

Appendix A: Record of Decision Indicators Monitored

The Northwest Forest Plan (the Plan) record of decision (ROD) specified a set of indicators to be monitored to answer the question, Are local communities and economies experiencing positive or negative changes that may be associated with federal forest management? The ROD lists the key items to monitor as being demographics, employment, government revenues, facilities and infrastructure, social service burden, federal assistance programs, business trends, and taxes (USDA and USDI 1994: E-9). Phases I and II of the socioeconomic monitoring program attempted to assess these indicators, with mixed results (see Sommers 2001, Sommers et al. 2002).

Phase III of the monitoring program upon which this interpretive report is based monitored demographics, employment, and federal assistance programs (the Northwest Economic Adjustment Initiative). It did not, however, monitor the other indicators.

The social service burden refers to items such as welfare roll changes, aid to dependent children, poverty rates, food stamps, subsidized counseling, school lunches, alcoholism, and domestic violence. The team did monitor poverty rates. However, monitoring the other indicators requires obtaining data from different sources in different states, counties, and/or communities, raising problems of inconsistency between geographic areas. Furthermore, these data did not often pertain to the “communities” that we had delineated, which were based on census block-group aggregates, creating problems of scale. We used the U.S. census as our primary source of social and economic indicator data, and the census does not contain data on many of the social service burden indicators.

Indicator data for the other variables listed are available, and are potentially good indicators of socioeconomic well-being. However, most of the readily available data are

available only at the county, state, or federal scales—not at the community scale, which is the primary unit of analysis in volume III and is pertinent for addressing the monitoring question. To understand socioeconomic change at the local, community scale and how it is linked to federal forest management, the indicator data that only can be used to portray broader-scale trends are not useful.

References

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- U.S. Department of Agriculture, Forest Service; U.S. Department of the Interior, Bureau of Land Management [USDA and USDI]. 1994.** Final supplemental environmental impact statement on management of habitat for late-successional and old-growth forest related species within the range of the northern spotted owl. Portland, OR: Vol. 1. [Irregular pagination].

Appendix B: Methods for Choosing Case Studies

Methods for Choosing Case-Study Forests

Case-study forests were chosen to represent one national forest in each of the three states that lie within the Northwest Forest Plan (the Plan) area, and one Bureau of Land Management (BLM) unit in Oregon, the only place that the BLM has significant land holdings inside the Plan area. They were also chosen to represent different provinces (the Plan area is broken up into 12 planning provinces). The monitoring program sent a letter to all of the national forests and BLM districts in the Plan area asking for volunteers to participate in socioeconomic monitoring. We took this approach because the monitoring effort was considered a pilot program, and we wanted to conduct it on forests that were interested in participating and making use of the resultant information. Two of the four case-study forests volunteered to participate, and were chosen for that reason (the Olympic and the Mount Hood National Forests). The Klamath National Forest was chosen because it was previously a high timber-producing forest, and the forest supervisor was supportive of social science work. The Coos Bay District was chosen because the BLM Oregon State office recommended it.

Methods for Choosing Case-Study Communities

Case-study communities associated with each forest were chosen on the basis of a number of criteria. First, the team identified a sampling frame of communities that included all of the community block-group aggregates (BGAs) whose polygons lay, at least partially, within a 10-mile radius of the case-study forest boundaries. The team chose this distance because it wanted to focus the monitoring work in forest-based communities, and assumed that communities close to federal forests would have social, economic, or cultural ties to those forests. We then met with agency employees from each case-study forest and showed them our sample frame. We discussed which of the communities within our sample frame currently or historically maintained some kind of relations with the case-study forest

and the managing agency, and which did not exhibit any relationship with the forest. This process narrowed our sample frame.

We selected three communities associated with each case-study forest from the sample frame for monitoring because time and budget constraints did not allow for a larger community sample. We recognize, however, that in choosing only three communities around each forest, we did not capture all of the variation in community “types,” or in community-forest relations in each case-study area. Case-study communities were chosen randomly from a stratified sample. We stratified communities within the sample frame on the basis of their socioeconomic well-being score in 1990, by using three categories: high, medium, and low. We randomly chose one community from each stratum, unless there were no communities in one of the strata (one case-study forest did not have any communities that measured high in socioeconomic well-being in 1990). In this case, we randomly chose two communities from the stratum that contained the largest number of communities, which generally was the middle category.

Once we selected the case-study communities randomly, we visited them and talked with community members to determine whether the community did indeed have historical and present ties to the case-study forest. We also used the interview process to determine how the communities should be defined for case-study purposes. The community BGA delineations were used for initially selecting case communities on a random basis; however, the model we used did not necessarily correspond geographically to the place that community members considered to be “their community.” Thus the BGA community delineations were starting points for defining study communities, but we adjusted those definitions according to how local residents conceptualized their community. In many cases, we further aggregated the original randomly chosen BGA with surrounding BGAs in response to feedback from local residents to ultimately define the case-study community boundaries.

Appendix C: Methods Used in Chapter Analyses

Methods Used in Chapter 2, Socioeconomic Trends in Northwest Forest Plan Area Communities

The methods used to undertake the analysis in chapter 2 are detailed enough to warrant being published separately as a Pacific Northwest Research Station Research Note (Donoghue and Sutton, n.d.). We briefly summarize these methods below.

Aggregations of census block groups were used to define “communities” in the Northwest Forest Plan (the Plan) region. The block-group aggregations (BGAs) were examined at a number of scales as part of a regional analysis and the case-study analysis found elsewhere in the report. The scales include all BGAs, BGAs representing case-study communities, and BGAs near the case-study public forests.

To develop the BGA unit of analysis that would delineate community boundaries in the Plan region, 1990 census block groups were aggregated by using a geographic information system (GIS) and visual review (Donoghue 2003). Note that the 2000 block-group boundaries differ from the 1990 block-group boundaries, primarily because of changes in population. To conduct a temporal analysis, we first had to make the 1990 and 2000 data compatible. We used a method based on population proportions. Because a census block is the smallest geographic unit for which census data are tabulated, it is the unit that most accurately shows the distribution of population within a given area. The calculation of the percentage of a block found within a BGA assumes that the population is evenly distributed within a block, although this is not the case. However, blocks represent the closest census designation to the actual distribution of population on the ground.

To calculate the proportion of each 2000 block-group population found within each 1990 BGA boundary, we (1) calculated the proportion of each 2000 block found within BGA boundaries; (2) using this proportion, calculated the population of each 2000 block found within BGA boundaries; (3) calculated the total 2000 block-group population found within each BGA; and (4) determined the proportion of 2000 block-group population found within a BGA by comparing it to each total 2000 block-group population.

A similar procedure was completed to determine the proportion of 2000 block-group households found within a BGA because some census indicators are based on households, rather than population.

The proportions were used to develop many socioeconomic indicators and measures for 1990 and 2000. This allowed researchers to evaluate changes in communities at several scales. Some of the indicators and measures generated included total population, school enrollment, percentage that completed high school, percentage with a Bachelor’s degree or higher, percentage unemployed, employment by industry, household income distribution, median household income, percentage in poverty, age distribution, median age, and race and ethnicity. Unfortunately, some census variables are defined differently for each census. For instance, race was collected differently in 1990 and 2000, and employment by industry was classified differently in these years. For some indicators like these, data preprocessing was required in order to use the data in the analysis.

In addition, a socioeconomic well-being index was developed and analyzed locally and regionally. It combined several measures to monitor community socioeconomic well-being based on current conditions and change. See volume III, chapter 2, table 2-3 for descriptions of the six variables that make up the index. Several regional social assessments have examined community socioeconomic status and included measures that we did not include in our community socioeconomic well-being index (Doak and Kusel 1996, 1997). For instance, we did not use the educational attainment and poverty intensity measures developed for the socioeconomic index in the Sierra Nevada Ecosystem Project social assessment (Doak and Kusel 1996) because in the Plan region, educational attainment was highly correlated with percentage of population with a bachelor’s degree or higher (Pearson $r = 0.906$, $p < 0.0001$). Similarly, poverty intensity (Doak and Kusel 1996) was highly correlated with percentage of the population living in poverty (Pearson $r = 0.87$, $p < 0.0002$). We also did not use an indicator reflecting children in homes receiving public assistance, used in the Sierra Nevada Ecosystem Project assessment (Doak and Kusel 1996), because supplemental income was reported

differently in 1990 and 2000 censuses. And we did not use an indicator for housing tenure (Doak and Kusel 1996) because we were not confident that home ownership in some areas contributed positively to well-being, particularly if home ownership affected job mobility. Although we recognized that census data on income might be problematic because of underreporting of interest, dividends, and public assistance income, we believe underreporting would be less of an issue for a measure that was based on how communities were doing relative to each other. Thus, we developed a measure for community income inequality based on census data for household income. The values for each indicator that make up our socioeconomic well-being index were standardized by using z-scores (the number of standard deviations a value is above or below the mean). After standardization, each indicator was normalized to a base of 100 to reduce the effect of outliers.

Some of the indicators we used in our analysis are described in detail in the report or elsewhere (Donoghue and Sutton, n.d.). Descriptions of several indicators are provided here as reference. For the 2000 census, population by race was the total number of people within each of the following mutually exclusive categories: White, Black, American Indian, Eskimo or Aleut, Asian or Pacific Islander, “other” race, and two or more races. Race as used by the census reflects self-identification and includes racial, national origin, or sociocultural groups.

For total population, we used the summary statistics from the long form. The sample data were weighted to represent the total population. Median age of the community was calculated by using a median calculation for grouped data based on age categories provided by the census. School enrollment was the number of persons enrolled in preprimary school, elementary, or high school at the time of the census. Percentage graduated high school is the percentage of the population 25 years and older that have graduated from high school.

Age distribution is the number of people within the age distribution categories. We grouped the census categories to produce six classes for both 1990 and 2000. For each census, age was reported based on the age of the person

at the time of the census. The following were our six age classes: ages 0 to 4 years, ages 5 to 19 years, ages 20 to 29 years, ages 30 to 44 years, ages 45 to 64 years, ages 65 years and up.

For household income, information on income received during the year prior to the census was requested from persons 15 years old and over. Total income is the sum of the wage or salary; net nonfarm self-employment income; net farm self-employment income; interest; dividend, or net rental or royalty income; Social Security; public assistance or welfare; retirement or disability; and all other income. Incomes for each member of a household were aggregated, resulting in the total income per household. One household includes all persons who occupy one housing unit (i.e., a house, apartment, mobile home, a group of rooms, or a single room). The number of households within each income distribution category was reported based on the following categories: less than \$10,000, 10,000 to \$14,999, \$15,000 to \$24,999, \$25,000 to \$34,999, \$35,000 to \$49,999, \$50,000 to \$74,999, \$75,000 to \$99,999, \$100,000 to \$149,999, and \$150,000 or more. For the 1990 census, median household income was based on income in 1989 that was adjusted for inflation to 2000 dollars. For the 2000 census, median household income was the median from 1999 in 2000 dollars.

We wanted to assess changes in socioeconomic well-being based on the proximity of communities in the Plan region to Forest Service (FS) and Bureau of Land Management (BLM) lands. To characterize proximity, we used feedback from forest managers that was gathered as we built the sample frame for community case-study selection for each of the four case-study forests. We determined that most communities within 5 miles of FS and BLM lands had strong connections (i.e., recreation, timber, aesthetics, watersheds) to nearby forests. Although connections to forests for communities greater than 5 miles exist, they were not as strong for many communities, or the communities were so diverse that the connection to forest resources were not dominant. Given the scale of the analysis (1,314 communities in 72 counties), we had to decide on a buffer size that would allow us to characterize communities

in a reasonable fashion. We used GIS to draw a 5-mile buffer around each of the FS and BLM lands to determine which communities were in proximity. The communities were represented by points located at the major population centers for each BGA. We did not use the community polygons in this analysis because the population within a BGA is not evenly distributed over the entire community. Therefore, overlaying the community points with the 5-mile buffer captured those communities with a majority of the population within the buffer. The community population centers that fell within the buffer were the communities in proximity (≤ 5 miles); the communities outside the buffer were characterized as communities relatively farther away from FS and BLM lands.

We generated t-tests, correlations, and frequency tables for the socioeconomic well-being index and the other socioeconomic indicators by region, proximity to forests, and time. Additionally, we generated maps to spatiotemporally evaluate the data. One of our maps uses points to represent moments or time stamps of socioeconomic well-being status at the major population centers of the communities. It also uses the points to represent the static locations of continuing events and arrows to illustrate the temporal aspects and directions of change in the values of community socioeconomic well-being.

Methods Used in Chapter 4, Agency Jobs, Unit Reorganizations, and Budgets

Raw data used as the basis for the analysis have been archived as part of the interagency regional monitoring effort.

Limitations to the Staffing Data and Analysis

Data classifying full-time equivalents (FTEs) into permanent full-time (PFT) and “other” positions were not readily available for FS Pacific Northwest Region (Region 6) for 1993 and 1994. Aggregate staffing for FS Plan-area units for these years is therefore enumerated only as FTEs.

Data enumerating positions by series (e.g., wildlife biologist, budget specialist) and grade level/pay scale

(e.g., GS-9) were not readily available. This limitation precluded a more detailed evaluation of workforce composition, or an analysis of the economic benefits of local agency employment to individual communities.

Like the budget data, agencies and regions differ in their handling of staffing and data. For example, in 2003, the FS began tracking field-unit positions in information resources management under regional staffing. The effect of this change on the staffing data described here is unknown.

Finally, regional staffing records incorporate fractional positions. Staffing positions enumerated in this analysis have been rounded to the nearest whole number.

Limitations to the Unit Reorganization Data and Analysis

Data for this part of the analysis were obtained from Plan-area public affairs offices. Data were requested from each unit; the results were compiled and returned for confirmation.

The data collected understate the actual presence among local communities of officials with decisionmaking authority delegated by the agencies. Deputy and associate officials—deputy forest supervisors, assistant district rangers, and associate district managers—are not included for either agency. National forest subunits other than ranger districts, such as work stations and tree nurseries, are also omitted.

The BLM districts are more centralized than national forests. A single district office usually houses a district manager and several field managers. The latter manage field areas dispersed across the district. Like Forest Service district rangers, BLM field managers frequently work outside the community hosting their office.

Limitations to the Budget Data and Analysis

All budget figures discussed in the analysis have been adjusted for inflation to the base year of 2003. Gross domestic product (GDP) deflators shown here were obtained from the Forest Service Washington Office.

