

# Social and Economic Monitoring for the Lakeview Stewardship CFLR Project

## Fiscal Years 2016 and 2017

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## About the Ecosystem Workforce Program:

*The Ecosystem Workforce Program is a bi-institutional program of University of Oregon's Institute for a Sustainable Environment and the College of Forestry at Oregon State University. We conduct applied social science research and extension services at the interface of people and natural resources. Our publications aim to inform policy makers and practitioners, and contribute to scholarly and practical discourse.*

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<http://ewp.uoregon.edu/about/intro>.



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The Collaborative Forest Landscape Restoration (CFLR) Program was established in the Omnibus Public Land Management Act of 2009 to promote the collaborative, science-based ecosystem restoration of priority forest landscapes. The program uses a competitive process to allocate funding to landscape-scale restoration projects that are proposed by the USDA Forest Service (Forest Service) and collaborators on national forest lands. Goals of the program include encouraging ecological, economic, and social sustainability; leveraging local resources with national and private resources; reducing wildfire management costs; and providing local economic benefits in rural communities.<sup>1</sup>

The Lakeview Stewardship Collaborative Forest Landscape Restoration Project is one of 23 CFLR projects in the U.S. It was one of 13 projects that was awarded funding by the Forest Service in 2012 with an 8-year funding commitment; 10 projects were previously awarded in 2010 with 10-year funding commitments. The project encompasses over 650,000 acres on the Fremont-Winema National Forest and is designed to improve forest health and reduce wildfire hazard while contributing to the social and economic wellbeing of local communities. To accomplish these objectives, a variety of restoration activities are conducted, including forest thinning work, prescribed fire, invasive species management, forest or wildlife surveys, road decommissioning, riparian restoration, and habitat enhancement. These activities

may be conducted by Forest Service staff as well as by partners. The Lakeview Stewardship CFLR Project has been designed and implemented by the Fremont-Winema National Forest and the Lakeview Stewardship Group, and the two entities work together to plan ongoing activities and monitor impacts of the project over time.

Monitoring of project outcomes—both ecological and socioeconomic—is a central and required component of all CFLR projects. The collaborative groups associated with CFLR projects are required to develop individual, multiparty monitoring plans for projects. The Forest Service also has a standardized reporting framework that collects and tracks accomplishments data annually. After the Lakeview Stewardship CFLR Project was awarded in 2012, the Lakeview Stewardship Group prioritized monitoring goals and created a monitoring plan, including five socioeconomic monitoring questions, that was approved in 2013. Previous reports describe baseline workforce conditions in the local area prior to the start of the CFLR project alongside socioeconomic monitoring results for Fiscal Years (FY) 2012–13 (the first two years of the project),<sup>2</sup> and results for FY 2014–15.<sup>3</sup> The goals of this current report are to summarize results for the socioeconomic monitoring questions for the FY 2016–17 project years, present these results alongside those from previous monitoring efforts where possible, and highlight accomplishments since the beginning of the project.

## The Lakeview Stewardship Group

The goal of the Lakeview Stewardship Group (LSG) is to support “a sustainable forest that will ensure quality of life for present and future generations.”<sup>4</sup> The forest collaborative group is one of the oldest in the region. It was formed in 1998 to develop a new strategy for sustainable forest management of the 500,000-acre Lakeview Federal Sustained Yield Unit (Unit) on the Fremont-Winema National Forest. The Unit was established in 1950 to provide a steady supply of timber to local mills, but federal timber sales declined over the following decades and by the 1990s all but one local mill, in Lakeview, had closed.

In the summer of 1998, the LSG met for the first time as a collaborative of community leaders bringing together conservationists, business interests, scientists, timber workers, and other local stakeholders to plan for the future of the Unit. The LSG commissioned a third-party review of Unit operations which led the group to propose a new, restoration-based management approach for the future of the Unit. In 2001 the Forest Service adopted the goals for the Unit that LSG suggested and redesignated

the Unit as the Lakeview Federal Stewardship Unit. In 2002, the LSG developed the Biophysical Monitoring Project, which was designed to assess current conditions and answer questions about the impacts of management actions in the Unit. The Biophysical Monitoring Project has operated continuously since 2002. LSG drafted the “Long-Range Strategy for the Lakeview Federal Stewardship Unit,” which focused on restoring the ecological health of the landscape while providing economic and social benefits to the local community; the Long-Range Strategy was released in 2005, and updated in 2010 and 2011.<sup>5</sup>

The Lakeview Stewardship Group has continued to collaborate on restoration projects on the Fremont-Winema National Forest by building consensus on forest management decisions that contribute to the ecological and socioeconomic goals of the local landscape and community. They focus on creating forest and community benefits through efforts such as fire protection projects, invasive species control, water quality restoration, and improved recreation opportunities.<sup>6</sup>

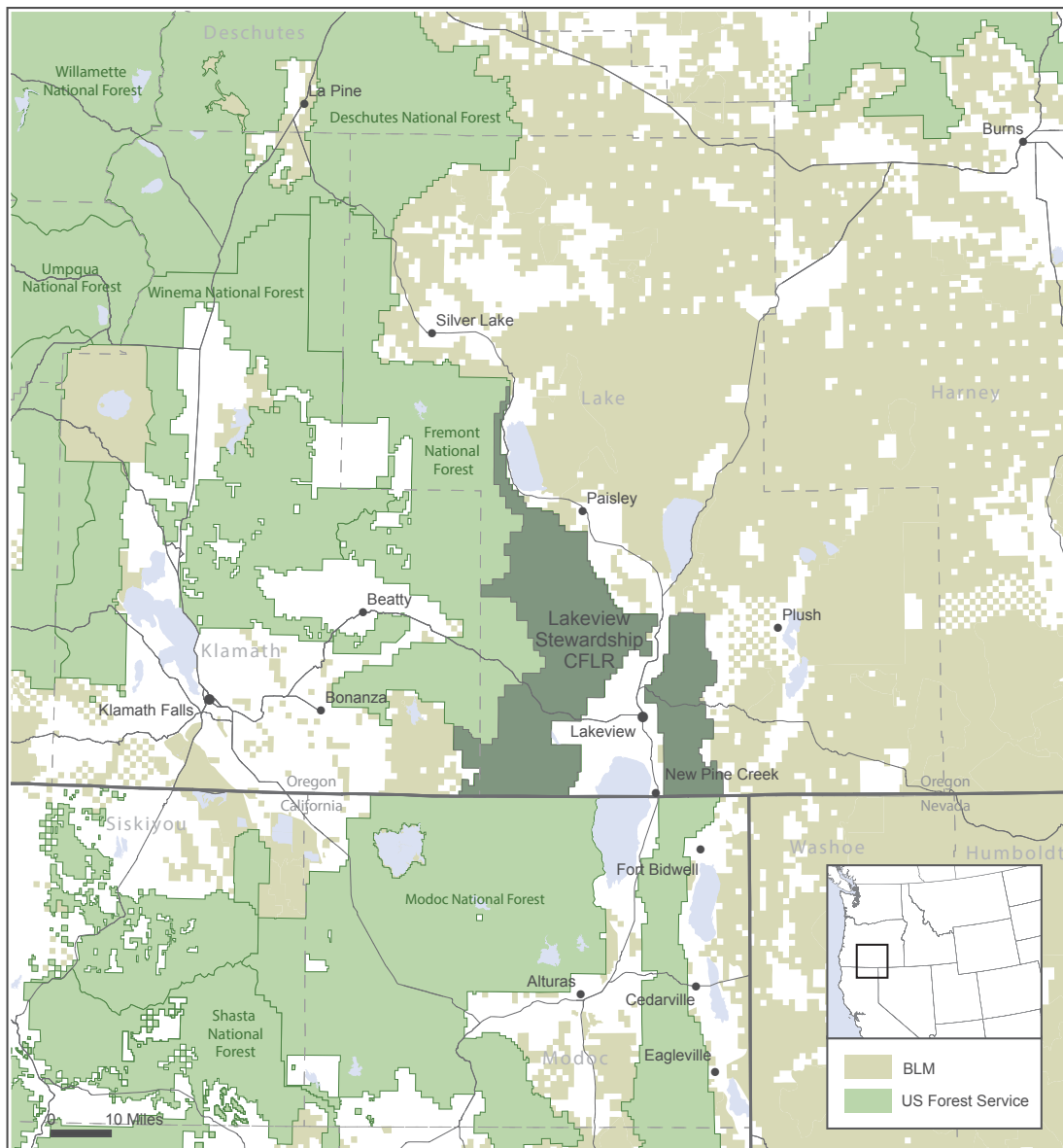


## Lakeview Stewardship CFLR Project and monitoring

In 2011, the Lakeview Stewardship Group and the Forest Service submitted a proposal for CFLR funding, using the Lakeview Federal Stewardship Unit as the boundary for the proposed CFLR project (see Figure 1, below). The boundary encompasses a total of 662,289 acres (174,652 acres of which are private inholdings). The highest-priority outcomes specified in the proposal were, “A healthy, diverse, and

resilient forest ecosystem that can accommodate human and natural disturbances” and, “Opportunities for people to realize their material, spiritual, and recreational values and relationships with the forest.”<sup>7</sup> The Lakeview Stewardship CFLR Project was selected for funding in 2012. In 2014, the Forest Service recognized the Lakeview Stewardship CFLR Project by awarding it a Chief’s Honor Award

**Figure 1 Lakeview Stewardship CFLR Project**



■ Lakeview Stewardship CFLR Project area

for “Meeting America’s Needs.” The award honored the long-term commitment of the LSG and the Fremont-Winema National Forest to collaborative land management.<sup>8</sup>

Monitoring of project outcomes is a key component of CFLR projects. Collaborative groups and the Forest Service can use monitoring information on project outcomes to help determine whether project objectives are being met or if future changes need to be made to better meet goals.

The collaborative groups associated with CFLR projects are required to develop individual, multi-party monitoring plans for their projects. As part of this requirement, in July of 2012, the LSG held a

workshop to identify monitoring questions of interest. They also identified criteria that they applied to each question to determine which made it into the final plan, ultimately establishing 14 ecological, social, and economic questions to be included in the Lakeview Stewardship CFLR Monitoring Plan.<sup>9</sup> These questions were reviewed and approved by the full collaborative group in February 2013, and a Science Team was convened to develop the appropriate methodology to answer each question. Five of the monitoring questions assessed socioeconomic conditions and outcomes (see Table 1, below). The purpose of this working paper is to provide an update on the social and economic impacts of the Lakeview Stewardship CFLR Project, following these five socioeconomic monitoring questions.

