

RURAL SETTLEMENT AND RESOURCES

OF THE

ALSEA VALLEY

by

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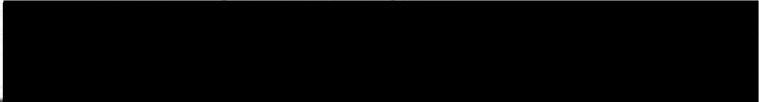
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TABLE OF CONTENTS

CHAPTER		Page
I	INTRODUCTION.....	1
II	THE ALSEA -- PHYSICAL SETTING.....	3
III	THE RURAL SETTLEMENT.....	12
IV	THE FOREST BASE OF SETTLEMENT.....	24
V	AGRICULTURAL RESOURCES AS THE BASIS FOR SETTLEMENT.....	45
VI	RECREATIONAL RESOURCES AND SERVICE ACTIVITIES.....	80
VII	THE OUTLOOK.....	95
	APPENDIX.....	113



ADVANCE BOND

Am. L. BROWN Paper

LIST OF TABLES

TABLE		Page
1.	Climate Data for Tidewater, Oregon.....	10
2.	Growing Season at Tidewater.....	11
3.	Mileage Chart for Alsea, Oregon.....	17
4.	Ownership of Logging Operations.....	30
5.	Cropland Areas of the Alsea Valley.....	46
6.	Water Rights in the Alsea River System.....	97
7.	Water Storage in the Alsea Basin.....	100

LIST OF FIGURES

FIGURE	Page
1. A general view of the headwater area of the Alsea River.....	4
2. Lateral and longitudinal profiles of the Alsea Valley.....	6
3. Drainage pattern and transportation routes of the Alsea Valley.....	8
4. Climagraph for Tidewater, Oregon.....	10
5. Sketch map of Alsea, Oregon.....	18
6. The main street of Alsea.....	19
7. Timber cut in the Alsea Basin (1944-1951)...	28
8. Logging operations in the Alsea Basin.....	31
9. A dense stand of conifers in the Alsea Valley.....	32
10. A log truck on its way over the Alsea Mountain.....	35
11. A typical log dump in the Alsea Valley.....	37
12. The Digger Mountain sawmill.....	38
13. The greenchain of the Digger Mountain mill..	41
14. Stacked lumber at the Digger Mountain mill..	42
15. The waste burner and millpond of the Digger Mountain mill.....	44
16. Distribution of cropland.....	47
17. Mean monthly flow of the Alsea River.....	51
18. Beef cattle grazing in the Alsea Valley.....	55
19. Baled hay in the Alsea Valley in mid-July...	55
20. The Maltby Dairy farm.....	57

LIST OF FIGURES (continued)

FIGURE		Page
21.	Clover pasture on the Maltby farm.....	59
22.	Clover pasture under irrigation on the Maltby farm.....	59
23.	The Brownley dairy farm.....	63
24.	Sprinkler irrigation on the Brownley farm...	65
25.	The John Newman farm.....	68
26.	A field of oats and wheat on the John Newman farm.....	70
27.	Wooded pasture on the John Newman farm.....	72
28.	The Stow ranch.....	76
29.	Trout fishing on the Alsea River.....	82
30.	Fish stocked in the Alsea River and tribu- taries (1949-1952).....	84
31.	Taylor's Landing.....	89
32.	Taylor's Landing on the Alsea River.....	91
33.	A small storage dam of the type recommended for the Alsea Basin.....	99
34.	Proposed water storage sites in the Alsea Basin.....	101

RURAL SETTLEMENT AND RESOURCES IN THE ALSEA VALLEY

CHAPTER I

INTRODUCTION

The Alsea is typical of a dozen or more river valleys that have been incised into the western slope of the Oregon Coast Range. Settlement began in these valleys about a century ago, in the main, as an overflow from more favorable areas such as the Willamette Valley. Since the beginning, rural settlement in the Alsea Valley has been based largely on utilization of local natural resources.

The study of "Rural Settlement and Resources in the Alsea Valley", has as its objective the bringing together and analyzing of all the pertinent information about the area and its people as a contribution to knowledge of Western Oregon. Studies have been made of each of the major activities in the valley to specifically show the inter-relationships of man and environment.

The area included in the study consists of the river valley of the Alsea River and the tributary areas immediately accessible to it. Lobster Valley has not been included because it is separated from the Alsea Valley by a distinct physical division. Furthermore, Lobster Valley is generally not regarded as part of the Alsea Valley by the inhabitants of the area. The Upper Five Rivers Valley has not been

included because of the absence of any significant settlement within it.

Field work for the study was carried out during the summer of 1954. Every holding from the town of Alsea to the headwaters of the river was visited and the residents interviewed to compile a complete census of this part of the valley. In the remainder of the area, about thirty percent of the population was contacted by a random sampling technique. Four types of check lists were used in compiling information. A general questionnaire was used for all interviews. Three specialized questionnaires covered forestry, agriculture, and recreation. Case studies were made to present typical examples of the several major activities. Field mapping was done in each case study and in the town of Alsea. Other maps have been compiled from numerous existing maps. Authorities associated with organizations and agencies concerned with the area were interviewed. Published information was consulted in several libraries.

CHAPTER II

THE ALSEA VALLEY--PHYSICAL SETTING

The Alsea River Valley is long and narrow, extending from the Pacific Ocean nearly to the Willamette Valley. It is located in two counties; Benton County on the east and Lincoln County on the west. The valley is approximately fifty miles long, twenty miles in Benton County and thirty miles in Lincoln County, and from a few hundred yards to three miles wide, with the far greater part being less than a mile in width. The valley runs in a general east-west line from its beginning in the Oregon Coast Range to its termination near the Oregon Coast.

Topography

The Alsea Valley is incised into the western slope of the Oregon Coast Range. The Alsea River has its source in three principal places; (1) on 4,097 foot high Mary's Peak, the highest point in the coast range; (2) in the mountains of south-central Benton County; and (3) in the mountains of central Benton County, remarkably near the Willamette Valley drainage. The headwaters of the main river, in central Benton County, are at an elevation of about 1,350 feet, with the valley walls rising sharply

on either side to elevations of up to 1,750 feet. In less than one mile, the valley bottom drops to an elevation of 750 feet, and in two and one-half miles, it drops to 500 feet elevation. Then the profile flattens notably, gradually dropping to sea level in the next forty miles. (See Figure 2.)

As the valley nears the Pacific Ocean, the valley walls also are lower in elevation, dropping from about 1,750 feet to about 750 feet near Alsea Bay, which extends to the Pacific Ocean. The local relief remains nearly constant, however, ranging from 500 to 1,250 feet throughout.



Figure 1. A general view of the headwater area of the Alsea River.

The width of the valley is barely discernible at its beginning and remains so for nearly five miles. Near the junction of the North Fork and Crooked Creek (sometimes called Spencer Creek), the valley is approximately one quarter of a mile wide, increasing to about three miles at Alsea, after which it again narrows to about one-half mile. At Digger Mountain, which is about six or seven miles west of Alsea, the valley pinches off to only a few hundred yards in width and remains so, with only minor exceptions, for almost all of its remaining length. The portion upstream from Digger Mountain, including the widest part of the valley in the vicinity of the town of Alsea, is frequently referred to as the upper valley. The portion downstream is thought of as the lower valley.

Drainage Pattern

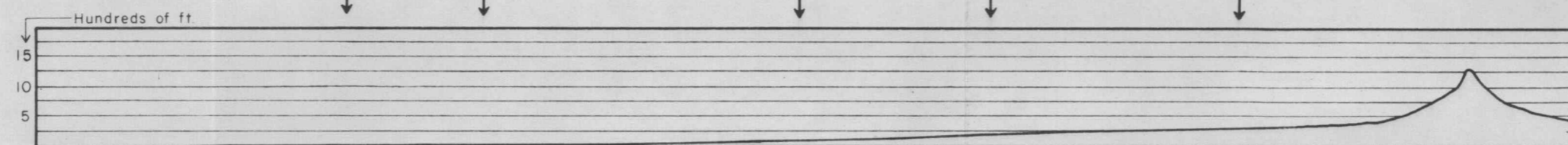
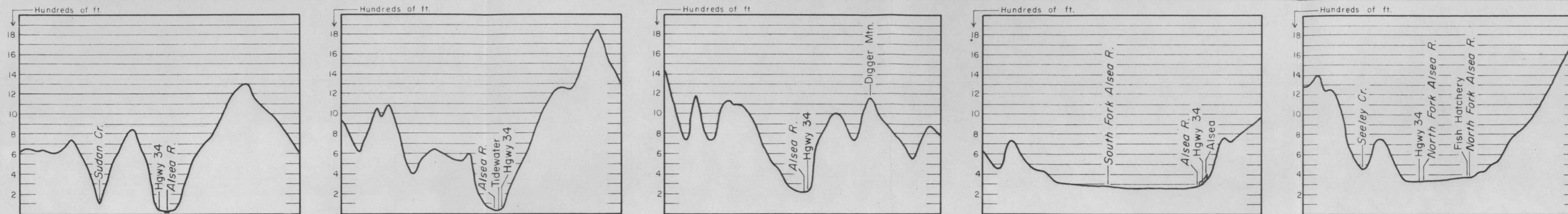
The entire Alsea River drainage basin encompasses approximately 450 square miles, or 288,000 acres, and includes parts of three counties: Benton, Lincoln, and Lane (4, p.2).

In addition to the main stem of the Alsea, there are many tributary streams that are part of the drainage basin (See Figure 3). Many of the small streams of the valley are intermittent in nature, having water only during the



Figure 2

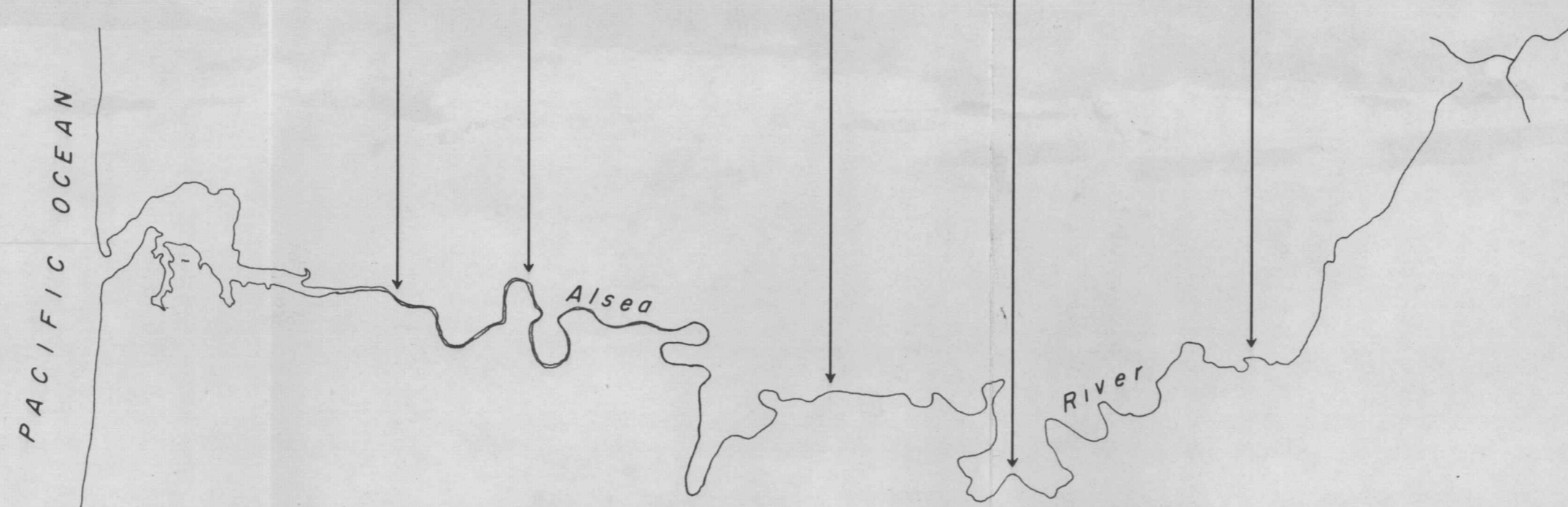
Lateral and longitudinal profiles
of the Alsea Valley.



Horizontal scale for lateral profiles is 1"=5200'. Vertical scale is 1"=800'.

Horizontal scale for longitudinal profile is 1"=16,640'. Vertical scale is 1"=2,560'.

Vertical exaggeration for all profiles is 6.5 times.



LATERAL AND
LONGITUDINAL PROFILES
OF THE
ALSEA VALLEY

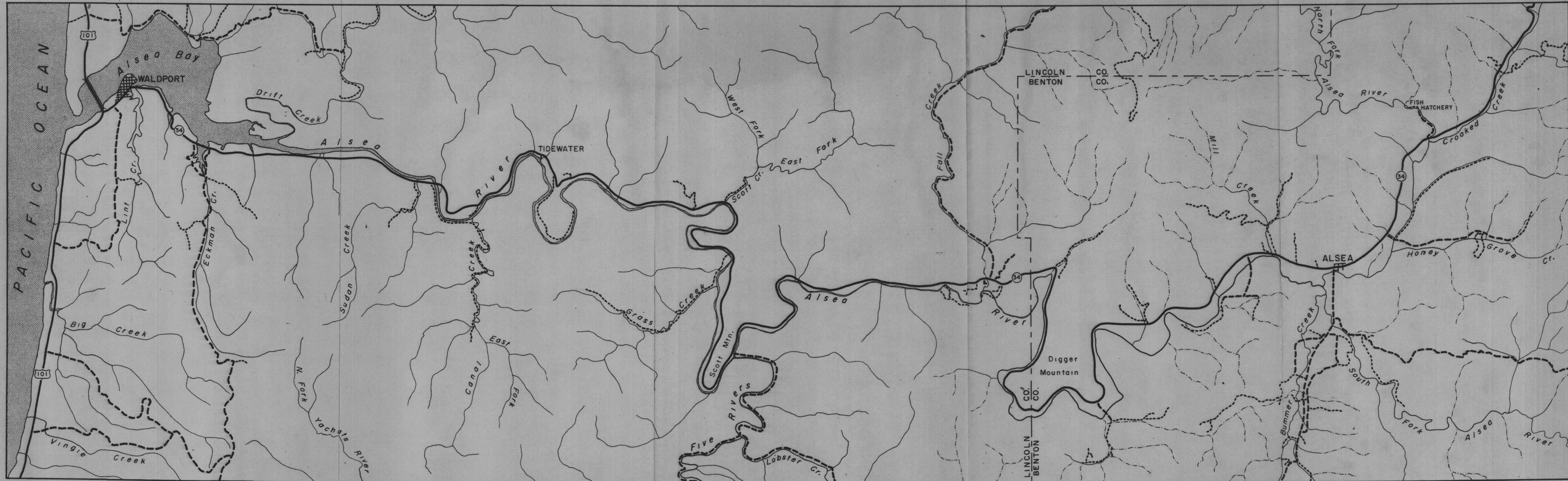
rainy winter months. Proceeding westward downstream, one first encounters Crooked Creek, which flows into the North Fork of the Alsea about four miles above the town of Alsea. Honey Grove Creek empties into the North Fork about one and one-half miles above Alsea. Immediately south of Alsea, the North Fork is joined by the South Fork, which also contributes the water of its main tributary, Bummer Creek. Just below Digger Mountain, Fall Creek runs into the main stem from the Mary's Peak area to the northeast. Nearly midway between Digger Mountain and Tidewater, the Alsea River is joined by its largest tributary, Five Rivers, which drains a considerable area to the south of the Alsea Valley, including a portion of Lane County. Below the mouth of Five Rivers, the only sizeable tributary is Drift Creek, which drains an area north of the Alsea Valley and joins the Alsea River about four miles from Waldport.

Climate

The climate of the Alsea Valley has some of the characteristics of both the Dry Summer Subtropical and the Marine West Coast climate types. Summer is very dry, but annual total precipitation is great. There is an average of nearly 100 inches of precipitation per year near

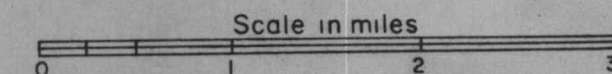
Figure 3

Drainage and transportation
routes of the Alsea Valley

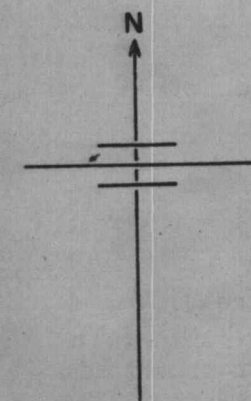


DRAINAGE PATTERN and TRANSPORTATION ROUTES of the ALSEA VALLEY

- Primary highway
- Secondary highway
- Unimproved road
- U.S. highway
- State highway
- Permanent stream
- Intermittent stream
- County boundary



Source — U.S.G.S. topographic maps
and Oregon National Forest
maps.

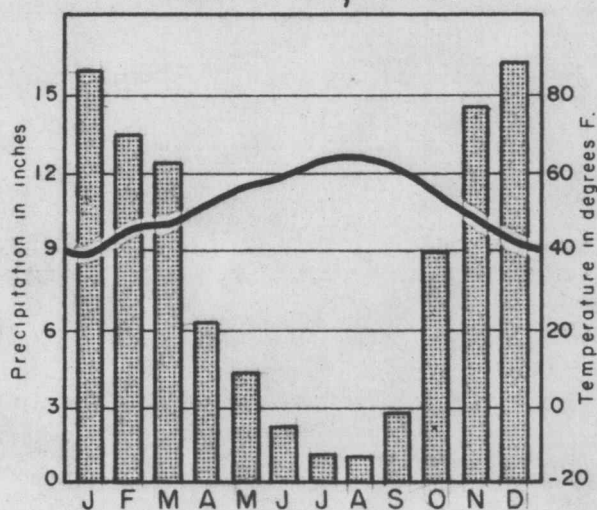


Tidewater. On the leeward side of Digger Mountain, near Missouri Bend, it is estimated to be 50 inches. Snow is not a common occurrence on the valley floor, but accumulates to considerable depths in the adjacent mountains. Annual precipitation at Tidewater, the only weather station in the Alsea Valley, ranges from a low of 64.8 inches in 1944 to a high of 124.3 inches in 1953. (The station has only been in operation on a part-time basis since 1940, and on a continuous basis since 1944.) Precipitation is concentrated in the winter months. In the ten years of record, an average of 92 inches, or 93% of the annual precipitation, fell during the eight-months period from September through May. Conversely, only 6.9 inches, or 7% of the annual precipitation fell during the four-months period from May through September, with July and August receiving only an average of .98 inches and .85 inches respectively.

