clay content, and a very flat landform due to the uniform settling of the fine materials. The Northern portion of the Willamette valley contains larger materials that dropped out of the flood waters early as velocities lowered when entering the broad Willamette Valley. Polk County, located in the center of the Willamette valley, received a mixture of both fine sediment and larger deposits that make up the soils across the landscape.

The eastern part of the county is on the main valley floor and the alluvial flood plain. Low foothills rise to the west and merge into the forested, mountainous Coast Range in the western part of the county. Elevations in Polk County range from 125 feet on

the flood plain to 3,725 feet on Laurel Mountain in the Coast Range. The mountainous area is mainly at an elevation of about 2,200 feet.

## Climate

The climate of Polk County is greatly tempered by winds from the Pacific Ocean. About 15 percent of annual precipitation falls between April and September. Due to extremely light rainfall during this period, crops growing actively may benefit from irrigation. NASS reports 100,000 acres in agricultural production in Polk County; 20,000 acres are under irrigation.

During winter the average temperature is 40 degrees F., and the average daily minimum is 33 degrees. Snow and freezing temperatures are not common except at the higher elevations. Rains are frequent, especially late fall and winter. Precipitation increases, moving westward from the valley floor at 40 inches, to over 200 inches per year in the Coast Range. Average seasonal snowfall is 10-20 inches. On the average, 6 days have at least 1 inch of snow on the ground, but the number of days varies greatly from year to year.

In most winters, one or two storms over the whole county bring strong and sometimes damaging winds, and in some years the accompanying heavy rains cause serious flooding. Every few years, in either winter or summer, a large invasion of a continental air mass from the east causes abnormal temperatures. In winter several consecutive days are well below freezing; in summer a week or longer is very dry, windy and temperatures exceed 100 degrees F. High pressure and warm temperatures during the summer mixed with cool temperatures from the Pacific Coast result in what is referred to locally as the Van Duzer winds which have significant implications in northern Polk County, affecting crop production and also potentially hazardous fire risk in the forest lands.

# History: County Establishment and Development

## County Establishment and Development

Indian tribes inhabited the Willamette Valley 8000 years prior to European settlement. Each tribe occupied distinct geographic areas in the basin. Before Oregon was colonized the Native Americans had maintained the land in their own way to produce foods and maintain access to wildlife. Henry B. Zenk, a noted scholar of the Kalapuyas, wrote in his book, The Kalapuya: A Wealthy Way of Life, "They slash burned just to make the country an open pasture. To make the habitat more conducive to elk, deer, camas, tarweed, and hazelnuts ... The way they managed their land is something they had to work at."

The remnants of the Willamette Valley Indian tribes as well as Indians from other parts of Oregon were settled at the Grand Ronde Indian Reservation, created by treaty in 1857, with more than 1,000 tribal members on the reservation during the 1860's. This sociological change on the landscape significantly altered how the landscape transitioned over the next 160 years. In 1954 the Western Oregon Termination Act severed the relationship between the tribes and the federal government. In 1983 recognition of the Confederated Tribes of the Grand Ronde (CTGR) was restored by the federal government and in 1988, over 10,000 acres of reservation lands were restored to the tribes. There are currently over 5000 tribal members in the CTGR. Though the majority of the CTGR tribal lands are located in Yamhill County, the tribes initiated an elk meadow restoration project to include both Polk and Yamhill Counties and requested assistance from the Polk USDA Service Center to partner with them on that project, cementing a strong working relationship between the CTGR and Polk Natural Resources Conservation Service (NRCS).

The initial settlement of Europeans in the Willamette Valley was by retired employees of the Hudson's Bay Company prior to 1830. People from the eastern United States began settling here during the early 1840's. Polk County was established December 22, 1845 and is named after President James K. Polk. Originally boundaries included all of present day Southwest Oregon to the California border. The county seat was located at Dallas in 1850 and is named after President Polk's Vice President, George M. Dallas. The 3rd and current Polk County courthouse was completed in 1899.

Various small industries were developed in Polk County during the period of pioneer settlement. Among them were gristmills, woolen mills, and saw mills. The first pottery works in the Northwest was established at Buena Vista in 1865. In 1863, a tannery was established in the city of Dallas.

River navigation was Polk County's principal means of transport for goods produced in the county and for incoming supplies. River navigation was displaced after 1890 by railroads as the most important means of transporting goods to and from the county although river boats were still operating as late as 1894.

It was during the period of steam navigation that the town of Lincoln attained prominence as a wheat-exporting port on the Willamette River. For a time, Lincoln was second only to Portland among Willamette River ports in the tonnage of wheat it handled.

Polk County moved into a new era after 1940. The population doubled between 1940 and 1970, increasing from 16,500 to 35,500. The increasing urbanization of the county and the inclusion of West Salem in the Salem metropolitan area are doing much to increase the local economy. As of 2017 the population of Polk County is estimated at 75,000 residents.

As stated by early Polk County pioneers, 70-90 years of age, whose photographs are posted inside the courthouse; they attributed the longevity of the early pioneers to the "Sparkling clean mountain water and fresh air". NRCS is committed to leaving a legacy in harmony with the early pioneers that includes the management of all natural resources critical to the sustainable livelihood, health and well-being of the Polk community.

## Production: Farming/Livestock and Forestry/Woodlands

### Farming/Livestock

As the populations of the county increased and outside markets were developed, wheat and other cereal grains became major crops. By 1870, 52,000 acres of wheat were harvested.

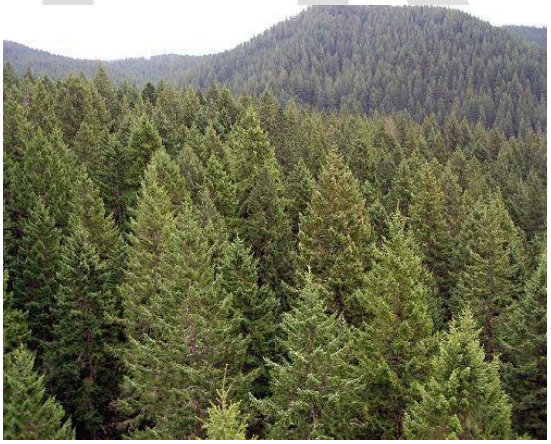
From 1889 to 1899, the acreage of hops, apples, and peaches increased by 50 percent. Introduction of clover and crop rotations were important advances to a permanent agricultural economy. By the turn of the century, the prune industry was established. During this period, dairy products, poultry, nuts and fruits were the major cash crops. By 1920 the dairy industry was well established; prunes plums cherries, and nuts were major crops; and cereal grains increased in acreage. Crop rotations consisted of grain followed by clover and cultivated crops. The 1920 Census of Agriculture reports a total of 1,761 farms in the county. Farms averaged 136 acres.

Most of the major crops, such as cereal grains, orchards, and grasses are grown on the low foothills and the main valley terrace and the major tributary valleys are in cultivated crops: cereal grain, grass seed, fruit and nut orchards, vegetable crops, hay and vineyards. The farming is very diverse. Irrigated vegetable and specialty crops

such as peppermint, cherries and hops, are generally grown on the alluvial bottom lands.
There is a current resurgence in small diverse farm operations selling through local farmers markets. Larger farming operations have transitioned from small grains to grass seed production such as tall fescue, fine fescue, orchard grass, annual and perennial ryegrass. Many producers continue to grow small grains such as winter/spring wheat, oats and barley. Current trends include increased acreages in hazelnuts, wine grapes and a broader spectrum of seed crops such as radish and vegetable seeds.

