Implementation of Accelerated Restoration in Northeastern Oregon: Local Contractor Capacity and Perspectives

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Recent investments by the US Forest Service (USFS) and the Oregon Department of Forestry (ODF) have focused on increasing the quality, pace, and scale of restoration work on national forests in northeastern Oregon. The Eastside Restoration Strategy of the Pacific Northwest Region of the Forest Service (USFS Eastside Strategy) aims to accelerate restoration on federal forests in eastern Oregon and Washington; early initiatives of the USFS Eastside Strategy began in late 2012 and focused on the Blue Mountains region of northeastern Oregon.[1] The Oregon State legislature, through ODF, created Oregon's Federal Forest Health (FFH) Program, which partners with and complements the USFS Eastside Strategy by supporting forest collaborative capacity and developing new models for state and federal partnership in managing federal forests.[2] Activities in the first two years of the FFH Program (2013-2015) also focused on the Blue Mountains Region of northeastern Oregon.[3]

The collective goal of these "accelerated restoration" initiatives is to mitigate the risk of large wildfires, insect outbreak, and disease in eastern Oregon forests, while also increasing the economic opportunity for local communities to benefit from restoration work and timber by-products in the region. Private businesses play a key role in USFS restoration work. USFS has limited internal capacity for increased restoration activity, leading to a greater need for contractors to assist with planning and implementing projects. Contracts with local businesses for these restoration activities can lead to positive social and economic outcomes in local communities.

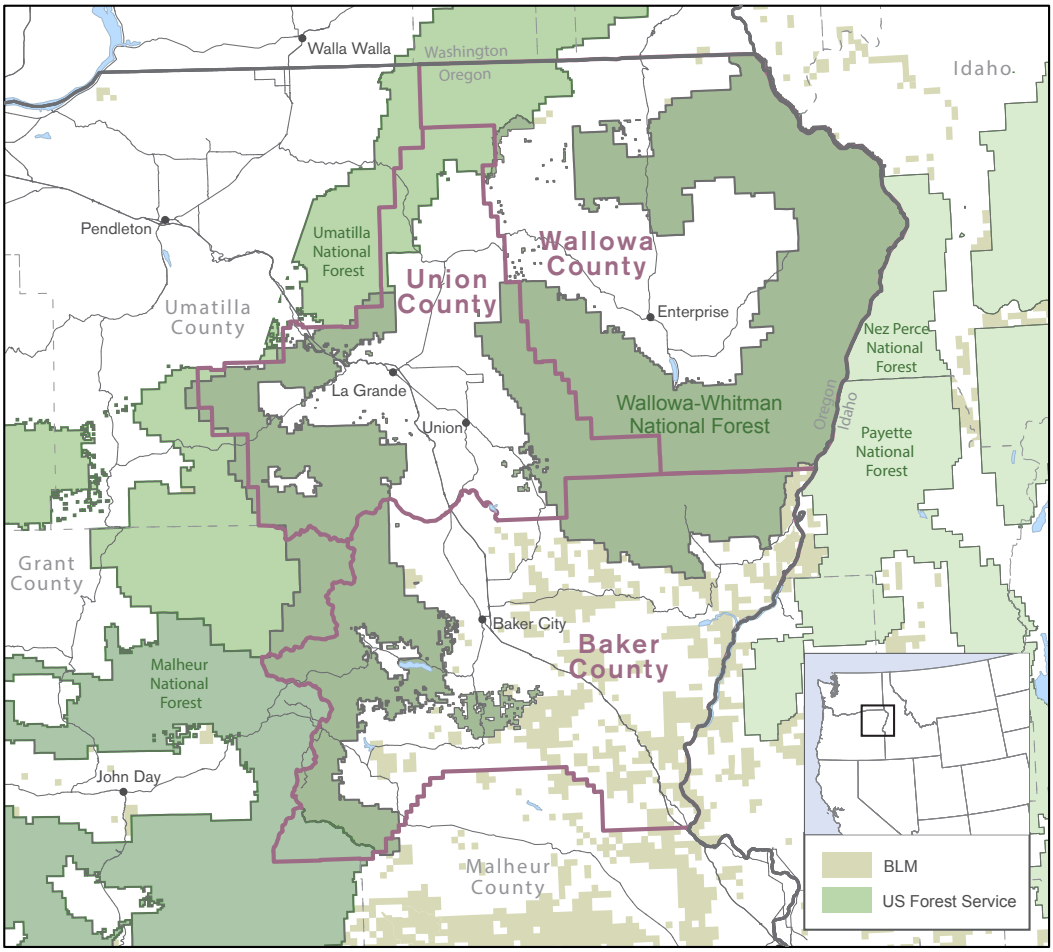
As accelerated restoration initiatives continue, stakeholders are interested in understanding how investments affect local economies and communities.[4] The economic benefit of accelerated restoration investments in local communities hinges on the amount of work local contractors are awarded and the flow of timber to wood processing facilities in the region. To the extent that local economic gain is important in these efforts, it is necessary to understand not just the number and kind of restoration businesses in the region, but also the ability of these businesses to take on more work, along with the challenges and hesitancies they experience with federal contracting. Initial monitoring efforts highlight that the full impact of investments will be evident as projects proceed, and particularly as they move from planning and analysis into implementation of on-the-ground work.[5] The purpose of this paper is to provide a greater understanding of the local workforce capacity to assist with the implementation of accelerated restoration projects in northeastern Oregon.

