

# Alder Creek Community Forest Stewardship Plan



Landowner: Jim Proctor

February 2019

Prepared by Lyndia Hammer,  
Forest Ecologist, Pacific Slope Consulting, LLC



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**Landowner Information:**

Jim Proctor – Portland address: 2127 NW Irving St #302, 97210  
Alder Creek Community Forest  
P.O. Box 1300, Canyonville OR 97417  
829 Canyonville-Riddle Road, Riddle OR 97469

Telephone: 503-422-9106  
Email: [Jim.proctor@gmail.com](mailto:Jim.proctor@gmail.com)

Property Location Information:

Elevation: 1,000 to 1,250 feet ASL  
Total Acres: 78  
Total Forestland Acres: 75  
Legal location: T30S R5W Sect 33

Physical location/ street address:  
829 Canyonville-Riddle Road, Riddle OR 97469

Structural Fire Protection District: Canyonville South-Umpqua  
Forest Fire Protection District: Douglas Forest Protective Association and Roseburg Unit, Oregon  
Department of Forestry

6<sup>th</sup> Field Watershed (12 digit HUC # 171003020508): O’Shea Creek-South Umpqua River

Latitude/ Longitude: 42.922 -123.300 Degrees

Taxlot and Zoning:

Douglas County Tax ID numbers:  
#300533B00102 – 48.39 acres – Zoned Farm Forest (FF)  
#300533B00301 – 29.5 acres – Zoned Farm Forest (FF)

Data Sources: Douglas County Property Data Online:  
<http://www.co.douglas.or.us/GISweb/default.asp>

LocateOR: <https://gisapps.odf.oregon.gov/Locator/>

## **Property Description**

### **Background and History**

The Alder Creek Community Forest (ACCF) land has been in the Proctor family since the mid-1900's. Current landowner Jim Proctor lived on this property as a child and remembers changes to the forest and meadow areas over time both on his own property and on surrounding hillsides. To honor the legacy of his parents, Robert and Virginia Proctor, Jim created the Alder Creek Community Forest: a non-profit organization dedicated to outdoor exploration, education, and community dialogue around forest and watershed management.

The dominant forest cover at the ACCF is a mixed conifer, mixed oak hardwood forest, bordered by two perennial streams, Alder Creek and Jordan Creek. Prior to Euro-American (EA) settlement the dominant disturbances which shaped forests and riparian areas at ACCF and in the region were periodic fire, wind-throw, insects and disease, drought, floods, and mudslides. These same disturbances are periodically at play today, however with EA settlement came the disturbance of larger scale logging than was likely practiced by Native Americans. Prior to large scale logging, patchy tree harvest, periodic fire, and other disturbances maintained a complex structure of multi-aged trees, shrubs and grassy areas. Logging generally removed the largest and most fire resistant trees from the landscape, often in aggregations. Forests typically respond to logging by regenerating a large number of trees. Without periodic fire to thin them, the trees continue growing and competing for light and other resources. Some slowly die off while others get bigger. Eventually, assuming stable climatic conditions, this competitive process gives rise again to complex forest structure.

At ACCF, the largest conifers date to around 100 years old, with a few small patchy exceptions of larger, older cedars in the 130+ year age range. The largest old black oaks date to 200 years old and older. Based on current tree ages, logging appears to have occurred on different portions of the property in the early 1900's, in the 1940's, and in the 1960's. The forest is moderately productive, with deep soils and sufficient precipitation to grow big trees. Much of the forest is in the stand differentiation stage of succession and is on a trajectory to develop old growth structural features and characteristics over the next century.

### **General Description**

The dominant plant community at ACCF is mixed conifer hardwood forest characterized by a Douglas-fir, incense cedar, California black oak overstory. Aspect exerts strong influence on plant structure and composition with generally moister conditions and larger conifer tree size and species dominance on northerly and westerly slopes, and greater hardwood dominance, more white oak, drier conditions, and somewhat smaller conifer tree size on southerly and easterly slopes.

The property includes a large pasture, a large covered pavilion and teaching area, a home-site area, two creeks with associated riparian forest, a small white oak woodland stand, intermittent draws and ridges, and an extensive hiking trail system. Forested areas on the property appear healthy, tall, largely of closed canopy, with a relatively open mid-story and understory. Riparian areas and draws are shaded with a diversity of hardwoods, conifers, shrubs and ferns.



Photo above: Large old black oaks surrounded by younger Douglas-fir and Incense cedar

Recent salvage harvest of a small number of large dead incense cedar and a relatively young pine plantation add some diversity to the low elevation toe slope forest structure near Alder Creek.

### **Terrain and Topography**

Forests of the ACCF blanket three small NE/ SW trending ridges that are bordered by two perennial streams, Alder Creek and Jordan Creek, which join and become Jordan Creek, a tributary to the South Umpqua River, to the north of the property boundary. Elevations range from 1,000 to 1,250 feet ASL and slopes range from 0 to 90% with an average slope of around 35%.

### **Current Uses**

The property is managed as a healthy forest watershed system and is used for environmental education with small tour groups, hiking and nature viewing, research, and as rural residential land.

### **Landscape Context**

The ACCF borders the South Umpqua Conservation Opportunity Area identified by the Oregon Department of Fish and Wildlife Oregon Conservation Plan (2016). Key habitats of concern identified in the Oregon Conservation Plan and represented at ACCF include riparian habitats, oak woodlands, and late successional mixed conifer forests.

Specifically identified as important habitats and species for conservation in the O'Shea Creek-South Umpqua River watershed are: Freshwater macro-habitat; Black oak conifer forest and

woodland; Chinook and Coho Salmon and winter Steelhead; amphibians including the Foothill yellow-legged frog; birds including Lewis's Woodpeckers; mammals including Columbian white-tailed deer, Fringed Myotis bat, and Fisher.

Lewis' woodpeckers inhabit healthy, mature oak woodlands. Bats and Fisher benefit from large old trees with hollow cavities for nesting. Deer benefit from healthy, shrub dominated understory conditions and grassy openings. Salmonids and amphibians benefit from clean cold water, making soil and sediment protection and conservation of riparian forests important management priorities for the ACCF.

## Goals and Actions

The mission of ACCF: *Alder Creek Community Forest offers a safe place for exploring the outdoors, and for lifelong learning and dialogue to address challenges in sustaining forests, watersheds, and communities.*

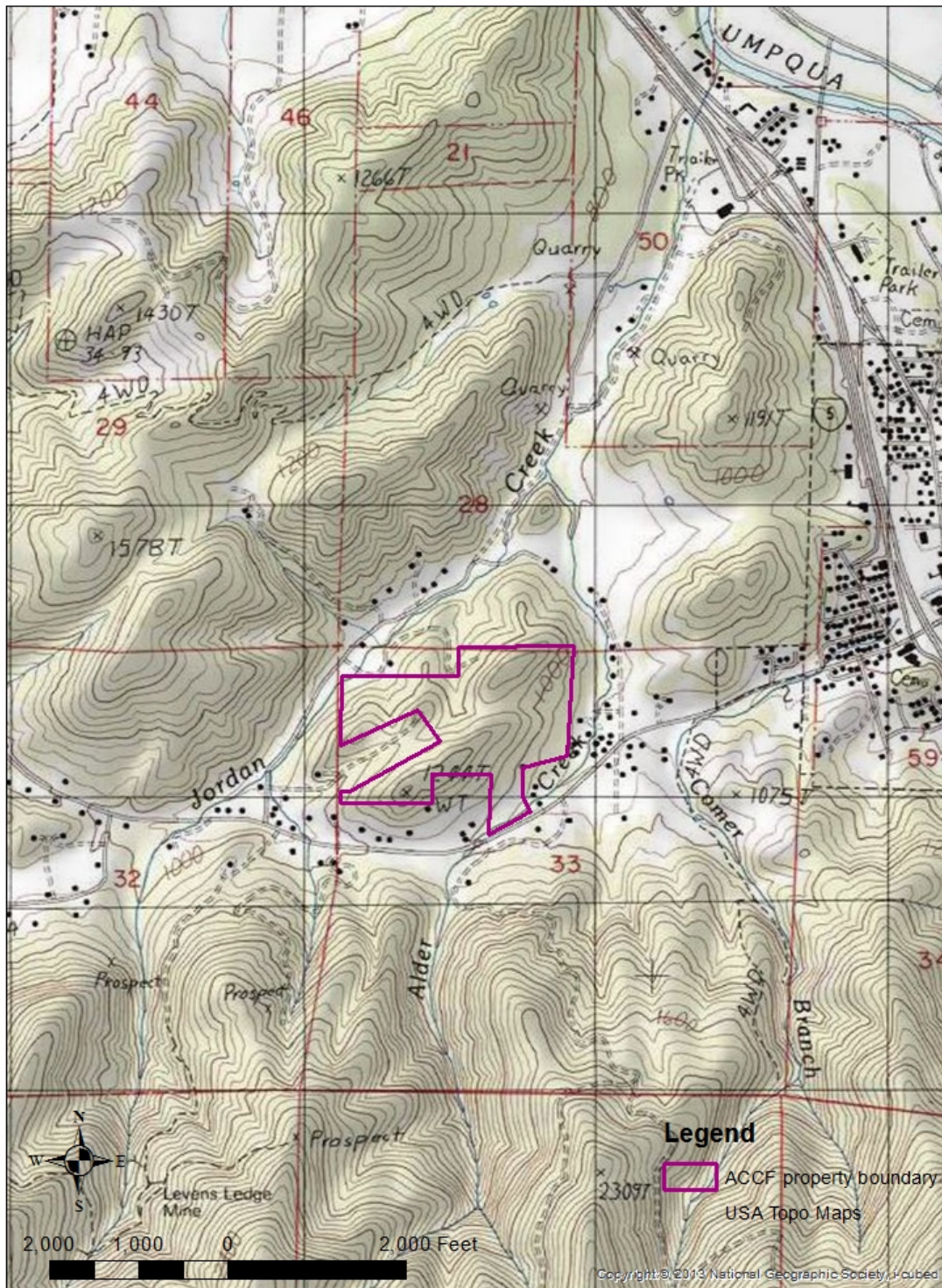
Specific forest management goals for the property include: management for healthy forest and watershed function, maintenance of healthy forest cover to sequester carbon, preservation of the property's scenic and natural values through conservation and active forest management, protection of forest bio-diversity and promotion of late seral forest structure development, maintenance of trail systems to facilitate community education and dialog about forest and watershed management, and reduction of fire risk through vegetation management as needed.

