CLEARWATER BASIN COLLABORATIVE
SELWAY-MIDDLE FORK CFLRP PROJECT
SOCIO-ECONOMIC DATA COLLECTION AND ANALYSIS
TECHNICAL REPORT

Prepared for:

Clearwater Basin Collaborative

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LIST OF ACRONYMS

BNF	Bitterroot National Forest
CBC	Clearwater Basin Collaborative
CNF	Clearwater National Forest
CFLRP	Collaborative Forest Landscape Restoration Program
IDIQ	Indefinite Delivery/Indefinite Quantity
MMBF	Millions of board feet of timber
NEPA	National Environmental Policy Act
NPNF	Nez Perce National Forest
R-CAT	Risk and Cost Analysis Tools Package
TREAT	Treatments for Restoration Economic Analysis Tool
USFS	U.S. Forest Service

EXECUTIVE SUMMARY

Founded in 2008, the Clearwater Basin Collaborative (CBC) is an innovative partnership of twenty-one tribal, federal, state, local, industry, and conservation associations in central Idaho united by a shared vision: "to enhance and protect the ecological and economic health of the forests, rivers, and communities within the Clearwater Basin." The CBC seeks to develop resource management priorities collaboratively among historically often conflicted parties, finding solutions that take all stakeholders' interests into account. In 2010, 2011, and in 2012, the CBC received competitive national awards from the U.S. Forest Service's (USFS) Collaborative Forest Landscape Restoration Program (CFLRP) to conduct restoration and monitoring programs in the Selway-Middle Fork of the Clearwater Project Area (project area).[1]

The project area, 1.4 million federal, state, Nez Perce Nation, and privately owned acres within the six million acre Clearwater Basin, is a treasure of thickly forested roadless and wilderness areas, wild rivers, and small towns nestled in scenic canyons. This area was one of the toughest for Lewis and Clark to explore, as the Bitterroot Mountains heavy snowpack slowed their progress even in June. The Nez Perce have lived in and travelled through this land for thousands of years, and understand the area to be as irreplaceable as do the loggers, outfitters, and others who call remote central Idaho home. The twentieth century's devastating wildfires, wilderness and endangered species legislation, and its large-scale economic changes (including decreases in the price of lumber and increases in the cost of processing), all hit the small towns hard. Under these circumstances, loggers and federal employees and conservationists held priorities in often opposing camps, with animosity and litigation as all too common tactics.

THE PROCESS

Now the CBC is trying something different in Idaho, something mirrored by changes in USFS management processes at all levels. CFLRP projects are an innovative part of the ongoing development of collaborative partnerships promoted by both the USFS and stakeholder groups as a better way of making land use decisions. The USFS recognizes that the means are as important as the result—indeed, that productive working together is a result in itself: all CFLRP projects must be "developed and implemented through a collaborative process."[2] Put simply, establishment of communication and learning about the priorities of other stakeholders are goals in themselves, along with the restoration work. The CBC is part of this next generation of forest management, following in the steps of the Quincy Library Group and the Beaverhead-Deer Lodge National Forest Partnership.[3]

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[1] Courtney A. Schultz, Theresa Jedd, and Ryan D. Beam, "The Collaborative Forest Landscape Restoration Program: A History and Overview of the First Projects," *Journal of Forestry* 110(7): 381-391.
[2] Omnibus Public Land Management Act of 2009 (Public Law No. 111-11, tit. IV, 123 Stat. 991)
[3] For a history of public lands management and the evolution of collaborative decision-making processes, see Daniel Kemmis and Matthew McKinney, "Collaboration and the Ecology of Democracy," *Sustainable Development Law & Policy* 12 (1): 46-50, 69-70, and Martin Nie, "Place-Based National Forest Legislation & Agreements" (Report to U.S. Forest Service, Rocky Mountain Region), August 2010. The University of Montana, Bolle Center for People and Forests, Missoula.

Ecosystem Research Group, an environmental consulting company based in nearby Missoula, Montana, was contracted in 2012 by the Clearwater Resource Conservation and Development Council to collect existing baseline information as well as to conduct new research on the socio-economic impacts that the CFLRP has had in the project area and nearby communities. Our assessment is quantitative (How many jobs were created or maintained? How many board feet of lumber were harvested?), as well as qualitative. The qualitative element of this study seeks to understand and communicate how quality of life has changed, and if cooperative work has strengthened community bonds in other ways. This report, then, details both the "socio-economic baseline," the economic and social indicators as they existed in 2009, to provide a sense of the "lay of the land," and explains the changes that have occurred in this context. We give the statistics and then tell the story behind the numbers, tracing the impacts to individuals in Clearwater, Idaho, and Lewis Counties, and in areas of secondary influence further away from the project area, including into Latah, Nez Perce, Missoula and Ravalli Counties.

This report contains the results of our monitoring of both the direct and the indirect economic impacts of the Selway-Middle Fork CFLRP project, including information on several social indicators associated with employment benefits. The information was collected through discussions and follow-up interviews with contractors and indirectly related businesses and organizations. Discussion guides provided detailed data on the quantitative aspects, such as number of workers, hours worked, and amount of wood processed. The interviews also provided a window into important, if not easily quantifiable, ways that the Selway-Middle Fork CFLRP has made a difference in the communities of the Clearwater Basin. Our data collection methodology was designed to be sensitive to small communities and businesses, as many of the existing data sets were designed for larger jurisdictions and economies.

DISCUSSIONS

Thirty individuals with either direct or indirect involvement with the project were contacted for discussion purposes. Table 1 provides details on who was contacted and their connection to the project.

Table 1: Detail of Discussions

Type	Number of Discussions	Type of Work
Non-local Contractors	4	Mapping, Cultural Resource, Soil Monitoring, Brush Cutting
Primary Local Contractors	6	Pre-commercial Thinning, Road Work, Culvert Replacements, Stockpiling
Secondary Local Contractors	5	Stand Exam, Stockpiling, Road Work, Weed Control
Subcontractors	2	Surveying, Fire Line Work
Partnership Agreements	3	Trail Maintenance and Weed Control with Training Programs, Monitoring
Forest Products Industry	6	Resource Managers, Log Hauler, Custom Mill
Other	4	USFS Staff, Community Leaders

KEY FINDINGS

In 2011, 37% of the contracts awarded were to contractors in Clearwater, Idaho, and Lewis Counties. In 2012, the number increased to 45%. Figure 1 and Figure 2 highlight the increase in percentage of contracts awarded to local contractors from 2011 to 2012. The total percentage awarded in the area of economic influence (Clearwater, Idaho, Lewis, Latah, Nez Perce, Missoula, and Ravalli) increased from 73% to 77%.

Table 2 shows the number of part or full-time jobs created or maintained by the Selway-Middle Fork CFLRP project for the first three years of the program as calcuated by TREAT (Treatments for Restoration Economic Analysis Tool), the economic analysis tool utlized by the forest service for all CFLRP projects across the U.S. Forest restoration work, particulary on site work, is highly seasonal with most activites completed between the months of May and October.

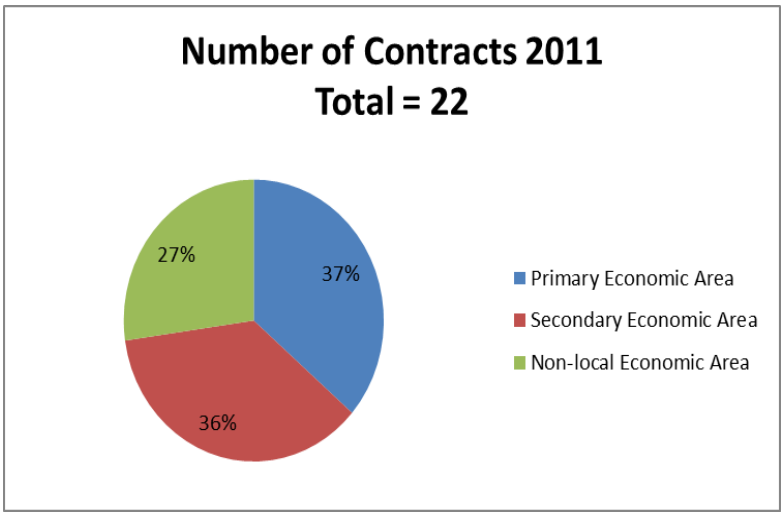

Figure 1: Distribution of Contracts, 2011

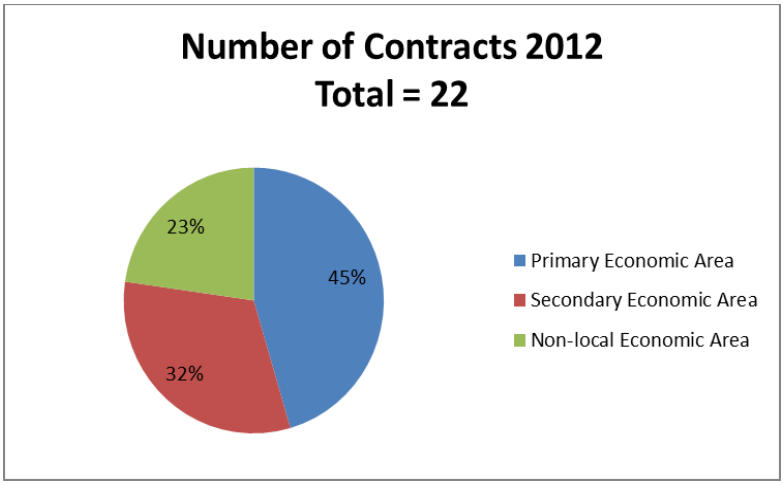

Figure 2: Distribution of Contracts, 2012

Table 2: TREAT calculations for jobs supported by the Selway-Middle Fork CFLRP Project, 2010-2012

Type	2010	2011	2012
Commercial Forest Products Activities			
Direct Jobs	20.3	36.8	24.2
Indirect and Induced Jobs	19.6	43.0	28.3
Total Commercial Forest Products Activities	**39.9**	**79.8**	**52.5**
Other Project Activities			
Direct Jobs	47.6	69.4	60.0
Indirect and Induced Jobs	20.4	14.0	14.3
Total Other Project Activities	**68.0**	**83.4**	**74.3**
Total Jobs	**107.9**	**163.2**	**126.8**

Discussions with local contractors and organizations with agreements (matching funds) indicate that jobs calculated in TREAT may be underestimated. According to our discussions, approximately 97 full or part-time direct jobs were supported by CFLRP funds in 2011 within the other project activities category. Comparisons between jobs discovered through discussions and those calculated by TREAT for 2011 and 2012 are provided in Table 3.

Table 3: Comparison of "other project activities" direct jobs supported by the Selway-Middle Fork CFLRP Project, 2011 and 2012

	2011	2012
Jobs calculated with TREAT	69.4	60.0
Jobs calculated from discussions	97	88

SUGGESTIONS FOR FURTHER RESEARCH

- **Further development of targets for specific indicators and additional follow-up interviews, analysis, and narrative of discussions conducted during the initial monitoring effort:** During this initial monitoring effort, the monitoring framework and baseline data were established. In addition, impacts during the first few years were outlined. At this time, the measurement of impacts would be enhanced by developing more specific targets, in particular for the forest products industry and within training and technology, and conducting follow-up interviews and analysis based on the first round of discussions.
- **Determine how disbursed CFLRP funds provide ecological benefits through project specific monitoring:** The connection between treatments funded by CFLRP project funds and the ecological benefits they provide can be articulated in all discussions. It is an opportunity to tie the ecological benefits perceived first-hand by operators to the ecological monitoring aspect of the CFLRP, as monitoring of ecological effects is itself one of the goals of the Selway-Middle Fork project. This would also help gauge whether local contractors have more interest in the

ecological improvements provided by the work they complete than non-local contractors do (our interviews indicated this may be the case).

- **Monitor leveraged funds**: Due to the time constraints of USFS staff, independent tracking of leveraged funds would provide valuable information on both the economic and social impacts of the Selway-Middle Fork project.
- **Track of the amount of funds actually distributed (rather than solely allocated) by the USFS and develop a method to bridge to reporting gaps created by allocated versus distributed funds.**
- **Utilize revised discussion guides for future monitoring required by CFLRP.**

SUGGESTIONS FOR ADAPTIVE MANAGEMENT

- **Increased communication between Contracting Officers and the CBC**: As the primary point of contact, it is important that the contracting officers are provided the tools to educate contractors about the CBC and CFLRP program. In addition, they have the potential to collect monitoring data during the contracting process, given guidance from the CBC.
- **Increased CBC Communication with CFLRP Local Contractors and Workforce:** During the peak work season increased communication with local contractors and workforce about the project area and the CFLRP would assist in educating contractors and employees and creating a positive image of the project.
- **Fine-tuning the TREAT model**: The program would benefit from changing the area of economic influence utilized in the TREAT program to the following counties: Clearwater, Idaho, Latah, Lewis, Nez Perce, Ravalli, and Missoula. Given this change and other alterations that have been made to improve the program, the proposal data should be redone to provide a more accurate baseline.

1. INTRODUCTION

In 2009 Congress passed the Forest Landscape Restoration Act which established the Collaborative Forest Landscape Restoration Program. The Selway-Middle Fork Collaborative Landscape Restoration Program (CFLRP) is one of ten projects that have received funding in each year since the program was initiated. An important component of the program is contributing to the economic health of local rural communities. In October 2012, the Clearwater Basin Collaborative (CBC) contracted Ecosystem Research Group to provide their first economic impact assessment, including baseline data, for the first three years of program participation. The goal of this initial monitoring effort is to compile existing data on socio-economic trends within the project area and conduct thirty discussions with a stratified sample of Selway-Middle Fork CFLRP project contractors, primary forest products manufacturers, related service industries, secondary manufacturers/value added organizations, and organizations indirectly impacted by the CFLRP project.

The Selway-Middle Fork proposal that was submitted for the CFLRP funds estimated that 380 jobs would be created and that emerging technologies such as biomass facilities would be developed, along with training for employment in these new fields. The Treatments for Restoration Economic Analysis Tool TREAT model developed by USFS Region 1 economists calculates the total jobs and incomes that the program funds create or maintain throughout the year.[4] This report provides a more complete picture of what these numbers mean to the health of the local communities and the future of forest restoration in the Clearwater Basin.

This report presents the initial attempt to provide baseline data for certain indicators for income and employment, particularly in the forest products industry, the state of the forest products industry, and training and technology for forest restoration. The development and use of the indicators follows the *2011 CFLRP National Outcomes and Indicators Framework* (CFLR Projects 2011).

The bulk of the data on baseline conditions, impacts during the first three years, recommendations for future research, and considerations for adaptive management are the result of thirty discussions conducted with parties connected to the project. These parties included a stratified sample of local contractors, non-local contractors, organizations that are receiving funds through agreements, subcontractors, forest products industry players, and others directly or indirectly related to the program.

[4] For more information on TREAT and how the program computed values for the Selway-Middle Fork CFLRP, see http://www.fs.fed.us/restoration/CFLRP/guidance.shtml

2. BACKGROUND

Background information is provided for the project area, areas of economic influence, and forest resources and related industries.

2.1 DESCRIPTION OF THE PROJECT AREA

The project area is composed of 1.4 million acres and includes the upper portion of the Clearwater Basin, a 6 million acre area.