GDP deflators for 1993–2003

Year	Factor
1993	1.1946
1994	1.1693
1995	1.1445
1996	1.1221
1997	1.1006
1998	1.0853
1999	1.0710
2000	1.0508
2001	1.0257
2002	1.0127
2003	1.0000

Readily available agency budget data are subject to numerous limitations. Accounting structures differ between the FS and BLM. I adopted the program areas used in the agency budgetary processes. In doing so, I have assumed that the operating scope and objectives of each program area have remained roughly consistent over the decade. In fact, within each agency program, accounting structures vary across time. For example, the objectives and scope of FS field-unit fire and fuel management programs has evolved during the period of study from presuppression and emergency firefighting, toward an approach integrating fuel management. Suppression is increasingly handled at the regional and national levels.

Other changes have occurred in agency programs. The BLM management of lands and resources (MLR) program was elaborated in fiscal year (FY) 1997 to include a number of additional budget lines. The FS appropriations structure was also significantly revised and simplified in FY 2001. Detailed data isolating the fiscal impact of these and other changes to agency budget structures were not readily available.

In another structural change, in 2000 the BLM shifted its leave surcharge account from the regional to the unit level. To adjust for this change, for 2000 and later years, the BLM unit budgets are reduced by a factor of 0.14 to represent a 20 percent increase in the estimated 70 percent of total allocations devoted to labor costs.

In another structural change, in 2003 FS Region 6 began accounting for unit-level indirect costs by using a

regional cost pool. Adjusting the 2003 data to include indirect costs increases total aggregate Region 6 Plan-area unit funding by \$3.5 million. Data describing this adjustment were available at the aggregate Region 6 Plan-area program scale, but not at the individual unit scale. Further, adjustment for the Region 6 cost pool has a negligible effect on the trend for aggregated Pacific Southwest Region (Region 5) and Region 6 FS Plan-area unit budgets. Given this context, I used the more detailed data from Region 6, which describe trends in individual units and their programs, but do not reflect adjustment to include the indirect cost pool.

The scope and objectives of program areas also differ across agency regions. Several expanded budget line items (EBLIs) funded for FS Region 5 units are not represented in unit budgets for Region 6, suggesting differing scope within the same program. Variations in regional agency budget structures and administration further complicate comparison across time and agency regions. For example, in the late 1990s, FS Region 5 grouped its four Plan-area forests into one province, consolidating a number of functions previously distributed among the four units. Time limitations precluded an analysis of the impact of these changes on unit and program allocations over the period. Nor, given the available data and time for analysis, was it possible to account for the effect of earmarked funds on the ability of Plan-area field units to accomplish work.

Analysis of individual unit budgets across time was also complicated by the consolidation of several Plan-area national forests during the period. Time constraints precluded a thorough analysis of budgetary trends among national forests after consolidation.

Data and Analysis Associated with Figure 4-8 (Budgets)

Total spending authority for both the FS and BLM was taken from the “Analytical Perspectives” section of the Budget of the United States for FYs 1996 through 2005.¹

¹ Government Printing Office. 1996–2005. Budget of the United States Government: Analytical Perspectives. <http://www.gpoaccess.gov/usbudget/browse.html>. Annual. (February 2005).

Total agency budget authority is represented by the sum of total agency appropriated funds and total trust funds. Amounts for BLM fire and fuel management are based on net appropriations for fire protection (1994–95) and wildland fire management (1995–2003). Amounts for FS fire and fuel management are based on net appropriations for fire protection (1994–95), emergency firefighting fund (1994–95), and wildland fire management (1996–2003).

Data and Analysis Associated with Figure 4-9 (Budgets Excluding Fire and Fuel)

To represent unit budgets excluding fire and fuel management, figure 4-9 excludes allocations under the fire and fuel appropriations listed for figure 4-8.

Data and Analysis Associated with Figure 4-12 (BLM Budget)

Amounts shown represent total final annual allocations to individual BLM-Oregon Plan-area units, excluding allocations for fire rehabilitation and fuel management, as well as the following budget items: Oregon and California Railroad (O&C) construction (budget item 6110), construction (budget item 2100), and land acquisition (budget item 3100). These exclusions were based on advice from regional staff concerning the composition of unusual or one-time-only costs large enough to affect overall budget trends.

Methods Used in Chapter 5, Procurement Contracting

To understand the regional contracting market and the contractors involved in it, we calculated a variety of descriptive statistics by using the value of contracts, the number of contracts, and the distance between contractor headquarters and the location where the work occurred.

The data for the regional analysis are drawn from the Federal Procurement Data Center's database that includes information from all federal agencies compiled from the SF-279 form that each federal agency must fill out for contracts with an estimated value above \$25,000. Our data set includes contracts from FS and BLM in western Oregon and Washington and northwestern California awarded between FY 1990 and 2002. All data are reported by

federal fiscal year. More specifically, the data set includes contracts involving land management work in the Plan's affected counties, as defined in the Jobs-in-the-Woods program. The data set includes product service codes (PSC) that were related to land management, broadly defined by using the same criteria as Moseley and Shankle (2001) and Moseley and Toth (2004). That is, the data set includes contracts related to forestry and watershed management such as thinning, brush cutting, brush piling, noxious weed control, biological surveying, riparian restoration, and road construction and maintenance. The data set does not include activities such as building construction or copier repair and does not include any purchases of goods. Contracts involving fire suppression are reported separately because they are procured differently than other forestry services. However, prescribed burning is reported in the same product service code as fire suppression, and therefore cannot be distinguished from the regional portion of the study. Even though the BLM and the FS follow the same procurement laws, studies have suggested that their procurement practices are quite different and the two agencies needed to be analyzed separately (Moseley et al. 2002).

For the case studies, we added information from forest contracting registers to the data obtained from the Federal Procurement Data Center. The contract registers provide some information about contracts valued between \$2,500 and \$25,000, and more detailed descriptions of contracts valued over \$25,000. The contract registers typically provide a project title that is more specific than the product service code provided in the data set described above. Consequently, in the case studies, we can, at times, separate out some activities such as prescribed burning or stand exams from the more generalized product service codes.

Unfortunately, contract registers were not available for all of the years of the study period. For the Olympic, Klamath, and Mount Hood National Forests, we were able to obtain contract registers for 1990 through 2002. But for the Coos Bay BLM District we were only able to obtain contract registers for 2000 through 2002. Consequently, we omitted any contract register data from the Coos Bay analysis unless it was being discussed explicitly. In addition, we had only limited information about the Coos Bay District

BLM for contracts over \$25,000 because part of the Coos Bay District is located in Douglas County. Other districts control most of the BLM land in Douglas County, and we could not divide county data into BLM districts. Consequently, our analysis of contracts valued above \$25,000 includes only Coos and Curry Counties because those in Douglas County could not be distinguished from contracts performed on other districts, which made up the majority of the work. Finally, because the sample size of procurement in a single national forest or BLM resource area is small, some of the analysis performed at the regional level cannot be performed at the forest or district level.

The Federal Procurement Data Center records track data by task order. We defined the value of a contract to be the total amount of money entered into the database with the same contract number within each year. We counted a contract meeting these criteria as a single contract regardless of how many task orders were involved. The value of the contract is the sum of the dollars obligated with each task order. We corrected the contract values for inflation, and value data are reported in 2002 dollars.

The Federal Procurement Data Center records the location of work at the county level. Consequently, we report most information about procurement at the county level rather than at the forest or BLM district level. At times we aggregate information at the state or subregion level. To identify regional variation within the Plan area, we created four subregions: west Cascades, east Cascades, coast, and Klamath-Siskiyou. The subregional categories only include affected Plan counties and not all of what might, more generally, be considered the subregion. It was not possible to use Northwest Forest Plan provinces because they were not well correlated with the county or national forest boundaries, which was how the place of performance was recorded.

To understand to what extent local contractors were awarded contracts, we calculated the distance between the contractors' headquarters and the national forests where the work occurred by using an approach similar to Moseley and Shankle (2001). We calculate this distance rather than defining "local" because the definition of local is context specific, and a regionwide definition would be too arbitrary for the purposes here. We calculated these distances by

using ESRI's ArcView 8.3.² For the FS, we were able to impute the national forest in most cases from the county of performance, information about the office that wrote the contract, as well as the contract numbers. After deriving the national forest, we calculated the distance by averaging the distance in air miles between the weighted center of the ZIP code, as provided by ESRI, where the contractor has its headquarters, and 25 random points within the national forest. Because the BLM contracting is more centralized, we could not derive the BLM district from the information available. Consequently, for BLM contracts, we measured distance between the contractors' headquarters and 25 random points on the BLM land within the county where the work was performed. It is important to keep in mind that these distances are measured in air miles, which are likely to be considerably shorter than road miles and to vary in travel time considerably depending on topography. For example, the distance in air miles from Redding, California, to Ashland, Oregon, is 120 air miles and 135 road miles. By contrast, the distance from Redding, California, to Crescent City, California, is 123 air miles and 212 road miles (Moseley et al. 2003).

In addition to analyzing distances between the contractors' headquarters and the national forests or BLM lands as a measure of local benefit, we also examined awards to contractors based on the population of the community where they were located. Following Census Bureau definitions, we defined a rural community as having less than 5,000 residents. We included unincorporated communities in this category as well. Again following Census Bureau definitions, we defined urban areas to be cities with populations above 50,000. We created two additional categories: 5,000–9,999 and 10,000–50,000 to describe awards to contractors in mid-sized communities.

We divided the product service codes provided by the Federal Procurement Data Center into three categories—labor intensive, equipment intensive, and technical—based on the type of work that contracts with particular product

²The use of trade or firm names in this publication is for reader information only and does not imply endorsement by the U.S. Department of Agriculture of any product or service.

service codes were likely to involve. Activities such as tree planting and thinning were classified as labor intensive, whereas activities involving heavy equipment, such as road maintenance, were considered equipment intensive. Technical work would include activities such as species surveys or environmental assessments. This was a rough categorization because our conversations with FS and BLM procurement technicians suggested that some product service codes involve a wide variety of work types. For example, “other natural resource and conservation services” includes technical work such as species surveys, but also includes nontechnical work such as rock crushing. In addition, the way the agencies choose product service codes varies over time and from person to person.

In addition to reporting the data on an annual basis, we also chose three 3-year periods for detailed analysis: 1990–92, 1995–97, and 2000–2002. When analyzing data by using this format, we report data in 3-year aggregations. We did this to increase our confidence that we are reporting trends and not the impact of random year-to-year changes, which can be considerable in procurement contracting. We chose the first 3-year period because it is the first 3 years of the study period. It is also prior to the Plan implementation. We chose the middle 3 years based on consultation with people who have long been observers of the Plan and the Jobs-in-the-Woods program. They believe that these 3 years were the years the FS and the BLM were most focused on the Jobs-in-the-Woods program. Finally, we chose 2000–2002 because these are the final years for which data are available, and they represent years in which attention largely went to other programs, especially the National Fire Plan, stewardship contracting, and county payments.

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Appendix D: People Interviewed and Interview Questionnaires

Case-Study Communities

When conducting interviews in the case-study communities, we attempted to select people that represented a cross section of community leaders and stakeholder groups. We used the following categories to guide our selection:

Community leaders:

- Elected official
- Civic group leader
- School district/education leader
- Historic preservation/cultural center leader
- Economic development council leader
- Business leader/store owner
- Social service provider
- Fire district leader
- Health official
- Religious leader
- Watershed council representative
- Large landowner
- Planner

Stakeholder group representatives:

- Recreation/tourism
- Environment
- Timber industry
- Special forest products
- Fishing—commercial/recreational
- County government
- Agriculture/ranching
- Minerals
- Tribes
- Low income/minority groups

It was not possible to interview someone from each of the categories in every community, and many interviewees represented several categories at once. Descriptions of the interviewees from each community follow.

Olympic National Forest and Local Communities

Olympic National Forest

Respondent's position

Engineering program representative (3)
 Forestry program representative (4)
 District ranger (2)
 Economic development representative
 Public service representative
 Forest planning representative
 Forest supervisor
 Aquatics program representative
 Ecosystems/natural resources program representative
 Wildlife biology program representative
 Fire and aviation program representative
 Operations staff representative
 Timber contracting representative
 Botany/forest ecology program representative
 Recreation program representative
 Information specialist
 Tribal relations representative
 Computer/mapping specialist

Quilcene

Respondent's position	Quilcene resident
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Former logging contractor	X
Former logging contractor, business owner	X
Logging contractor, logging contractors' association	X
Local businessperson, recent immigrant (2)	X
Firefighter	X
Pastor	X
School official	X
County planning official (3)	
County planning official	X
Environmental interest group member	
Social service provider	X
Social service provider	
Economic development agency official	
County health and human services official (2)	
Industrial timberland manager	

Quinault Indian Nation

Respondent's position	Taholah/Queets resident
Quinault Tribal Council member, tribe member (2)	X
Quinault Indian Nation employee—forestry (2)	
Quinault Indian Nation employee—forestry, tribe member	X
Quinault Indian Nation employee—cultural historian, tribe member	X
Quinault Indian Nation employee—natural resources	
Retired logger, fisher, tribal elder	X
Basket weaver, tribal elder	X
School official	
Quinault Indian Nation employee—environmental protection	
Former Quinault Indian Nation employee—environmental protection	
Quinault Indian Nation employee—economic development	
Quinault Indian Nation employee—tribal liaison, tribe member	X
Basket weaver, Quinault Indian Nation employee—cultural historian, tribe member	X
Fisher, tribe member	X
Fisher, tribal elder	X

Lake Quinault Area

Respondent's position	Lake Quinault area resident
Former Park Service employee, local tourism-based business owner	X
Elected county official	
Fire district representative	X
School official	X
Waitress, school board member	X
Owner of log truck company, pastor, member of community/economic development organization	X
President of local chapter of national recreation organization	
Local tourism-based business owner, school board member	X
Retired rancher	X
Shake mill owner	X
Contractor for ecosystem management work on the forest	X
Representative from regional economic development organization	
Store owner	X
Representative from a regional environmental organization	

Mount Hood National Forest and Local Communities

Mount Hood National Forest

Respondent's position

Forest recreation, planning, public affairs staff officer
 Forest planner, forest hydrologist
 Forest geologist
 Range program manager
 Forest Youth Conservation Corps host and senior volunteer coordinator
 Forest volunteer program coordinator
 Fire and aviation management program manager
 Forest silviculturist
 Forest supervisor
 Zigzag District Ranger
 Forest natural resources staff officer
 Forest special forest products coordinator
 Public affairs officer, rural community assistance coordinator
 Forest engineer
 Vegetation management specialist
 District and forest recreation program managers (group interview) (5)
 Clackamas River District Ranger

