

pine, subalpine fir, and Engelmann spruce. The CFL was identified through a Timber Production Capability Classification (TPCC) process in two reports completed in 1977 and 1980 covering separate parts of the Cascade Resource Area. The classification criteria and acreage summations of these reports are considered superior to the acreage summations of the 1975 forest inventory and are used in this analysis.

The TPCC determined that 26,686 acres or 84% of the total CFL is capable of sustaining long-term timber production. These lands are referred to as Suitable Commercial Forest Land. An additional 70 acres is being managed as a seed orchard.

The remaining 5,139 acres or 16% of the total CFL were determined through TPCC to be incapable of sustained long-term timber production. These lands are referred to as Non-suitable Commercial Forest Land. They are mostly fragile lands or lands which cannot reforest adequately.

The Cascade Resource Area contains 873 acres of woodland. Woodland is land producing trees that are not typically utilized as sawtimber. Woodland can include non-suitable commercial forest land but cannot include CFL in the allowable cut-base. Woodland includes the minor acreages of deciduous forests such as aspen, cottonwood, and cherry and lands that cannot be reforested within 15 years.

According to the 1975 forest inventory, with multiple use restrictions on 6,750 acres for topography, watershed and scenic corridors, the Resource Area can support a decadal cut of 17 million board feet without intensive management and 29 million board feet with intensive management. This equates to an annual allowable cut of approximately 1.7 and 2.9 million board feet respectively.

During the past several years, based on funding and personnel, the decadal cut was 10 million board feet which equates to an annual allowable cut of approximately 1.0 million board feet.

During the 1986 fire season approximately 69 acres of commercial forest lands were affected by wildfires. Salvage logging operations are planned on some of those affected acres.

FIRE MANAGEMENT

Wildfires have burned approximately 132,204 acres in the fifteen-year period of 1970-1985 in the Cascade Resource Area.

Analysis of available data indicate that the Cascade Resource Area has an average of 39.9 fires per year, based on the fifteen-year average. Forty-one percent of these fires occur during the month of July, followed by 30% of the fires occurring in the month of August. The months of June and September have a fire occurrence of 13% and 11%, respectively.

Approximately 8,814 acres is the average acreage burned per year in the resource area. The 1985 wildfires consumed an above-average acreage of 10,110 acres. The largest average acreage burned has been the month of

Affected Environment

August with an average of 4,062 acres, followed closely by the month of July with an average of 3,653 acres. Burned acreages for June and September average about 519 acres and 542 acres, respectively. The average fire size is approximately 221 acres for the fifteen-year period.

In 1986, wildfires consumed approximately 220,961 acres within the Cascade Resource Area. Approximately 95,516 acres were public lands administered by BLM, 13,000 acres were State of Idaho lands and 112,445 acres were privately owned lands. The number of wildfires in 1986 approximated the previous 15-year annual average but the size of the fires was far greater. Available information suggests that this level of wildfire activity, mostly caused by lightning, may be a 20-year event. The 1986 fire season data have not been incorporated into the statistics for the previous 15-year period.

During the fall of 1986 the Boise District prepared an Emergency Fire Rehabilitation Plan and Environmental Assessment. The Fire Rehabilitation Plan calls for seeding approximately 11,500 acres using both aerial and mechanical methods. Most of the grass/forb seedings are planned during 1987. Additional shrub seedings and plantings are planned over a 5-year period. Fire rehabilitation efforts were initiated during the fall of 1986. Fire boundaries are shown on the following maps: 2, 7, 2-2, 3-1, 3-2, 3-3, and 3-5.

ECONOMICS

Introduction

The Cascade RMP area is a highly diverse area that encompasses all or parts of eight counties in southwestern Idaho. There are 29 incorporated cities in the area, with populations that range from under 25 to over 100,000. Total population in the eight-county area is estimated at 326,000 (Bureau of the Census 1985). Ada County accounts for 58% (189,300). Canyon County accounts for another 27% (87,800). Payette County, which is the next largest county, accounts for only 5%.

Earnings

Total earnings in the eight-county area in 1983 were \$2.3 billion (Bureau of Economic Analysis 1985). This consisted of \$2.2 billion in nonfarm earnings and \$0.1 billion in farm earnings. Earnings distributed by industry is shown below.

1983 Earnings by Rank

<u>Industry</u>	<u>Earnings (000s)</u>	<u>Rank</u>
Services	\$422,316	1
State and Local Government	276,615	2
Retail Trade	262,219	3
Durable Manufacturing	253,971	4
Construction	219,045	5
Finance, Insurance, Real Estate	151,986	6
Nondurable Manufacturing	144,156	7
Federal Government (Civilian)	112,541	8
Farm	96,317	9
Federal Government (Military)	8,836	10
Other <u>1/</u>	388,751	--

1/ Ag Services, Mining, Transportation and Public Utilities, Wholesale Trade

Source: U.S. Dept. of Commerce, Bureau of Economic Analysis. 1985. Earnings by Industry 1978-1983, Regional Economics Information System, April 1985.

