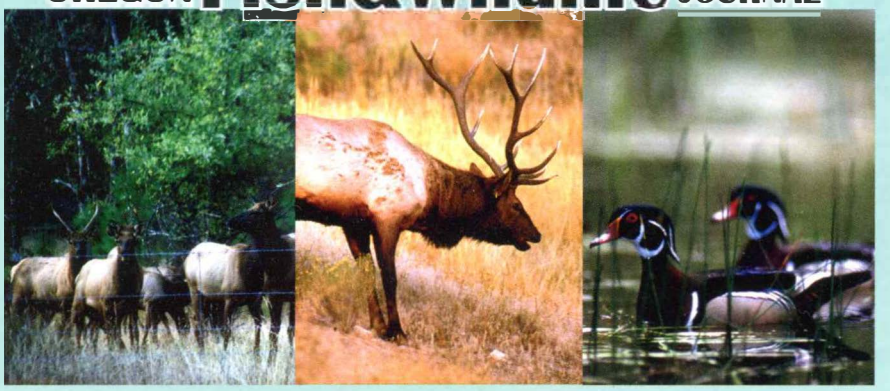
Winter Issue 2022

OREGON Fish&Wildlife JOURNAL

Furthering The Concept of Multiple Use of Our Lands For Over 40 Years!

What's INSIDE...

OREGON Fish&Wildlife JOURNAL

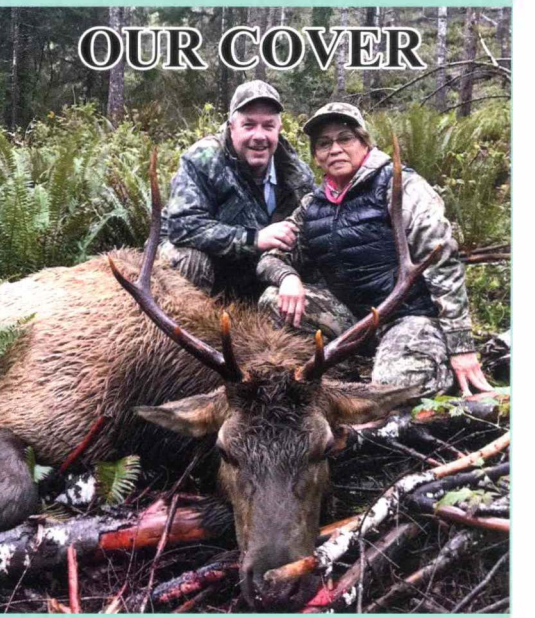


To Subscribe: Send a check or money order to, P.O. Box 1325, Clackamas, Oregon 97015
To use your VISA/Mastercard call 503-657-6962 or fax information to 503-657-3410
or email to, RZPublish@aol.com • www.OregonFishAndWildlifeJournal.com
One Year (4 issues) $24.95 • Two Years (8 issues) $46.50 • Four Years (16 issues) $83.95

OREGON Fish&Wildlife JOURNAL

Winter Issue 2022

Volume 44, Number 1



This issue's cover is of Greg and Jane Palmrose with their massive Bull Elk!

PUBLISHER
EDITOR-IN-CHIEF
Cristy Rein

FORESTRY EDITOR
Mickey Bellman

ADVERTISING SALES/ADMINISTRATION
Amy Stucks

CONTENT CONTRIBUTORS
Cristy Rein, Dr. Bob Zybach, Mickey Bellman, OregonWatchdog.com, Troy Palmrose, Patt Dorsey, House Natural Resource Committee, Nick Smith, Healthy Forests Healthy Communities, Taxpayers Assn., of Oregon and Cam Ghostkeeper

We can be reached at (503) 657-6962
FAX (503) 657-3410 • P.O. Box 1325
Clackamas, Oregon 97015
email: RZPublish@aol.com
www.OregonFishAndWildlifeJournal.com

Oregon Fish & Wildlife Journal is published quarterly by R-Z Publishing, Inc. Unsolicited editorial contributions are welcome but should be accompanied by return postage. Editorial contributions will be handled with care; however, the Publisher assumes no responsibility for safety of artwork, manuscripts or photographs. Publisher is not liable for any claim based on contents of published advertising. Publisher is not liable for content supplied by contributing editors.

My Voice

By Cristy Rein

Traveling around Oregon I used to love having my Oregon Blue Book with me. I'd come into a small town and read what their population was, their elevation and facts about the town. Definitely shows my nerdy side but I enjoyed it! I hadn't picked up a Oregon Blue Book in years and decided to order the 2021-2022 edition.

When it arrived I skimmed through and looked in the "economy" section and was dumbfounded by what I found.