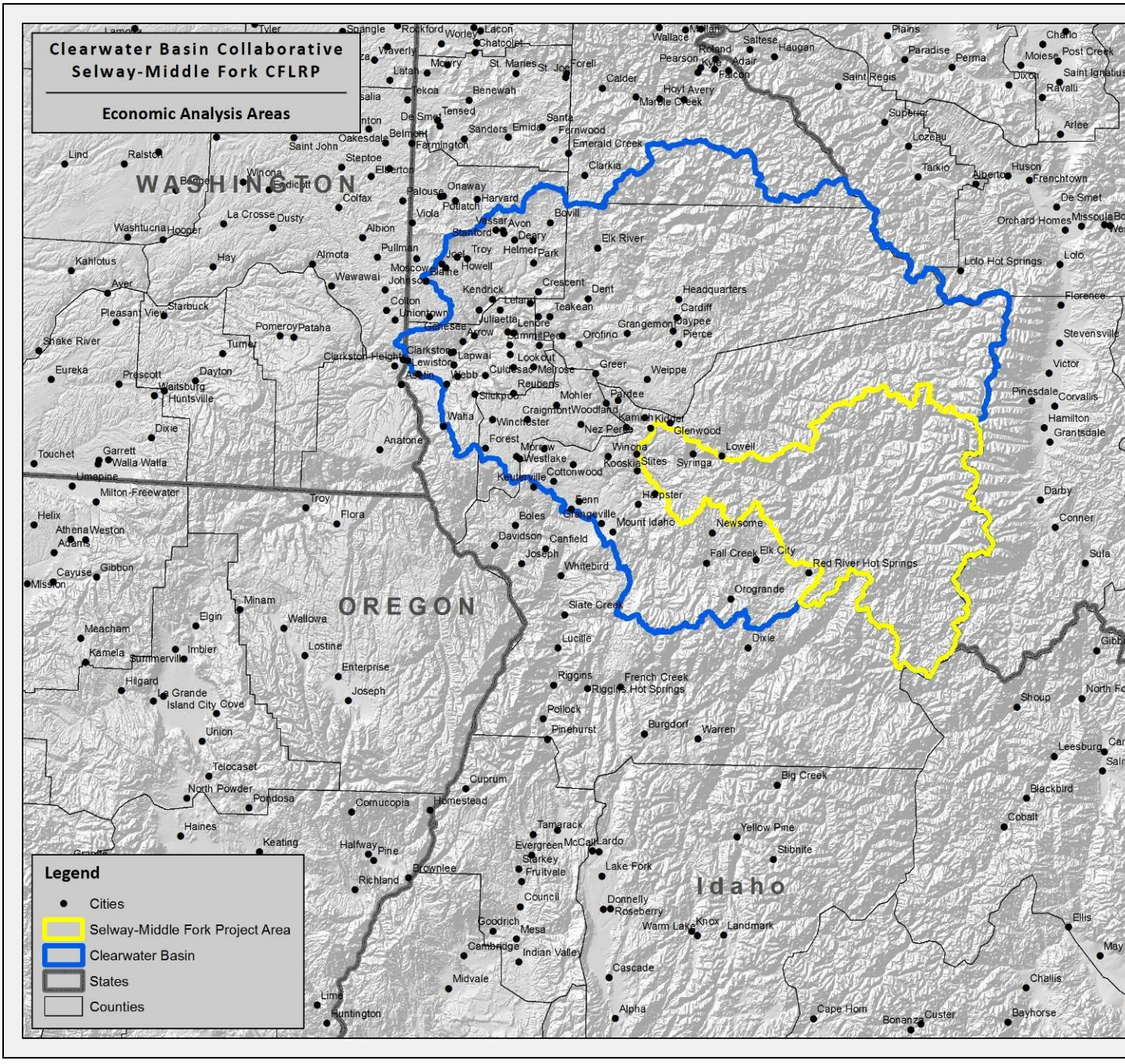

Figure 3 shows the entire Clearwater Basin and the Selway-Middle Fork CFLRP project area. It includes portions of the Clearwater National Forest, the Bitterroot National Forest, and the Nez Perce National Forest. Included on the map are the cities that are within the Clearwater Basin. Figure 4 outlines the project area, the Clearwater Basin, and a 75-mile buffer around the project area. Highlighted on this map are the counties that are considered the area of economic influence and are part of a secondary level of analysis. The economic impacts are analyzed at two levels. The first, or primary, impact area is the rural counties of Clearwater, Idaho, and Lewis, which are the closest in proximity to the project area. The secondary area encompasses a 75-mile perimeter around the project area, and is considered the area of economic influence. The area of economic impact was chosen based on the flow of goods and services to and from the two largest cities within close proximity and with connections to the project itself, Missoula, Montana and Moscow, Idaho. This includes areas in the following counties: Clearwater, Idaho, Latah, Lewis, Nez Perce, Ravalli, and Missoula. Included in Figure 4 are all of the small rural communities within these counties. There are three urban cities within the six counties: Missoula, Moscow, and Lewiston. Table 4 provides the population of these "census designated places."

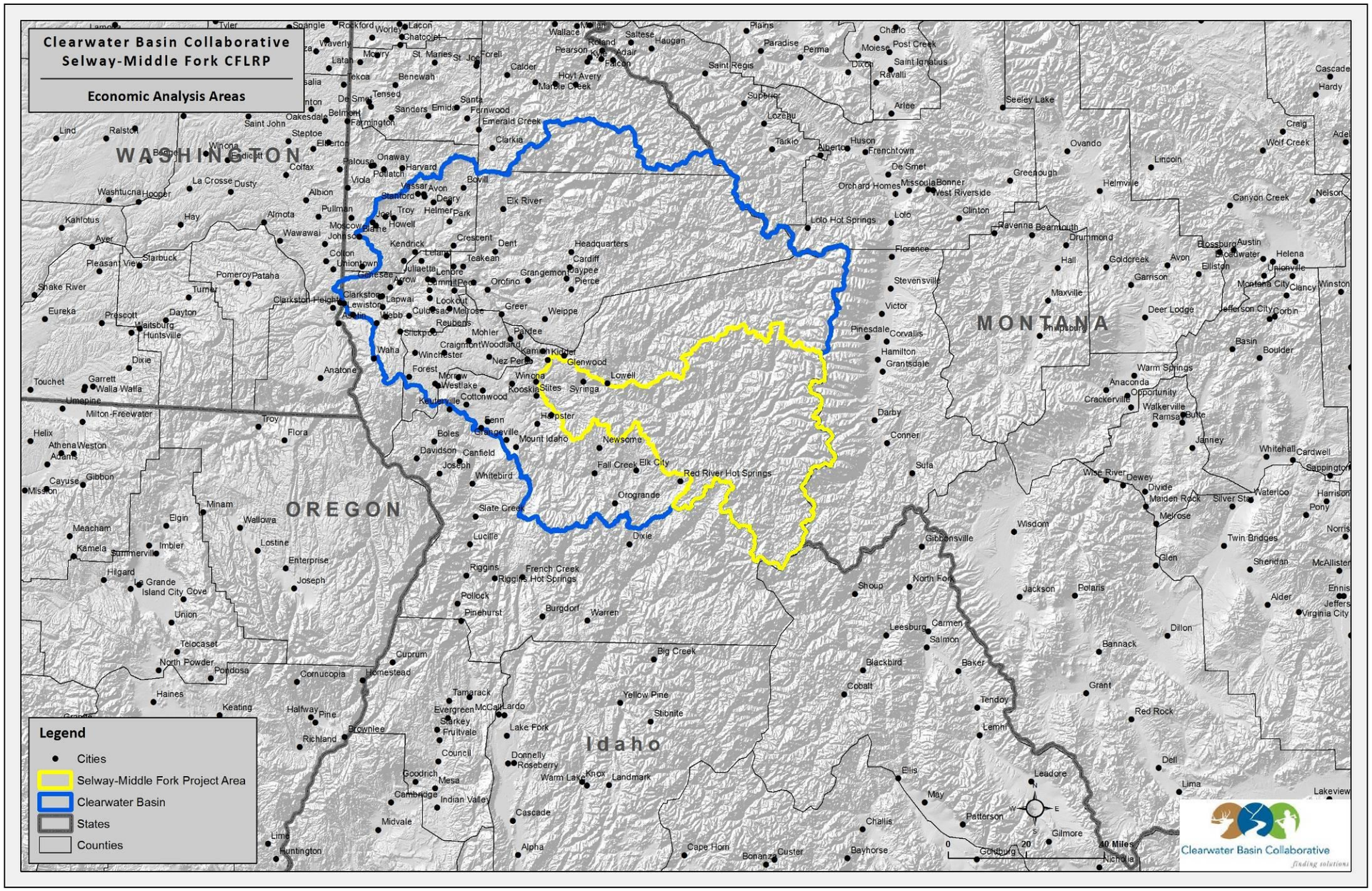

Figure 3: Clearwater Basin and Selway-Middle Fork CFLRP project area

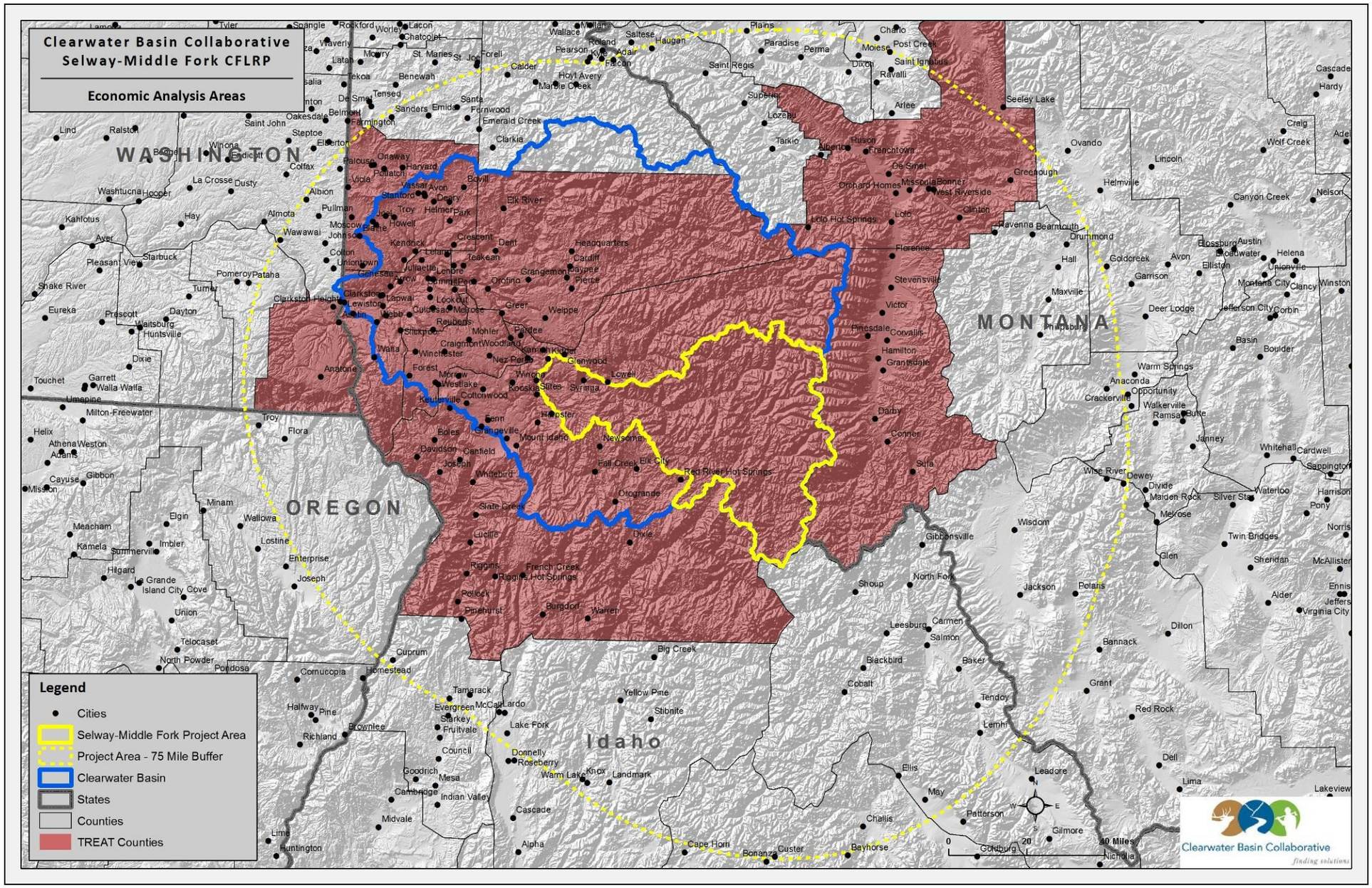

Figure 4: Clearwater Basin, project area and a 75-mile buffer around the project area

Table 5 provides the names of other rural communities within each county.

Table 4: Population in Census Designated Places, 2000-2010 (Source: U.S. Census Bureau)

Place	2000	2010	Percent Change
Clearwater County	**8,930**	**8,761**	**-1.9%**
Elk River city	156	125	-19.9%
Orofino city	3,247	3,142	-3.2%
Pierce city	617	508	-17.7%
Weippe city	416	411	-1.2%
Idaho County	**15,511**	**16,267**	**4.9%**
Cottonwood city	944	900	-4.7%
Ferdinand city	145	159	9.7%
Grangeville city	3,228	3,141	-2.7%
Kamiah city	1,160	1,295	11.6%
Kooskia city	675	607	-10.1%
Riggins city	410	419	2.2%
Stites city	226	221	-2.2%
White Bird city	106	91	-14.2%
Latah County	**34,935**	**37,244**	**6.6%**
Bovill city	305	260	-14.8%
Deary city	552	506	-8.3%
Genesee city	946	955	1.0%
Juliaetta city	609	579	-4.9%
Kendrick city	369	303	-17.9%
Moscow city	21,291	23,800	11.8%
Onaway city	230	187	-18.7%
Potlatch city	791	804	1.6%
Troy city	798	862	8.0%
Lewis County	**3,747**	**3,821**	**2.0%**
Craigmont city	556	501	-9.9%
Kamiah city	1,160	1,295	11.6%
Nezperce city	523	466	-10.9%
Reubens city	72	71	-1.4%
Winchester city	308	340	10.4%
Nez Perce County	**37,410**	**39,265**	**5.0%**
Culdesac city	378	380	0.5%
Lapwai city	1,134	1,137	0.3%
Lewiston city	30,904	31,894	3.2%
Peck city	186	197	5.9%

Place	2000	2010	Percent Change
Missoula County	**95,802**	**109,299**	**14.1%**
Bonner	1,693	1,663	-1.8%
Clinton	549	1052	91.6%
East Missoula	2,070	2,157	4.2%
Evaro	329	322	-2.1%
Frenchtown	883	1,825	106.9%
Lolo	3,388	3,892	14.9%
Missoula City	57,056	66,788	17.1%
Orchard Homes	5,199	5,197	0.0%
Seeley Lake	1,436	1,659	15.5%
Ravalli County	**36,070**	**40,212**	**11.5%**
Conner	not available	216	not available
Corvallis	443	976	120.3%
Darby	710	720	1.4%
Florence	901	765	-15.1%
Hamilton	3,705	4,348	17.4%
Pinesdale	742	917	23.6%
Stevensville	1,553	1,809	16.5%
Sula	not available	37	not available
Victor	859	745	-13.3%

Table 5: Other Communities within the Primary and Secondary Economic Impact Areas

Clearwater County
Ahsahka, Cardiff, Cavendish, Dent, Fraser, Grangemont, Greer, Headquarters, Hollywood, Judge Town, Konkolville, Moose City, Teakean
Idaho County
Burgdorf, Clearwater, Dixie, Elk City, Fenn, Golden, Greencreek, Harpster, Lowell, Lucile, Mackay Bar, Mount Idaho, Orogrande, Pittsburg Landing, Pollock, Powell Junction, Red River Hot Springs, Syringa, Warren, Woodland
Latah County
Viola
Nez Perce County
Cavendish, Gifford, Jacques, Lenore, Myrtle, Southwick, Spalding, Sweetwater, Waha
Missoula County
Condon, Greenough, Huson, Lolo Hot Springs, Milltown, Turah

2.2 PRIMARY AND SECONDARY AREAS OF ECONOMIC IMPACT

One of the primary goals of the CFLRP projects is to benefit the economies of rural communities. The three counties closest to the impact area contain rural communities. The largest cities in the three-county area are Grangeville (population 3,141) and Orofino (population 3,142). All three counties have at least 60% of their population classified as rural. Clearwater County had 60%, Idaho County had 80%, and Lewis County has 100% of their population classified as rural as of the 2010 census (USDA 2012b). There are two cities within the project area itself: Syringa and Lowell.

The secondary area was determined through an examination of the existing economic partnerships and flow of goods and services. While the 75-mile radius does not always include the entirety of some counties, we have included the entire county areas as the secondary impact analysis area to be consistent and compatible with the use of the TREAT program. The planning process for the Nez Perce-Clearwater National Forests includes the same Idaho counties that we assess in this report, but not the two Montana counties (Missoula and Ravalli) which we also consider. Since the project area includes part of the Bitterroot National Forest and the West Fork Bitterroot District Office administers a portion of the projects, we have included these two Montana counties in our analysis.

The largest population centers of the seven-county region—Missoula, Moscow, and Lewiston—all are located outside of the Selway-Middle Fork project area, but fall within the 75-mile radius. In 2010, the population of these three cities totaled 48% of the population of the secondary area of influence. The remaining 132,387 people of the area live in cities of fewer than five thousand inhabitants, with the majority of these residents living in towns with populations of fewer than one thousand people.

