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Forest Views Shifting Attitudes Toward the Environment in Northeast Oregon

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Summary

Residents of northeast Oregon were surveyed by telephone in an effort to assess individual perceptions of forests and natural resource management. Results show that residents are generally well informed about declining forest health, and they identify active forest management as a high priority. Just over half of residents support increasing public land use fees to pay for forest restoration activities, while only a minority support raising local taxes. Thus, creative policy solutions are likely needed to address the forest restoration funding gap. Residents were nearly unanimous in their belief that natural resources can be preserved for future generations and at the same time used to create jobs.

Compared to a similar survey in 2011, a larger proportion of participants in 2014 prioritize renewable energy development over drilling and exploration for oil, an increasing percentage believe that environmental rules limiting development have been good for their communities, and fewer support the elimination of wolves. These shifts in public opinion appear to be due to changes in perceptions among longtime residents, rather than demographic changes, and suggest that communities may be more receptive to regulations and programs that address ecological restoration and stewardship goals, as well as climate change impacts.

Introduction

This brief reports on a telephone survey conducted in fall 2014 as part of the ongoing Communities and Forests in Oregon (CAFOR) project. CAFOR focuses on seven counties in the Blue Mountains of northeast Oregon (Baker, Crook, Grant, Umatilla, Union, Wallowa, and Wheeler), where the landscape and local livelihoods are changing in interconnected

KEY FINDINGS

65%

A large majority (65 percent) believe that forests are less healthy than they were twenty years ago.



Approximately half of residents support increased user fees to improve forest health on federal land.



A majority believe climate change is happening, though opinion is split between those who believe it is human-caused and those who believe it is caused by natural forces.



Compared with 2011, more people in 2014 believe that environmental rules limiting development have been good for their community.



In 2014, more residents believe that renewable energy development should be a higher priority for the United States than exploration and drilling for oil.

ways. In an effort to inform policy development around natural resource management, the study seeks to understand how public perceptions of climate change and forest management intersect.² Questions focused on perceptions of forest management and environmental policies, as well as local land use priorities. This seven-county 2014 survey follows a similar 2011 telephone survey carried out in three of these same counties—Baker, Union, and Wallowa³—and at several points in this brief we

compare the 2011 responses with those from the three counties in our 2014 survey.

Forest management is a pressing issue in northeast Oregon and across the West. Declines in forest health over the last forty years have contributed to unprecedented wildfire seasons, and in 2003 Congress passed the Healthy Forests Restoration Act (HFRA) to begin to address the issue.⁴ Forests are considered unhealthy when they have departed significantly from historical conditions, and due to decades of fire suppression millions of acres of U.S. forests are overly dense and experiencing high rates of conifer die-off.⁵ Dense, homogenous forests have higher rates of disease transmission and insect outbreaks, and climate change exacerbates these impacts. They are also littered with dead trees and branches ("fuels"), which contribute to uncharacteristically intense wildfires.⁶ Forest managers reduce fuel loads through "active management," which includes commercial or noncommercial thinning, prescribed fires, and other interventions designed to reduce wildfire risk.

Coupled Declines in Northeast Oregon's Forest Ecosystems and Economy

For most of the twentieth century, the inland West exemplified a working landscape,⁷ with an economy and culture rooted in forest products and ranching. Like much of this region, federal lands make up a large proportion of northeast Oregon's area and

historically provided the majority of the harvested timber that supported the local economy. In the 1990s, policy changes with regard to federal forests, coinciding with the listing of regional salmonids under the Endangered Species Act, resulted in a 90 percent decline in logging. The lack of timber resulted in the closing of most of the region's sawmills, eliminating hundreds of full-time, family-wage jobs, which communities have largely been unable to replace.

Throughout this transition an influx of second-home buyers, retirees, and amenity-seekers have moved to northeast Oregon. Many members of this new demographic value the landscape for aesthetic and recreational opportunities rather than as a source of economic livelihood, and may not appreciate the importance of active management interventions like commercial thinning to maintain forest health.11 And, while this influx has supported the development of a modest service-based economy, the jobs do not offer family wages, and young people continue to emigrate from the region to larger cities in western Oregon or outside the state.12 In 2010, the median age of northeast Oregon residents (population 154,643 in 2010) was 47, ten years older than the country's median age of 37 and eight years older than the state's median age of 39. Nearly one quarter of residents were over 65.13 Despite the influx of amenity-seekers to the area, the population has declined by 1 percent on average across the seven counties since 2000.14 Amenity landowners have also driven increases in land and housing

costs. Adjusted for inflation, the median house price more than doubled from 1990 to 2013 while median household income rose by only 7 percent.¹⁵

Against this backdrop of changing rural communities, the U.S. Forest Service is struggling to restore over 100 million acres of public forests across the West with limited funds. In 1995, the Forest Service spent \$400 million, or 16 percent of its budget, on fire suppression, and by 2013 the total had climbed to over \$1.7 billion, or 42 percent of its budget. This increase has forced cuts to active management programs that are designed to restore forests.16 As one of the regions affected by declining forest health, northeast Oregon provides an opportunity to investigate how ecological and demographic changes affect the way the public perceives, values, and manages forests.