Specific actions to accomplish forest management goals could include: targeted thinning to accelerate/ promote development of late seral tree structural characteristics and preserve old oak tree structure; targeted fuels reduction in early seral dry mixed-conifer habitat to reduce fuel loading and promote larger tree structure; and minimization of soil disturbance on steep slopes to reduce the flow of sediment into salmon bearing creeks below.

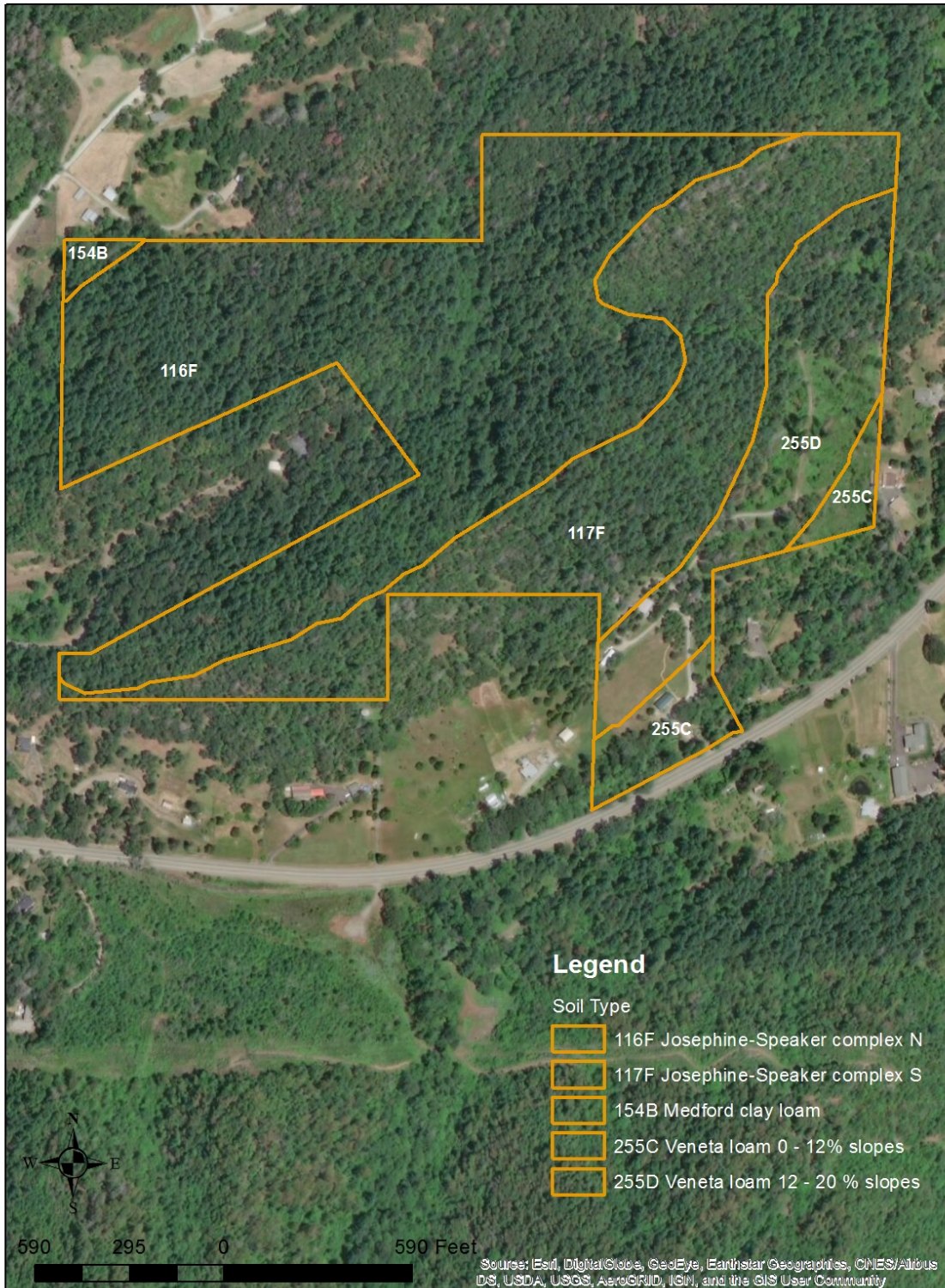


Photos: California black oak (left) and a Pacific madrone tree (right) surrounded by a younger, dense cohort of Douglas-fir on upper slope positions