**Table 1 Social and economic monitoring questions and methods for the Lakeview Stewardship CFLR Project multiparty monitoring plan**

Questions	Indicators
	(Measured both as baseline and change over time)
What is the socioeconomic context of the Lake County area?	<ul style="list-style-type: none"> <li>▪ Employment in various sectors</li> <li>▪ Median household income</li> <li>▪ Unemployment rate</li> <li>▪ Poverty rate</li> <li>▪ Number of students eligible for free and reduced lunch</li> <li>▪ School enrollment</li> <li>▪ School dropout rates</li> </ul>
What are the total and matching funds in CFLR?	Use of direct CFLR funds; matching funds provided by the agency; contributed funds by partner organizations; leveraged funds.
What are the overall economic impacts of the CFLR project?	Job and labor income creation and retention; direct/indirect/induced effects.
How much and what kinds of CFLR work are captured locally?	Project dollars (timber sales, contracts, agreements, etc.) captured by local businesses; types of work captured and not captured. Jobs and income associated with local companies. The importance of CFLR in the work of local businesses.
What are the costs, local capture, and treatment outcomes of different project implementation mechanisms?	Type of work completed through different implementation mechanisms; number of acres treated; amount of stewardship receipts reinvested in restoration; local capture of work implemented with different mechanisms. Qualitative responses from the Forest Service about the costs and benefits of different mechanisms and why they were used. Qualitative responses from contractors that are satisfied with how CFLR projects are implemented.

Data source: Lakeview Stewardship CFLR Monitoring report

## Approach

This monitoring report examines the social and economic impacts that the Lakeview Stewardship CFLR and its associated activities have in Lake County, Oregon. It addresses each of the five socioeconomic monitoring questions included in the Lakeview CFLR Monitoring Plan for the 2016 and 2017 fiscal years (FY) of the project. Where feasible, results are presented alongside those from prior reports. However, changes in data collection, reporting strategies, or methodologies for measuring impacts have changed for some questions since the beginning of the project, yielding results that are not directly comparable between monitoring reports; we note these changes throughout. In the following pages, a summary of our approach to each monitoring question is provided before the Results, in an Approach section. Data sources used in analyses are included in this Approach section and below each table or figure as appropriate.

## Results

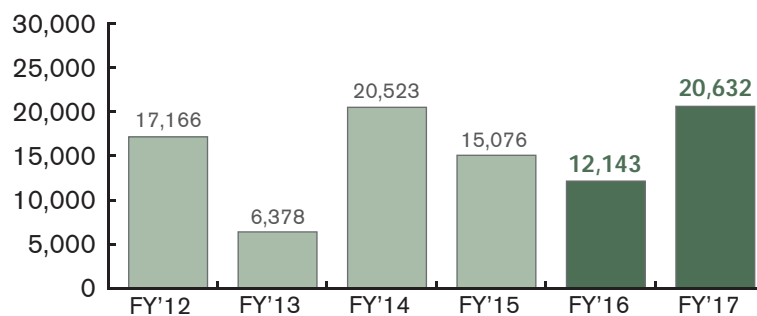
### FY 2016 and 2017 acres treated

From FY 2012 (the start of the Lakeview Stewardship CFLR Project) through FY 2017, a total of 91,918 total acres were treated by CFLR activities on the project landscape (see Figure 2, below). Ac-

tivities included prescribed fire, fuels reduction thinning, piling of slash generated from thinning work, invasive plant removal or management, habitat and watershed restoration, road decommissioning or restoration work, and other related activities. Multiple restoration activities are often completed on the same site.

The number of acres treated varies each year, and ranged from 6,378 to 20,632 between FY 2012 and 2017. Sometimes the variation in acres treated is in response to unplanned events. For example, in August 2012, the 93,000-acre Barry Point Fire occurred in the CFLR project area, burning areas that were planned and ready for implementation in the following months. The fire necessitated a revised plan of work for the CFLR landscape. Many fewer acres were treated during FY 2013 than were originally planned as work in the landscape focused on post-fire cleanup and rehabilitation. These adjustments to the CFLR workplan resulted in increased areas treated during FY 2014. During FY 2016–2017, a total of 32,775 acres were treated. The majority of those acres (20,632) were treated in FY 2017, marking the the greatest number of acres treated in any year of the CFLR project so far. There were no significant fire starts in the CFLR landscape during FY 2016; two fire starts occurred in FY 2017, but suppression efforts resulted in a less than 500 acres burned, most of which were at desired fire intensity levels.<sup>10</sup>

**Figure 2 Total acres treated under the Lakeview CFLR Project, FY 2012–17**



Data source: Lakeview Stewardship CFLR annual reports



## I. Monitoring question: What is the socioeconomic context of the Lake County area?

### Context

Members of the LSG widely understood that large-scale demographic trends at the county level would not change as a result of the Lakeview Stewardship CFLR Project and activities. However, tracking this information over the course of the project offers useful context for understanding local socioeconomic conditions in the project area. The LSG was interested in tracking this information because it can facilitate data-informed discussions in the collaborative group about local social and economic needs and potential project impacts.

### Approach

The socioeconomic indicators and characteristics tracked for this question were selected by the

LSG and are published in the Lakeview Stewardship CFLR Project Monitoring Plan.<sup>11</sup> Data for indicators are presented in tables and come from a variety of sources that are noted with footnotes for each indicator. Data current with the reporting year are presented along with previously reported data from prior years. In a couple cases, minor changes were made from the data that was presented in previous reports to allow for better comparisons over time and these changes are described in footnotes. Sector employment estimates come from the Oregon Employment Department, which estimates the number of jobs in different sectors for the state and each of its counties over time.



## Results

Most of the social and economic indicators for Lake County have not changed considerably since the start of monitoring, however there were a few notable shifts for some indicators (see Table 2, below). Population estimates for the county have not varied by more than 25 people since 2013. Student enrollment in schools and the school dropout rate did not change significantly at the county level, and the dropout rate remained lower than the statewide rate. One of the more notable changes was that the median age for the county continued to increase,

meaning that older residents represent a larger share of the population. In the six years between the 2011 estimate (included in the first monitoring report) and the 2017 estimate reported here, the median age for Lake County increased by two years. Over this same time period, it increased for the state of Oregon by one year. The median age for Lake County has consistently been greater than the statewide median, with this gap continuing to grow. Estimates from 2017 show the median age of Lake County was 9.6 years greater than the state's median age.

**Table 2 Comparison of key social and economic characteristics in Lake County, 2013–2017**

Indicator	Lake County (2013 report)	Lake County (2015 report)	Lake County (current report)	Oregon State (current)
Population <sup>1</sup>	7,830 (2007–2011)	7,829 (2011–2015)	7,807 (2013–2017)	4,025,127 (2013–2017)
Median age <sup>1</sup>	46.8 (2007–2011)	48.3 (2011–2015)	48.8 (2013–2017)	39.2 (2013–2017)
Student enrollment <sup>2</sup>	+1.2% (2013/2014 change from previous year)	-0.25% (2014/2015 change from previous year)	-0.08% (2016/2017 change from previous year)	+0.44% (2016/2017 change from previous year)
School dropout rate <sup>2</sup>	2.25 % (2012/2013 school year)	2.71 % (2015/2016 school year)	2.54% (2016/2017 school year)	3.86% (2016/2017 school year)
Percent of students eligible for free and reduced lunch <sup>3</sup>	43% (2011–2012)	55% (2014–2015)	56% (2016–2017)	51% (2016–2017)
Median household income <sup>1, 4</sup>	\$33,611 (2009–2013)	\$32,369 (2011–2015)	\$32,769 (2013–2017)	\$56,119 (2013–2017)
Unemployment rate <sup>5, 6</sup>	11.4% (August 2013)	7.5% (August 2015)	5.6% (August 2017)	4.1% (August 2017)
Percent of population in poverty <sup>1</sup>	18.7% (2007–2011)	18.6% (2011–2015)	20.0% (2013–2017)	14.9% (2013–2017)
Number of families receiving SNAP benefits <sup>1</sup>	783 (2009–2013)	740 (2011–2015)	720 (20.4%) (2013–2017)	279,536 (17.8%) (FY16–17 average)

<sup>1</sup> Data source: U.S. Census Bureau, American Community Survey 5-Year Estimates. 2013–2017 estimates accessed November 2019 from: <https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>.

<sup>2</sup> Data source: Oregon Department of Education. Accessed October 2019 from: <https://www.oregon.gov/ode/reports-and-data/Pages/default.aspx>.

<sup>3</sup> Data source: The National Center for Education Statistics (NCES). Data presented at: <https://www.countyhealthrankings.org/app/oregon/2019/measure/factors/65/data>.

<sup>4</sup> Median household income reported in the first monitoring report was from a different source and timeframe (August 2014) than what is presented here. In this report, median household income is presented for the 2013 estimate of the American Community Survey 5-year estimates, to allow for consistent comparisons between reporting periods.

<sup>5</sup> Data source: State of Oregon Employment Department. Seasonally adjusted rate. Report accessed December 2019 from: <https://www.qualityinfo.org/ed-uesti/?at=1&t1=4101000000~unemprate~y~2000~2019>.

<sup>6</sup> Unemployment data were reported for August 2014 in the first monitoring report and November 2015 in the second report. Here we used projected unemployment rates for the same month (August) for 2013, 2015, and 2017. Using the same month for each biannual reporting period offers a more consistent view over time, without conflation from seasonal variations in employment that could be included by reporting rates from different months.

Some indicators for employment, income, and poverty have also shifted since the first monitoring report. Most notable, the unemployment rate decreased by more than half from 11.4 percent in 2013 to 5.6 percent in 2017. The rate for Oregon over the same time period also decreased, from 7.7 percent to 4.1 percent. Although the unemployment rate in Lake County was still greater than statewide in 2017, the gap got progressively smaller over the time period. At the same time, the estimated median household income in the county stayed relatively stagnant, with a slight decrease from 2013 to 2017, and the estimated population in the county at or below poverty levels increased. The median income for the county was just 58 percent of the me-

dian income for Oregon State in 2017 estimates, and 5.1 percent more of the county population was in poverty than the statewide population as a whole. These changes suggest that while the unemployment rate decreased considerably in Lake County between 2013 and 2017, following statewide and broader trends after the 2009 recession, stagnation in wages led to a greater gap in income between the county and other parts of the state.