We talk a lot in this magazine about the struggle we all have trying to get accurate information from news sources. Shemia Fagan, our Secretary of State compiled and published this edition and apparently decided to write her own version of our facts.

The list of Oregon's top 10 commodities did not include wood products, paper, pulp, Christmas trees, no forest products made the list, the closest is greenhouse and nursery!

According to this book of "facts" about Oregon, we produce more pears than wood products! Oregon leads the nation in Christmas tree production. Oregon is also the top producer of softwood lumber, producing more than 16% of the nation's softwood. In addition, Oregon is number one in the nation for plywood production, producing 30% of our nation's total! Oregon is number one in engineered wood products.

Here's the list: Oregon's Top Ten Commodities; 1. Greenhouse and Nursery, 2. Hay, 3. Cattle and Calves, 4. Milk, 5. Grass Seed, 6. Wheat, 7. Grapes for Wine, 8. Potatoes, 9. Blueberries and 10. Pears.

Shocking! I really shouldn't be shocked anymore by this state's government. What's the point of the deception? Most likely trying to make people believe the forest industry is not substantial to our state.

Then the list for the top 10 private sector employers contains no category of wood/timber products even though there are 71,000 people employed in Oregon in forest sector jobs. On the list number 5 through 10 all have less than 70,000 employees.

Here's their version of employers: Oregon's Top Ten Industries by Employment; 1. Food services and drinking places (159,151), 2. Professional and technical services (99,626), 3. Administrative and support services (97,520), 4. Ambulatory health care services (94,284), 5. Specialty trade contractors (67,282), 6. Hospitals (59,591), 7. Social assistance (57,786), 8. Nursing & residential care facilities (52,313), 9. Management of companies and enterprises (50,467), 10. Food and beverage stores (43,304). Even nurseries didn't make this list.

The fact is more than 70,000 people are employed in forest product jobs.

They are trying to make this leading industry in our state appear insignificant to anyone researching or learning about our state. This is as blatant of a lie (omission of facts) as I've seen.

Where is there any accountability? Where are the fact checkers? How is Ms. Fagan able to lie, distort and misrepresent without any consequences?! The liberal agenda has been a no logging, lock up our lands approach for many years. Biden's 30/30 plan illustrates that... so let's just make it appear that the timber industry is irrelevant to our state's economy!

The list of names and agencies that participated in the publishing of this book is long and impressive and yet no one actually checked the facts?

This is so indicative of the times we live in and the lies we're being fed by the very people we should be able to trust.

Shemia Fagan was elected by Oregonians, that is the biggest point! We can change all of this, it is within our power and we should use this power much more wisely than we have in the past if we ever want truth and integrity in our government.

The Oregon Blue Book's information is available online at www.sos.oregon.gov, read it for yourself. The irony is the subtitle of the book, "Almanac and Facts!"

If integrity matters to you it's time to make phone calls and write letters to your own elected officials demanding accountability and truth.

The Snags of the North Umpqua: Part 2. Forest Restoration

By Bob Zybach, Ph.D

Figure 1. 2021 Jack Creek Fire plume, burning through snags remaining from the 2002 and later Apple Fire(s), stopping traffic along North Umpqua Highway 138, July 8, 2021. Videoclip by McKenzie Peters, NW Maps Co.

This is the second of two articles regarding the risks and mitigating strategies associated with the thousands of acres of snags remaining from major forest fires along the North Umpqua River during the past 20 years.

My previous article focused on the short- and long-term risks associated with leaving the snags in place. In particular, risks were considered regarding local residents, firefighters, travel and power corridors, private properties, wildlife populations and recreation.

The risk of snags in the environment is well documented. Depending on their size, age, and distribution, they pose a constant danger of burning in a wildfire. They can also cause death and serious injury when they fall, damage roads and buildings, host harmful insects and diseases and, to many people, are unsightly blemishes on the landscape.

Their greatest danger, though, is their flammability in a wildfire and the deadly and costly destruction that can directly result.

BACKGROUND

The September 8, 2020 Labor Day Fires in western Oregon burned nearly a million acres of land in a three-day period, killed 11 people, destroyed more than 4,000 homes, polluted the air with toxic smoke for nearly two weeks and killed millions of native wildlife.

Of these amounts, the Archie Creek Fire, along the North Umpqua River, was responsible for one human death, more than 150 people losing their homes, and over 131,000 acres, mostly forested, being burned. Due to the fire's large size and rapid spread, mortality of native plants and animals approached 100% within much of the fire's perimeter.

Following this event, the 2020 USDA Rapid Assessment Team (RAT) noted:

"Over the past 20 years, 28% of the Umpqua [National Forest] has burned in wildfires, with the total acreage being higher due to several areas being burned two to three times over the past 20 years. Less than 1% of these past fires in total have been salvaged . . ."