Temperatures in the Alsea Valley are not extreme. The winter months are mild and the summer months are pleasantly warm. The mean monthly temperatures recorded at Tidewater range from a low of 38°F. in January to a high of 63°F. in both June and July. The mean monthly low for Tidewater ranges from 21°F. in January to 43°F. in July and August. The absolute lowest temperature recorded was 8°F. in January, 1950. Mean monthly high temperatures range from 55° in January to 91° in July, and the highest temperature

Figure 4

TIDEWATER, ORE.



CLIMATE DATA FOR TIDEWATER

Precipitation

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1944	8.2	9.2	6.0	9.9	3.0	2.4	.2	.1	3.5	4.1	12.6	5.6
1945	13.5	17.1	16.4	9.0	7.3	.2	1.0	.4	5.2	1.8	24.3	17.1
1946	19.7	14.3	10.1	4.5	1.7	3.1	1.4	.0	3.6	12.5	18.1	18.2
1947	11.0	7.2	11.4	6.4	.1	8.5	2.2	1.6	2.0	20.6	12.5	13.4
1948	13.3	12.9	11.3	9.9	6.4	1.1	2.2	1.0	3.1	6.3	13.2	22.0
1949	3.7	27.0	8.4	2.4	6.1	1.4	1.2	.5	2.5	5.0	12.7	13.4
1950	23.6	14.3	15.2	6.6	2.8	1.4	.7	1.2	2.2	16.3	18.3	16.0
1951	21.9	10.5	13.6	2.8	4.3	.1	.6	.5	3.1	15.0	12.0	16.8
1952	16.1	11.8	17.8	2.9	2.1	2.9	.0	.3	.9	1.4	3.3	16.7
1953	27.3	11.8	12.6	8.0	7.8	2.6	.4	2.9	1.9	5.8	19.5	24.0

Mean Temperatures

1947	38	47	50	54	58	59	63	63	61	55	48	44
1948	41	42	45	48	55	63	63	64	62	54	46	38
1949	32	43	48	53	57	60	62	63	61	52	51	42
1950	33	43	45	49	54	59	64	66	61	53	48	50
1951	41	44	42	52	56	61	63	63	59	54	47	40
1952	39	42	43	51	55	57	63	63	62	57	41	42
1953	--	47	49	53	52	55	62	64	63	56	51	47

recorded at Tidewater was 105°F. in July, 1942.

The growing season is long. There are an average of 219 days above 32°F. and 272 days above 28°F. Only occasionally is there less than 200 days above freezing.

Table 2
Growing Season at Tidewater

Year	Days above	
	28°F.	32°F.
1947	---	267
1948	270	217
1949	248	245
1950	332	193
1951	275	193
1952	235	200

Freezing temperatures in winter are fairly common at night, particularly in the upper valley, but freezing daytime temperatures are rare. Temperatures in summer are moderated by sea breezes that blow in from the Pacific Ocean and cool nights lower the average monthly temperature. Afternoon fogs blowing in from the ocean are a common occurrence, particularly in the lower portions of the valley.

CHAPTER III

THE RURAL SETTLEMENT

Rural settlement in the Alsea Valley today, as it was a century ago, is an overflow from the more favored Willamette Valley. By the middle of the 19th Century, the good lands of the Willamette Valley had been taken up under the Donation Land Law of 1850, with the result that latecomers began to make their way into the more favorable valleys of the adjacent Coast Range in search of land on which to make a living. Following World War II, the great influx of settlers to the West Coast resulted in a second stage of settlement in the Alsea Valley accounting for many of the present residents.

Early Settlement

The first settlers moved into the Alsea Valley in the early 1850's when several claims were taken under provisions of the Donation Land Law. The first settlers developed an agricultural economy, raising grain and vegetables for the most part. It was said in 1885, that the best flax being grown in Benton County came from the Alsea area. In general, farming practiced in the late 1800's included fruit growing, and cattle, sheep, and hog

raising, as well as vegetables and grains. From the time of the first settlers in the valley, dairying was also important and the Alsea area was early known as a quality producer of butter. Another leading enterprise of the late 1800's was hog raising (6, pp.498-504).

Since the valley had a plentiful supply of timber in the days of the first settlers, sawmills were quick to be established in the area, small though they were. In the last years of the 19th Century, three mills were operating in the upper valley, the lumber being transported eastward over the divide to the Willamette Valley.

By 1885, the area around Alsea had become fairly well settled, and there were three schools and a post office in the upper valley, which was inhabited by about 350 persons at that time (6, p.499).

The lower valley was not settled as rapidly as the upper valley and when settlement did come, it came from the direction of Waldport, since the lack of transportation routes between various sections of the valley make each one remote from the others. The settlement of Tidewater was fairly well established by the turn of the century and higher hopes were held for the settlement than it ever attained (6, pp. 503-4).

Transportation as a Factor of Settlement

Early transportation routes to the Alsea Valley were extremely limited, and were very difficult to travel. Not only was settlement slowed, but marketing of products of forest and farm was inhibited.

There were originally two routes between the Alsea and Willamette Valleys, one following up the North Fork of the Alsea, roughly the same as today's main highway. The other, which was established later, followed the South Fork and crossed the mountains in the vicinity of Monroe, to the Willamette Valley. Some trade was carried on by means of the main stem of the Alsea River. Produce was shipped by scows to the settlements on the lower river and bay, during times of high water on the river. This scheme proved unsatisfactory, however, due to the fact that the scows could not be brought back up the river because of the current and had to be disposed of at their destination.

Also, there was a trail, and later a road, from Tidewater to the coast, and still later, this route was extended over Mason Mountain (now Digger Mountain) to Alsea and the upper valley (6, p. 503).

The present transportation pattern of the Alsea Valley follows the stream valley almost in entirety.

The only transportation facilities in the valley are the highways, and these, with the exception of some little-used roads and logging roads, follow close to the streams.

The main highway in the area is State Highway 34, which is the only one running the length of the valley. This two-lane asphalt artery connects Waldport on the coast end of the valley with U. S. Highway 20 in the Willamette Valley. Highway 20, in turn, reaches Corvallis, only seven miles from its junction with Highway 34. From Corvallis, any one of several excellent highways may be traveled. On the coast end, Highway 34 joins U. S. Highway 101, which runs north-south along the Oregon coast.

A two-lane asphalt highway runs south from Alsea, and changes to gravel about four miles south of the town. One fork of this highway becomes South Fork Road, which follows the South Fork of the Alsea, eventually ending in the Willamette Valley, and the other becomes Lobster Valley Road which connects Alsea with Five Rivers by way of Lobster Valley, the river valley of Lobster Creek, which is in turn a tributary of Five Rivers. There is also a fairly long gravel road that follows Fall Creek and another that follows Five Rivers. The Five Rivers Road divides near the Lane County line with one fork running to Yachats on the coast,

about eight miles south of Waldport, and the other joins with the Florence-Eugene highway to the south. Both of the latter roads, however, traverse extremely rough territory and are used only occasionally. Many other short public roads are present in the Alsea Valley, many of which are maintained by the U. S. Forest Service. The fact that nearly all streams are accessible by road has been a principal reason why this area is so popular with sport fishermen.

In addition to the many miles of public roads in the area, there are many logging roads that are usable only for part of the year and by only a limited number of people.

Present Settlement Pattern

The settlement pattern of the Alsea Valley is much the same today as it was in years past being closely related to transportation facilities and to the resource base for agriculture, forest and recreation.

The population of the Alsea Valley is approximately 1,300, excluding the Upper Five Rivers Valley and Lobster Valley (15, Sec 37 pp. 14-16). This amount is almost equally divided between the counties sharing the valley. The Benton County section, the upper valley, has approximately 675 inhabitants and the Lincoln County part, the

lower valley, has 625. The Alsea Valley section of Benton County contains about 2.1% of the county's population, and the Lincoln County part of the Alsea Valley contains about 3% of the population of Lincoln County.

There are two nodes of population in the valley. The upper valley, including Alsea and the level area immediately adjacent to Alsea, has the greatest number of people with approximately 350. The town of Alsea, which is the economic and social center of the upper valley, has a population of about 200 people (See Figure 6). Alsea is located about twenty-five miles from Corvallis, the nearest population center in the Willamette Valley, and about forty miles from Waldport, a considerably smaller settlement on the Oregon coast. The location of Alsea in relation to other population centers of Oregon is given in the following table. (Numbers are approximate highway distances.)






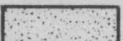



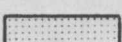
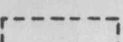
Table 3

Mileage Chart for Alsea

<u>City</u>	<u>Miles from Alsea</u>
Salem	60
Eugene.	64
Albany.	36
Philomath	19
Newport (Lincoln County Seat) .	57
Portland.	110
Coos Bay.	130

Sketch Map Of ALSEA, OREGON

Approximate scale — 1" = 150'

- | | | |
|---|--|--|
|  Restaurant and/or tavern |  Residence |  School |
|  Gas station and/or garage |  Private garage and/or outbuildings |  Post office |
|  Store |  Abandoned building |  Church |
|  Other commercial | |  Under construction |

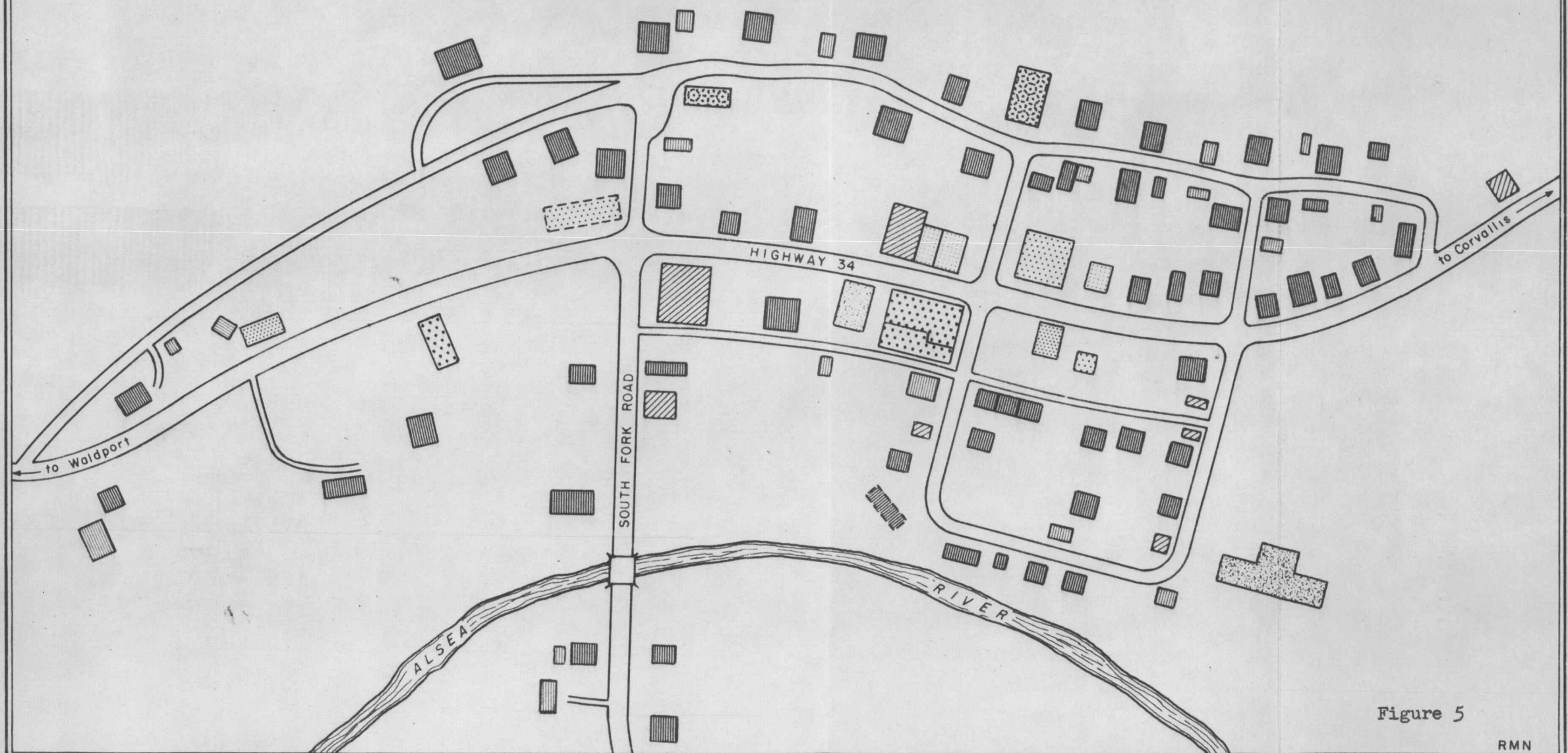


Figure 5



Figure 6. The main street of Alsea, looking eastward.

Another node of population is in the lower valley in the Tidewater area, and has about 150 people. The people here are more rural even than those of Alsea, as witnessed by the fact that there is nothing more than a post office to denote a town. At the west end of the valley and on the coast, is the city of Waldport. This town of 690 people serves most of the lower Alsea Valley in much the same manner that Alsea serves the upper valley. The remainder of the population of the Alsea Valley is scattered throughout, wherever the valley is wide enough to warrant settlement.

The Typical Family

The inhabitants of the Alsea Valley represent many types of individuals. No two families in the valley are the same in all respects, yet there are enough similarities that it is possible to speak of the average family and the average holding. The average family in the Alsea Valley owns the holding upon which they live. There are very few people in the area who rent their entire holding, although some rent or lease land in addition to their own, usually for timber or supplementary agriculture.

The average family came to the holding on which they reside between 1945 and the present date. Many people of the valley came to the area immediately following World War II; some inhabitants moved into the valley before World War II; and a small minority were born in the area. Of the people interviewed, 36% lived in the valley prior to the war and 64% settled there after the war. Those people that moved into the valley came from many different regions. A goodly number came from the states of the Midwest, some came from California and Washington, and many came from some other section of Oregon. There is also considerable moving within the valley whereby people move from one holding in the valley to another in a different part of the valley. In only a few cases have

people moved into the valley from the adjacent coastal areas.

Most of the holdings in the Alsea Valley would be classified as average in neatness, cleanliness, and degree of disrepair. There are some fine-appearing holdings, but there is more than an equal number of dilapidated, rundown places. Many old buildings have been abandoned and left standing, which detracts from the appearance of the valley.

The number of people on the average holding is approximately four. Some holdings have over double this number, however, while others have only a single resident. The typical family is a married couple with two children. It is common in the valley, however, to find grandparents, in-laws, and other relatives living with a couple and their children. It is also common to find neighboring holdings being inhabited by members of the same family. Some families have segments scattered throughout the entire valley and a certain degree of pride seems to be taken in such cases.

There is a new elementary school in the town of Alsea, but high school students must either travel to Philomath or to Waldport, whichever is closer. The elementary school is a consolidated school, and serves Lobster Valley as well as the rest of the upper valley. There are

several churches in the valley, two being situated in Alsea, with another presently under construction about four miles west of town.

Trade Centers

The people of the upper Alsea Valley do their shopping in several places. By far the greater portion does nearly all of its buying in Corvallis, relying on local establishments for sundry or emergency items only. They shop in Corvallis because of low prices in chain stores located there and because of the greater variety offered in the larger city. As an example of how much the people of the Alsea Valley depend on Corvallis for their buying, one housewife on the North Fork buys bread by the boxful on the weekly shopping trip to town, and keeps it palatable for the entire week by storing it in the deep freeze. Not only is food purchased in Corvallis (and occasionally in Philomath), but also appliances, clothing, furniture and home supplies. The people rely on Corvallis for their banking, medical, and legal services as well.

The inhabitants of the lower valley rely on Waldport in much the same way as those in the upper valley rely on Corvallis. Waldport, however, is not as large as Corvallis, nor is it the county seat, so that many people from the

lower valley also trade in Newport, the county seat of Lincoln County, and in Corvallis.

There are some people in the Alsea Valley who do as much of their buying as possible from local merchants in Alsea. These people are usually those living in or close to Alsea or those without the means of traveling to Corvallis to shop. There are also some in the area who prefer to go to Portland to do any buying other than perishable foods. Often these people buy in case lots, making frequent trips unnecessary.

A major objection of the people in the valley is the increased price of commodities offered for sale by local merchants. The local store owners either travel to Portland to buy their supplies or pay the freight if they are brought in by truck lines. In any case, the increased price is passed on to the retail buyer. This situation, brought on mainly by isolation of the valley, seems to be unavoidable.

CHAPTER IV

THE FOREST BASE OF SETTLEMENT

Exploitation of the forest resource has always been of outstanding importance as a basis for settlement in the Alsea Valley. Of the residents interviewed, 58% are at least partly supported by forest activity.

In the late 1880's, a mill at the junction of Rock Creek and the Alsea River was cutting lumber from cedar, fir, alder, and maple. A second mill on the South Fork was cutting lumber from fir, cedar, and hemlock (6, p.500). Today, Douglas fir accounts for over 90% of the cut for lumber. Logging operations have been greatly expanded, especially since the development and utilization of the modern log truck.

Forest Resources and Drain

Of the 288,000 acres of land included in the drainage basin of the Alsea River, over 260,000 acres are classed as forest land (3, p.1). This amount includes parts of Benton, Lincoln, and Lane counties. These figure mean that nearly 90% of the Alsea Basin is growing trees.

Many tree species are found within the Basin, although Douglas fir is the most common and most widely utilized.

Other conifers include Western hemlock, western red cedar, Sitka spruce, noble fir and white fir. Small stands of hardwoods, such as alder, maple, and oak occupy valleys and border streams in some areas of the basin.

The present forests of the area are largely Douglas fir and are in the 90 to 100 year age class. The Douglas fir forests make up 80 to 90% of the total in the area (4, p.1). Fires in the decades 1840-1850 and 1860-1870 destroyed large stands of old growth timber so that the present forests are made up of small and large second growth timber with small sections of old growth in the south and eastern edges of the Alsea Basin. These fires are said to have burned over a million acres in the vicinity of the Alsea Basin (4, p.1). At present, much of the remaining old growth is being cut in these areas.

The Alsea Basin is a productive tree growing area. The upper basin in Benton and Lane counties is largely site III, while most of the lower basin in Lincoln County is site II. In the Benton County portion of the basin, second growth fir stands, 70-160 years old, have been estimated to average about 25,000 board feet per acre. The same type stands in the lower basin have been estimated to average about 30,000-35,000 board feet per acre. Large old growth averages about 100,000 board feet per acre and

small old growth averages about 45,000 board feet per acre. (3, p.1) Total saw-timber stand in the basin has been estimated to be about 6 billion board feet.