Employment estimates for nonfarm jobs in Lake County show how the number of jobs in different sectors has changed in the county over time (see Table 3, below). From 2011 to 2017, the estimated total nonfarm employment increased by 110 total

**Table 3 Nonfarm employment estimates for Lake County, 2011–2017, and Oregon State, 2017**

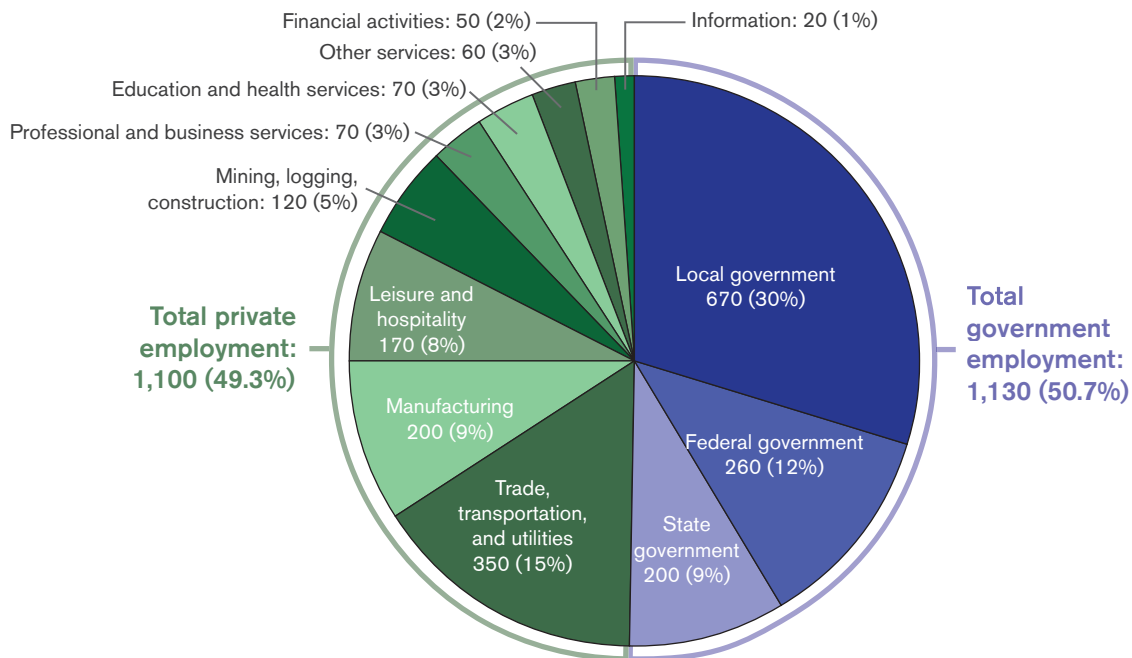
	Lake County							Oregon
	2011	2012	2013	2014	2015	2016	2017	2017
<b>Total nonfarm employment</b>	<b>2,120</b>	<b>2,080</b>	<b>2,100</b>	<b>2,170</b>	<b>2,180</b>	<b>2,180</b>	<b>2,230</b>	<b>2,230</b>
<b>Total private</b>	<b>1,120</b>	<b>1,060</b>	<b>1,090</b>	<b>1,130</b>	<b>1,100</b>	<b>1,080</b>	<b>1,100 (49.3%)</b>	<b>83.5%</b>
Mining, logging, construction	110	100	100	110	110	110	120 (5.4%)	5.6%
Mining and logging	50	40	40	40	40	40	40 (3.1%)	0.4%
Construction	60	60	60	70	70	80	70 (9.0%)	5.2%
Manufacturing	200	210	230	240	220	200	200 (5.4%)	10.1%
Trade, transportation, utilities	340	310	310	320	320	320	350 (15.7%)	18.6%
Retail trade	240	220	210	210	210	210	230 (10.3%)	11.2%
Information	20	20	20	20	20	20	20 (0.9%)	1.8%
Financial activities	60	60	60	60	60	50	50 (2.2%)	5.3%
Professional & business services	60	70	60	60	70	70	70 (3.1%)	13.0%
Education and health services	90	90	100	100	90	70	70 (3.1%)	14.5%
Leisure and hospitality	190	160	170	170	150	170	170 (7.6%)	11.0%
Other services	50	40	50	50	50	60	60 (2.7%)	3.4%
<b>Total government</b>	<b>1,000</b>	<b>1,020</b>	<b>1,010</b>	<b>1,040</b>	<b>1,080</b>	<b>1,110</b>	<b>1,130 (50.7%)</b>	<b>16.5%</b>
Federal government	260	260	240	250	250	260	260 (11.7%)	1.5%
State government	180	190	180	190	200	200	200 (9.0%)	3%
Local government	560	580	590	600	630	650	670 (30.0%)	12%

Data source: Oregon Employment Department

jobs. Much of the estimated employment growth occurred in government, which added 130 jobs, particularly in local government (110 of those jobs); state government increased by 20 jobs while federal government jobs stayed the same. Modest increases in private employment occurred in some sectors between 2012 and 2017, however employment in “education and health services” and “leisure and hospitality” decreased. Estimated employment in “mining and logging” fell by 10 jobs and accounted for 1.8 percent of total nonfarm employment in the county in 2017. Statewide, just 0.4 percent of Oregon’s employment is in mining and logging.

The breakdown of 2017 employment (See Figure 3, below) shows the importance of government jobs in the Lake County economy and workforce. More than half of the nonfarm employment in the county is in government, considerably more than the state-wide rate of 16.5 percent. Statewide, just 1.5 percent of nonfarm employment is in federal government, compared to 12 percent in Lake County. Lake County has over one million acres of national forest, accounting for 19 percent of its total land area. Much of the rest of the county is other federal land, primarily Bureau of Land Management.<sup>12</sup> These data highlight the importance of federal land management agency employment in the socioeconomic context of Lake County.

**Figure 3 Nonfarm employment estimates breakdown for Lake County, 2017**



Data source: Oregon Employment Department

## II. Monitoring question: What are the total and matching funds used in the Lakeview CFLR Project?

### Context

CFLR activities are completed with funds from a variety of sources, and understanding how much funding comes from each of these sources is important for understanding impacts of the Lakeview Stewardship CFLR Project and funds. Direct funds are called CFLR/CFLN funds and are obligated from the Forest Service Washington Office to use on CFLR projects, and matching funds are used to increase the amount of work accomplished. The CFLR law requires a 50 percent match of CFLR/CFLN funds, which can come from Forest Service and non-Forest Service sources. Partners can also contribute via both cash funds through agreements and in-kind contributions that can increase the scale of work accomplished on the CFLR landscape.

### Approach

We reviewed Lakeview Stewardship CFLR annual reports to identify the amount of direct CFLR/CFLN funds and non-CFLR/CFLN funds, including Forest Service matching funds, funds contributed via agreements, and in-kind contributions, used in CFLR activities during each year.

### Results

Over the first six years of the Lakeview Stewardship CFLR project (FY 2012–17), direct funding

varied between \$1.4 to \$2.7 million annually (see table 4, below). In both FY 2016 and 2017, direct funds were less than in prior years, while Forest Service matching funds in both years were greater than in any of the prior years. This means that the proportion of Forest Service funds that came from match sources versus direct funds was much greater than prior years, with matching funds contributing 81 percent (\$13,658,184) of the total Forest Service funding (\$16,874,517) for the CFLR project during the two-year time period. These levels of agency matching funds made the total funding used to accomplish CFLR work higher in FY 2016 than any prior year.

Funds that are contributed to work within the CFLR landscape via agreements and in-kind work from local and non-profit organizations also provided vital capacity for accomplishing CFLR activities and objectives. These funds and in-kind contributions, in combination with Forest Service direct and matching funds, made up the total annual funding for the project, which varied from \$4.8 to \$9.1 million annually between FY 2012–17. In FY 2016 and 2017, funds from partner agreements were notably lower than prior years, while in-kind contributions in FY 2016 exceeded all other years thus far.

**Table 4 Direct, matching, and contributed funding in support of CFLR activities, FY 2012–17**

	2012	2013	2014	2015	2016	2017
Direct CFLR/CFLN funds	\$2,088,646	\$2,037,204	\$2,707,036	\$1,824,530	\$1,783,061	\$1,433,272
Forest Service matching funds	\$2,475,267	\$5,278,075	\$5,748,551	\$4,028,358	\$7,108,760	\$6,549,424
Funds contributed via agreements	\$243,246	\$682,134	\$239,178	\$332,062	\$111,794	\$122,961
In-kind contributions	\$18,909	\$14,700	-	\$64,182	\$81,775	\$30,000
<b>Total</b>	<b>\$4,826,068</b>	<b>\$8,012,113</b>	<b>\$8,694,765</b>	<b>\$6,249,132</b>	<b>\$9,085,390</b>	<b>\$8,135,657</b>

Data source: Lakeview Stewardship CFLR annual reports

### III. Monitoring question: What are the overall local economic impacts of the CFLR project?

#### Context

A longstanding goal of the LSG has been to support healthy communities and the local economy through forest stewardship activities. Likewise, an important objective of the CFLR Program is to provide benefits to local rural economies. This monitoring question provides detail to those benefits, and is required by the CFLR Program for all projects.

Restoration activities in CFLR projects can create economic activity in multiple ways. Economic impacts are created through the direct employment of Forest Service staff and through contracts to private businesses to accomplish restoration tasks. Economic activity is also created indirectly through the purchase of material and supplies for projects, and by the spending of employees and businesses in communities local to the project area. These indirect economic impacts are typically associated with suppliers, retail establishments, grocery stores, service providers like banks and accountants, and other general sectors of the economy. The processing of timber that results from restoration timber sales, both primary and secondary, also contributes to the total economic benefits from the project. “Local capture” relates only to contracted work with businesses in Lake County. It is the percentage of the contracted funds that local businesses receive, and is an important measure of local economic impacts.