Polk County also supports dairy farms, poultry operations, beef operations and dairy heifer replacement operations. All are required to work with Oregon Department of Agriculture (ODA) to meet water quality standards. Most of the livestock and farm products are shipped out of the county for processing and marketing.

## Forestry/ Woodlands



Today Polk County is principally a farming and logging area with agriculture and forestry providing the principle economic base for the county. The steep uplands and Coast Range are forested and are managed primarily for timber. Wood and wood products such as plywood, lumber, particle board, and wood specialty products are manufactured locally and are a large part of the income of the county. Polk County's land base is approximately 50% forest land. Most is owned by private industrial timber companies or federal lands.

Fire protection in the rural/urban interface areas has been a high priority for Polk County. In 2009, a partnership between Polk County, Rural Fire Protection districts, Polk SWCD and NRCS developed a wildfire protection plan. Key components include creating defensible space near homes, improved access for emergency vehicles, documentation of available water sources and key infrastructure for fire

protection such as cell towers, dead end roads, address posting, highway safety and education on fire safety and land management. Current challenges on forest land include; fire, insects, laminated root rot, lack of structural diversity which is intrinsic to plantation forestry, and fluctuating markets. Current funding efforts are addressing stand density to improve forest health, understory development and reduce fire risk.

Oak habitat has become an emerging concern over the past decade but initial work by NRCS to improve oak stands dates back to the late1990s with the Conservation Reserve Program and landowners interested in restoring converted cropland back to Oak Savannah. From the early 2000s the Wildlife Habitat Improvement Program WHIP was used to improve oak woodlands and restore oak savannah for improved habitat which supports over 250 species. This effort resulted in varied success restoring the grass understory that is also a critical component to a successful restoration. Knowledge has improved to increase the success of the understory component of restoration with adequate site prep and native species selection. Due to the productivity of the soils and unique climate, development and clearing of oak woodlands continues to remove oak stands today. Oak restoration continues and awareness of the benefits of preserving this habitat is increasing particularly for Habeck Oaks, Airlie Oaks and Eola Hills. These stands are all included in Conservation Opportunity Areas COAs established by Oregon Department of Fish and Wildlife.

**Wildlife:** The presence of wildlife in Polk County is extensive, including, elk, black tail deer, beaver, otter, cougar, bobcat, bear, wild turkey, geese and a host of avian, aquatic and terrestrial species. The most prevalent are the 6-8 elk herds of up to 250 animals and flocks of hundreds of geese that overwinter in Polk County. Both are of concern due to the extent of damage and forage consumption on agricultural cropland. Habitat for cover, shelter and forage is currently insufficient to support current

populations. NRCS is working with partners to improve habitat in oak and conifer woodlands.

## Water Resources: Hydrology, Streams, Wetlands and Irrigation

**Stream Networks:** The Willamette River Drainage Basin is drained by three major stream systems: Luckiamute River, Rickreall Creek, and South Yamhill River. The Coast Drainage Basin is drained by the Siletz River. Historically, the Polk County landscape was covered with a vast network of streams, creeks, meanders, floodplains, marsh and wetlands. Past history records extensive utilization of the river systems to float logs to mills, critical to the forestry industry. Though necessary, the impact to streams and rivers created unprecedented erosion and sedimentation of surface waters. These impacted watercourses have never fully recovered from the channelization, scouring and the denuding of the riparian forest buffer of vegetation which has resulted in bank undercutting and vertical banks problematic to restore and continuing to erode. Successful bank restoration has occurred when bank shaping and a well-planned vegetative prescription was applied with the necessary follow-up maintenance. Nearly all stream reaches, within the county, currently tested for water quality are on the DEQ 303d list. Many are listed for sediment and temperature. Other concerns include bacteria, nutrients and dissolved oxygen. Today, if banks are vegetated, the plants frequently do not provide the root mass or stability necessary to protect the bank from fluctuating water levels that are inherent to Polk County climatic conditions.

This network of hydrology has the potential to provide vast resources for migratory birds, aquatic and terrestrial wildlife and agriculture production. Due to the climatic conditions of Polk County and the productive capabilities of the soils when well drained, Polk County cropland has been extensively tile drained and the landscape networked with ditches to make production possible.

**Wetlands:** Polk County landscape was historically covered with a network of streams, creeks, meanders, marshes and wetlands. Much of the landscape, though hilly was comprised of soils with perched water tables and wet prairie. To facilitate production and a booming population, the landscape has been altered to render the land able to produce a broad spectrum of agricultural products drastically altering the landscape.

Wetlands continue to play a key habitat role and there has been an effort to restore critical wetlands to their historic condition. The 1996 Farm Bill delivered the Wetland Reserve Program that enrolled the first wetlands in Polk County in permanent easements. Today there are 16 wetland easements scattered across the landscape that are providing habitat and recovery success for threatened and endangered species, including the Fender's Blue Butterfly, Nelson's Checker Mallow, Kincaid's Lupine. Wetlands also provide flood control, act as a filter for sediments and reduce nitrates in surface water. Due to the functions and values wetland habitat provides, wildlife presence can be significant and have a negative impact on surface water quality. Wetland restoration is challenging and has not always been successful structurally or in restoring native plant communities. Efforts continue today to restore existing easements to achieve fully restored and functional wetlands. NRCS is currently evaluating beneficial use of wetlands across the landscape in order to strategically develop future areas that are compatible and beneficial to agricultural production and voluntary participation by landowners to achieve the habitat values that wetlands provide. Wetlands have not previously been included in the Long Range Plan for Polk County but it is an intrinsic part of the Polk County landscape that plays a critical role in the overall health and ecology across the landscape.

**Irrigation:** The extreme variance between wet winters and dry summers creates a dichotomy of production challenges in Polk County. Irrigation covers roughly 20% or 20,000 acres of the cropland in Polk County. The majority of irrigation diversions are either in stream or from wells adjacent to the river where the water table is close to the surface, all along the eastern county border and the Willamette River. The extreme winter inundation and summer dry that varies from year to year generates seasonal concerns with flooding, drainage, planting, crop selection and water storage. Periodic summer droughts affect stream dynamics and impact water availability for irrigation which frequently initiates interest in winter storage of water for summer use. 2017 flooding was intense and drain tile system infrastructures are aging which has been the catalyst for the development of the Salt Creek Collaborative, a steering committee comprised of several conservation groups and co-convened by the Polk SWCD manager and County Commissioner. The steering committee was tasked with developing a charter protocol and structure for discussing the issue with stakeholders. Facilitators have been hired by the Polk SWCD to gather data from county landowners. This information will be consolidated in preparation for the first stakeholder meeting to discuss the Salt Creek flooding issue. One significant advantage to putting together the Salt Creek Collaborative charter is that it can be used as a frame work for addressing a variety of resource concerns within the county.