The 2014 CAFOR Survey

Trained interviewers at the University of New Hampshire Survey Center conducted 1,752 telephone surveys, lasting 10 to 15 minutes each, in August through October 2014. Both mobile and landline phone numbers were selected randomly within each of the seven counties (Figure 1) to obtain a representative sample of residents. Sixty-four percent of calls were completed on landlines, and 36 percent on cell phones. Within this sample, 235 respondents were forest landowners owning ten or more acres of forest. We deliberately oversampled the population of forest landowners in order to better understand their perspective. We also oversampled Wheeler County residents (76 surveys, or 4 percent of the sample), who make up less than 1 percent of the study area's population, to clarify their views as well. We subsequently applied appropriate weights to calculate all percentages reported in this brief as they better reflect the proportion of the area's population within each county as well as the proportion of forest landowners (Figure 2). The bottom panel in Figure 2 shows how weighting affects percentages calculated from the raw number of interviews in the panel above.

Survey participants' ages ranged from 18 to 95 years, with a mean of 50. Fifty-one percent were female, and 26 percent had lived in eastern Oregon for less than ten years. The average length of residence was twenty-four years. Forty-six percent were employed full time, 17 percent part time, 28 percent retired, and 10 percent unemployed. Forty percent of respondents had college degrees, and 49 percent reported a total household income of \$60,000 or more. Ninety-four percent of respondents lived in the area yearround, and of the 6 percent who reported seasonal residence 45 percent lived there for six months of the year or less.

FIGURE 1. MAP OF NORTHEAST OREGON COUNTIES SURVEYED

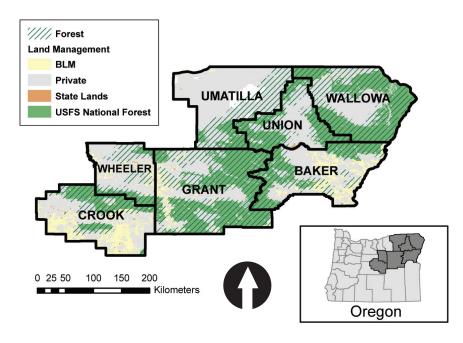
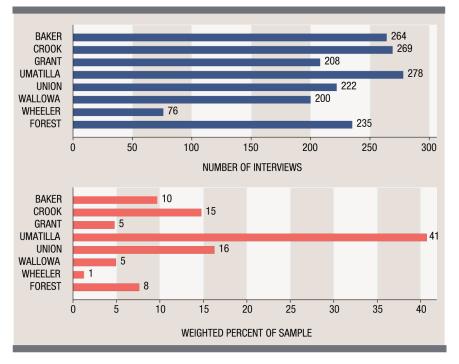


FIGURE 2. NUMBER AND SAMPLE WEIGHTS OF INTERVIEWS BY COUNTY AND **OWNERSHIP OF FORESTLAND**



Note: The 2014 CAFOR survey involved telephone interviews with 1,752 northeast Oregon residents (top chart); 235 owned ten or more acres of forestland. Weighting adjusts the raw numbers to percentages that represent each county's adult population within the total population of the study region (bottom chart, sums to 100%).

A large majority believe that forests are less healthy than they were twenty years ago (65 percent). Importantly, the proportion of respondents saying that forests are more healthy than they were 20 years ago has dropped dramatically compared to 2011 survey results.

Public Views Forests As Unhealthy and Poorly Managed

Among people who do not own forest land themselves, 43 percent nevertheless say that they understand a moderate amount about forest health and management, and 24 percent know "a great deal." Among forest landowners (with ten acres or more), these percentages rise to 52 percent understanding a moderate amount and 41 percent understanding a great deal. Figure 3 gives the percentages for both groups combined.