#### Approach

Because this is a required monitoring question for all CFLR projects, the Forest Service created and updated an economic impact analysis model that all CFLR projects use to estimate economic impacts for each project year. The *Treatments for Restoration Economic Analysis Tool* (TREAT), was developed by national forest economists specifically to standardize the approach to estimating the jobs and labor income that would be supported by restoration efforts across CFLR projects and monitoring teams that have varying economic analysis capacities.<sup>13</sup> TREAT creates estimates of local employment and labor income levels from specified funding amounts and funded activities. Labor income

in TREAT is “the sum of wages, plus the value of benefits, plus the income of sole proprietors.”<sup>14</sup> Job estimates from TREAT are reported in “job years,” meaning that each estimated job lasts one year. In many cases, jobs to complete restoration work will last less than one year. Jobs that last less than one year are combined to develop the year-long job figure. For example, two jobs created from this contracting activity that last six months each are counted as one year-long job. A job that lasts two years would be counted as two job years.<sup>15</sup>

For the Lakeview CFLR Project, TREAT estimates are created by Forest Service economists based on inputs from the Lakeview Project Coordinator(s) on the amount of funding used on the project, and a variety of other considerations such as: how much of the funding was used for Forest Service employees and for contracts with private businesses, estimates of how much of the contract dollars went to local contractors, and the commercial timber harvest volumes for different wood products as a result of project activities during each year. Economists send the TREAT results back to the Lakeview CFLR coordinator, and selected results are then included in the annual reports for the project that are available online.<sup>16</sup> We reviewed both the TREAT data reports from the Forest Service economists at the national level that were sent to the LSG for each project year, as well as the annual reports that include a subset of this required reporting. Small differences from rounding may exist in the numbers reported here versus those in annual reports.

Starting in FY 2015, the TREAT model for estimating job and labor impacts from CFLR projects was updated to improve the reliability of the estimates it produced. Updates were based on work completed by the Ecosystem Workforce Program to develop expenditure profiles of restoration firms to use in TREAT models. These profiles were created from a nationwide survey of restoration businesses that contracted with the Forest Service, and were more accurate than the generic sectors that were used to model the effects of contracting in prior TREAT ver-

sions.<sup>17</sup> The updated model includes local economic impacts created from Forest Service employment to plan, implement, and monitor projects, as well as impacts from contracts with private businesses (separated into restoration contracts and contracts for monitoring) and from the timber harvesting and mill processing components of projects. The updates to the TREAT model starting in FY 2015 were significant and comparison of the results from the first years of the Lakeview CFLR Project (FY 2012–14) with later years cannot be accurately made. For this reason, we report the FY 2012–14 estimates separately from FY 2015–17 estimates.

## Results

### FY 2012–2014

**CFLR funds only:** Prior to updates, TREAT analyses for FY 2012, 2013, and 2014 indicated that CFLR funds alone (not including matching funds) sup-

ported between 5.9 and 18 local jobs each year and created between \$161,072 and \$435,755 in local labor income each year (see Table 5, below). These jobs and associated income were all from in-woods restoration work, as no commercial forest products were generated from activities paid for with CFLR funds. The relatively high number of local economic impacts in FY 2012 compared to the other years reflects a higher estimated portion of the contracting work awarded to local contractors— in FY 2012 it was estimated that 30 percent of funds (for both CFLR funds and matching funds, which are reported below) were awarded locally. Early socioeconomic monitoring work for this project suggested that this estimate was high, with actual local capture of restoration contract funds closer to ten percent or less. Estimates of local capture in the following years decreased as a result. The estimate for the percent of contract work awarded to local contractors was five percent in FY 2013 and seven percent in FY 2014; these lower estimates for local

**Table 5 Local jobs and labor income supported in Lake County from CFLR/CFLN funds only, FY 2012–14** (using early version of TREAT prior to model updates in 2015)

Activity type	FY 2012		FY 2013		FY 2014	
	Jobs	Labor income	Jobs	Labor income	Jobs	Labor income
Commercial forest product processing	0	0	0	0	0	0
Other activities	18 total (16.1 direct; 1.9 indirect)	\$435,755 total (\$385,059 direct; \$50,696 indirect)	9.3 total (8.3 direct; 1.0 indirect)	\$220,933 total (\$195,632 direct; \$25,30 indirect)	5.9 total (4.8 direct; 1.1 indirect)	\$161,072 total (\$131,707 direct; \$29,365 indirect)
<b>Total</b>	<b>18 jobs</b>	<b>\$435,755</b>	<b>9.3 jobs</b>	<b>\$220,933</b>	<b>5.9 jobs</b>	<b>\$161,072</b>

**Table 6 Local jobs and labor income supported in Lake County from CFLR/CFLN funds and matching funds, FY 2012–14** (using early version of TREAT prior to model updates in 2015)

Activity type	FY 2012		FY 2013		FY 2014	
	Jobs	Labor income	Jobs	Labor income	Jobs	Labor income
Commercial forest product processing	35.8 total (19.0 direct; 16.8 indirect)	\$1,832,882 total (\$1,199,130 direct; \$633,752 indirect)	11.4 total (6.1 direct; 5.3 indirect)	\$584,848 total (\$382,626 direct; \$202,222 indirect)	87.3 total (60.2 direct; 27.1 indirect)	\$5,022,893 total (\$3,897,848 direct; \$1,125,045 indirect)
Other activities	51.6 total (46.4 direct; 5.2 indirect)	\$1,230,099 total (\$1,093,190 direct; \$136,909 indirect)	11.8 total (10.6 direct; 1.2 indirect)	\$280,881 total (\$248,714 direct; \$32,167 indirect)	7.7 total (6.3 direct; 1.4 indirect)	\$202,802 total (\$163,668 direct; \$39,134 indirect)
<b>Total</b>	<b>87.5 jobs</b>	<b>\$3,062,981</b>	<b>23.2 jobs</b>	<b>\$865,728</b>	<b>95.0 jobs</b>	<b>\$5,225,695</b>

capture are reflected in the lower local economic impacts for FY 2013 and 2014, which are likely more realistic.

Because the earlier TREAT model did not produce results that were considered accurate for the Lake County context, the authors of the first Lakeview socioeconomic monitoring report (FY 2012–2013) used a different method to estimate economic impacts from CFLR/CFLN funds based on an economic model developed specifically for the Lake County economy. This alternative model and results was an important part of the monitoring effort that informed changes to the TREAT model from 2015 on. For more information on this alternative analysis and results, see Appendix A (page 28).

**CFLR/CFLN and matching funds:** When including matching funds, TREAT analyses for FY 2012, 2013, and 2014 estimated that the CFLR project supported between 23 and 95 jobs each year and created between \$866,000 and \$5.2 million in labor income a year (see Table 6, page 12). The relatively high number of supported jobs and labor income in FY 2012 is due to the overestimation of how much local capture of restoration contracts that local businesses captured, as noted in the prior section. The greater impacts in FY 2013 originate from a greater

volume of commercial forest products generated from the project than in prior years.

### **FY 2015–2017**

**CFLR/CFLN funds only:** During FY 2015–17, Lakeview CFLR/CFLN funds alone (not including matching funds) supported between 19.0 and 22.4 total local jobs each year and created between \$636,000 and \$698,000 in local labor income a year (see Table 7, below). These jobs and associated income originated from forest and watershed restoration contracts with private businesses, Forest Service monitoring and implementation, and contracted monitoring efforts, as no commercial forest products were generated from activities paid with CFLR funds. The portion of contract dollars that were awarded locally to contractors in Lake County was estimated to be six percent in FY 2015 and seven percent in FYs 2016 and 2017.

**CFLR/CFLN and matching funds:** When matching funds were considered in addition to CFLR/CFLN funds, the local jobs and labor income supported in each year of the CFLR project were considerably greater. During FYs 2015, 2016, and 2017, total funding for the Lakeview CFLR Project supported between 60.0 and 178.6 local jobs each year and

**Table 7 Jobs and labor income supported in Lake County from CFLR/CFLN funds only, FY 2015–2017** (using 2015 updated version of TREAT)

Activity type	FY 2015		FY 2016		FY 2017	
	Jobs	Labor income (2015 dollars)	Jobs	Labor income (2016 dollars)	Jobs	Labor income (2017 dollars)
Timber harvesting	0.0	0	0.0	0	0.0	0
Forest and watershed restoration	<b>0.6 total</b> (0.5 direct; 0.1 indirect)	<b>\$38,653 total</b> (\$33,645 direct; \$5,007 indirect)	<b>0.7 total</b> (0.5 direct; 0.2 indirect)	<b>\$9,881 total</b> (\$5,661 direct; \$4,220 indirect)	<b>0.2 total</b> (0.1 direct; 0.1 indirect)	<b>\$4,842 total</b> (\$2,013 direct; \$2,829 indirect)
Mill processing	0.0	0	0.0	0	0.0	0
Forest Service monitoring and implementation	<b>17.7</b> (15.8 direct; 1.9 indirect)	<b>\$620,142 total</b> (\$563,831 direct; \$56,311 indirect)	<b>19.6</b> (17.3 direct; 2.3 indirect)	<b>\$611,683 total</b> (\$552,255 direct; \$59,428 indirect)	<b>20.0</b> (17.0 direct; 3.0 indirect)	<b>\$611,683 total</b> (\$552,255 direct; \$59,428 indirect)
Contracted monitoring and commercial firewood	<b>0.6 total</b> (0.5 direct; 0.1 indirect)	<b>\$37,245 total</b> (\$32,092 direct; \$5,153 indirect)	<b>2.1 total</b> (1.7 direct; 0.4 indirect)	<b>\$76,931 total</b> (\$64,856 direct; \$12,075 indirect)	<b>0.5 total</b> (0.4 direct; 0.1 indirect)	<b>\$19,748 total</b> (\$15,157 direct; \$4,591 indirect)
<b>Total</b>	<b>19.0 jobs</b>	<b>\$696,039</b>	<b>22.4 jobs</b>	<b>\$698,495</b>	<b>20.6 jobs</b>	<b>\$636,274</b>

created between \$3.2 million and \$10.6 million in local labor income a year (see Table 8, below). This economic activity was created through the harvest and processing of commercial timber product from restoration activities, as well as forest and watershed restoration contracts with private businesses, Forest Service monitoring and implementation, and contracted monitoring efforts.