## NASS: National Agricultural Statistics Service

**The 2012 Census of Agriculture information:**

| | |
|---|---|
| **Farms in Polk County: 1143** | **(143 < 2007 Census)** |
| **Land in farms: 144,748 acres** | **(22,000 < 2007 Census)** |
| **Average farm size: 127 acres** | **(6 acres < 2007 Census)** |
| **Products sold: $149,846,000** | **($3,180,000 > 2007 Census)** |
| **Government payments: $912,000** | **($523,000 < 2007 Census)** |

**Farm Size – 488 farms 10-49 acres**
**266 farms 1-9 acres**
**264 farms 50-179 acres**
**66 farms 180-499 acres**
**32 farms 500-999 acres**
**27 farms 1000+ acres**

| Polk County State & National Production - Top 10 | State | National by County |
|---|---|---|
| Field and Grass Seed Crops (Acres) | 3rd | 4 |
| Cut Christmas Trees/Short Rotation Woody Crops ($) | 4th | 5 |
| Cut Christmas Trees (Acres) | 4th | 8 |
| Other Crops and Hay ($) | 6th | 65 |
| Poultry and Eggs ($) | 6th | Not disclosed |
| Milk from Cows ($) | 6th | 315 |
| Colonies of Bees (#) | 7th | 220 |
| Broilers and Other Meat Chickens (#) | 8th | 856 |
| Fruits, Tree Nuts, Berries ($) | 8th | 82 |
| Nursery Greenhouse, Floriculture and Sod ($) | 9th | Not disclosed |
| Value of crops including Nursery and Greenhouse $ | 9th | 548 |
| Winter Wheat for Grain (Acres) | 10th | 545 |
| Total value of Ag Products Sold ($) | 10th | 798 |

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# Section 2. Past, Present and Future Conservation

## Locally Led Conservation in Polk County

**Polk Soil and Water Conservation District Establishment**
Conservation Districts have been forming across the nation since 1934 as local communities banded together to address critical natural resource issues within the county. Once districts formalized as local governing bodies, they could solicit federal technical assistance to help resolve local concerns, soil erosion being the most prominent and driving concern nationwide at the time.
Locally led conservation through the Polk Soil and Water Conservation District began in 1966 when the district formed. The primary concern at the time was production agriculture which required managing surface water through land drainage systems. Since that time the Polk SWCD has been very active in the county providing educational and technical support. They developed and hosted a successful, county wide 6th grade outdoor school, provided outreach and education through the school districts, community events, workshops and planning meetings. They utilize grant funding to complete projects, own and manage conservation easements to benefit wildlife and support a robust staff, each with specialized expertise, dedicated to addressing local natural resource concerns.

**Watershed Councils in Polk County**
The local watershed councils have completed assessments in each of the watersheds, Rickreall, Luckiamute, Glenn Gibson and Yamhill. Data gathered documents specific issues within each watershed. All watershed councils have implemented projects and activities to improve natural resource issues.

**Natural Resources Conservation Service: Conservation Assistance**
Federal programs offered through national farm bills have changed drastically since farm bills began. Federal funding has increased significantly, and technical assistance has expanded to engage the expertise of conservation partners, Technical Service Providers and Non-Governmental Organizations to more effectively address resource concerns. The 1996 Farm Bill called for a locally led process to help NRCS prioritize local resource concerns. **Local Work Groups (LWG)** were created to include federal, state and local government agencies, NGOs, farm groups and other conservation minded organizations in the decision-making process to identify and prioritize natural resource concerns in the county annually. The 2008 farm bill was amended to include landowners and producers in the Local Work Group process.

## Conservation Efforts in Polk County 1996-2008:

### Whole Farm Planning

As late as the early 2000's, funds targeted treatment for entire agricultural operations with diverse resource concerns. Oregon NRCS provided funding for a variety of resource concerns across the county, at the applicant's request, resulting in random acts of conservation. Typical projects included small to medium, diverse farms with livestock, cropland and wildlife habitat. Producers agreed to address all identified resource concerns on their farm. Large and lengthy contracts, typically installing fences and watering facilities, stream crossings, stream protection, hedgerows or riparian plantings for wildlife habitat, with supporting management practices such as prescribed grazing and upland or wetland wildlife habitat management, were complex. Failure to fully implement all practices, resulted in contract cancellation and returning funds to the federal treasury.

### Single Land Use Planning

Recognizing the challenges of whole farm planning, a more progressive planning approach emerged that focused on a single land, which narrowed the extent of planning significantly but still offered assistance, county wide. Polk County focused on two land uses and developed two separate funding pools to treat the associated resource concerns.

1. Cropland – Funded through EQIP Environmental Quality Incentives Program
2. Wildlife – Funded through WHIP Wildlife Habitat Incentives Program

### 2002-2010 EQIP - Water Quality on Cropland: Funded/Completed

The focus was to incorporate management practices on crop land to reduce erosion caused primarily by surface runoff. Also driven by economics, producers were willing to adopt No-Till farming practices to reduce overhead expenses.

Primary Practices: nutrient management, pest management, residue management-no till, prescribed grazing and conservation crop rotation.

Secondary practices: cover crops, conservation cover, filter strips, fencing, watering facilities, manure storage facilities and livestock crossings.

**Water Quality – Surface Water –** Many water bodies in Polk County area are listed on the DEQ 303d list for water quality impairments. Determining where to start working to improve surface water quality and which parameters have the most significant environmental impacts, has been on ongoing discussion, including agriculture impacts on 303d parameters. Some listed concerns are not wholly attributed to agricultural activities. The Polk SWCD has been actively monitoring stream conditions on a bi-weekly basis in the Upper Salt Creek watershed for sediment, temperature and nitrates. Sediment from croplands has the most significant environmental impact since there are multiple areas of concern with sediment in surface water.

- Sediment fills spawning beds in upper stream reaches causing lower hatch rates and lower survival of young fish.
- Sediment causing high turbidity can cause fish to migrate to higher risk locations in the water course and unprotected, fall prey to predators.
- Sediment in streams has been shown to cause respiratory issues in fish, especially juvenile fish. It can cause infections, plug gills, resulting in death.
- Sediment runoff from fields with applied chemicals, can transport the chemical to water, causing health risks for both animal and plant communities.

The desired future condition is to gain a high percentage of farmers working on reducing sediment in stream by controlling sediment runoff issues. The desired outcome is to increase acres with cover on soil surface, reduce ground disturbance, increase crop diversity and keep a living root in the ground. These basic land management principles will improve water infiltration, reduce and filter surface runoff, reduce soil sedimentation to water bodies, recharge groundwater, increase soil water holding capacity and reduce surface and groundwater demands for irrigation.

**2002-2011 WHIP – Oak Savannah Restoration: Funded/Completed**

WHIP (Wildlife Habitat Incentives Program) was authorized in the 2002 Farm Bill to improve habitat for wildlife. Polk County took advantage of the funding to improve Oak woodlands. This unique habitat was steadily declining in acreage across the county so WHIP funding made it possible to address this issue. Polk County was an early adopter, utilizing federal funding to improve oak habitat. The single land use planning methodology funded projects County wide so conservation that occurred was scattered across the landscape making is difficult to significantly impact either water quality issues or oak stands to create a significant footprint of impact. This resulted in random conservation that was neither geographically focused nor specifically strategic to achieve the intended outcome. A more effective planning approach needed to be developed.