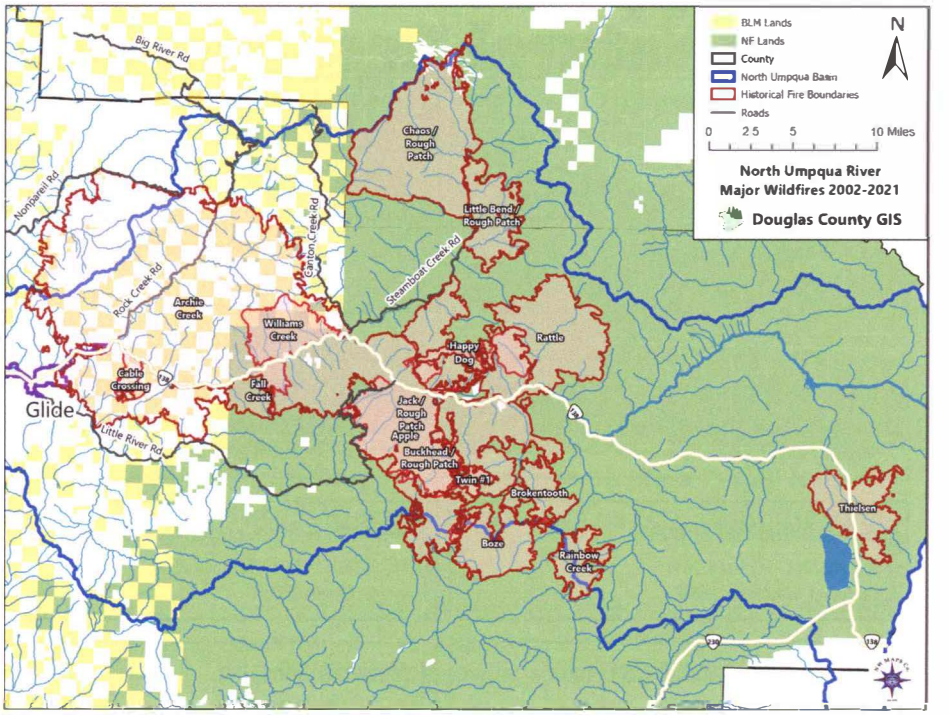
An important statement in this quote is that "several areas . . . burned two or three times over the past 20 years." Following the RAT report, the 2021 Jack Fire, Chaos Fire and Rough Patch Complex have burned more than 70,000 additional acres and the total area burned in the North Umpqua basin since 2002 is now more than 300,000 acres. Two-thirds of this amount occurred in just the past two years.

Map 1 and Table 1 show the great number and large size of major wildfires that have occurred along the North Umpqua

during the past 20 years. Almost all of these fires have taken place entirely within the boundaries of the Umpqua National Forest (NF), where fewer than 1% of the dead trees have been salvaged. (Note: Both maps used for this article were developed by the author and by Vyla P. Grindberg, Douglas County GIS Coordinator.)

Figures 2 and 3 show the increasing hazard to rural urban areas posed by these fires. In addition to the increased flammability of public forestlands caused by the accumulation of snags, growing green fuels have also been directly connecting these lands to nearby homes and businesses. Note the increasing volumes of trees and shrubs along the Umpqua River, within town, and moving in from hillsides that had been burned or grazed in earlier times.

Also note the ever-increasing number of closely spaced, highly flammable, wooden structures that have been built in recent years. The Labor Day Fires destroyed more than 4,000 homes, and the majority of these losses were also fueled by adjacent hillside and riparian vegetation that had developed uncontrolled during the past few decades.



Map 1. Major Forest Fires of the North Umpqua River Basin, 2002-2021. Note northern boundary of 2021 Chaos Fire as closely following ridgeline separating Willamette and Umpqua River basins. Similar patterns can be shown for much of the perimeters of the 2009 Williams Creek and 2020 Archie Creek Fires.

REFORESTATION PLANNING

Following a major event in which widespread deforestation occurs, whether from wildfire, windstorm, clearcut, volcanic eruption or other occurrence, an important next step is to make specific plans for both short- and long-term futures. In an ideal world, those plans would directly include local businesses, residents, and students.

Several reasons exist to best consider restoring devastated forestlands on a subbasin-scale basis. For purposes of this article, subbasins are defined as the individual areas drained by named creeks tributary to the North Umpqua River. Most, if not all, of these streams are fish-bearing. Subbasin considerations include historical fire behavior patterns, endemic plant and animal populations, enhanced human safety, existing road and trail patterns, and land ownership.