Upper Hood River Valley

Respondent's position	Upper Hood River Valley resident
Former logger	X
Volunteer fire department chief	X
Long-time orchardist (2)	X
Environmental activist	X
Former logger	X
Retired Forest Service employee, now hobby orchardist	X
Retired Forest Service employee	X
Former logger	X
Orchardist, owner private timberland	X
County commissioner, family long-time residents	X
Local store owner, family long-time residents	X
Small mill operator, family long-time residents	X
Recreation industry representative	X
Program manager migrant worker social services, family long-term migrant workers, now residents	X
Regional soil and watershed association, and watershed association, representative	
Confederated Tribes of Warm Springs employee, aquatic restoration program, office in case-study site	
Regional recreation industry representative	

Villages of Mount Hood

Respondent's position	Villages resident
Tourism and recreation industry rep	X
Tourism and recreation industry rep	
Developer, community development activist	X
Real estate services	X
Business person/chamber of commerce member	X
Watershed activists (2)	X
Long-time resident, community development activist	X
Retiree, service organization representative	X
News media representative	X
Local business owner	X
Logging contractor	X
Pastor	X
Firefighter	X
Logging contractor	
County Economic Development official	
Environmental interest group member (2)	
Industrial timberland manager	
Public school teachers (3)	X
Community development activist, seasonal resident	X
Community development activist	X

Estacada

Respondent's position	Estacada resident
Former logging contractors (3)	X
Forest service employees (4)	X
Logging supply store owner	X
Local businessman, town councilman	X
Logging contractor	
Firefighter	X
Local employer/business owner	X
Community activist, recent immigrant	X
City manager	X
Local employer/business	X
Wilderness outfitter	X
County Economic Development official	
Environmental interest group members (2)	
Wood products company employees (3)	
Former business owner, chamber of commerce member	
Pastor	X
Social service provider	X
School official	X
Industrial timberland manager	

Klamath National Forest and Local Communities

Klamath National Forest

Respondent's position

Forest landscape architect
 Forest resource staff officer (fisheries, noxious weeds, earth sciences, timber, wildlife)
 District Ranger, Scott/Salmon Ranger Districts
 Deputy forest supervisor
 Forest silviculturist
 District resource staff (recreation, range, noxious weeds, archaeology, minerals)
 District archaeologist
 Forest timber management officer and contracting officer, Shasta Trinity National Forest
 Forest earth science and fisheries program manager
 Forest administrative staff officer (contracting, community assistance program, volunteer programs)
 Forest environmental coordinator
 District recreation, lands/minerals staff
 Forest fire management staff officer
 Forest assistant engineer
 Wildlife biologist

Scott Valley

Respondent's position **Scott Valley resident**

Reforestation nursery owner	X
Director, nonprofit natural resources consulting and training center	X
Local mayor	X
Natural resource management interest group member	
Former county supervisor	X
Rancher, rural conservation district member	X
County board of education member	
Superintendent of schools (retired)	X
Forester, tree farmer	
County supervisor	X
Wood products company manager (2)	
Wood products company employee/forester	
Wilderness outfitter, natural resource management consultant/contractor (2)	X
Shasta Tribe member, retired timber worker	X
Shasta Tribe member	X
County behavioral health specialist	X
State Department of Forestry acting unit chief	X
County Economic Development Corporation director	
County natural resource specialist	X
Environmental interest group member	X
County planning director	X
U.S. Forest Service district ranger (retired)	X
Salmon River Restoration Council representative, contractor, Mid-Klamath Watershed Council board member	X

Butte Valley

Respondent's position	Butte Valley resident
County Supervisor, Klamath Provincial Advisory Committee member, Ore-Cal Resource Conservation and Development Director, rancher	X
Ore-Cal Resource Conservation and Development employee	
Butte Valley Saddle Co. owner, chamber of commerce president	
Dorris Lumber & Molding	X
Vintage Woodworks owner	X
Shasta Tribe member, local environmentalist	X
Shasta Tribe member, former timber faller	X
Whitsell Manufacturing, Inc. (lumber remanufacturing)	X
TC Ranch owners	X
Butte Valley Fire District Fire Chief	X
Butte Valley Health Center	
Butte Valley Unified School District Superintendent	X
Butte Valley school district employee	X
Mayor of Dorris	X

Mid-Klamath

Respondent's position	Mid-Klamath resident
Local business owner/leader, county school board member, contractor, ex-mill worker	X
Fishing outfitter/guide, local school board member	X
Director, Happy Camp Family Resource Center (provides social services), local school board member, tribal council member	X
Retired Happy Camp district ranger, health clinic board member	X
Rancher, retired Forest Service employee	X
Miner, logger	X
Director, Karuk Economic Development Organization; Karuk Tribe member; vice president, Happy Camp Chamber of Commerce; chairman, Happy Camp Action Committee	X
Mid-Klamath Watershed Council representative, Klamath Forest Alliance representative	
Local business owner	X
Regional forest manager, Fruit Growers Supply Company	
Karuk tribal member, special forest products gatherer, basket maker	X
Logger	X
New 49ers recreational mining club representative	X
Forest contractor, ex-logger, local business owner	X
Outfitter-guide, owner, local river rafting company	X
President, Happy Camp Chamber of Commerce, local business owner, Resource Advisory Committee member	X
Treasurer, chamber of commerce, local business owner	X
Chair, Karuk Tribe	X
Vice Chair, Karuk Tribe	X
Secretary, Karuk Tribe	X
Anthropologist	X
Klamath-Siskiyou Wildlands Group representative	X
Klamath-Siskiyou Wildlands Group representative	

Coos Bay District and Local Communities

Coos Bay District

Respondent's position

District manager
 Resource area manager—Umpqua Resource Area
 Resource area manager—Myrtlewood Resource Area
 Noxious weeds program coordinator
 Timber sales administrator
 Silviculturalist
 Watershed analysis coordinator
 Small sales administrator—Myrtlewood Resource Area
 Small sales administrator—Umpqua Resource Area
 Volunteer coordinator
 Cultural resources program manager
 Recreation specialist
 Recreation specialist
 Fish biologist
 Wildlife biologist
 Fire program manager
 District geologist
 Watershed restoration coordinator
 Public affairs officer
 Road engineer—Umpqua Resource Area
 Road engineer—Myrtlewood Resource Area
 Interpretive specialist

Greater Coos Bay

Respondent's position

Greater Coos Bay resident

Chamber of commerce employee (tourism focus)	X
Consulting forester/small woodland owners association member	X
County commissioner	X
County commissioner/rancher	X
County forester	X
Health services agency employee	X
Large timber company manager	X
Large timber company manager	X
Large timber company manager, former local politician	X
Local economic development agency employee (tourism and industrial development focus)	X
Nature reserve employee	X
Tribal forester	X
Tribal member/fish biologist	X
Watershed association employee	X
Watershed restoration contractor /forest worker	X

Greater Myrtle Point

Respondent's position	Greater Myrtle Point Resident
Brush shed operator	X
Business development specialist	
Environmental educator	X
Environmental group leader	
Farmer/environmental educator	X
Fisheries specialist with state educational agency	
Large timber company manager	
Mountain bike club member/carpenter	X
Municipal leader	X
Public works employee	X
Restoration contractor/forest worker	X
Retiree, fisheries volunteer, long-term resident	
Retiree, rockhound club member; newcomer	X
Small mill operator	X
Watershed association employee	

Greater Reedsport

Respondent's position	Greater Reedsport resident
Cultural heritage organization leader/environmental education focus	X
Economic development leader/sportsfishing and tourism focus (2)	X
Economic development/elk viewing area involvement	X
Forest products company employee	X
Former school district leader	X
Former wood products industry employee/small mill operator	X
Industrial manufacturing company employee	X
Local politician	X
Manager of municipality	X
Member volunteer fire department	X
Municipal planner	X
Owner of local media	X
Rancher/mill owner/watershed organization member	X
Small business owner (timber related)	X
Small business owner, elk viewing area involvement	X
Social services organization manager	X
Timber company manager	
Wood products industry worker	X

Interview Guide, Community Interviewees

COMMUNITY INTERVIEW GUIDE Community and Stakeholder Representatives 15 August 2003

Interviewer
Community
Date
Name of Interviewee
Title
Organization
Who (interviewee category represented)
Relationship to community (resident, representative-how, ...)
How long in the area
Place of residence
Address (if applicable)
Email address

Section 1

Defining the Community (ask a few key community representatives)

Purpose: The purpose of this section is to identify the boundaries of “the community” that will become the unit of analysis referred to in other sections. Hopefully a saturation point will be achieved after 3 or 4 interviews and researchers will not have to ask these questions to subsequent interviewees. If that does occur, researchers can just show interviewees the map of the “community” under study. If consensus about the community definition is slow in coming, perhaps the best thing to do would be to go wider, rather than narrower, and ask people to speak to issues a bit more broadly than might be inclined. (Consult with Susan or Ellen if this is problematic.)

As the “Intro” below describes, explain to interviewees that we are somewhat constrained by the use of Census block groups to define the communities. Explain that we want to take advantage of availability of socioeconomic data provided by the census, however, and that we recognize that the boundaries might not perfectly line up with what people think of as their community. Interviewees can disaggregate the block group aggregations (BGAs) or further aggregate the BGAs. **We cannot, however, go down to the block level.** The block-group level is the smallest unit for which we can obtain summary statistics on socioeconomic indicators. Remember that block group and BGA boundaries include public land. People may think that these polygons that include public land are an awkward way to depict their community, but remind them that this is how the census does it. And, that it helps to identify those places with connections to National Forests and BLM lands.

Intro: The Northwest Forest Plan (NWFP) record of decision (ROD) requires that we monitor the effects of

the NWFP on rural economies and communities. We are looking at social and economic changes that have occurred in communities within the NWFP area since 1990, and whether and how NWFP implementation can be linked to some of those changes. In order to do this work, we need to define what we mean by “community.” We developed a model that delineates communities in the NWFP area on the basis of things like school district boundaries, county lines, roads, topography, and population. The community delineations were made by aggregating census block groups—small geographic units that serve as a basis for gathering U.S. Census data—in order to make it easy to use social and economic data from the census to monitor trends in social and economic conditions in the communities. The community that we are using as our unit of analysis in discussions with you today we call “X.” I’d like to take a minute at the beginning here to show you on a map how we have delineated the boundaries of this community. Show them the map with mylar overlay!

TOPIC: Is the case-study BGA a meaningful community?

- (1) Does the area that we’ve delineated on the map and that we are referring to as “X,” in your mind, represent what you would consider to be your community? Do people here think of themselves as belonging to this one community? (“Belonging” can be defined as area of social interactions, networks, how and where people connect, or the area upon which the majority of local decisionmaking related to schools, rural development projects, etc. are made). Do people who reside within the area shown here think of this area as constituting a community?

TOPIC: Interviewees disaggregate, or further aggregate, block groups and BGAs.

- (2) If not: Does the area outlined here represent more than one community? If so, how would you break it down into individual communities? Please show me on a map, by using the BGA or block group boundaries as a reference. What are the criteria you are using for doing so?
or
- (3) If not: Does the area outlined here represent only a part of what most residents would think of as a larger community that they belong to? What would that community be? Please show me on a map by using block group or BGA boundaries how you would aggregate the block groups or BGAs (don’t have to use those terms) to make a more meaningful community. What are your reasons for including it with this larger area?

Note: It would be informative to see how interviewees draw the boundaries of their community without being constrained by census boundaries. This is not required.

If some people are interested and have time, ask them to draw such a boundary on a blank mylar. If researchers plan to gather this information, please label the mylar with interviewee name. Lynnae will put a couple blank mylars in your packet that she is sending out.

Section 2

Social and Economic Change in the Community (ask community reps)

Purpose: The purpose of this section is to obtain community residents' perspectives on how their community has been changing socially and economically over the last decade, and why. We have social and economic indicators from the U.S. census, and IMPLAN data, that reflect some dimensions of socioeconomic change in the community. However, we want to combine those data with residents' perceptions of the nature of change in their community. We also want to know what residents think is causing social and economic change in their community, and the extent to which they link this change to changes in forest management policy vs. other factors.

Intro: I'm trying to understand what kinds of economic and social changes have taken place in community X over the last decade or so, and some of the forces behind that change. First I'd like to discuss some of the economic changes that have been occurring in your community since 1990. I'll be showing you some data that I've gathered from the U.S. Census regarding economic conditions in community X to facilitate our discussion. After that, I'd like to discuss some of the social changes that have occurred in your community over the last decade. Again, I'll show you U.S. census data that reflect some of the social trends for community X. I'm also very interested in discussing what's been causing change in the community, and any ways that change might be linked to management policies and practices on Forest X.

Economics Questions:

TOPIC: Describe economic change and trends in the community

- (1) Overall, what is your perception of how well community X is doing economically? What are the indicators/the things you've observed that make you think the community is doing well/doing poorly economically? Are there particular sectors that are doing especially well/especially poorly?
- (2) In your mind, have economic conditions in the community gotten better/worse/stayed the same over the last decade? How so?
- (3) Please describe business trends in the community. Over the last decade, have you seen the number of businesses

increase/decrease/stay the same? What about the kinds of businesses are here? What kinds of businesses are on the increase, are dying out?

TOPIC: Economic indicators. Present and discuss economic indicators from census

- (4) Now I'd like to show you some of the economic information that we've put together for your community from the U.S. Census. These indicators have to do with income and employment, and reflect change that occurred between the 1990 and 2000 Census years. They serve as one way of assessing the economic well-being of a community.
 - a. Income data: Show the charts for median household income and percentage of people living in poverty. Describe what each indicator means, and interpret/explain the trends revealed in the charts. Then ask: Are these trends consistent with your perceptions? If not, how are your perceptions different?
 - b. Employment data: Show the charts for percentage unemployment and occupational categories. Describe what each indicator means, and interpret/explain the trends revealed in the charts. For occupational category, focus on the occupations that are natural resource based. Then ask: Are these trends consistent with your perceptions? If not, how are your perceptions different?

TOPIC: What's causing economic trends in the community (federal forest management policy/NWFP/other factors unrelated to forest management policy)

- (5) Do you think that NFS/BLM management policy on Forest X can be linked to any of these economic changes? How so? What about the NWFP in particular? Please describe any effects the NWFP has had on economic change in your community.
- (6) What factors other than federal forest management policy have contributed to changes in economic well-being in community X over the last decade?
- (7) How important do you believe that NFS/BLM management policy, and the NWFP in particular, has been—relative to other factors we've discussed—in contributing to economic conditions in community X?

Social Questions

TOPIC: Display and discuss demographic indicators from census, and discuss reasons for demographic trends

- (8) Population numbers—Show the charts on total population change.

These charts show how the total population of your community, and the surrounding area, has changed since 1990 (interpret trends for them).