## Property Area Maps

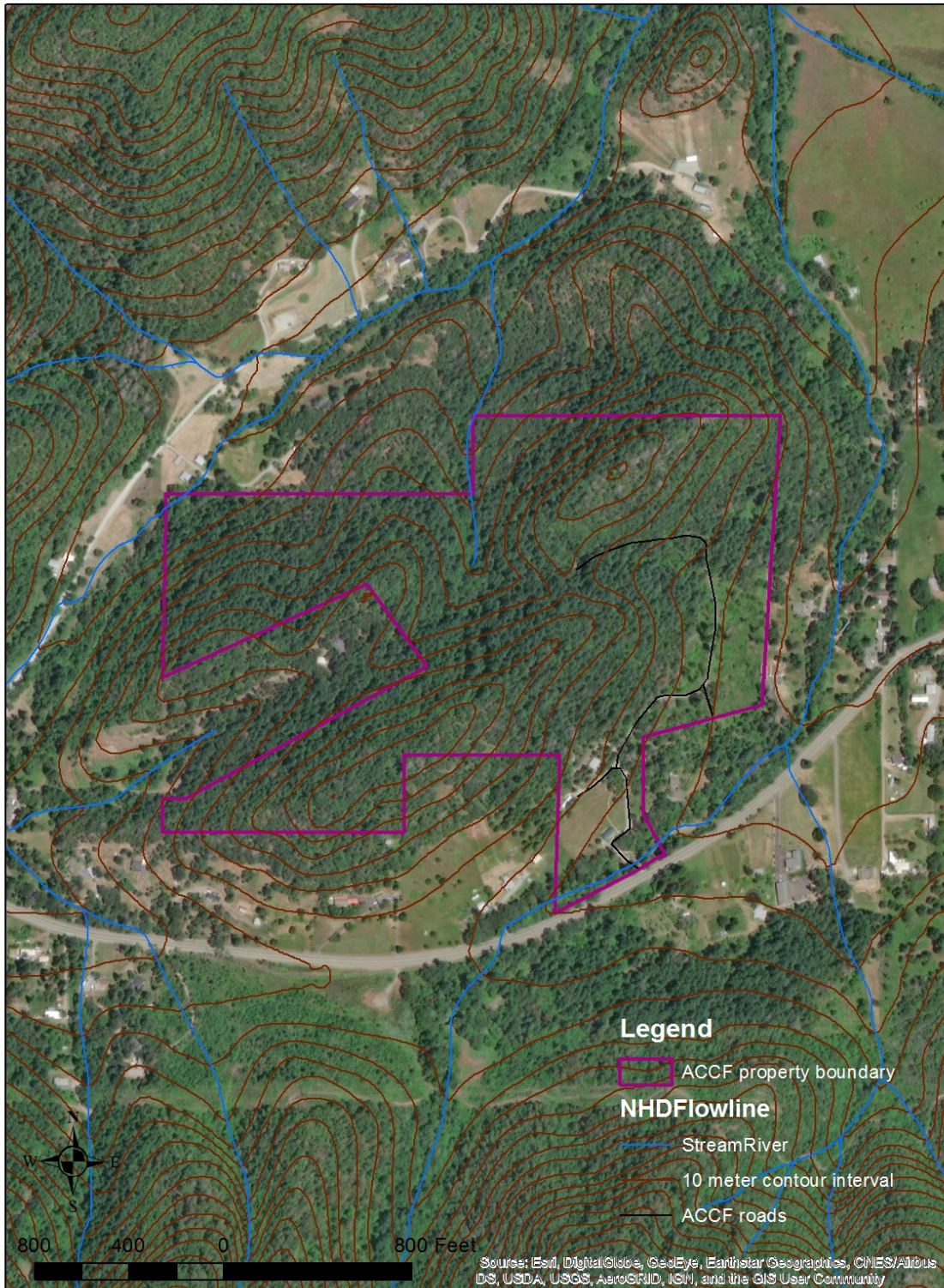


Map 1. Alder Creek Community Forest Location and Topographic Setting

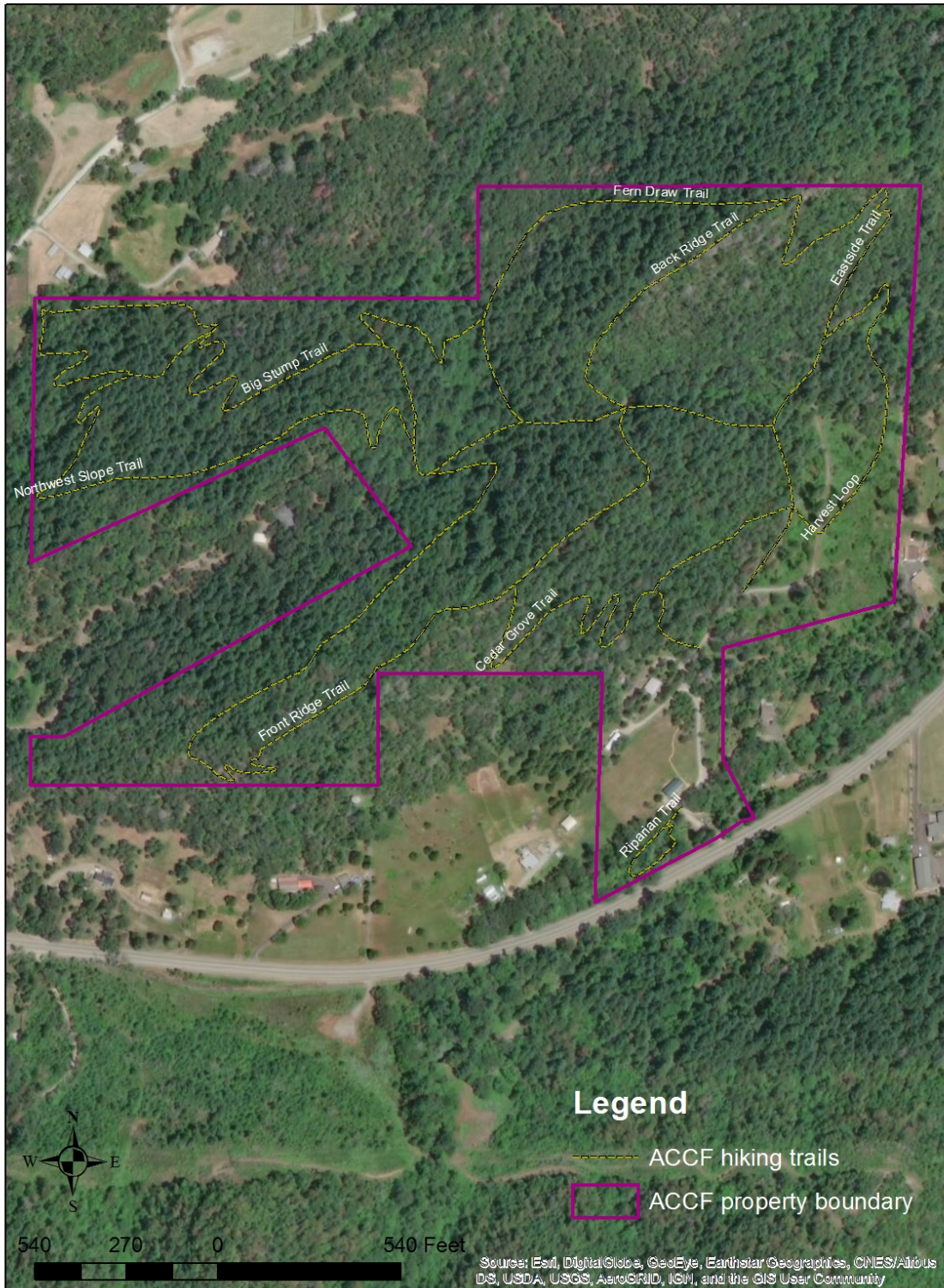


Map 2. Alder Creek Community Forest Soils Map (Data source: NRCS Custom Soil Report)