2.3 SOCIO-ECONOMIC CONDITIONS AND TRENDS IN THE PROJECT AREA

All seven counties in the area of economic influence experienced increased unemployment rates from 2005 through 2009. Figure 5 shows this increase in unemployment.[5] Unemployment rates fell steadily from 2002 to 2005 and then increased to 2002 rates or higher by 2009. Clearwater, Idaho, and Ravalli Counties consistently experienced the highest unemployment rates.

[5] Bureau of Labor Statistics, Local Area Unemployment Statistics, 2002-2012.

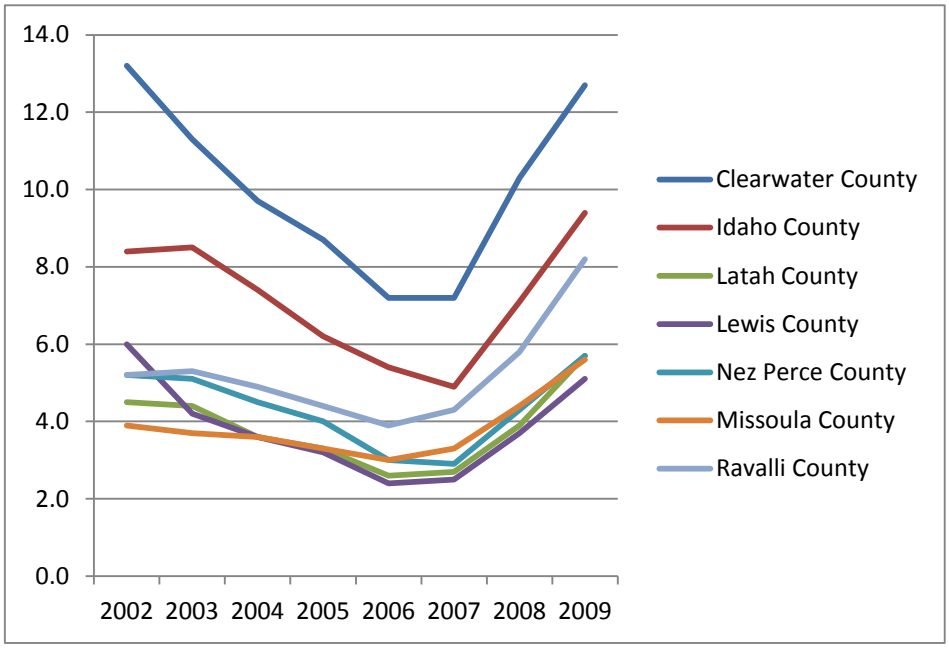

Figure 5: Unemployment Rates in the Secondary Economic Impact Counties, 2002-2009

The three counties in the primary economic area (Clearwater, Lewis, and Idaho Counties) have seasonal employment cycles. The lowest unemployment levels, and highest employment numbers, in these counties, are generally experienced during the summer months (between May and September). The highest levels of unemployment, and lowest level of employment, are generally experienced in January and February. Monthly unemployment rates for the three counties for 2002, 2005, and 2009 are shown in Figure 6, Figure 7, and Figure 8.[6] Monthly employment rates for the three counties for the years 2002, 2005, and 2009 are shown in Figure 9, Figure 10, and Figure 11.[7]

[6] Bureau of Labor Statistics, Local Area Unemployment Statistics, 2002-2012.
[7] Bureau of Labor Statistics, Local Area Unemployment Statistics, 2002-2012.

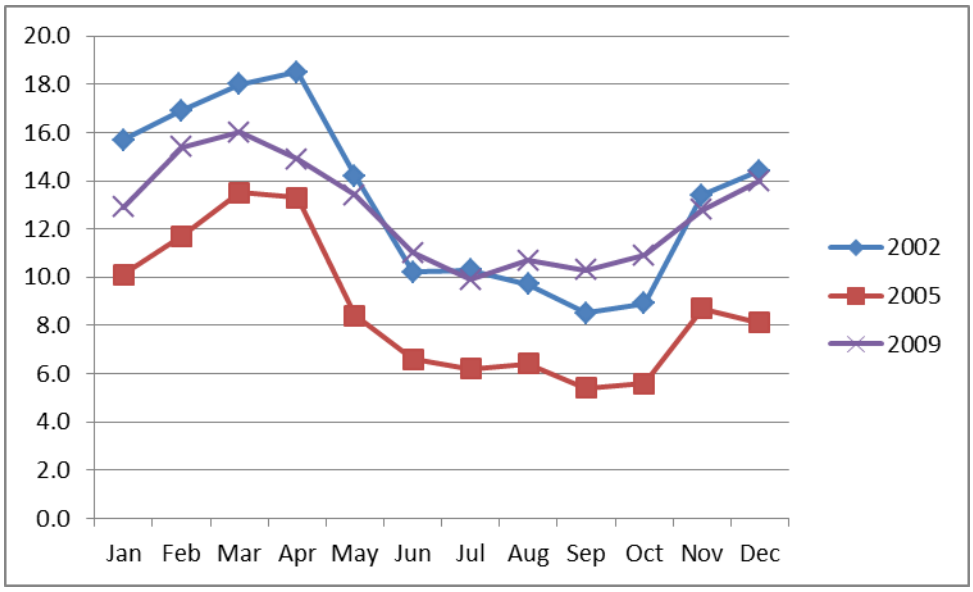

Figure 6: Monthly Unemployment Rates for Clearwater County, 2002, 2005, and 2009

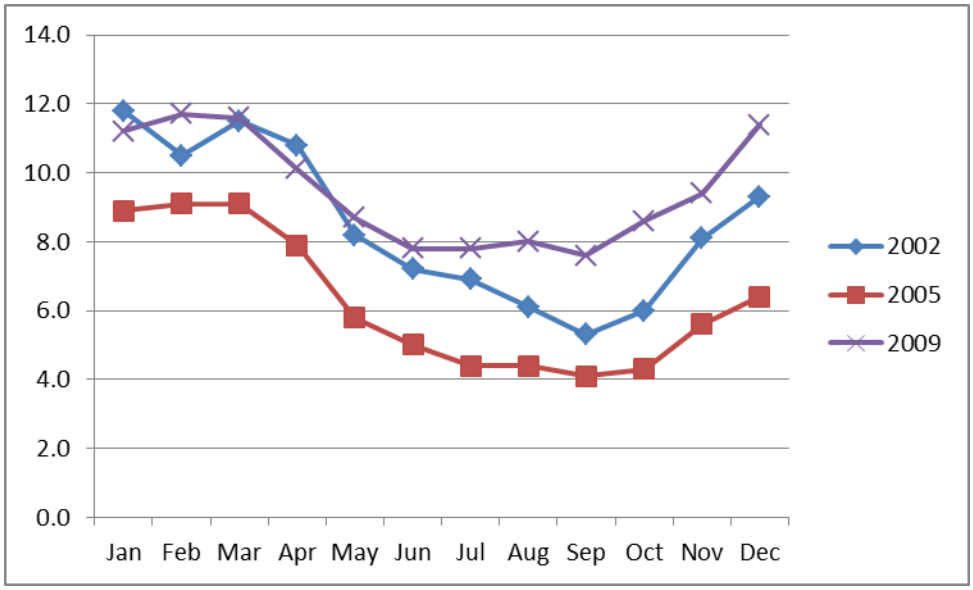

Figure 7: Monthly Unemployment Rates for Idaho County, 2002, 2005, and 2010

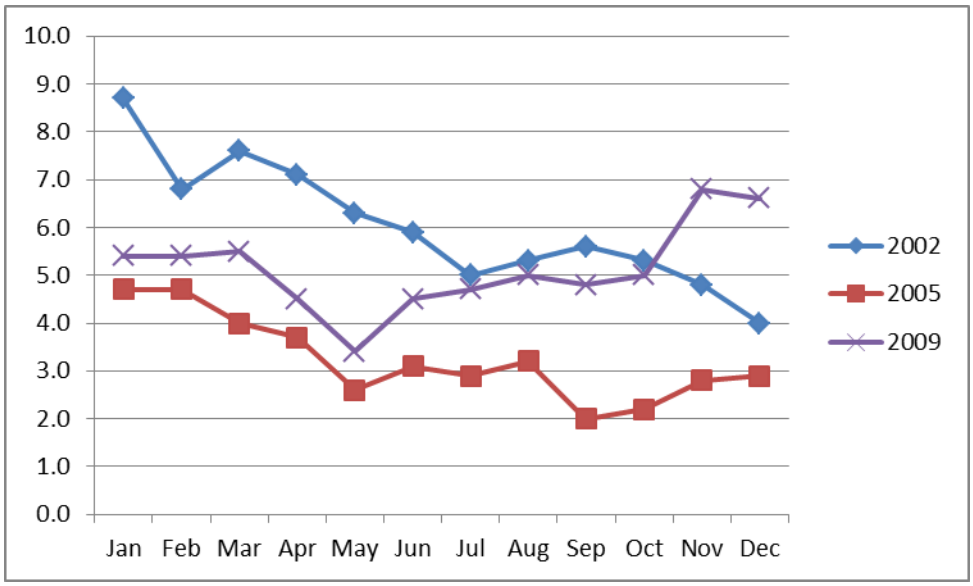

Figure 8: Monthly Unemployment Rates for Lewis County, 2002, 2005, and 2009

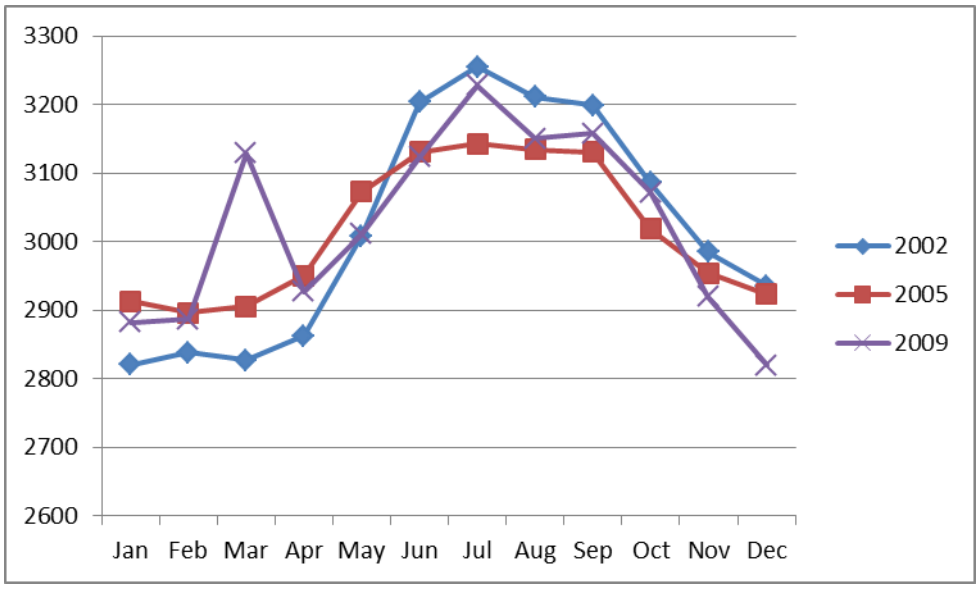

Figure 9: Monthly Employment for Clearwater County, 2002, 2005, and 2009

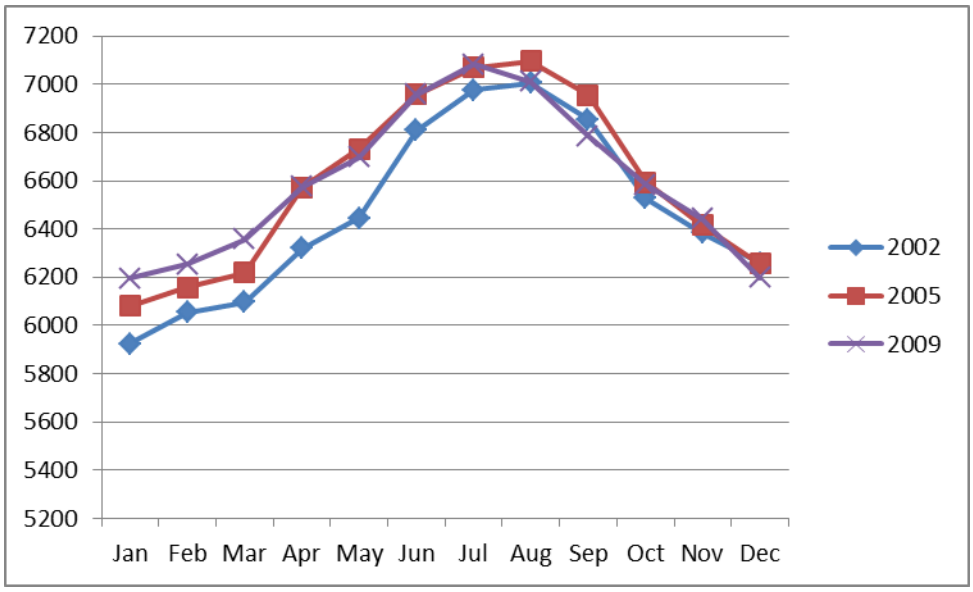

Figure 10: Monthly Employment for Idaho County, 2002, 2005, and 2009

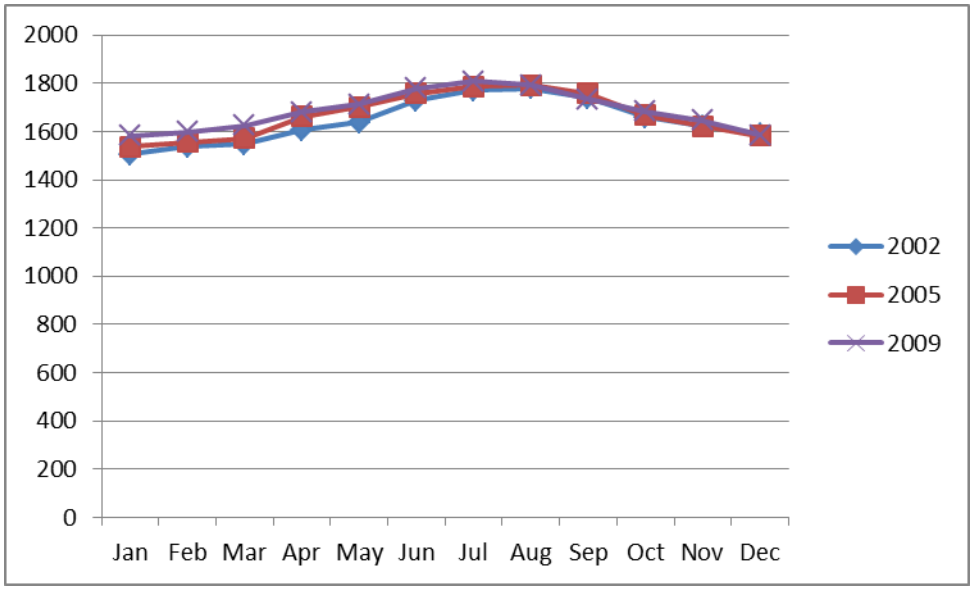

Figure 11: Monthly Employment for Lewis County, 2002, 2005, and 2009

2.4 DESCRIPTION OF FOREST RESOURCES AND RELATED INDUSTRIES

> As stated by one timber resource manager, "timber has no value if it is not delivered on time. The ability to count on a stable supply is essential to the wood products industry."

Within the Clearwater Basin forest products industry, there consists a chain of mills to utilize all of the types of wood that are generated through timber sales. The largest portion of wood comes off of private land and the smallest portion off of federal land. Conversely, federal lands compose 65% of the basin. According to one resource manager, the region has some of the highest value timber in the nation, with a mix of ponderosa pine, lodgepole pine, spruce, cedar, grand fir, Douglas-fir, and larch. The mills that were contacted for this project purchase all of their inputs from Idaho, with less than 20% of their inputs coming from USFS lands. The majority of their inputs come from private and state lands.

Within the seven counties of the secondary economic area of impacts, forestry related industries have declined substantially since the beginning of the 1990s. Table 14 and Table 15 provide the employment and number of proprietors in the forest industry in 2009. According to the Draft Nez Perce-Clearwater National Forest Plan Assessment, "from 1990-2006 the number of primary wood product facilities fell from 172 to 97, and the number of workers in Idaho's wood and paper products industry declined" by 8,173 from 18,440 workers in 1990 to 10,267 in 2011 (USDA 2012a). One of the reasons listed for the decline is the "35 percent reduction in timber harvest driven by the 80 percent decline in the Federal timber sale program (1990-2006) and the collapse of the U.S. housing market (2006-2010)" (USDA 2012a).