- a. Does this match with your perception of population change in the community since 1990? If not, what's your perception?

(9) Demographic composition of population

Now show the charts for median age of community residents, and racial/ethnic composition of community residents.

These charts show how the composition of community residents has changed since 1990 in terms of age and racial/ethnic characteristics. (interpret)

- a. Does this match your perception of how the composition of the community has changed over the last decade or so?
- b. Are there any other ways in which the composition of community residents has changed in the last decade? That is, have certain kinds of people been moving in, and other kinds of people been moving out?

- (10) How would you account for the changes in population numbers and demographic composition of people in community X? To what extent does federal forest management policy/the NWFP contribute to this trend? What other factors explain this trend?

TOPIC: Educational attainment of community residents and importance

- (11) Education—Show the charts on school enrollment and high school graduates.

These charts show the proportion of community residents that had graduated from high school in 1990 and 2000.

- a. If there have been any changes—Why do you think fewer/more people are completing high school now than in 1990?
- b. Do you think it is necessary for people in this community to have a high school education in order to make a living here? Why? What about a college degree?

These charts show school enrollment in 1990 and 2000.

- c. Why do you think there are more/fewer children enrolled in local public schools now than in 1990?

TOPIC: Changes in quality of life in community and causes

- (12) Quality of life

- a. How has the quality of life in this community changed over the last decade?

Some quality-of-life indicators: cost of living, access to housing, commute time/distance, quality of natural amenities, facilities and infrastructure.

- b. To what do you attribute these changes?
- c. To what extent does the presence of the national forest, and forest management policy influence the quality of life in this community? Explain.

TOPIC: Community adaptation to social and economic change

- (13) In what ways has the community been adapting to the social and economic changes that have occurred here over the last decade, and how successful has it been? What things have helped the community adapt to changing social and economic conditions? What things have made it difficult for the community to adapt to social and economic changes?

TOPIC: Implications of community social and economic changes for forest management

- (14) Considering the social and economic trends we've discussed for community X, what overall do you think these trends mean for Forest X? What are the implications for the management of Forest X?

Section 3

Community-Forest and Stakeholder-Forest Relations

(ask of stakeholder group representatives and community members who engage in use activities on forest) You could ask some of these questions to community reps, but they are time consuming—so consider coming back to these if there is time in the interview

Note: The term “community” here refers to both community of place and community of interest—adapt for type of person you're interviewing.

Purpose: The purpose of this section is to investigate the nature of the relationship between people in the community (of interest, of place) and the case-study forest. We want to describe the ways in which the forest is important to the economy, lifestyle, and culture of community members. We also want to document how community members use the forest for timber harvest, gathering nontimber forest products, grazing, minerals, and recreation, and how they have been affected by any changes in forest management policy regarding these uses. We also want to learn what issues community members are most concerned about with regard to forest management, and how well the forest is doing at providing for the uses and values community members care about.

Intro: I'd like to get an understanding of the relationship between Forest X and community members. Specifically, I'd like to discuss how community members use and value Forest X, how they have been affected by forest management policy, and what issues relating to forest management are of most concern to members.

TOPIC: Orientation toward case-study forest

- (1) How would you characterize the relationship between community members and Forest X? How strong is the orientation of the community toward the forest? In other words, would you consider this community to be a "forest-based" community with respect to Forest X, and if so, in what sense?
- (2) Are there other public forest lands in the area (federal, state, county) that community residents have a strong relationship with and orientation toward? If so, what forest lands are they; please describe nature of the relationship.

TOPIC: Key issues of concern relating to forest management

- (3) What are the two or three issues that community residents are currently most interested in or concerned about with regard to the management of forest X?
- (4) Have these been the main issues of interest/concern for the last decade? If not, how have the issues been shifting over the last decade, and why?

TOPIC: Ask stakeholder group representatives to describe their community of interest and organization

- (5) How would you characterize the community of interest that you represent? That is, how big is the constituency, where do people come from, what characteristics do these people share in common, if any?
- (6) If you represent an organization, please describe for me the mission of that organization, and how that mission relates to Forest X.

Resource-specific questions

Questions are for either community resident engaged in the activity, or stakeholder group representative—choose the question(s) appropriate to the interviewee's area of interest.

TOPIC: Effects of reduced timber harvests and adaptation

- (7) Since the late 1980s, timber sales on Forest X and surrounding federal forest lands have declined significantly.

- a. To what extent have community members been affected by declines in federal timber harvests? Please describe the key social, cultural, and economic impacts of declining timber harvests on the community, including an estimate of number of community members affected.
- b. How have people been adjusting to these reductions in timber harvests?

TOPIC: Role of nontimber forest products in community economy and culture, and management concerns

- (8) Most federal forests in the Pacific Northwest have seen increasing use of nontimber forest products (NTFPs).
 - a. What NTFPs are most commonly gathered by community members for economic, social, or cultural uses?
 - b. How important are NTFPs to the economic and sociocultural well-being of community members? Explain.
 - c. Is the supply and availability of NTFP species from Forest X considered to be adequate? If not, why not?
 - d. Has access to Forest X for obtaining NTFPs changed over the last decade? How so? (**access to resources** = physical ability to get to them, ecological availability of resources, rules and regulations affecting their use)
 - e. To what do you attribute any changes in access to NTFPs on Forest X?
 - f. What has been the impact of these changes on community residents?

TOPIC: Grazing importance and effects of changing management

- (9) Is keeping livestock an important socioeconomic activity to community members? Please describe, including the role of ranching in supporting the social, cultural, and economic well-being of community members.

If no, continue to question 10.

 - a. If yes: Do any ranchers in this community graze livestock on Forest X?
 - b. If yes: Has there been any change in access to land and resources for livestock on Forest X over the last decade? Please describe these changes, and how they have affected ranchers (changes in ecological conditions, physical accessibility, rules/regulations).
 - c. To what do you attribute these changes?
 - d. What has been the impact (social, cultural, economic) of changes in access to grazing on Forest X on ranchers in the community?

TOPIC: Minerals importance and effects of changing management

- (10) Do community residents consider Forest X to be an important source of rocks, gravel, or minerals for their own commercial, recreational, or personal uses?
 - a. If yes, what materials are most valued, and for what?
 - b. Has access to Forest X for obtaining these rocks/minerals changed over the last decade? How so? (physical, regulatory, ecological)
 - c. To what do you attribute these changes?
 - d. What has been the impact (social, cultural, economic) of these changes on community members?

TOPIC: Recreation use by community residents

- (11) Indicators suggest that in general, recreation opportunities on Forest X have been consistently available, and recreational uses of federal forests are on the rise.
 - a. Do community members use and value Forest X for the recreational opportunities it offers? Describe.
 - b. Do you think that community members feel they have sufficient recreation opportunities on Forest X? If not, why not? What's lacking?
 - c. Has access to Forest X (physical, ecological, regulatory) for engaging in recreation opportunities changed over the last decade? How so?
 - d. To what do you attribute these changes?
 - e. What has been the impact of these changes on community residents?

TOPIC: Recreation/tourism trends by the public on the case-study forest and impacts on community

- f. In your perception, have recreation and tourism on Forest X been increasing, decreasing, or staying the same over the last decade?
- g. To what do you attribute these trends?
- h. What have been the impacts of recreation and tourism trends on Forest X on Community X? Specifically,
 - 1. Has it affected the way in which community residents use the forest? Describe.
 - 2. Has it had an impact on economic or social conditions in the community? Describe.
 - 3. Do community residents view recreation and tourism on Forest X as a way of contributing to economic development and diversification in Community X? Describe.

TOPIC: Other forest values and environmental qualities of importance

- (12) What other values and environmental qualities associated with Forest X, unrelated to commodity production and recreation, are important to community members and why?

TOPIC: How well is the Forest doing at managing for public values and how to improve

- (13) Do you (and the community you represent) think that Forest X has been doing a good job of managing for those forest uses, values, and environmental qualities that you care most about?
- (14) Why or why not?
- (15) How could it do a better job of providing for the uses, values, and environmental qualities the community cares most about?

Section 4

Other Forest-based Socioeconomic Opportunities (ask of community representatives)

Purpose: Interviews with forest employees and analysis of forest data will allow us to document changes in forest-based socioeconomic opportunities associated with commodity production, recreation, contracting, grants, and on-forest employment. We discussed changes in commodity production and recreation in the preceding section. In this section we discuss contracting, grants, and employment, how important they are to community members, and how the forests could do better at contributing to socioeconomic well-being in communities.

Intro: One way that Forest X contributes to socioeconomic well-being in communities is by providing forest products and recreation opportunities. Other ways of contributing to socioeconomic well-being in local communities include providing jobs, contracting opportunities, and grant money.

TOPIC: Community benefits from contracting opportunities

- (1) One way that Forest X provides jobs to local communities is through contracts to accomplish ecosystem management activities such as fuel reduction, habitat improvement projects, watershed restoration projects, etc.
 - a. Are such contracts an important source of jobs for residents of Community X?
 - b. If yes, describe the way in which these job opportunities contribute to community well-being.
 - c. Have contracting opportunities to do forest-based work been increasing or decreasing over the last decade? Why?

- d. Would community residents like to participate more in contracting opportunities? What are the barriers to making it happen?

TOPIC: Community benefits from grants

- (2) Over the last 10 years, several communities have received grant money through Forest X to support infrastructure development, community capacity building, job programs, and other economic development and diversification activities.
- a. Are you aware of your community having received federal grant assistance through Forest X over the last decade?
- b. **If so**, what kinds of projects/programs supported by these funds have been especially beneficial to the community, and how so?
- c. **If so**, what kinds of projects/programs have been least effective, and why?

TOPIC: Importance of Agency jobs

- (3) For non-Coos Bay communities:
The number of people employed by Forest X has dropped substantially over the last decade. Has this change had an impact on community X? Describe.
- (4) How important is Forest X as a source of quality jobs for people in this community?

TOPIC: Other forest contributions to community well-being

- (5) Apart from the topics we have already discussed, are there other things that Forest X could be doing to better contribute to socioeconomic well-being in Community X? Describe.

Section 5

Community Collaboration (ask both community and stakeholder group reps)

Purpose: Data gathered in this section should contribute to understanding the evolution of how and why communities have participated in collaborative forest stewardship with the National Forest/BLM since the NWFP. Specific projects and motivations for engaging in such projects that are directly related to the NWFP should be identified. Projects and motivations not directly tied to the NWFP should be described separately in order to arrive at an overall sense of how public engagement and collaborative forest stewardship have changed.

Intro: I'm interested in how your community, or local groups that you are involved with, collaborates with Forest X in resource management activities on the forest or near

the forest. I'm also interested in how overall engagement in collaborative forest stewardship activities between the community, local groups, and Forest X has changed over the past decade. More specifically, I'd like to discuss what types of actual on-the-ground collaborative activities occur. (Researchers: If responses to prior sections indicate that the interviewee is well informed about the NWFP, please include reference to it when asking about change over the past decade. The questions below assume that the interviewee knows little about the components of the NWFP.)

TOPIC: Change in general engagement with FS/BLM

- (1) Has your community/group's overall engagement with the national forest changed over the past 10 years? Has it increased, decreased, or stayed the same?
- (2) How and why has it evolved or stayed the same?

TOPIC: Change in on-the-ground collaborative forest stewardship

- (3) What types of on-the-ground collaborative forest stewardship activities does your community engage in with the forest/district?
- (4) If none, why not?

TOPIC: Objectives and motivations for collaborating

- (5) Please describe some of the objectives of those collaborations or partnerships.
- (6) What motivates your community/group to collaborate with Forest X? Who usually takes the initiative to establish these collaborations?

TOPIC: Benefits of collaborating

- (7) How does the community/group benefit from the collaborations? What have been some of the successes?
- (8) Have there been any indirect benefits (such as skills developed, increased networking, improved relations to forests)?

TOPIC: Barriers to collaborating (community and FS/BLM)

- (9) What do you see as the biggest barriers, internal to your community, to collaborating with the national forest in resource management activities? (such as trust levels, community leadership/capacity, community cohesion)
- (10) What do you think are the biggest barriers that the National Forest/BLM has to collaborating with your community (or local communities) in resource management activities (such willingness/availability of forest leadership/staff to collaborate, lack of personnel, lack of funds)?

TOPIC: Future direction of collaboration

- (1) Are there any types of collaborative activities that you would like to see developed or expanded? Why?

Section 6

The NWFP (ask everyone)

Purpose: Presumably, by now, people will have already discussed forest management and referred to the NWFP throughout the other discussions. However, since we haven't asked explicit questions about the NWFP, here's the opportunity to do so if it has not been very explicit yet. Provide a chance for people to give some summary reflections on the Plan and its impacts on their community. The purpose of this section is to solicit specific views of interviewees on what's working and what's not working about the NWFP; and what their recommendations are for how to make it a more successful policy. These are recommendations that could be brought forward in the context of adaptive management.

Intro: To wrap up and summarize, I'd like to get a general perspective from you on what's been working and what hasn't been working with the NWFP and how it might be improved to better meet its objectives.

- (1) How familiar are you with the NWFP?

TOPIC: Parts of NWFP working well for community/stakeholder group

- (2) What parts of the NWFP do you think have been working well? How has it contributed to the well-being of this community/furthered the interests of your stakeholder group?

TOPIC: Parts of NWFP *not* working well for community/stakeholder group

- (3) What parts of the NWFP have not been working well? What problems has this caused for your community/how has this worked against the interests of your stakeholder group?

TOPIC: Recommended changes or improvements to NWFP

- (4) What would you recommend changing about the NWFP, if anything, so that it would better serve the needs of your community/your interest group, and meet its goal of balancing the need for forest protection with the need to provide a steady and sustainable supply of timber and nontimber resources to benefit rural communities and economies?

Section 7

The NWFP Goals (ask everyone, as appropriate)

Purpose: This section provides a reference to all the goals, including the overarching goal. Ask people to reflect on specific goals or one overarching goal, where appropriate. May be an individual community member or stakeholder group perspective.

USE the overarching goal (7-6) if you're short on time!

Intro: The NWFP had five main socioeconomic goals that are being evaluated by the current monitoring program. To what extent do you think progress has been made on the following goal(s), and why or why not:

TOPIC: What progress has been made on meeting NWFP socioeconomic goals and reasons

- (1) Produce a predictable and sustainable supply of timber sales, nontimber forest products, and recreational opportunities;
- (2) Help maintain the stability of local and regional economies, and contribute to socioeconomic well-being in local communities, on a predictable and long-term basis;
- (3) Minimize adverse impacts on jobs, and assist with long-term economic development and diversification in the area;
- (4) Help protect nontimber values and environmental qualities associated with the forest;
- (5) Improve relations between federal land management agencies and local communities, and promote collaborative forest management and joint forest stewardship activities.
- (6) An overarching goal of the NWFP was to balance the need for forest protection with the need to provide a steady and sustainable supply of timber and nontimber resources to benefit rural communities and economies. Do you believe Forest/district Y has been successful in achieving this goal? Why or why not? Examples?