The survey also assessed how selfprofessed understanding of forest health and management related to current and changing forest conditions. As seen in Figure 4, a large majority believe that forests are less healthy than they were twenty years

ago (65 percent). Importantly, the proportion of respondents saying that forests are more healthy than they were twenty years ago has dropped dramatically compared to 2011 survey results: 14 percent among Baker, Union, and Wallowa County residents in 2014, compared with 36 percent in 2011 (Figure 4 shows results from all seven counties in 2014). Sixty-five percent of those who reported knowing a great deal about forest health in 2011 believed forests were less healthy than twenty years ago, compared to 69 percent in 2014 in the same three counties. Additionally, the percentage of those reportedly knowing a great deal and who believed that forests were healthier than in the past dropped from 22 percent in 2011 to 14 percent in 2014. Even among those who say they understand little or nothing,

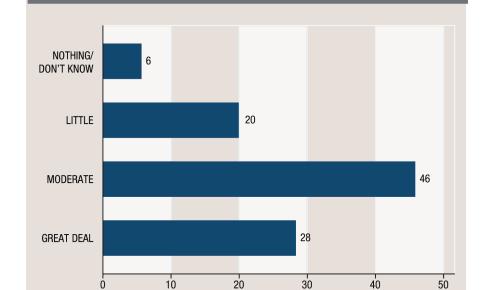
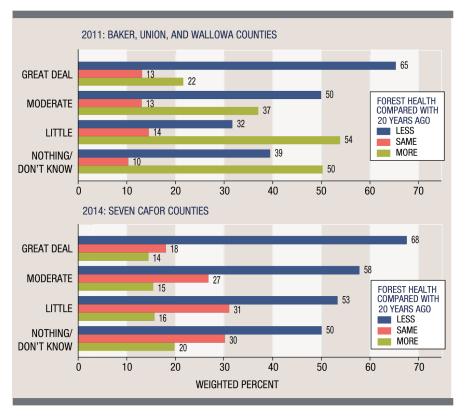


FIGURE 3. UNDERSTANDING OF FOREST HEALTH AND MANAGEMENT

Survey Question: "Regarding forest health and management, how much do you feel you understand about this issue—would you say a great deal, a moderate amount, only a little, or nothing at all?"

PERCENT





Survey Questions: Self-assessed understanding-"Regarding forest health and management, how much do you feel you understand about this issue—would you say a great deal, a moderate amount, only a little, or nothing at all?" Perception of forest health—"Do you think that the forests in your area are less healthy than they were twenty years ago, more healthy than twenty years ago, or is forest health about the same as twenty years ago?"

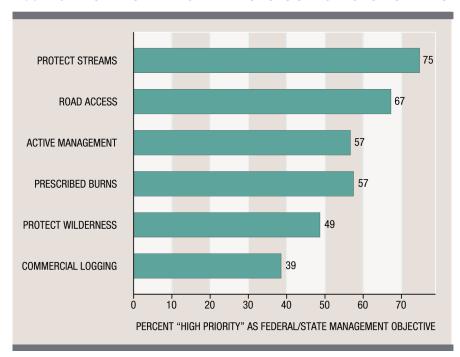
a larger proportion in 2014 believe forests are less healthy now. These shifts suggest that communities have received more information about the condition of local forests and have increased their "forest health literacy," perhaps because 2013 and 2014 were big forest fire years that received considerable media coverage.¹⁷

The 2014 survey also listed a range of management actions that could be taken on public forestlands, and asked respondents to say whether they thought each action was a low or high priority for managers. Three-quarters of residents thought protecting streams was a high priority (Figure 5), while 67 percent said

maintaining road access on public lands was very important. Over half recognized active management of forests and prescribed burns as high priorities, while protecting wilderness and commercial logging were labeled high priorities by fewer than half of respondents. Respondents were then asked whether and how they would help financially support active management of public forestlands if federal or state governments could not fund restoration activities. Approximately half supported raising user fees on federal land, while less than a third supported a property or gas tax to cover costs (Figure 6).18

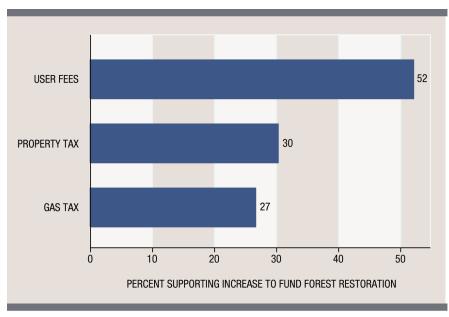
Three-quarters of residents thought protecting streams was a high priority, while 67 percent said maintaining road access on public lands was very important.... Approximately half supported raising user fees on federal land, while less than a third supported a property or gas tax to cover costs.