The annual average wood growth on the average acre of forest land in the basin has been estimated to be between 500 and 550 board feet for well-stocked stands (4, p.1). Using the forest area of 260,000 acres, including cutovers, burns, and reburns, and multiplying by the estimated growth figure of 500-550 board feet per acre, the total annual average growth for the Alsea Basin is 120-130 million board feet (4, p.2). However, realization of this growth requires employment of good management practices, including adequate fire protection, control of disease and insects, and permitting growth to optimum age. The Siuslaw National Forest District Ranger places annual growth at a lower figure. He believes growth is more nearly 80-100 million board feet per year.

During the ten-year period of 1943-1953 inclusive, between 450 and 500 million board feet of timber were cut in the basin (4, p.3). In 1944, 35 million board feet were harvested and, in 1953, the amount had increased to 112 million board feet, which was an all-time high. Thus, in contrast to the saw-timber stock of 6 billion board feet and an estimated growth annually of from 120-130

million board feet, the annual cut in the basin has not been over 112 million board feet. Hence, it can be assumed that if the estimated growth is correct and adequate forest management is practiced, presently established logging and milling operations can be sustained.

Of the total number of logging operations, over 90% are engaged in harvesting second growth timber (4, p.3). This is due to (1) the lack of old growth stands, and (2) the readily accessible second growth stands in some portions of the basin.

Ownership of the land in the Alsea Basin is divided as follows: (1) private lands - 118,000 acres; (2) federal lands - 170,000 acres (4, p.2). The federal land is accounted for, for the most part, by Siuslaw National Forest and O and C lands which occupy a considerable portion of the Alsea Valley. A problem in connection with ownership is the presence of numerous small private holdings within the borders of the Siuslaw National Forest. It is customary to regard such holdings as being the same as the surrounding federal lands in matters of general policy.

TIMBER CUT in the ALSEA BASIN (1944-1951)

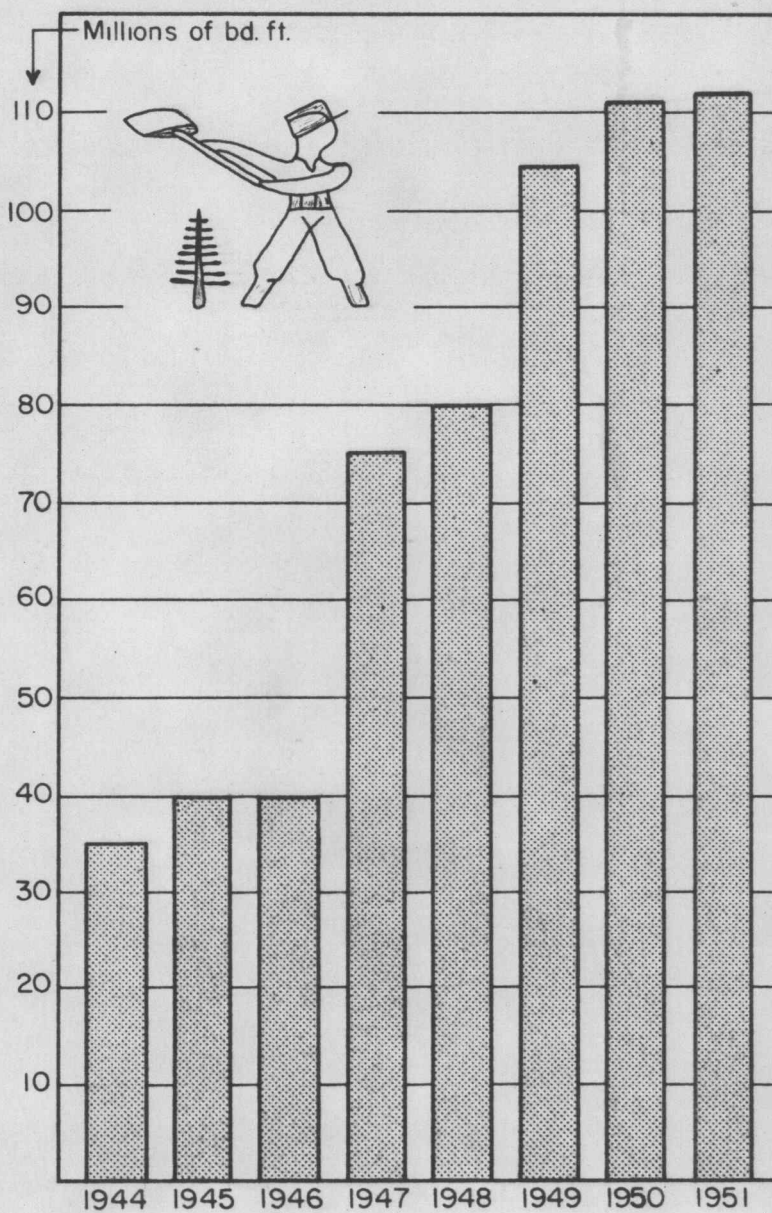


Figure 7

Logging

There are three types of forest enterprises in the Alsea Valley which support settlement. One of these is logging, another is sawmilling, and the third is log truck or lumber truck driving.

The phase of forestry that employs the most men in the Alsea Valley is logging, at least during the late spring, summer, and early autumn months. During the winter months, these operations cease, for winter rains and snow make the timbered areas virtually inaccessible. It is during this time that the fallers, buckers, choker-setters, cat-skinners, and scalers are out of work, and it is at this time also that unemployment in the area reaches its peak. So far in 1954, there have been about 160 logging operations active in the Alsea Basin, including those on National Forest lands. In the year of 1953, 232 operations were active. Many of the operations are only one or two man shows, while on the other hand, several operations may belong to one large company. Not only is there great difference in sizes, but there is also great difference in output. Some one-man operations may be content to put out only a few loads of logs per year, while the large companies may run every day in the working year. The following table will give an indication of the

distribution of the operations according to size.

Table 4

	<u>Ownership of Logging Operations</u>					
	Number of operations per owner					
	One	Two	Three	Four	Five	Six
Number of owners	66	20	6	2	3	1

It is interesting to note that the company with six operations is a local company, as is one of the three companies with five operations. Almost all of the owners with one operation are local men, as is the case with owners of two cutting operations. Of the companies and owners that are not local, most have headquarters in towns adjacent to the Alsea Valley, principally Corvallis, Philomath, and Waldport. Companies from as far away as Swisshome, Mapleton, and McMinnville, are operating in the Alsea Valley.

The greater portion of the 160-odd operations in the valley are on rented or leased land, or on land on which only the timber has been purchased. This is most typical of the one or two man operation, while it is more common for the larger owners to own their own land. Most companies have operations on their own land as well as in timber purchased on land belonging to someone else.



Figure 8

Logging operations in the Alsea Valley.

LOGGING OPERATIONS

in the

ALSEA BASIN

(Active during the first six months of 1954)

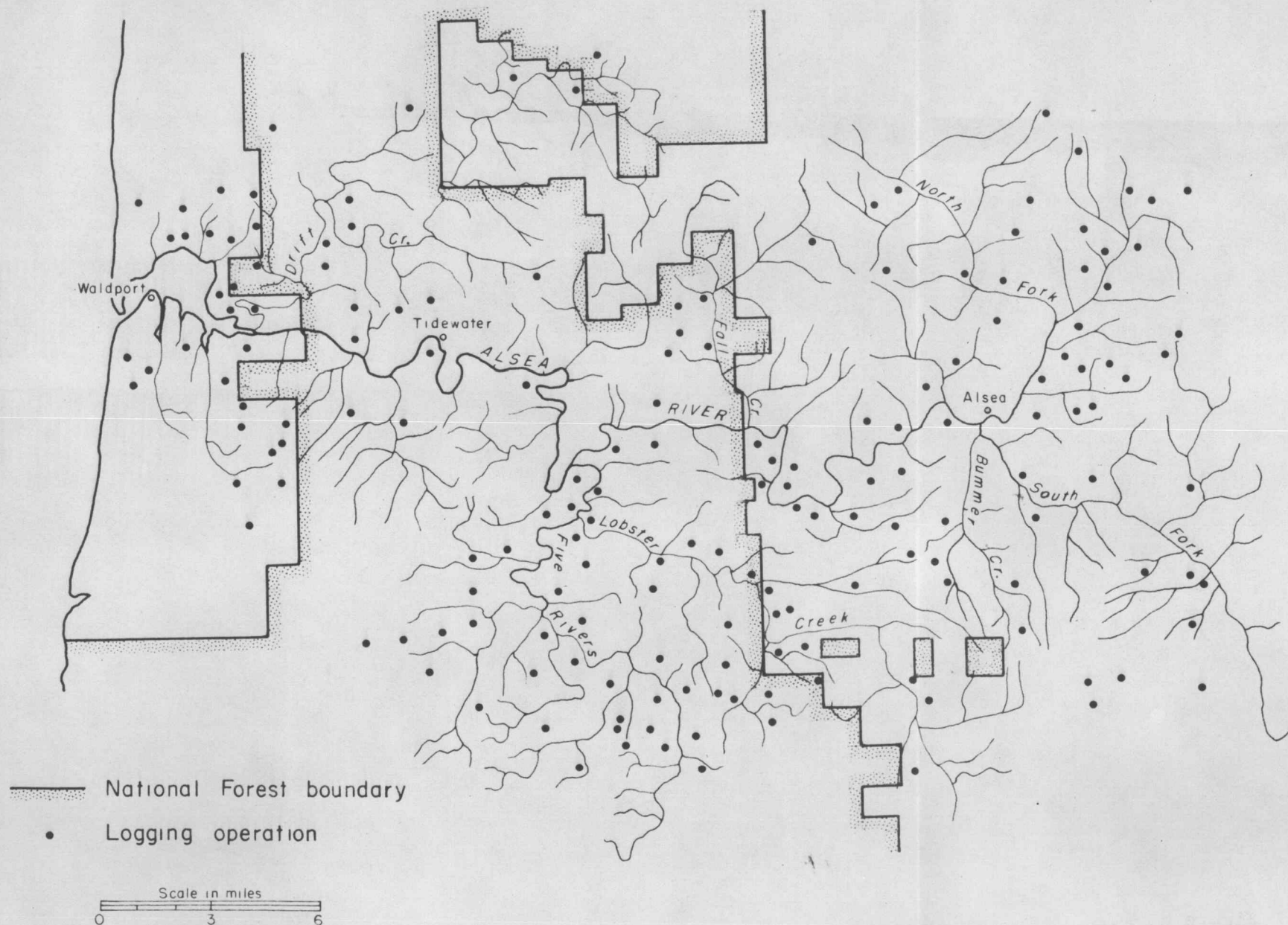




Figure 9. A dense stand of conifers in the Alsea Valley showing the block cutting method used in the area.

The usual plan for a small operator in the Alsea Valley is to buy some "stumpage", or standing timber, on someoneelse's land and then go in with a power saw, which has almost completely replaced hand methods, and fall the trees. The trees are sawed to length, trimmed of branches, and dragged by crawler type tractors to a "landing", or collection point. At this point they are loaded onto log trucks, which are usually rented or operated on a contract basis. The equipment, consisting of a power saw, a tractor, and usually a jeep or pickup

truck is usually owned by the operator. Occasionally, the tractor will be rented from someone else.

Sawmilling

Sawmilling has been carried on in the valley since the early days, increasing only slightly in recent years. However, the species of trees milled today differ somewhat from those of years past. In the late 1880's, a mill at the junction of Rock Creek and the Alsea River was cutting lumber from fir, cedar, alder and maple. A mill on the South Fork was cutting lumber from fir, cedar, and hemlock. Now, fir is nearly the only species being cut for lumber (6, p. 499).

In the Alsea Valley proper, there are four lumber mills, but in the entire Alsea Drainage Basin, there are approximately thirty. In 1952, the mills of the entire basin processed about 70-75 million board feet of lumber, which amounted to about 60-65% of the total cut in the basin (4, p.3).

Some of the mills in the area are only two and three man operations, while several are considerably larger. Only a few are permanent in nature, most being designed to last only long enough to take advantage of high lumber prices and fairly accessible timber. The operating procedure of an Alsea Valley lumber mill is given in the

study of the Digger Mountain mill.

Trucking

The third type of forest enterprise, that of log and/or lumber hauling, is also very important to Alsea Valley settlement. This type of enterprise differs from the others connected with forestry in providing a chance at private business enterprise for the average inhabitant of the valley. It is this chance to "go into business" that attracts many of the truck drivers to that occupation. Not all of the trucks in the valley are individual business ventures, however. Those that are not are usually owned by one of the lumber companies or by a company having a whole fleet of log trucks. The drivers of these trucks are hired either by the hour, or by the amount they haul. The hired driver is the most common type in the valley. They are the people living on rented holdings, most of which are in various stages of disrepair, and who form the migrant part of the labor force of the valley. Not all hired drivers are of this type though, for some settle permanently in the valley and may eventually become owner-drivers.



Figure 10. A log truck on its way over the Alsea Mountain.

The other type of truck driver in the Alsea Valley, the owner-driver, has been increasing in numbers in recent years. These individuals purchase their own truck and then hire their truck and themselves out at an hourly or daily rate, or work for some logging contractor on a contract basis. They are responsible for picking the logs up in the woods and depositing them at the mill or log dump. Trucks are purchased on time and paid for out of earnings. The owner-driver is generally a landowner in the valley, but his holding is usually quite small. Often they will carry on some agricultural enterprise in addition

to their trucking.

There are two types of log trucks in the valley; the pick-a-back type and the flatbed type. Most are of the former type, which is a truck cab that tows an eight-wheeled trailer. One end of the logs rest on the trailer and the other rests on the truck itself. On the return haul, the trailer rides pick-a-back on the truck and is lifted off by a hoist at the end of the run. The flatbed type of truck is a custom, heavy-duty flatbed from which the bed is usually removed and two "bunks" are installed to hold the logs. This type of truck, called a "short logger", is considerably cheaper than the other type of truck. Being shorter, it must also haul shorter logs.

A smaller group of truck drivers in the valley drive flatbed trucks that haul rough lumber from the valley to planers in the Willamette Valley. These drivers, for the most part, are hired to drive the trucks.

The destinations of the truck drivers in the Alsea Valley who don't haul to local mills or log dumps are mostly in the Willamette Valley, with only a few going in the direction of Waldport. Most of those traveling east go either to Philomath or to Corvallis or to some mill in the neighborhood of one or the other. Many trucks travel to log dumps located on the Willamette or its tributaries, from where the logs are transported

by water to mills in the Willamette Valley.

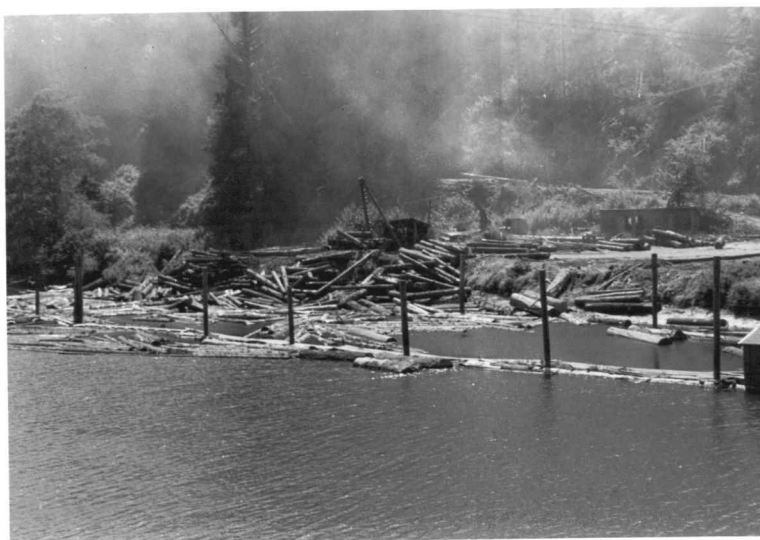


Figure 11. A typical log dump in the Alsea Valley. This dump is located on the river below Tidewater.

The Digger Mountain Mill -- A Type Study

The Digger Mountain Mill is typical of mills in the area. It is located about fifteen miles west of Alsea, fifteen miles east of Tidewater, and about twenty-six miles from Waldport. Although called the Digger Mountain Mill, it is located several miles west of Digger Mountain. The mill is in a narrow section of the valley and the millsite proper is bounded by the Alsea River on the north and on the south by the steep valley wall. Highway 34 runs parallel to the river only a few hundred feet from

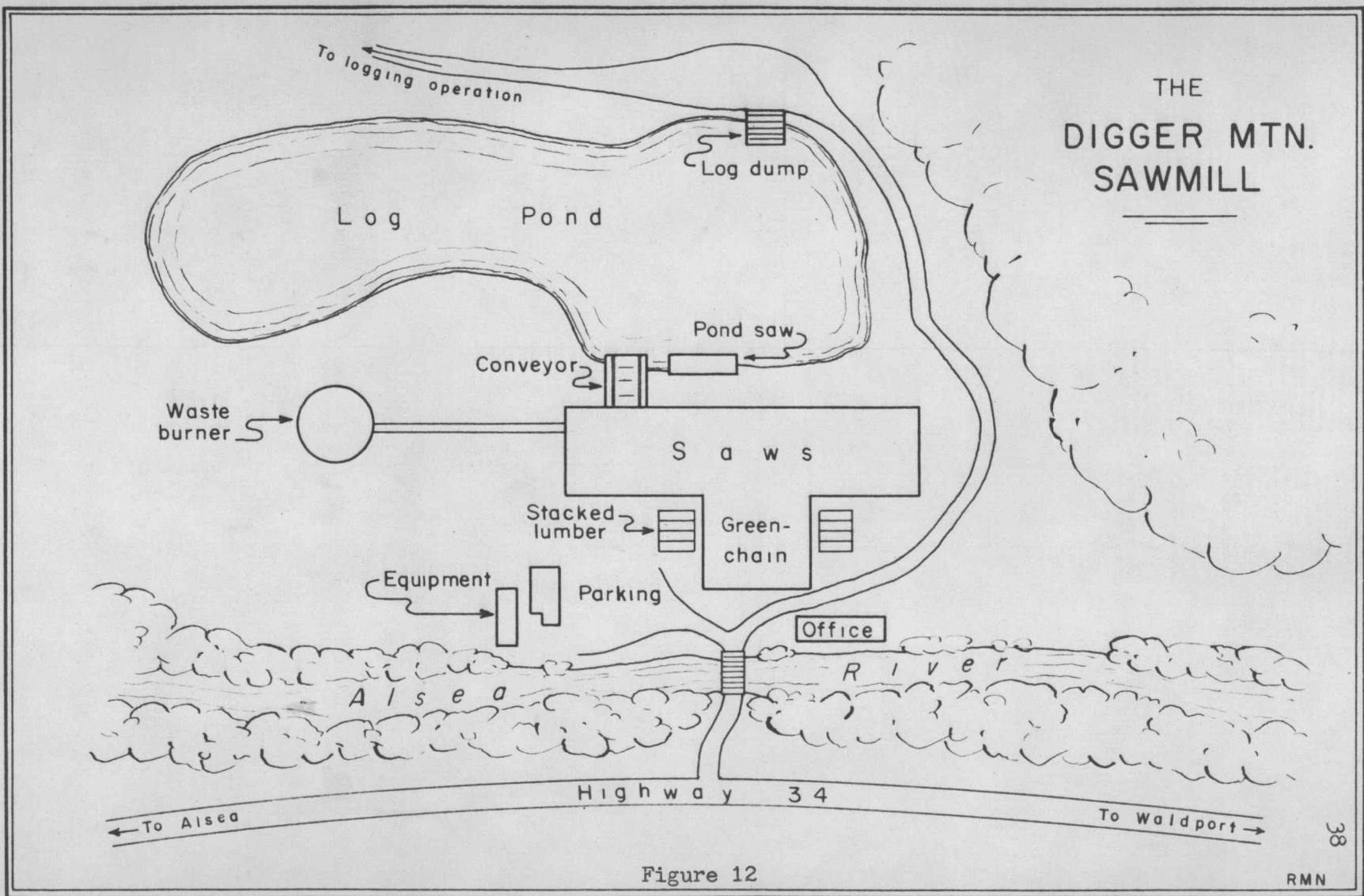


Figure 12

the mill and the Digger Mountain Lumber Company has constructed a wooden bridge across the Alsea to provide highway access to the mill.