Interview Guides, Forest Interviewees

There were three different interview guides that the monitoring team used with forest interviewees, depending upon their position. The guide used with forest program specialists is contained in volume II appendix B. This appendix contains the interview guides used with line officers (forest supervisors and district rangers) and with community outreach specialists (such as public affairs officers). There is a fair amount of overlap between the three guides.

Interview Guide for Forest Service/ Bureau of Land Management Forest Employees LINE OFFICERS July 3, 2003

Interviewer

Forest

Date

Name of Interviewee

Title

Unit/Location

How long in present position

How long working on this forest

Note: if one of the interviewees is new in their position, and their predecessor is an old timer who is still accessible, you may want to interview both.

Section 1

- (1) I'd like to begin with a general question. Can you please tell me what the three or so most burning social issues and/or public concerns are in relation to your forest and its management? Are these the same issues and concerns that have been dominant over the last decade, or has there been a shift? Please describe.

Northwest Forest Plan Implementation

Intro: The Northwest Forest Plan called for a number of changes in forest management, including land use allocations into late-successional and riparian reserves, matrix areas, and adaptive management areas; a host of standards and guidelines regarding forest management; and a number of new procedural requirements, such as survey and manage, watershed analysis, and late-successional reserve assessments. I'm interested in understanding how the NWFP has been implemented on (Forest Y) since 1994, and the ways in which the management of forest Y has changed under the NWFP. Rather than asking about specific resources or program areas, phrase the questions in general terms and see what resource areas they bring up as being significantly affected.

Questions:

- (2) How has the NWFP changed the way in which this forest is managed, overall? Specifically:
- How have the different land use allocations (late-successional reserves, riparian reserves, matrix, adaptive management areas) and associated standards and guidelines affected the management of your forest?
 - Have the procedural requirements associated with the NWFP—survey and manage, watershed analysis, LSR assessments—had an effect on the way in which forest management is carried out? Please explain.
 - How has the NWFP changed public access to the forest? Please comment on whether and how changes in forest management under the NWFP have affected
 - peoples' physical ability to get to use areas (i.e., access routes);
 - their ability to use forest areas for different activities from the regulatory standpoint (have some places been opened or closed for use, are people still allowed to go there, have uses been modified, how have rules and regs changed);
 - ecological conditions on the forest, making them either more or less productive for specific kinds of public use activities;
 - the economic feasibility of using the forest for desired uses;
 - the presence of facilities or infrastructure for supporting certain use activities.
 - Understanding that the NWFP is not the only thing that guides forest management, what other factors/policies have had a major influence on forest management activities over the last decade or so? Please describe.

Section 2

Impacts of Forest Management on People

Intro: You've described changes in forest management since the NWFP was implemented. I'd like to discuss how you think these changes have affected people more broadly.

Questions:

- Please tell me how you think changes in forest management and access have affected people who use the forest, with a focus on economic impacts? social impacts? cultural impacts? To what extent is the NWFP, vs. other factors, responsible for these impacts?
- Please tell me how you think changes in forest management since the NWFP was implemented have affected residents of communities surrounding the forest.

What do you think have been the economic impacts? social impacts? cultural impacts? on local residents, if any? What other factors may be contributing to these impacts?

- (3) Are there any other stakeholder groups that you think have been affected by changes in forest management since the NWFP was implemented that have not already been mentioned? Who? What do you think have been the economic impacts? social impacts? cultural impacts? on these stakeholders?

Section 3

Forest Budgets, Staffing, and Organization

Intro: Because the FS and BLM can be an important source of quality jobs in rural communities, and because forest budgets and staffing levels affect your ability to manage the forest, and to interact with the public, we are interested in understanding whether or not the NWFP has had an impact on forest budgets, staffing levels, and organizational structure.

Show the interviewee the trend analysis we have performed for the total annual budget and number of employees on their forest since 1990. Talk also about any administrative reorganization that has occurred since 1990 (ie., consolidation of district offices, etc.)

Questions:

- (1) On budgets (refer to the trend chart):
 - a. What do you believe has caused the trends observed in your annual forest budget over the last decade or so? To what extent do you attribute these trends to NWFP implementation, if at all, and what's the connection?
 - b. Are certain activities/programs receiving more or less funding than they did a decade ago—what program areas have been most affected by these trends?
- (2) On staffing levels (refer to the trend chart):
 - a. What do you believe has caused the trends observed in the number of forest employees over the last decade or so? Would you attribute these trends to NWFP implementation at all, and if so, what's the connection?
 - b. What job categories have been particularly affected by the trends in FTEs?

- (3) On reorganization:
 - a. Has your forest undergone an administrative reorganization since the mid-1980s? Please describe, referring to years in which reorganization occurred.
 - b. What caused the reorganization? Any relation to NWFP implementation?
- (4) Effects on management:
 - a. How have trends in forest budgets and staffing levels, and any reorganization, affected your ability to manage the forest and carry out your programs?
 - b. How have they affected your relations with the public, if at all?
 - c. Has there been any impact on local communities?

Section 4

Contracting

(Unfortunately, we won't have the results of the contracting study in by the time we interview folks, so won't know what the contracting trends are.)

Intro: Contracting and procurement to achieve ecosystem management objectives provide forest-based employment opportunities. One expectation of the NWFP was that although jobs in the timber sector would be lost due to declining federal timber harvests, new opportunities for forest work relating to ecological restoration, scientific surveys, fuels reduction, road decommissioning, etc. would emerge. Researchers have found that Agency contracting to achieve ecosystem management on forests represents an important potential source of jobs for local communities. I'd like to discuss trends in contracting and procurement for ecosystem management purposes on forest Y.

Questions

- (1) What kinds of ecosystem management activities on the forest do you most often contract out to accomplish?
- (2) Do you think the trend in contracting to achieve ecosystem management objectives on your forest has been increasing or decreasing over the last decade or so? (We'll know once we get the trend data!) Please explain trends in contracting and procurement—why are you doing more/less contracting over time?
- (3) Do you believe that residents of local communities are receiving employment benefits from your contracting practices, and does the forest make any special efforts to target local contractors/local workers to do ecosystem management work on the forest? If not, why not? What are the barriers? Does the forest view it as being important to try to promote local contracting?
- (4) Did the NWFP or NEAI have an impact on contracting practices and opportunities on this forest? Explain.

Section 5

Rural Community Assistance

Intro: Federal financial assistance to rural communities through grants is one way in which agencies contribute to community capacity building. For example, the NWEAI provided grants to communities to help with worker retraining, building community infrastructure, jobs in the woods, community development and diversification activities, and so on.

Questions:

- (1) Please describe the programs your forest has for offering rural community assistance, and contributing to community capacity building.
- (2) What have been the trends in the amount of money and resources you've had to devote to these programs over the last decade? Please explain the reasons for these trends.
- (3) How effective have your programs been at helping communities build their capacity? How are communities benefiting? Are we investing in the kinds of community assistance strategies that are most productive? Explain.

Section 6

Collaboration with Communities in Forest Stewardship Activities

Intro: We are interested in how the Forests/Districts/Programs engage the public in discussions about resource management. In particular, we are interested in how the Forests/Districts/Programs collaborate with communities and local groups in on-the-ground forest stewardship activities, and how these types of collaborations have changed over the past decade.

Questions:

- (1) How have the ways in which your Forest/District/Program engages the public in discussions about forest management changed since the early 1990s?
- (2) To what do you attribute these changes?
- (3) Can you think of any direct or indirect ways in which the NWFP has influenced these changes? What are they?

Now I want to talk specifically about collaborative forest stewardship activities between the Forest/your District/your Program and groups or communities. These would be activities that stem from a pooling of resources (e.g., money, labor, information) by your Forest/District/Program and other groups to achieve mutual objectives from which all parties will benefit. The groups might include com-

munity groups, volunteers, and other types of groups or organizations. Thus, I am not referring to standard public input processes, but instead projects that are designed and implemented in collaboration, between the Forest Service and a group, and that have tangible on-the-ground outputs that benefit all participants in the collaborative.

- (4) What types of on-the-ground collaborative forest stewardship activities does your Forest/District engage in with community groups or other groups?
- (5) Who do these groups tend to be, and where are they from generally (local vs. non-local)?
- (6) In what ways, if at all, do collaborative forest stewardship activities help your Forest/District fulfill its forest management objectives?
- (7) What other motivations are there for engaging in collaborative forest stewardship?
- (8) How has the way your Forest/District engaged groups or communities in on-the-ground forest stewardship activities changed since the early 1990s?
- (9) To what do you attribute these changes?
- (10) Can you think of ways in which the NWFP has influenced these changes in collaborative activities?
- (11) How, if at all, have these changes (both NWFP induced and others) influenced the ways in which communities and groups seek out collaborative activities with your Forest/District?
- (12) Has the "leadership" on your Forest/District pertaining to collaborative forest stewardship changed in the past decade? By "leadership," we mean the ways in which leaders create vision, enable, and empower employees, deliver messages, demonstrate commitment, learn from past experiences, and pass on knowledge related to collaborative forest stewardship.
 - a. How?
- (13) In what ways are employees on your Forest/District who engage in collaborative forest stewardship activities acknowledged, rewarded, or promoted?
 - a. What are the incentives for employees to participate in collaborative forest stewardship activities?
 - b. What are the disincentives?
- (14) Are the current levels of resources in the following categories meeting the current demands/needs for collaborative forest stewardship activities:
 - a. budget (dollars)?
 - b. staffing (people with responsibilities or opportunities to engage in collaborative forest stewardship)?
 - c. skills (people with the skills, or access to training to develop skills)?

- (15) What are the biggest barriers to collaborative forest stewardship activities that your Forest/District face?

Section 7

Achieving Plan Socioeconomic Goals

Intro: I'd like to conclude our discussion by asking you some general questions about the NWFP and its effectiveness. The NWFP interagency regional monitoring program focuses on effectiveness monitoring to assess how well the NWFP is achieving its goals and expectations. The socioeconomic monitoring program is evaluating how effective the Plan has been at meeting its social and economic goals and objectives. I'd like to get your perspective on this.

Questions:

- (1) The NWFP had 5 main socioeconomic goals that are being evaluated by the current monitoring program. I'd like to discuss them in turn.

For each one, ask:

Do you believe progress in meeting this goal has been made with respect to forest Y and local communities around the forest since the NWFP was implemented? Why or why not?

- Produce a predictable and sustainable supply of timber sales, nontimber forest resources, and recreational opportunities;
 - help maintain the stability of local and regional economies, and contribute to socioeconomic well-being in local communities, on a predictable and long-term basis;
 - Minimize adverse impacts on jobs, and assist with long-term economic development and diversification in the area;
 - Help protect noncommodity values and environmental qualities associated with the forest;
 - Improve relationships between federal land management agencies and local communities, and promote collaborative forest management and joint forest stewardship activities.
- (2) More broadly/or in sum, an overarching goal of the NWFP was to balance the need for forest protection with the need to provide a steady and sustainable supply of timber and nontimber resources to benefit rural communities and economies. Do you believe Forest/district Y has been successful in achieving this goal? Why or why not? Examples?

To Conclude:

Do you have any final thoughts, points you want to emphasize, summary remarks, or things you want to add regarding

the impact of the NWFP on Forest Y and its management, and associated effects on forest users and local communities?

Are there any questions you would like to ask me?

Thank you so much for your time and thoughts!

Interview Guide for Forest Service/ Bureau of Land Management Forest Employees COMMUNITY OUTREACH SPECIALISTS July 3, 2003

Interviewer

Forest

Date

Name of Interviewee

Title

Unit/Location

How long in present position

How long working on this forest

Note: if one of the interviewees is new in their position, and their predecessor is an old timer who is still accessible, you may want to interview both

- (1) First, would you please describe the overall nature of your program on Forest Y. How has the program evolved over the last decade or so?

Section 1

Contracting

Note: This section won't be relevant for some folks such as the public affairs officer. For others, like the volunteer coordinator, it should be adapted. In this case, you could ask questions 1–5 on the following page and replace “though contracting” with “through volunteers”—same questions but in the context of the volunteer program rather than contracting. Same for partnerships.

(Unfortunately, we won't have the results of the contracting study in by the time we interview folks, so won't know what the contracting trends are.)

Intro: Contracting and procurement to achieve ecosystem management objectives provide forest-based employment opportunities. One expectation of the NWFP was that although jobs in the timber sector would be lost due to declining federal timber harvests, new opportunities for forest work relating to ecological restoration, scientific surveys, fuels reduction, road decommissioning, etc. would emerge. Researchers have found that agency contracting to achieve ecosystem management on forests represents an important potential source of jobs for local communities. I'd like to discuss trends in contracting and procurement for ecosystem management purposes on Forest Y.

Questions:

- (1) What kinds of ecosystem management activities on the forest do you most often contract out to accomplish?
- (2) Do you think the trend in contracting to achieve ecosystem management objectives on your forest has been increasing or decreasing over the last decade or so? (We'll know once we get the trend data!) Please explain trends in contracting and procurement—why are you doing more/less contracting over time?
- (3) Do you believe that residents of local communities are receiving employment benefits from your contracting practices, and does the forest make any special efforts to target local contractors/local workers to do ecosystem management work on the forest? If not, why not? What are the barriers? Does the forest view it as being important to try to promote local contracting?
- (4) What, if anything, is Forest Y doing to help build community capacity to successfully obtain contracts?
- (5) Did the NWFP or NEAI have an impact on contracting practices and opportunities on this forest? Explain.

Section 2

Intro: Rural Community Assistance

Federal financial assistance to rural communities through grants is one way in which agencies contribute to community capacity building. For example, the NWEAI provided grants to communities to help with worker retraining, building community infrastructure, jobs in the woods, community development and diversification activities, and so on.

Questions:

- (1) Please describe the programs your forest has for offering rural community assistance, and contributing to community capacity building.
- (2) What have been the trends in the amount of money and resources you've had to devote to these programs over the last decade? Please explain the reasons for these trends.
- (3) How effective have your programs been at helping communities build their capacity? How are communities benefiting? Are we investing in the kinds of community assistance strategies that are most productive? Explain.
- (4) How was the rural community assistance program on the forest affected by implementation of the NWFP?