Local context and overview

Across eastern Oregon, federal land agencies manage about 72 percent of forestlands, and management on federal forests is an important source of potential restoration work and timber supply for forestry contractors and wood processing facilities. For this paper, we focused questions of workforce capacity to northeastern Oregon specifically, which we defined as Baker, Union, and Wallowa Counties. USFS is the largest landowner in these counties, and most of the Wallowa-Whitman National Forest falls within the counties. The three counties also contain smaller portions of the Umatilla and Malheur National Forests, as well as Bureau of Land Management land that is based primarily in Baker County (see Figure 1, below).

Government employment is higher in these counties than elsewhere in the state, however it is primarily in state and local government[6] including significant employment in health care, public safety and law enforcement; federal government employment in the counties has declined significantly in the past decade.[7] The counties have greater poverty and unemployment and lower median household incomes than the state average,[8] and economies are dominated by non-labor income such as retirement and transfer payments, as well as investment income.[9] Although socioeconomic conditions such as these are influenced by local, national, and global factors, they provide useful context for understanding the socioeconomic objectives and outcomes of

Figure 1 Northeastern Oregon study area



accelerated restoration in northeastern Oregon. Additional information is available in previous working papers on the main employment sectors and other key social and economic characteristics in these counties,[10] as well as how employment patterns in these counties compare to other counties in eastern Oregon and to state averages.[11]

Accelerated restoration in northeastern Oregon

Accelerated restoration efforts in eastern Oregon include and complement Collaborative Forest Landscape Restoration (CFLR) projects on three national forests in eastern Oregon: the Deschutes Skyline Project (2010, Deschutes National Forest), the Lakeview Stewardship Project (2012, Fremont-Winema National Forest), and the Southern Blues Restoration Coalition (2012, Malheur National Forest). Early initiatives and efforts of the USFS Eastside Strategy and the FFH Program have focused in the Blue Mountains National Forests of northeastern Oregon (Ochoco, Malheur, Umatilla, and Wallowa-Whitman National Forests), where "existing collaboratives are actively engaged with the Forest Service in landscape-scale restoration projects."[12] Two efforts in particular are often noted as prominent initial investments in accelerated restoration in eastern Oregon: 1) the Malheur 10-year Stewardship Contract, which packages timber harvesting and restoration service contract work into a ten-year stewardship contract; and 2) establishment of the Blue Mountains Interdisciplinary Planning Team, which is charged with finding new efficiencies to complete National Environmental Policy Act (NEPA) planning for forest restoration over large landscapes in the Blue Mountains.

The 100,000-acre Lower Joseph Creek Project on the Wallowa-Whitman National Forest is the pilot project for the Blue Mountains Interdisciplinary Planning Team. A final agency decision on this project is expected in the second or third quarter of 2016, after which project implementation will begin. A handful of additional projects have also been proposed and are in various stages of planning and analysis, or have just recently moved into beginning stages of implementation (see Table 1, page 4). Collectively, these projects represent a significant investment in restoration activity on federal forestland in northeastern Oregon. USFS has limited internal capacity to implement the increase in restoration. New projects are projected to create additional employment opportunities for private businesses through contracts with USFS for restoration activities.

Table 1 Northeastern Oregon restoration projects initiated since 2013[14]

Project Name	Location	Project size	Economic impacts	Status	Partners
Alder Slope-Wallowa Front WUI	Wallowa-Whitman National Forest (Eagle Cap District) Wallowa County	**440 acres**; all hand thinning	Not determined	Decision signed. Treatments to start this year (FY16).	Joint project of USFS-Wallowa Mountain Office, NRCS, and ODF on private lands
Cold Canal Vegetation Management Project	Wallowa-Whitman National Forest (Wallowa Valley District) Wallowa County	**19,387 acre project area;** Proposed action includes: – 1,082 acres mechanical treatment; – 2,103 acres fuel reduction; – 6,554 acres Rx burning	2.1-2.3 mmbf of commercial forest products expected. Job and wage impacts not determined	Decision signed. Sale expected in May 2016	NRCS and ODF will partner with private landowners for cost-share treatments adjacent to Cold Canal in 2017-2018
East Face Vegetation Management Project	Wallowa-Whitman National Forest (La Grande District) Union and Baker Counties	**47,621 acre project area;** ~7000 acres commercial/ mechanical treatment, ~10,000 acres fuels reduction/ slash treatment (thinning, piling, grapple, mastication, Rx fire)	Within Oregon: 188-275 annualized jobs (each reported job=1 year fulltime employment); $6.2–$9.6 million in labor income	Decision expected in second or third quarter FY16	NRCS and ODF are partnering with private landowners; cost-share treatments will exceed 6,500 acres
Kahler Dry Forest Restoration Project	Umatilla National Forest (Heppner District) Grant and Wheeler Counties	**~32,000 acre project area** ~ 8,000-10,000 acres commercial/mechanical treatment, 6,000+ acres small tree thinning/fuels reduction/slash treatment activities; Extensive underburning and other prescribed fire	$1.6-$2.5 million in net (value of product removed minus cost of removal). Job and income impacts not determined.	Decision expected May 2016.	Umatilla Forest Collaborative
Little Dean Fuels Vegetation Management	Wallowa-Whitman National Forest (Whitman District) Baker County	**16,946 acre project area;** – 9,102 acres mechanical treatments – 14,325 acres Rx burning	53 annualized jobs	Decision completed August 2015	Wallowa-Whitman Forest Collaborative
Lower Joseph Creek Restoration Project	Wallowa-Whitman National Forest, (Wallowa Valley District) Wallowa County	**98,600 acre project area** > 10,000 acres mechanical treatments > 5,000 acres hand crew work (thinning, fuel reduction, piling)	In Wallowa and Union Counties over 10 years: 34–55 jobs per year $1.9–2.9 million in annual labor income	Decision expected in second or third quarter FY16.	Wallowa-Whitman Forest Collaborative
Thomas Creek Restoration Project	Umatilla National Forest (Walla Walla District) Umatilla and Union Counties	**15,800 acre project area**; Proposed action includes: ~1270 acres of commerical mechanical treatments; ~1276 acres commercial hand treatments; ~1582 acres rx burning	51–80 jobs total; $2.1–$3.2 million in direct labor income per year	Decision expected by third quarter FY16.	Umatilla Forest Collaborative