Table 1. Historical North Umpqua River Wildfires, 2002-2021.

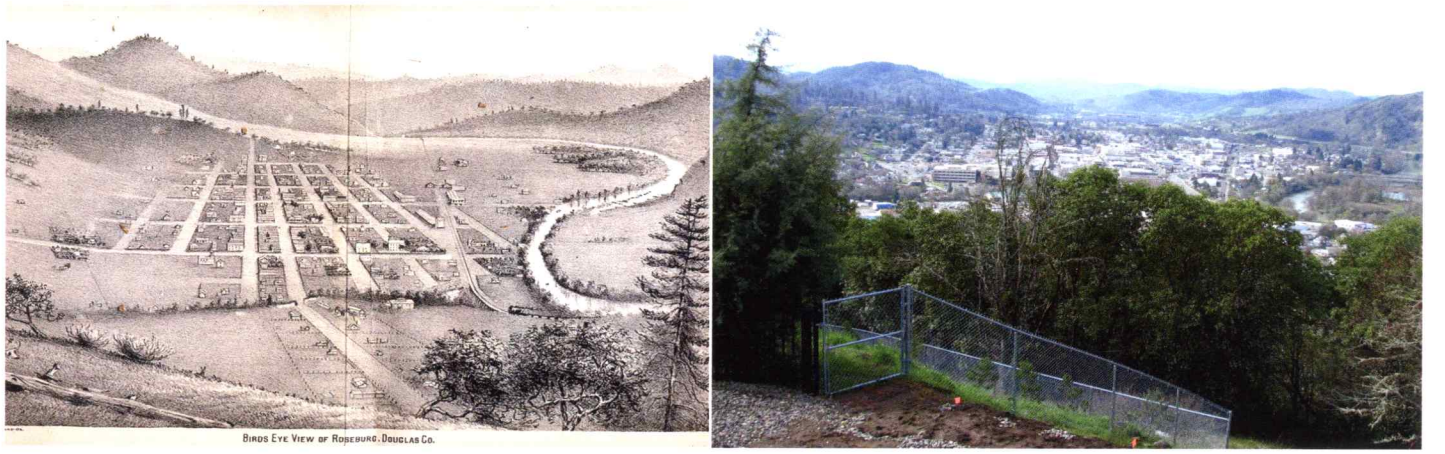
Year	*Date*	*Wildfire Name*	*Acres*	*Snags*	*Ownerships*
2002	0816	Apple	17,600	Yes	USDA Umpqua NF
2008	0813	Rattle	19,800	Yes	USDA Boulder Creek Wilderness
2009	0912	Boze	10,600	Yes	USDA NF
2009	0912	Rainbow	6,100	Yes	USDA NF
2009	0728	Williams Creek	8,400	Yes/No	USDA NF/Private
2015	0728	Cable Crossing	1,900	Yes/No	USDI BLM O&C/Private
2017	0808	Fall Creek	4,800	Yes	USDA NF/USDI BLM
2017	0808	Happy Dog	31,400	Yes	USDA NF
2017	0808	Twin #1	1,400	Yes	USDA NF
2017	0808	Brokentooth	3,700	Yes	USDA NF
2020	0908	Thielsen	9,800	Yes	USDA NF
2020	0908	Archie Creek	131,500	Yes/No	USDA NF/USDI BLM/Private
2021	0705	Jack Creek	24,000	Yes/No	USDA NF
2021	0730	Chaos	28,800	Yes	USDA NF
2021	0730	Buckhead	7,200	Yes	USDA NF
2021	0730	Little Bend Creek	9,400	Yes	USDA NF

The ridgelines separating named subbasins typically form natural firebreaks, as shown by Figure 4. Ridgelines are also often the locations of ancient foot trails, logging roads, and/or highways, which can directly aid in modern access needed to actively manage lands and fires.

Too, subbasins are lifetime homes to most native plants and animals within their bounds; including trees, shrubs, wildflowers, reptiles, amphibians, small mammals, fish, and even birds, if hatchlings and nestlings are considered. Whether they are being managed as homesites, for timber production, recreation, and/or as wildlife habitat, subbasins have proven effective at both planning and operational project scales.

Legal planning constraints, rather than physical or biological, are based almost entirely on property ownership -- in this regard, the Labor Day Fires affected four basic ownership types: private timberland owners; USDA Forest Service; USDI Bureau of Land Management; and residential, including transportation and powerline corridors.

Map 2 illustrates how the Archie Creek Fire affected each of these types of ownership in relation to the named subbasins that were burned. For the most part, subbasins were entirely contained within Umpqua NF land to the east and private forestland to the west. Between these extremes, the burned Rock Creek subbasins are a mix of private and BLM O&C Lands.