Section 3

Collaboration with Communities in Forest Stewardship Activities

Intro: We are interested in how the forests/districts/programs engage the public in discussions about resource management. In particular, we are interested in how the Forests/Districts/Programs collaborate with communities and local groups in on-the-ground forest stewardship activities, and how these types of collaborations have changed over the past decade.

Questions:

- (1) How have the ways in which your forest/district/program engages the public in discussions about forest management changed since the early 1990s?
- (2) To what do you attribute these changes?
- (3) Can you think of any direct or indirect ways in which the NWFP has influenced these changes? What are they?

Now I want to talk specifically about collaborative forest stewardship activities between the forest/your district/your program and groups or communities. These would be activities that stem from a pooling of resources (e.g., money, labor, information) by your forest/district/program and other groups to achieve mutual objectives from which all parties will benefit. The groups might include community groups, volunteers, and other types of groups or organizations. Thus, I am not referring to standard public input processes, but instead projects that are designed and implemented in collaboration, between the Forest Service and a group, and that have tangible on-the-ground outputs that benefit all participants in the collaborative.

- (4) What types of on-the-ground collaborative forest stewardship activities does your forest/district engage in with community groups or other groups?
- (5) Who do these groups that you engage in joint forest stewardship activities tend to be, and where are they from generally (local vs. non-local)?
- (6) In what ways, if at all, do collaborative forest stewardship activities help your forest/district fulfill its forest management objectives?
- (7) What other motivations are there for engaging in collaborative forest stewardship?
- (8) How has the way your forest/district engaged groups or communities in on-the-ground forest stewardship activities changed since the early 1990s?
- (9) To what do you attribute these changes?

- (10) Can you think of ways in which the NWFP has influenced these changes in collaborative activities?
- (11) How, if at all, have these changes (both NWFP-induced and others) influenced the ways in which communities and groups seek out collaborative activities with your Forest/District?
- (12) Has the “leadership” on your forest/district pertaining to collaborative forest stewardship changed in the past decade? By “leadership,” we mean the ways in which leaders create vision, enable, and empower employees, deliver messages, demonstrate commitment, learn from past experiences, and pass on knowledge related to collaborative forest stewardship.
- How?
- (13) Are employees on your forest/district who engage in collaborative forest stewardship activities acknowledged, rewarded, or promoted by upper management? How?
- (14) Are the current levels of resources in the following categories meeting the current demands/needs for collaborative forest stewardship activities:
- Budget (dollars)?
 - Staffing (people with responsibilities or opportunities to engage in collaborative forest stewardship)?
 - Skills (people with the skills, or access to training to develop skills)?
- (15) What are the biggest barriers to collaborative forest stewardship activities that your forest/district face?

Section 4

Achieving Plan Socioeconomic Goals

Intro: I’d like to conclude our discussion by asking you some general questions about the NWFP and its effectiveness. The NWFP interagency regional monitoring program focuses on effectiveness monitoring to assess how well the NWFP is achieving its goals and expectations. The socioeconomic monitoring program is evaluating how effective the Plan has been at meeting its social and economic goals and objectives. I’d like to get your perspective on this.

Questions:

- (1) The NWFP had 5 main socioeconomic goals that are being evaluated by the current monitoring program. I’d like to discuss some of these.

For each one, ask:

Do you believe progress in meeting this goal has been made with respect to forest Y and local communities

around the forest since the NWFP was implemented? Why or why not?

- Help maintain the stability of local and regional economies, and contribute to socioeconomic well-being in local communities, on a predictable and long-term basis;
 - Minimize adverse impacts on jobs, and assist with long-term economic development and diversification in the area;
 - Improve relationships between federal land management agencies and local communities, and promote collaborative forest management and joint forest stewardship activities.
- (2) More broadly/or in sum, an overarching goal of the NWFP was to balance the need for forest protection with the need to provide a steady and sustainable supply of timber and nontimber resources to benefit rural communities and economies. Do you believe Forest/district Y has been successful in achieving this goal? Why or why not? Examples?

To Conclude

Do you have any final thoughts, points you want to emphasize, summary remarks, or things you want to add regarding the ways in which Forest Y works to contribute to socioeconomic well-being in local communities, and to engage them with the forest in collaborative forest stewardship activities? Any last thoughts on the impact of the NWFP on Forest Y with regard to these kinds of activities/relationships?

Are there any questions you would like to ask me?

Community Outreach Specialists to Be Interviewed

Volunteer Coordinator

Partnership Coordinator

Community Assistance/Development Specialist

Public Affairs Officer

Interpretive Specialist/Environmental Education Specialist

Tribal Liaison (in which case focus all of the questions as they relate to forest interactions and relationships with tribes)

Appendix E: Case Study Community Descriptions

Olympic National Forest Case-Study Communities

Quinault Indian Nation

The Quinault Indian Nation (QIN) is the sovereign nation of the Quinault people, and six other tribes (Queets, Quileute, Hoh, Chehalis, Cowlitz, and Chinook) that were relocated to the reservation in the mid and late 1800s. Tribal enrollment is currently about 3,000 members, with half of the population living on the Quinault Indian Reservation (QIR). The majority of those living off of the reservation reside in the Aberdeen/Hoquiam area, but some live as far away as Alaska and Texas. The reservation covers 208,150 acres of land, and is the third largest Indian reservation in Washington State.

Most residents living on the QIR reside in the Indian villages of Taholah and Queets, with a smaller segment of the population residing in the nontribal community of Amanda Park. Taholah is a coastal fishing community located at the mouth of the Quinault River. With a population of about 871, most Quinault Tribe members reside in Taholah, and all government and administrative offices are there. Located at the terminus of a remote section of Highway 109 in Grays Harbor County, Washington, Taholah is approximately 45 miles north of Hoquiam. The village of Queets is located on the northern part of the reservation off of Highway 101 at the mouth of the Queets River, a few miles inland from the Pacific Ocean. Queets falls just within the boundaries of Jefferson County, Washington, and has a population of about 149 residents. Although both communities are located at or close to the Pacific Coast, no direct route exists between Taholah and Queets. Instead, from Taholah, one must travel inland 45 miles to Lake Quinault and continue northwest along Highway 101 for another 30 miles to Queets. Consequently Queets has been fairly isolated from much of the employment opportunities and tribal activities taking place in Taholah. Amanda Park is located inland at the eastern boundary of the reservation, along Highway 101 on the western shores of Lake Quinault, in Grays Harbor County.

The focus of this community case study is primarily on Taholah and Queets, as the majority of tribe members reside in these communities. Although some tribe members reside in Amanda Park, that community identifies itself more closely with the Quinault-Neilton communities. Qualitative information for Amanda Park is thus presented in the Lake Quinault area case study. Because block group areas (BGAs) were used to measure changes in socioeconomic conditions between 1990 and 2000, data from the entire reservation (including Amanda Park) were combined. We attempted to disaggregate the data into individual block groups; however, the block group boundaries changed between 1990 and 2000, making comparisons difficult. Thus, for this study, census statistics represent the entire BGA, defined as Taholah census designation place (CDP)-QIR (BGA 6101).

The QIR is west of the southwestern portion of Olympic National Forest (ONF), (i.e., the former Quinault Ranger District, and currently the Pacific District). The QIN shares many of its watersheds with ONF and Olympic National Park, with the headwaters located within the park or forest, and the lower portions of the watersheds located within the reservation. The QIN also owns Lake Quinault, and manages a fishery on the lake. Olympic National Park extends to the north shore of Lake Quinault, and ONF covers the south shore. Other major landowners in the area include the Washington Department of Natural Resources and large private industrial timberland owners, such as Rayonier and Weyerhaeuser.

Lake Quinault Area

The Lake Quinault area includes the communities of Quinault, Neilton, and Amanda Park, in the southwestern portion of the Olympic Peninsula. The three communities are approximately 40 miles north of Hoquiam, along the western loop of Highway 101, and about 30 miles east of the Pacific Coast, in Grays Harbor County, Washington. Referred to as the Quinault Rain Forest, the area receives an average of about 140 inches of rain a year. Adding to the scenic beauty of the area is Lake Quinault, a natural lake created by glacial runoff from the Olympic Mountains. The

town of Quinault is on the south shore of Lake Quinault; Neilton is about 5 miles south of the lake along Highway 101; and Amanda Park is along the northwest end of the lake. Amanda Park lies within the boundaries of the QIR, although it is considered a nontribal community. All three communities are unincorporated, and are within 10 miles of one another, sharing services and resources. For example, the school (kindergarten through 12th grade [K-12]) is located in Amanda Park, and the health clinic is in Neilton. Residents consider Quinault, Neilton, and Amanda Park to be part of one “community.”

Census data, collected at the level of BGAs, were used to measure changes in socioeconomic conditions between 1990 and 2000. For this study, the BGA is defined as Quinault-Neilton-Weatherwax (BGA 6109), which includes the communities of Quinault and Neilton. Amanda Park, however, is located within the QIR (BGA 6101). Although it is possible to break the BGA down into individual block groups and look only at the Amanda Park block group, the boundaries of this block group were changed between 1990 and 2000, making comparisons between years difficult at this level. Thus, for the purposes of this case study, qualitative data from interviews include changes that have taken place in the area as a whole (including Amanda Park), whereas quantitative census statistics will only include the communities of Quinault and Neilton (BGA 6109).

The three communities abut the southwestern portion of ONF. Quinault is surrounded by the ONF to the south, east, and west, and is bounded by Lake Quinault to the north (which is under the jurisdiction of the QIN). The Quinault Ranger Station, which is now part of the Pacific Ranger District, is located at Quinault. Olympic National Forest surrounds Neilton on all sides. Amanda Park, as mentioned previously, lies within the boundaries of the QIR, and borders Olympic National Park to the north. The north shore of Lake Quinault and the adjoining uplands are part of Olympic National Park. Other major landowners in the area include the QIN, which owns or manages land downstream of Lake Quinault; the Washington Department of Natural Resources, which also manages timberlands; and private industrial timberland owners, such as Rayonier, Weyerhaeuser, and Merrill-Ring.

Quilcene

Quilcene is a small community of 375 located along the Hood River Canal adjacent to the eastern boundaries of the ONF, on the Olympic Peninsula. Quilcene’s downtown core lies on Highway 101, a well-traveled tourist route, 25 miles south of the county seat, Port Townsend, 73 miles north of the state capital, Olympia, and less than 2 hours from Seattle. Expanding out from the downtown core are limited commercial and industrial areas, a public school, and residential development to the north, southeast, and east. For the purposes of this study, census BGA data are used to describe Quilcene. Block Group Aggregation 6307 includes the downtown commercial core, marine industrial areas along the Hood River Canal, and residential areas close to downtown. The BGA 6307 closely approximates the village of Quilcene boundaries established for planning purposes by the Jefferson County Planning Department and reflects a narrow definition of the community.

Depending on their affiliations or occupations, area residents variously think of Quilcene as business core, fire district, postal code, or school district boundaries. Fire district, school district, and ZIP code boundaries are more expansive and include portions of BGAs 6308 and 6304. Census information for BGAs 6304 and 6308 is not included in this report; however, this case study report draws its information from and describes a community that encompasses this broader area of roughly 84 square miles that is sparsely populated. The broader area, as defined by ZIP code 98376, was populated by 1,644 at the time of the 1990 census and increased to 1,767 in 2000. The area that is BGA 6308, East Quilcene–Dabob–Camp Discovery–Coyle, includes the people—about 400 in 2000—on the Bolton and T Peninsulas. This area’s small but growing population has, for the most part, little relationship with the study area. Block group area 6304, Leland, population approximately 800, is north and northwest of the downtown area. Leland consists of old homesteads in pasturelands adjacent to timber lands. Historically, there was a tight social and economic relationship between the Leland population and Quilcene.

Mount Hood National Forest Case-Study Communities

Upper Hood River Valley

The community of Upper Hood River Valley (UHRV) consists of an aggregation of two BGAs (3602 and 2603) located in Hood River County on the north side of Mount Hood and 10 to 20 miles south of the Columbia River. There are no census places¹ in the UHRV BGAs, and the nearest census place is the city of Hood River. The combined BGAs consist of 19,968 acres of private and public lands, including national forest and county forest land. Roughly two-thirds of the area of the combined BGAs is national forest. The 2000 population for the combined UHRV BGAs was 4,288 people.

Private land in the UHRV consists of residential, agricultural (including orchards, forests, and some livestock), and some commercial land. Most of the commercial and government services offered within the UHRV are located in the town of Parkdale. The primary school, fire department, several social services offices, two grocery stores, a few restaurants, a museum, several shops, and a bed and breakfast (B&B) are located along or within a couple blocks of a main street in Parkdale. Other B&Bs, a gas station, convenience store, country store, and a few restaurants are located in other parts of the UHRV, including the hamlet of Mount Hood. Mount Hood Meadows Ski Resort and Cooper Spur Mountain Resort are located in the high elevations of the UHRV area, above residential and agricultural areas.

Lands within the UHRV and Hood River County are within the ceded lands of the Confederated Tribes of the Warm Springs. In addition to tribe members coming to the area to engage in traditional harvesting, hunting, and fishing practices, the Confederated Tribes of the Warm Springs is the lead administrator of a Bonneville Power Administration (BPA)-funded program for anadromous fish conservation and reintroduction. A fish acclimation station and a recently relocated fisheries office are located within the UHRV.

¹ Census places are incorporated places and census-designated places.

At 533 square miles, Hood River County is the second smallest county in Oregon. Approximately 75 percent of the county is under some form of public ownership, the majority being the Mount Hood National Forest (USDA FS 1996). Residents of UHRV are 10 to 20 miles from the county seat in Hood River. The 2000 population of Hood River County was 20,411. With a population of 5,831 (USBC 2004), Hood River is the largest population center in the county and offers commercial services, as well as medical, banking, and governmental services. The primary industries in Hood River County include agriculture, timber, hydroelectric production, and recreation. Hood River County is one of the few counties in Oregon that owns and manages forest land as an income source. Some of the approximately 31,000 acres of county forest land are within or adjacent to the UHRV. One interviewee mentioned that for some time, years ago, the Hood River Ranger District managed the county forest land. The land is now under the management of the county forester. Based on information from a county supervisor, about half of the county budget is made up of revenues from the county forest.² The county is also in the process of purchasing forest land in eastern Oregon counties to manage as a revenue source for Hood River County.

Interviewees who were asked to comment on the delimitation of the community unit of analysis described differences among the lower, middle, and upper Hood River valley. Differing population densities, zoning regulations, and elevations contribute to their distinction as separate communities. For instance, the UHRV was characterized as being at higher elevations that affected orchards differently than happens at the lower elevation. Zoning regulations in the UHRV also set it apart from the middle and lower valley because such regulations have tended to keep orchards relatively large and have limited housing development.