Restoration projects offer the potential for contract opportunities in both pre-implementation work associated with project planning and analysis stages, as well as implementation of the project itself. Pre-implementation work includes biological surveys, stand inventories, and landscape assessments that can help move a project through NEPA planning; and technical activities like boundary marking, timber sale layout, and property surveying that can move a project from NEPA approval to project implementation. Restoration implementation work includes on-the-ground activities such as hand and mechanical thinning or prescribed burning to reduce dense fuels, as well as activities like aspen restoration and invasive species management to improve ecosystem health, and culvert replacement address fish passage and improve watershed function.

Local impacts of accelerated restoration

A recent report[13] shows that the Forest Service contracted with local contractors in northeastern Oregon for 43 percent of the value of all restoration work on the Wallowa-Whitman National Forest from FY 2004 through FY 2013. Contracts for pre-implementation work constituted just two percent of all restoration contracts on the forest during that period, and local contractors were very unlikely to perform those contracts—only one local contractor was awarded a pre-implementation contract directly from USFS (subcontracts were not represented in the analyzed data set) on the forest in the 10-year study period. Local contractors captured much more of the contract spending (46 percent) for natural resources and conservation services such as tree thinning, roadside brushing, and grapple piling.

Economic monitoring of initial investments in accelerated restoration has shown positive outcomes. The Malheur 10-year Stewardship Contract was one of the first projects implemented as part of the USFS Eastside Strategy. In 2013 the 10-year contract was awarded to a local Grant County business. Economic monitoring of the first year of the contract shows that it supported 101 private sector jobs and generated $2.16 million in economic activity in Grant County, Oregon.[15] More than half of the 15.5 million board feet of timber harvested in the first year was processed in Grant County. Mills in Union and Umatilla Counties also received some of the harvested timber, and 12 businesses in the broader eastern Oregon region subcontracted for thinning, piling, logging, and trucking in the first year of the contract.

Recent monitoring of FFH Program outcomes indicated that efforts by forest collaboratives, the Forest Service, and the State of Oregon are having positive impacts on the quality and pace and scale of restoration in the Blue Mountains region. State investments in the first few years supported new jobs and economic activity, collaboratives were working at larger spatial scales and with quicker timelines, and the number of jobs supported annually in eastern Oregon increased 16.2 percent from restoration projects during program years compared to baseline years of 2009-2011.[16]

The initial monitoring report for the USFS Eastside Strategy showed that positive outcomes in economic activity and business health from forest restoration occurred in places where the greatest investments in accelerated restoration had been made.[17] However, widespread benefit such as increased restoration service contract spending and timber sales volumes had yet to be realized across broader eastern Oregon. The report indicates: "In 2014, it appears that eastern Oregon contractors either lacked the capacity to take on more restoration work or they were unable to be competitive within the Forest Service contracting system."[18]

The initial monitoring reports for both the USFS Eastside Strategy and the FFH Program emphasize that the outcomes measured are not necessarily representative of the full impacts of investments as on-the-ground implementation of many projects had not yet begun. As projects move toward implementation, it is clear that the amount of local benefit from proposed accelerated restoration in northeastern Oregon will depend as much on the ability and desire of local contractors to bid on and receive federal restoration contracts as it does their skill and availability to do the work.

Approach to interviews

To gain a better understanding of the local restoration workforce and its capacity to implement accelerated restoration projects in northeastern Oregon national forests, we interviewed local businesses whose scope of work includes contracts associated with implementation work in Baker, Union, or Wallowa Counties in northeastern Oregon. In particular we focused on contractors involved in a) direct forestry work such as logging or fuels reduction thinning; and b) noxious weed management. Contracts for both of these work types are common when new projects are initiated in northeastern Oregon.

To identify interviewees for forestry work, we used contractor databases from Associated Oregon Loggers, Oregon Department of Forestry, Oregon State University Extension, and Wallowa Resources. Those databases include contractors that work on federal lands directly, as well as on private, state, tribal, county, and federal lands through subcontracts, which do not show up in the federal USA Spending contracting database. To identify weed contractors, we used contractor databases from Wallowa Resources and Tri-County Cooperative Weed Management Area, based in La Grande, Oregon. We used these databases to ascertain the type of services listed businesses provide and therefore determine inclusion in the interview pool.

Various entities assisted us with notifying contractors of upcoming interviews. Associated Oregon Loggers posted a notice in their winter 2016 newsletter, informing members that they may be contacted for an interview in the following months. We notified weed contractors of upcoming interview requests at the annual Wallowa County Vegetation Department/Tri-County Cooperative Weed Management Area/Wallowa Resources contractor meeting, held in spring 2015.