The owners of the mill, which was built in 1946, reside in Corvallis, and it is from there that the business is administered. There are, however, a woods foreman and a mill superintendent at the millsite.

The mill cuts about 50,000 board feet of rough lumber in an eight hour shift. At the present time, there are two shifts per operating day, so that daily production is over 100,000 board feet. In the summer, the mill operates two shifts and sometimes three, to take advantage of the good weather and the long daylight periods. During this time also, trucks are hauling logs from the woods at a rapid rate, so as to build up a "cold-deck", or reserve. About the first of November, the mill is operating only one shift and the trucks must stop their hauling because winter rains turn the logging roads into mud slides and quagmires, upon which the trucks and men cannot operate. After the trucks stop hauling, the mill uses the logs on the cold-deck exclusively. This supply is supposed to last through the winter, but if for some reason it doesn't, the mill is either forced to close or to buy logs from neighboring mills if there are any to be had. In the

spring, the trucks begin hauling again and the process is repeated.

The logs for the Digger Mountain Mill come from several places in the Alsea Basin. At the present time, cutting is underway on the valley slope almost directly behind the mill and also on National Forest land in the vicinity of Yachats Mountain, south of the Alsea and about five miles inland from the coast. These two places can supply the needs of the mill for the present time, but to assure a future supply the company has options on some timber in the North Fork area, some in the Yachats Mountain area, and some in Lobster Valley. The company owns the timber near the mill that is being cut at present, and this area contains a sizeable reserve. The millsite, however, is not owned by the company, but is leased.

The mill employs a total of seventeen men per eight hour shift, so that during the summer months 34 men are employed and 17 in the winter. The men who work in the mill are mainly local men or transient laborers. Occasionally, some men will be employed from as far away as Corvallis. Of the men employed in the woods, however, many come from Corvallis and Philomath, with the rest coming from the valley itself. The transient laborers employed by the mill usually board with some family near the mill or several pool their resources and live together

in a rented house on the millsite. There is no shortage of labor during the winter months, at which time employment is scarce in the area. Occasionally, though, there will be temporary shortages of labor in the summer, but such shortages usually last no longer than a few days.



Figure 13. The greenchain of the Digger Mountain mill with the mill proper in the background.

The Digger Mountain mill produces rough lumber, and it is in this respect that it differs from some of the others in the area. There are about nine mills in the basin that produce rough lumber, the rest having planers in conjunction with their sawmill. As the lumber at Digger Mountain is sawed, it comes off the "greenchain"

and is stacked on elevated platforms in truckload lots. There are presently four trucks hauling the rough lumber from the Digger Mountain mill to a planer about five miles north of Corvallis, a total distance of about 45 miles from mill to planer.



Figure 14. Stacked lumber at the Digger Mountain mill. Each stack represents a truck load to be transported to Corvallis.

The planer, which is situated on a rail line, is also owned by the Digger Mountain Lumber Company. The reason for cutting the lumber in the Alsea Valley and then hauling it over 45 miles of highway to a planer, after which it is shipped, is mainly economic. The cost of a truck to haul

rough lumber is considerably less than that of a log truck. Furthermore, there is less transporting of waste such as bark, slabs, etc. in hauling rough lumber. The reason for not planing the lumber in the valley is that it would have to be transported out by truck in any case, and loads of rough lumber do not shift about while en route as much as planed lumber, so that larger loads can be hauled with greater safety. The labor force from which to draw workers for a planer is also greater in Corvallis than it is in the Alsea Valley.

The trucks used to haul the logs from the woods to the mill are owned by the company. Only in times of peak demand are outside trucks and drivers used. In this respect, the Digger Mountain Lumber Company differs from some of the other companies which hire all of their trucks and drivers. The trucks haul the fir logs over the steeply inclined logging roads to the millpond, where they are dumped into the pond and sawed into smaller lengths while floating in the water. They are then carried from the pond into the mill on a continuous conveyor chain, and are sawed into rough lumber. Waste material is carried off by a small conveyor to a waste burner outside of the mill. Only a small amount of waste is utilized, with some slab material being used for fuel.



Figure 15. The waste burner and millpond of the Digger Mountain mill. At the left, a log can be seen on its way into the mill.

CHAPTER V

AGRICULTURAL RESOURCES AS THE BASIS FOR SETTLEMENT

The agricultural resources of the Alsea Valley are second only to the forest as the basis for settlement. Of the residents interviewed, 32% derive their entire livelihood from agricultural enterprises. An additional 25% derive a portion of their income from agriculture. A typical part-time farmer in the valley works in the woods to earn a major share of the family income, while the wife looks after the farm holding most of the year.

The Alsea Valley has developed both in diversity and in extent since the beginnings of settlement, although the basic pattern remains much the same. One enterprise once active in the valley was flour milling. Near the end of the 19th Century, two mills were operating; one at the mouth of Mill Creek and the other at the junction of Rock Creek and the Alsea River (6, p.501). These operations have been suspended for many years. Crops have been expanded from time to time to include corn, rye, potatoes, strawberries, fruits, grapes, nuts, and poultry. Advancements in agricultural technology have had their impact on the development of the Alsea Valley just as in other parts of the state. Marketing has been

greatly facilitated by better transportation methods and improved routes.

The Land Resource

Land suited to agriculture is relatively limited by the narrow character of the Alsea Valley. At present, there are 6,300 acres of cropland, nearly all of which is in use, at least for pasture. In addition, an estimated 13,700 acres of land has been considered to be potential agricultural land (1, p.1). To bring in additional land will require costly clearing and, in some cases, drainage. Much of the potential land would be limited in use by rough terrain and by location away from the accessible valley.

Table 5

CROPLAND AREAS OF THE ALSEA VALLEY

Upper Valley

Main Alsea.....	1,947	acres
Bummer Creek.....	626	"
South Fk.(excluding Bummer Cr.)....	668	"
Honey Grove Creek.....	92	"
North Fk.(excluding Honey Grove Cr.)	967	"
Mill Creek.....	53	"
Total	4,253	acres

Lower Valley

Five Rivers (near mouth only).....	100	acres
Fall Creek.....	210	"
Main Alsea.....	1,441	"
Canal Creek.....	307	"
Total	2,058	acres

*Lobster Valley has 746 acres of cropland and Upper Five Rivers has 477 acres. These areas are outside of the study.

DISTRIBUTION OF CROP LAND by PRINCIPAL STREAM VALLEYS

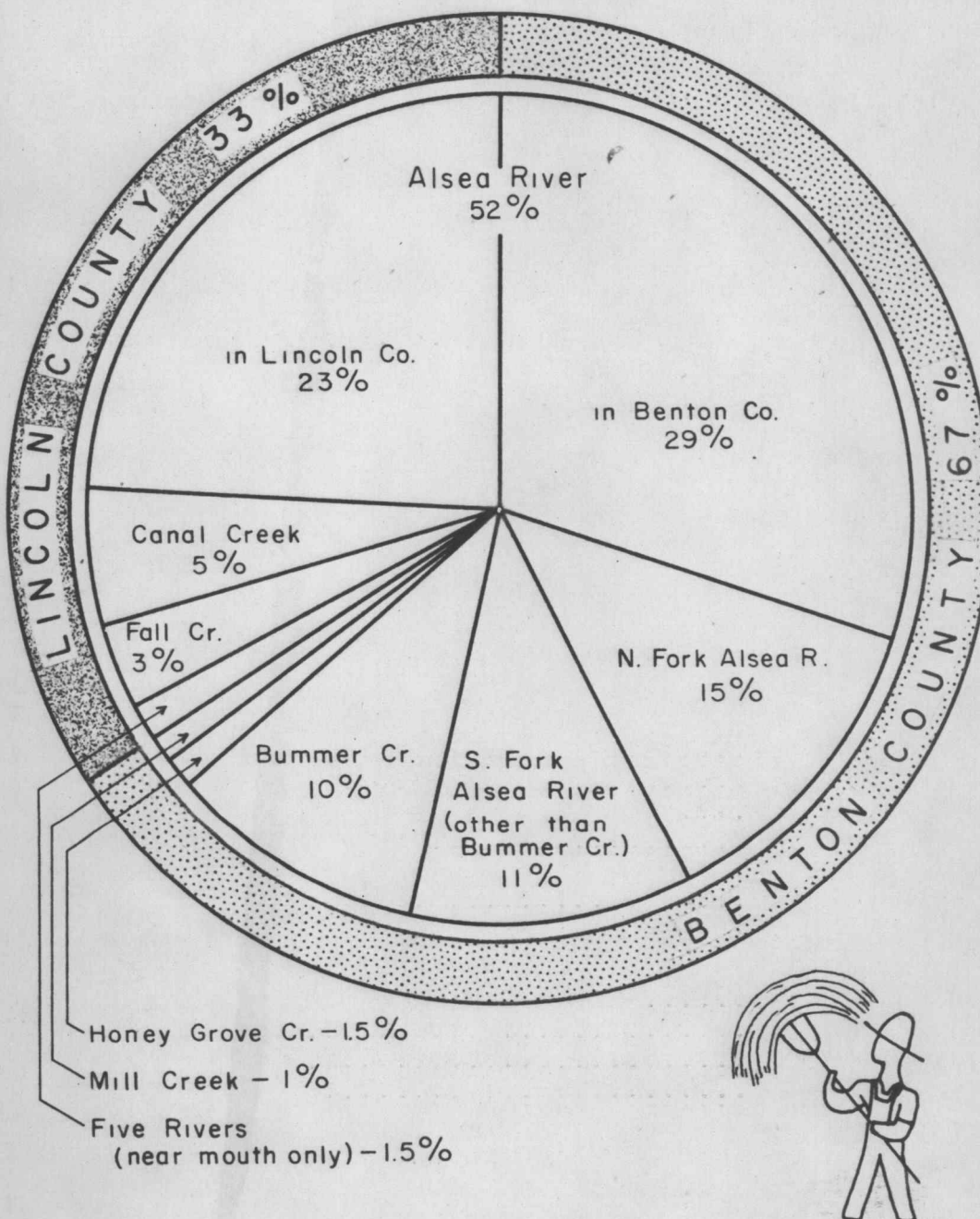


Figure 16

The cropland of the Alsea Valley is predominantly located in the main valley, although several tributaries have sizeable areas. Two thirds of the cropland is located in the upper valley in four sizeable areas of level land. One third is in the lower valley, but is in discontinuous small pockets (See Table 5).

Of the total potential and actual acreage of 20,000 acres, 6,400 acres could possibly be irrigated. Of this amount, 5,190 acres are in the upper basin and 1,200 acres are in the lower basin. (Over 600 acres of this amount is in Lobster Valley and Upper Five Rivers Valley, however, and is not included in the study area.) (9, p.32) Of the total of 6,400 acres, 1,800 acres are presently being irrigated, of which 1,450 acres is in the Alsea Valley and adjacent areas. Of this total, it has been estimated that two thirds would be irrigated every two weeks for a period of five to six months and the remaining one third would be irrigated one to four times a season (9, p.2).

Soils

The Alsea Valley is fortunate that the bottom lands are of Class I soils. Chehalis silty clay loams, interspersed with areas of Chehalis fine sandy loam, occupy the valley from almost the headwaters of Spencer Creek to

below Missouri Bend. Sizeable amounts of Class I land are found along Bummer Creek and the South Fork of the Alsea. The maximum widths of the Class I soil area are about one-half mile, and are in the North Fork area above Alsea, in the South Fork area immediately south of Alsea, and in the Maltby Creek region to the west of Alsea. Class I soils are particularly adapted to such crops as potatoes, corn, alfalfa, clover, truck, small fruits, and nuts. These soils are particularly well adapted to the use of supplemental irrigation, and irrigation is widespread on Class I soils in the Alsea Valley. In addition to the Chehalis soils, the bottom lands have small areas of Willamette soils. These are located in the interfluvium between Bummer Creek and the South Fork, near the confluence of Mill Creek and the Alsea, and in the Maltby Creek area. These soils have also been placed in the Class I group.

Residual hill soils are found on the valley slopes and in several upstream areas. This group of soils forms a band separating the alluvial soils from the unclassified mountain soils. The most common hill soil types are Melbourne silty clay loam, Melbourne clay loam, and Olympic silty clay loam. Melbourne silty clay loam and clay loam soils are brown or reddish-brown in color. The recommended

crops for these soils are grain, vetch, and grass seed, and sometimes, deep-rooted horticultural crops. The Olympic silty clay loams are well drained soils and do not erode as easily as do the Melbourne soils. These soils are best adapted to general farming, nuts, grazing, and small fruits.

Water

Water plays a key role in the agriculture enterprises of the region. The Alsea River at Tidewater had a mean annual flow of 1,501 cubic feet per second during the recording period 1939-1954. The average maximum flow during this time was 16,490 cubic feet per second and the average minimum flow was 75 cubic feet per second. The total annual runoff in acre feet ranged from a high of 1,337,530 in 1950-51, to a low of 637,900 in 1940-41 (9, p.6).

The minimum flows for the main tributaries of the Alsea River have been estimated to be as follows: (1) Bummer Creek - 2.6 C.F.S.; (2) Fall Creek - 6.2 C.F.S.; (3) Five Rivers - 10.4 C.F.S.; (4) Honey Grove Creek - 1.3 C.F.S.; (5) Mill Creek - 1.3 C.F.S.; (6) North Fork - 11 C.F.S.; and (7) South Fork - 9.6 C.F.S.. (9, pp. 9-10)

The mean monthly flow of the Alsea is the lowest

MEAN MONTHLY FLOW of the ALSEA RIVER

(Based on the period 1939-54)

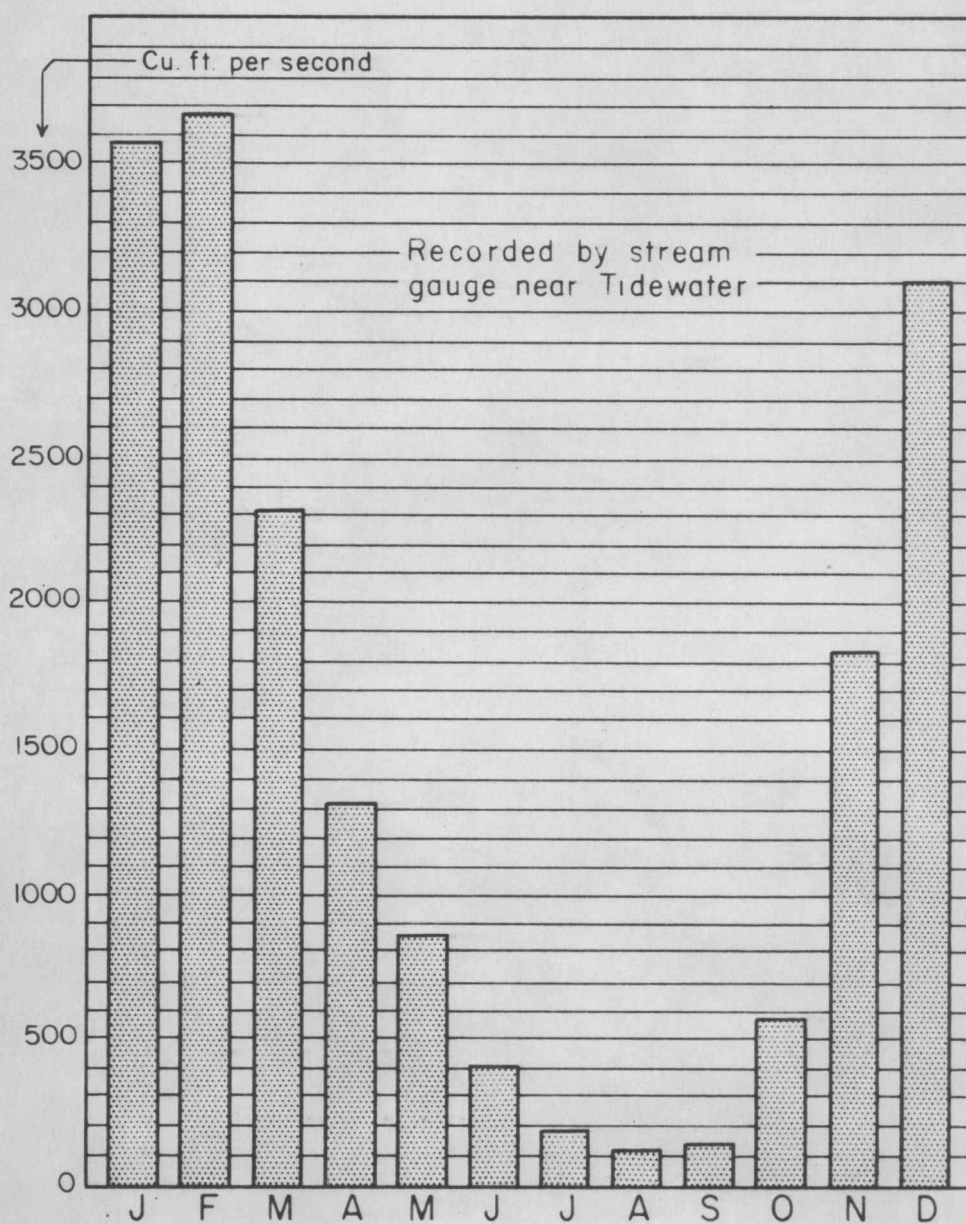


Figure 17

during the months of July, August, and September, when the discharge at Tidewater is 195 C.F.S., 124 C.F.S., and 136 C.F.S. for the respective months. The mean monthly flow is greatest during the months of December, January, and February, when the stream flow is 3,104 C.F.S., 3,595 C.F.S., and 3,688 C.F.S. respectively. The highest single mean monthly flow was 7,941 C.F.S. in January of 1953, and the lowest single mean monthly flow was 57 C.F.S. in October, 1952 (9, p.8).