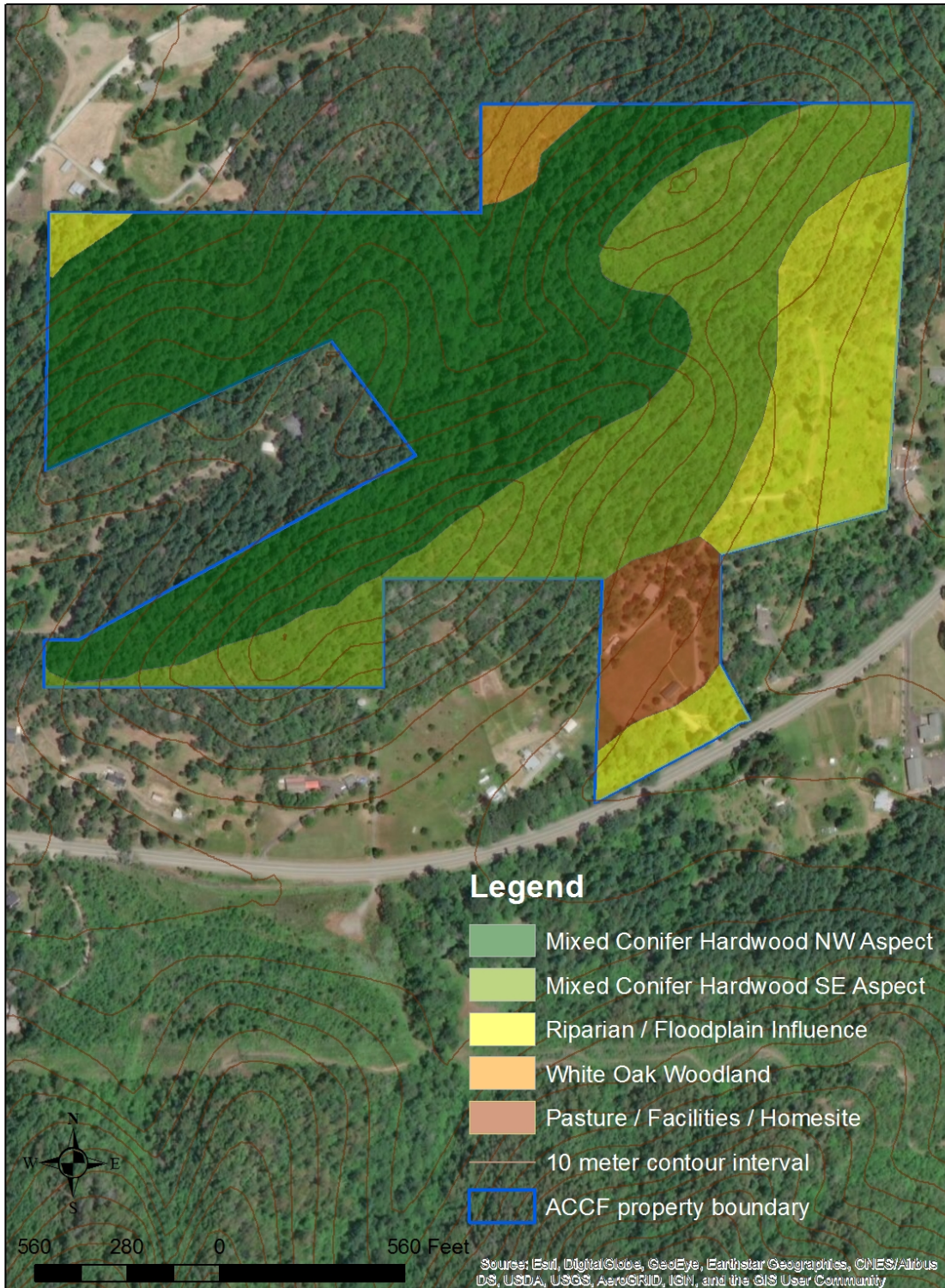




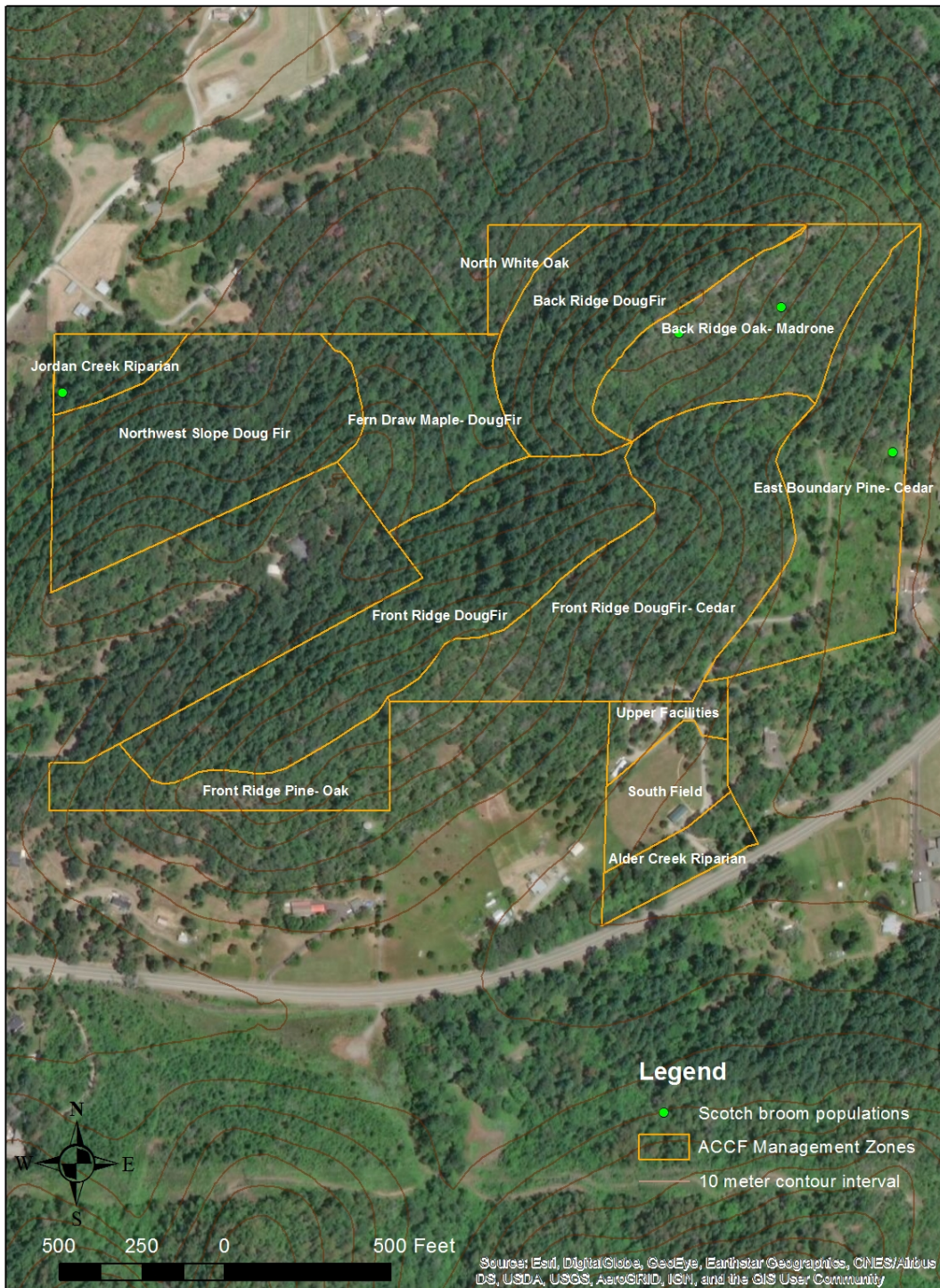
Map 3 - Aerial photo with ACCF boundary, streams, roads, and contours



Map 4. ACCF Hiking Trails



Map 5. ACCF Vegetation Communities / Land Cover



Map 6. ACCF Management Zones with Scotch broom locations. Note, Scotch broom mapping is not exhaustive. Population locations shown above may be larger and extend beyond mapped symbol. Management Zone data source: Jim Proctor, ACCF.

## Where to Get Help

This section contains contact information for agencies, professionals and resources that may be of assistance with forest health or land management questions or pursuit of funding to assist with forest and watershed health maintenance.

Oregon Department of Forestry Stewardship Forester Shannon VanDeventer  
Douglas District  
Cell: (541) 580-7487  
Office: (541) 440-3412 ext. 118  
Email: [shannon.vandeventer@oregon.gov](mailto:shannon.vandeventer@oregon.gov)

Oregon State University Extension Forester Alicia Christiansen  
1134 SE Douglas Ave, PO Box 1165  
Roseburg, OR 97470  
Phone: 541-236-3002  
Email: [Alicia.christiansen@oregonstate.edu](mailto:Alicia.christiansen@oregonstate.edu)

Douglas County Soil and Water Conservation District  
Address: 2741 West Harvard Ave, Roseburg, OR 97471  
Phone: (541) 957-5061

Natural Resources Conservation Service District Conservationist David Ferguson  
Address: 2593 NW Kline Street, Roseburg, OR 97471  
Phone: 541-378-3531

Websites/ Links to Agencies and other regional forestry, wildlife and conservation groups:

Oregon Department of Forestry: [www.oregon.gov/ODF](http://www.oregon.gov/ODF)

Oregon Small Woodlands Association: [www.oswa.org](http://www.oswa.org)

Northwest Natural Resource Group: [www.nnrg.org](http://www.nnrg.org)

Oregon State University Forestry and Natural Resources Extension Service:  
<http://extensionweb.forestry.oregonstate.edu/>

US Forest Service Pacific Northwest Region State and Private Forests Resources:  
[www.fs.usda.gov/main/r6/communityforests/](http://www.fs.usda.gov/main/r6/communityforests/)

Oregon Association of Conservation Districts: <http://oacd.org/>

Natural Resources Conservation Service:

<https://www.nrcs.usda.gov/wps/portal/nrcs/site/or/home/>

Oregon Department of Fish and Wildlife: <http://www.dfw.state.or.us/>

ODFW Oregon Conservation Strategy: [www.oregonconservationstrategy.org](http://www.oregonconservationstrategy.org)

US Fish and Wildlife Service Private Lands Program:

<https://www.fws.gov/oregonfwo/ToolsForLandowners/Partners/Details.asp>

Resource Guide for Oregon Forestland Owners: <http://knowyourforest.org/>

## **Soils**

Data presented in this section was summarized from an NRCS Web Soil Survey (<https://websoilsurvey.sc.egov.usda.gov>), accessed in November, 2018 and January, 2019. Please see the full soil report appended to this plan.

### ***Soil Type Description***

The dominant soil type underlying the ACCF is a Josephine-Speaker complex differentiated by south and north slopes. Soil types on lower slopes closer to Alder Creek and Jordan Creek include Veneta loams and Medford clay loams. The Josephine-Speaker complex soils which make up most of the forested areas on the property are gravely loams and clay loams derived from metamorphic rock, sandstone and siltstone. Soil depth varies from 20 to 60 inches to weathered bedrock and soils are well drained. Closer to the creeks soils are moderately well drained deeper clay loams derived from similar parent materials as the upland, rockier Josephine-Speaker soils.

### ***Soil Based Vegetative Productivity Ratings***

Site index values describe expected height growth in feet over time for conifers based on soil characteristics. Property area soils rank as moderate productivity for Douglas-fir with an expected height growth of nearly 100 feet over a 50 year period. Expected height is slightly reduced on south slopes relative to north slopes and expected growth is a bit better in deeper toe slope and floodplain landforms closer to riparian areas.

### ***Soil Based Land Management Considerations***

Erosion risk from roads is rated as severe for the dominant soils on the property. This suggests that a severe level of soil erosion would be expected following disturbance from logging, road building, or other activity which removes vegetative cover and exposes bare soil. Road building is not recommended for the dominant soil type at ACCF unless significant erosion mitigation methods are used for road and trail construction. Roads and trails would be expected to require

frequent maintenance to prevent rutting, severe erosion, and resulting soil deposition into local drainages.

The fire damage susceptibility ranking is listed as low for soils at ACCF, suggesting that soils would be resilient to wildfire and would not be expected to develop a water repellent soil layer or heavily erode following a fire. The potential for seedling mortality following a fire is described as low on north slopes, high on south slopes, and moderate in the riparian soil zones.

## **Water Resources**

ACCF area streams included in the National Hydrography 24K Dataset (USDA/ NRCS) include perennial, fish bearing Alder Creek and Jordan Creek, and an intermittent stream tributary to Jordan Creek that drains the north slopes of the property in the Fern Draw area. Domestic water for the home and facilities area is provided by service from the South Umpqua Water District.

## **Forest Vegetation**

### **Mixed Conifer Oak Hardwood and Riparian Forest**

Area: approximately 75 acres

Slope: Ranges from 0 to 90%,  
averaging approximately 35%

Aspect: Northwesterly and  
Southeasterly slope orientation

Elevation: Ranges from 1,000 to  
1,250 feet above sea level (asl)

Site Quality: Conifer growth at ACCF is considered site class 3 or moderate productivity based on soil survey data and expected height growth of 100 feet for Douglas-fir over a 50 year period. Average annual rainfall in the vicinity of ACCF is 40 inches (data derived from 30 year climate normals, Oregon PRISM climate data: <http://prism.oregonstate.edu/explorer/>).



Vegetation Cover Type: The mixed conifer hardwood forest at ACCF fits roughly within several of the drier type Douglas-fir plant association groups (Field Guide to the Forested Plant Associations of Southwestern Oregon, Atzet et al, 1996), and the Oregon White Oak – Douglas-fir plant association group. Notable is that ponderosa and sugar pine are not represented along with Douglas-fir, Incense cedar, California black oak, Pacific madrone and Oregon white oak in the overstory/ midstory. It's possible that pines were represented on the site historically but were logged out during the early settlement era and did not successfully regenerate. Pines need abundant sunlight to successfully regenerate and fast growing Douglas-fir may have outcompeted establishing pines during the tree establishment phase following the logging disturbance. It's also possible that the site has not hosted a lot of pine historically, but has been dominated by larger Doug-fir, incense cedar, black and white oak, and madrone as are present today.

Notable in the drier Doug-fir plant associations and represented at ACCF are closed canopy forest structure and understory tree, shrub and forb species including Pacific yew, Oregon grape, oceanspray, baldhip rose, California hazel, western sword fern and other ferns, poison oak, hairy honeysuckle, Pacific blackberry, creeping and common snowberry, mosses. Also present in wetter microclimates, draws, near creeks include bigleaf maple, Oregon ash, thimbleberry and others.