Ultimately, we identified 33 forestry contractors and 12 noxious weed contracting businesses. We contacted each business by phone, explaining the reason for the request and asking for participation. We confirmed that each interviewee performed

activities associated with restoration implementation work through a preliminary question before conducting the interview; all contractors that we were able to reach met the criteria. In total we interviewed 23 forestry contractors, and nine noxious weed contractors. We completed interviews with weed contractors in spring 2015 and with forestry contractors in the first quarter of 2016. We conducted interviews primarily by phone, though several were conducted in-person. We asked interviewees about the type of work they do, their experiences with contracting locally, their contract preferences, the capacity they have for additional work, and their experiences, including limitations and opportunities, with federal contracting. We also asked the forest contracting businesses about their knowledge and perspectives of upcoming forest restoration projects that have been initiated in the region.

When interviews were complete, we examined responses to each question individually to draw out themes and common messages that were prevalent among contractors. We provide an overview of the contractors interviewed, and describe the primary themes that emerged during interviews in the sections below.

Insights from local restoration contractors

In the sections below, we separate logging contractors and weed management contractors because of differences in the contracting markets. Logging contractors are largely influenced by the timber market and the availability of Forest Service timber sales or restoration contracts. Weed sprayers are more directly influenced by grant monies awarded to third party non-profit groups that coordinate contractual services on public and private lands, and private landowners' focus towards weed management on their lands. Though both types of contractors are subject to the priorities driving land management as a whole, the way they receive and implement contracts is different. Additionally, of the contractors we interviewed, none of these two groups of contractors overlapped in the services they provided.

Contractors performing forest management work

Direct forestry work such as logging and thinning are common in restoration projects in northeastern Oregon, where reducing stand densities to mitigate the risk of large wildfires, insect outbreak, and disease in forests is a priority. To better understand current demand and additional capacity for this work in the local workforce and the considerations necessary for recruiting it, we interviewed forest management contractors in the region. We asked them about their work, business operations and preferences, challenges and opportunities, and their knowledge of planned restoration projects in northeastern Oregon.

Overview of businesses interviewed

In total we interviewed 23 contractors who worked in and hired employees from Baker, Union, or Wallowa counties: eight were based in Wallowa County, ten in Union County, two in Baker County, two in Umatilla County and one in Grant County. The years that interviewees had been in business as private contractors ranged from six to 56 years, the average was 26 years. All contractors performed some amount of logging and/or forest thinning work, and many of them provided additional services such as forest stand exams or surveys, tree planting, road maintenance, stream restoration, or firefighting. All interviewees reported that their employees were all from northeastern Oregon.

Themes

Two landowners drive the local timber market. Forest management contractors in northeastern Oregon work on contracts for several kinds of landowners, including federal (primarily USFS) landowners, for large private industrial firms, or for smaller, nonindustrial private forest owners. Contractors reported that local work was largely dependent on dynamics within USFS, the largest landowner in the region, and with one large private industrial timber landowner in the region. They noted that if USFS does not put out timber sales or restoration contracts, the large industrial landowner monopolizes the market.

Contractors explained that although there are also smaller local nonindustrial private landowners, these landowners are affected by how the two larger entities drive the local market. They said that as a result, small landowners offer little stability in work or demand because a) few invest in forest management unless the harvest generates a profit, and market conditions (including distance to markets) severely constrain opportunities for both the contractor and landowner to cover costs; and b) the jobs are often small, and when the market is low for a particular product (which is size/diameter and species dependent), it is not worth their time to cobble together small contracts because of the high costs of hauling timber and moving equipment. Despite these market realities, contractors did note that opportunities on private nonindustrial land had improved recently, particularly in regards to cost-shares with local landowners for fuels reduction work by the Natural Resource Conservation Service (NRCS) and ODF.

Forest contractors are concerned about having stable work. Contractors consistently reported challenges in finding a steady and stable supply of work in recent years, and were concerned by the lack of consistent and predictable work in northeastern Oregon. They noted that the amount of work available had changed drastically following shifts in USFS management policies in the region over the last 20 years that led to reduced timber production and inconsistent supply. As a result, contractors said that work for USFS was unpredictable because each individual forest varied in its production, and because there was no way to know if contracts would be available, if they would be cost-effective, or if they would continue in the future.

Although a large industrial landowner in the region sells a significant amount of timber currently, contractors expressed concern that aggressive harvests over the past ten years will lead to a reduction in management and commercial saw-log volume for a considerable period of time. In addition, because work for small nonindustrial landowners is subject to greater timber market dynamics, it was difficult to rely on. The result is a lack of stable work, and concern about future prospects. As one contractor commented, "the industry is so scary to be in– you just don't know what work you will have and so it's hard to commit to being in the career if you are a worker and hiring employees if you are an employer."

Although all but two of the 23 contractors said that they could take on more work if it were available, sentiments about work opportunities in the region were greatly affected by the type of services a contractor provided, the equipment they had, and their willingness to travel. Contractors' experience with forest management opportunities varied on whether they were harvesting timber or doing service work. Logging contractors had more equipment, traveled more, and were more frustrated with a lack of federal timber sales in the area. Contractors who reported doing service work were less frustrated with opportunities provided locally, largely because they were not limited by timber market dynamics, and had experienced increased activity on smaller fuels reduction projects for small landowners.