Within the eight-county area the services portion of the economy is the largest (in terms of earnings), followed by state and local government, retail trade, and durable manufacturing.

This level of 1983 nonfarm earnings represents a 28% increase since 1979. After adjusting for the effects of inflation (using the implicit GNP price deflator) this becomes a decline of 3% in real dollars. The 1983 farm earnings represent a 1% decline since 1979. This becomes a 25% decline after adjusting for inflation.

Employment

The data presented here is for wage and salary employment only. Data on proprietors (both farm and nonfarm) are not available.

Total wage and salary employment in the eight-county area in 1983 was 121,078 (Bureau of Economic Analysis 1985). This consisted of 3,450 farm jobs and 117,628 nonfarm jobs. Employment distribution by industry is shown below.

Affected Environment

Employment By Rank

<u>Industry</u>	<u>Wage & Salary Employment</u>	<u>Rank</u>
Services	23,648	1
Retail Trade	21,246	2
State and Local Government	18,843	3
Manufacturing	17,236	4
Wholesale Trade	7,675	5
Finance, Insurance, Real Estate	7,533	6
Transportation & Public Utilities	7,530	7
Construction	6,039	8
Federal, Civilian Government	4,570	9
Farm	3,450	10
Federal, Military Government	1,545	11
Other (Ag Services, Mining)	2,123	--
Total	121,078	

Source: U.S. Dept. of Commerce, Bureau of Economic Analysis. 1985.
Full-Time and Part-Time Employees by Major Industry 1978-1983,
Regional Economics Information System, April 1985.

Within the eight-county area the services portion of the economy is the largest (in terms of wage and salary employment), followed by retail trade, state and local government, and manufacturing.

The level of 1983 farm employment represents a 9% increase since 1979. The 1983 nonfarm employment level represents a 5% decline since 1979.

Multipliers

When changes occur in one sector of a local economy, changes also occur in other sectors. This is due to the interrelated nature of the economy. These changes are measured through the use of multipliers. The multiplier is a single number that summarizes the total direct and indirect spending effects of a given change in the local economy. The U.S. Water Resources Council published gross output multipliers for Bureau of Economic Analysis (BEA) economic areas in January of 1977. The economic area that includes the Cascade RMP area is Area 159. This includes all of southwest Idaho and parts of southeast Oregon. These multipliers (shown in Appendix N) indicate that the sectors in the local economy that would lead to the greatest changes in other sectors would be the meat animals and meat products sectors. In addition to multipliers, output must be converted to earnings in order to estimate economic impact. This is done through the use of earnings to gross output ratios. These ratios have been calculated based on U.S. Water Resources Council procedures and are shown in Appendix O.

Crop Agriculture

In 1983, cash receipts from agricultural marketings in the RMP area totaled \$467.3 million. Of this total, \$179.4 million was from crop production (BEA 1985). Based on this, it is estimated that 38.4% of total farm income and employment results from crop production. This would mean

that in 1983 crop agriculture earnings was \$37.0 million while employment was 1,325.

Livestock

In 1983 the cash receipts from marketing of meat animals (primarily cattle and calves, sheep and lambs) accounted for 45% of total farm cash receipts. This varied by county from a low of 34% in Gem County to a high of 89% in Valley County. Assuming that farm earnings are in the same proportion as cash receipts, total earnings from meat animals in the eight-county area would be 45% of total farm earnings, or \$43.3 million.

The 1982 Census of Agriculture indicated that there are approximately 84,823 beef cattle and calves and 22,726 sheep and lambs in the eight-county RMP area. This would be 89,368 animal units. This means that each animal unit generates earnings of \$485.

The permittees in the Cascade RMP area have a total herd size of 51,581 cattle and 5,650 sheep. This would be 52,711 animal units which would generate earnings of \$25.6 million. This would be 59% of the total eight-county meat animal earnings and 27% of total farm earnings.

Total current BLM AUMs in the eight-county area are 66,424. This would support 5,535 animal units which would generate earnings of \$2.7 million. This would be 11% of permittee earnings, 6% of eight-county area meat animal earnings, and 3% of total farm earnings. Large reductions in available forage, as occurred with the wildfires in the summer/fall of 1986 would reduce these levels of earnings and force permittees to either reduce herd sizes or find alternative (and more expensive) feed sources. Occurrences such as this would be short term in nature, not generally extending over more than 1-2 years.

It is also assumed that 45% of total farm employment in the RMP area is meat animal related (based on the relationship between receipts and earnings discussed above). This means that total meat animal employment would be 1,553 (wage and salary only). Employment is assumed to be in the same percentages as earnings for permittees and BLM-AUM related employment.

As early as 1925 it was recognized that the annual value of the federal grazing privilege was being capitalized into rancher property. "It is argued that long use of the range in connection with the early settlement of agricultural lands has resulted in capitalizing the values of public pasturage as part of the value of the ranch..." (USDA 1925).