FIGURE 5. PRIORITY OF MANAGEMENT ACTIONS ON PUBLIC FORESTLANDS



Survey Question: "Which of the following do you think should be a high priority, as an objective for federal or state land management in northeast Oregon? Protection of water quality in streams; maintaining road access for forest management, recreation, and fire suppression; active management for national forests, with some tree thinning and/or grazing; prescribed burns when conditions allow, to reduce fuel for wildfires; protection of wilderness areas; and national forest areas opened to commercial logging."

FIGURE 6. MEANS TO SUPPORT ACTIVE MANAGEMENT, IN ABSENCE OF STATE OR FEDERAL FUNDING

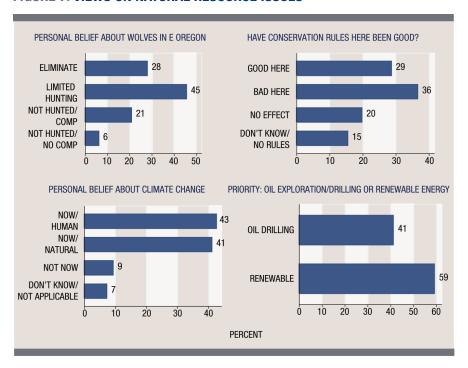


Survey Question: "If the federal and state governments will not or cannot fund northeast Oregon forest restoration, would you be willing to support an increase in any of the following as a way to fund this action? Additional user fees on federal land, property tax, and gas tax."

Changing Environmental Perceptions 2011–2014

In order to gain a broader view of public opinion on natural resource issues, we posed a series of additional questions. Asked about personal beliefs regarding wolves in eastern Oregon, 45 percent of respondents said they supported limited hunting of wolves, while 28 percent believed wolves should be eliminated and 21 percent believed they should not be hunted but that farmers should receive compensation for lost livestock (Figure 7). When asked about the effects of environmental rules that restrict development, 36 percent said that the rules had been bad for the community, 29 percent said that they had been good, and 20 percent said they had no effect. We then solicited opinions on climate change—whether it was happening, and if so why—and found opinion split. Slightly more responded that it is happening and human-caused (43 percent), while 41 percent said they believe it is happening but caused by natural forces; only 9 percent said it was not happening. As they do in many other parts of the United States, views on climate change fell strongly along political party lines, with most Republicans saying climate change is caused by natural forces, and most Democrats saying it is human-caused. 19 Finally, we asked whether the United States should focus on increased oil exploration and drilling or renewable energy in the future, and almost 60 percent of respondents favored renewable energy, a share that could be a result of large, visible capital investments in wind farms and solar in the northeastern Oregon region over the last decade.

FIGURE 7. VIEWS ON NATURAL RESOURCE ISSUES



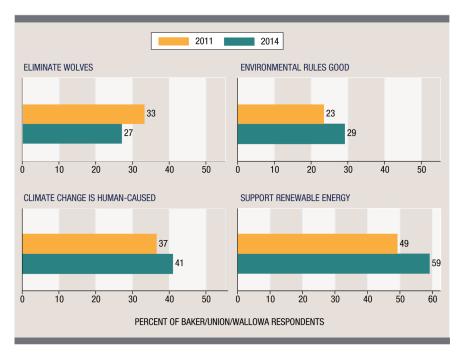
As they do in many other parts of the United States, views on climate change fell strongly along political party lines, with most Republicans saying climate change is caused by natural forces, and most Democrats saying it is human-caused.

Survey Questions: Wolves—"Which of the following four statements about wolves in eastern Oregon comes closest to your personal beliefs? Wolves should be eliminated from eastern Oregon; limited hunting of wolves should be allowed; wolves should not be hunted, but landowners compensated for losses; or wolves should not be hunted, and no landowner compensation is needed." Conservation Rules—"Have conservation or environmental rules that restrict development generally been a good thing for this area, a bad thing, or have they had no effect here?" Climate Change—"Which of the following three statements do you personally believe? Climate change is happening now, caused mainly by human activities; climate change is happening now, caused mainly by natural forces; or climate change is not happening now." Energy Priorities—"For the future of this country, which do you think should be a higher priority: increased exploration and drilling for oil or increased use of renewable energy sources such as wind and solar?"