² A Forest Service watershed assessment stated that the revenue from county forest, in 1996, represented about 12.5 percent of the county budget (USDA FS 1996).

Villages of Mount Hood From Brighton to Rhododendron

The Villages of Mount Hood in Clackamas County include the populated area along State Highway 26, between Brightwood and Rhododendron, beginning 41 miles east of downtown Portland. Thirteen miles east of Sandy, the study area is defined by BGA 2842 that includes the string of communities in the narrow Sandy River valley: Brightwood, Wildwood, Wemme, Welches, Zigzag, and Rhododendron. The study area is bounded to the north, east, and south by the Mount Hood National Forest encompassing portions of several tributaries to the Sandy River including the Salmon and Zigzag Rivers and Alder, Wildcat, and Boulder Creeks. The Bull Run Watershed Management Unit, Mount Hood Wilderness and Salmon-Huckleberry Wilderness areas of the Hood National Forest are adjacent to the study area in the Mount Hood National Forest. In addition, there are several blocks of land under Bureau of Land Management jurisdiction dispersed across the study area. The population at the time of the 2000 census was 3,670.

Although residents agreed Brightwood formed a suitable western boundary for the study area, many wanted to extend the boundary west to include Alder Creek and Cherryville. Because of census block group boundaries this was not practical, and the areas are not included in this study. On the eastern front, there was a divergence of opinion about whether Government Camp should be included. All of the communities, including Government Camp, are “east county” and under the same umbrella of Clackamas County government. Furthermore, residents and properties are in the same school and fire districts, and businesses have organized under one chamber of commerce. Business interests, in particular, see Government Camp as part of the Villages of Mount Hood community.

Moving west to east up the Villages of Mount Hood, communities transition from more strictly commuting to more strictly recreation-based communities and economies. Although many residents said Government Camp was part of the Villages of Mount Hood community, they characterized it as a very different community with a unique set of issues. The connection between the Brightwood through

Rhododendron area with Government Camp is indisputable, but issues of economics and politics are unique and distinct, especially with regard to the Forest Service. Key differences are Government Camp’s strict reliance on tourism and recreational uses of Mount Hood and the intensive dependency that results from being surrounded by Forest Service land. Additionally, Government Camp formed an Urban Renewal District in the early 1990s and works directly with Clackamas County Development Agency; this further separates it and the rest of the corridor communities. In the end, Government Camp’s characteristics and its issues with the Forest Service are distinct enough to warrant excluding it from the Villages of Mount Hood for the purposes of this case study.

The Villages of Mount Hood’s development originated with the initial Anglo-European settlement of Oregon. The community is located on what was part of the Barlow Road near the end of the Oregon Trail. A small number of individuals settled the area, and it remained a small enclave of communities on the travel route to Portland and into the Willamette Valley. The route through the Villages of Mount Hood later became State Highway 26, a major transportation route over Mount Hood to the Warm Springs Reservation, Madras, Bend, and other destinations in Central Oregon. Additionally, Highway 26 has long served as the route for visitors traveling from the Portland metropolitan area to destinations in the Mount Hood National Forest, including Timberline Lodge or one of the numerous ski areas, lakes, or trails. Although many local businesses consider the area merely a transportation corridor, there is a diversity of residents with varying perspectives, including those who consider the Villages of Mount Hood a “mountain community.” From west to east the individual towns are as follows:

Brightwood is characterized by the predominance of riverside rural residential development. There are a small number of businesses serving the local community, including a store, tavern, and post office.

Wildwood encompasses a small residential development on the north side of State Highway 26. There are a small number of businesses on the highway, primarily serving tourists, including an RV park, restaurant, and visitor center.

Wemme consists of a concentration of commercial businesses on the highway and a mix of residential and seasonal housing off the highway. Businesses include several eating and drinking establishments, a fly fishing shop, hardware store, and a few other basic goods and service businesses serving the local population and tourists.

Welches also consists of a concentration of commercial businesses on the highway and several types of housing developments. The commercial area, with a gas station, large grocery store, post office, and coffee shop, is the primary commercial hub serving area residents. The community includes a golf course and resort with a mix of housing developments ranging from year-round residences and rentals, to time shares and a hotel.

Zigzag has a very limited number of services, and there are a number of residential properties off the highway. **Faubion** is a residential neighborhood adjacent to Zigzag. There is a Forest Service ranger district office in Zigzag.

Rhododendron is characterized by a limited number of tourism and recreation businesses, including a grocery store and restaurant. Forest Service lease properties—seasonal housing—extend eastward from Rhododendron toward Government Camp.

Greater Estacada

Estacada is located on State Highway 211/224, 34 miles from downtown Portland, Oregon, at the foot of the Cascade Mountain Range. The greater Estacada area straddles the “Wild and Scenic” Clackamas River and is adjacent to the Mount Hood National Forest.

Located in Clackamas County, the greater Estacada area includes seven BGAs—2822, 2823, 2826, 2838, 2839, 2840, and 2846—with a total population of 9,315, in 2000. Block group area 2838 includes the incorporated city of Estacada and outlying populated areas roughly 1 mile north, east, and southeast of the city. Two BGAs, 2823 and 2822, are northwest of Estacada and include areas west of State Highway 224/211 up to Eagle Creek. The three easterly BGAs, 2836, 2839, and 2846, abut the Mount Hood National Forest. The BGA 2840 is almost wholly within the national forest and encompasses popular destinations in the Mount Hood National Forest, including Table Rock, Bull

of the Woods, and portions of the Salmon and Huckleberry Wilderness Areas, as well as Timothy Lake and Bagby Hot Springs. Tens of thousands of acres are owned and managed by timber companies including Longview Fiber and Weyerhaeuser. Several thousand acres are managed by the state, Clackamas County, and the U.S. Department of the Interior Bureau of Land Management (BLM). Unless otherwise specified, Estacada refers to the greater Estacada area.

The city of Estacada includes a number of well-established businesses, including several banks, grocery stores, quick markets, restaurants, churches, and a small number of other service and retail businesses. Areas outlying the city are sparsely populated agricultural and timber lands and a limited amount of commercial and industrial development. The city serves as the commercial hub for the greater Estacada area, and it is the last stop for goods and services for people traveling east into the Mount Hood National Forest.

In 2000, the city of Estacada reported a population of 2,371; the other 75 percent of the study area population—6,944 people—lived in the remaining portions of BGA 2838 and the six other BGAs. Most respondents describe the community as an extensive area and the BGAs encompass most of it.

This study does not include any area north and northwest of Eagle Creek, such as Barton, and includes only a portion of Eagle Creek. Arguably, Eagle Creek could be included in the study area; it is not a separate and distinct community with regard to its relationship with the Estacada economy and the national forest. Most residents and county officials define the community as the Estacada school district, and many people who live in the outlying areas consider themselves Estacada residents.

Klamath National Forest Case-Study Communities

Scott Valley

The Scott Valley lies in central Siskiyou County about 35 miles south of the Oregon border. The north-south-oriented valley is about 30 miles long and 7 miles wide, and is surrounded by mountains. Most traffic into and out of the valley is over a mid-elevation mountain pass to Yreka, 15 miles north of the valley on the Interstate 5 corridor. Yreka

is the largest service center in Siskiyou County, and is the county seat. The fifth-largest county in California, Siskiyou County is also one of its most sparsely populated. The county is among the Northwest Forest Plan locations most remote from major urban areas.

Among the mountains around the Scott Valley are the Trinity Alps Wilderness, the Russian Wilderness, and the Marble Mountain Wilderness. The Trinity Alps Wilderness lies across the boundaries of the Klamath, Shasta, and Six Rivers National Forests beyond the valley's southern end. The other two wilderness areas lie within the western half of the 1.7-million-acre Klamath National Forest, which curves around the valley's southern and western flanks at elevations ranging from 3,200 to over 8,000 feet (USDA FS 1997). Sections of BLM land are scattered across the lower, drier mountains that make up the Scott Valley's eastern flank. The view across the valley is pastoral, with irrigated pasture on the flat, green valley floor backed by range upon range of rugged mountains to the west.

The Scott Valley community area was identified by area residents as including the geographic extent of the valley up to the surrounding mountain peaks. The entire north-south string of valley towns—Fort Jones, Greenview, Etna, and Callahan—were seen as essential components of the valley community. Cheeseville, although identified on the census map, effectively no longer exists. The Quartz Valley-Mugginsville-Oro Fino Valley to the west was considered by interviewees to be part of the Scott Valley community. Residents suggested that the headwaters of the North Fork of the Salmon River, particularly the Sawyer's Bar area, also be included, as they believed that residents in that area sought most of their services within the Scott Valley. However, owing to the community delineation protocol adopted by the monitoring program, the final Scott Valley community delineation also includes large tracts of land and census-designated places that were not considered by residents to be part of the community. These include Cecilville, Summerville, and parts of the Salmon Mountains to the south, as well as Scott Bar and Klamath River communities such as Horse Creek and Steelhead to the north.

Fort Jones at the Scott Valley's northern end, and Etna at its southwest edge, are the largest towns within the valley.

Fort Jones (pop. 660), has several primary schools, housing, a few restaurants and stores, a number of other businesses, a museum of local history, and a Forest Service district office. Etna (pop. 781) holds historical homes, a small downtown with a number of businesses, a public library, and primary and high schools. A Forest Service district office in Etna was closed during the study period. Greenview (pop. 200), Mugginsville, and Callahan are smaller villages scattered within the valley. Sawyer's Bar is a tiny, remote community in the rugged mountains to the west, along the North Fork of the Salmon River. The village of Sawyer's Bar has no businesses, but retains a post office and a small Forest Service work station that hosts a firefighting crew. A school in the Sawyer's Bar area closed during the study period. The other small towns within the BGA were not identified by Scott Valley residents as part of their community. Stakeholders and residents of these areas were therefore not sought for interviews, although they are represented in the census statistics.

The valley is part of the ancestral territory of the Shasta Tribe, which today includes about 1,500 people. About half of the tribe members live within 100 miles of Yreka. The other half reside in Oregon or Washington. Most families include at least one member who still lives in ancestral territory, and other members return often to visit or for tribal gatherings. Many tribe members continue lifestyles with a close connection to the land.

Gold mining, agriculture, logging, and ranching have been the area's primary uses since White settlers entered around the 1830s. This history remains alive, with descendants of pioneering settler families still prominent in the area. Gold brought many of the original White settlers to the Scott Valley, and was mined in hard rock mines as well as the Scott River and its tributaries. Extensive dredger tailings from these activities remain at the valley's southern end.

The floor of the valley historically has been dedicated to ranching, with a dominant presence today of irrigated agriculture. Cattle pastures and irrigated alfalfa cover most of the valley floor. The alfalfa hay is fed to local cattle, or is sold and apparently trucked throughout California and the West. Most of the remaining bottomland is used to

pasture cattle, some of which are summered on the Klamath National Forest's grazing allotments. Sugar beets and other crops may also be farmed on the valley floor.

For 150 years, logging also occurred on the slopes surrounding the valley. Privately owned commercial forest lands lie between the valley bottom and the national forest land along the valley's western and southern extents. Most of these lands are owned by two commercial timber companies: Timber Products (formerly Sierra Pacific) and Fruit Growers Supply. A large Oregon-based commercial timber grower (Roseburg Forest Products) owns a much smaller land base within the valley. Timber harvest within the area is supplemented by smaller private landowners (USDA FS 1997).

Small-claim mining, ranching, and logging, all historically central to the area's economy, are occupations entailing individual risk and requiring personal initiative and hard physical labor. These are traits valued in the Scott Valley today. Inhabitants of the valley adhere to a tradition of rugged individuality and independence. Interviewee comments made it clear that hard work and individual initiative are strongly valued, with personal freedom perhaps most highly prized.

Despite the economic and political pressures associated with living in a relatively remote, rural community, residents say that they would much prefer to live in the Scott Valley than elsewhere. Ranchers and loggers cite multiple generations of their families closely tied to the land, with no desire to leave the woods or the valley. Tribe members cite thousands of years of local residence, and of accumulating a deep understanding of and connection to its natural rhythms and processes.

Residents express a feeling that the valley is a strongly rural place, one with a powerful and living connection to its history. They value the intergenerational traditions of the valley, and express regret at urbanization and other intrusive changes. Most want to see their community's rural culture protected. The valley seems removed from the faster-changing world beyond the surrounding mountains, and residents want to keep it that way.

Butte Valley

The Butte Valley is an agricultural area in northeastern Siskiyou County adjoining the Oregon border. The area is bordered by forest and range lands in mixed private and public ownership. The valley and surrounding areas include the Butte Valley National Grassland (administered by the Klamath National Forest), the Lower Klamath National Wildlife Refuge, the Butte Valley Wildlife Area, BLM land (administered by the Redding unit), and industrial timberland. The Goosenest Ranger District of the Klamath National Forest forms the mountainous border of the Butte Valley to the west and south. Large acquisitions of private land by the Klamath National Forest through exchanges or donations occurred from 1937 until 1951.

A portion of the Butte Valley is in the Goosenest Adaptive Management Area, designated by the Northwest Forest Plan with objectives related to forest health, late-successional forest habitat, and commercial timber production. The forested lands have historically provided grazing and timber-related products to the local economy. Major agricultural crops during the period of review, about 1990 until the present, have included hay, potatoes, and strawberries. The Butte Valley subbasin is a closed hydrologic system. All water drains into the ground or to Meiss Lake, and does not flow to the Klamath River under normal conditions.

The Upper Dorris Census Block Group defined the Butte Valley Community for purposes of this study. The city of Dorris is the only incorporated community in the Butte Valley, and one of nine incorporated communities in Siskiyou County. It contains a large component of the population of the area. Dorris is about 20 miles south of Klamath Falls, Oregon, and 50 miles north of Weed, California, on Highway 97. Macdoel, Mount Hebron, Tennant and Bray are unincorporated communities within the Butte Valley area. Tennant and Bray are not within this study area because the boundaries of the census block group, selected and validated locally as the most representative of the Butte Valley, does not include them. Fifteen people from the Butte Valley area were interviewed to obtain the information presented in this report.

As an incorporated city, Dorris has elected officials and a tax base to provide services to its citizens. Macdoel and Mount Hebron are small and dispersed enough that they do not have any organized services specifically for their area, such as a community service district for water and sewage. Fire protection is provided by two volunteer fire departments, one serving the entire area outside of Dorris. There is a health clinic in Dorris. A unified school district serves the entire area. Klamath Falls, Oregon, is the regional center for manufacturing, professional services, and shopping.