## Oregon's Strategic Approach to Conservation Adopted 2009:

In 2009 Oregon developed the Strategic Approach to Conservation to more effectively invest conservation funding. This concept was a significantly different approach to delivering farm bill programs as compared to whole farm planning and single land use planning targeting the entire county.

Each county developed a **Long Range Plan (LRP)**, to be used as a roadmap, capturing historic, current and future conservation opportunities. These plans were generally written to cover a 5 year time period.

Through the **Local Work Group (LWG)** process, conservation partners discuss and prioritize Polk County natural resource concerns and help make decisions regarding the investment of conservation funding and technical resources to solve complex problems across the landscape. The conservation priorities that emerged from these discussions are incorporated into the Long Rang Plan.

**Conservation Implementation Strategies (CIS)** tier from the Long Rang Plan and are developed based on priority concerns and focus areas selected, compatible with partner efforts and local producers that are ready willing and able to implement conservation, resulting in a significant impact on the natural resource issues.

**Landowner Outreach Strategies** are developed to provide education and awareness

and solicit producer participation. Funding is focused to effectively impact priority resource concerns in a specific geographic area before moving to a new area. Oregon NRCS has fully adopted the Strategic Approach to Conservation and fully engaged conservation partners in the process. This approach has successfully leveraged federal funding with other funding sources, increased partner collaboration and conservation impact, to more effectively plan, treat and leverage both technical and financial resources to get conservation on the ground, resulting in successful conservation efforts.

## Local Work Group (LWG) Conservation Partners:

(The Polk LWG meeting is opened to those interested in conserving natural resources. The annual meeting is held annually the last Friday in January. Current participants:

Polk Soil and Water Conservation District
Glenn-Gibson Watershed Council
Luckiamute Watershed Council
Rickreall Watershed Council
Yamhill Watershed Council
Oregon Department of Forestry
Oregon Department of Agriculture
Oregon Department of Fish and Wildlife
Oregon Water Resources Department
Oregon Watershed Enhancement Board
OSU Extension Service
Confederated Tribes of the Grand Ronde
Polk County
Polk County Commissioners
NRCS Plant Materials Center
US Fish and Wildlife Service
US Forest Service
Bureau of Land Management
The Nature Conservancy
Perrydale Domestic Water Association
Private Landowners and Producers – Seed and Nut Growers, Orchards, Dairies Livestock Producers, Vineyards, Specialty Crop Producers, Small Farm Producers

# Polk County LWG Natural Resource Priorities 2009-2019:

## 2009 Polk County Natural Resource Concerns Identified

1. **Water Quality/Quantity**
   Sediment, temperature, nutrients, flow augmentation, habitat, ground water, irrigation/water needs.
2. **Wildlife**
   Loss of habitat, habitat quality, species decline (T&E species), disease, habitat connectivity and predation (including lack of predators).
3. **Forestry**
   Over stocked, unhealthy, over-logged, fire danger, urban/rural interface, watershed protection, erosion/roads, culverts (sizing/fish passage).
4. **Human**
   Livability, energy, sustainability, transition planning, low input farming, organic farming, marketing.

## 2009 Priority Natural Resource Concerns

1. **2010-2015 EQIP Groundwater Quantity/Quality: Funded/Completed Well-Head Protection Program**

Irrigation efficiency, irrigation water management and nutrient management. Primary Practices: Sprinkler and drip irrigation systems, 2-3 years of irrigation water management and nutrient management. Many of these projects were done through the TSP process which included the use of a private consultant to improve irrigation systems and irrigation water management. Although the LWG prioritized all water quantity concerns as a high priority, there was one particular groundwater area in Polk County, along the Willamette River, that enough information warranted moving forward with an EQIP Funding Pool.
This area is intensively cropped producing the majority of irrigated truck crops in the county including: Hops, mint, corn, beans, orchards, grass seed and berries. Nearly all were irrigated and often inefficiently resulting in over irrigation, surface runoff and/or leaching of nutrients. This area is also where 1/3 of the county residents obtain their drinking water. The Rickreall Water control district, Luckiamute Domestic Water Cooperative, the Cities of Monmouth and Independence all obtain their water from shallow wells in the well-drained soils along the Willamette River. There are 7 wells located in this ~14 mile corridor paralleling the River, from Highway 22 south to Buena Vista. The wells are all located East of Hwy 51/Corvallis Road.

A review of records from these wells, show increased nitrogen in groundwater during spring application on cropland and show an overall increasing trend for

Nitrates throughout the year. Nitrate levels on some wells showed levels near 7 ppm with spikes sometimes over 10 ppm. Long term levels at 7 or above can constitute listing of the area as a ground water limited, thereby placing special restrictions on all users in the area.
It was the conclusion of the LWG that working on water conservation would also make significant improvements toward long term protection of water quality. The primary basis for addressing this concern was due to other areas in the Willamette Valley with similar geomorphic landforms that have been intensively cropped for long periods of time, now have ground water issues resulting in restricted future use. This is predominantly due to nitrates in ground water. Other chemicals were also detected. By working with irrigators on proper irrigation water application, to prevent runoff and leaching, ground and surface water resources will be protected in the long term. Improving irrigation equipment and application of nutrients and chemicals would reduce the probability and incidence of runoff and leaching. Adding buffers was an additional measure implemented to protect water quality. The objective was to increase awareness of agricultural producers in this area of the impacts of improper management on these soils, and to assist them in developing improved management of irrigation systems. The Desired Future Condition was to keep this area from being listed as a ground water limited area by improving irrigation efficiency and the management and application of irrigation water.

Implementation Progress:

- EQIP Polk Groundwater Protection Program 2010 to 2015 (completed) – Goal was to reduce nitrate leaching into the shallow aquifer along the Willamette River, by increasing irrigation efficiency by over 20%, planting cover crops or permanent cover between rows, reviewing producer's nutrient management system and recommend needed changes.
  Progress:
  - Micro-Irrigation Systems: 5 systems applied (235 ac)
  - Efficient Sprinkler Systems: 3 systems applied (324 ac)
  - Irrigation Water Management: 420 ac applied
  - Nutrient Management: 150 ac applied
  - Cover Crop: 32.2 ac applied

2. **Water Quality – Surface Water: Not Funded by NRCS**
   The Polk SWCD was awarded ODA grant funds to improve surface water quality on Ash Creek through riparian restoration projects.

3. **2010-2016 EQIP Plant –Health and Vigor- Forestry: Funded/Completed Forest Wildland Urban Interface**

The focus was to reduce fire hazard where forests interface with urban infrastructure including cell towers, dead end roads and highway safety.
Primary Practices: forest stand improvement, slash treatment, brush management, forest management plans
**Plant –Health and vigor- Forestry –** In recent years forest management has become a higher priority in Polk County. In 2009, the county Commissioners, Polk SWCD, NRCS, Fire Departments, County emergency board and Oregon Department of Forestry all came together to develop a Comprehensive Wildfire protection plan (CWPP) for Polk County. This plan covers issues related to defensible space near buildings, emergency vehicle access, healthy forests, invasive species control, brush management, housing density, rural/forest interface and infrastructure protection (cell towers, major roads, etc.). The plan also addresses high, medium and low priority forest areas based on the above factors.
Based on this plan and other inventory, an EQIP funding pool was developed for FY 2010 which provided funding for development of 11 plans and provided funding for implementation of one existing plan. For FY 2011 we have done additional outreach and are working on obtaining funding to implement the plans that have been developed. Over the next couple of years, we plan to identify key infrastructural components and key high density urban/rural interface areas to do targeted outreach in to improve implementation rates.
Our desired future condition was to have healthy forests near urban/rural interface areas and near key infrastructural sites to reduce fire danger risk and to reduce smoke impacts to air quality.