The differences in local economic impacts between the three years originates primarily from differences in the amount of commercial forest products that were harvested from CFLR restoration work and then processed during each year (see Table 9, below). The lesser local impacts in FY 2016 compared to FY 2015 and FY 2017 were due to the lower commercial harvest volume generated from the project in FY 2016 compared to the other years. Because the project area for the Lakeview CFLR Project over-

laps with the Sustainable Yield Unit, locally-based Collins Pine is the primarily purchaser of CFLR restoration timber sales. During these years, Collins Pine harvested 100 percent of the CFLR project-generated timber volume, keeping all economic impacts from the timber harvesting component of the project local. In addition, because timber harvested for the CFLR project by Collins Pine was processed at their local mill in Lakeview, 100 percent of mill processing component of the Lakeview CFLR's activities was also performed locally. In contrast, local capture of contract dollars was much lower: estimated at eight percent in FY 2015 and four percent in FYs 2016 and 2017. Because of the greater local capture of timber harvesting and manufacturing compared to service contracts for the project, increases in timber harvest for the CFLR project have to date had greater local impact than increases in contract spending.

**Table 8 Local jobs and labor income supported in Lake County from CFLR/CFLN funds and matching funds, FY 2015–17** (using 2015 updated version of TREAT)

Activity type	FY 2015		FY 2016		FY 2017	
	Jobs	Labor income (2015 dollars)	Jobs	Labor income (2016 dollars)	Jobs	Labor income (2017 dollars)
Timber harvesting	<b>53.4 total</b> (37.8 direct; 15.6 indirect)	<b>\$3,590,801 total</b> (\$2,972,759 direct; \$618,042 indirect)	<b>12.8 total</b> (10.2 direct; 2.6 indirect)	<b>\$1,048,438 total</b> (\$820,479 direct; \$227,959 indirect)	<b>62.0 total</b> (49.0 direct; 13.0 indirect)	<b>\$5,084,644 total</b> (\$4,156,959 direct; \$927,685 indirect)
Forest and watershed restoration	<b>4.5 total</b> (4.0 direct; 0.5 indirect)	<b>\$142,693 total</b> (\$123,689 direct; \$19,004 indirect)	<b>0.7 total</b> (0.5 direct; 0.2 indirect)	<b>\$10,238 total</b> (\$5,865 direct; \$4,372 indirect)	<b>0.2 total</b> (0.1 direct; 0.1 indirect)	<b>\$4,742 total</b> (\$1,972 direct; \$2,771 indirect)
Mill processing	<b>68.5 total</b> (41.3 direct; 27.3 indirect)	<b>\$3,592,383 total</b> (\$2,378,207 direct; \$1,214,176 indirect)	<b>21.3 total</b> (11.1 direct; 10.2 indirect)	<b>\$1,020,918 total</b> (\$656,383 direct; \$364,534 indirect)	<b>97.1 total</b> (53.5 direct; 43.6 indirect)	<b>\$5,053,981 total</b> (\$3,325,567 direct; \$1,728,414 indirect)
Forest Service monitoring and implementation	<b>31.8</b> (27.7 direct; 4.1 indirect)	<b>\$1,327,544 total</b> (\$1,206,999 direct; \$120,545 indirect)	<b>23.0 total</b> (19.0 direct; 4.1 indirect)	<b>\$1,066,465 total</b> (\$962,853 direct; \$103,613 indirect)	<b>18.9</b> (17.4 direct; 1.4 indirect)	<b>\$469,742 total</b> (\$433,437 direct; \$36,304 indirect)
Contracted monitoring and commercial firewood	<b>0.6 total</b> (0.5 direct; 0.2 indirect)	<b>\$37,441 total</b> (\$32,262 direct; \$5,180 indirect)	<b>2.1 total</b> (1.7 direct; 0.4 indirect)	<b>\$79,711 total</b> (\$67,199 direct; \$12,512 indirect)	<b>0.5 total</b> (0.4 direct; 0.1 indirect)	<b>\$19,340 total</b> (\$14,844 direct; \$4,496 indirect)
<b>Total</b>	<b>159.0 jobs</b>	<b>\$8,690,864,039</b>	<b>60.0 jobs</b>	<b>\$3,225,770</b>	<b>178.6 jobs</b>	<b>\$10,632,449</b>

**Table 9 Volume of CFLR-generated commercial harvest used in TREAT analyses, FY 2015–17**

FY	Commercial harvest volume, centum cubic feet (CCF)
2015	34,377.00 CCF
2016	9,234.00 CCF
2017	44,554.84 CCF



## IV. Monitoring question: How much and what kinds of CFLR project work are captured locally?

### Context

Restoration activities in CFLR projects may be accomplished through in-house Forest Service crews, service contracts with private businesses, timber sales for restoration-related byproducts, and partnerships with state agencies and non-profit organizations. As noted in the previous monitoring question, local capture of contracts is an important measure of local economic impacts. Although contracts with nonlocal businesses can yield local impact through local purchases of supplies, materials, and living expenses, contracts with local businesses have a greater impact on local economies by directly employing and providing income to residents in the place where they both live and work.

Local capture of contract work depends on local contractor capacity for the types and amounts of work that are available. Local contractor capacity is dynamic and can change between years based on the presence, skills, and availability of local businesses. Local capture can reflect the ability of the local workforce to respond to agency contracting needs, and alignment of the agency's contracting decisions with local workforce capacity and needs. Local capture can also be influenced by a variety of factors that are difficult to change, however. For example, there may not be local businesses that can perform the work because they do not have the equipment, skillsets, or experience for the work that is needed. Local businesses may also not be the right size for the scale of contracted activities, or able to complete the work efficiently or at the required rate. Agency managers also need to consider best value and other criteria in contracting decisions, which can lead to nonlocal contractors ultimately being awarded a contract even if there are local contractors in the bidding. In some cases, for certain types of work or contracts, there may not be any local contractors participating in the bidding.

### Approach

To determine how much of the different types of contracted work for the CFLR project were awarded to local and nonlocal contractors, we reviewed For-

est Service records of service contracts that were awarded as part of the CFLR project during FY 2016 and 2017. We classified each contract by 1) the location of the business that it was awarded to and 2) the type of work that the contract was for. Examples of project activities that were contracted to private businesses in FY 2016 and 2017 included tree thinning, seed collection, repair of roadways or bridges, seed collection, and architecture/engineering services. Work types were classified into five categories: equipment-intensive (e.g. mechanical tree thinning, grapple piling), material-intensive (e.g. road work, culvert work), labor-intensive (e.g. forest tree planting, hand thinning), professional services (e.g. engineering design, special studies), and technical services (e.g. weed abatement, plant surveys, timber marking). Following the same methods used during prior years,<sup>18</sup> only those businesses located in Lake County or Bly, Oregon were classified as local for the analysis.

In addition to CFLR-related service contracts, we reviewed: a) the commercial harvest volumes reported by the project and the amount of that volume awarded locally, and b) stewardship contract task orders, which include timber sale and service contract components, resulting from the CFLR project.

### Results

#### Service contracts:

Our baseline analysis of local contractor capacity showed that a range of local contractors and timber purchasers were engaged in watershed and restoration work, timber purchases, and fire-suppression and support services during FY 2004–2013, with the number, size, and types of work contracts with local businesses varying greatly between years. It also showed that the local businesses that did contract work for the Forest Service worked almost exclusively in Lake County.<sup>19</sup>

In the first two years of the Lakeview CFLR Project (FY 2012–2013), 11 percent of the service contract value for the project was awarded to local contrac-

tors; all of the local contractors' work was in equipment or technical-type work, no contract dollars in labor-intensive work went to local contractors, and no material-, or professionally-intensive work was contracted (see Table 10, below). In FY 2014–2015, five percent of CFLR service contract dollars were awarded to local contractors. Locally-awarded work was primarily for equipment-intensive work with some material-intensive work. Similar to the first two years, no contracts for labor-intensive work, which accounted for 94 percent of the CFLR contract spending, were awarded to local businesses.

During FY 2016–2017, none of the CFLR service contract dollars went to local businesses. While there could be many reasons for this, one reason is likely the large proportion of contract dollars that were for labor-intensive work, which local contractors have not captured in any year since the project started. This work accounted for 96.6 percent of the total service contract dollars during the two years, more than previous years (labor-intensive work was 94 percent of contract dollars in FY 2014–15 and 82 percent in FY 2012–13). The lack of local capture of labor-intensive Forest Service contracts among Lake County businesses is not new or unique to this CFLR project, nor is it unique to forests across the region. The baseline analysis for this project looked

at the type of work that Lake County businesses were awarded (for work in any location, local or nonlocal) from FY 2001–2011, prior to the start of the CFLR project, to assess how much local capacity and in what types of work existed in Lake County. That baseline assessment showed that while local contractors did complete some labor-intensive work in FY 2004–2005, in the following years, “local businesses did not capture labor-intensive restoration work for the Forest Service in Lake County or elsewhere” (p. 10). From FY 2007–2011, Lake County contractors received at least some of the other four types of restoration work contracted in Lake County (ranging from four to 71 percent for the different types), but none of the labor-intensive contract work in Lake County (see Table 11, page 17). This ongoing lack of local capture, going back at least the last decade, suggests that there is little contracting capacity in Lake County specifically for the labor-intensive restoration work that makes up a large portion of the CFLR project work. In addition, the CFLR project has to date not led to greater capacity being created among local contracting businesses for this type of work.

Both the baseline assessment of capacity and the prior four years of monitoring for the CFLR project suggest that local federal contracting capacity in

**Table 10 Local capture of service contracts from the Lakeview CFLR Project, FY 2012–17**

<b>Contracted work type</b>	<b>2012–2013 total value</b>	<b>2012–2013 local capture</b>	<b>2014–2015 total value</b>	<b>2014–2015 local capture</b>	<b>2016–2017 total value</b>	<b>2016–2017 local capture</b>
Equipment-intensive	\$625,722	\$367,932 (59%)	\$248,312	\$198,832 (80%)	\$52,657	-
Labor-intensive	\$3,050,397	-	\$4,846,213	-	\$2,971,159	-
Material-intensive	-	-	\$59,350	\$59,350 (100%)	-	-
Professional-intensive	-	-	-	-	\$45,217	-
Technical-intensive	\$55,909	\$49,141 (88%)	-	-	\$5,845	-
<b>Total service contract value</b>	<b>\$3,732,028</b>	<b>\$417,073 (11%)</b>	<b>\$5,153,875</b>	<b>\$258,182 (5%)</b>	<b>\$3,074,879</b>	<b>\$0</b>

Data sources: Federal Procurement Data System and USDA Forest Service records

**Table 11 Baseline contracting for restoration work on Forest Service land in Lake County, Oregon, FY 2007–11**

Contracted work type	Total contracts	Total contract value	Contracts with local contractors	Contract value with local contractors	Local capture
Equipment	18	1,194,814	7	843,736	71%
Labor	64	2,760,586	1	11,655	0%
Material	6	278,973	1	11,765	4%
Professional	9	241,760	1	19,885	8%
Technical	38	506,988	28	300,475	59%
<b>Total</b>	<b>135</b>	<b>4,983,121</b>	<b>38</b>	<b>1,187,516</b>	<b>24%</b>

Data sources: Federal Procurement Data System and USDA Forest Service records. Local capture is calculated as the percent of the total contract value awarded to local contractors.