The area surrounding the Butte Valley has been logged for about 100 years. At one time there were several sawmills operating in the area. When long-time residents were growing up in the area, there was a sawmill in Dorris; in the 1950s and 1960s, the mill was the major employer in town. Although much of the forestry work was seasonal, the forests supplied work that supported families. Workers and their families were resident in the area and used local services. This mill reportedly closed down about 40 years ago. Since then, logs have been trucked out of the area. Two small mills remain in the area. One is a molding mill, in operation since 1924. This facility is an industry leader in the United States. The other remaining mill operation went through two previous incarnations as a molding business. The last molding business operated from 1986 until 1997 before converting to the current peeler core business.

Agriculture forms the largest employment sector in the Butte Valley. There is a strong ranching component, and farming has also been important historically. The potato industry thrived in the area for several decades. Most recently, strawberries have replaced potatoes.

The Butte Valley is part of the ancestral territory of the Shasta Tribe. However, few tribe members live there today.

Mid-Klamath

The Mid-Klamath community lies in northwestern Siskiyou County and encompasses the area bounded by the Klamath River to the south, the Oregon border to the north, and the towns of Klamath River upstream and Happy Camp downstream (all to the west of Interstate 5). Although the area is large geographically, the total population is small (1,660 people in 2000) because much of it lies across

the Klamath National Forest. In addition to the towns of Klamath River and Happy Camp, the community includes the small towns of Horse Creek, Hamburg, Seiad Valley, and Scott Bar. Scott Bar lies on the Scott River, a short distance above its intersection with the Klamath River. The other towns lie along the Klamath River and Highway 96, the main transportation corridor through the community. Highway 96 follows the river from Interstate 5 to the east, to Highway 299 to the southwest where it ends roughly 25 miles inland from the coast. The Mid-Klamath community is the most remote of the three case communities discussed here. The entire area is unincorporated.

Happy Camp is by far the largest town along the river, containing 38 percent of the Mid-Klamath population. The remainder of the population is for the most part concentrated around the other small towns that compose the community, each of which have a few hundred residents. What is remarkable about these towns is that they are completely surrounded by the vast western portion of the Klamath National Forest. The community between Happy Camp and Hamburg contains roughly 95 percent public land managed by the Klamath National Forest. Between Hamburg and Klamath River, a checkerboard pattern of land ownership prevails, with much of the private property held by private industrial forest landowners such as Fruit Growers Supply Company. Community residents live in the narrow Klamath River valley or along its major tributaries (e.g., Indian Creek, Seiad Creek). They are surrounded by the steep forested slopes of the Siskiyou and Klamath mountain ranges.

The Mid-Klamath community lies within the ancestral territory of the Karuk and Shasta Tribes. The Karuk ancestral territory includes the Klamath River area between Seiad Valley to the east and Bluff Creek to the west, and the Shasta ancestral territory includes the areas east of Seiad Valley (USDA FS 1999: 4-1). The first wave of White settlers entered the area around 1850 in search of gold (USDA FS 1997: 3-23). Small mining camps sprang up along the Mid-Klamath River and its tributaries. Miners searched for gold as well as copper and silver. By the early 1900s, mining had started to diminish, and by 1920 it had declined

significantly (USDA FS 1997: 3-66). Today gold mining occurs on a small scale, and much of it is recreational in nature.

Commercial timber harvesting began in the community around 1950 (USDA FS 1997: 3-66). From the 1950s until 1990, timber dominated the local economy. Much of the community's road system was built during this period (USDA FS 1999: 4-3). Farming and ranching have only been practiced on a small scale by a small number of Mid-Klamath residents owing to a shortage of flat land in the region and the difficulty in clearing it. The exception to this has been in the Beaver Creek watershed above the Klamath River where cattle and sheep grazing occurred on a large scale along the Siskiyou Crest starting in the early 1900s (USDA FS 1996: 4-13–4-14). Since the 1940s, grazing in that drainage has decreased substantially.

Happy Camp is the largest town in the Mid-Klamath region. It contains several stores, a few restaurants, three or four motels, an elementary school and a high school, a health clinic, a small museum focusing on Karuk tribal culture, a library, a Forest Service district office, and the Karuk tribal government offices. The Karuk Tribe has no land base in the form of a reservation.

Coos Bay BLM District Communities

Greater Reedsport

For purposes of this study, Greater Reedsport as a community consists of the three towns of Reedsport, Gardiner, and Winchester Bay. Reedsport sits on the central Oregon coast on the western edge of Douglas County along Highway 101, about 75 miles from Roseburg, the county seat. Located at the mouth of the Umpqua and Smith Rivers, this community is bounded by a hodgepodge of county, state, and federal forest lands such as the Siuslaw National Forest and the Coos Bay District of the BLM. Two small, unincorporated towns border Reedsport to the north (Gardiner) and the south (Winchester Bay). As of 2000, these three communities, which constitute the greater Reedsport Area, had a population of 5,545 (U.S. Census Bureau 2004). Distinctly different communities, these three towns have a historical interdependence, which previously helped sustain a certain level of economic viability. Historically, both

Reedsport and Gardiner have been timber towns whose economic prosperity has fluctuated with the whims of the lumber market. Serving as an entrance to the Oregon Dunes National Recreation Area, Winchester Bay has shifted from a commercial fishing area to a tourist destination site. As one respondent said, "We all depend on each other, or there's no way that we could be autonomous." In fact, Reedsport and Winchester Bay share a chamber of commerce.

Spurred by the completion of the railroad in 1916, Warren P. Reed founded Reedsport in 1919 and served as its first mayor. During the 1920s, several canneries, two sawmills, and a creamery anchored the town's economy (Beckham 1986). Finished in 1936, the Umpqua River Bridge linked Gardiner and Reedsport, as well as a series of bridges across coastal estuaries that increased access to the area. The increase in demand for timber following World War II facilitated a logging boom and, in turn, local economic growth.

Greater Myrtle Point

Located at the juncture of the Middle and South Forks of the Coquille River, the City of Myrtle Point serves as a microeconomic center for the far southern end of the Coquille Valley. Residents from the outlying settlements of Bridge, Arago, Dora, Fairview, Sitkum, and Broadbent send their children to school, shop, and do business in Myrtle Point. Myrtle Point, Powers, and Coquille form a socioeconomic unit in the minds of many inhabitants, who refer to that portion of Coos County as "South County." Some people also include Bandon in South County, but its coastal location on the mouth of the Coquille River provides it with a very different set of economic options from those available to the inland settlements.

Of the three case-study communities in the Coos Bay area, Myrtle Point is the most remote. It is situated roughly 20 miles inland from Highway 101, the major transportation corridor connecting Oregon's coastal towns. Roughly 60 miles of winding mountain road separate Myrtle Point from the Interstate 5 corridor.

The U.S. census recorded 4,927 inhabitants in Greater Myrtle Point in 2000. Most people in the southern Coquille

Valley reside in the lowlands along the Coquille River and its tributaries. The Coquille River uplands are used primarily for timber production and are sparsely populated. Forests are an important feature of the Coquille watershed, covering roughly 70 percent of its area (Oregon Department of Agriculture 2002: 7). Timber companies own roughly 40 percent of the land in the watershed, private nonindustrial landowners own 30 percent, and the remaining 30 percent is in public ownership, primarily Bureau of Land Management and Forest Service. Portions of the Coquille Indian Nation's tribal forest also fall within the Coquille watershed.

Although people living in and around Myrtle Point have access to many basic businesses, such as retail stores, banks, gas stations, and auto repair facilities, residents do much of their shopping and business in the neighboring towns of Bandon, Coquille, and Greater Coos Bay. Many residents commute to jobs in these three towns as well. Despite its small size, Myrtle Point offers a range of social services, including a fire department, a police department, an ambulance service, a medical clinic, K-12 public schooling, two banks, a public library, and a geriatric care facility.

Euro-Americans settled in the area of Myrtle Point beginning in the 1850s. The city of Myrtle Point was incorporated in 1887 (USDI BLM 1998: 40). Agriculture and livestock production dominated the local economy in the late 1800s, including cheese and butter exports to the San Francisco area (MPCPC 2000: 8). The introduction of splash dams in the region in the early 1900s opened up the area to industrial-scale logging operations, which dominated the local economy until the 1990s.

The Coquille River supported an active commercial salmon fishery during the late 1800s and early 1900s. Fish landing data indicate that fishermen caught 120,000 coho (*Oncorhynchus kisutch*) in 1908 (Heikkila 1999: 5). In contrast, an Oregon Department of Fish and Wildlife survey that took place between 1990 and 1996 estimated the number of coho spawners in the Coquille River at 3,000 to 15,000 (Heikkila 1999: 5). It would seem that the river has experienced a dramatic drop in its capacity to support a coho salmon population. The situation for spring chinook salmon (*Oncorhynchus tshawytscha*) is even worse, with an estimated 400 spring chinook entering the watershed

(Heikkila 1999: 5). Stocks of fall chinook salmon, coastal cutthroat trout (*Salmo clarkia*), winter steelhead (*Oncorhynchus mykiss*), and rainbow trout (*Salmo gairdneri*) remain relatively strong, albeit likely lower than historical levels (Heikkila 1999: 5).

In 2004, timber production and processing, as well as livestock and dairy operations remained important elements of Myrtle Point's economy. However, timber no longer dominates the economy as it did during the 20th century. McKenzie Forest Products, a small local business with 50 employees, remains one of the larger employers in the area, but many of the small family-owned mills, gyppo logging outfits, and associated businesses, shut down permanently in the early 1990s. The biggest employer in the area is the Myrtle Point School District with 130 jobs, followed by the Myrtle Point Care Center, which has 50 employees. The next largest employers include a local grocery store with 35 employees and a health clinic with 20 employees. The Coos County Oregon State University extension office relocated its office from Coquille to Myrtle Point in 2003, bringing an additional dozen long-term professional-level education-related jobs to the area.

Greater Coos Bay

For more than a century, the twin cities of Coos Bay and North Bend have dominated Oregon's south coast economy and politics. The two cities are located on the shores of the protected bay formed by the Coos River estuary, and thus their inhabitants benefited from the economic activities made possible by their proximity to one of the few deep-water harbors along the Pacific Northwest coast. Formerly physically as well as politically separate entities, over the years the two cities have expanded to the point where the geographic boundary between them is difficult for an outsider to identify. Politically the two cities remain distinct, but economically and culturally they have become indistinguishable. For all practical purposes, the formerly outlying towns of Empire and Bunker Hill also have become part of North Bend–Coos Bay, forming a socioeconomic unit that we have labeled “Greater Coos Bay.”

The nearby fishing village of Charleston also has strong ties to the Greater Coos Bay area, but with its

economic origins in tourism and commercial fishing rather than logging and wood processing, its cultural and economic character is sufficiently distinct culturally and economically that we opted to exclude it when bounding the study site. Nonetheless, Charleston's coastal location and position as the stepping-off point for tourists attracted to the scenic headlands of Cape Arago, the internationally recognized Shore Acres Garden, and the South Slough National Estuarine Reserve, make it an important player in Greater Coos Bay's adaptation to the decline of its forest products economy. Indeed, a number of residents of the towns of Coos Bay, North Bend, and Charleston are increasingly beginning to think of the three towns as components of a cohesive sociopolitical entity known locally as the "Bay Area."

Greater Coos Bay is the proverbial large frog in a small and somewhat isolated pond. With a combined population of 28,596 in 2000, Greater Coos Bay is the largest settlement in Coos County. The towns of North Bend and Coos Bay serve as the trade and services center for Oregon's south coast. They offer residents many of the amenities of much larger towns in the Willamette Valley and Puget Sound without the population numbers, noise, and traffic snarls that come with dense population centers. Residents thus have access to a large variety of retail and wholesale stores, a wide range of medical facilities, a community college and a Marine Biology institute affiliated with University of Oregon, numerous government services, a range of transportation and shipping facilities, a world class export port, and a thriving arts community. Yet at 5 hours distance by road, Coos Bay is just far enough away from Portland to discourage day and weekend tourists, and at 2 hours drive from the Interstate 5 corridor, is far enough from Oregon's main transportation route to make manufacturing firms think twice before setting up shop in Coos Bay. Much of the traffic that flows through the area is tied to the seasonal tourist trade, which peaks in July and August.

Greater Coos Bay's origins are intimately interwoven with the development of southern Oregon's timber and associated shipbuilding and lumber export industries. Empire, which occupies a position as the first deep-water anchorage site inward of the Coos Bay sandbar that protects the bay

from wave action, was the first permanent White settlement of any size along the bay (Douthit 1999: 136). Henry Luse built the area's first sawmill in 1855 in Empire, setting the foundation for the industrial timber economy that dominated Greater Coos Bay until the end of the 20th century (Douthit 1999: 136).

A year or so later, Asa Simpson, a businessman from San Francisco set up a sawmill in the vicinity of modern-day North Bend to support a shipbuilding yard where many of the vessels supplying California's demand for lumber during the last half of the 19th century and the first half of the 20th century originated (Wagner 1986: 5). The town of Marshfield, which eventually changed its name to Coos Bay, emerged in the vicinity of a small lumber mill established in 1867 (Douthit 1999: 146). Marshfield began to rival North Bend in population size and economic importance only after the C.A. Smith Lumber Company set up the area's first really large-scale wood processing operation in the early 1900s on the south edge of Marshfield in an area known as Bunker Hill (Douthit 1999: 146).

Milling, shipbuilding, and wood products exports—all activities bound up with the harvest and processing of timber—constituted the core of the bay area economy through the late 1980s. From the 1850s to the 1900s, Greater Coos Bay's timber economy was a relatively open playing field, characterized by the presence of both large and small operations and no single dominating lumber company. The playing field shrank considerably in the early 1900s with the entry of C.A. Smith Company and its successor company, Coos Bay Lumber Company, which established milling facilities large enough for them to dominate the local lumber market (Douthit 1999: 146).

In the 1950s, Weyerhaeuser became the dominant force in Greater Coos Bay's lumber market. However, the Coos Bay timber economy has always retained an open flavor to it, in that it supported, and continues to support, the presence of a diverse set of logging and milling operations. These range in size and scale from multinational companies, such as Weyerhaeuser, Georgia Pacific, Plum Creek, and Menasha, to regional companies, such as Lone Rock Timber and Roseburg Forest Products, to local companies, such as South Coast Lumber. In addition, Greater Coos

Bay wood processing facilities have historically produced a wide variety of products, including raw logs, dimension lumber, plywood, veneer, pulp, and wood chips. Thus, Greater Coos Bay enjoyed a measure of resilience to downturns in the timber economy that timber-dependent communities with less diversity in terms of numbers, types, and scales of wood processing operations did not.

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