The dry summer has led to increasing use of sprinkler irrigation. Fortunately, the agricultural lands in the valley are near to a supply of water. But the water is not present when needed, as can be seen from the flow figures. Unfortunately, the streams are chiefly rain fed and the period of peak flow comes in the winter when the demand is low. The shortage is especially critical in the Bummer Creek area. Additional irrigation will require storage of surface water, or pumping of ground water.

Agricultural Enterprises

Farming in the valley is of two types: (1) the full-time farm from which the owner derives his total income, and (2) the part-time farm holding with the owner deriving part of his income in some other manner, usually in

connection with the forest. In many of the part-time cases, the "farming" carried on is nothing more than subsistence agriculture, with maybe the wife in the family selling an occasional dozen eggs or crate of strawberries. It is the womenfolk who often do more towards operating the farm, however small it may be, than the menfolk. There are 80 farms in the Benton County part of the valley and 47 in the Lincoln County part, for a total of 127 (1, p.1). Such figures are misleading, however, for probably only about 30 or 40 of these could really be classed as commercial farms.

The two classes of farm holdings also differ greatly in management, for on the larger places, the management practices include fertilization, irrigation, and improvement of pastures, but these have almost no place on the small acreages at present. Another marked contrast in the two groups of farms is in the location, for the large farms are almost always in the level, more fertile and desirable bottom lands, and the small farmer is more apt to be located on the valley slope or in the narrow sections of the valley.

The main type of farm enterprise in the Alsea Valley is dairying, which is well adapted to the environment of the area. Grain production is also common in the valley

as has been the case in years past. The present system of price supports has greatly helped the grain farmer in the valley, although he is none too pleased with acreage allotments. Still another type of farming of considerable importance in the valley is the raising of beef cattle. This is often done on the smaller operations, where it takes little effort to maintain a few head of beef stock while the owner works in the woods or in a sawmill. This way, he not only raises his own meat, but makes a profit if prices are at all favorable. Since most homesteads in the valley contain at least ten acres, there is land largely left unused except for such small-scale grazing. There are only a few farmers in the valley who raise beef cattle in noteworthy numbers. Other types of farming in the Alsea Valley include poultry raising, berry growing, and truck gardening (mainly corn and family garden.)

The gross income for Alsea Valley farms in 1953 was reported to be \$800,000 from agricultural products alone (1, p.4). To this should be added the income derived from outside work for a true picture of what was earned by all people on farms. To better illustrate the main types of agricultural enterprises of the valley, individual farm studies were made. Each study was selected to be representative of its type.



Figure 18. Beef cattle grazing in the Alsea Valley. Note the steep valley wall in the background.



Figure 19. Baled hay in the Alsea Valley in mid-July.

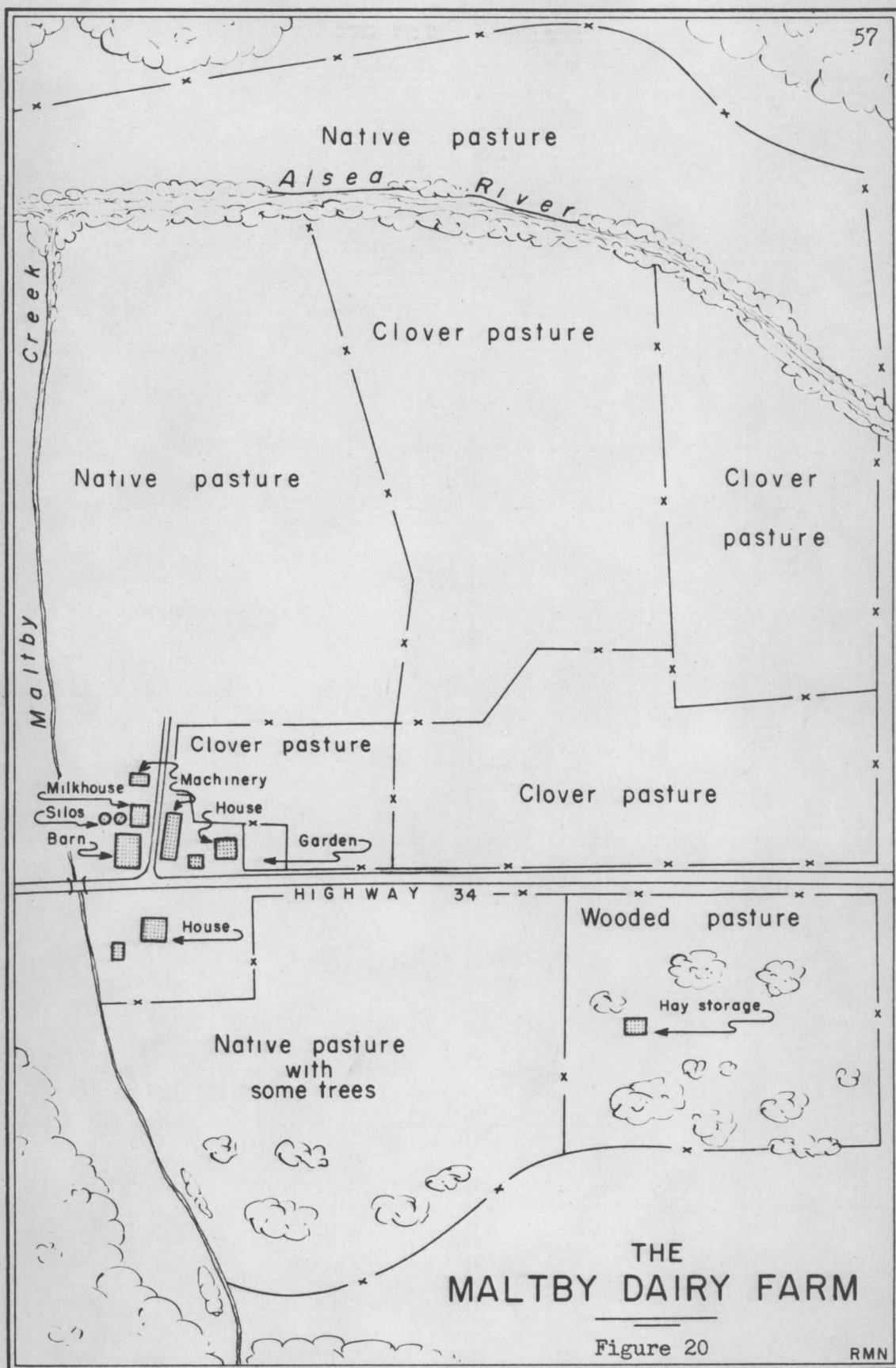
The Maltby Farm

The Maltby farm was selected to represent the large dairy farms in the Alsea Valley. It is the second largest in output in the valley.

The Maltby farm is located on Highway 34, approximately five miles west of Alsea, and a little over a mile east of Digger Mountain. It is situated on one of the fairly wide sections of the valley. Maltby Creek bisects the farm in a north-south direction and runs into the Alsea River on Maltby property. The main stem of the Alsea bisects the holding in a general east-west direction.

Residing year around on the farm are Mr. and Mrs. Harold Maltby (in a state of semi-retirement), Mr. and Mrs. Ernest Maltby, and one hired man. In the summer months, additional help is hired from time to time. It is a practice to employ a teen-age friend of the family to help about the farm in the summer in exchange for room and board, a small wage, and an excellent suntan.

The Maltby farm contains 240 acres, 160 acres of which is flat land, with 80 acres being in valley slope on the north side of the Alsea Valley. About 110 acres of the farm is cultivated, 40 acres is in woodland pasture on the valley slope, and 90 acres consists of mixed brush,



hardwoods and softwoods, is for the most part, of a more open nature, with several large areas of grass included. The grasses dry out considerably during the hot summer months due to low rainfall and poor moisture retaining properties of the soils. It is on this area that Mr. Maltby pastures heifers and dry cows, retaining better grazing areas for producing stock.

The 110 acres of cultivated land consists entirely of pasture at the present time, and will probably remain so for some time. The pasture is nearly all clover, intermixed with grasses, with only about 10 acres planted to grasses alone. From 70 to 75 acres are irrigated and it is this irrigated area that has proven to be the making of the farm. The irrigated land is all planted to clover and grasses. Irrigation is of the sprinkler type and the water source is the Alsea River. During the summer months of June, July, and August, the land is kept under a constant rotation system of irrigation. While one field is being grazed, the one just previously grazed is irrigated. When the herd is moved, so is the irrigation system. This is a relatively easy task due to light-weight aluminum irrigation pipe and specially built pipe carriers. It is largely for the purposes of moving irrigation pipe that extra help is needed on the Maltby place in the summertime.



Figure 21. Clover pasture typical of the irrigated pasture on the Maltby farm.



Figure 22. Clover pasture under irrigation on the Maltby farm, the buildings of which are visible in the background.

The income of the Maltby farm comes from the sale of milk. The usual number of milk cows in production is from 40 to 60 head. At present, Mr. Maltby has 40 additional head that are dry or are heifers, and also about 12 calves which are kept in the barn. Nearly the entire herd on the Maltby farm is of Jersey breed. Only occasionally will a cow of a different breed be kept. The average daily output of the herd is approximately 1,300 pounds of milk or 16 ten gallon cans daily. This amounts to about 7,400 pounds of milk per producing cow per year, which is a very good average. The cows are milked twice a day and the milk is picked up every morning by truck at the farm by the Medo Land Creamery Company. The milk from the Maltby farm is marketed as Grade A and is sold retail by the Medo Land Creamery Company.

Mr. Maltby cuts his own hay from some of his pasture land which is a clover and grass mixture. He is usually able to meet his own needs for hay, but occasionally he has to buy some additional from local sources. In addition to hay, Mr. Maltby feeds 60-70 tons per year of grain to his cattle. Most of his grain is purchased in Philomath. In some years past, Mr. Maltby has raised his own grain, but none is being raised now. Some years Mr. Maltby harvests clover seed, which he sells commercially

in Corvallis. Attempts have also been made at growing cannery corn.

Mr. Maltby also raises chickens enough to supply family needs and raises his own vegetables in the family garden, which is also heavily irrigated in the summer.

The Maltby farm is an example of those farms in the Alsea Valley that are heavily dependent on irrigation for their present high level of utilization. To illustrate the importance of irrigation on his farm, Mr. Maltby states that it would have a carrying capacity of only about twenty head of producing stock if it were not for irrigation. Hence, with his present 40-60 head of milking stock, he has increased his production two or threefold with irrigation.

Any further expansion of activities on the Maltby farm must entail an increase in irrigation. Mr. Maltby states that he has water rights enough to allow for some expansion. Mr. Maltby is an older, more established farmer and had his water rights fairly early, but the newer farmer in the area, or those not having realized the benefits of supplemental irrigation early, are becoming hard pressed for water in the summer months.

The Brownley Dairy Farm

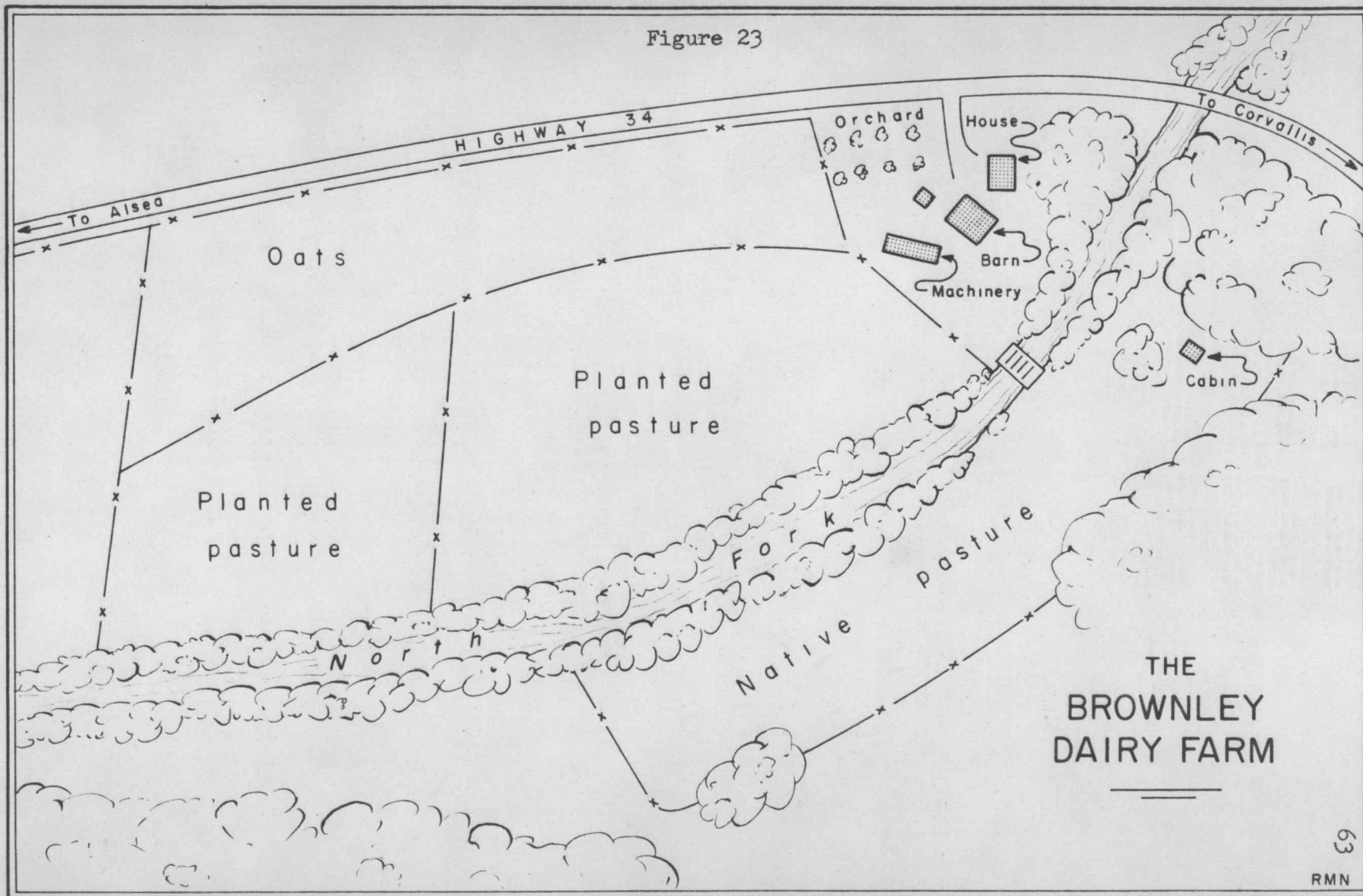
The R. Brownley farm was selected to be representative of the small dairy holdings of the area.

The Brownley holding is located about five miles east of Alsea and is also on Highway 34 to Corvallis. It is located at the junction of the North Fork of the Alsea River and Crooked Creek (sometimes called Spencer Creek). The Brownley property is bisected by the North Fork on the south edge and is bounded by the highway on the north.

The Brownley family consists of Mr. and Mrs. Brownley and one son. Mr. Brownley moved onto his farm in 1942 from Eugene, Oregon. Prior to the purchase of his farm, Mr. Brownley was a log truck driver in the Eugene area. Mr. Brownley does all of the work on his farm himself.

The Brownley farm contains 60 acres, all of which can be classed as level, the only exception being a small hill upon which the farmstead is located in a grove of hardwoods. About 15 acres of the land, which is situated south of the North Fork, is mixed woodland and open pasture. The trees are hardwoods along the North Fork but change to fir away from the stream. The open pasture is of grasses that become dry and coarse during the summer, and provide little in the way of nourishment for cattle.

Figure 23



Although the area is level, there has been no attempt made to increase its productivity by fertilization or irrigation. On the north side of the North Fork, there are about 45 acres of cultivated land, including the farmstead. At the present time, about 33 acres of this cropland is in irrigated pasture. The pasture is planted to a mixture of Ladino clover, alta fescue, and grasses. The pasture is irrigated with water from the North Fork of the Alsea, by the sprinkler method. Mr. Brownley has 1,800 feet of main irrigation line and over 700 feet of smaller lateral pipes. The system has nine sprinklers. In the summer, the land, like most of that under irrigation in the valley, is kept under a rotation system of irrigation.

Ordinarily, Mr. Brownley has all 45 acres of his cropland in pasture, but this year he has about 13 acres of oats planted. He expects this land to produce about 70 bushels per acre. Most of the grain produced in this 13 acres will be used by Mr. Brownley for stock feed. Any excess will be sold locally or in Corvallis. In addition, to oats, Mr. Brownley occasionally raises barley, either for feed or to sell commercially.



Figure 24. Sprinkler irrigation on the Brownley farm, the machinery shed of which appears in the distance.

Mr. Brownley has 39 head of livestock on his farm, most of which are milking animals. Most of his cows are of Jersey breed, with some intermingling of Guernsey and milking shorthorn. The milking stock is pastured on the irrigated land, while the heifers and dry stock are pastured on the 15 acres across the river. (A wooden bridge joins the two sections of the farm.) The farm ships about 10 to 12 cans of milk daily, the milk being picked up by truck by The Borden Company. Since it is not Grade A milk, it cannot be sold for retail fresh milk sales, but is used for other dairy products.

Mr. Brownley uses several kinds of feed, mostly barley, mill-run, and oats and corn. He uses approximately sixteen sacks of feed per month unless he has his own supply. He purchases feed from a company in Albany, Oregon, because it is the only company that delivers into the Alsea Valley. Most of the farmers of the valley buy from this same company for the same reason.

In addition to dairy cattle, Mr. Brownley occasionally raises hogs, mainly for his own use or for local sales.

He also has about one acre of pear, cherry, and peach trees, the fruit from which is used almost entirely for home consumption. These fruit trees do not bear very well, however, as is the case in most of the valley. Mr. Brownley also maintains a family garden every year.

Mr. Brownley uses fertilizers in fairly large amounts, mostly ammonium sulphate and super phosphate purchased in Albany or Corvallis. He also uses a small amount of weed killer each year.

When asked about what his problems were, Mr. Brownley replied that the high prices of feed, irrigation, and fertilizer coupled with lowered milk prices were a great problem. His greatest problem, however, is in getting enough water to meet his needs or for expansion. He, like many other Alsea Valley farmers, is heavily dependent on an assured, constant, and uninterrupted water supply

since his income is directly associated with irrigation. To illustrate the importance of irrigation to Mr. Brownley, attention is called to a comment of his: "Take away the water and I'm through."