Lake County over the last decade has centered primarily in equipment-intensive and technical work. These types of work made up a smaller portion of the CFLR contracts in FY 2016–2017. The amount of equipment-intensive work contracted to private business for the CFLR in FY 2016–2017 (\$52,657) was 21 percent of the amount contracted for this type of work in FY 2014–2015, and just eight percent of the amount of contracted in FY 2012–2013. Thus, there were fewer dollars contracted for the type of work which local businesses appear to have the most capacity for. Overall, it appears that the type of restoration work that was needed for the CFLR project during these years did not match the type of local work capacity that may have been available.

CFLR staff engaged in several efforts to identify and ease barriers for local contractors with the goal of increasing local capture. In FY 2016, Forest Service staff offered a no-cost workshop to contractors on how to make proposals more competitive. CFLR staff also engaged Acquisitions Management (AQM) staff to identify additional contracting instruments, timing, and size that could encourage more local contractors to bid on projects. In the Lakeview CFLR Annual Report for FY 2016, staff noted that, “Through these efforts, however, we did not see any significant increases in local contractors successfully competing for CFLR contracts in the [Sustainable Yield] Unit this fiscal year.”<sup>20</sup>

There are a couple important things to keep in mind when considering local capture and its implications for the local economy. First, while local capture has a greater impact on the local economy through direct employment of local residents, nonlocal contractors can still create considerable indirect economic activity in rural communities. For many contracts awarded to nonlocal contractors, the contractors will rent houses or hotels in the local community and will purchase all their food and fuel, and even some equipment and supplies, locally. This is especially true for rural locations such as Lake County, which is somewhat isolated from any large population centers. This economic activity was included in the alternative model for local economic impacts that was conducted in the first two years of monitoring, which found that nonlocal contracts created an estimated five jobs and \$121,000 in additional labor income locally.<sup>21</sup> Although this economic activity is not factored into the updated TREAT models now used to value local impacts from contracts, it is worth keeping in mind that contracts to nonlocal contractors still create some local impact.

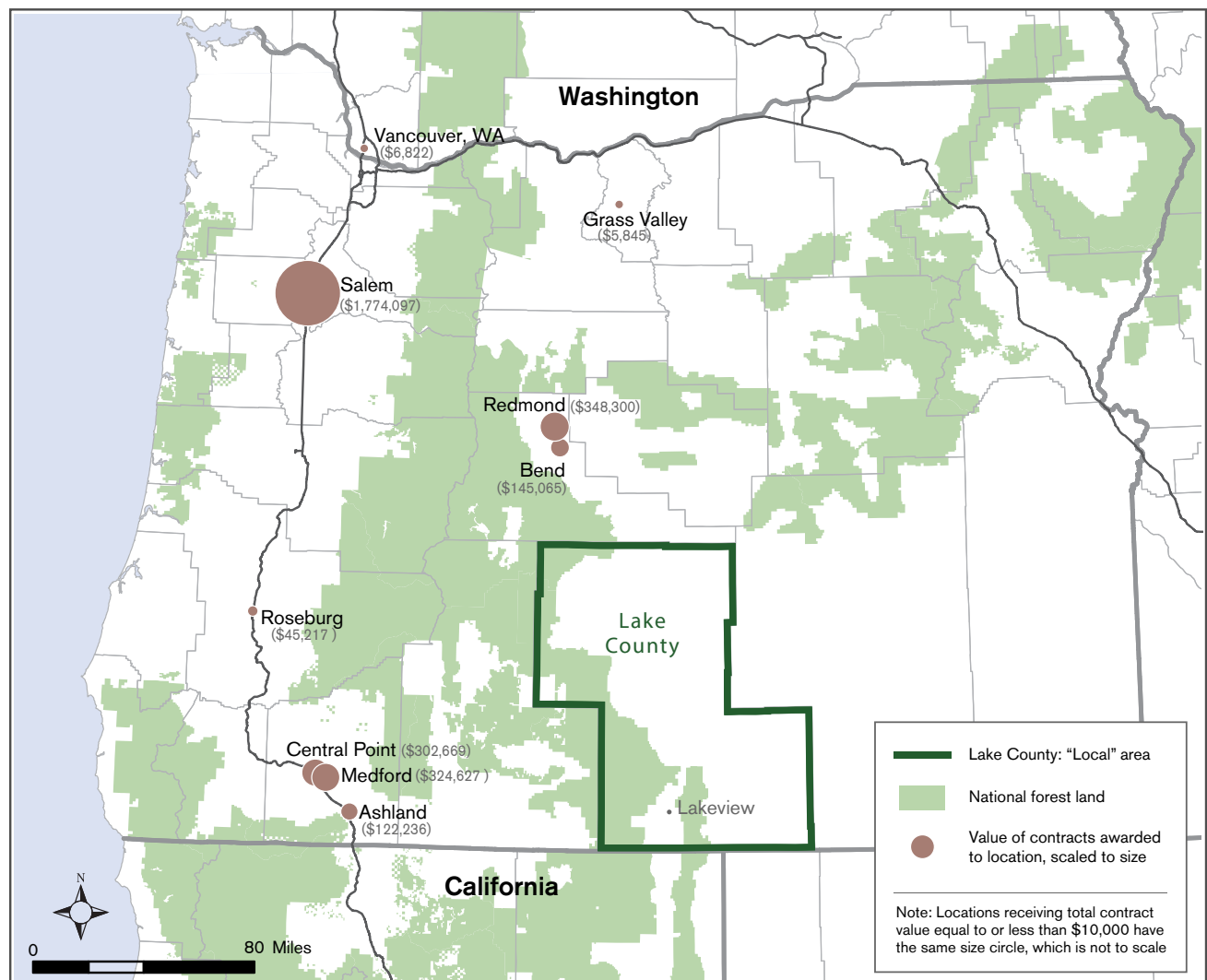
Second, local capture depends on how “local” is defined. For the Lakeview CFLR Project socioeconomic monitoring, Lake County plus the town of Bly, Oregon are considered local. Although there were no contracts awarded to businesses in this lo-

cal area, many contracts were in relatively nearby communities, including Deschutes County to the north. Labor-intensive restoration work tends to be concentrated in a small number of contractors located in other parts of Oregon. The businesses that were awarded this work along the I-5 corridor may have been the closest contractors available to provide the labor-intensive work capacity that was needed. So while this work was not conducted by local contractors, 99.8 percent of the contract dollars went to businesses in Oregon (see Figure 4, below).<sup>22</sup>

**Stewardship sales**

The Forest Service awarded a 10-year stewardship contract with Collins Pine, a business based in Klamath Falls, to conduct timber harvesting in the Lakeview Stewardship Unit. Since 2012, the Fremont-Winema National Forest has awarded task orders under this contract with timber sale and service components. For previous reports, Collins Pine indicated that they primarily relied on contractors based in Lake County and Bly, Oregon to conduct timber harvest operations.<sup>23</sup> A recent review of the Lakeview Federal Sustained Yield Unit,

**Figure 4 Distribution of restoration service contract dollars from the Lakeview CFLR Project, FY 2016–17**



which has the same boundaries as the Lakeview CFLR landscape, showed that from FY 2010–2018, 100 percent of all road-building labor and between 36–80 percent of the logging workforce used in the unit/CFLR landscape was local.<sup>24</sup>

For this monitoring time period, one stewardship sale was awarded to Collins Pine under the stewardship contract, in FY 2016 for the Lil Sale. The Lil Sale was sold at a bid value of \$46,451 and a total timber volume of 17,836.47 thousand board feet (MBF).<sup>25</sup> Although there were no sales awarded during FY 2017, harvesting for the Lil Sale, which was the largest sale awarded as part of the 10-year stewardship contract to date, continued during this time.

**Service work within a stewardship contract**

In stewardship contracts, the Forest Service “may ‘trade goods for services’ by applying the value of harvested forest products toward the value of restoration services.”<sup>26</sup> CFLR annual reports track the service work that is accomplished through goods-for-services funding within stewardship contracts during each year. This is just one of the ways that work is accomplished and accounted for in a stewardship contract. In FY 2016–2017, \$166,595 of service work was accomplished through goods-for-services funding as part of stewardship contracts on the Lakeview CFLR landscape (see Table 12, below). This was notably less than FYs 2012 and 2015, but the service work dollar amounts have varied widely over the CFLR Project timeframe.

**Table 12 Value of service work reported in annual reports as accomplished through goods-for-services funding in a stewardship contract, FY 2012–17**

	2012	2013	2014	2015*	2016	2017
Service work accomplished through goods-for-services funding in a stewardship contract	\$872,246	\$3,042	\$6,938	\$376,776	\$78,058	\$88,537

Data source: Lakeview Stewardship CFLR annual reports.

\* The 2015 Annual Report notes an additional \$1,269,396 under “Total revised credit limit for open and closed contracts awarded and previously reported prior to FY15.”



## V. Monitoring question: What are the costs, benefits, and outcomes of different project implementation mechanisms?

### Context

As noted throughout this report, CFLR project activities may be accomplished through a variety of implementation mechanisms, including with in-house Forest Service crews, through service contracts with private businesses, under timber sales for restoration thinning, and through partnerships with other agencies or NGOs. Each of these mechanisms can have different costs, benefits, and outcomes, and their implementation can affect the Forest Service as well as the feasibility for both local and nonlocal partners to participate.

The Forest Service identifies partnerships as key to the agency's accomplishments and getting needed restoration work done, noting in their partnership guide that, "Partnerships and collaboration can build long-term support and short-term momentum for projects. By pooling efforts, partners can add their capabilities to increase efficiency and results while reducing duplication."<sup>28</sup> Partners can contribute capacity to CFLR objectives by providing funds for work or by providing in-kind contributions such as donated equipment or supplies, volunteer labor, or other goods and services that subsidize or expand restoration efforts. The Forest Service also engages in partnerships by using CFLR funds to pay other entities to complete work, which may result in cost savings and social benefits.