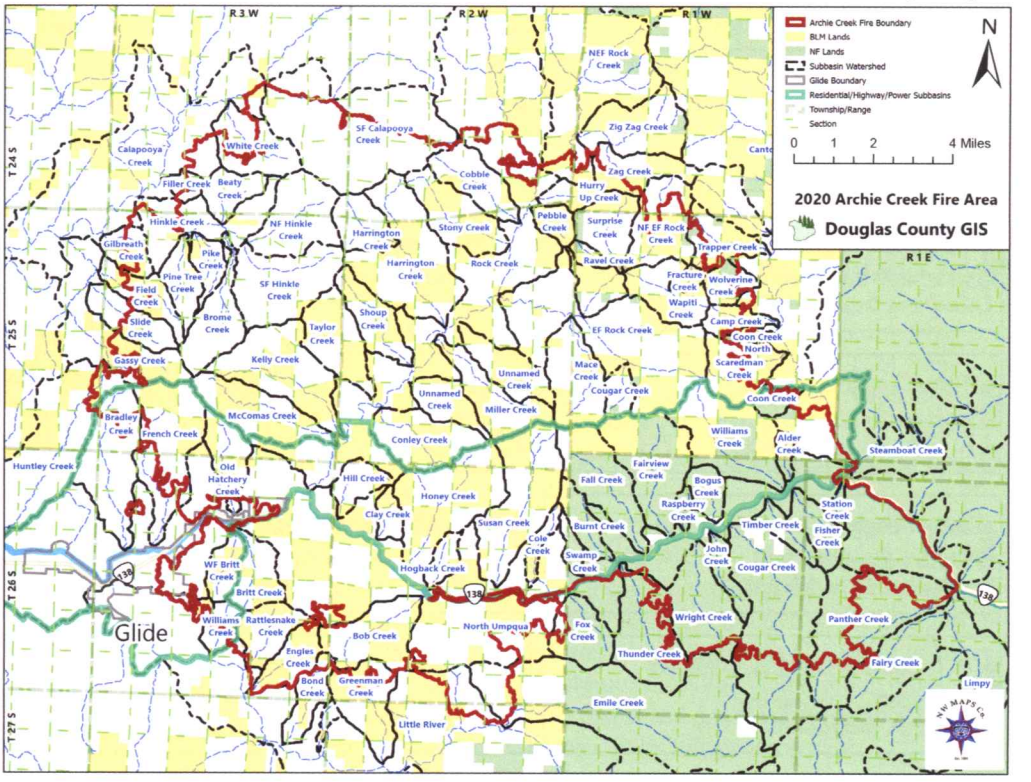
Figures 2 and 3. Roseburg, Oregon in 1885 and in 2009. Both perspectives are "from a rocky ledge" looking south: the drawing is from Albert Fagan's 1884 "History of Southern Oregon," and the photo is by BLM Forester, Abe Wheeler.

The large green polygon on Map 2 includes all three ownership types, as well as commercial and residential properties, State Highway 138, and the primary power lines corridor. For these reasons it is highly recommended that all snags be removed or carefully managed in these subbasins. This is where they are the most dangerous to people and property and where future landscapes featuring shrubs, native grasses, and/or wildflowers might be safer and more attractive.

For private forest landowners, timber is usually the principal crop for making an income and being capable of paying taxes; in recent years on public lands, it is usually more important to consider wildlife habitat regulations and public recreation and to involve the public at some level in the planning process.

The common goals of reforestation planning, then, can be measured in jobs, profits, wildlife populations, and recreational visitor days -- and safety, aesthetics, clean water, clean air, and public access. Wildfire mitigation must also be included.

Implementing those plans is largely dependent on physical access and funding. The goals of any plan are also restricted by existing and emerging laws and regulations and by economics. Understandably, federal and state lands put laws and regulations as a first priority, while private landowners necessarily put economics first. The principal budgetary difference between ownerships is whether taxes are being paid or being spent.



Map 2. Named sub-basins and land ownership patterns of the 2020 Archie Creek Fire. Note large green polygon including residential properties and major transportation and power line corridors.

SITE PREP

Prior to beginning planting, seeding, or other forest regeneration practices, it is important to do something regarding residual fuels and unwanted competitive vegetation. This process is often referred to as "site preparation" or "site prep."

Immediately following a fire, roads are often blocked by fallen (and falling) limbs and trees and travel can be very dangerous within the area until these problems have been resolved. A new tool for dealing with these situations is the video drone (Figure 5). An operator can guide the drone along affected trails, roadways and streams at eye-level and produce a very useful permanent record for road maintenance, potential timber buyers, forest managers, scientists and interested public.