Implementation Progress:

- 45 Contracts Obligated, 5000 acres treated to reduce Wildfire Hazard.
  A success story was published in the NRCS News, by ODF and the Professional Forester publication highlighting the benefits and true story about a landowner who took the initiative to be pro-active and implement preventive measures on his land.to reduce fuel loads and the catastrophic loss that was averted due to his actions.

**2014 Priority Natural Resource Concerns – Revised 2015**

1. **Irrigation water efficiency, water storage and surface water conservation. Currently funded through EQIP 2010-2015.**

2. **Forest Health and Fire Hazard Reduction – Funded through EQIP 2010-2016.**

3. **Riparian health - Buffers– Salt Creek – SWCD grant funded through ODA.** Many stream reaches were discussed, but upper Salt Creek was chosen as the highest priority, due to having worked with a number of producers in this area and will likely be able to get more projects on the ground here than other locations. Salt Creek is also a tributary of the Yamhill River where the Yamhill Watershed Council has an active stream monitoring program that they implement. These monitoring projects are in place which may be able to provide feedback on the results of our efforts. This area also has a significant amount of Highly Erodible Cropland near Salt Creek and its' tributaries. HEL lands tend to have higher runoff rates than non HEL lands. The farmers that manage these lands are familiar with working to reduce runoff.

4. **Soil health – Funded as a part of active conservation strategies.**

5. **Invasive species control – Funded through Forest Health WUI, Early Seral Habitat and Oak Savannah Restoration Conservation Implementation Strategies.**

6. **2015-2019 EQIP Funded Wildlife Habitat Enhancement**
   **Upper South Yamhill Early Seral Habitat (Elk Meadows)**
   Focus is to restore overgrown elk meadows for wildlife habitat and reduce invasive vegetation and grazing pressure on low elevation cropland. Developed in partnership with the Confederated Tribes of the Grand Ronde.
   Primary Practices: brush management, woody residue management, herbaceous weed control, hedgerows, upland wildlife habitat management, conservation cover, obstruction removal.
   Progress: NRCS is currently actively engaged with the CTGR on conservation efforts to create Seral habitat, primarily elk meadows for resident elk populations and other species that utilize tribal and surrounding lands. This effort improves habitat at higher elevations to reduce grazing pressure on lower elevation cropland. The tribes manage their forest lands for long term sustainability and to support cultural customs.

## 2017 Priority Natural Resource Concerns

1. **Forest Health in the Luckiamute Watershed – EQIP Funding 2017-2021**
   Forestry continues to be a priority of the LWG. NRCS is working with ODF to explore options for moving the program around the county with a phased approach to planning and implementation to address stand diversity, habitat, soil health, fuel loading and invasive plant pressure.

2. **Water Quality/Water Quantity of Groundwater – Not currently funded**
   All water quantity concerns were prioritized as HIGH for Polk County, but the topic was recognized as complex and that many stakeholders affected, were not present and needed to be part of the decision process.
   *To address county wide water quantity concerns, the following is needed:
   - Oregon Integrated Water Resource Strategy - Not yet completed by OWRD
   - Polk County Comprehensive Plan
   - Innovative design solutions that meet NRCS standards and specifications.

   *Storage of both ground and surface waters, for multiple uses, continues to be an unresolved topic of discussion. OWRD provided the following information:

   **Both priorities below are in the planning stage.**
   **Priority 1: Water Storage** - Gather information and host an educational meeting, with appropriate agencies presenting detailed information, to communicate water storage details to stakeholders.
   2017 Local Work Group discussion: Water storage, for agricultural purposes, has been a recurring issue for many years. It was determined that additional information needs to be gathered from experts who can provide the specific details regarding the process, costs, and considerations for each water storage scenario as well as information on existing programs and grants available.
   Reasons given by participants to support ground and surface water storage.
   - Greater profitability. Makes it possible to convert dryland, to irrigated crops.
   - Need quality potable water in higher quantities for farm to table crops.
   - During droughts, junior water users are cut off from irrigating part way through the irrigation season.
   - Late season irrigation needed to irrigate pastures for livestock.
   - Water availability for fire suppression.
   - Low producing wells, could pump during winter for use during summer.
   - Inadequate ground water in south Polk County. Need stored surface water.
   - Stored water diversifies management options for crop selection and disease management.

**LWG - Proposed Water Storage Solutions**

- Pump ground water into cistern, tank, or pond
- Roof runoff capture into cistern, tank, or pond
- Surface water stored in channel
- Surface water stored off channel (ponds)

**Oregon Water Resources Department OWRD – Storage information:**

- Off channel water storage is a better option than in channel. Requests to store water in channel, will likely encounter fish passage/fish screen issues.
- Water rights for storage – the storage season is around November to May.
- Roof Runoff Capture:
  - No permit required to capture water from an artificial impervious surface.
  - No size restriction for storage.
  - No comingling of roof runoff water with water from other sources that require a water right is allowed.
  - Larger ponds/tanks may not need a storage permit but need to meet county/city construction requirements.
- There is an alternate process available for permitting small ponds.
- The ground water permit application includes a place to indicate if you will also be storing water.
- Base fee for a small reservoir in 2017 was $850.
- Two separate water rights are required; One for use, one for storage.
- There are wetland issues with reservoir placement.
- Can existing in stream storage be moved to off channel storage? Probably no.
- Stored water can be used during the irrigation season.
- Willamette Reservoirs
  - Reservoirs were established for multiple purposes, primarily storage for municipalities.
  - 1.64 million acre-feet total storage right
  - As a result of the Biological Opinion, target stream flows have been established for salmon and steelhead downstream. When target are not met, water is drafted from reservoirs.

**OWRD Grant Opportunities:**

- Grants for feasibility studies.
- Water Supply Development Account offers both grants and loans.
- Check with OWRD for funding availability

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- OWRD provides up to 75% of the cost, can also provide a loan for the other 25%. In kind contributions and cash match can also be used for the 25%, available to both public and private entities, including individuals.
- To be funded an applicant must demonstrate the feasibility of the project and demonstrate: economic, environmental, social, cultural and public benefits.

**Priority 2: Quality Water Insufficient Quantity** - Gather information and host an educational meeting, with appropriate agencies presenting detailed information, to communicate finding on developing sufficient quantities of quality water.

3. **Education:** NRCS has been tasked to place a greater emphasis on education and will work with partners to improve information, outreach and educational opportunities. Producers have requested information regarding natural resource data, regulations, permitting processes, programs and grants.

4. **Early Seral Habitat (Elk Meadows) – EQIP Funded 2015-2019**
Tribal priority on tribal and adjoining lands in the Upper South Yamhill Watershed.

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**<u>2018 Priority Natural Resource Concerns</u>**

1. **Soil Erosion**
   - **Croplands:** Perennial/Vineyards/Orchards - Sheet/Rill/Concentrated Flow
     Issue brought to NRCS by OSU Extension. Erosion concerns on orchards, hazelnuts, Christmas trees, and other perennial crops.