Figure 12: Log Yard in Project Area

3. METHODOLOGY

We analyzed the impacts of the Selway-Middle Fork CFLRP project in two ways. First, we compared outcomes to the targets established in the original proposal for the secondary economic impact area. The national indicators that were established in the July 2011 CFLRP National Outcomes and Indicators Process and Proposal were used to measure jobs and income created through all CFLRP funds. Then, using the same framework, additional indicators were formulated and analyzed. We collected existing data from various sources, including the Bureau of Labor Statistics and the Draft Nez Perce-Clearwater National Forest Plan Assessment (USDA 2012a; USDA 2012b). Second, we assessed impacts to individuals and communities qualitatively— to tell the story of what is occurring in the primary economic impact area in a way that numbers and statistics cannot convey. Additional data was collected through discussions with a stratified sample of people associated with the project to trace the impacts through the primary and secondary economic impact areas.

3.1 JULY 2011 CFLRP NATIONAL OUTCOMES AND INDICATORS PROCESS AND PROPOSAL

In 2011 a list of indicators was established to provide a method to "measure outcomes and indicators consistently across projects so there is valid national data...to track work accomplished and results achieved" by the CFLRP projects to report to Congress and others. Five indicators were developed: ecological, fires costs, jobs/economics, leveraged funds, and collaboration. Each indicator was designed to be simple, affordable, tiered to the 2009 Omnibus Public Land Management Act which established the CFLRP, compatible with existing sources of data, and able to provide individual project autonomy (CFLR Projects 2011).

This Technical Report seeks to portray more completely how these indicators are developed, what they tell us, and what they do not tell us. The framework used in the development of the indicators was: outcome, indicator, target, baseline, tools, and responsible party. As an example, Table 6 below provides the framework used to develop indicators for jobs/economics and for fire costs.

Table 6: Framework used to Develop National Indicators

	Jobs/Economics	Fire Costs
Outcome	CFLRP projects benefit local economies	CFLRP projects facilitate the reduction of wildlife management costs
Indicator	The number of jobs created from CFLRP project activities	Modeling indicates that fire costs will be reduced under X fire scenarios as a result of the implemented treatments
Target	392 jobs created within the project impact area	More than X% of fire costs are reduced under X scenario as a result of fuel treatments

	Jobs/Economics	Fire Costs
Baseline	The original TREAT estimate of jobs in the proposal	An R-CAT simulation based on the fuel treatments in the CFLR proposal
Tools	TREAT model	R-CAT model
Responsible	USFS project staff in cooperation with the developers of TREAT	CFLRP USFS project staff and the developers of the R-CAT model

3.1.1 TREAT Tool for Estimating Jobs and Income Impacts

The TREAT model was developed by the USFS to provide a standardized approach to estimating jobs that would be created or maintained by CFLRP projects. TREAT is used in the proposal, work plan, and in the annual reports of individual CFLRP projects.

According to the TREAT manual, 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" (Gebert and Stockmann 2011).

The TREAT model contains two input spreadsheets and two results sheets. The input spreadsheets are completed by the CFLRP project and then sent to the regional economists, who calculate the impacts. One input sheet is designed to include just CFLRP funds that are requested and then obligated through contracts and agreements. Ideally, only amounts obligated in the economic influence area defined by the model should be included in this number. For the Selway-Middle Fork Project, the area of influence has been defined by TREAT as including the following counties: Clearwater, Idaho, Lewis, Nez Perce, Asotin (in Washington state), and Ravalli (in Montana). The second input sheet should include all funds associated with CFLRP, including matching funds, but not leveraged funds. The types of funds are explained in the following section.

The two output sheets correspond to the inputs, with one for CFLRP funds and another for all funds. Based on information provided on the distribution of funds by activity type, harvest volume, and product distribution of the harvest, the output sheets provide both summary and detail tables for average annual impacts to employment. The summary sheet table includes employment and income for commercial forest products, other project activities, and USFS implementation. The detailed table breaks down the commercial forest products into ten sectors and other project activities into five sectors.

3.1.2 Types and Sources of Funds

There are several types of funds associated with the CFLRP: Matching, Partner, Leverage, USFS, Contracts, and Agreements. A clear understanding of these funds is essential in order to measure and monitor the impacts of the program funds. The TREAT program uses only the funds that are obligated through USFS contracts or agreements. Funds that other organizations contribute are either matching funds or leveraged funds. Matching funds are a requirement of the program and should be included in the second tab of the TREAT program which measures impacts of all CFLRP funds. Leveraged funds are "those funds or in-kind services that help the project achieve objectives as outlined in their proposal within the defined landscape, but do not meet the qualifications for match" (USDA 2013). Matching funds include USFS appropriated funds, partnership funds, and partnership in-kind services.

Table 7: Types and Sources of Funds

Type of Fund	2010	2011	2012
Program Award	$1,000,000	$3,400,000	$4,000,000
Obligated Funds	$998,125	$3,030,467	$3,577,994
Partner in Kind Contributions	$1,048,920	$1,250,019	$1,218,629
Partner Contributions through Agreements	$374,700	$584,400	$397,659
Forest Service Matching Funds	$545,049	$1,595,149	$1,574,127
Leveraged Funds (not included in TREAT)	$0	$0	$401,450
Total for Use in TREAT All Funds Analysis	$2,592,094	$5,875,635	$5,968,809

Sources: Clearwater Basin Collaborative, Open House Poster Boards, November 2012 and personal communications with Mike Ward, USFS, 2012.

3.1.3 R-CAT for Estimating Reduction in Fire Costs

The Risk and Cost Analysis Tools Package (R-CAT) is the model developed by the USFS to estimate fire management cost savings and risk reductions for the CFLRP fuel treatments. By modeling the treatments prescribed in the proposal and running fire scenarios, the program can estimate the reduction in fire costs over the life of the project and therefore the treatment benefits. At this point in time the R-CAT model for the Selway-Middle Fork Project is in the development stages.

Table 8 below details the first three years of USFS fire management costs incurred in the Selway-Middle Fork Project Area (USDA 2010; USDA 2011).

Table 8: USFS Wildfire Related Costs incurred in the Project Area, 2010-2012

Expense	2010	2011	2012
Wildfire Preparedness Expenses	$915,474	$1,087,325	$1,131,091
Wildfire Management Expenses - Suppression	$262,450	$29,022	$2,255,066
Wildfire Management Expenses - Resource Benefit	$139,573	$1,107,776	$296,138
Wildfire Management Expenses – BAER	$0	$84,200	$0

Expense	2010	2011	2012
Other Hazardous Fuels Expenses	$28,826	$72,948	$47,515
Total	$1,346,323	$2,381,271	$3,729,810

Sources: Clearwater Basin Collaborative, Selway-Middle Fork CFLRP Annual Reports, 2010-2012.

3.2 SUPPLEMENTAL ADDITIVE INDICATORS

Both TREAT and R-CAT were designed to convey impacts that could be standardized across all CFLRP projects, so they were not meant to provide details on the specific impacts of individual projects. In order to facilitate a more nuanced analysis than the TREAT numbers provide, we considered supplementary additive indicators for measuring local jobs, income, forest industry capabilities and utilization, technology and training. The CBC is interested in not only the current jobs and income in the region, but also in facilitating and promoting the training of current workers in new methods and businesses, as well as in training the next generation to work in industries that have defined this region for over a century. One of the eleven objectives of the Selway-Middle Fork CFLRP Project is to "create jobs and provide opportunities to promote emerging technology (e.g. biomass facilities, law impact harvest systems) and other economic opportunities to strengthen local economies)"(Clearwater Basin Collaborative 2010).

Table 9 is a list of the supplemental indicators we developed to arrive at our determination of the socio-economic impacts of the first three years of the Selway-Middle Fork CFLRP project. We have organized this data by "desired outcome," or project goals, and thematically grouped the indicators for their relevance to three broader-level categories: Jobs and Income, Forest Products Industry, and Technology and Training.

Table 9: Supplemental Indicators to Measure Impacts of Selway - Middle Fork CFLRP Project

Desired Outcome	Indicators	Target[8]	Baseline
Jobs and Income			
Benefit local rural communities within the project area	Location, amount, and type of work received by contractors	Approximately 382 jobs created or maintained through implementation of the project	Proposal for CFLRP funds
	Number of local subcontractors and location		2011 Contract Data
	Local employment, wages, hours, training, and benefits		2009 Employment Data
Forest Products Industry			
Provide a stable supply of additional quality inputs into the forest products industry which will result in opportunities for existing and new businesses and markets	Diversity, Quantity, and Stability of Wood Products Supply	Over the life of the project expected to produce 120-150 mmbf of sawtimber and 340,000 dry tons of biomass	2010 USFS contribution to supply
	Quantity and Diversity of Wood Products Produced Locally		2010 USFS contribution to wood products produced
	Processing Capacity of Local Wood Products Manufacturers and Value-added Industries		2010 Local Area data
	Level and Type of Public and Private Investments in Forest Restoration Equipment and Technology		Proposal for CFLRP funds
	Number and Type of Value Added Organizations and Products		2010 Local Area data
	Rate of Emerging Markets and New Businesses		2010 Local Area data
Technology and Training			
Provide increased opportunities for training in all aspects of forest restoration	Types of Equipment Used on CFLRP Projects and Skills Required	To increase the number of qualified contractors, subcontractors, and workforce in all aspects of forest restoration and wood products industry by X amount per year	2011 Contracts and Agreements
	Changes in Technology and Availability of New Technology		2011 Contracts and Agreements
	Workforce Training in Safety and Equipment		2011 Contracts and Agreements
	Number of Restoration-related Training Opportunities Offered		2011 Contracts and Agreements
	Enrollment in Training Programs/Interest in Natural Resources Fields		2011 Contracts and Agreements

[8] More fully developed targets will be included in the "Selway-Middle Fork CFLRP National Outcomes and Indicators – 2013 Report to the National Forest Foundation."

Desired Outcome	Indicators	Target[8]	Baseline
	Participation of Youth, Minority Group Representatives, or People from Low-income Communities		2011 Contracts and Agreements

3.3 DATA COLLECTION METHODOLOGY

This section details how we collected the existing information available on the socio-economic baseline conditions in the project area's first and secondary areas of impact, as well as our development of qualitative data gathering protocols.

3.3.1 Existing Data

The information on the funded projects within the area, in particular the TREAT inputs, were provided by the USFS Region 1 office. This information included the contractors' names and addresses, contract number, project name, service provided, contracting officer, awarded value, dollar value of CFLRP funds, and comments. The contracts were awarded on all three forests—the Clearwater, Nez Perce, and Bitterroot. The total awarded value and the dollar value of CFLRP funds were provided separately, because some projects crossed over the project area boundary. The CFLRP funds were only utilized for the portion of the project that was within the project boundary. The comments provided information on the criteria used to solicit and award the contract—whether Indefinite Delivery/Indefinite Quantity (IDIQ), small business set aside, or "local criteria" were a factor in the award. The amount obligated to partners through agreements was also provided by the USFS.

The annual reports compiled for the CFLRP program provided information of fire treatment costs, as well as additional information on project activities (USDA 2010; USDA 2011). The CBC's original proposal and 2011 work plan for CFLRP funds also contained baseline data on the communities and the intended impacts of CFLRP funds (Clearwater Basin Collaborative 2010; Clearwater Basin Collaborative 2011).

Several other studies were used as background information on the socio-economic history and context of the project area, primarily the socio-economic section of the Draft Forest Plan Assessment for the Nez Perce-Clearwater provided current data.

3.3.2 Collection of Original Data

The primary method of collecting new data was use of a discussion and interview formats with thirty individuals who had a connection to the CFLRP, CBC, or to the forest products industry in the project's areas of influence. The Paper Reduction Act limited the collection of data from surveys and interviews to a maximum of nine interviews with the same format. However, the discussion format allowed for much greater qualitative, rather than quantitative, analysis, which provides an additional dimension to the numbers and complexities of the TREAT modeling. Discussions were semi-structured interaction utilizing discussions guides. Interviews were unstructured interaction beginning with questions about their relationship to the Selway-Middle Fork CFLRP project. The collection of additional data that was primarily qualitative was guided by the concept of triangulation, "collecting information from a diverse range of individuals and settings using a variety of methods" (Maxwell 1996).

These discussions and interviews were conducted by Ecosystem Research Group's economist from November 2012 to March 2013 via telephone and during two site visits, from January 16-18, 2013 and February 15-18, 2013.

3.3.2.1 *Design of Discussion Questions*

Four "discussion guides" were developed for collecting additional information on the communities and forest industry within the primary and secondary economic impact areas. These guides included questions aimed at gaining a better understanding of the flow of contract funds through local communities; the impact of funds obligated through agreements on the ability of other organizations to educate and train locals on forest restoration and to monitor the impacts of the project; and to establish baseline data, current capacity, and impacts in the forest products industry. The four distinct discussion guides structured conversations with non-local contractors, local contractors and subcontractors, organizations with obligated agreement funds (matching funds), and companies in the forest products industry. These guides are detailed below.

The non-local contractor form was designed to provide a quick assessment of their connection, if any, to the Clearwater Basin prior to being awarded the contract, their use of local subcontractors and/or workers, funds spent in the local communities, and/or experience with forest restoration both apart from and in connection to CFLRP. It contained just four questions and could generally be completed with fifteen to twenty minutes. The local contract form was designed to gain understanding into the contracting process; number and type of employees and subcontractors; where the employees and subcontractors were located; equipment and supplies used on the job; employee benefits and training within the industry; familiarity with the CFLRP, the CBC, and with restoration work. These questions generally took about thirty minutes to one hour to complete. The form utilized with partners that were awarded funds through agreements focused primarily on the training and monitoring impacts created by the CFLRP funds, as well as the jobs created through matching funds expended by the organization. The objective was to gain a better understanding of how the funds are impacting the number of people trained in natural resource management. Subcontractors, employees, and volunteers were calculated in the partners discussion form. For discussions with companies in the wood products industry, the discussion guide focused on the supply of inputs, including diversity and origin; the capacity of facility; and finished product information. Copies of the four discussion guides are included in Appendix A.

3.3.2.2 *Identification of Discussants*

Potential discussants were identified using the purposeful, or criterion-based, sampling method. Purposeful sampling is a strategy in which particular settings, persons, or events are selected deliberately in order to provide important information that cannot be achieved as well from other choices (Maxwell 1996). There were two goals that determined the relevance of a potential discussant. The first was to capture as much of the monetary impacts of CFLRP projects as possible, and the second was to capture the heterogeneity of the population affected by the program directly and indirectly. The second goal is

pursued through "identifying the dimensions in variation in the population that are most relevant to your study and systematically selecting individuals, times, or settings that represent the most important variations on these dimensions" (Maxwell 1996). Following this method, discussants were first identified from the list of contractors and partners provided by the USFS. Additional forest-related industry discussants were identified by speaking with local resource managers and community leaders. Table 10 provides information on the discussants that were involved in the collection of information.

Local contractors were sorted by location (primary and secondary areas of impact) and by amount of contract awarded. We used amount of contract awarded as a factor in choosing discussants in order to trace the largest amount of impacts within the limited number of discussions we were contracted to conduct. The list was then examined for type of work completed in order to obtain a cross section of type of contractors. Types of work included excavating, reforestation, thinning, road work, design services, and culvert replacements. In some cases, the contractor was not available and had to be replaced with another contractor.

Eleven non-local contractors were awarded work in 2010 and 2011, the first two years of the project. These contractors were sorted by contract amount, and the highest contractor amounts were contacted. As with the local contractors, we were motivated to capture the greatest amount of funds with the fewest number of discussions. There were four non-local contractors contacted. Two completed work in 2011 and two in 2012.

Organizations that received funding through partnership agreements focused primarily on training and monitoring activities. There are currently nine organizations that have funds obligated through partnership agreements. Three of these were identified for interviews.

For the forest products industry, we contacted the resource managers from the two largest companies in the region, Clearwater Paper and Idaho Forest Group. Blue North Forest Group, the purchaser of the Interface Fuels Project, was also contacted. Various USFS members were contacted, primarily to clarify and gain a better understanding of the use of contract numbers, TREAT inputs, and TREAT results.