### Approach

We reviewed the Forest Service's annual reports for the Lakeview CFLR Project.<sup>27</sup> The annual reports provide an accounting of accomplishments from the project in each fiscal year, as well as narratives that describe some of the mechanisms through which key accomplishments were completed. We provide examples of on-the-ground outcomes from the contracts with private businesses, which we analyzed in the previous monitoring question. We also provide examples of on-the-ground accomplishments from partnership agreements. These accomplishments come from partners' in-kind and funding contributions as well as from the use of CFLR funds to pay partners to accomplish work.

### Results

Contracts with private businesses for Lakeview CFLR work in FY 2016–2017 included service contracts for restoration work, timber sale contracts for restoration thinning activities where merchantable product was possible, and stewardship contracts that combine timber and service contracts into one integrated effort for administrative efficiency. Together, these contracts resulted in thousands of acres of restoration treatments that were implemented for the project during the two years (see Table 13, page 21). Restoration activities included thinning work, hand piling, prescribed fire, meadow restoration efforts, invasive species removal, and road maintenance.

Partnership agreements were enacted for activities such as ecological monitoring, trail maintenance, invasive weed removal, and other restoration efforts. Partner funds and in-kind contributions came from Lake County Resource Initiative, Lake County Cooperative Weed Management Area, Lake County Umbrella Watershed Partnership, the Mule Deer Foundation, the Rocky Mountain Elk Foundation, and the Ruby Pipeline Mitigation Team. These contributions are accounted for in the first monitoring question (see Table 4, page 10). In addition, Lakeview CFLR funds paid for a wide variety of Oregon-based partners to complete restoration work, including the Chewaucan Biological Monitoring Team, the Warner Creek Correctional Facility, the Oregon Department of Forestry, Northwest Youth Corps, Youth Conservation Corps, the Central Oregon Intergovernmental Council, and the Lake County Cooperative Weed Management Area.

Many of the partnership agreements during FY 2016 and 2017 are the result of longstanding efforts and relationships with partners in the Lakeview CFLR project area. For example, the Chewaucan Biophysical Monitoring Team (CBMT) began in 2002, and one of its goals is to provide Lake County students with natural resource field training. This group includes high school and college students that collect data and conduct monitoring activities with supervision from an adult crew leader trained

**Table 13 Example outcomes from contracts and partner agreements reported by the Forest Service, FY 2012–17**

FY	Contracts	Partner agreements
2012	<ul style="list-style-type: none"> <li>▪ Pre-commercial thinning on 3,256 acres in Jakabe and Launch projects</li> <li>▪ 3 miles of streambank stabilization and 15 acres of riparian restoration</li> <li>▪ 315 acres of aspen restoration</li> <li>▪ 1,171 acres of juniper thinning</li> </ul>	<ul style="list-style-type: none"> <li>▪ 67 sites established or resurveyed, new landscape monitoring sites established, and 500 plots completed by the Chewaucan Biological Monitoring Team</li> <li>▪ 153 miles of trail restoration by Northwest Youth Corps, Central Oregon Intergovernmental Council, and others</li> <li>▪ Material, fencing, and labor in the Chewaucan Aquatic Habitat Restoration project with local ranchers and landowners</li> </ul>
2013	<ul style="list-style-type: none"> <li>▪ Pre-commercial thinning of 376 acres in the Burnt Willow Environmental Assessment</li> <li>▪ Pre-commercial thinning on 693 acres in the Jakabe project</li> <li>▪ Pre-commercial thinning on 1,619 acres in Foster and Wooley Creek subwatersheds</li> </ul>	<ul style="list-style-type: none"> <li>▪ 68 sites established, 40 soil disturbance surveys, and stream water sampling completed by the Chewaucan Biological Monitoring Team</li> <li>▪ 86 miles of trail restoration by Northwest Youth Corps, Central Oregon Intergovernmental Council, and others</li> <li>▪ Five acres of hand piling of slash, 38 acres of juniper slash reduction, 138 acres of aspen enhancement, 10 acres of fuels treatment, and recreation site fence repair by Warner Creek Correctional Facility crews</li> </ul>
2014	<ul style="list-style-type: none"> <li>▪ WRZ multi-treatment/Jakabe fuels reduction on 1,775 acres</li> <li>▪ Pre-commercial thinning of 1,367 acres in the Burnt Willow Environmental Assessment</li> <li>▪ Fuels reduction thinning of 683 acres under the Deuce pre-commercial thinning project</li> </ul>	<ul style="list-style-type: none"> <li>▪ Warner Creek Correctional Facility performed 75 acres of hand-piling small diameter material in conifer stands and 160 acres of hand-piling cut material in aspen stands</li> <li>▪ Central Oregon Intergovernmental Council restored and maintained 11.5 miles of trails, cleared paths for ADA-accessible recreation facilities, and installed a dock to mitigate lakefront erosion</li> <li>▪ Northwest Youth Corps maintained 68 miles of recreation trails</li> </ul>
2015	<ul style="list-style-type: none"> <li>▪ West Drews Environmental Assessment pre-commercial thinning/juniper/piling project on 1,064 acres</li> <li>▪ Coffee Pot fuels reduction project on 1,800 acres</li> <li>▪ Dairy Creek large wood restoration project</li> </ul>	<ul style="list-style-type: none"> <li>▪ Central Oregon Intergovernmental Council constructed 2.7 miles of cattle exclusion fences, maintained 12 miles of trails, removed hundreds of hazardous trees, and conducted other recreation-oriented restoration activities</li> <li>▪ Northwest Youth Corps bucked and cleared approx. 962 trees, repaired 25 drainage structures, and dropped and bucked 500 standing dead trees that were a hazard to public visitors</li> <li>▪ Youth Conservation Corps manually treated 184.9 acres of invasive musk thistle</li> </ul>
2016	<ul style="list-style-type: none"> <li>▪ Thinning, piling, juniper removal, and prescribed fire on 2,084 acres of the West Drews Environmental Assessment project, leading to completion of a landscape-level project on the Lakeview Ranger District</li> <li>▪ Aspen and meadow restoration on 1,007 acres of the South Warner Aspen Meadow Restoration Project</li> <li>▪ Thinning treatments on 1,848 acres that completed the Coffee Pot Fuels Reduction Project</li> <li>▪ 5,209 acres of small tree thinning as part of a timber sale awarded to Collins Pine under the Crooked Mud Honey Environmental Analysis project</li> </ul>	<ul style="list-style-type: none"> <li>▪ The Chewaucan Biological Monitoring Team, via an agreement with Lake County Resource Initiative: established 90 sites, revisited 37 sites, conducted soil condition class surveys to act as controls for the impact of logging and fire on steep slopes; and conducted 120 miles of stream monitoring that was subsidized by the Lake County Watershed Council</li> <li>▪ The Warner Creek Correctional Facility completed 119 acres of hand-piling from prior pre-commercial thinning work and 20 acres of manual invasive treatments</li> <li>▪ Northwest Youth Corps crews continued treatments on a 97-acre aspen stand and maintained 54 miles of trails, including brushing, adding trail markings, and constructing treadways and drainage structures</li> <li>▪ An agreement with Lake County Cooperative Weed Management Area supported hiring two local contractors to treat 196.5 acres of invasive plants</li> <li>▪ Ruby Pipeline Mitigation cost reimbursement funded 46.8 acres of invasive plants treatment</li> <li>▪ Two Central Oregon Intergovernmental Council crews constructed 1,700' of new fence, repaired and maintained 13,500' of existing fence, maintained 23 miles of trail, and removed 100s of hazardous trees in developed recreation sites</li> <li>▪ Youth Conservation Corps crews completed 10 miles of trail maintenance, 24 acres planting area maintenance, 4 miles of fence repair, and 270.7 acres of manual invasive plant removal in addition to assisting forest staff with riparian restoration, aspen restoration, recreation site vegetation management, and archeology surveys.</li> <li>▪ Treatment projects to enhance habitat in the Warner Mountains were supported by the the Rocky Mountain Elk Foundation, Mule Deer Foundation, and Ruby Pipeline Mitigation Team</li> </ul>
2017	<ul style="list-style-type: none"> <li>▪ 429 acres of non-commercial thinning on the Crooked Mud Honey project were contracted</li> <li>▪ The Deuce South and Northwest TSI Non-Commercial Thinning Contract was awarded but due to high fire activity has yet to be implemented</li> <li>▪ Aspen and meadow resoration on 890 acres in the North and South Warner project areas</li> <li>▪ Approximately 36 miles of road maintenance plus commercial harvest and small tree thinning on 3,750 acres on the Lakeview Ranger District as part of the intergrated resource stewardship contract with Collins Pine</li> </ul>	<ul style="list-style-type: none"> <li>▪ The Chewaucan Biological Monitoring Team, via an agreement with Lake County Resource Initiative, established 110 new sites and revisited 87 sites</li> <li>▪ The Warner Creek Correctional Facility conducted 30 acres of hand-piling around osprey nests</li> <li>▪ The Oregon Department of Forestry completed 19 acres of small tree thinning and hand piling under an agreement, with additional work to follow</li> <li>▪ Northwest Youth Corps crews continued treatments on a heavily encroached 97-acre aspen stand, reconstructed 10 miles of trail, removed invasive weeds for 100 acres</li> <li>▪ Youth Conservation Corps crews manually treated 129.1 acres of invasive species</li> <li>▪ An agreement with the Lake County Cooperative Weed Management Area supported hiring two local contractors to treat 381.1 acres of invasive plants</li> <li>▪ Ruby Pipeline Mitigation cost reimbursement funded 49.4 acres of invasive plants treatment</li> <li>▪ Central Oregon Intergovernmental Council crews repaired 6 miles of fencing, maintained or reconstructed 30 miles of trail, and completed many other recreation-focused projects near Lakeview.</li> </ul>

in these activities. The CBMP has gathered ecological field data for the CFLR project area that help show conditions and trends over time, including in the decade before the project began (2002–12). This data has been important for showing the impacts of treatments on the landscape. In FY 2016 and 2017, the CBMT consisted of 14 members, all but one of which were returning members, including some returning for their seventh or eighth year on the team. The team conducted pre-harvest, post-harvest, wildlife, and stream surveys, soil nutrient analyses, and worked to combine all data—including all protocols and changes in protocols—from 2002 onward in a single, searchable database. They also conducted monitoring around and generated a report on the impacts of steep slope logging on soils, including erosion and vegetative recovery.