   - **Streambank:** Excessive Bank Erosion
     Rickreall Creek - Issues raised by landowners. Lack of Riparian Buffers that provide shade for reducing stream temp and protect the bank.
     Sedimentation can be excessive in surface water due to erosion.

     Challenges - Work in-stream requires: permitting, engineering, NEPA and extensive funding.

2. **Forest Health**
   - Degraded Plan Condition
     - Undesirable plant productivity and health

- Inadequate Structure and Composition
- Excessive Plant and Pest Pressure
- Wildfire Hazard, Excessive bio-mass accumulation

3. **Oak Habitat Restoration**
   - Degraded Plant Condition
     - Inadequate structure and composition
     - Excessive plant and pest pressure

   - Inadequate Habitat for Fish and Wildlife
     - Habitat Degradation – Quality and quantity or connectivity of food, cover, shelter, water to meet identified wildlife needs.

4. **Water Quantity / Quality**
   - **Flooding:** Excess Water – Ponding/Flooding/Seasonal High Water
     Concern raised by affected landowners on cropland. Salt Creek Collaborative Charter was formed to gather data, involve partners, stakeholders and landowners to study the complexity of the problem and potential solutions. Facilitators have been hired and with the Polk SWCD are gathering information through interviews and surveys to more clearly understand the problem and concerns of landowners. Once sufficient information is acquired, a public stake holder meeting will be held to have a larger conversation about the problem.

   - **Storage:** Insufficient Water – Inefficient use of irrigation water
     This has been a long term concern within the county with significant variance between landowner needs. NRCS has been tasked with providing education, information and awareness to help landowners with their specific water needs and to understand all the legal, regulatory and permitting requirements associated with water storage. Additional detail are listed in this document under the 2017 Priority Natural Resource Concerns section.

     **Varied needs include:**
     Water storage for irrigating crops on more acres.
     Junior water rights get "turned off" early, can't irrigate pasture late season.
     Adequate potable water for wash down or domestic use

   - **Potable:** Excess contaminates in surface & ground waters – Organic and Inorganic contaminates negatively affecting water for intended use.

Potable Water: Requirements for development of potable water for food grade purposes is outside of the natural resource concerns that NRCS typically addresses. It would be beneficial to put together a task force group to narrow the specific needs for potable water use in order to develop solution options. There may also be grant opportunities that would facilitate bringing new technology to Polk County to help address this issue.

5. **Invasive Weeds/Brush**
   - Degraded Plant Condition
     - Excessive plant and pest pressure

       Concern has been expressed to NRCS regarding noxious and invasive weeds, particularly on public rights of ways.

       Invasive Species: Noxious weeds fall under OR Department of Ag and private landowner responsibility. Local and state governments are also tasked with this growing concern on state and county right of ways and lands. NRCS addresses noxious and invasive weeds that are in conjunction with treatment of associated resource concerns such as brush management and pre-commercial thinning on forest lands to improve stands, or spot spraying to establish native vegetation for habitat restoration. NRCS does not address noxious weeds as a stand-alone resource concern.

**2019 Priority Natural Resource Concerns**

1. **Forest Health – Top Priority**, funding currently available to address this concern.

   NRCS offered funding for Wildland Urban Interface (WUI) forest land, 2010 to 2016. To follow that effort, NRCS developed the Structural Diversity in Forests fund through EQIP 2017- 2021, to address overstocked plantation style forest lands. During 2017-2018, the western part of the Luckiamute watershed was the highest priority. During the 2018 LWG meeting, the group recommended to continue this as a top priority, and to expand the focus area beyond the current western Luckiamute watershed, to include Rickreall Creek, Salt Creek, and Mill Creek watersheds. The Structural Diversity in Forests priority area has been expanded to include a 2nd phase adding the Rickreall, Salt and Mill Creek watersheds and will provide funding through 2021 with potential to extend to 2023 depending on level of interest by private landowners. This new area adjoins the Goose Neck Creek priority area that Oregon Department of Forestry

has been awarded grant funding that is available to assist small acreage forest owners. NRCS also has a partner agreement with Oregon Department of Forest to provide technical assistance on forest projects. The partnership between ODF and NRCS makes it possible to more effectively contract forest stand improvement work to include:

- Thin stands and fuels to reduces fire danger.
- Improve stand diversity and overall forest health.
- Reduce tree stress during low soil moisture to prevent conifers from dying.
- Improve planting strategies to reduce mortality on young stands.
- Improve soil water holding capacity to reduce surface runoff by protecting forest from conversion.

2. **Oak Woodland Health / Elk Meadows**
NRCS, SWCD and Yamhill SWCDs offer funding through RCPP-EQIP for The North Willamette Valley Oak Restoration, 2015 – 2019, to improve oak woodland health in Polk and Yamhill Counties by thinning overstocked oak stands and remove encroaching conifers.
NRCS also offers funding through EQIP for Upper South Yamhill Early Seral Habitat (Elk meadow development), 2015-2019, to improve elk habitat by controlling weeds, planting forage species and promoting/maintaining early seral meadow habitat in forest clearings. The NRCS is partnering with The Confederated Tribes of Grand Ronde on this program. This fund not only improves upland elk habitat, but also helps reduce elk grazing pressure and disturbance on low elevation cropland.

- Wildlife Tax Deferral- Potential to lose deferral on Oak/Forest restoration projects to benefit wildlife, specifically elk and deer.
  - Develop partnerships to promote implementation
  - Educate landowners to check with the county assessors office prior to project implementation.

3. **Soil Erosion – Top Priority**, funding proposal being developed for 2020, approval pending.
The group identified this natural resource concern as a priority on orchards, specifically new hazelnut plantings. Vineyards and Christmas tree farms are also of concern due to extensive erosion on some sites. In the last 6 months, Yamhill, Marion and Polk NRCS and SWCDs have identified soil erosion in the many young hazelnut orchards in the central Willamette Valley as the highest priority concern to address, and have begun a large outreach campaign to

hazelnut growers. The Yamhill, Marion and Polk NRCS and SWCDs are developing a new EQIP funding proposal, to be submitted to Oregon NRCS in spring 2019 for review and funding approval. If approved, funding would be available in 2020. Pending approval of funds to treat erosion in Hazelnut Orchards, Polk NRCS will also gage the level of interest from producers to warrant adding vineyards and Christmas tree farms in the future.

- Perennial orchard crops, prioritizing new hazelnut orchards.
- Vineyards and Christmas tree farms also of concern.

**4.** Water Quantity – Storage for agricultural use – High Priority, networking and discussion in progress.
This is an ongoing concern for Polk County. This broad category includes flooding and insufficient water for irrigation. As a result of the flooding in Salt Creek in 2016-17, the Salt Creek Collaborative has formed. Members include landowners, Craig Pope from Polk County Board of Commissioners, ODA, NRCS, and OSU Extension Service. This is a charter model that could be used as a pilot to resolve other natural resources issues. Due to the broad spectrum of water quantity issues, solutions are also varied. Networking between landowners, agencies and stakeholders are in progress in an effort to formulate possible solutions.