Table 10: Detail of Discussants

Type	Total Number	Number Contacted	Type of Work
Non-local Contractors	11	4	Mapping, Cultural Resource, Soil Monitoring, Brush Cutting
Primary Local Contractors	11	6	Pre-commercial Thinning, Road Work, Culvert Replacements, Stockpiling
Secondary Local Contractors	7	5	Stand Exam, Stockpiling, Road Work, Weed Control
Subcontractors	n/a	2	Surveying, Fire Line Work
Partnership Agreements	9	3	Trail Maintenance and Weed Control with Training Programs, Monitoring
Forest Products Industry	n/a	6	Resource Managers, Log Hauler, Custom Mill
Other	n/a	4	USFS Staff, Community Leaders

3.4 DATA ANALYSIS METHODOLOGY

Quantitative analysis of contract data included geospatial analysis of contracts awarded, separation by type of work completed, and proximity to the project area. It also includes coding of answers from discussions to provide countable, comparable measures for some indicators. We used this information to analyze the differences between USFS data and data obtained through discussions. The qualitative analysis of the collected data included categorizing and contextualizing strategies. The categorizing entailed looking at the information collected and placing it into categories that can then be used for comparison purposes. The second strategy "look[s] for relationships that connect statements and events within a context into a coherent whole" (Maxwell 1996).

4. SOCIO-ECONOMIC RESULTS ANALYSIS

This section provides an explanation of the socio-economic effects of three years of CFLRP funding, 2010 through 2012. In order to assess these impacts, we first include an explanation of the "baseline socio-economic conditions"—what the indicators showed before any project funds were used for treatments, training, and other work in the Selway-Middle Fork CFLRP project area. As 2010 was the first year of the program and the TREAT program utilizes 2009 data, it was determined that 2009 would be the baseline year for any statistical numbers. It is against this baseline data that future impacts were measured. The first objective is to ensure that the baseline data allow measurement of impacts that are a direct result of the CFLRP project funds. Therefore, the additional funds received for work within the project area in 2010 are the first point of impact monitoring. We asked: How do these funds impact the primary economic impact area, the secondary impact area, and the forest products industry? How are those funds distributed among the communities?

4.1 BASELINES FOR 2009

While baseline data is available for total employment and wages in the secondary economic impact area, it is difficult to assess the CFLRP's impact to any changes in these numbers as there are so many other factors that influence employment changes from year to year. National forest work has become a small percentage of most company's contracts, and the project area is composed mostly of national forest land. The recent consolidation of the Nez Perce and Clearwater National Forests and attendant movement of staff will impact communities within the primary economic analysis area. The CFLRP project may have some impact on USFS staffing levels, as it helps create or maintain 25 full time equivalent positions for implementation and monitoring.

4.1.1 Jobs and Income

Jobs and income are the indicators used at the national level to measure socio-economic impacts of CFLRP funds. Using the TREAT modeling program, the USFS produced the employment numbers in Table 11 as estimates of the number of jobs created. The average annual number of jobs to be created or maintained by the project is estimated to be 392.2. The number of jobs estimated to be created or maintained in the commercial forest products sector was 256.7. The total estimate of other jobs created by other CFLRP project activities (besides implementation and monitoring and forest products) is 98.6.

These numbers include full-time and part-time, as well as seasonal, and therefore cannot be compared to unemployment statistics. However, since the forest restoration work in the area is highly seasonal with most of the work being completed between May and September and many people performing jobs in multiple industries, counting all types of jobs provides better results.

Table 11: TREAT Data Estimates for Job Creation as a Result of CFLRP Funds (Clearwater Basin Collaborative 2010)

Job Type	Proposal		
	Employment (# of Part and Full-time Jobs)		
	Direct	Indirect and Induced	Total
Commercial Forest Products			
Logging	not available	not available	not available
Sawmills	57.3	78.6	135.9
Mills Processing Roundwood/Pulp Wood	5.4	19.7	25
Facilities Processing Sawmill Residue	23.9	71.8	95.7
Total	**86.6**	**170.1**	**256.7**
Other Project Activities			
Facilities, Watershed, Roads, and Trails	25.4	14.8	40.2
Ecosystem Restoration, Hazardous Fuels, and Forest Health	29.9	7	36.9
Thinning and Biomass	9.2	3.9	13.1
Contract Monitoring	4.5	3.7	8.2
FS Implementation and Monitoring	21.3	15.8	37
Total	**90.3**	**45.3**	**135.6**
Total All Inputs	**176.9**	**215.3**	**392.2**

Table 12: Average Annual Employment Statistics, 2009 (United States Department of Labor 2013)

	Labor Force	Employment	Unemployment	Unemployment Rate
Clearwater County	3,465	3,026	439	12.7%
Idaho County	7,283	6,595	688	9.4%
Latah County	17,737	16,719	1,018	5.7%
Lewis County	1,776	1,685	91	5.1%
Nez Perce County	18,644	17,578	1,066	5.7%
Missoula County	58,174	54,918	3,256	5.6%
Ravalli County	18,027	16,555	1,472	8.2%

Table 13: Employment and Unemployment by Month in Clearwater, Idaho, and Lewis Counties, 2009 (United States Department of Labor 2013)

Month	Clearwater County		Idaho County		Lewis County	
	Employment	Unemployment Rate	Employment	Unemployment Rate	Employment	Unemployment Rate
January	2,882	12.9%	6,195	11.2%	1583	5.4%
February	2,887	15.4%	6,254	11.7%	1598	5.4%
March	3,129	16.0%	6,356	11.6%	1624	5.5%
April	2,927	14.9%	6,576	10.1%	1680	4.5%
May	3,011	13.4%	6,696	8.7%	1711	3.4%

Month	Clearwater County		Idaho County		Lewis County	
	Employment	Unemployment Rate	Employment	Unemployment Rate	Employment	Unemployment Rate
June	3,123	11.0%	6,958	7.8%	1778	4.5%
July	3,228	9.9%	7,083	7.8%	1809	4.7%
August	3,150	10.7%	7,010	8.0%	1791	5.0%
September	3,158	10.3%	6,784	7.6%	1733	4.8%
October	3,072	10.9%	6,583	8.6%	1682	5.0%
November	2,920	12.8%	6,443	9.4%	1646	6.8%
December	2,820	14.0%	6,197	11.4%	1584	6.6%

4.1.2 Forest Products Industry

Employment rates and the number of proprietors operating in the forest products industry provide an indicator for how the industry is performing in comparison to the baseline year levels, which are detailed in Table 14 and Table 15 below. However, the project area composes such a small portion of the raw material inputs of these industries; the industry is impacted by much larger variables, such as fuel prices. We therefore obtained a more accurate picture of the Selway-Middle Fork Project's impact on the forest products industry by tracing the degree to which the objectives outlined in the CFLRP Proposal and work plans (Clearwater Basin Collaborative 2010; Clearwater Basin Collaborative 2011) have been met in individual communities.

Table 14: 2009 Forest Industry Employment

Type of Employment	Clearwater County	Idaho County	Lewis County
Total Private Employment	1,824	3,020	748
Timber	203	229	161
Growing & Harvesting	112	40	30
Forestry & Logging	111	33	30
Support Activities for Forestry	1	7	0
Sawmills & Paper Mills	53	151	131
Sawmills & Wood Preservation	46	151	131
Pulp, Paper, & Paperboard Mills	0	0	0
Veneer, Plywood, & Engineered Wood	7	0	0
Wood Products Manufacturing	38	38	0
Other Wood Product Mfg.	38	38	0
Converted Paper Product Mfg.	0	0	0
Gum & Wood Chemical Mfg.	0	0	0
Wood Cabinet Mfg.	0	0	0
Wood Office Furniture Mfg.	0	0	0
Non-Timber	1,621	2,791	587

Source: 2012, Draft Nez Perce-Clearwater National Forest Plan Assessment

Table 15: Forest Industry Proprietors, 2009

	Clearwater County	Idaho County	Lewis County
Total Proprietors	534	1,122	365
Timber	31	29	12
Forestry & Logging	25	22	12
Wood Products Manufacturing	6	7	0
Paper Manufacturing	0	0	0
Non-Timber	503	1,093	353

Source: 2012, Draft Nez Perce-Clearwater National Forest Plan Assessment

The CBC's original CFLRP proposal estimated that the project would produce 120-150 millions of board feet (mmbf) of sawtimber and 340,000 dry tons of biomass. One of the project's objectives is to promote emerging technologies such as biomass facilities and low impact harvest systems. The production of a consistent supply of woody biomass is one method of creating the opportunity for these emerging technologies. In 2009, there was one co-generation plant in the region using biomass, at Clearwater Paper in Lewiston. There were three other potential sites: at the prison in Orofino, at Idaho Forest Group in Grangeville, and at the Small Business Incubator in Elk City.

Timber and woody biomass were expected to be sourced from several treatments. The Interface Fuels 2 project, expected to produce commercial harvest and woody biomass, was ready for implementation at the time of the proposal (May 2010). Other potential treatments that were expected to produce a supply of timber and woody biomass were the Lodge Point Commercial Thinning, Clear Creek Integrated Restoration, and O'Hara – Goddard Integrated Restoration treatments.

4.1.3 Technology and Training

There is a great deal of concern of how and from where the next generation of forest workers—including positions from forest management to logging and clearing—will emerge. According to one forest industry leader, the industry is currently constrained by a lack of trained workers. This is a trend that will most likely continue in the future. Baseline data for this indicator is based on information provided in the original proposal and information obtained during conversations with contractors, subcontractors and forest service industry leaders.

According to the proposal the group agreed "in concept, to pursue several regional training programs." These programs include (1) a workforce training center in Kamiah for in-woods machinery operations; (2) workforce training center in Elk City to train people in bridge and dam construction; (3) an Equipment Operators School for which a business plan already exists; and lastly (4) training opportunities for existing and new small businesses.

In addition, youth training is an important objective both within the proposal and among discussants. The proposal said that there were "opportunities to involve young people in implementing some of the

restoration efforts outlined in this proposal." In speaking with several partners, the goal is to provide young people the opportunity to learn about the field of resource management and hopefully train a new generation of FS stewards. Funds from the FLRP Partnership Agreements allow organizations to hire and train additional groups of high school, college, and young adult individuals in the necessary skills for trail maintenance and forest restoration.

4.2 IMPACTS ANALYSIS FOR 2010 THROUGH 2012

This section provides an assessment of the impacts of the CFLRP projects from 2010 through 2012 using TREAT data and the additional indicators discussed in the Methodology section. Impact assessments are categorized according to the four indicators also detailed in our methodology.

4.2.1 Jobs and Income

The TREAT program for 2010 through 2012 was utilized as the National Indicator in order to compare impacts across all CFLRP projects. The Selway-Middle Fork CFLRP project proposal estimated the creation of 382 part-time or full-time jobs created or maintained through the implementation of the project. The additional indicators used to measure the programs progress towards meeting the desired outcome of benefitting local rural communities within the project area are:

- Location, amount, and type of work received by contractors
- Number of local subcontractors and location
- Local employment, wages, hours, training, and benefits

Table 16 details the direct amounts that were included in the Selway-Middle Fork Project's annual reports for these years. These are amounts that were either obligated through agreements or contracts. Through our discussions with contractors and organizations with funding, it has become apparent that not all of these funds have been disbursed. This disbursal, once it occurs, will result in higher estimated impacts for the earlier years and lower estimated impacts in subsequent years. Job impacts found through additional further research will indicate these differences.

Table 16: Jobs Created or Maintained as Measured by TREAT, 2010-2012, All Funds (Clearwater Basin Collaborative 2010; USDA 2010; USDA 2011)

Type	Proposal	2010	2011	2012
Commercial Forest Products Activities				
Direct Jobs	86.6	20.3	36.8	24.2
Indirect and Induced Jobs	170.1	19.6	43.0	28.3
Total Commercial Forest Products Activities	**256.7**	**39.9**	**79.8**	**52.5**
Other Project Activities				
Direct Jobs	90.3	47.6	69.4	60.0
Indirect and Induced Jobs	45.3	20.4	14.0	14.3
Total Other Project Activities	**135.6**	**68.0**	**83.4**	**74.3**
Total Jobs	**392.2**	**107.9**	**163.2**	**126.8**

To better understand what the numbers in the annual report illustrate, we analyzed the details for both inputs and outputs for 2012. We then compared this data to the data from the proposal. In comparing data to the proposal, it is important to remember that the jobs detailed in the proposal represent an average annual number of the life of the project. In some years the number may be higher and in others lower. We identified several issues which make it difficult to compare impacts to the baseline numbers in the proposal. First, when proposals are written, amounts are necessarily estimated without knowledge of what percentage of contracts will be awarded to contractors in the economic influence area. Therefore, all contracts are included, even those that may not be awarded, or those that may be awarded to contractors outside of the project area's primary and secondary areas of influence. When the annual reports are compiled, only the percentage awarded to contractors and partners is intended to be included in the analysis. In practice, the entire amount awarded is used to measure jobs created or maintained, not just the local area contracts. This procedure is not a miscalculation, because if only the local area percentage was used, then it would not be possible to compare the jobs with the targets contained in the proposal. Ultimately, the result is that the TREAT outputs are overestimated if they are intended to represent local jobs created or maintained.

The second issue concerns the use of the second input page in the TREAT model. This calculation is intended to capture the impacts of all CFLRP funds, including matching funds. For 2012, the only year that the inputs were analyzed, we found that the inputs on this page included only the USFS matching funds but not the matching funds of partners. According to the TREAT handbook, the matching funds and in kind contributions of partners should also be included. Therefore, the numbers produced in the annual report could be underestimated. Whether the jobs should be higher or lower in the report would depend on the magnitude of the over- and underestimations. Lastly, the multipliers used in TREAT have changed since the time that the proposal was written. In order to be able to compare the numbers to the baseline, the baseline should be redone.

Table 17: 2012 TREAT Results Compared to Outcomes Outlined in CBC Proposal for CFLRP Funds (All Funds)

Job Type	Proposal			2012		
	Employment (# of Part and Full-time Jobs)			Employment (# of Part and Full-time Jobs)		
	Direct	Indirect and Induced	Total	Direct	Indirect and Induced	Total
Commercial Forest Products						
Logging	n/a	n/a	n/a	10.1	5.5	15.6
Sawmills	57.3	78.6	135.9	8.1	12.2	20.3
Mills Processing Roundwood and Pulp Wood	5.4	19.7	25	2.6	5.4	8
Facilities Processing Sawmill Residue	23.9	71.8	95.7	3.4	5.3	8.6
Total	**86.6**	**170.1**	**256.7**	**24.2**	**28.3**	**52.5**
Other Project Activities						
Facilities, Watershed, Roads, and Trails	25.4	14.8	40.2	6.4	6.5	12.9
Ecosystem Restoration, Hazardous Fuels, and Forest Health	29.9	7	36.9	51.2	6.9	58
Thinning and Biomass	9.2	3.9	13.1			
Contract Monitoring	4.5	3.7	8.2	2.4	1	3.3
FS Implementation and Monitoring	21.3	15.8	37	29.6	5.5	35.1
Total	**90.3**	**45.3**	**135.6**	**89.5**	**19.8**	**109.5**
Total All Inputs	**176.9**	**215.3**	**392.2**	**113.7**	**48.1**	**161.8**

To find out additional information about the amount of local contracts and amounts, the contractors were classified into primary economic impact area, secondary economic impacts area, and non-local. The percentage of contracts issued in each zone for 2011 and 2012 is depicted in Figure 13 and Figure 14 below. The distribution of the contract dollars is shown in Figure 15 and Figure 16.