The use of drone videos is safer, much cheaper and can provide far more detail than visiting the area by vehicle or observing it from the air. Further, drones can be programmed to travel identical routes over time, providing an excellent method for periodically monitoring projects, changing road and trail conditions, floods, landslides and/or forest growth and mortality.

A large-scale wildfire usually leaves more fuel in its wake than it consumes. In addition to snags, burned brush and logs, these fuels often include undesired weeds such as Scotch broom, Himalayan blackberries, tansy ragwort and exotic grasses that can be rejuvenated by fire. For this reason, a new burn is often the best condition for locating and treating weeds as they emerge, and before they go to seed.

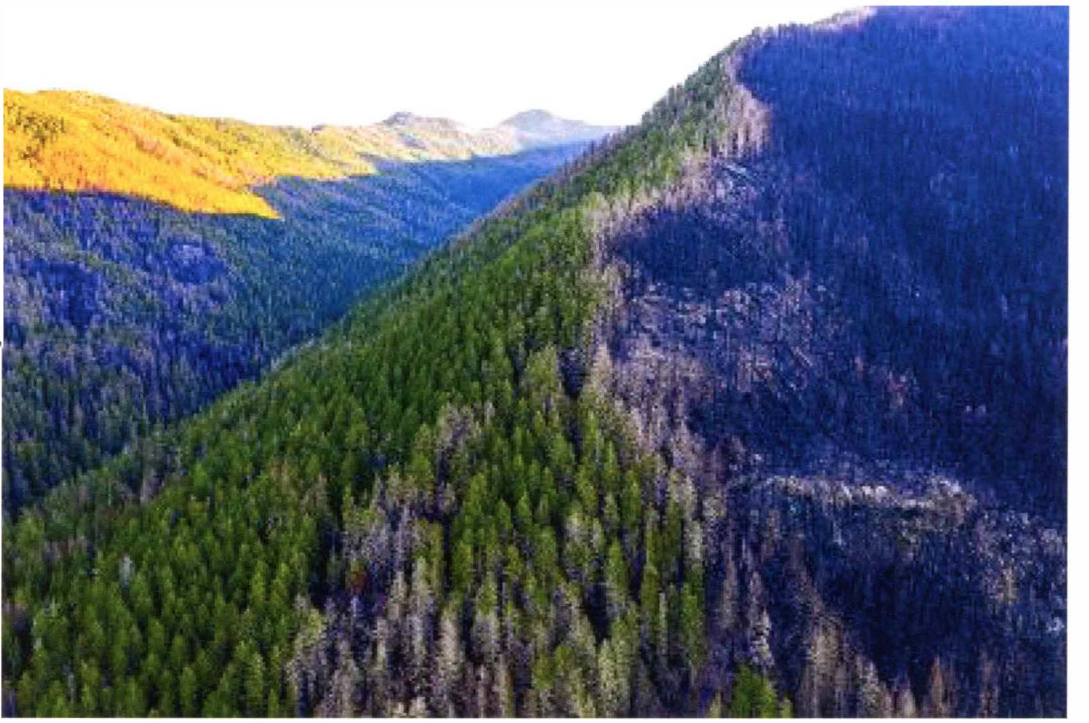


Figure 4. 2020 Beachie Creek burn pattern, showing abrupt burn boundary along a "natural firebreak" ridgeline boundary to the fire, January 18, 2021. Drone photo by Andy Adkins, Floating Point Films.

One of the most efficient methods of preparing a post-fire subbasin for planned reforestation is called "slash and burn." This process uses prescribed fire to remove flash fuels, treated weeds, ground fuels, ladder fuels, and other flammable debris

Figure 5. Opening sequence to 14-minute instructional video prepared for spring-term Southwestern Oregon Community College forestry class. Published June 27, 2019 by the author and by Portland videographer Frank Mahoney.

such as snags, tops, limbs and twigs from an area prior to taking other actions. This method was developed decades ago, as illustrated by Figure 6, and has proven to be a highly effective process for ensuring worker safety and for planting quality and success.

"Slashing" refers to the practice of uniformly cutting snags, shrubs, limbs and other unmerchantable plant materials to less than a two-foot-or-so level over an entire area scheduled for regeneration. The area is then "broadcast burned" to remove as much of this material as possible. If fuels include significant numbers of green trees and shrubs, they can be allowed to dry, or desiccated with chemicals, before burning. This process can further improve project efficiency and quality and also helps reduce visible smoke and smoldering from the fire.