Number of Layers: Forest cover at ACCF in general can be described as horizontally stratified with two tree layers and a third ground cover layer, which in some locations includes small trees and saplings. Heights of the overstory and midstory tree layers vary somewhat with slope position, aspect, and time since logging. Horizontal stratification can be a helpful way to visualize forest structure. Here's an example of how to do it. Look at the forest floor and see the vegetation layer starting at the ground. Grasses, forbs, shrubs, and trees are all rooted in the ground. At what height does this leafy vegetation stop? Is there a vertical gap with space between the leafy top of the ground layer, and the bottom of the next tree canopy layer, or the next bit of green needles or leaves? Continuing to look up is there another gap between the midstory green tree canopy and the uppermost/ tallest overstory canopy? These horizontal layers of greenness, as tree or shrub canopy, are useful as descriptors of forest structure. Is most tree density in the tall tree layer? Is most of the vegetation concentrated at the ground layer? Is there space between layers or is there continuous fuel between the ground and upper tree canopy layers?

Just up from the Cedar Grove area in the Front Ridge Doug-fir Cedar stand, the overstory or layer one occupies the 70 – 130 foot height range. The second midstory tree layer has canopy structure in the 20 – 60 foot height range. There is a gap between the second tree layer and the ground cover layer, which is low, at the 0 – 3 foot height range.



Moving up slope to the Front Ridge tree heights are shorter but are still stratified into two dominant tree layers with a small gap between the ground cover layer and the midstory and overstory tree layers.

In the Northwest Slope Trail area, most trees are in layer one, with a tall, large tree overstory, and a patchy second layer of smaller trees. The third ground cover layer stretches upward to include saplings and small trees that reach up to 25 feet high, also in a patchy spatial configuration.

In the Back Ridge area, tree structure is two layered with a 100 foot sparse overstory of large Doug-fir and madrone trees and a dense midstory of small Doug-fir and madrone in the 40 – 70 foot range.



Photos above showing variation in tree layer heights and ladder fuel abundance. Top: east facing slopes of the Front Ridge. Bottom: Back ridge, west and east sides.

General Description of Forest Structure and Composition: Forests at ACCF are overall in good health, productive, and on a trajectory to develop late successional forest structure over the next century. There is some variation in forest stand heights and ages, with older, taller trees in the saddle area and upslope and south toward the front ridge area, and west toward the NW slope area. Forest stands are a bit younger and shorter on and around the Front Ridge and Back Ridge areas.

Overall stand densities are relatively high and trees are in competition for light and perhaps water or other below ground resources. Despite this competition tree crowns are generally healthy and there is little sign of significant insect and disease activity. Competition between trees over the next century will cause large wood and snag recruitment which will benefit wildlife, build soils, and will help contribute to complex forest structure.

Stands generally have one to two distinct tree layers and a variable density spacing where trees are fairly dense and forming a closed canopy but with some variability and patchy openings, allowing for some understory plant diversity. As mentioned canopy cover is generally high, in the 70 - 90% cover range.

Tree densities range from around 200 to over 700 trees per acre. In older stands the overstory layer is generally in the 200+ trees per acre density range, while the second tree layer is around 100 trees per acre. The highest density stands are in the younger forest up around the Back Ridge Trail where some thinning could be beneficial from both a stand health and fuels management perspective.

Overstory tree diameters average around 14-18" in diameter at breast height (dbh) but range from 11 – 30+ inches dbh. Mid-story trees are smaller diameter, in the 5 – 10 inch dbh range.

There is some diversity in the understory, with a variety of shrubs, forbs, ferns, mosses, grasses, and tree regeneration occurring in a patchy distribution across the landscape.

Of note are the large old declining black oaks and madrone trees in and amongst the Doug-fir and incense cedars. The largest black oaks and madrones represent the older tree cohort that was mostly removed during the last century of logging. Conifers have since grown up around these remnant oaks and are causing their slow decline due to excessive shade.

Understory Composition: Understory vegetation and ground cover includes several small shrubs, forbs, grasses, ferns, moss and leaf litter cover. The non-native shrub Scotch broom occurs in more open ridge areas on SW slopes. Himalayan blackberry is widely distributed throughout the property. Non-native ground cover Vinca spp. has naturalized in a small patch near Jordan Creek. Native plants include: Oregon grape, oceanspray, baldhip rose, California

hazel, western sword fern, goldback fern and other ferns, poison oak, hairy honeysuckle, Pacific blackberry, thimbleberry, creeping and common snowberry, mock orange, mosses, and others.

Snags and Down Wood: Large downed wood and snag density is low and patchy across the property. Snags are used by a variety of wildlife species for nesting, roosting and foraging. Snags of varying sizes are needed to provide sufficient habitat for cavity dwelling and foraging birds and mammals. A minimum of 1 – 2 snags per acre is used as a target on public lands; however an average of 5 to 7 snags and large downed wood per acre is a more wildlife-friendly target (see reference below). Variation in snag diameter, height, and state of decay are all important determinants of wildlife use and there is no precise prescription that will best serve woodpeckers, birds, bats, and other cavity nesting mammals.

As forest succession occurs over time, tree decline and death are a natural part of the stand development process. Forests throughout the Pacific Northwest are chronically low in large snag and large downed wood abundance relative to historic conditions due to widespread logging and forest management which has targeted larger and poorer quality trees for removal.

Where patches of snags occur on the property they can be left for wildlife use except where a safety hazard may occur with dead trees overhanging trails.

For more information on Pacific Northwest Forest snag densities see:

*Bate, Lisa J., Garton, E.O., and Wisdom, M.J. US Forest Service Gen-Tech Report, PNW-GTR-425, June, 1999. Estimating Snag and Large Tree Densities and Distributions on a Landscape for Wildlife Management.*

Stand History: Time, precipitation, good soils, a consistently warm growing season, and periodic wildfires or intentionally cultivated fires caused development of a mixed age, mixed species composition forest and plant community in the vicinity of ACCF. At the time of Euro-American (EA) settlement, regional forests were thought to have been characterized by larger, more widely spaced trees, though dense patches of tree regeneration would also have occurred following historic mixed fire severity disturbances. At ACCF, current forest composition is dominated by shade tolerant species such as Douglas-fir, incense cedar, Pacific madrone, and less dominant species like Pacific yew, bigleaf maple, Oregon ash, and others. Also included are a few pines and more sun dependent species like black and white oaks, which likely established in canopy gaps created by past disturbances.

Without periodic fire to thin shade-tolerant Douglas-fir and incense cedar, the result is high tree density and inter-tree competition. This condition leads to the decline of large old black oaks as conifers overtop and shade oak and madrone canopies. Management can be used to

increase the “hang time” of declining large old black oaks by selectively thinning conifers, particularly on the south and west sides of the tree to get more light to the oak canopy.

If no management action is taken competition will continue between trees and eventually more snags will be created, the oaks will largely die out, and individual dominant trees will emerge. Complex multi layered structure and species composition will occur as trees die, fall over and create a varied patchy light environment on the forest floor.

Monitoring: Science research and monitoring occurs on the property as part of ACCF environmental education programs. A general monitoring process for the property could be formalized by creating permanent photo-points, referencing annual notes on changes in forest health or forest conditions to a map, and keeping all records in a central location.

Forest Health: The forests at ACCF are relatively young and trees in many locations trees are competing where stands are in a stem exclusion phase of development. The stem exclusion phase is characterized by competition for limited resources, in this case light and probably water, particularly during dry years. In general tree crowns are healthy and there is little sign of significant insect or disease infestation. Competition for light is potentially a concern for the long term health of oak and madrone on the property where intermixed with conifers.

### Management Objectives

*Timber Management:* The Alder Creek Community Forest is governed by a Conservation Easement with some restrictions on timber management. ACCF forests may potentially be utilized for timber management where timber harvest would be the byproduct of forest management designed to promote the development of late successional forest structure and composition and maintain healthy forest closed canopy cover throughout the property. Additional restrictions include a prohibition on cutting more than 10% of the forest’s total volume within a 10 year period.

Selective thinning of conifers to release large old black oaks could involve cutting trees large enough to sell to a mill, however those trees are distributed throughout the property rather than located in one specific stand, making it difficult to access and remove logs. Additional limitations to logging at ACCF include steep slopes and erosive soils, which could potentially be mitigated with a cable based yarding system and a carefully placed landing. Alternatively, trees can be cut and left in place to increase the amount of large downed wood on the property for soil building and wildlife use. Large downed wood is present at a low density across the property.

*Fish and Wildlife:* Wildlife objectives for the property include maintenance of diverse forest structure and composition including snags, large downed wood, and large old trees with hollow

cavities. Desired management including release of large old oaks will help promote wildlife habitat by maintaining large snag structure and acorn production.

*Ecosystem Services:* Effective stewardship of high quality mixed conifer oak and riparian forests preserves wildlife habitat, and wildlife provide a host of ecosystem services.

Carbon sequestration is an ecosystem service occurring in all forests, however development of late successional and old growth forest structure in particular increases the carbon sequestration capacity of the forest. Forest management involving the production of biochar can improve the carbon sequestration capacity of the forest. Biochar is a form of highly stable carbon produced by the thermal degradation of biomass. Biochar creates value when used as a soil amendment and also provides climate benefits by transferring carbon from the atmosphere to soil carbon pools. See the electronic appendix to this forest plan for more information on biochar.