This is an ongoing county wide concern tied to a variety of water quantity concern.
Irrigation storage and system improvement is very expensive.
Off channel storage, ponds and covered tanks are most likely options, permitting generally required - Impound, capture, store, release.
Soil health, including organic matter, soil structure and surface cover, has a direct correlation to irrigation water requirements. By improving soil health, water holding capacity increases which reduces irrigation water needs and also improves water quality of surface runoff.

**5.** **Invasive Weeds** - Of concern county wide.
This is an ongoing concern for Polk County. Polk County has a good road maintenance program throughout the county. More public education is needed regarding the management and control of invasive and noxious weeds. Recommendations included hiring a position to GPS all roads, based on the Yamhill County model.

- Polk County does not have a county weed board. This requires citizen involvement. Contact Karin Stutzman, Polk SWCD Manager if you are interested.
  - Are larger efforts needed for Oxeyed Daisy or Tansy Ragwort?
  - Cooperative Weed Management Area, board revival is an option.
- The Polk SWCD wrote a letter to different agencies (including ODA) regarding controlling noxious weeds on roadsides, such as poison hemlock and tansy ragwort, discussing proper timing of spraying to control these important weeds.

  Resources:
- Invasives-Noxious Weed Program run by OR Dept of Ag with Hotline.
- Western Invasives Network. Grants are available, such as the grant for *Ludwigia peploides* (water primrose) awarded to Polk County SWCD.

**6. Stream Function** – Associated with streambank erosion, water quality/quantity, and wildlife habitat;

This is an ongoing concern for Polk County, but in 2018 the LWG did not rate it as a top priority. There are several options to treat this problem.

- OWEB Small Grants can be used, but funding is limited to $15,000 each grant, $100,000 per biennium, and often requires that landowners match the funds with private funds or other grants. Projects such as small culvert replacement, stream crossing hardening, and riparian plantings are common.
- OWEB Large Grants are used in larger scope projects such as small culverts replaced with bridges.
- If a landowner wishes to fund a project on their own, the Polk SWCD can write a plan, help with the permitting process and the design.
- CREP is a USDA program run by the Farm Services Agency with assistance by the Polk SWCD. The program has incentives to retire ag lands and convert to a riparian or wetland buffer.
- Oregon Dept of Agriculture helps producers meet minimum ag water quality criteria (overseen by Local Action Committees) with technical and financial assistance.

- Reintroduce beaver analogue dams in stream, improve floodplain function and groundwater recharge.

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## Proposed Conservation Funding Opportunities 2020-2024

### Oak / Upland Forest Meadow Restoration – Top Priority Concern

1. **Woodland Management for Elk 2020-2024: Pending approval**
   At the 2018 LWG meeting, Local Work Group participants recommended continuing addressing oak habitat restoration as a priority. In addition, the Confederated Tribes of the Grand Ronde have been working closely with NRCS to implement the Upper South Yamhill Early Seral Habitat strategy (Elk Meadows) to restore upland forest meadows for elk habitat with a high level of success. Both the current North Willamette Valley Oak Restoration fund and the Upper South Yamhill Early Seral Habitat fund, end in 2019. Elk utilize oak savanna and oak woodlands as well as upland forest openings, and the implementation steps to create and maintain these habitat types are very similar.
   NRCS, Polk SWCD and LWG partners began meeting in late 2018 to begin developing a new proposal that would combine these 2 funds. This new strategy is designed to improve the quality and quantity of oak and conifer meadows in Polk County and also restore utility corridors on private lands that connects the two meadow types. Meadow restoration is intended to reduce grazing pressure on low elevation cropland. A phased approach will facilitate implementing in the first focus area with outreach and inventory occurring in the next focus area in anticipation of future implementation. This proposal will be submitted to Oregon NRCS for review in spring 2019, and if approved would be funded in 2020.

- Wildlife Tax Deferral, as relates to Oak Habitat and Forested Elk Meadow restoration.
  This topic arose during the 2018 LWG. Concern was expressed over the loss of forest tax deferral status due to altering acreage from timber production to improve the habitat value of oak woodlands and remove conifers to develop forest meadows in forest lands. These projects reduce the number of trees per acre below the stocking rate required for forest land use as defined by Polk County Assessor. Landowners implementing these projects could be at risk of losing their land use tax status due to reduced production projections when reviewed by the county assessor. Several counties, including Polk, participate in a state-wide program, run by OR Dept of Fish and Wildlife (ODFW), that includes a tax category called Wildlife Tax Deferral, which requires a Wildlife Habitat Conservation Management Plan (WHCMP). However, ODFW funding has decreased in recent years (<2% of Governor's Budget goes toward natural

resources), reducing ODFWs capacity for writing new WHCMPs or monitoring existing WHCMPs currently in the program. Presently no new applicants are accepted into the program. The lack of activity in this program may be a barrier to landowners to restore land for habitat purposes on their forest or woodland. This issue is important to Polk County landowners which has resulted in collaboration between ODFW and SWCDs to look for solutions. The SWCD is supporting this program by informing ODFW of Polk County tax deferral problems from landowners. There are 65 WHCMPs in Polk County, more than any other county in the state. Western Oregon SWCD's are working together to find ways to assist ODFW with funding for monitoring plans and enter data into the database. The Polk SWCD can answer concerns regarding this issue in Polk County.

**Soil Erosion - Orchards – Top Priority Concern**

2. **Erosion Control in Orchards 2020-2024: Pending approval**
At the 2018 LWG meeting, the group identified this natural resource concern as a priority on orchards, vineyards and Christmas trees. During the past 6 months, Yamhill, Marion and Polk NRCS and SWCDs have identified soil erosion as a priority in young stand hazelnut orchards throughout the central Willamette Valley, and have begun a multi-county outreach campaign to hazelnut growers. The Yamhill, Marion and Polk NRCS and SWCDs are developing a new EQIP funding proposal, to be submitted to Oregon NRCS in spring 2019 for review and funding approval. If approved, funding would be available in 2020. Pending approval of funds to treat erosion in Hazelnut Orchards, Polk NRCS will also gage the level of interest from producers to warrant adding vineyards and Christmas tree farms in the future.

# Section 3. Conservation Funding in Polk County

## Current Conservation Funding Opportunities:

NRCS continues the Strategic Approach to Conservation today. The annual Local Work Group meeting is well attended, partner collaboration has been successful and landowner interest in programs and participation has been steady and/or increasing depending on the program.

## 2018 Polk County Funding Opportunities:

**Active Funding Opportunities 2015-Present:**

- **N. Willamette Valley Upland Oak 2015-2019: Oak Habitat Restoration**
- **Upper S. Yamhill Early Seral Habitat 2015-2019: Elk Meadow Restoration**
- **Structural Diversity in Forests 2017-2021: Forest Health/Fire Risk**
- **Wetland Restoration 1995-Present: Wetland Reserve Easements WRP**
- **National Initiatives 2018 Farm Bill: High Tunnels, Organic Transition, Energy, Air Quality & Animal Feeding Operations**

**Funding Opportunities 2020-2024: Approval Pending**

- **Woodland Management for Elk 2020-2024: Oak /Forest Meadow Restoration**
- **Erosion Control in Orchards 2020-2024: Multi-County Hazelnut**

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- **Oak Habitat Restoration**

**2015-2019 North Willamette Valley Upland Oak Restoration Partnership**

Focus is the restoration of oak woodlands and savannahs for wildlife habitat. This involves thinning oak stands that are overstocked, as well as cutting out encroaching conifers.