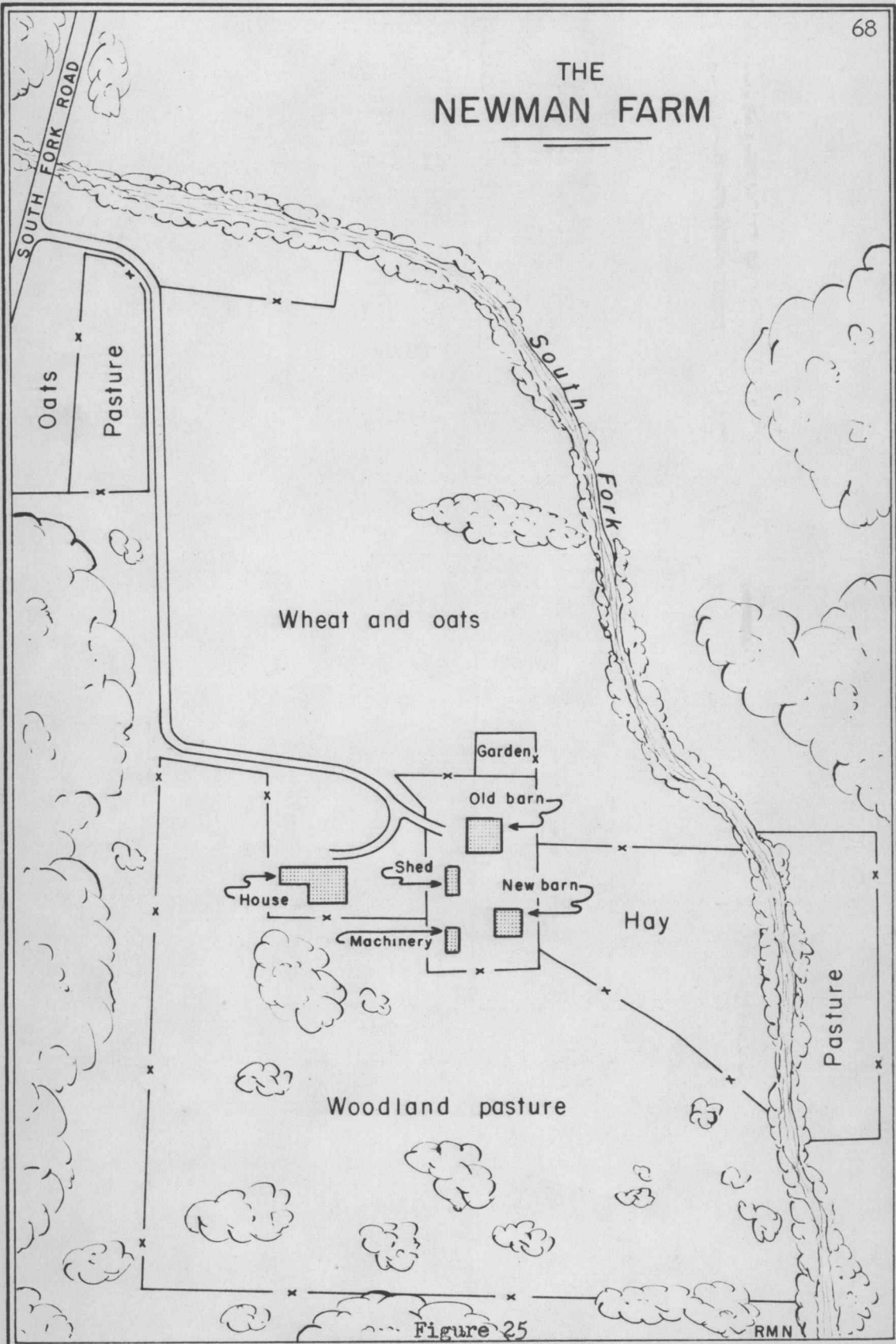
The John Newman Farm

The John Newman farm is an example of still another type of agricultural enterprise in the Alsea Valley. This is primarily a grain farm at present, with the eventual aim being to make it a grain and beef cattle farm.

The Newman farm is located between the South Fork of the Alsea River and Bummer Creek, about two miles south of the town of Alsea. It is accessible from the Lobster Valley road. The farmstead is situated on a hillside overlooking the South Fork toward Alsea.

John Newman, his wife, and two children, have only resided on their place for slightly over a year. He purchased the farm in an extremely run-down condition in 1953 and immediately set to work to build it up, as is characteristic of the present day inhabitants of the Alsea Valley. He had to build his home, a modern ranch style house; the outbuildings had to be replaced and additional ones built; equipment had to be purchased; and fences had to be built. One of the first tasks performed

THE NEWMAN FARM



by Mr. Newman was to build four miles of fence on his property. All in all, the task was tremendous.

The Newman farm totals 408 acres, of which 250 acres are cleared and 158 acres are wooded. There are a considerable number of open meadows contained within the wooded acreage. Of the 250 acres cleared, 130 has been brought under cultivation at the present time.

Mr. Newman this year has planted 40 acres of wheat, 60 acres of oats, and 30 acres of hay, which is mixed oats and vetch. He expects the wheat to yield about 40 bushels to the acre, the oats about 75 bushels to the acre, and the hay from two to four ton to the acre. Last year, which was Mr. Newman's first year on the place, he planted oats and wheat and had good results. Mr. Newman states that he is well satisfied with his farm for grain growing except for the lateness of the ripening period. This is due to afternoon and early morning fogs as well as overcast skies, which reduce summer sunshine. The late ripening period means that Mr. Newman runs the risk of having his crop damaged or ruined by early fall rains. Last year he reports that he lost a few acres of good hay because of a wet autumn.

Mr. Newman does his own harvesting, with a self-propelled combine. If he needs outside help, he generally enters into a cooperative working agreement with his

neighbors. The harvested grain is sold in Corvallis to a feed and seed store.



Figure 26. A field of oats and wheat on the John Newman farm south of Alsea.

Mr. Newman irrigates only 40 acres of his land, but plans to expand his irrigation system as he becomes better established on his holding. The land presently irrigated was last year left as pasture, but this year Mr. Newman plans to cut most of it for hay. The irrigation done is by the sprinkler system and the water source is the South Fork of the Alsea River, over one mile of which bounds Mr. Newman's farm. The water used for domestic purposes on the farm comes from a spring running off a nearby hill.

A handicap in this system, and one common to most of the farms in the valley, is the lack of water pressure in the system during the summer months, at which time there is very little water available to run off in the form of springs. Some of the people are even thinking of some type of storage for their domestic water systems.

The only fertilizer used by Mr. Newman is barnyard manure, of which he has an adequate supply on his own place. This is applied with a tractor and a manure spreader both of which Mr. Newman owns. He also plans on growing an annual green manure crop which he will plow under for fertilizer.

In addition to the grain growing phase of Mr. Newman's farm, there is also a beef cattle raising program. At the present time, he has 40 head of beef cattle including calves. His stock is a cross of whiteface and Brahma and Mr. Newman was very emphatic in his approval of this breed of cattle. He was particularly impressed with the rapid rate with which the cattle put on weight. He says that the cross breeds grow much faster than the ordinary beef stock, but that such rapid growth did not harm the meat in any way. These cattle also grow to very large size, therefore he has higher than average fences enclosing their pasture. Several calves only two months old appeared to be much older than this due to their large size and

thickness of body. The only drawback in this type of cattle, as stated by Mr. Newman, was their extreme flightiness when excited or frightened.



Figure 27. Some of the wooded pasture of the John Newman farm.

Mr. Newman grazes his cattle on about 250 acres of pasture, which, together with his 130 acres of cropland and about 25 acres of farmstead, roads, etc., make up his total farm acreage. Nearly all of this pasture land is in valley slope that is a mixture of clumps of trees and open pasture. The trees are mostly deciduous and, for the most part, have little in the way of underbrush. Also present in the pasture are large amounts of low bushes,

stumps, blowdowns, and blackberry vines. The open pasture areas have fairly good stands of grass, but, due to their exposure to the hot sun, dry up and become coarse and brittle in the summer months. The Newman woodland pasture is typical of that found on all the lower valley slopes of the Alsea Valley, though not as steep as many areas.

Mr. Newman states that some of the lower and flatter areas of pasture have been seeded at some time before his arrival. Such areas were planted to bent and rye grasses, but the remainder of the pasture is in natural grasses. There have been no efforts to improve the woodland pasture, and such a scheme would prove difficult because of the terrain.

The markets for Mr. Newman's beef cattle have, so far, been local. He prefers the local market, but if he eventually raises more cattle than the local market can handle, he will sell them in Corvallis.

Mr. Newman also has two milk cows that he keeps to supply his own family's demand, and enough chickens to keep his family supplied with eggs. Such activity, which is common throughout the valley, adds to the self-sufficiency of the people.

It is common for Alsea Valley farmers, large or small,

to be connected in some way to the forest industry and Mr. Newman is no exception. He has a fleet of five trucks which are driven by hired drivers in hauling logs and lumber in the Alsea Valley. Four of them are engaged in hauling rough-cut lumber from the Digger Mountain Lumber Company to Corvallis. It was income derived from these hauling operations that provided the down payment on Mr. Newman's farm. Although he is now primarily a farmer, Mr. Newman still allots a certain portion of his time to his truck fleet.

Such is the case with a grain and beef raiser of the Alsea Valley. The future for Mr. Newman appears to be quite bright, due mainly to his personal initiative and aggressiveness.

The L. J. Stow Ranch

The Stow ranch, known as the "Stowaway", is a typical example of one of the less widespread agricultural enterprises of the Alsea Valley; the raising of poultry. There are three sizeable chicken ranches in the Alsea, and several holdings where smaller numbers of chickens are raised to supplement income of the holding. The three larger enterprises are nearly identical in size and management, so that the Stow ranch is very typical of all

three. Furthermore, all three are located within two or three miles of each other.

The Stow ranch is situated about 17 miles from Alsea, 13 miles from Tidewater, and 24 miles from Waldport. The ranch is located in a very narrow section of the valley, there being just a narrow strip of flat land between the road and the river upon which to locate the holding. The ranch is bounded on the north by the valley wall and on the south by the Alsea River and the other valley wall. Highway 34 bisects the holding, separating the house and garage from the other buildings. The other ranches are situated in an almost identical locale.

Mr. and Mrs. Stow, the owners, are the only permanent employees on the ranch. The Stows employ no steady help, but do employ local boys in the summer time for cleaning, repairing, etc.. The cost for this labor is about \$150 per month for each of the summer months. (One of the ranches does have a steady, year-around employee.)

The Stows began their present business five years ago in 1949 on a much smaller scale, increasing gradually every year until they have reached their present size. At the present time, the Stow ranch has about 1,800 pullets and 1,700 hens. They plan to sell 1,200 of the hens. The yearly operating procedure is to buy from 1,500 to 2,000 pullets annually and before the end of the first year, at

THE STOW RANCH

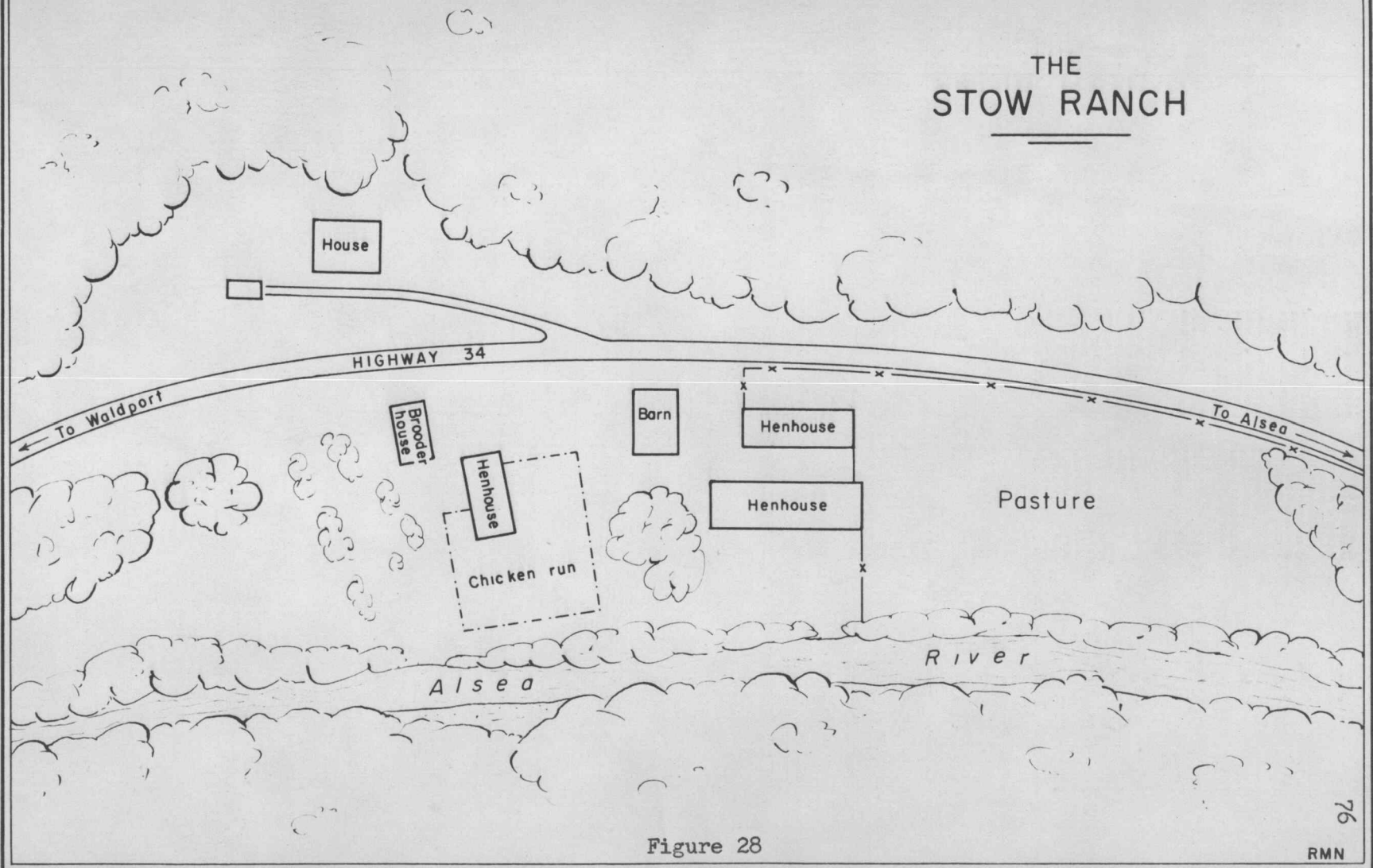


Figure 28

which time the pullets begin a molting period, they are sold, and replaced by a nearly equal number of new pullets. This process is regulated so that the period of greatest productivity coincides roughly with the period of peak demand, which is during the summer months. The reason for the schedule is that there is a marked "drop-off" in the laying ability of the hens after the first molting period and this can be compensated for by replacing the hens at that time. Also, the eggs are of poorer quality after the first molt, except when used for hatching purposes. The period between the purchase of the pullets and the time they begin to produce is made to coincide to the slack demand in the winter months. The year-old chickens are sold to Northwest Stores in Albany, which in turn, puts the chickens on the retail market. The Stows state that the only readily available places at which they can sell the older chickens are Albany and Portland. When the time comes to sell the chickens, the company is contacted and a truck comes to get them.

The output of the Stow ranch runs from a low of about 90 dozen eggs per day to a high of about 120 dozen. The low figure results when the chickens are not culled at the start of the molting season. These production figures mean that from 60% to 80% of the hens are laying every day.

Large amounts of feed are purchased for the chickens,

the exact amount of which is unknown by the Stows. They use a laying mash and a mixture of two parts wheat and one part gray oats. Small amounts of shell and gravel are also given to the chickens. In the future, the Stows plan to use an all-purpose mash that includes all the above as ingredients. Such mash will save labor, but will be higher in cost. Most of the feed is purchased from a company in Albany that makes deliveries to the Stow ranch and surrounding area, but they buy their wheat and oats locally.

The Stows do their own washing, grading, and packing of eggs, and they sell almost entirely in the Waldport-Newport area. At the present time, they sell to one store in Waldport and to three stores and one restaurant in Newport. The Stows have contracted to make daily deliveries to these establishments. When they have an excess of eggs, they are sold to a cooperative in Albany. The three chicken ranches in this area have a unique marketing system. They have a type of "gentleman's agreement" that obliges them to sell eggs in an area called a "panel" that is designated by mutual agreement of the three. Hence, each ranch owner has a selling area and agrees not to solicit business or sell outside of his own area. If one rancher cannot supply the demand in his panel at any given time he often buys eggs from one of the other ranchers to

resell in his own area.

In addition to their chickens, the Stows have four beef cows and one milk cow, all of which they keep for their own use. The stock is grazed on about ten acres of natural pasture included on the Stow holding.

The Stows state that they have no plans for further expansion; the overall demand for eggs doesn't warrant it.

The summer demand, however, is still greater than the supply, due to a great influx of tourists in the coastal towns at that time. Also, employment in the area is highest in summer and individual buying power is increased by the greater incomes.

The poultry business in the Alsea Valley seems to be in a static state at present. The local market doesn't seem to warrant expansion, but buying by Willamette Valley companies may make more production feasible at some time in the future.

CHAPTER VI

RECREATIONAL RESOURCES AND SERVICE ACTIVITIES

Recreation in the Alsea Valley is growing in importance. It provides a means of livelihood for a number of people in the valley; it provides a means of sport and relaxation for inhabitants of the valley; and, most important, it provides a sports area for the many people from regions other than the valley who come here for purposes of recreation. The Alsea Valley is richly endowed with natural attributes and has a great deal to offer for the person seeking outdoor recreation. It has been this natural setting that has proven a basis for settlement in some cases, since the valley is inhabited by many people who place a certain value on isolation in a natural setting such as that found here.

Fish Resource and Fishing

Of the various types of recreation available in the Alsea Valley, sports fishing is probably the most important. The species available in the Alsea River system include silver salmon, winter steelhead, Chinook salmon, rainbow trout, and both fresh-water and sea-run cutthroat

trout.