Lacking mill infrastructure in the region presents considerable challenges. Contractors noted that in addition to inconsistent supply, reductions in timber harvest off national forest system lands over the last twenty years contributed to the closure of many of the mills in the region. They reported that the lack of local mills is a major concern because there is inadequate competition for logs, which suppresses log prices and makes timber sales less desirable for small private landowners. In addition, the product that local mills take can be problematic because it does not match the product available from many restoration projects. Several contractors, especially those who work in merchantable products, noted that many of the current USFS contracts are for small diameter logs, and it is not worth the hauling cost to them. One contractor discussed the issue:

> "*If the output from a project is all small diameter then there's nowhere to take it at all. There's really an issue in the small diameter market. There could be infrastructure, but who knows if that will pan out. For example, if the Boardman coal plant would convert from coal to biomass*[19] *(it's been discussed) then there'd be a place to take those small diameter logs, but now there isn't. There is a co-gen plant in Prairie City that shut down– that could utilize that type of material but it's not being used and just going to waste."*

Several contractors commented that remaining local mills seem to be in a tenuous situation, and some expressed concern that the mills could not handle changes in production if USFS did start putting out more sales. One contractor described the ongoing challenge in regaining or even maintaining mill infrastructure:"(we) are losing all of the local (mill) infrastructure very quickly. If they (the USFS) can guarantee future supply, which (I) knows is impossible, but a gradual increase in volume so infrastructure can catch up… there's no incentive to create mill infrastructure for projects that only last 5 years when you don't know what will come after." Some contractors also made connections between the high output of the large local industrial firm that was a current driver for the local mills, noting that high output from this source

would not continue, and that there is uncertainty around how local mills will respond to that shift in volume as well.

For consistent work, contractors need to travel outside the region or diversify the work they perform. Most of the contractors we interviewed did not feel as though there were "significant" work opportunities for forest management in Northeast Oregon. Some noted that there are more opportunities on private lands than federal, while others spoke to insufficient opportunities across land ownerships. As a result, some of the contractors said they needed to travel outside of Northeast Oregon for work (e.g., Idaho, western Oregon), even though they preferred to work locally. Some contractors, primarily smaller ones, said they did not want to travel and therefore cobbled together contracts locally but often did not have consistent work throughout the year. In addition, several local contractors reported that they had moved towards fire-fighting as a source of income, citing recent changes in USFS management and spending as factors necessitating the shift. One contractor explained: "(We've) gotten way more into firefighting and way less into fuel reduction and forest management work. The Forest Service is moving this way- towards being a firefighting agency rather than a land management agency..."

NRCS/ODF cost-share projects are important for contractors in Northeast Oregon forest management. We asked contractors if they had heard of recent planned restoration projects in the region (see Table 1, page 5, for a list of projects we asked about). Many contractors said that they were aware of at least some of the upcoming accelerated restoration projects in northeastern Oregon, and many hoped that they would eventually bring their business more work opportunities. Contractors were most interested in and knowledgeable about projects that included NRCS/ODF cost-share programs with smaller landowners, and several contractors were currently working on these types of contracts. These cost-shares are the result of investments by NRCS and ODF under the Cohesive Wildfire Strategy.

Many of these projects are related to pre-commercial thinning or fuels reduction, so they do not necessarily ensure that a merchantable product will result. Contractors saw these types of arrangements as a positive driver for work locally, but also struggled with the reality of dealing with small contracts that may not necessarily turn a profit for them or the landowner. One contracted summed up his experience with these projects: "the biggest thing with NRCS/ODF cost share is that the jobs aren't large enough for move-in costs…so it isn't cost effective. If the contracts were bundled with multiple land owners on one contract it might be easier and more worth it." As a whole, however, contractors thought that these cost-share projects were beneficial for them as a business and for forest health, and that if NRCS/ODF halted them, there would be very little incentive for small private landowners to engage in any type of forest management on their land.

Contractors are concerned about local forest health. Many contractors expressed concern for the long-term health of the region's timberlands, which they felt was declining. They suggested that changes in forest policies, especially on USFS lands, have changed forest management activities from a more proactive role to a reactive role driven by catastrophic wildfires. Contractors also generally felt that forest management policies made from afar tended to have negative impacts of the health of local forests. One contractor commented that political decisions made outside of the region were a major factor in the declining local forest health: "There is certainly a need for timber management, but a lot of it gets halted, and actually it just seems to stop completely rather than being met halfway, for example, if a project has thinning and commercial (bundled into one contract), then none of the project happens because people oppose commercial logging; it can be very political. It's sad that we're having so much beetle kill and other problems and then catastrophic fires are just happening more and more."

Contractors, in general, were concerned about forest health and the forest products industry as a whole in northeastern Oregon; they saw both as important

legacies to future generations. Although the contractors we talked to said they generally felt powerless to sway forest management policies or the timber market, they said that they enjoyed working in the forests because they cared about forest health. One contractor said, "(working on USFS lands) offers the opportunity to manage the forest where (we) live and to be part of the solution rather than the problem." Many contractors also commented that they really enjoyed helping private landowners manage forests for overall health.

Contractors lack confidence that the industry will attract new recruits and retain skilled workers. Contractors reported that it could be very difficult to find skilled or experienced employees to hire, particularly for running heavy equipment. One contractor noted, "yes, keeping them (employees) isn't an issue. But finding them is a problem because it's a lost trade– people who already have equipment experience that is." Contractors suggested that trainings for heavy equipment operation and maintenance would be an asset and may potentially help draw in new recruits to the industry.

Many contractors correlated the lack of stability in work opportunities with an unwillingness of young generations to enter the industry. For example, one contractor noted, "consistency of work is really a huge factor here because you might have to lay people off when they don't have work and folks don't want to do that so they move on."

Many contractors would like longer duration and larger contracts to help with business planning. Contractors in general expressed that they would like to have longer and larger contracts so that they could plan for new employees, new equipment, and overall business logistics. One contractor explained: "A 10 million (board) foot contract with 5 or 6 years to work on it–that's great. For planning purposes, it's less stress… it helps to purchase new equipment as collateral for a loan."