The North Willamette Valley Oak Restoration RCPP project to improve Oak Woodland Health in Polk and Yamhill Counties was approved in 2015. Oak habitat restoration has become an important resource issue due to development that is removing oak from the landscape. This critical habitat is home to over 250 species of birds and wildlife. As acreages decline, it significantly impacts the landscapes ability to support and sustain the historic ecology that existed in the valley. The project is funded through 2019. NRCS is working to develop a future funding strategy to continue oak habitat restoration work.

Primary Practices: forest stand improvement, slash treatment, brush management, herbaceous weed control, tree and shrub site prep, tree and shrub establishment, conservation cover, restoration of rare and declining habitats, fence, prescribed grazing, critical area planting.

- **Elk Meadow Restoration**

**2015-2019 EQIP Funded Upper S. Yamhill Early Seral Habitat Enhancement**
Focus is to restore overgrown elk meadows for wildlife habitat and reduce invasive vegetation and grazing pressure on low elevation cropland. The Upper South Yamhill Early Seral Habitat CIS was developed with the Confederated Tribes of the Grande Ronde. EQIP funding is available to improve elk habitat by controlling weeds and promoting/maintaining early seral meadow habitat in forest clearings. The CIS runs from 2015-2019.

Primary Practices: brush management, woody residue management, herbaceous weed control, hedgerows, upland wildlife habitat management, conservation cover, obstruction removal.

- **Forest Health**

**2017-2021 Structural Diversity in Forests**

The focus of this strategy is to improve the structure and composition of monoculture forests typically found in plantation style forest management. Monoculture stands limit habitat diversity for wildlife by eliminating diversity in the canopy and understory plant life also detrimental to the health of forest soils. The Lower Willamette/North Coast Basin conservation strategy was developed to improve Structural Diversity in Forests, and is funded through EQIP, 2017 to 2023.

NRCS is working in partnership with the Oregon Department of Forestry and private landowners on forest stewardship, planning and prescriptive treatments through a statewide agreement. Efforts targeted towards improving forest health and stand diversity will also reduce fire risk through pre-commercial thinning and understory management of brush and ladder fuels.

Primary Practices: Forest management planning, forest stand improvement, slash treatment, brush management, tree and shrub pruning, tree and shrub site prep, tree and shrub establishment and conservation cover to improve the understory. The 2008 Farm Bill was the first farm bill that included funding to address resource concerns on private non-industrial forest lands. Interest from private landowners in this funding opportunity is steadily gaining interest and participation.

## ➢ Wetland and Riparian Enhancement and Restoration

### 1995-Present Wetland Restoration

Wetland restoration through the WRP program includes 16 easements covering 1600 acres. These permanent easements are dedicated to the restoration and enhancement of both wetlands and uplands, improving or developing degraded rare habitat types. Partners have been critical to the restoration efforts, working especially closely with USFWS, ODFW and ODF on habitat restoration through both the WRP and WHIP programs. USFWS in partnership with NRCS and ODFW have been major players in wetland restoration that also includes restoration of associated oak savannahs and woodlands in the uplands. Within these two habitat types, are endangered plants including; Nelson's Checker Mallow, Kincaid's Lupine, Fender's Blue Butterfly and the Streaked Horned Lark. There are also many other at risk species and species of concern that greatly benefit for these habitat types. Private organizations such as the Institute for Applied Ecology, Nature Conservancy, Rocky Mountain Elk Foundation, Pheasants Forever and Ducks Unlimited have also partnered on habitat projects in Polk County.

Riparian restoration is also a priority addressed primarily through the Conservation Reserve Enhancement Program administered by the Farm Service Agency and technical responsibility of NRCS. The Polk SWCD employs a CREP tech that works with landowners to plan and implement riparian restoration projects for the benefit of water quality, working closely with NRCS throughout each project. Contracts are typically 15 years requiring mid-management activities once the initial restoration has been completed.

- **National Initiatives**

**2018-Present: High Tunnels, Organic Transition, Energy, Air Quality & Animal Feeding Operations**

NRCS offers several national initiatives funded through EQIP. In 2018-19 the 2 funds that received applications in Polk County included the High Tunnel Initiative and the Organic Initiative. Both initiatives were created for the 2008 Farm Bill. The High Tunnel Initiative assists producers by extending the growing season, to increase production of locally produced fresh fruits and vegetables. The Organic Initiative assists producers who are transitioning to Organic according to their Organic Plan. NRCS provides technical and financial assistance to improve production techniques and address natural resource concerns in order to acquire and maintain Organic status.

The National Initiatives provide funding assistance through EQIP:
High Tunnels - Extend the growing season to encourage locally growing foods.
Organic Transition – Reduces pesticide use by transitioning to organic production.
Air Quality – Reduces fuel emissions and clean technology burning of biomass.
Energy – Reduces energy use by improving irrigation systems, lighting, refrigeration.
Animal Feeding Operations – Improve water quality, grazing and management of livestock operations.

## Conservation Opportunities and Tools:

**Pollinators:** Opportunity to help growers improve habitat for beneficial insects and pollinators can be incorporated into any conservation. Pollinators/Beneficial Insects – Is there interest in pursuing this, need to identify the specific resource concern, LO interest expressed. These can be incorporated in the High Tunnel, Forestry, Oak and add to mixes for critical area planting for erosion control.

**Wetlands:**
NRCS in the past has entered into wetland easements based on landowner interest, scattered across Polk County, with limited habitat focus. Negative feedback from the agricultural community necessitates re-evaluating the value and objectives of wetlands. Wetlands are one tool that can be used to resolve focused resource concerns as prioritized in the Long Range Plan. NRCS proposes using wetlands strategically to address resource concerns such as water quality, flooding, habitat and other wetland functions and values. NRCS envisions working with partners to identify priorities for wetland restoration in Polk County.

**Dryland Options on Cropland:**
Potential alternative to water storage, with crop varieties suitable to Polk County. NRCS will work with partners to explore dryland cropping alternatives and/or other means of making do with limited water availability. Significant progress has been made in the development of crops that are productive on drylands or under deficit irrigation.

## Program Participant Outreach:

Outreach for program participation is targeted to reach landowners in the geographic priority area where funding will be targeted. An address list is developed through tax lot information to reach potential participants. News releases, mailings, emails, newsletters, phone calls and word of mouth are critical to the success of program participation and effectively addressing the identified resource concern. A streamlined application process helps reduce administrative burden to the participant and NRCS to efficiently and effectively get conservation on the ground.

Local NRCS staff are available to help private agricultural and forest producers by providing technical and potentially financial assistance to address natural resource concerns. All NRCS programs are voluntary.

## Polk County Local Work Group Participation:

NRCS encourages participation in the annual Polk County Local Work Group meeting. It is held annually the last Friday in January. Please save the date and join your conservation partners to discuss natural resource concerns in Polk County. Together we can accomplish more. For more information contact your local USDA Service Center in Dallas OR, co-located and in partnership with, the Polk County Conservation District.

## NRCS - "Helping People, Help the Land"

## NRCS Contact Information:

**USDA Service Center**
**580 Main Street**
**Dallas, Oregon 97338**

**District Conservationist: Evelyn M Conrad 503-837-3689**
**Soil Conservationist: Sue Reams 503-837-3693**

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