Several Northwest Youth Corps (NYC) crews comprised of youth crewmembers and adult crew leaders were also supported with Lakeview CFLR funds. NYC crews have partnered with the Fremont-Winema National Forest for many years and have been integral to building and maintaining

recreation trails. CFLR funds have allowed the Forest Service to continue to partner with NYC to accomplish labor-intensive trail maintenance work across the Lakeview Stewardship CFLR landscape, while providing youth with job skills and training. Similarly, youth crews with adult leadership from the Central Oregon Intergovernmental Council and Youth Conservation Corps were also supported by Lakeview CFLR funds in FY 2016 and 2017, and helped accomplish a wide variety of resource enhancement projects at recreation sites and trails in the CFLR landscape.

The Forest Service has worked collaboratively with the Lake County Cooperative Weed Management Area (LCCWMA) for many years to identify, inventory, and treat populations of invasive weeds before they can become well-established and spread. In FY 2016 and 2017, CFLR funds supported an agreement with the LCCWMA which allowed new sites in the CFLR landscape to be treated for invasive weeds. Through the agreement, in both FY 2016 and 2017, the LCCWMA hired two local contractors to conduct the invasive weed treatments.







## Summary and conclusions

Management efforts on national forests have effects on nearby communities and economies. The CFLR Program acknowledges these socioeconomic impacts and has the objective to promote local benefit in rural economies alongside collaborative, science-based ecosystem restoration. This monitoring report is part of an ongoing effort to evaluate the socioeconomic impacts of the Lakeview Stewardship CFLR Project, along with progress in meeting CFLR Program socioeconomic local benefit objectives.

The goal of this current report was to summarize results for the five socioeconomic monitoring questions for FY 2016 and 2017 alongside previous monitoring efforts. Key findings included:

### Acres treated:

- From FY 2012 through FY 2017, a total of 91,918 total acres were treated by CFLR activities on the project landscape. Approximately 32,775 of these acres were treated in FY 2016–17.

### The socioeconomic context of the Lake County area:

- County population, student enrollment, and school dropout rates have not changed notably since the start of the project.
- The median age for the county has continued to increase, meaning that the county has increasingly older residents.
- The county unemployment rate declined considerably. However, estimated median household income in the county was stagnant, and

the estimated population at or below poverty levels increased.

- More than half of the nonfarm employment in Lake County is in government, notably higher than the statewide rate, and much of the estimated 2011–17 employment growth occurred in local and state government.
- Modest increases occurred in private employment in the same timeframe, however employment in both manufacturing and in education and health services decreased.

### Total and matching funds used in the CFLR project:

- During FY 2012–17, direct funding varied between \$1.4 to \$2.7 million annually.
- In both FY 2016 and 2017, direct CFLR funds were less than in prior years, while Forest Service matching funds were greater than prior years, with matching funds contributing 81 percent of the total Forest Service funding for the CFLR project.
- Funds and in-kind contributions from local and non-profit organizations, in combination with Forest Service direct and matching funds, made up the total annual funding for the project, which varied from \$4.8 to \$9.1 million annually from FY 2012–17.
- Funds from partner agreements in FY 2016 and 2017 were lower than prior years, while in-kind contributions in FY 2016 exceeded all other years thus far.

**Overall local economic impacts of the CFLR project:**

- During FY 2015–17, Lakeview CFLR/CFLN funds alone (not including matching funds) supported between 19.0 and 22.4 total local jobs each year and created between \$636,000–698,000 in local labor income a year. These jobs and income originated from forest and watershed restoration contracts with private businesses, Forest Service monitoring and implementation, and contracted monitoring efforts.
- During FY 2015–17, total funding (direct and matching funds) for the Lakeview CFLR Project supported between 60.0 and 178.6 local jobs each year and created between \$3.2 million and \$10.6 million in local labor income a year. These local jobs and the associated income originated from timber harvesting and mill processing components of projects in addition to forest and watershed restoration contracts with private businesses, Forest Service monitoring and implementation, and contracted monitoring efforts.
- Differences in local economic impacts each year originated primarily from differences in the amount of commercial forest products harvested from CFLR restoration work and then processed during each year.

**Local capture of CFLR contracts:**

- During FY 2016–17, no Lakeview CFLR service contract dollars went to local businesses. One likely reason for this is the high percentage of contract dollars that were spent on labor-intensive work, which local contractors have not captured any of since the CFLR project started. In prior monitoring reports, between five and 11 percent of CFLR service contract dollars were awarded to local contractors.
- Results suggest that local capacity in Lake County over the last decade has centered primarily in equipment-intensive and technical work, which made up a smaller portion of the CFLR contracts in FY 2016–17 than prior years.
- In FY 2016, one stewardship sale was awarded to Collins Pine for the Lil Sale, which sold at a

bid value of \$46,451 and a total timber volume of 17,836.47 thousand board feet (MBF).

- In FY 2016–17, \$166,595 of service work was accomplished through goods-for-services funding as part stewardship contracts on the Lakeview CFLR landscape.

**Costs, benefits, and outcomes of different project implementation mechanisms:**

- Contracts with private businesses resulted in thousands of acres of restoration treatments implemented on-the-ground during FY 2016–17. Contracted restoration activities included thinning work, hand piling, prescribed fire, meadow restoration efforts, invasive species removal, road maintenance, and other related activities.
- With funds and in-kind contributions, multiple local and regional partners have provided capacity for the restoration work accomplished in the Lakeview CFLR Project since it began.
- Lakeview CFLR funds have also paid for a wide variety of local partners to complete restoration work for the project from FY 2012–17.
- Many of the partnership agreements during FY 2016 and 2017 are the result of longstanding efforts and relationships with partners in the Lakeview CFLR project area, and have broad local socioeconomic benefits in addition to providing the capacity needed to accomplish project activities.

Monitoring of project outcomes is a key component of CFLR projects. The information provided in this report for FY 2016–2017, in comparison to prior years can help the Forest Service and stakeholders use the monitoring information on project outcomes and local trends to help determine whether project objectives are being met or if future changes need to be made to better meet goals. The forthcoming FY 2018–19 monitoring report will provide additional information, and socioeconomic monitoring of the Lakeview Stewardship CFLR project will continue for the remaining years of the project.

## Appendix A:

### Alternative economic impact model and estimates for FY 2012–13 of the Lakeview CFLR Project

Prior to updates in 2015, the earlier TREAT model did not produce results that were considered accurate. The authors of the first Lakeview socioeconomic monitoring report (for FYs 2012 and 2013) used a different method to estimate economic impacts based on an economic model developed specifically for the Lake County economy. This model more closely matched the updated TREAT model that was later used for estimates for all projects starting in FY 2015. Using this model for FY 2012 and 2013 spending amounts, they found a much lower estimate of five local (Lake County) jobs supported from CFLR contracting with local businesses over the two years; however, if the indirect impacts from spending in the community by nonlocal businesses for services and supplies were considered, this estimate of jobs created in the county increased to 12 (see Table A1, below). Although these estimates are likely more accurate and comparable to subsequent years than those included in the annual reports that were created through TREAT prior to its updates, neither method is directly comparable with the results from

TREAT analysis starting in FY 2015 when updates were incorporated. It is also important to note that neither method includes impacts from Forest Service employment, they include only impacts from contracts with private businesses for restoration services.

Although changes to the methods for estimating economic impacts from CFLR projects prohibit longitudinal comparison of impacts across the years of a CFLR project, it is important to note that such changes were expected as part of the monitoring process. In a description of the monitoring process for CFLR projects in the Pacific Northwest region, authors who played key roles in developing the process explain: “the CFLRP monitoring process is intended as a learning process among the collaboratives within an adaptive management context. The process is intended to explicitly provide opportunities for education, regrouping, reflection, and adaptation to meet changing needs and/or circumstances.”<sup>29</sup>

**Table A1 Total Lake County private sector jobs and income from the first two years of CFLR project service contracting (FY 2012–13), with impacts from locally-awarded contracts, as well as all awarded contracts (local and nonlocal)**

<b>Economic effects</b>	<b>Local impacts from contracts to Lake County businesses only</b>	<b>Local impacts from all contracts (local and nonlocal)</b>
Direct jobs from completing work	2.0	2.0
Direct income from completing work	\$70,000	\$70,000
Secondary jobs from suppliers, retailers, and service providers	3.0	10.0
Secondary income from suppliers, retailers, and service providers	\$70,000	\$191,000
<b>Total jobs</b>	<b>5.0</b>	<b>12.0</b>
<b>Total income</b>	<b>\$140,000</b>	<b>\$261,000</b>

## Endnotes

- 1 USDA Forest Service. n.d. Collaborative Forest Landscape Restoration Program Overview. Available at: <https://www.fs.fed.us/restoration/CFLRP/overview.shtml>.
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- 9 Lakeview Stewardship Group. 2015. Lakeview Collaborative Forest Landscape Restoration (CFLR) Project Monitoring Plan. Ecosystem Workforce Program, University of Oregon. Working Paper #60. Available at: [https://ewp.uoregon.edu/sites/ewp.uoregon.edu/files/WP\\_60.pdf](https://ewp.uoregon.edu/sites/ewp.uoregon.edu/files/WP_60.pdf).
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Annual reports for all CFLR projects are available at: <https://www.fs.fed.us/restoration/CFLRP/results.shtml>.
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- 12 University of Oregon Ecosystem Workforce Program and USDA Forest Service Pacific Northwest Region. 2019. Forest Lands in Oregon and Washington: Forestland Ownership, Timber, and Mills. Available at: <http://ewp.uoregon.edu/USFScommunities>.
- 13 USDA Forest Service. 2015. TREAT: Treatments for Restoration Economic Analysis Tool User Guide. Available at: <https://www.fs.fed.us/restoration/documents/cflrp/TREAT/TREATUserGuide20151005.pdf>.
- 14 *ibid.* USDA Forest Service 2015 “TREAT: Treatments for Restoration Economic Analysis Tool User Guide,” p. 4.
- 15 The TREAT User Guide, on p. 2, footnote 4 specifies: “It also important to note the employment impacts are reported simply as jobs, not full time equivalents (FTEs). The impacts include both full time and part time employment; therefore, a person with more than one job could show up more than once in the data. This prohibits comparisons to population data and inferences about the effect on unemployment rates.”
- 16 Annual reports for all CFLR projects are available at: <https://www.fs.fed.us/restoration/CFLRP/results.shtml>.
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