However, the degree to which contractors preferred longer and larger contracts varied depending on the services the contractor provided. Contractors with hand crews or that only did non-commercial work were less likely to favor larger, longer duration contracts. Contractors that provided services related to merchantable products, be it small diameter or large diameter were generally more concerned about contract size and duration, though it should be noted that some of them saw three-six month contracts as a suitable duration. These contractors explained that because they needed to have a product that is profitable, they needed to consider the costs of moving equipment along with lags in contract finalizations that can come with running a business off of smaller contracts; thus longer duration contracts were preferred.

The preferred structure of contracts varied among the contractors. Some indicated they prefer contracts with multiple tasks (e.g., pre-commercial thinning plus commercial harvest plus road building), while others preferred single task contracts (e.g., commercial harvest only). Preferences depended largely on the services a contractor provided and whether they offered multiple services or not.

Contractors have mixed sentiments about working on Forest Service contracts. Many of the contractors we talked to had worked for the USFS in the past, but said they had not worked for them in recent years because they felt it was not worth their time or because the work was simply unavailable. Some contractors that did work on USFS lands found the work somewhat risky due to uncertainty that sales or contracts would actually happen, or that a project might be stopped once it had begun operations for fire restrictions or some other reason. Many contractors noted that they are on the IDIQ lists, but do not often bid on USFS sales or contracts because they do not think they are cost-effective. One contractor explained: "With the Wallowa-Whitman National Forest for example, they'll put up 700,000 feet of low value product, but it's not worth the time for the contractor. To cut non-merchantable fiber just isn't worth it for a company like (ours) that does mechanical work because the cost per acre is too high. They have to throw in merchantable trees into those contracts, which brings more money for the contractor and for the Forest Service ultimately."

Several contractors highlighted differences of bid outputs between the local forests, which they generally thought of as the Wallowa-Whitman, Umatilla, and Malheur National Forests. Largely, local contractors thought that the Wallowa-Whitman National Forest does less in terms of forest management than the other local forests. One contractor explained: "the Wallowa-Whitman National Forest isn't very active relative to the Malheur or Umatilla, which is strange. (We) see local forests in the Wallowa-Whitman that need work, but (we) go to central OR for work because the Wallowa-Whitman doesn't do much. The Forest Service just doesn't really put out as many contracts as they could."

In spite of the mixed sentiments towards working on USFS lands, contractors were open to working with the USFS more in the future and were very interested in upcoming projects on local forests and with NRCS/ODF cost share, as long as those contracts were financially feasible.

Contractors performing noxious weed management work

In northeastern Oregon, work to manage noxious weeds has a long history. Landowners and public land managers have faced degraded habitat and working lands due to noxious weed presence, making weed management a high priority in management goals. Groups like Tri-County Cooperative Weed Management Area and Wallowa Resources have taken a large role in coordinating efforts towards management by working across jurisdictional boundaries, using new innovative, science-based methods, and assessing work over time. These groups are also responsible for awarding contracts on both private and public lands to local businesses. Funds for these activities are largely grant-based, but also include monies from foundations and local partners.

Noxious weed management is vitally important to accelerated restoration activities because of plant population dynamics—many weeds are early successional species adept at invading an area after a human or non-human induced disturbance event (e.g., wildfire, forest thinning, road building, flood events)—and because of the prevalence of weeds in an area or adjacent areas. Accelerated forest management activities need to include weed management strategies because activities will inherently include disturbance in areas where weeds are already established or could become established from adjacent areas. Like logging and other on-the-ground forestry contracts, local benefits from increased contracting in weed-spraying activities are limited by local capacity for this kind of work and the ability of local contractors to capture and perform available contracts.

To better understand current demand and additional capacity for this work in the local workforce and the considerations necessary for recruiting it, we interviewed weed management contractors in the region. We asked them about their work, business operations and preferences, challenges and opportunities. When interviews were complete, we examined responses to each question individually to draw out themes and common messages that were prevalent among contractors. We provide an overview of the contractors interviewed, and describe the primary themes that emerged during interviews in the sections below.

Overview of contractors interviewed

In total we interviewed 9 weed management contractors: seven based in Wallowa County and two based in Union County. The length of time contractors reported being in the business ranged from one to 24 years, with the average length of time at nine years. All contractors reported services related to noxious weed management activities, including treatments (chemical, biological, or mechanical), and restoration (re-vegetation). Most businesses were small (i.e., five employees or less) and they often hired seasonal workers for the field season (May-September). Most business (6 of 9) were family businesses, and all businesses hired local employees from northeastern Oregon.

Interview themes

Contractors are ready to complete more work, especially if contracts are local. Most of the contractors we interviewed said they wished to take on more work, especially if it were local, and that they had the capacity to do so. A few other contractors were unsure of their ability to take on additional work, explaining that they are normally looking for additional work, but were completely booked in the past year. These contractors felt that their capacity to take on more work in the future was uncertain due to the recent fluctuations in demand they had experienced.

Contractors emphasized their preferences for additional local work, reporting that they would prefer to work within their own counties, and would adapt accordingly if more local work were available. The reasons for this were two-fold: contractors wanted to spend more time near their families and communities, and they were concerned about the health of the landscape surrounding their homes and communities. Many of the contractors reported that they came from natural resource related backgrounds, and said they were concerned about the condition of local forests and grasslands. Contractors were thus particularly committed to protecting these local resources whenever possible, and shared the common hope that support for noxious weed management work would grow in the future. One contractor stated: "(restoration work)- it does have a positive impact both for the resources and for employment." Many interviewees reiterated that they would adjust their businesses as necessary to meet that demand.