The fish of the Alsea Basin have a host of clear, cold, swift running streams in which to live. The best spawning streams in the area are Drift Creek near the mouth of the Alsea, Grass Creek, Lobster Creek, and Honey Grove Creek, among other smaller streams. Other good spawning streams include Canal Creek, Scott Creek, Five Rivers, South Fork of the Alsea, and Little Lobster Creek. The poor spawning streams of the basin are few in number and are mostly short and small streams. (10, p.28)

The natural attributes of the Alsea system for fish life include adequate fish food, adequate gravel beds for spawning fish, adequate year-around stream flow (a variable condition), reasonably clear moving water, and correct water temperatures. The average annual water temperature at Tidewater is 55°F. The highest recorded temperature since 1947 was 71°F., and the lowest was 34°F. (9, p.11).

The extent of utilization of the Alsea River and its tributaries for sports fishing is hard to estimate for there are many variables involved. A brief rundown of utilization estimates follows, but in many cases the figures are probably lower than is actually the case. (1) Silver salmon -- in 1952, it was estimated that 6,100 silver salmon and jack silver salmon were caught by sports fishermen. These fish were estimated to weigh a total of

42,000 pounds; (2) Chinook salmon -- more than 250 Chinook salmon were caught in 1953, with a minimum total weight estimate of 5,100 pounds; (3) Steelhead -- about 110 steelhead salmon were caught during the 1952-52 season. It is estimated that the hours spent per fish amounted to 29 on the average; (4) Trout -- the average number of trout caught per year is very difficult to determine. It is estimated that there were nearly 17,000 trout caught in the two years 1951 and 1952, which is probably a very conservative figure. These fish were caught by over 9,000 anglers who spent about 1 3/4 hours per fish on the average (10, pp. 2-9).



Figure 29. Trout fishing on the Alsea River. Note the logging road crossing the river at this point.

It is estimated that the above salmon and trout were caught by over 16,000 anglers in 1952, which is undoubtedly a low figure since surveys made have been neither complete nor entirely accurate (10, p.8). In many cases, the pressure put on the fisheries of the Alsea River are tremendous and it continues to increase annually.

The natural fishery resource of the Alsea Valley has been augmented greatly in recent years by the operation of the Alsea Trout Hatchery on the South Fork of the Alsea River. The Alsea Hatchery, operated by the Oregon State Game Commission, releases thousands of fish annually into the Alsea River system as well as many other neighboring streams. Species hatched, raised, and released by the hatchery are rainbow trout, cutthroat trout, steelhead salmon, and silver salmon. The production of the hatchery has been about 2,158,000 fish to date, with 865,000, or 40% of these being released into the Alsea system (10, p. 10). The survival rate of the released fish has been a matter of indecision for years though, and no reliable estimate can be given of the number of released fish that live. It is said that hatchery released trout make up about 50% of the total catch on the Alsea, however (10, p. 13).

As a means of increasing the survival rate of hatchery fish, they are being retained at the hatchery until they

FISH STOCKED
in the
ALSEA RIVER AND TRIBUTARIES
(1949-1952)

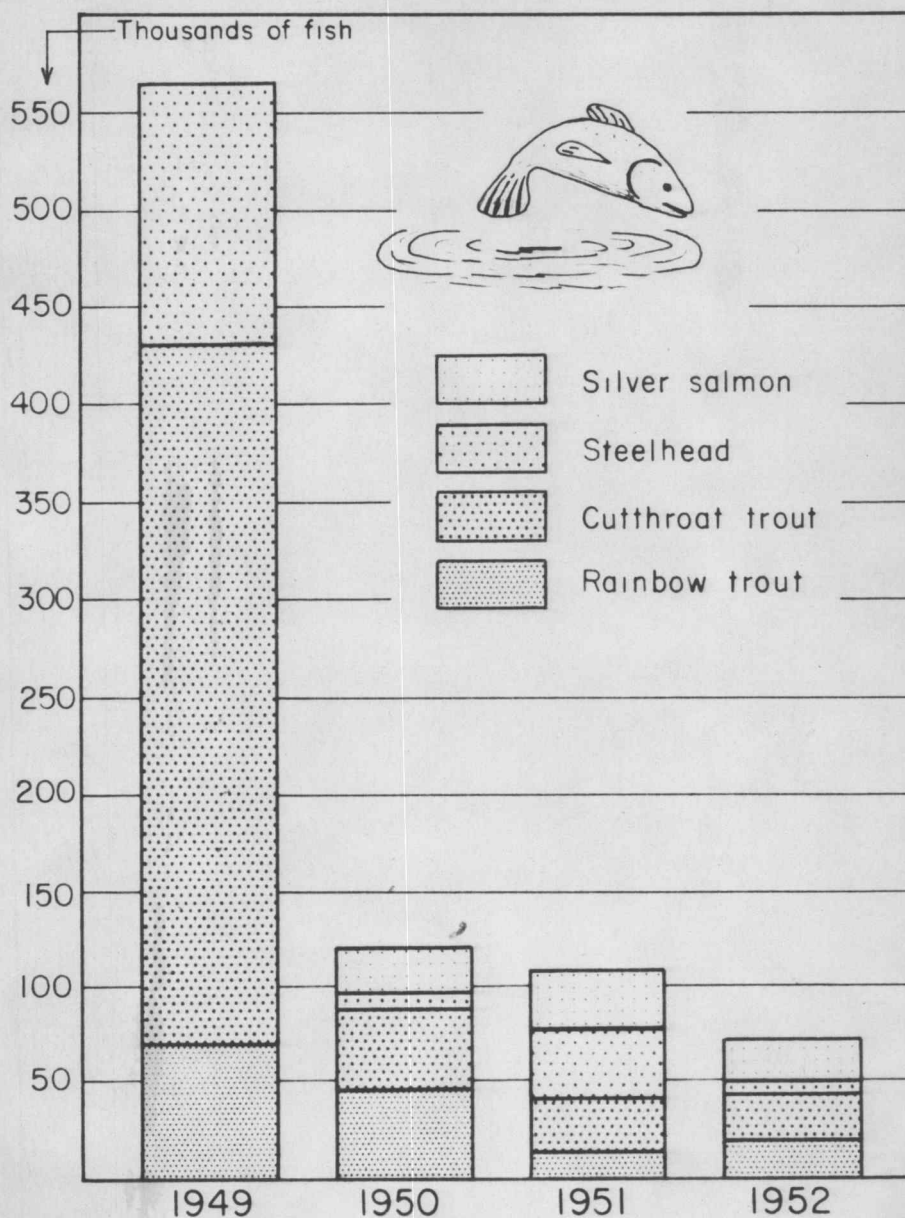


Figure 30

reach a larger size. This can be seen by the average weights of the fish released each year. In 1949, they averaged $1/50$ of a pound each; in 1950, $1/7$ of a pound; in 1951, $1/6$ of a pound; and in 1952, $1/3$ of a pound (10, p.10). Hatchery trout are now being raised until they are eight inches in length, which is the legal angling size in the Alsea system.

The work of the hatchery has been notable, but it must expand its operations in order to supply the needed numbers of fish in the Alsea River.

Other Recreational Activities

Camping and picnicking are other widely practiced types of recreation in the Alsea Valley, both by residents of the valley and by outsiders. It is estimated that 10,000 persons visit the area annually for the purpose of camping or picnicking (2, p.2). The areas of this type of recreation are very widespread, being present mainly along the streams and along the North Fork and main stem of the Alsea. The principal area of visitation, however, is quite far removed from the Alsea River. Mary's Peak claims more visitors per year than does any other spot within the region.

Hunting is another sport carried on in the Alsea

Valley. This type of recreation attracts many of the local residents, but only a limited number of outsiders, and these only for a few days out of the year. Species hunted in the approximate order of their importance to the hunters are (1) deer, (2) elk, (3) ducks, (4) pigeons, (5) bear, and (6) grouse (2, p.3).

Swimming is done to some extent in the summer months in some of the deeper holes of the main Alsea and its larger tributaries, such as the North Fork, South Fork, and Five Rivers. Existing water impoundments also provide places for swimming. This type of recreation is often carried on in association with camping or picnicking.

Many people enjoy motoring in the Alsea Valley to enjoy the rural and forest beauty and the attractive streams. Many people spend a day traveling the by-roads of the area, many stopping at special points of interest or beauty. Increased population in neighboring areas and greater numbers of autos has contributed greatly to this as a means of recreation.

Boating has become increasingly popular in the lower reaches of the Alsea River where possibilities for expansion are considerable.

There are many businesses in the Alsea Valley that cater exclusively or partly to recreational activities.

These include resorts, lodges, landings, tackle shops, service stations, groceries, sporting goods dealers, real estate dealers, and miscellaneous merchants and service industries.

Commercial Recreation

Commercial recreation in the Alsea Valley has been present for a good many years, but it has only been since World War II that it has achieved major importance.

Nearly all the commercial recreation enterprises are connected with sport fishing. There are any number of boat landings on the lower Alsea River and it is these that constitute the commercial recreation of the valley. These landings start about two miles above Tidewater and continue to the city of Waldport. They are generally situated on stretches of the river that provide good fishing and that are easily accessible from the main highway. They are usually found situated in groups of two or three, since the choice spots on the river are limited in number, and several landings may take advantage of the same stretch of river. The total list of accommodations for the fisherman at the eight landings on the lower river is as follows: 21 cabins, 169 boats, 8 boat launching sites, 23 camping sites, 3 restaurants, and 2 coffee bars, plus

several tackle counters. The above items represent an investment of \$241,000 from which an annual gross income of \$63,000 is realized (10, p.26). The workings of a typical landing are described in more detail in the accompanying study.

It is worthy of mention also, that there is a slightly different type of recreational development on Spencer Creek, a tributary of the North Fork. Here, there is a fishing camp instead of a fish landing, and there are cabins for the fisherman. It is one of the oldest developments in the valley, but is used very little at present. The fisherman of today seems to prefer a motel in town or a tent on some other portion of the river. Modern transportation has made it an easy task to travel into the Alsea Valley in the early morning, fish all day, and travel out again in the evening, thus making an overnight stay in the area unnecessary. In any case, the fisherman's camp type of development in the valley has not been successful, at least in the upper valley.

Taylor's Landing

Taylor's Landing is an example of the principal recreational enterprise in the Alsea Valley. The landing is located on the Alsea River slightly over three miles west

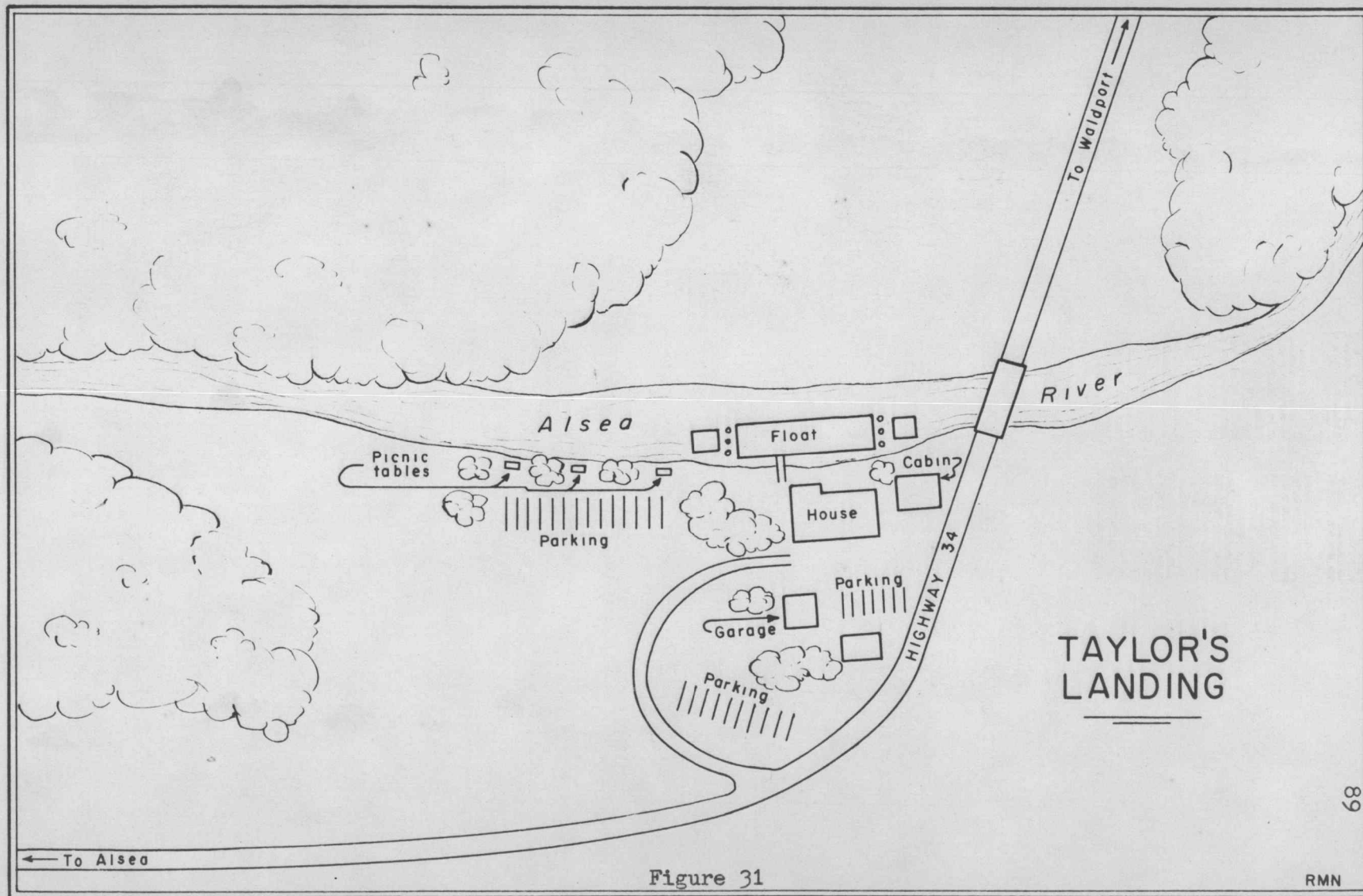


Figure 31

of Tidewater and about eight miles east of the city of Waldport. It is situated near the mouth of Sudan Creek, beside the bridge that crosses the Alsea River. The valley here is only about a quarter of a mile wide.

The holding of Mr. and Mrs. Taylor and their two small children contains only about three acres, most of which fronts on the river. Their holding is well kept and has a pleasant, restful atmosphere. Many shade trees on the holding greatly aid the appearance of the development. The holding itself actually consists of a home and garage, one cabin and several small outbuildings. The landing is a long, rectangular shaped float which rests on large fir logs and is anchored in the river. It is partly roofed over and partly open, with small boathouses built on each end. The float, the mainstay of Taylor's Landing, was constructed after Mr. and Mrs. Taylor took over the holding in 1947.

The Taylor holding serves both fishing and boating, with the former being by far the most important. The working season at the landing consists of only about five to six months, as is the case with all recreational developments in the Alsea Valley. The season opens in early winter, at which time there is a short fish run, and business at the landing is good for a few weeks. After this,

there is little business, since the fishing season is closed, usually by March 1. About May 1, the summer season begins and lasts to about October 1 or 15.



Figure 32. Taylor's Landing on the Alsea River below Tidewater.

During this time, anglers may fish for trout, silver salmon, Chinook salmon, jack salmon, steelhead, or sea-run cut-throat trout, known locally as "bluebacks." It is during this summer period that the landing must make its yearly income. Business continues to be good through the summer months when there are many tourists in the area, but after the first of September, it begins to fall off. During the end of the fishing season, the landing closes. During the months of closure, Mr. Taylor either spends his time

repairing equipment, painting, cleaning, etc., or he takes a job for the winter months. He has gone as far as Corvallis to find employment during this period. Mrs. Taylor fits into the work scheme of the holding also, for she handles many of the lighter tasks and takes care of things during the absence of her husband.

The actual income at Taylor's Landing is derived mostly from the rental of small boats and outboard motors. Mr. Taylor owns 40 boats, 27 of which are nearly new, with 13 being old. At present, the old boats are kept mainly for reserve or emergency. The boats are inexpensive but are attractive and well-built for the purpose. Mr. Taylor also sells gas and oil for use in the motors. Income is also received from the sale of fishing tackle and bait, a fair supply of which Mr. Taylor keeps on his float. In the roofed-over section of the float, Mr. Taylor has a supply of candy, soft drinks, etc., which he offers for sale. (Some of the landings have completely equipped restaurants on their floats that can serve sandwiches and light luncheon to the fisherman.) The Taylors rent the one cabin that they have on their holding and it is generally occupied for the entire summer, with a few periods of idleness before June and after September.

In addition to the business aspects of this holding,

Mr. Taylor serves the public by providing a number of picnic tables under the trees which line the river bank of his holding. The use of this park area is without cost and adds substantially to the appearance of the holding. Ample parking room for cars and boat trailers is also available near at hand.

Mr. Taylor estimates that he serves about 10,000 people a year at his landing, including people coming back on different occasions during the same year. In any case, the number is impressive when one remembers that this is only one of several landings on the Alsea River. Most of the people served by the Taylors are from the Willamette Valley; mainly from the Corvallis-Salem area, although customers come from other parts of Oregon as well as from other states. Many of the parties come several times each year.

Mr. Taylor showed concern over the fact that fishermen must expend such quantities of time and money for the meager catches they are presently getting. This attitude seems to be common to all landing owners in the valley, for they think of the long range and in the long run, if fish continue to be scarce people will quit fishing for them, at least in the Alsea River System.

Other Activities in the Valley

In addition to the three types of enterprises already discussed, there is a small segment of the population of the Alsea Valley that derives their livelihood by some other means.

There are some inhabitants of the upper valley who travel daily to Corvallis and Philomath to work in stores, shops, or other businesses located there. There is also a number of people who work in or operate stores and shops in the town of Alsea. There are also a number of people in the valley who work as carpenters, painters, laborers, etc.. Opportunities for the latter group, though, are very limited.

Also present in the Alsea Valley are a small number of retired people. They are scattered throughout the area on small holdings which they own. Their holdings usually are about one to ten acres in size and nearly always contain a vegetable garden and a flower garden. The principal reason why these people choose the Alsea Valley in which to retire seems to be the climate, particularly the mild summer climate. The people, who for the most part, are quite elderly, seem to be adversely affected by the cold, wet winters, however. None seem inclined to move from the valley for this reason though.

CHAPTER VII

THE OUTLOOK

The Alsea Valley is one of the major transverse coastal valleys in Oregon, but since it contains only 1,300 people out of the state total of 1,621,000 as well as only a small amount of land area, it is of relatively small importance in the settlement and economy of the state as a whole. There are only 6,300 acres of cropland out of the state total of 5,537,000; there are only 260,000 acres of forest land in the basin out of the state total of 29,800,000; and the recreational resource for sport fishing is rated as ninth in the state.

The Alsea Valley has been limited in development by natural isolation. Its location creates problems in marketing and availability of labor force. The Alsea Valley is, therefore, not in a position to successfully compete with more favorable areas such as the Willamette Valley in many activities. Isolation makes for increased costs of goods moving into the valley, which is also a handicap to settlement.