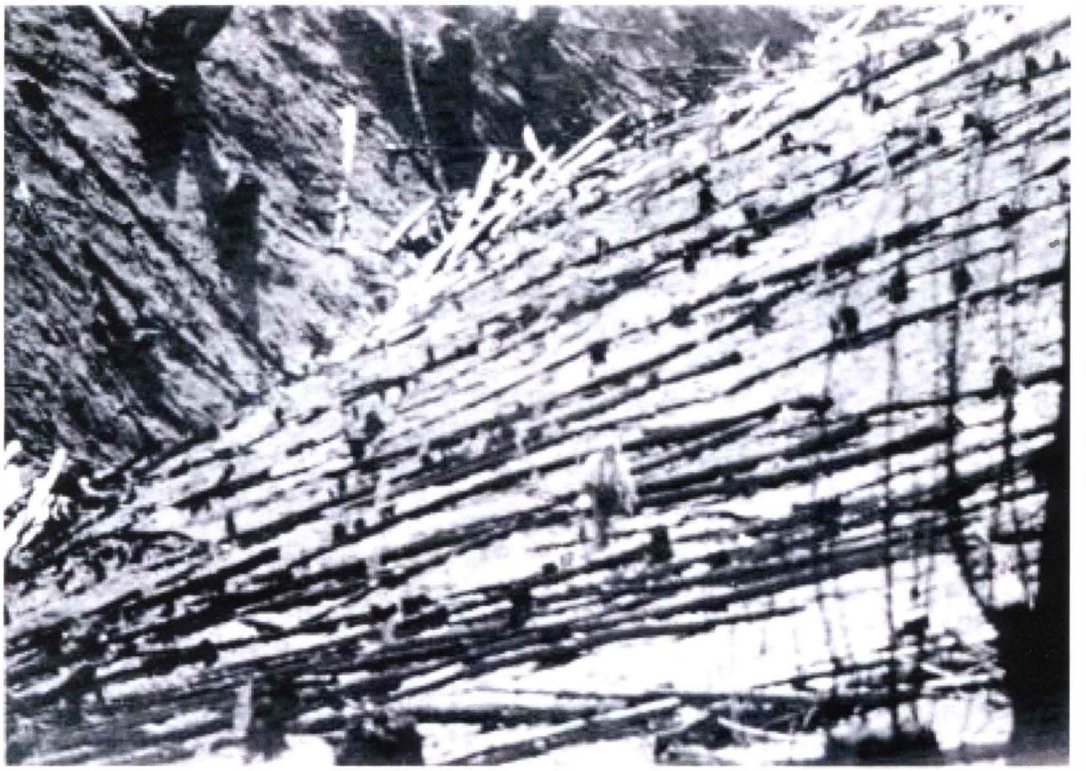
Unwanted residual plants and materials remaining from a wildfire can also be "mechanically treated" on flat or sloping ground with a Caterpillar or other equipment. Typically, a toothed blade is used to uproot, pile and/or "windrow" surface and subsurface fuels, leaving mostly bare soil behind for planting or seeding.

While piles and windrows of concentrated fuels are usually burned during winter or spring when wildfire risks are minimal; broadcast burning is often best done during the summer and fall fire seasons. Not only are fires more effective at clearing unwanted fuels during these times, but hotter burns also result in better smoke management conditions. Another value is that thousands of generations of native plants and animals have adapted to this timing and often even benefit by this practice.

TREE PLANTING

Short-term planning must reasonably focus on clearing roads and trails, conducting any commercial salvage operations, and preparing the area for planting or other long-term uses. Most private and state forestlands require planting for deforested areas, meaning that reforestation planning must also include considerations of quality, quantity and species of seed and seedlings to be used.

One of the major reasons for the unusual recent burning of managed tree plantations is the contiguous canopy of pitchy, flammable conifers that are formed in accordance with State regulations and timber markets. When an area is first burned



Planting a broadcast burn on the Oregon Coast - 1979

Figure 6. Lincoln County tree planting unit that had been commercially logged, slashed, and burned prior to planting. Note the number and size of unmerchantable logs that had skidded to the bottom of the draw after being felled, and the relative size of the workers. This successful plantation, near Elk City, is now likely coated with 45 year old timber or has been logged and planted again. Photo by author.

Figure 7. April 1952. Handwritten notes on back: "Group of 300 High School kids from Elkton and Reedsport doing their annual tree planting program -- on private and BLM timberlands -- this year on lands burned by the large Vincent Creek-Weatherly Creek Fire of 1951. Gathering for their lunch of hot dogs, ice cream, and sandwiches. (Led by Foresters from Coos Fire Patrol, Douglas Fire Patrol, and BLM.)" Photo and notes courtesy of Jerry Phillips, Coos Bay.

or logged it might contain a dozen or maybe 50 or 60 merchantable conifers per acre; often growing in clusters and strips with open ridgelines. It is then quickly planted with hundreds of trees per acre, usually in a solid grid-like pattern of Douglas fir seedlings, to meet economic goals and State regulations.