Contractors face multiple challenges in finding consistent work. Interviewees reported that in order to make a living, they had to supplement management contracting with other types of work, or seek contracts outside of commuting distance from their homes. Many of the contractors performed work in other counties, other Western States, and even other regions of the US. They said that work away from home is often necessary because the majority of weed contracts are small (under $25,000), short-term (two weeks or less), and are not recurring. Only one contractor participated in any contracts that were larger than $50,000. One Wallowa County contractor noted, "There just aren't big bids in Wallowa County- there is a lot of work to be done but it doesn't seem like it's happening."

Interviewees explained that inconsistency in the types and numbers of contracts available locally created difficulty for them in planning for their business from year to year. They often had a hard time knowing whether they should hire permanent or seasonal help, and were uncertain the amount of travel they would need to commit to into the future. All of the contractors we talked to had an interest in working larger, longer contracts to address these challenges, but said that such contracts did not seem to be available locally or even regionally. Some also wondered if they would be able to hire enough short-term employees if they did receive a larger contract but the increased workload was only temporary.

Despite living in counties where the Forest Service manages a large portion of the land, most contract work was completed on private lands. Only two of the invasive-treatment contractors we interviewed completed half or more of their work on federal lands. Three contractors had not performed any work on federal lands in the last ten years. While seven of the ten contractors interviewed had performed work on federal lands (primarily national forests) in the last ten years, most of these reported that it made up a small percentage of their contract work, and only five contracted directly with a federal agency. The other two contractors performed work on Forest Service land through subcontracts with Wallowa Resources.

On average, work on private lands (primarily private ranches), made up 70% of the contract work among the contractors we interviewed. Three contractors completed more than 90% of their work on private lands. Interviewees indicated that private dollars for weed management were more accessible and reliable than federal dollars. Several contractors reported that they were interested in more federal contracts, but that they had missed the deadline date for getting on the federal list of weed abatement contractors; because the new list was only available to join every five years, they said they would have to wait several more years before they could pursue any federal opportunities. Several of the contractors who do not currently contract with the federal government expressed concern that they find the process of becoming a federal contractor daunting, while also indicating that assistance navigating the process was of interest to help them overcome some of these hurdles.

Contractors have mixed experiences with federal contracts. Contractors who were not registered as federal contractors reported that they felt overwhelmed by the process of finding and bidding on contracts for the Forest Service. They explained that the processes and paperwork necessary to get a DUNS number and register on the appropriate lists were daunting, and that technical assistance to help them get started would be valuable. Those who were registered as federal contractors, however, said they found the process of working with federal agencies to be rewarding and relatively simple. These contractors cited multiple benefits in working with federal agencies, including: quick payment, well-planned and detailed contracts, and relative ease in finding opportunities once registered.

There were differing opinions on the preferred structure of contracts. Some contractors expressed preference for larger, more long-term contracts in order to ensure sufficient work, and some contractors expressed preferences for smaller contracts to avoid hiring and managing additional workers. One contractor explained that they preferred a couple of large contracts with several smaller contracts to fill in the gaps. Despite these differences, contractors expressed general consensus that the main preference was for consistency and predictability in the work; contractors preferred whatever mechanisms or contract structures could provide this consistency and predictability.

With respect to the number of tasks offered in contracts the majority of contractors we interviewed expressed a strong preference for multiple tasks and provided several rationales. One contractor explained that it seemed like a waste of time and money to carry out single task contracts since multiple trips would be required to fulfill different contracts at different times. Others felt that multiple task contracts were more interesting and challenging and thus rewarding to complete because complex contracts required problem solving and allow them to put their professional training to use.

Local organizations serve as valued and trusted resources for contractors to get work on local federal lands. Among the contractors we interviewed that did not have experience contracting directly with federal agencies there was a common sentiment that an organization that can act as a "go between", such as Wallowa Resources' Wallowa Canyonlands Partnership (WCP) or Tri-County Cooperative Weed Management Area (Tri-County), offered an invaluable service. One contractor stated: "it's really convenient to work through a non-profit like Wallowa Resources." Some contractors relied on organizations like WCP or Tri-County for a large portion of their work. They suggested that there is ease in

working with a non-profit intermediary because it can serve as a way to find jobs, and because it is generally less challenging than directly working with federal agencies. Contractors also said that local organizations can assist small local contractors like them in getting bids through subcontracts, when the larger bid that might normally be awarded to a larger, non-local firm.

Personal relationships are important for contractors performing weed management. Most of the contractors we interviewed worked in small, family-owned businesses. Many of them got started with weed management contracts because their families were doing similar work, or because someone in the local community encouraged them to start a business. Contractors noted that knowing staff from the agencies or organizations with whom they worked was integral to the process of being a contractor. They explained that a good working relationship allowed them to ask questions about bids, contracts they've acquired, or jobs they might expect to see in the future. Contractors reported that overall, their weed management work would not be fruitful or possible without solid personal relationships.