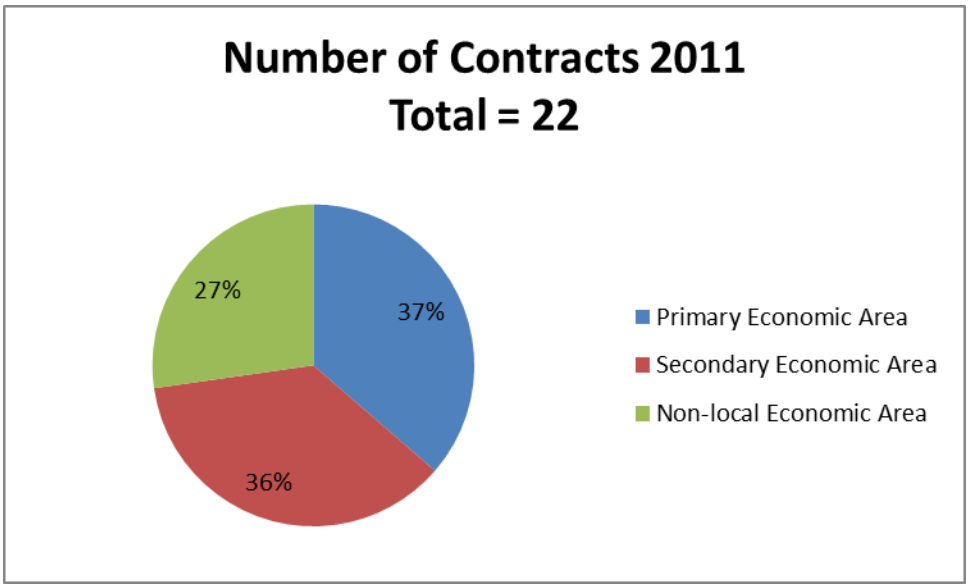

Figure 13: Distribution of Contracts, 2011

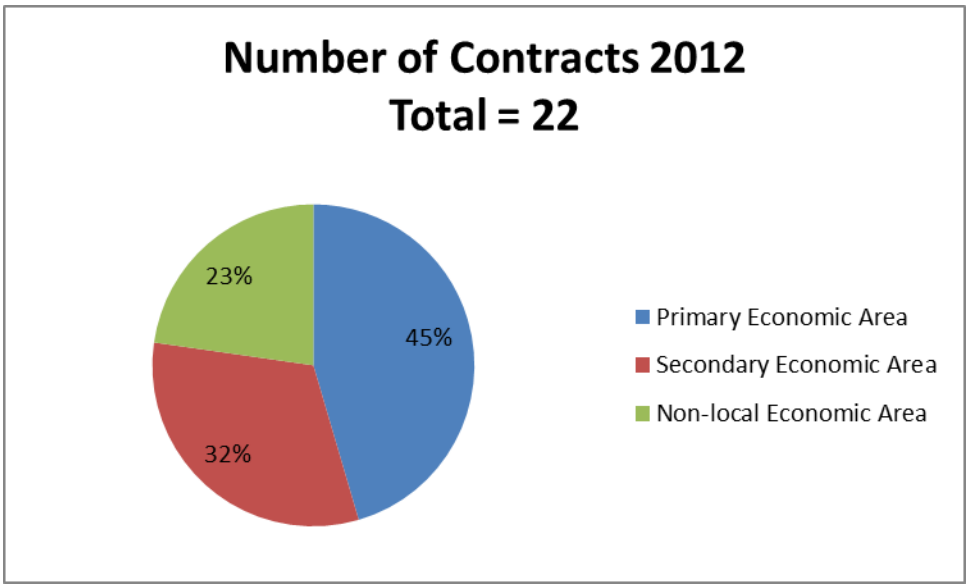

Figure 14: Distribution of Contracts, 2012

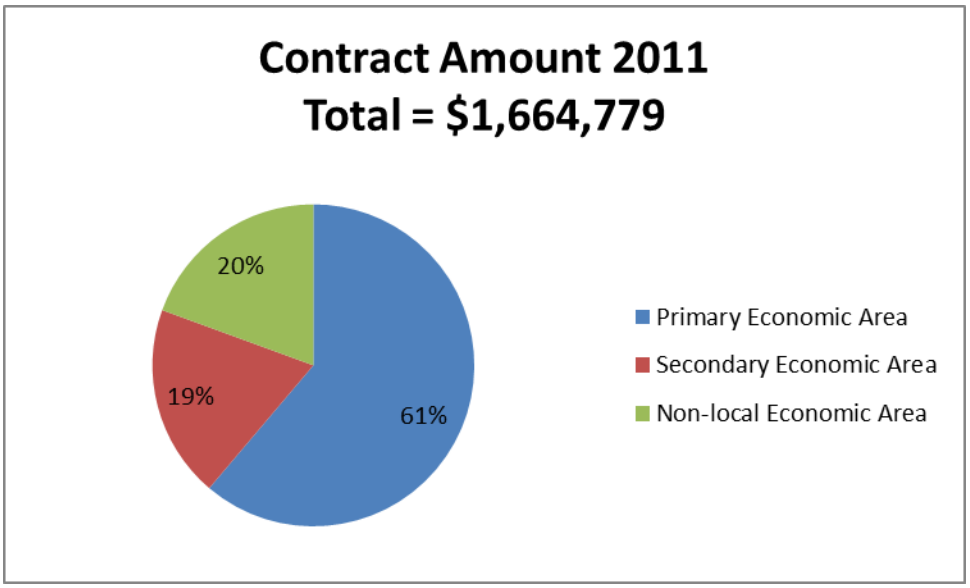

Figure 15: Distribution of Contract Dollars, 2011

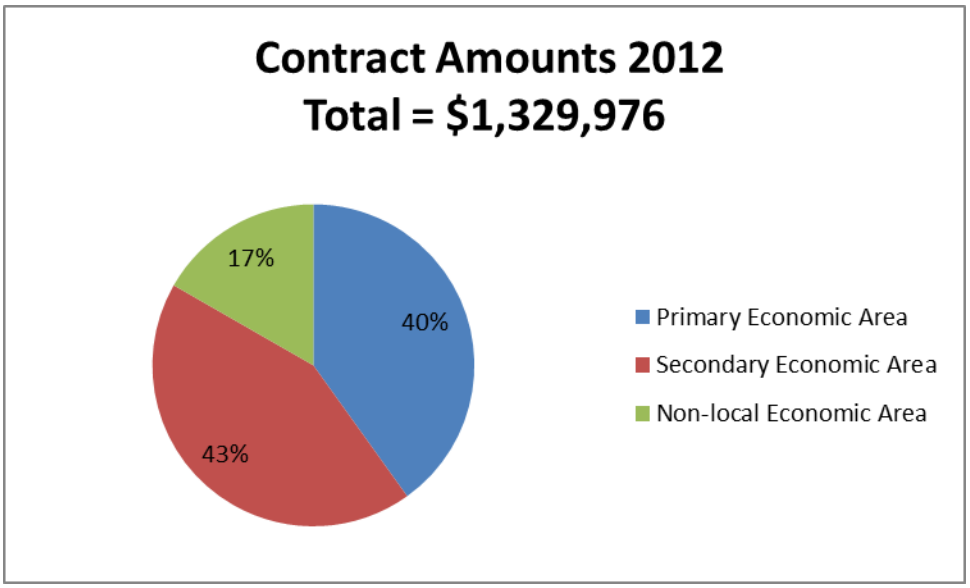

Figure 16: Distribution of Contract Dollars, 2012

In 2011 and 2012 an average of 25% of contracts and 19% of contract funds went to non-local contractors. All of the contractors from Idaho were in the three-county primary economic area and all of those outside of the primary area but within the secondary area were from Missoula. Of the eleven contractors in the primary economic area, three were from Grangeville and the remaining were from the rural cities of Elk City, Craigmont, Peck, White Bird, Harpster, Cottonwood, Kooskia, and Kamiah. To date, subcontractors (hired by the primary contractors) have been identified in Lapwai, Elk City, Orofino, and Kooskia. All of the road work completed has been by contractors within either the primary or secondary economic impact areas.

Figure 17 shows that the average annual unemployment rate in the economic influence area increased from 2009 to 2010, then leveled off in 2011, before decreasing again in 2012 (except in Lewis County, where unemployment continued to increase). Whether the CFLRP project had an influence in these areas is too difficult to model due to the multiplicity of factors influencing total employment on a county level. However, we can look at the primary economic impact areas and assess how many jobs were created in relation to the total employment in the area.

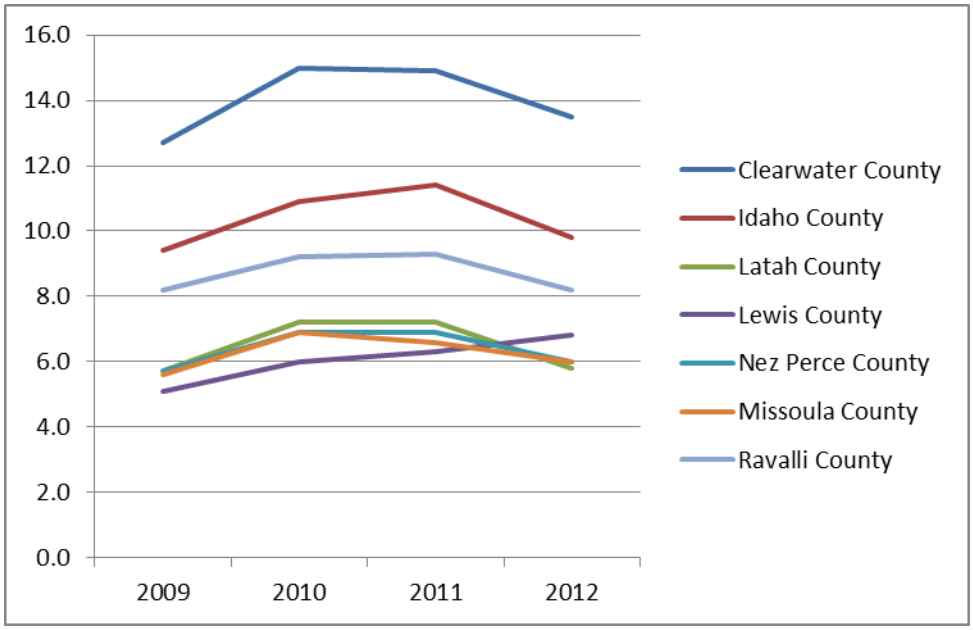

Figure 17: Average Annual Unemployment Rate by County, 2009-2012[9]

[9] Source: Bureau of Labor Statistics, Local Area Unemployment Statistics, 2002-2012.

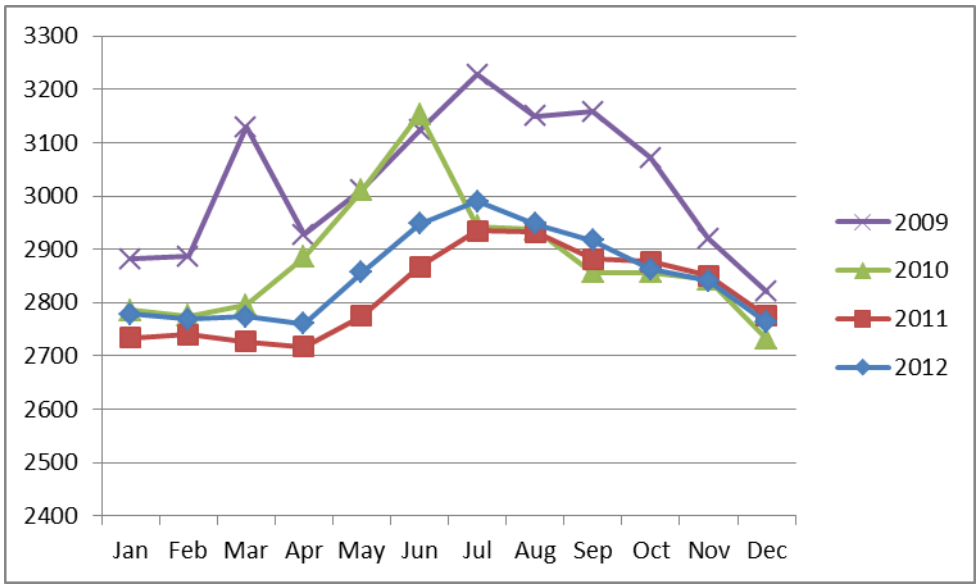

Figure 18: Clearwater County Monthly Employment, 2009-2012[10]

In Clearwater County, employment numbers at the height of the working season (late spring and early summer) was at its lowest in 2010 and 2011 before increasing slightly in 2012. In 2012 there were just under 3,000 persons employed at the height of the working season. In 2009, there were just over 3,200 employed in these months.

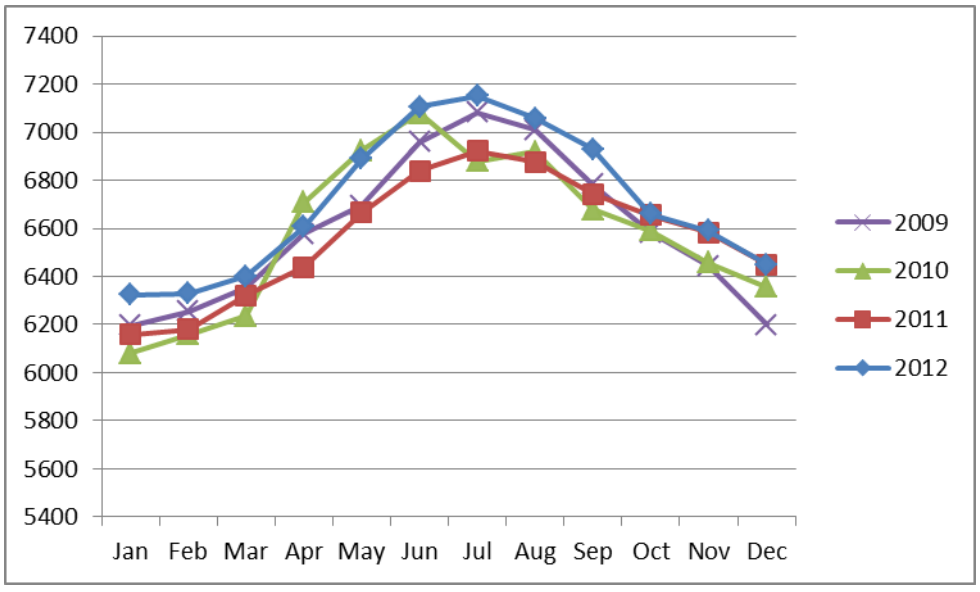

Figure 19: Idaho County Monthly Employment, 2009-2012[11]

[10] Bureau of Labor Statistics, Local Area Unemployment Statistics, 2002-2012.

In Idaho County employment numbers in 2010 and 2011 were also lower than they were in 2009. However, in 2012 the level of employment surpassed what it had been in 2009 in almost all of the months, not only in the spring and summer working season.

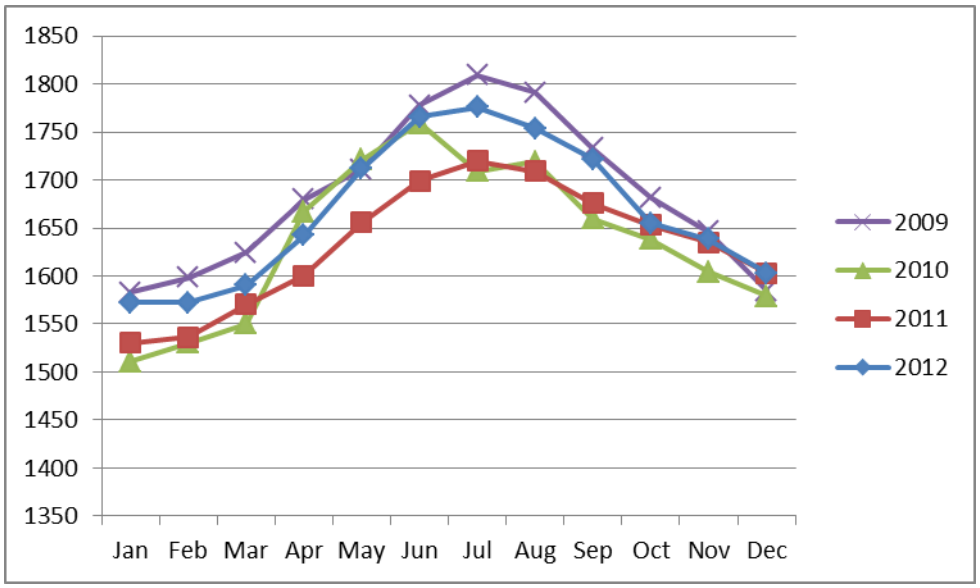

Figure 20: Lewis County Monthly Employment, 2009-2012

Employment in Lewis County appears to follow a similar pattern to Clearwater County.

Additional information on the number of part- and full-time jobs and the location of the workers and subcontractors was obtained through discussions with local contractors and organizations with agreements. Of the eleven contractors in the primary economic area, nine are located in Idaho County, one in Lewis County, and one in Clearwater County. Through discussions with contractors it is estimated that the number of direct part-time jobs created and/or supported was 44 in 2011 and 40 in 2012 in the primary economic impact area and 67 in 2011 and 58 in 2012 in the primary and secondary areas of economic impact are both included.[12] In addition to these direct jobs created by the CFLRP funds, those funds allocated through agreements also assist in the creation and/or maintenance of direct jobs in the project area. In the three interviews that were conducted approximately 30 part-time or seasonal jobs were counted that are directly related to the project area. The Montana Conservation Corps has been able to dedicate 2.5 crews to the project area during the last two years to complete trail maintenance. The

[11] Bureau of Labor Statistics, Local Area Unemployment Statistics, 2002-2012.