These questions were also asked on the 2011 CAFOR survey of residents of Wallowa, Union, and Baker counties, and we repeated these questions to investigate potential shifts in attitudes toward environmental issues over short timescales. We found that a significant change occurred between 2011 and 2014 with regard to questions on eliminating wolves, support for renewable energy, and environmental rules. Fewer residents in 2014 supported the outright elimination of wolves (27 percent compared to 33

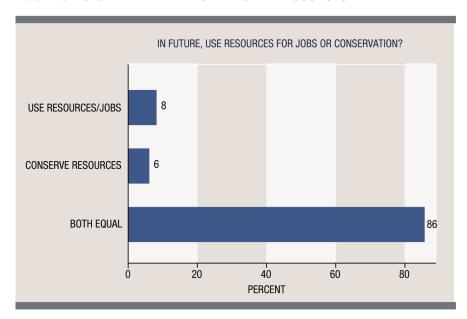
percent), and more residents supported increasing renewable energy development of wind and solar over drilling for oil and gas (59 percent compared to 49 percent) (Figure 8). The percentage of respondents saying environmental rules had been good for the area rose significantly, by 6 percentage points to 29 percent in 2014, and the proportion of participants who believed that climate change is happening now and is mainly caused by humans rose to 41 percent from 37 percent in the previous survey.

FIGURE 8. EVOLVING OPINIONS ABOUT NATURAL RESOURCE ISSUES



Note: Response to wolves, renewable energy, environmental rules, and climate change questions by residents of Baker, Union, and Wallowa counties in 2011 and 2014. Changes regarding wolves, environmental rules, and renewable energy (including wind power) are statistically significant (design-based F tests).

FIGURE 9. FUTURE TREATMENT OF NATURAL RESOURCES



Survey Question: "Do you think it is more important to use natural resources to create jobs, to conserve natural resources for future generations, or creating jobs and conserving resources are both possible with careful management?"

We also asked participants whether it was more important to use natural resources to create jobs or to conserve natural resources for future generations, or if both were possible with careful management. Eighty-six percent answered that both were possible (Figure 9). We asked a similar question in 2011, but did not present an option for prioritizing both resource use and conservation. In that survey, 54 percent said natural resources should be used to create jobs, 21 percent said that they should be conserved, and 25 percent volunteered that both could be done simultaneously and were equally important.

Conclusion

We closed our 2012 Carsey Brief with the prediction that if northeast Oregon's economy moves further toward amenity-based development, then perspectives on the environment could shift as well.²⁰ In 2014, the percentage of respondents who identified themselves as seasonal residents (living part of the year somewhere else) in Baker, Union, and Wallowa counties was 8.2 percent, up from 3.7 percent in our 2011 survey.²¹ Interestingly, the number of newcomers (individuals living in the area fewer than ten years) did not change between years, suggesting that the growth in seasonal residents is attributable to lifestyle shifts among longtime residents. As the region's population ages, this may reflect increased numbers of retirees wintering down south.

Further analyses controlling for age, gender, income, education, political party, forest ownership, newcomer status, and seasonal residence reveal that year (2011 versus 2014) is still a significant predictor

of responses to questions about renewable energy, environmental rules, wolves, and climate change.22 This suggests that the observed changes in perceptions between years are not due to demographic change but rather to shifts in public opinion among existing residents in that time period. It may be that changes in media messaging, public policies, incentives, and collaborative opportunities are aligning to create a new public consensus on public lands management, and CAFOR researchers plan to conduct further research in these communities to better understand the observed shifts.

The legacy of fire suppression on public lands in the West created a strong positive feedback cycle whereby worsening forest conditions contributed to largescale catastrophic fires, requiring further suppression. Our previous research documented high perceptions of risk among northeast Oregon residents associated with wildfires on public lands.²³ In this survey, we show there is a high degree of support for active management in these communities. "Active management" in this context includes both commercial timber harvest as well as thinning and other treatments designed to improve forest conditions. The ongoing decline in forest conditions will be exacerbated by climate change, and it appears that these communities are increasingly supportive of programs and policies that aim to restore forest resilience. However, while a majority of residents report having a moderate or very good understanding of forest health and management issues, a minority said that commercial logging on public

forestlands should be a high priority. This suggests that the public does not entirely appreciate the link between working landscapes and active ecosystem management activities like commercial thinning. This issue could represent a public education opportunity. Also, residents do not support raising taxes to fund forest restoration, though about half support raising user fees on federal lands to generate funds. Raising user fees may therefore be a locally palatable option for federal agencies to pursue, though more innovative policies will be required to fund the massive amount of restoration work needed. Ideally, collaborative forest management efforts will create family-wage jobs for local residents. Innovative economic and policy solutions are needed across the Inland West to help people and forests regain a strong and productive relationship that both supports livelihoods and sustains working landscapes.

Endnotes

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- 21. U.S. Census Bureau; American Community Survey, 2009– 2013, Detailed Tables; generated by A. Boag using American FactFinder, available at http://factfinder.census.gov.
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- 23. Hamilton et al., "Forest Views."

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