Figure 7 shows a large planting operation in western Douglas County involving local school children in the early 1950's. This was near the beginning of hand planting logged or burned areas, and most work at that time was performed by local contractors and residents. As a student in the early 1960's, my Portland high school biology club spent a Saturday planting trees on the Tillamook burn. These plantations were intended to create future jobs and a lot of pride and care went into their establishment and growth.

The Archie Creek Fire subbasins shown on Map 2 form some interesting general

patterns: the Calapooya Creek subbasins are mostly private, industrial forestlands; the Rock Creek subbasins are mostly composed of the O&C "checkerboard" forestlands; and the mainstem North Umpqua subbasins are a mix of residential, industrial, O&C Lands and Umpqua National Forest. Each type requires road access to repair and restore damaged properties, and each type has differing laws and regulations regarding what can, or must, be done.

Most private properties affected by the 2020 Labor Day Fires fire are industrial timberlands that have already been salvage logged and/or even planted, depending on their condition when they burned.

Historically, industrial tree plantations have been mostly safe from wildfire, but Rock Creek tree farms are checkerboarded with BLM Lands which may continue to contain large amounts of snags. At some point these snags are likely to fall or spread wildfire on to adjacent private lands or access roads, which will remain a principal risk to these properties.

An alternative approach might be to mimic early historical forest patterns. These could feature open ridgelines and riparian areas, with native hardwoods, such as oak, ash, alder, myrtle and cottonwood, in key locations. Restored camas and beargrass meadows, grassy prairies, and huckleberry fields have proven recreational and commercial potentials and can also serve as effective firebreaks during wildfires or controlled burns.

Instead of planting trees in eight-, 10- or 12-foot grids (300 to 660 seedlings per acre) and then precommercially thinning them to 150 to 200 trees per acre after 10 or 15 years, it makes greater economic sense to only plant 150 or 200 trees in the first place. This can be readily accomplished by using "micro-site" densities to determine planting locations and using high-quality seedlings that can be grown in less than two years and typically have survival rates exceeding 90 or 95 percent.

These results could be achieved without significant reduction in area devoted to timber growth -- and which can produce desired product volumes with far fewer plants per acre.

SITE MAINTENANCE

A functional reforestation plan should include a long-term maintenance strategy involving regular monitoring, disease and pest control, occasional pruning, thinning, weeding and situational salvage. Prescribed burning must also be considered for these purposes and clearly outlined in the plan.

Road and trail access is the most critical consideration in the active management of forested properties and is also important to consider regarding the management of future wildfires, floods, landslides, ice storms, snowstorms, windstorms, and their aftermaths. Of most strategic importance are roads and trails following ridgelines and streambanks.

Functional roads and trails are among the most valuable assets we own and enjoy on our public lands. These routes have historically followed streams and ridgelines, which further serves to reinforce their value as firebreaks, as well as providing common residential, work, and recreational access.

Good rock roads may be gated on industrial timberlands to reduce vandalism, while on federal lands they may be entirely abandoned or even made inaccessible on purpose. The same situation exists for recreational trail networks on public forestlands. Managing the predictable large-scale wildfires on federal properties is often made more dangerous, difficult, costly, or even impossible, for this reason.

Forests of dead trees are far more flammable, dangerous, and unsightly (to most) than forests with living trees. Dead trees quickly become air-dried firewood, and dead forests become likely firebombs that almost certainly will burn again and again, unless something is done to stop that process. The easiest method of reducing or eliminating this risk, and occasionally the most profitable, is to remove snags periodically as they occur.

MORE RESEARCH

The 2020 western Oregon Labor Day Fires, including Archie Creek Fire, were historically significant for a number of reasons. These included the record number of acres burned, the consistency of affected major land ownership types, and the great diversity of fuels, elevations, slopes, and aspects to consider.

Another common denominator was the unusually heavy east winds, low humidity, and high temperatures that blanketed western Oregon and drove these fires. This combination of simultaneous events, common weather patterns, and mixed ownerships and management histories provides a great opportunity to study and compare current and future wildfire mitigation strategies.

Further research on these topics would certainly seem timely and useful, and the opportunity is both unprecedented and potentially very valuable to future forest owners and managers. Given the diversity of ownerships and the potential value of such findings to both public and private interests, perhaps a long-term collaborative research project along these lines should be seriously considered.

NOTE: This article is derived from a report contracted by Douglas Timber Operators with Dr. Zybach and NW Maps Co.