*Wildfire Fuels Management:* Throughout much of the forest at ACCF, ladder fuels are low and a gap in space occurs between the ground layer and the tree canopy. This can help prevent or limit the spread of ground fire into the canopy. An exception to this forest-wide condition occurs in the Back Ridge vicinity, where significant ladder fuels occur. Management objectives around wildfire fuels on ACCF could focus on the Back Ridge, including substantial thinning of small diameter Doug-fir and hand pulling of the invasive, flammable Scotch Broom (*Cytisus scoparius*) within 150 feet on either side of the ridge to reduce fuel loading and ladder fuel structure. Most small diameter thinning and fuels work is needed on the east rather than the west side of the ridge. The Back Ridge area is a desirable location to do fuels work in part due to the positioning of a gun range at the base of the hill on the NW side of the Back Ridge which could serve as an ignition point during dry summer and fall months. However, ignition risk from this location may not be any higher than from any other point along the property perimeter. One might expect a gun range to mitigate risks relating to wildfire as part of their mode of operation.

*Forest Health:* Targeted small diameter (generally  $\leq 8''$  dbh) Douglas-fir tree thinning would be expected to promote vigor among surrounding leave trees. Similarly, targeted thinning of larger diameter Doug-fir could slow the decline of over-topped, shaded black oaks. A combination of weed-whacking and hand pulling of scotch broom will reduce ladder fuels and improve understory plant diversity in the Back Ridge area.

Himalayan blackberry has a widespread presence on the property and would be extremely difficult to fully eradicate. In many locations on the property it is present but not existing in a mono-culture, where shade and native plant competition limit its density and extent. In more open environments it occurs in fairly dense patches. Herbicide use to eradicate Himalayan blackberry should be used cautiously due to its toxicity to pollinators and the potential to

overspray and kill surrounding native vegetation and/or through its potential to kill non-target vegetation through below ground interactions. If used, care must be taken to apply pesticides during prolonged dry spells to limit the amount that may runoff into surrounding waterways and pose a hazard to fish and amphibians. If determined to be necessary, herbicide can be applied using a “cut and paint” method to limit the quantity of herbicide released into the environment. This involves cutting back all blackberry canes with loppers or mechanical brush cutters and then dabbing a small amount of herbicide on the cut stem. This must be done during the season of active plant growth. Blackberry eradication can also be successful by hand cutting canes and digging up the root ball with a shovel.

Desired Future Condition: The desired future condition of forests at ACCF is much like it is today with perhaps a larger mean tree diameter and lower tree density overall, which could be achieved by thinning small diameter Douglas-fir and potentially thinning larger trees shading old remnant oaks and madrones. The mixed conifer hardwood canopy will continue to differentiate vertically and horizontally, developing a complex, patchy structure that encourages understory diversity. Inter-tree competition will slowly produce more snags and downed wood which will provide benefits to wildlife over time. Continued efforts at riparian restoration planting will promote diverse riparian shrub communities and help protect bank stability during high water events. Trail maintenance will help ensure that ACCF continues to be an important place for community engagement with the forest.

## **Integrated Pest Management**

Integrated pest management (IPM) is an approach to management that strives to utilize monitoring and planning tools to help achieve forest health using the least invasive means possible. Integrated pest management was specifically developed to help reduce the total quantity of pesticides used on forests and agricultural lands.

An IPM approach at ACCF could include simple visual monitoring annually to assess tree condition and look for new patches of invasive plants. IPM typically calls for faster and less invasive management actions than might be typically employed for treatment of invasive weeds or forest pests or pathogens. For example if a new small population of Himalayan blackberry is detected, an IPM method would call for prompt cutting and hand digging of root balls to minimize spread. Similarly if a new patch of dying trees is detected, a forester could be consulted to help determine if prompt removal is necessary to minimize insect or pathogen spread.

If an invasive plant is determined to warrant the use of pesticides, techniques to minimize the quantity applied can be employed such as: targeted application during active plant growth to

maximize the effects; application by a licensed applicator; utilization of methods to minimize the quantity used such as “cut and paint.”

## **Fish and Wildlife**

Specifically identified as important species for conservation in the ACCF watershed vicinity in the Oregon Conservation Strategy (ODFW, 2016) include the following: Chinook and Coho Salmon and winter Steelhead; amphibians including the Foothill yellow-legged frog; a host of birds including Lewis’s Woodpeckers; mammals including Columbian white-tailed deer, Fringed Myotis bat, and Fisher.

Lewis’ woodpeckers and other cavity nesting birds inhabit healthy, mature oak woodlands and mixed conifer hardwood forests. Bats and Fisher benefit from large old trees with hollow cavities for nesting. Salmonids, other native fish like the Umpqua chub, and amphibians benefit from clean cold water, making soil and sediment protection and conservation of riparian forests important management priorities for the ACCF.

Management to maintain diverse mature forest habitat and minimize erosion and soil deposition into surrounding creeks will help maintain wildlife habitat.

No threatened or endangered species are currently known to nest, forage or roost on the ACCF property.

There are no known Oregon Forest Practices Act Protected Resource Sites on the property.

Useful locations to search for wildlife information for the property and vicinity include:

The Oregon Forest BioDiversity Explorer:

[https://tools.oregonexplorer.info/OE\\_HtmlViewer/index.html?viewer=biodiversity](https://tools.oregonexplorer.info/OE_HtmlViewer/index.html?viewer=biodiversity)

The Oregon Conservation Strategy: <http://www.oregonconservationstrategy.org/>

## **Roads**

The roads on the property are natural surface dirt or graveled roads in good condition. No water drainage issues were noted.

## **Access and Security**

The main property access is a driveway at 829 Canyonville-Riddle Road (County Hwy 21), located to the west of Canyonville and just west of the 1 mile marker. The northwest corner of the property borders Jordan Creek and is very close to the Rod and Gun Club Road, however is

bordered by private land so would require permission for access. The Proctor / ACCF property is surrounded by privately owned lands; property boundaries are indicated by signs, old fence lines, and/ or changes in forest structure. Water sources include municipal water at the home site / facilities area and Alder and Jordan Creeks. Future home construction will likely include water storage tanks for irrigation and potential fire suppression use.

## **Wildfire Protection**

Structural Fire Protection District: Canyonville South-Umpqua  
400 N Main St, Canyonville, OR 97417  
Phone: (541) 839-6185

Forest Fire Protection District: Douglas Forest Protective Association and  
Oregon Department of Forestry  
Roseburg Unit Office  
1758 NE Airport Road  
Roseburg, OR 97470  
541-440-3412

### Emergency Fire Evacuation Plan Checklist

- The caretaker and any residents at 829 Canyonville-Riddle Road should maintain a list with names and numbers of family, neighbors and friends to call in case of wildfire.
- The evacuation route from the home and facilities area is out the driveway to exit onto Canyonville-Riddle Road.
- Maintain the driveway for emergency vehicle access. See specifications below.

### Wildfire Preparedness Checklist

- Defensible space around homes and other structures
- Access roads not encroached with hazardous fuels
- Roads signed and mapped
- Water sources mapped
- Aerial hazards mapped

Vegetation fuel should be reduced within 50 feet of a home and other structures.

To ensure driveways are accessible to emergency vehicles: clear overhanging obstructions to a height of 13 1/2 feet and a width of 12 feet; clear grass, brush and dead vegetation to a distance of at least 10 horizontal feet on each side of the driveway's centerline.

During the months of summer, firewood and lumber piles should be placed at least 20 feet from the home and other structures, or put inside an enclosed shed. Flammable material should be removed from beneath decks. Tree branches should be trimmed at least 10 feet away from a chimney, and dead branches overhanging the roof must be removed.



For more information see: <http://www.dfpa.net/firewise.asp>

### **Hazardous Fuel Concerns**

General Firewise guidelines should be followed around structures, including mowing of grass during the dry season near the driveway and buildings. Ladder fuels do occur in some locations on the property, and fuels reduction is a recommended management action for the Back Ridge area. In general, there is a gap in the vertical continuity of fuels in forested stands of the ACCF, which is favorable for fire management. Maturing forest and associated closed canopy cover restrict light to the forest floor which limits the growth of fine fuels.

### **Prescribed Burning and Smoke Management**

From the ODF Forest Management Plan Template:

Forest management of the property shall follow all laws and rules regulating prescribed burning on forestland. The following steps will be taken prior to conducting a prescribed burning practice:

- A burn plan will be developed by a natural resource professional that takes into account feasible alternatives to burning, how weather will be monitored, how the burn will be conducted to prevent smoke from entering smoke sensitive areas, and the resources necessary to ignite and manage the burn to prevent it from becoming wildfire.
- Register the burn with the Oregon Department of Forestry 7 days prior to ignition
- Layout the burn operation and notify the Oregon Department of Forestry at least one day ahead of the desired burn day the operation's location, method of burning, fuel-load and ignition time

Wait to implement the burn operation until the Oregon Department of Forestry issues a burn permit that specifies burn site information, conditions for burning and allowed burning dates and hours. Landowner understands the burning permit may be delayed until conditions of the [Oregon's Smoke Management Plan](#) for [Smoke Sensitive Receptor Areas](#) are met.