[12] In 2011, the number of jobs for engineering and stand exam were estimated at 2 per job and the number of weed spraying at 5 based on information collected from other contractors, these jobs were in the secondary economic impact area. All contractors in the primary economic impact area in 2011 were part of our discussions. In 2012, two road work jobs were estimated at 4 per contract and two trail maintenance jobs were estimated at 1 per contract in the primary economic impact area. In the secondary area of economic impact engineering jobs were estimated at 2 per contract and trail maintenance at 1 per contract.

crews themselves are paid through AmeriCorps; however, the administrative costs required to support the positions are from the CFLRP. The Selway-Bitterroot Foundation has four seasonal employees whose positions are maintained in part through CFLRP funds and the Clearwater Resource Conservations and Development Council has both staff and monitoring subcontractors whose funds the CFLRP assists in creating.

Given the above numbers, the total contribution in direct part-time or seasonal jobs attributable in part to the CLFRP were 97 in 2011 and 98 in 2012. In comparison, the TREAT results indicated that 69.4 and 60 direct part- or full-time jobs were attributable to CFLRP funds in 2011 and 2012 respectively. In looking at the details for 2012 for the TREAT data the most noticeable difference in numbers are those for facilities, watershed, roads, and trails. The input sheets containing the breakdown indicate that 45% of the funds were allocated to this category, yet the results show only 6.4 direct jobs in 2012. With four trail maintenance contracts, at least two road surfacing contracts, and the Fenn Ranger Station Water System Design, in addition to the crews sent by the Montana Conservation Corps to work in the project area, this number seems substantially lower than it should be.

The contractors with whom we spoke offered the following observations which give further insight into the employment and contract figures detailed above.

- Most non-local contractors have bought some supplies and made some small equipment purchases in the area when needed. Also, they either camped or stayed in cabins in the Syringa or Lowell area. The ones that came to the area, spent at least a few weeks there, contributing to the visitor services sectors of the local economy.
- The local contractors feel that they have more of a stake in doing the job correctly, not just according to the cheapest method allowed by the contract. One contractor felt that non-local contractors were more apt to take advantage of the lack of specifics on the best method to complete the work.
- Local contractors bought material and supplies from the closest supplier whenever possible. When materials could not be located within their community they would first try to get them in Lewiston.
- The contractors in the primary economic impact area were more familiar with the CBC and/or the CFLRP than those from the secondary impact area or non-locals. While almost all knew who the CBC was, some were not aware that their individual contract was funded through the CFLRP.
- Contracting officers appear to utilize IDIQ contracts on a frequent basis. This information could be incorporated into future training opportunities for existing and new businesses. The contractor receiving the largest number of contracts of those in the primary economic area is an IDIQ contractor.

There were approximately seven subcontractors identified. Subcontractors were from Orofino, Grangeville, Missoula, Elk City, Harpster, Boise, and Ravalli County.

Discussions with local contractors indicate that only about a fourth of the workers on the CFLRP projects receive health benefits through the workplace. In many of these cases the contractor is also working on the job. On the job training is done for those new to the job only. There was only one related injury and one illness. One person injured their ankle and a group working in the forest had poison oak and had to leave until they had all healed, before returning to the job.

The majority of the jobs related to the project are seasonal, May through October, due to the weather. For the most part, contracts were started and finished within the same season, although some had to go back and finish up the following season. Many work ten hour days and sixty hour weeks during the peak season.

4.2.2 Forest Products Industry

The desired outcome outlined in the Selway-Middle Fork CFLRP proposal was to "provide a stable supply of additional quality inputs into the forest products which will result in opportunities for existing and new businesses and markets." In order to accomplish this goal the target was to produce 120-150 mmbf of saw timber and 340,000 dry tons of biomass over the life of the project (Selway-Middle Fork CFLRP Proposal 2009). In 2012, 3 mmbf were harvested and 1,200 green tons of biomass produced through the Interface Fuels Project in the Syringa and Lowell area (Selway-Middle Fork CFLRP Accomplishments Summary – FY 2012). While under the yearly average given the 10-year life of the project, these products provided inputs for several small custom mills and for Blue North Forest Products, as well as creating jobs for several loggers, fire line workers, and truckers.

The indicators chosen for looking at specific impacts in the region are:

- Diversity, quantity, and stability of wood products supply
- Quantity and diversity of wood products produced locally
- Processing capacity of local wood products manufacturers and value-added industries
- Level and type of public and private investments in forest restoration equipment and technology
- Number and type of value-added organizations and products
- Rate of emerging markets and businesses

According to one timber resource manager, "timber has no value if it is not delivered on time." The ability to count on a stable supply is essential to the wood products industry. The timber harvested in the project area consisted of a diverse mix of products that contributed to the stable supply for small mill operators. Blue North Forest Products received slightly less than 10% of their supply from the project area. In addition, they provided inputs to several other local custom mills. Elk City Wood Products received 25% of their inputs from the Interface Fuels project through Blue North Forest Products. Other mills receiving inputs are located in White Bird, Orofino, and St. Maries.

By providing inputs for several small custom mills the Interface Fuels project helped to contribute to the quantity and diversity of wood products produced locally. Elk City Wood Products produces studs,

flooring, tongue and groove, and decorative boards. The mill in White Bird produces posts and poles, while the mill in St. Maries produces fencing.

The opening of Blue North Forest Products in 2010 created additional capacity in the region. There appear to be new value-added small businesses opening in the area, as the expectation of additional training and the wood supply both increase. Three examples that have begun operations in the last three years are Elk City Wood Products (a small custom mill), Clearwater Cabinets in Kamiah, and a furniture maker in the Stites/Harpster area.

> "It's important to keep small businesses healthy because that's what keeps big businesses healthy"
>
> Non-member mill representative on importance of Clearwater Basin Collaborative work

The commitment in the area to create facilities which can utilize woody biomass for heat and electricity has the ability to create capacity and additional markets for woody biomass. There are currently two such projects moving forward. The first is the facility in Orofino. Clearwater County received additional grant money in November of 2012 for engineering designs for the financing, and construction of the woody biomass facility in Orofino. The award included funds from the USFS ($110,000), a $40,000 Idaho Gem grant ($40,000) as part of the required match, and $6,000 of in-kind contributions from members of the advisory committee (University of Idaho Extension 2012). The county had previously received grant money to conduct a feasibility study, which concluded that a combined heat and power facility was not economical to build, but a heat-only facility was. This grant money means that the area is one step closer to building the facility. According to the University of Idaho Extension, one of the authors of the grant application, communities in Clearwater County hope that the establishment of this facility will encourage and help "the establishments of other woody biomass facilities in the county that will over time provide and economic boost to the county, provide additional markets for forest products, and promote forest management practices that improve forest health" (University of Idaho Extension 2012).

The Elk City Small Business incubator is also proceeding with plans to install a system to create heat and electricity. They are on track to become a testing site for a newly developed system. The Elk City Wood Chip to Synthetic Fuel facility is for construction within the next few years. A 2008 feasibility study showed that heat and power alone does not pencil out in regions where hydropower keep Public Utility Regulatory Policy Act (PURPA) rates low. Elk City's plant will provide heat for its expanded Small Business Incubator and green houses which will grow produce and native seed plants, synthetic fuel and other by-products. Additionally, a technical Operators School to train new facility operators prior to the arrival and operation of their unit will be established in Elk City. The Elk City facility will also be open to university level engineering, resource management and chemistry students for hands on/experiential learning.

4.2.3 Technology and Training

One of the challenges facing the small rural communities in the primary economic impact area is the aging population and workforce. According to one resource manager the average age of their mill

workers is sixty. One of the log hauling companies has had the same core group of drivers for 25 years. Both of these companies, in addition to others that we spoke with are concerned with where they will find qualified workers within the next generation. The desired outcome of the Selway-Middle Fork CFLRP project is to "provide increased opportunities for training in all aspects of forest restoration." The target is to increase the number of qualified contractors, subcontractors, and workforce in all aspects of forest restoration and wood products industry by X amount per year. In order to measure this goal the following indicators are examined:

- Types of equipment used on CFLRP projects and skills required
- Changes in technology and availability of new technology
- Workforce training in safety and equipment
- Number of restoration-related training opportunities offered
- Enrollment in training programs/interest in natural resource fields
- Participation of youth, minority group representatives, or people from low-income communities

Equipment used by contractors and mills has remained pretty stable over the last three years. The only area that technology has evolved is in electronics, which is the nature of electronics. Discussions with contractors and subcontractors have indicated that there are not any new technologies used to date in their contracted work. Contractors are still utilizing their traditional heavy equipment for road and culvert work the primary equipment is heavy equipment, such as excavators, graders, and loaders. For trail work and thinning, chainsaws and trucks.

Figure 21: Executive Director of Framing Our Community, Joyce Dearstyne, Working with Staff and ERG

Within the woods products industry, woody biomass facilities are the leading change in technology. At the forefront of workforce training and equipment are the education centers that are operating and expanding in the primary economic impact area. The education centers that are being considered or are already established are an equipment operator school in Kamiah, traditional skills schools in the Elk City area, a water resource center in Lapwai, a wood to synthetic fuels operator school in the Elk City area, and small business start-up classes in Kamiah. There is a strong interest in incorporating training on how to bid and contract with the Federal government and how to identify potential markets in value-added wood products.

The Selway-Bitterroot Foundation, Idaho Department of Labor, Montana Conservation Corps, and Framing our Community are all participating in training the next generation of forest workers. In each of

the last three years, at least forty youth from 14 to 25 years of age have learned forest restoration skills in as part of the Selway-Middle Fork Project. The youth program administered by the Idaho Department of Labor focuses on youth from low-income families. The Montana Conservation Corps primarily trains young adults in the project area. Framing our Community operates a youth program and focuses on teaching traditional skills to high school ages. The CBC has also committed to establishing a youth program that will be open to everyone and will focus on high school ages.

5. SUGGESTIONS FOR FURTHER RESEARCH

This section outlines and explains suggestions for further monitoring which we developed through the course of our data collection, research, and analysis. Upon reviewing the available data and the manner in which it was produced, we developed an understanding of what types of information are needed, but not currently routinely tracked or available, for rigorous assessment of the socio-economic impacts of CFLRP projects. Suggestions for further research include strengthening the connections between CFLRP funds and the ecological benefits they provide; obtaining more specific information of disbursement of USFS funds; independent tracking of leveraged funds; and tracking the amount of litigation and time spent on NEPA compliance for CFLRP-funded treatments. These suggestions are explained individually below.

Further development of targets for specific indicators and additional follow-up interviews, analysis, and narrative of discussions conducted during the initial monitoring effort.

This report represents an initial monitoring effort to develop baselines and explore impacts of the Selway-Middle Fork CFLRP project. Hours for completing narrative were limited to thirty-two hours. Additional effort in more fully developing the information obtained through the thirty discussions held for this contract would provide a more complete picture of the impacts to local rural communities. Additional allotted time would be spent following through on information obtained during discussions, analyzing and describing impacts to individual communities (such as Harpster, Elk City, and Kooskia), and producing additional narrative of information obtained through discussions.[13]

Determine how disbursed CFLRP funds provide ecological benefits through project specific monitoring.

The connection between treatments funded by CFLRP project funds and the ecological benefits they provide can be articulated in all discussions. It is an opportunity to tie the ecological benefits perceived first-hand by operators to the ecological monitoring aspect of the CFLRP, as monitoring of ecological effects is itself one of the goals of the Selway-Middle Fork project. This would also help gauge whether local contractors have more interest in the ecological improvements provided by the work they complete than non-local contractors do (our interviews indicated this may be the case). The CBC and USFS contracting officers may want to consider changing contract award criteria to weigh in favor of time spent in the area and knowledge of ecological conditions to be preserved as part of treatments.

This could be accomplished by completing socioeconomic monitoring on specific projects in junction with the ecological monitoring. This would be useful for larger scale projects such as the Clear Creek project. It would also be useful in linking the activities completed in the project area within the Bitterroot National Forest to the Clearwater Basin. During the study, it was apparent that the contractors in the Bitterroot area did not realize they were working on the top portion of the Clearwater, nor did they have a connection to the area. Their access to the area was through the Bitterroot rather than over Lolo Pass.

[13] More fully developed targets will be included in the "Selway-Middle Fork CFLRP National Outcomes and Indicators – 2013 Report to the National Forest Foundation."

However, ecological improvements in the top of the watershed should have significant implications for the lower watershed. Providing awareness of the linkages of the two areas would be beneficial for the program.

Keep track of the amount of funds actually distributed (rather than solely allocated) by the USFS.

The current TREAT data includes all contracts awarded and all funds allocated through agreements. During the course of our discussions with contractors and organizations it is apparent that not all funds awarded have been distributed. There are contractors that still have work to complete. The amounts allocated through agreements are in some cases for a five year period. If the USFS provides both awarded (allocated) and distributed, and differentiates between these categories in the TREAT model, a more accurate year-by-year economic impact assessment will be possible.

Monitor leveraged funds.

Due to the time constraints of USFS staff, independent tracking of leveraged funds would provide valuable information on both the economic and social impacts of the Selway-Middle Fork project. Use of community leaders to provide information on investments, both public and private, in local communities, would provide valuable information to both the CBC and the USFS.

Future monitoring required by CFLRP.

The CFLRP requires periodic monitoring. The baseline data collected in this study will be the benchmark for future monitoring. For future monitoring years we would recommend a similar format to that which we completed. For the number of contractors and the size of the communities the discussion format yield qualitative information providing better insight into the impacts of the CBC and CFLRP on the local areas. However, through the discussions that took place there are several modifications suggested for the discussion guides. A recommended set of discussion guides can be found in Appendix B.

During the process it was discovered that the local contractor guide had too many questions and speaking about wages made people uncomfortable and did not provide useful information. Once the person was uncomfortable the answers to the questions were abbreviated. Therefore those questions have been removed. For construction projects contractors are required to use Davis-Bacon wages which can be found in public records. The most useful data was the number of jobs created or maintained, rather than the wages. During this cycle of monitoring there was little to no knowledge that they were working on a CFLRP project, so most of those questions yielded very little about whether they had worked on other CFLRP projects. These questions are still included as it is assumed that in the next cycle contractors will be more aware of the CFLRP.

The guide for organizations that receive funding through agreements is revised to find out more information on the number of people that work or volunteer within the project area, the types of training they provide and to whom, the length of their partnership agreement and the amount of funds reimbursed through the agreement each year. For non-local contractors the question on their contact with local communities is expanded to discern more details on where they spent money in the local area.

The wood products industry contains the most modifications. The guide proved too long with multiple questions asking the same information. And most of the form was applicable to mills, but not to value-added businesses. In future years there should be additional interviews with value-added businesses that have been impacted by the CFRLP project.

6. SUGGESTIONS FOR ADAPTIVE MANAGEMENT

We have three suggestions for adaptive management: increasing communication with contracting officers, increasing communication with the CFLRP local contractors and workforce during completion of projects, and fine-tuning the TREAT model to better reflect the counties socio-economically affected by project activities. These suggestions are discussed below.

Increased Communication between CBC and Contracting Officers

As the primary point of contact, it is important that the contracting officers are familiar with and understand the CFLRP program. They are the primary source of information, or starting point, for tracing economic impacts over time. With the consolidation of the Nez Perce and Clearwater National Forests, there will be only two offices administering contracts for the Selway-Bitterroot CFLRP project: the Nez Perce-Clearwater National Forest and the Bitterroot National Forest. Since an increasing amount of funds are being utilized by the Bitterroot, it will be important to gauge the Ravalli County contractors' connection to the Clearwater Basin.

The contracting officers are also a wealth of information on contracts. The contract could be a place that specific questions could be addressed to contractors. About one third of the contractors that were contacted in our data collection process were unfamiliar with the CFLRP. Most contractors in the Clearwater Basin were familiar with the CBC, but few with the CFLRP. In most cases, and even if they had heard of it, they were not really sure of the meaning of the acronym or aware of the program.

CBC Communication with CFLRP Local Contractors and Workforce

Through site visits during completion of work the CBC could conduct more accurate socio-economic monitoring of direct and indirect impacts of the CFLRP funds through observation and at the same time provide education on the program to contractors and workforce. Observing the number of people on a job and having a contractor show the person conducting the monitoring would provide both more accurate data and more personal stories. By providing contractors and their workforces information on the CFLRP and their connection to the program a positive image of the program will spread more quickly through the communities.