Settlement supported by agriculture is not likely to expand greatly. The Class I lands of the valley are already under cultivation except for a few acres that need

drainage. There is a potential of 13,700 acres of cropland in the valley yet to be brought into use. But this acreage is generally not suited to crops, and could at most be used for pasture or, in some cases, for hay crops. No great amount of new settlement would be supported by this land which would more likely serve only to augment present holdings. In the final analysis, there is little new land in the valley to support an increase in agricultural settlement under presently established farming systems.

A limitation in the valley today in regard to present agriculture is the matter of water supply and distribution. Due to the advent of sprinkler irrigation in the valley, problems of summer water shortage have developed. At the present time, there are water rights issued for 116 cubic feet per second of flow, whereas the minimum flow at Tidewater may be as low as 75 cubic feet per second, hence there is not enough water available to supply all the legal rights (9, p.12). There is more than enough water during the winter months when the runoff rate may go up to 3,688 cubic feet per second (9, p.7). The problem is aggravated by the fact that it is during the months of lowest river flow that the greatest demands are put on the river for irrigation water. July, August, and September are the months of lowest flow and are the months during which irrigation water is needed most. Although

water rights are issued for 116 cubic feet per second, the actual withdrawal including that amount needed for fish life, is more in the neighborhood of 69 cubic feet per second, which is still perilously near the minimum flow. A breakdown of water rights in the Alsea River system is given in Table 6.

Table 6

WATER RIGHTS IN THE ALSEA RIVER SYSTEM

Stream	Water rights issued to 1954 in cubic feet per second	Minimum flow
Bummer Creek	4.44	2.6
Fall Creek	21.12	6.2
Five Rivers	.82	10.4
Honey Grove Creek	.27	1.3
Lobster Creek	2.99	9.3
Alsea (main stem)	11.17	66.0
Mill Creek	.31	1.3
North Fork Alsea River	23.73	11.02
Salmonberry Creek	.5	.9
South Fork Alsea River	4.17	9.6
	<u>85.64</u>	
*Plus abandoned power rights	<u>30.50</u>	
	<u>116.14</u>	

The region in which there is the greatest shortage of irrigation water is in the Bummer Creek area. Here the required flow for present and potential irrigation is estimated to be 6.82 cubic feet per second, whereas the minimum flow of Bummer Creek is 2.6 cubic feet per second. This

does not provide enough even for irrigation let alone water for other uses such as fish. It is in this area that some of the best farmland in the entire valley is located, but it must have water to maintain present intense use. No other area is in such dire straits as far as water supply is concerned.

One answer to the problem has been offered, and that is storage. It has been proposed that a system of small, low-cost storage dams be constructed on several of the tributaries of the Alsea. Such reservoirs as would be formed by the dams would allow for storage of water amounting to approximately 3,565 acre feet, which could be used during the dry summer months (9, pp. 20-29). The dams would have to allow for a minimum summer release so that fish life below would be maintained and would have to have small fish ladders to allow for the passage of spawning fish. A system of reservoirs such as this could impound enough water from the high winter runoff to provide ample irrigation water as well as augment the low summer flow in quantities large enough that fish life could actually be increased.

There are at present, 39 possible storage sites proposed for the Alsea Basin (9, pp. 20-29). The storage



Figure 33. A small storage dam of the type recommended for the Alsea Basin. This one is located on the South Fork of the Alsea

provided by these projects ranges from 10 to 200 acre feet per project with the greater number providing from 10 to 20 acre feet of storage. The greatest storage would be on Fall Creek and the least would be on Mill Creek. The storage possibilities for the major streams of the basin are listed in Table 7.

Table 7

WATER STORAGE IN THE ALSEA BASIN

Stream	Storage in acre feet
Bummer Creek	300
Fall Creek	800
Five Rivers	650
Honey Grove Creek	130
Lobster Creek	275
Mill Creek	80
North Fork Alsea River	565
Salmonberry Creek	215
South Fork Alsea River	400
Misc. streams	150
TOTAL	3,565

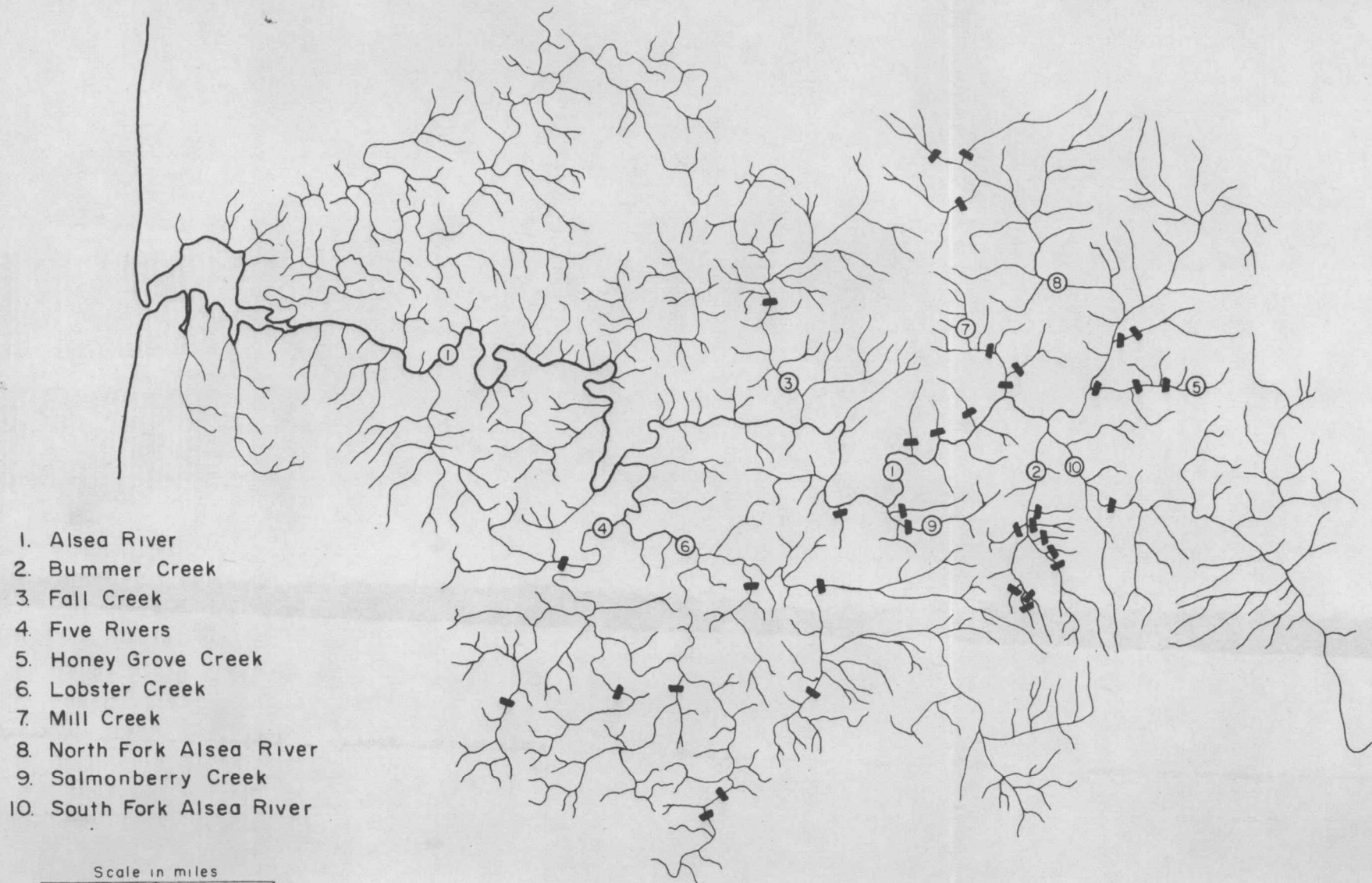
The above system of reservoirs would solve the irrigation water problem in all areas but one: Bummer Creek. The storage possibility here of 300 acre feet, fails to meet the 546 acre feet demand that would be needed to develop the potential irrigable land of the area. It has been suggested that some water might be diverted into Bummer Creek from the South Fork of the Alsea (9, p.21). Such a project would require a diversion ditch of about one mile in length, and would utilize some of the excess water of the South Fork.

The ownership of the land that would be covered by the proposed reservoirs is very nearly all private. Only in Five Rivers and on the North Fork is some of the land in Federal ownership. The private landholders have expressed reluctance to allow their land to be inundated by a

Figure 34

Proposed water storage sites
in the Alsea Basin.

PROPOSED WATER STORAGE SITES in the ALSEA BASIN



reservoir, since some is good cropland.

The financing of the projects has not been investigated at any length as yet. The farmers, however, do not feel that they should bear the entire cost since the fisheries of the area would benefit from the projects as well as the farmers. Neither the state nor the federal government has made any comments on their role in the financing of the projects, however, and until they do, no projects are likely to be constructed in the immediate future.

Other major agricultural limitations in the valley have to do with economics. The dairy farmers in the area are presently suffering from reduced bulk milk prices. Just recently the price they received was reduced considerably, while at the same time, the costs of feed, irrigation, and fertilizer remained unchanged. Some farmers say that this action has destroyed their margin of profit.

A problem of the past has been the failure of tree fruit crops in the area, for tree fruits in the valley are subject to disease, which is aggravated by high humidity. There is a possibility of raising more berries in the valley, although occasionally the short ripening period or late June rains ruin them.

It has been suggested by some that more attention be given to the raising of truck crops in the Alsea Valley. In conjunction with this would be the construction of a

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freezing plant somewhere in the valley, probably in Alsea. Such a plan would be handicapped by lack of a labor supply in the area. There is no excess labor in the summertime of the type and amount needed for truck cropping, nor would it be feasible to try to import such a labor supply. The more favorable agricultural lands in the Willamette Valley have such a labor supply in the summer and hence, would offer strong competition to the Alsea Valley.

The enterprise most suited to the Alsea Valley is dairy farming. The natural environment favors dairy farming, and it is in this phase of agriculture that the Alsea Valley can compete with other areas. The mild climate and high precipitation favor the growth of grass; hay and grains for feed can be grown economically; more assured markets can be had; and the inhabitants fit into a dairy-ing type of economy.

Other phases of agriculture suited to the valley, but not so much so as dairying, are poultry and beef cattle raising. The natural environment also favors these enterprises and the region can support them if adequate markets can be found for the products. The area favors poultry in that this enterprise demands no great amounts of space, and yet there is room enough in the valley for the raising of necessary feeds for chickens. The area favors beef

cattle raising in that they utilize the less desirable grazing areas of the valley slopes. Also, they demand no great amounts of labor, as is also the case with poultry.

The forestry phase of settlement is destined to remain the most important in the Alsea Valley, but is not likely to expand much from present day importance. Although the estimated possible annual growth of the basin is 130 million board feet, the district rangers office in Waldport states that growth is more likely to be from 80 to 100 million board feet per year. Comparing these figures with an annual cut of 112 million board feet in 1951, it can be seen that the Alsea Basin has very nearly reached the maximum in timber cut per year, or it may already be harvesting more than the annual growth. Consideration should also be given to the annual rate of increase in cut in the basin. The drain in 1951 was a 6% increase over 1949, and 1949 was a 40% increase over 1947. It is a certainty that such rates of increase in drain will not be possible in the future.

Under existing conditions, it seems likely that the present amount of sawmilling in the valley is likely to remain nearly the same. With a large number of small forest owners in the valley, it is difficult for any single large operator to gain control of large areas of timber for the individual owners may log and mill their

own timber. It is likely that the small owners will continue to mill their own timber or that they will sell logs to a local mill. It is because of accessibility of logs that the small sawmill can compete.

Another important problem is the long haul resulting from the isolation of the area and from the removal of the more accessible stands of timber. This is a problem for several reasons. It increases the cost of logging considerably since the trucks must haul longer distances and since more equipment must be used in long hauls. Also, as the timber becomes more inaccessible, the cost of logging roads is increased as is the wear and tear on equipment.

There are also several economic problems associated with the forest industry. The high cost of labor is one of these, but this problem is not overly serious at the present time. Neither is there the problem of unionized labor since no mills and only a few of the logging operations are unionized. The increased cost of standing timber and the high cost of logging equipment have adversely affected some of the more marginal operators. The truck driver-owners have been affected also by the great amount of depreciation suffered on their trucks, and many have found it more profitable to buy "short loggers", or smaller logging trucks, and hence, suffer less depreciation.

A problem not limited to forestry, but one that affects forestry somewhat, is the shortage of a summer labor supply in the area. Neither is there an excess of permanent labor that could be used for the expansion of present operations, and any such labor needed in the valley must be called in from some other area, usually the Corvallis-Philomath area.

The condition wherein a large portion of the people connected with agriculture are also connected with forestry will probably continue, particularly as long as substantial profits can be realized from small scale logging operations. Some of the small operators will undoubtedly be forced to discontinue operations as the timber becomes more and more inaccessible, for they will not be able to compete with the larger operators. Part-time forestry will remain an important part of the basis of settlement in the Alsea Valley.

Recreation in the Alsea Valley is bound to become more important, both to the area and to the state. It is a natural phenomenon that as population increases, so does the demand put on recreational areas. As the population in the Willamette Valley and coast areas increases, the Alsea Valley should become more and more important as a recreation area. Certain problems must be considered, however, before such an increased demand can be met.

CHAS. L. BROWN Paper

One of the greatest problems associated with the recreational enterprises of the valley is the shortage of water in the Alsea during the summer months. As the flow of the river decreases, the temperature of the remaining water is increased. High water temperatures increase the susceptibility of fish to many diseases and forms of parasitism that are encountered in such areas as the Alsea Valley. It has been proven that under low flow conditions, rainbow trout in the Alsea become parasitized by a salmon poisoning fluke. Hence, further withdrawals from the Alsea during the critical months of the summer would result in a diminished fish population. This comes at a time when the fish population should be increasing to meet greater demands, rather than decreasing. A system of water reservoirs for storage such as have been proposed, if properly managed, would allow for an increased summer flow, and hence, an increased fish population. It is for this reason that the agricultural people feel that recreation interests should bear part of the expense of the storage projects.

Another problem of the recreation interests is that there are not enough fish in the Alsea system to provide a constant supply for the ever-increasing numbers of sport fishermen utilizing the stream. Catch limits have been in

effect for many years, as have other regulations to protect the fish, but the numbers of native fish are continually decreasing. The Alsea hatchery is stocking large numbers of fish in the Alsea system, but many of these are lost due to natural mortality and remaining numbers are still inadequate to meet the demand. The effort and expense put forth by the fisherman is ever increasing and the fish caught are fewer in number. According to a survey made in 1952, the Alsea was the ninth most popular sport fishing stream in Oregon, but as other streams increase in popularity, the Alsea is likely to drop in the ratings (10, p. 16).

A more minor problem in connection with sport fishing is the pollution of the Alsea River that occurs as a result of logging in the watershed. Since there is a great deal of logging in the watershed of the Alsea, there is considerable soil and forest litter carried into the river system by spring and fall rains. It is common to see the Alsea running murky and muddy about a day or two after any spring rain. Such a condition is not beneficial to fish life, although the actual harmful effects have never been fully investigated.

The valley suffers from a lack of public camping and picnic sites. In the entire Alsea Basin, there are only

two public rest areas, one of which is a small shaded area with picnic tables located on Spencer Creek on the road over the Alsea Mountain. The other is also an area of picnic tables in a grove of trees, and is just above the Alsea hatchery. Although this is a very nice spot, it is inaccessible and "off the beaten trail" since one must go through a private farm in order to reach it. With the thousands of people that use the recreational resources of the region, it seems reasonable that more public camping or wayside areas should be established. Some of the private establishments have installed picnic and park areas, but they serve only a small percentage of the people. There are many sites that would be suitable for picnic or camp grounds or for wayside parks, which seem to be very popular. It has been suggested that the potential storage dams in the Alsea River system might be turned into attractive recreation areas. Such a plan would greatly increase the recreational facilities of the region, and would support the argument that public recreational interests should meet part of the cost of storage dams.

As the amount of people utilizing the valley for recreation increases, there could well be an increase in the number of stores, shops, etc. that serve recreation minded people.

As the valley develops more as a recreation area, there is going to have to be more cooperation on the part of the inhabitants, who, at present, nearly always forbid trespassing on their land. Such an attitude, however necessary, is not conducive to an increase in recreational use.

With organization, development, expansion, and advertisement, the Alsea Valley could well become one of the leading recreation areas of the state for it has nearly all the natural requisites in addition to being near large population centers.

The overall outlook for the Alsea Valley suggests that the settlement pattern will remain basically the same, with forest enterprises and agriculture supporting most of the population. No great increase in development seems likely. The good cropland is now cleared and in use and what agricultural areas might be added are of lesser quality; the forests are being depleted at a rate very near or in excess of the annual growth; and the main type of recreation, sport fishing, is being adversely affected by too great a demand. Only in public recreation can there be much in the way of expansion, but this will not likely support significant new settlement in the valley. Although the Alsea Valley may not increase in population or economic importance it should remain as one of the greatest of the coastal valleys and as a significant rural area of Oregon.

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APPENDIX

СЛУЖБОВИ ЗАДАЧА

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SOURCES OF DATA FOR GRAPHS AND MAPS

- Fig.2....U.S.G.S. Topographic Maps: Alsea, Waldport, and Tidewater quadrangles.
- Fig.3....Adapted from U.S.G.S. Topographic Maps: Alsea, Waldport, and Tidewater quadrangles, and National Forest Maps: Siuslaw National Forest.
- Fig.4....U.S. Climatological Data; Annual Summaries 1946-1954, and Alsea River Drainage Basin by the Committee on Natural Resources.
- Fig.5....Sketched in the field with distances paced.
- Fig.7....Compiled from the text of the Sub-committee Report on Industry by the Alsea Basin Committee.
- Fig.8....Compiled from data received from U.S. District Ranger Office, Waldport, Ore.; Alsea Guard Station; and the State Foresters Office in Toledo, Ore.
- Fig.12...Sketched in the field with distances paced.
- Fig.16...Compiled from the text of Alsea River Drainage Basin by the Committee on Natural Resources.
- Fig.17...Same as Fig.16.
- Fig.20...Sketched in the field with distances paced.
- Fig.23...Same as Fig.20.
- Fig.25...Same as Fig.20.
- Fig.28...Same as Fig.20.
- Fig.30...Adapted from Table 7, p.10, The Fishery Resource Of The Alsea Basin by the Oregon State Game Comm.
- Fig.31...Sketched in the field with distances paced.
- Fig.34...Compiled from text of Alsea River Drainage Basin by the Committee on Natural Resources.