Burn permits for pile burns can be obtained by calling the Douglas Forest Protective Association at: 541-672-6507

### **Aesthetics and Recreation**

ACCF is used for recreation, research, and education. The desired aesthetic is that of a mature healthy forest and watershed community. An extensive trail system makes access relatively

easy to all parts of the forest. Patchy fuels reduction and targeted tree thinning will help maintain an open feel to the property with an emphasis on larger tree structure.

### **Cultural Resources**

No evidence of artifacts or other cultural resources, before or after the Euro-American settlement era, were observed on the property during forest inventory and assessment field visits. Recommended management actions such as patchy tree thinning and slash disposal would be unlikely to cause significant soil disturbance, and thus would not likely cause disturbance to any un-detected cultural resources.

More information can be found with the Oregon Parks and Recreation Department State Historic Preservation Office:

<http://www.oregon.gov/oprd/HCD/SHPO/pages/index.aspx>

### **Resiliency and Carbon Sequestration**

Forests play a vital role in the earth's carbon cycle, as they remove carbon from the atmosphere and store it in biomass (trunks, branches, foliage, and roots) and soils. Sustainable forestry practices can increase the ability of forests to sequester atmospheric carbon while enhancing other ecosystem services, such as improved soil and water quality. In some instances, there may be opportunities to receive compensation for carbon sequestered in your forest. For more information, visit:

<http://www.fs.fed.us/ecosystemservices/carbon.shtml>

<http://www.forestationplans.org/about-action-plans/forest-trends/climate-change-carbon-sequestration-and-biomass-energy>

<http://www.fs.usda.gov/ccrc/>

<http://climatehubs.oce.usda.gov/>

<http://www.pinchot.org/>

### **Tax and Business Management**

Oregon has several tax classifications for forest and farmland. Current zoning and property tax classification for the Proctor property is: Farm Forest.

Forestland property tax classifications may result in a different tax rates than non-forest, farm, or rural tract land. Additional information can be found on the National Timber Tax website: <https://timbertax.org/> .

To learn more about estate planning and the transfer of property to heirs, please consult the Oregon State University Ties to the Land Program: <http://tiestotheand.org/> .

Consultation with a professional tax accountant and bookkeeper may be useful to assist with cash flow and record keeping in the event of enrollment in forest restoration grant programs, or in periodic evaluation of property tax classification.

### **Management Recommendations**

Overall the forest is in a healthy condition. Douglas-fir is dominant, growth is generally good. Some Doug-fir decline is occurring in areas with more white oak, which is to be expected as white oak typically thrives in areas with thinner, less productive soils. The forest condition is dense with smaller diameter trees and ladder fuels in upper slope positions on the Back Ridge, particularly on the east side, and on the west side of the Front Ridge. Thinning forest-wide could be done for the purpose of 1) releasing larger Douglas-fir in an attempt to grow bigger trees faster, 2) reducing overall stand density and inter-tree competition for resources, and/ or 3) to allow more light to large old remnant oaks and madrone scattered throughout older stands. Douglas-fir could also be thinned in some areas where trees are smaller and more densely clustered to reduce ladder fuel structure. Forest succession and continued development of late seral closed forest structure will, however, continue without thinning.

Caveat to the recommendation for limited active management: Monitor tree health for signs of stress due to climate change. Significant change in the precipitation and temperature regimes regionally could cause stress to fast growing Douglas-fir trees. If Doug-fir on the property start to show signs of stress forest wide, then prioritization of selective thinning to promote larger trees and species diversity and decrease stand density could be warranted. Signs of Douglas-fir stress include: needle color change from green to red or brown; unusually heavy cone crop production (known as “stress cones”); pitch, holes, frass, or other signs of beetle activity; rapid or patchy increase in abundance of dead trees. Small numbers of dying trees, perhaps up to 10% of the stand average trees per acre (tpa) are to be expected among the suppressed and even co-dominant tree layers, particularly where stem density is high. However, decline/ stress among dominant trees could indicate that overall stand density needs to be reduced. If larger trees are cut and there is interest in utilization or moving logs, special measures will be needed with logging operations to reduce the risk of slope erosion and sedimentation into surrounding creeks.

Riparian areas: Maintain canopy cover in riparian areas and continue understory plantings of native riparian species. Climate change related management considerations for riparian areas

could include discussion of the potential need to increase the Alder Creek culvert size at the ACCF main entrance to accommodate potentially larger peak flows with local Oregon Department of Transportation and Oregon Department of Fish and Wildlife.

Invasive species: Dominant invasive species noted on the property include Scotch broom (*Cytisus scoparius*), Himalayan blackberry (*Rubus armeniacus*), and Periwinkle (*Vinca spp.*). Scotch broom was mostly noted in the Back Ridge area, though a small population was noted near the eastern property boundary off the Harvest Trail and another small patch was noted near Jordan Creek in the NW corner of the property. A general approach with invasive weeds is to pull / treat smaller, outlying populations first to minimize further spread, then approach the larger populations. Scotch broom can be successfully controlled by hand pulling in the late spring or early summer, repeated annually. Hand pulling mature plants typically requires a shovel to “pop” the tap root loose while pulling up the plant. A weed wrench has been developed specifically for this task but a shovel works well also.

Similarly Himalayan blackberry can be eradicated through persistent brush cutting followed by digging up the root ball of the plant with a shovel. Targeted applications of herbicide can also be used to kill blackberry. Non-native blackberry is fairly widespread on the property. Small populations could be prioritized for control.

Periwinkle or *Vinca spp.* (photo at right) has become established in a small area near Jordan Creek in the NW corner of the property. *Vinca* can be cut back with a weed eater and the roots can be removed by digging. This area could be interplanted with native shrubs to help out-compete *vinca* and limit its future spread.



### **Schedule of Planned Actions**

The following management recommendations have been made based on field surveys, assessment of current and desired forest condition, and landowner areas of concern. These actions are recommended for implementation within the next five to ten years and are listed in order of relative importance from most to least important, with number one being the most important.

### **1) Fuels reduction and Scotch broom removal along the Back Ridge east slope – Back Ridge Oak Madrone area**

Discussion: Small diameter Douglas-fir density is high on either side of the Back Ridge. On the east side of the Back Ridge, in the Back Ridge Oak Madrone Zone (see ACCF Management Zones, Map 6), dense young Douglas-fir trees and non-native shrub Scotch broom, combine to create a fuel ladder from the ground layer into the overstory tree canopy. Targeted thinning of small diameter Doug-fir paired with Scotch broom removal is recommended to release larger trees from competition, reduce ladder fuel continuity and fuel loading, and increase vigor among leave trees.

This management activity would involve hand thinning and piling and slash disposal, and would require a Forest Practices Act Notification and a Burn Permit.

Investigate possible cost-share funding through the Oregon Department of Forestry or other agencies including the Natural Resources Conservation Service and Douglas County Soil and Water Conservation District. Invite the ODF Stewardship Forester out annually and ask if there is funding each year for fuels work, invasive species work, or forest health work. Each year management priorities vary a bit and new funding may become available. Consult with Southern Oregon Land Conservancy about possible shared hosting of an Americorps crew to assist with invasive weed, small tree thinning, and/or trail work.

Frequency/ Timeline: This Management Action should be accomplished within the next 5 years or as soon as is feasible to reduce ladder fuels and slow the seed production and potential spread of Scotch broom.

### **2) Targeted release of large old black oak and madrone throughout ACCF**

Discussion: Past logging and lack of ground fire has led to high density Douglas-fir regeneration in both the small and large tree categories. These trees have grown up around remnant oak and madrone that was not cut during past timber harvests. As conifers over-top hardwood tree crowns, the hardwoods lose vigor, decline and die. They continue to be valuable as snags, however the acorn production is lost, and the continued development of cavities for wildlife habitat stops. To increase the odds of survival for large old hardwoods, conifers competing for light and crowding the hardwood tree crown can be thinned, particularly on the south and west facing sides of the tree, to allow more light in to the canopy. Similarly, Doug-fir can be thinned out around younger/ smaller hardwoods to prevent future overtopping and hardwood decline.

This management activity would involve hand thinning and piling and slash disposal, and would require a Forest Practices Act Notification and a Burn Permit.

Pursue cost-share opportunities through the Oregon Department of Forestry, the Natural Resources Conservation Service, the Douglas County Soil and Water Conservation District, and the US Fish and Wildlife Service Partners Program for oak habitat restoration and forest health.

Frequency/ Timeline: This Management Action should be accomplished within the next 5 to 10 years or as soon as is feasible to improve vigor among remnant hardwoods.

**3) Riparian areas: Small diameter Douglas-fir thinning and weed control in riparian influenced area near Jordan Creek, NW property corner; continued monitoring and restoration planting, Alder Creek**

Discussion: To promote species diversity in the riparian forest zone near Jordan Creek, a small, patchy thin of young Douglas-fir could be used to release preferred species such as Pacific yew, Oregon ash, big leaf maple, ponderosa pine, oceanspray and other native shrubs. To protect water quality limit the use of fuel for burn piles and conserve shade and soil near the creek.

Weeds: a small patch of Scotch broom occurs here: this would be a priority patch to pull to prevent it from spreading. There is also a patch of non-native ground cover, Vinca spp. that has become established in this area near Jordan Creek. Vinca can be cut back with a weed eater followed by digging up the root ball. Alternatively, an attempt could be made to out-compete the vinca by interplanting with native shrubs such as oceanspray, hazel, and others, and sheet mulching with cardboard and bark mulch or wood chips. Additional research on vinca control in Oregon would be helpful prior to initiating control methods.