Increase educational outreach in school age children in fields such as biological sciences, surveying, and engineering. And encourage small business start-ups in these areas.

One method of increasing local capture of contracts by the rural communities in the primary economic impact area is to encourage training and small business start-ups in professional fields such as wildlife biology, history, engineering, etc.

Fine-tuning the TREAT Model

The counties of economic influence used in the TREAT program are currently Clearwater, Idaho, Lewis, Nez Perce, Asotin, and Ravalli. The first year that the TREAT program was used the multipliers utilized were the same across all CFLRP programs. In the second year, project-specific multipliers were

developed using the counties that were determined to be the area of economic influence. We recommend that the USFS consider changing the counties to those used as the secondary economic impact area in this report. There is evidence of the flow of goods and people from both Missoula and Latah Counties to the project area, but little to no evidence of the flow of goods or people from Asotin County to the project area. Therefore, for the purposes of monitoring economic impacts of the program, it is recommended that Asotin County be removed from the area and Missoula and Latah County be added. While there were no direct impacts associated with Asotin County, there are partnership agreements and contractors located in both Latah County and Missoula County.

As changes are made to the TREAT model, the inputs from the proposal should be redone in order to facilitate comparison of impacts to outcomes and targets.

7. REFERENCES

CFLR Projects. Washington Office of Forest Management, eds. 2011. Collaborative Forest Landscape Restoration Program national outcomes and indicators process and proposal. CFLRP Projects Conference, Denver, Colorado, July 7, 2011.

Clearwater Basin Collaborative. 2010. Final Selway-Middle Fork Clearwater CFLRP Proposal. 05/17.

———. 2011. Selway - Middle Fork CFLRP work plan.

Gebert, Krista and Keith Stockmann. USFS Northern Region. 2011. *TREAT: Treatments for Restoration Economic Analysis Tool User Guide: Modeling Jobs and Labor Income Associated with CFLR/N Funds and Full Projects*. 10/11.

Maxwell, J. A. 1996. *Qualitative research design: An interactive approach.* Thousand Oaks, CA: Sage.

United States Department of Labor. Bureau of Labor Statistics. 2013. *Average Annual Employment Statistics*. http://www.bls.gov/. (accessed March 5, 2013).

University of Idaho Extension, Clearwater County. 2012. Idaho community effort results in acquisition of woody biomass grant. Forest Business Network: the source for forest product industry professionals. November 18. https://www.forestbusinessnetwork.com/23807/idaho-community-effort-results-in-acquisition-of-woody-biomass-grant/ (accessed March 5, 2013).

USDA. Forest Service. 2010. CFLRP annual report: 2010.

———. Forest Service. 2011. CFLRP annual report: 2011.

———. United States Forest Service. 2012a. Draft Nez Perce-Clearwater National Forest Forest Plan Assessment Section 6.0 Socioeconomic Conditions and Trends. 10/26.

———. United States Forest Service. 2012b. Nez Perce and Clearwater National Forests Forest Plan Revision Social and Economic Specialist Report Assessment Information. July.

———. Forest Service. 2013. *Collaborative Forest Landscape Restoration Program Glossary*. http://www.fs.fed.us/restoration/CFLRP/glossary.shtml. (accessed March 5, 2013).

APPENDIX A:

QUALITATIVE SOCIO-ECONOMIC IMPACTS DISCUSSION GUIDES

MEMORANDUM

To: Collaborative Forest Landscape Restoration Partner

From: Ecosystem Research Group

Date: January 10, 2013

Re: Economic Monitoring of Collaborative Forest Landscape Restoration Program Funds

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Ecosystem Research Group is participating in a study of the economic impacts of the Collaborative Forest Landscape Restoration (CFLR) Program in the Clearwater Basin. Our work is being funded by the Clearwater Basin Collaborative (CBC). We are conducting interviews in order to better understand the geographic disbursement and measureable impacts of the Program. It is the intent of the CBC to use this information to improve local capture of funds provided through this Program.

Your company or organization has been identified as having received either direct or indirect benefits from this Program. As you are aware, the communities within the Clearwater Basin are small. Your input is extremely important to the process. We have put together the following short questionnaire. We are hoping to be able to spend an hour with a representative of your organization to go through these questions. We have filled out the information that we already know in order to take up as little of your time as possible.

Interview Questions for Organizations that receive funds through Agreements

Date of Interview:

Attendees Present:

Organization Name:

City, State, Zip:

Project Title(s):

CFLR Fund Amount(s):

Project Location(s):

1. Can you describe your relationship with the CBC and the CFLR Program?

2. Can you describe the enrollment in training programs/interest in natural resources fields that are a result of your participation in the CFLR Program?

3. How would you characterize the participation of youth, minority interest groups, or people from low income communities?

4. What is the largest impact of the additional CFLR funds to the reforestation work that you do?

5. Do you use CFLR funds to hire subcontractors? How many subcontractors? Where are they located?

6. What percentage of your project is completed by your employees? Subcontractors? Volunteers?

MEMORANDUM

To: Collaborative Forest Landscape Restoration Local Contractors

From: Ecosystem Research Group

Date: January 10, 2013

Re: Economic Monitoring of Collaborative Forest Landscape Restoration Program Funds

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Ecosystem Research Group (ERG) is participating in a study of the economic impacts of the Collaborative Forest Landscape Restoration (CFLR) Program in the Clearwater Basin. Our work is being funded by the Clearwater Basin Collaborative (CBC). We are conducting interviews in order to better understand the geographic disbursement and measureable impacts of the CFLR Program. It is the intent of the CBC to use this information to improve local capture of funds provided.

Your company or organization has been identified as having received either direct or indirect benefits from this Program. As you are aware, the communities within the Clearwater Basin are small. Your input is extremely important to the process. We have put together the following short questionnaire. We are hoping to be able to spend an hour with a representative of your organization to go through these questions. We have filled out the information that we already know in order to take up as little of your time as possible.

Restoration Contractor Survey and Interview Form

Date of Interview:

Attendees Present:

Contractor Name:

City, State, Zip:

Project Title:

Contract #(s):

Contract Amount(s):

Project Location(s):

Bid Date(s):

Start Date(s):

End Date(s):

1. What was your scope of work?

2. Table for each type of job paid for using project funds

Job Title	Number of Employees	Number of Local Employees	Health Insurance (y/n)	Total Person Hours	Total Wages Paid

3. What geographic area would you consider local to the project area?

4. What type of equipment did you use on the project?

5. Were on the job training activities offered? What types? Were any of them specific to forest restoration?

6. Were there any job related injuries or illness during this contract?

7. Table for subcontractors paid using project funds

Description of Work	Contact Name (if possible)	Business Zip Code	Subcontract Amount

Interview Discussion Topics

8. How many CFLRP projects have you been involved with? How are they different for your company?

9. What types of equipment, material, and supplies were needed to complete work? Where were they purchased?

10. Was work completed continuously or only during certain seasons or months?

11. What, if any, changes in technology and availability of new technology have you seen in the last few years?

12. What is your knowledge of value-added organizations within the local area?

13. Have you seen the emergence of new markets or products?

14. Would you allow us to interview any of your local employees? Subcontractors?

MEMORANDUM

To: Clearwater Basin Wood Processing Facilities

From: Ecosystem Research Group

Date: January 15, 2013

Re: Economic Monitoring of Collaborative Forest Landscape Restoration Program Funds – Questions for Forest Industry

---

Ecosystem Research Group (ERG) is participating in a study of the economic impacts of the Collaborative Forest Landscape Restoration (CFLR) Program in the Clearwater Basin. Our work is being funded by the Clearwater Basin Collaborative (CBC). We are conducting interviews in order to better understand the geographic disbursement and measureable impacts of the CFLR Program. It is the intent of the CBC to use this information to improve local capture of funds provided.

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Restoration Contractor Survey and Interview Form

Date of Interview:

Attendees Present:

Contractor Name:

City, State, Zip:

Project Title:

Contract #(s):

Contract Amount(s):

Project Location(s):

Bid Date(s):

Start Date(s):

End Date(s):

Questionnaire for Forest Industry Firms

1. **INPUTS—**ANNUAL STUMPAGE/LOG INPUT (VOLUME)

Species Mix

Species	Percentage
Ponderosa Pine	
Lodgepole Pine	
Hemlock	
Spruce	
White Spruce	
Cedar	
White Fir	
Red Fir	
Other	

Sources of Input

Source	Percentage
State	
Private	
Forest Service	
Tribal	
Selway-Middle Fork CFLRP Project	
Other	

2. **Location of Inputs:** (Circle all that apply)

Idaho

Montana

Washington

Other

3. **Volume of Input**

Source	MMBF
State	
Private	
Forest Service	
Tribal	
Other	

4. What is your current radius of operation?

5. **Products**: Configuration for annual volume output (output per year lumber tally)

Total Volume:

Product mix (% each product)

a)
b)
c)
d)

Species mix (% used)

a)
b)
c)
d)

Finished product type:

Finished product market location:

6. **Technology**: (technological improvements—changes in processes, mechanization, etc.)

   Expected future improvements:

   Degree of mechanization—labor vs. capital

7. Are you at total capacity? If, not give percentage of operation.

8. How many shifts do you operate?

9. Plant production (volume of output):

10. Plant Employment:

Number of full time employees:

Hours of part-time employees:

Labor Contracted:

11. Do you serve specialty markets?

12. Revenue/MMFB

13. Are you familiar with the CFLR program and what is your experience with the program?

14. Amount of product that is obtained from forest restoration projects? And CFLR projects specifically?

MEMORANDUM

To: Collaborative Forest Landscape Restoration Non-Local Contractors

From: Ecosystem Research Group

Date: January 10, 2013

Re: Economic Monitoring of Collaborative Forest Landscape Restoration Program Funds

---

Ecosystem Research Group (ERG) is participating in a study of the economic impacts of the Collaborative Forest Landscape Restoration (CFLR) Program in the Clearwater Basin. Our work is being funded by the Clearwater Basin Collaborative (CBC). We are conducting interviews in order to better understand the geographic disbursement and measureable impacts of the CFLR Program. It is the intent of the CBC to use this information to improve local capture of funds provided.

Your company or organization has been identified as having received either direct or indirect benefits from this Program. As you are aware, the communities within the Clearwater Basin are small. Your input is extremely important to the process. We have put together the following short questionnaire. We are hoping to be able to spend an hour with a representative of your organization to go through these questions. We have filled out the information that we already know in order to take up as little of your time as possible.

Non-local Restoration Contractor Survey and Interview Form

Date of Interview:

Attendees Present:

Contractor Name:

City, State, Zip:

Project Title:

Contract #(s):

Contract Amount(s):

Project Location(s):

Bid Date(s):

Start Date(s):

End Date(s):

1. What is or was your familiarity with the Clearwater Basin prior to your contract?

2. What was your contact with the communities of the Basin during your project?

3. What is your businesses connection to the forest restoration industry? Familiarity with CFLRP and CBC?

4. Did you work with any local businesses? Did you hire any local employees? Subcontractors?

APPENDIX B:

QUALITATIVE SOCIO-ECONOMIC IMPACTS REVISED DISCUSSION GUIDES

MEMORANDUM

To: Collaborative Forest Landscape Restoration Partner

From: Ecosystem Research Group

Date: January 10, 2013

Re: Economic Monitoring of Collaborative Forest Landscape Restoration Program Funds

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Ecosystem Research Group is participating in a study of the economic impacts of the Collaborative Forest Landscape Restoration (CFLR) Program in the Clearwater Basin. Our work is being funded by the Clearwater Basin Collaborative (CBC). We are conducting interviews in order to better understand the geographic disbursement and measureable impacts of the Program. It is the intent of the CBC to use this information to improve local capture of funds provided through this Program.

Your company or organization has been identified as having received either direct or indirect benefits from this Program. As you are aware, the communities within the Clearwater Basin are small. Your input is extremely important to the process. We have put together the following short questionnaire. We are hoping to be able to spend an hour with a representative of your organization to go through these questions. We have filled out the information that we already know in order to take up as little of your time as possible.

Discussion Questions for Organizations that receive funds through Agreements

Date of Interview:

Attendees Present:

Organization Name:

City, State, Zip:

Project Title(s):

CFLR Fund Amount(s):

Project Location(s):

7. Can you describe your relationship with the CBC and the CFLR Program?

8. Can you describe the type of work that you do in connection with CFLR Program?

9. How would you characterize the participation of youth, minority interest groups, or people from low income communities?

10. What is the largest impact of the additional CFLR funds to the work that you do?

11. Do you use CFLR funds to hire subcontractors? How many subcontractors? Where are they located?

12. What percentage of your project is completed by your employees? Subcontractors? Volunteers?

MEMORANDUM

To: Collaborative Forest Landscape Restoration Local Contractors

From: Ecosystem Research Group

Date: January 10, 2013

Re: Economic Monitoring of Collaborative Forest Landscape Restoration Program Funds

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Restoration Contractor Survey and Interview Form

Date of Interview:

Attendees Present:

Contractor Name:

City, State, Zip:

Project Title:

Contract #(s):

Contract Amount(s):

Project Location(s):

1. What was your scope of work?

2. Table for each type of job paid for using project funds

Job Title	Number of Employees	Number and location of Local Employees	Health Insurance (y/n)	Total Person Hours

3. What type of equipment did you use on the project? Has your equipment changed over the last 5 years?

4. Were on the job training activities offered? What types? Were any of them specific to forest restoration?

5. Were there any job related injuries or illness during this contract?

6. Table for subcontractors paid using project funds

Description of Work	Contact Name (if possible)	Business Zip Code	Subcontract Amount

Description of Work	Contact Name (if possible)	Business Zip Code	Subcontract Amount

Discussion Topics

7. How many CFLRP projects have you been involved with? How are they different for your company?

8. What types of material and supplies were needed to complete work? Where were they purchased?

9. Was work completed continuously or only during certain seasons or months?

10. What, if any, changes in technology and availability of new technology have you seen in the last few years?

11. Would you allow us to interview any of your local employees? Subcontractors?

MEMORANDUM

To: Clearwater Basin Wood Processing Facilities

From: Ecosystem Research Group

Date: January 15, 2013

Re: Economic Monitoring of Collaborative Forest Landscape Restoration Program Funds – Questions for Forest Industry

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Restoration Contractor Discussion Guide

Date of Interview:

Attendees Present:

Contractor Name:

City, State, Zip:

Project Title:

Contract #(s):

End Date(s):

Discussion Guide for Forest Industry Firms

1. What is your primary business and relation to forest restoration industry?

2. **Inputs—**annual stumpage/log input (volume)

Species Mix

Species	Percentage
Ponderosa Pine	
Lodgepole Pine	
Hemlock	
Spruce	
White Spruce	
Cedar	
White Fir	
Red Fir	
Other	

Sources of Input

Source	Percentage	Volume (MMBF)
State		
Private		
Forest Service		
Tribal		
Selway-Middle Fork CFLRP Project		
Other		

3. Source of Inputs

Location	Percentage
Idaho	
Montana	
Washington	
Other	

4. What is your current radius of operation?
5. **Products**: Configuration for annual volume output (output per year lumber tally)

Finished product market location:

6. **Technology**: (technological improvements—changes in processes, mechanization, etc.)

Expected future improvements:

Degree of mechanization—labor vs. capital

7. Are you at total capacity? If, not give percentage of operation.

8. **Employees:**

Number of full time employees:

Labor Contracted:

9. Do you serve specialty markets?

10. Are you familiar with the CFLR program and what is your experience with the program?

11. Amount of product that is obtained from forest restoration projects? And CFLR projects specifically?

MEMORANDUM

To: Collaborative Forest Landscape Restoration Non-Local Contractors

From: Ecosystem Research Group

Date: January 10, 2013

Re: Economic Monitoring of Collaborative Forest Landscape Restoration Program Funds

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Non-local Restoration Contractor Survey and Interview Form

Date of Interview:

Attendees Present:

Contractor Name:

City, State, Zip:

Project Title:

Contract #(s):

Contract Amount(s):

Project Location(s):

1. What is or was your familiarity with the Clearwater Basin prior to your contract?

2. What was your contact with the communities of the Basin during your project? Where and how long did you stay in the area? Did you rent or purchase any equipment? Etc.

3. What is your businesses connection to the forest restoration industry? Familiarity with CFLRP and CBC?

4. Did you work with any local businesses? Did you hire any local employees? Subcontractors?