Discussion

Although forest management and noxious weed management contractors in northeastern Oregon are subject to different market forces driving their work, their experiences are similar in many ways:

- The majority of contracting businesses we talked to in both fields were small, family-run operations.
- Contractors are committed to the health of local landscapes and the economic activity that active management can provide a community, and they see themselves as important actors in this process.
- Contractors have the capacity to take on more work, and especially welcome more local work.
- The unpredictability of work is a major concern for both types of contractors, affecting business logistics such as hiring, financing new equipment, and planning work throughout the year. Inconsistent local work has required many contractors to work outside of the region or diversify their services.
- Contractors also expressed concern about the long-term viability of contracts and whether it was worth it to expand capacity if accelerated projects lasted only a couple of years. Contractors are willing to adapt their businesses to capitalize on additional local opportunities, so long as those opportunities provided more stability for a period of time.
- Most contractors indicated that longer duration, larger value, reoccurring contracts would help them overcome the instability of current work and retain skilled employees
- Although many contractors experienced or perceived some difficulties with work on federal contracts, they were open to more federal contract work as long as it is financially feasible, and are excited to hear about the potential for new opportunities in the near future.
- Interactions with groups that provide third-party options for contracts have been well received and were often perceived as a viable alternative to direct contracting, especially with the federal government.

It is worth noting that the themes expressed in these interviews are also consistent with other recent findings of workforce capacity and dynamics in the region. Interviews in 2015 with pre-implementation contractors (businesses engaged in activities associated with planning and analysis stages of restoration projects) in Baker, Union, and Wallowa counties concluded that local contractors have clear additional capacity and desire for additional local work.[20] Pre-implementation contractors experienced similar struggles with the uncertainty of work demand and the accessibility of federal contracts, and were interested in ways they could adapt their businesses for more stable work locally. A 2014 Associated Oregon Loggers report that examines implementation capacity in the Blue Mountains region of northeastern Oregon highlights a "dramatic decline" in forest sector infrastructure in the region in the past 24 years that mirrors the recent dynamics, market drivers, and limitations that contractors discussed in interviews in this report.[21] The report suggests that although current infrastructure in the region operates at significant competitive and economic disadvantage, increased national forest harvests offer opportunity for strengthening the region's forest sector to be sustainable and competitive in North American markets.

Summary and conclusions

Initial investments in accelerated restoration in eastern Oregon dry forests have focused in the Blue Mountains of northeastern Oregon. Local economic benefit is a key objective of these efforts; to achieve this, local businesses need to perform restoration work and local mills need to receive timber by-products of the work. Both of these lead to economic activity and support jobs in local communities. As planned projects move into implementation, increased demand for restoration work offers a significant opportunity for local economic benefits in northeastern Oregon. To better understand the potential to capitalize on this opportunity, we interviewed restoration project implementation contractors in northeastern Oregon to highlight the capacity, limitations, and opportunities they have for this work.

Interviews suggest that there is considerable local capacity for accelerated restoration implementation in coming years. The workforce includes experienced individuals who know the environment, possess the equipment necessary for the work, and who have a strong drive to work locally. Both forest management and noxious weed management contractors reported availability to take on more work, particularly if it were local. Across the board, contractors want to secure local contracts that positively impact local forests, the local economy, and the local communities where they live, work, and hire employees.

For maximum local economic benefit from accelerated restoration, upcoming federal contracts will need to consider the capacities of local contractors. If local contractors do not have the capacity to bid competitively on contracts, the work will be awarded to non-local businesses. Many local businesses are smaller businesses that do not have that internal administrative systems for preparing bids that larger, non-local companies may have. USFS bundling of contracts into larger or indefinite-delivery, indefinite-quantity (IDIQ) contracts to ease internal administrative burdens will limit some local contractor's ability to bid on and receive contracts. Subcontracting may provide some additional opportunities for smaller businesses to pool knowledge and resources if the process is understood by contractors. A third-party intermediary may also be an option to provide small local business with access to larger federal contracts.

Including local forest management contractors in accelerated restoration projects will require attention to local timber markets, equipment needs, and hauling costs to ensure that projects are financially feasible for local contractors to carry out. Some local contractors felt that USFS contracts were not financially viable for their business because the contracts often included less desirable output (specifically small diameter logs rather than larger diameter logs), were too short in duration, and were subject to delays or shifting timelines. For restoration efforts that are largely based on thinning small-diameter trees, a fair price to do the work, hauling costs for removing the material, and a place to do to take the small diameter product, are key to a contractors' ability to perform the work. This is also true for ODF/NRCS cost-share projects aimed at smaller landowners, where feasibility of a contract earning a profit may be more likely if coordination to bundle landowners' projects together is made a reality. Although contractors expressed hesitation that federal contracts will be attractive and available in upcoming years, they also expressed willingness to work on federal contracts, and potentially make business adjustments, if projects are approved.

Local noxious weed management contractors were either well-versed in bidding on federal contracts, or more commonly, felt that getting started in the federal bidding process was overwhelming. This is also true of the forest management contractors who perform non-commercial services and have not previously been awarded a USFS contract. Recruitment of these contractors for work on federal land will likely depend on offering training to help these contractors understand basic contract requirements and how to efficiently navigate the federal bidding process, or going through a third party intermediary such as Wallowa Resources' Wallowa Canyonlands Partnership or Tri-County Cooperative Weed Management Area.

Contractors said they are willing to adapt their businesses to take advantage of increased local restoration opportunities, as long as those opportunities provide some lasting stability, for example through longer-term or recurring contracts that would allow them to hire additional employees or update equipment. Finally, expanded use of local contractors will require efforts to ensure that local contractors are aware of opportunities. Both forest management and noxious weed management contractors emphasized the importance of local partners for learning about upcoming work opportunities. Outreach efforts that include local venues and trusted local partners will have the best chance of reaching local contractors who can perform the work. Thus, recruitment will depend on contractor awareness of opportunities, and a consistent flow of work that is suited to the size of local businesses and that occurs reliably and on time so that contractors can best plan to meet contract needs.

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