Alder Creek: monitor stream banks; re-plant native riparian shrub species as desired.

Cost-share funding through the Oregon Department of Forestry or other agencies including the Natural Resources Conservation Service and Douglas County Soil and Water Conservation District may be available to help with this management activity.

This management activity may involve hand thinning and piling and slash disposal, and would require a Forest Practices Act Notification and a Burn Permit.

Frequency/ Timeline: Attention to the small patch of Scotch broom should happen within the next one to five years or as soon as possible. The Doug-fir thinning, vinca treatment, and riparian area monitoring would be a beneficial management activity within the next 5 to 10 years.

#### **4) Small diameter Douglas-fir thinning, Front Ridge Douglas-fir Management Zone (see Map 6), west slope Front Ridge**

Discussion: Past logging and lack of ground fire has led to high density Douglas-fir regeneration in the Front Ridge area. A targeted variable density thinning approach that reduces density of small diameter Douglas-fir ( $\leq 8''$  dbh), around larger hardwoods and the larger / older cohort of conifers would improve growth among leave trees. Up to 100 trees per acre in the small Douglas-fir category could be cut, however, thinning could be patchy and could include large unthinned areas to maintain structural diversity.

This management activity would involve hand thinning and piling and slash disposal, and would require a Forest Practices Act Notification and a Burn Permit.

Pursue cost-share opportunities through the Oregon Department of Forestry, the Natural Resources Conservation Service, the Douglas County Soil and Water Conservation District, and the US Fish and Wildlife Service Partners Program for oak habitat restoration and forest health.

Frequency/ Timeline: This Management Action should be accomplished within the next 5 to 10 years or as soon as is feasible to improve vigor among larger leave trees.

#### **5) Monitor conifer health annually, possible Variable Density Thin forest wide**

Discussion: Monitor conifer health over time. Several dying trees per acre is to be expected given the successional stage of the forest, however if large numbers of Douglas-fir in a particular slope position begin to show signs of stress together (see description in management recommendations narrative above), that could be an indication of some broader agent like climate/ weather causing changes to the environment, in which case some stem density reduction forest wide could be useful. A variable density thinning approach can be used that includes "skips" and "gaps" to avoid treatment uniformity and forest stand homogenization. A thinning prioritization can be based on species and size preference where smaller diameter or less preferred species are thinned out where in proximity to preferred species. Some areas are left completely un-thinned as "skips" to promote structural diversity. Larger tree boles can be left long for downed wood and wildlife habitat; smaller materials can be piled and burned.

If variable density thinning were to be implemented forest wide, hand thinning and piling and slash disposal would be involved and would require a Forest Practices Act Notification and a Burn Permit.

Cost-share funding through the Oregon Department of Forestry or other agencies including the Natural Resources Conservation Service and Douglas County Soil and Water Conservation District may be available to help with this management activity.

Frequency/ Timeline: Monitor for changes in forest health annually over the next decade.

### **6) Potential upsizing of Alder Creek culvert**

Investigate possible culvert size upgrade at main entrance on Alder Creek as hydrologic regimes are predicted to shift and potentially cause less frequent, larger peak flow/ flood events. Culvert upsizing may not be necessary in this location, but is a general concern in the Pacific Northwest.

Consider consulting with local agencies such as ODOT and ODFW to find out if culverts on Alder Creek are being targeted for replacement due to the potential for larger future peak flows. Cost-share funding through the Oregon Department of Transportation, Oregon Department of Fish and Wildlife, Douglas County Soil and Water Conservation District, and/or other agencies may be available if action is warranted.

### **7) Monitor white oak woodland patch**

Monitor the small white oak woodland patch at the north end of property for potential conifer encroachment and occurrence of invasive species. Oregon white oak plant communities tend to be slow growing. The acorn production, cavities in dead trees and injured limbs, and diverse grass shrub understory are important for a variety of wildlife species. Prescribed fire can be used to renew understory species and limit small tree establishment.

Prescribed fire would involve development of a burn plan and coordination with a qualified burn boss.

Cost-share funding could be possible for this treatment through the BLM, the US Fish and Wildlife Service Partners Program, the TREX program, prescribed fire councils, The Nature Conservancy, or other agencies.

Frequency/ Timeline: General monitoring of the oak woodland patch could be part of an annual monitoring visit for the property and would be beneficial at any time. If a prescribed fire is desired, monitoring of wildlife populations before and after the burn could help inform desired burn season for future management activities at ACCF. Historically fires burned when fuels were dry enough to carry the fire, generally summer and fall. Present day fire technology allows use of prescribed fire when fuels moistures are higher than typical during wildfire season. Not all ecological implications of prescribed fire are fully understood, however, fire is known to be a native ecological disturbance process in PNW forests.



## **8) Recent harvest area and pine plantation along roadside on eastern property boundary area**

Discussion: 2018 harvest of a small number of large dead incense cedar trees has resulted in some slash and bare soil along the road near the southeastern property boundary. A variety of native shrubs and tree seedlings are already growing in disturbed areas. Some additional incense cedar seedlings could be transplanted to bare soil patches where trees were cut. Himalayan blackberry is present but not currently dense in recent thin areas. Blackberry can be controlled by hand or by machine lopping stems and digging up root balls.

Slash could be treated using a biochar burn method to retain carbon on site. See appendix on use of biochar slash treatment for landowners.

The adjacent pine plantation would benefit from thinning and blackberry control in the next 10 – 15 years to promote tree growth and increase species diversity. Favor site adapted native trees and shrubs such as big leaf maple and cedar, mock orange, oceanspray, and native berries, thinning out planted pine to promote growth among leave trees and shrubs. Thinning using a tree species preference list will assist in development of less uniform spacing and spatial patterning that would otherwise result from cultivation of a planted stand.

The ODF Stewardship Forester and OSU Extension Forester may be of help in directing landowners to a good source for native trees to plant.

Watering planted trees once per month during the growing season during their first one to two years is likely to boost survival rates.

Frequency/ Timeline: Planting and/ or transplanting cedar seedlings and blackberry control in harvested areas are recommended actions over the next 1 – 3 years. Pine plantation thinning would be beneficial during the next 10 years.

### **Summary and Implementation Strategy**

This forest stewardship plan is intended to provide a descriptive overview of the property, describe current forest conditions, and provide general management recommendations to consider within the next decade. Management recommendations are in part based on property goals and objectives. Commercial timber harvest was not described as a primary management objective for ACCF so recommendations are more tailored to general fire risk mitigation and promotion and protection of late seral forest characteristics and habitat quality.

If ACCF wishes to implement any or all of the management recommendations, it will be important to find a person who can represent the landowner and ACCF interests, who will take the lead on communication with agencies that may be able to provide partial funding for management activities. That person will also interact with any sub-contractors or volunteer

groups that do active restoration or management on the ground at ACCF. It is helpful to have a forester, or someone familiar with interpretation of management plans, development of treatment prescriptions, and oversight of thinning crews, to help delineate specific treatment areas on the ground, and provide crews with simple prescriptions or a sample mark before treatment begins. Treatment areas and prescriptions can be based on guidance from this Forest Stewardship plan, but the plan itself does not provide specific treatment unit boundaries and prescriptions. To ensure desired results from any active management, the ACCF representative will want to provide at least some oversight during the beginning, middle, and upon completion of any on the ground restoration implementation.

Below is a suggested sequence of potential management tasks during the next 10 years:

- 1) Map the Scotch Broom populations
- 2) Map the Himalayan blackberry populations
- 3) Map locations of large old black oak and madrone
- 4) Develop monitoring protocols
- 5) Pursue cost share funding for fuels work on the Back Ridge. Retain control of the prescription rather than sub-contracting with a forestry company that will do generic “fuels reduction.” Specify that fuels work will be restricted to scotch broom removal and thinning of small diameter Douglas-fir only (generally <8” dbh). No shrubs will be cut. No snags or downed wood will be cut unless representing a significant hazard. Hardwoods will not be limbed up.
- 6) Thin out small diameter Douglas-fir (generally <8” dbh) in the Jordan Creek riparian area to promote species diversity. This is a small project, not more than a few acres, not a lot of thinning to do, but will increase species diversity in that area.
- 7) Do a targeted release of some of the large old black oak and madrone. Select those trees most likely to survive based on location and current condition. Thin out Doug-fir shading the hardwoods on the S and W sides. Avoid cutting a big “donut” around all trees targeted for release, creating an un-natural/ novel structure. Work with a single, reliable skilled sawyer rather than a large crew. And/or have a reliable, skilled forester or other person with natural resource savvy mark the trees to be felled.
- 8) Consider some small diameter Douglas-fir thinning on the west side of the Front Ridge.
- 9) Do monitoring; consider using a patchy, variable density thin approach if beginning to see signs of overstory tree mortality.
- 10) Consider a very light thin in the pine plantation to release native tree and shrub regeneration, thereby promoting species diversity in that young stand.

## **Regulatory Compliance**

The landowner agrees to comply with all applicable local, state and federal laws regulating use of private forest land. These include but are not limited to the Oregon Forest Practices Act and the Endangered Species Act.

Learn more about the Oregon Forest Practices Act here:

<https://www.oregon.gov/ODF/Working/Pages/FPA.aspx>

## **Appendices**

Appendix 1: Signature Page

Appendix 2: Soil Report for ACCF Vicinity (see attached pdf)

Appendix 3: The Value of Biochar for Landowners (see attached pdf)