A report published by the Utah State University Experiment Station stated: "There was nothing illegal or unethical in the fact that grazing permits took on value; ranchers just reacted to an economic situation that was created by government policy. Permit values rose because ranchers who have grazing permits were capturing economic rents in the form of low-cost grazing; i.e., the grazing fee and recognized non-fee costs did not equal the value of the grazing to ranches. Thus, the authorization to use the federal lands and the associated economic rents were capitalized into rancher-owned assets. This value could show up either as a permit value or

Affected Environment

as an increased value of the commensurate property." (Nielson and Workman 1971).

The Bureau of Land Management's position on permit values is based on very explicit language in Section 3 of the Taylor Grazing Act of 1934 which states: "So far as consistent with the purposes and provisions of this Act, grazing privileges recognized and acknowledged shall be adequately safeguarded, but the creation of a grazing district or the issuance of a permit pursuant to the provisions of this Act shall not create any right, title, interest, or state on or to the lands." Thus, any capitalized value associated with grazing permits has no legal basis and as a result a rancher has no compensation for loss of this value.

Magazine articles and research results have often been in conflict on the subject of permit values. Nevada rancher, Dean Rhoads, in an article in the New West Magazine stated that "the forage right for a single cow on the public range now sells for anywhere from \$1500 to \$3000 in the Elko area." (Boly 1980). A survey done in New Mexico of ranch appraisers and credit officers placed the value of Forest Service permits at between \$944 and \$1,163 per animal unit, depending on area, in New Mexico. Bureau of Land Management values varied from \$667 to \$888 (Fowler and Gray 1980). On the other hand, a study in eastern Oregon found "the inclusion of public grazing privileges were found to have no significant impact on the level of private grazing land sale prices." (Winter and Whittaker 1979).

Based on the active preference in the RMP area, it is estimated the capital value of BLM AUMs would be between \$4.1 and \$18.2 million.

Recreation

Expenditures in the recreational activities of the region primarily impact the retail trade and services sectors of the economy. The 1980 Survey of Hunting and Fishing (U.S. Fish and Wildlife Service 1980) data indicates that in destination-type expenditures (meals, lodging, transportation, ammunition, land use fees, etc.) the retail trade sector is affected the most. The direct impact of a dollar of recreation expenditure by type of activity is shown below.

Distribution of Recreation Expenditures

Sector	Fishing	Big Game	Small Game	Migratory Birds	Other Hunting
Transportation	\$.01	\$.02	\$.00	\$.00	\$.00
Retail Trade	.95	.97	.99	.99	.99
Services	.04	.01	.01	.01	.01

A wide variety of recreational activities take place on public lands in the RMP area. The level of recreation use on public lands has been estimated at 622,000 activity occasions. Data in the 1980 National Survey of Hunting and Fishing for Idaho identifies expenditures for hunting and fishing by type of expenditure. Destination-type expenditures were \$9.43/

day for fishing a \$12.24/day for hunting. Additionally, non-consumptive use of wildlife had destination-type expenditures of \$12.76/day. The average of these three, \$11.50/day, was used to estimate total expenditures. The definitions for an "activity occasion" and a "day" in the reports by the Idaho Department of Parks and Recreation and the U.S. Fish and Wildlife Service appear to be roughly the same. Thus, the values for expenditures per day have been directly applied to the number of activity occasions. Total expenditures would be \$7.2 million. This level of expenditures converts to earnings of \$2.8 million using the earnings to gross output ratio for the retail trade sector of the economy.

Employment estimates were developed by comparing the 1983 retail trade earning in the RMP area with the wage and salary retail trade employment. This estimates earnings per job at about \$12,000. This is somewhat inflated due to the lack of data on retail trade proprietors. The employment generated by the recreation activities on public lands in the RMP area would be 233 jobs.

Lumber and Wood Products

The Idaho Department of Employment estimated lumber wages and employment at \$90.8 million and 4,228 jobs (Idaho Department of Employment 1984). Two of the counties in the RMP area, Ada and Canyon, are not considered timber producing counties by the Idaho Forest Industry Council (I.F.I.C. 1984). These two counties account for 59% of employment and wages in the lumber industry. This is largely due to the location of the headquarters of Boise Cascade Corporation in Ada County (Boise). Excluding these two counties leaves employment and wages in the RMP area lumber industry of 1,738 jobs and \$37.3 million. In a study of the Idaho Forest Industry (Youngblood 1983) it was found that there are 10.48 man years per million board feet of lumber processed. This would mean that 166 million board feet of lumber would have been processed to maintain the 1983 employment level in the wood products industry in the RMP area (excluding Ada and Canyon Counties).

The 1983 lumber earnings would represent 23% (all eight counties) of the total manufacturing sector of the RMP area economy. Excluding Ada and Canyon Counties this would drop to 9%.

The current allowable cut in the Cascade RMP is approximately 1.0 million board feet. This would generate roughly 10 jobs and earnings of \$215,000. This would be less than 1% of the 1983 lumber earnings for the RMP area (excluding Ada and Canyon Counties).