

Wheeler County, Oregon

RESOURCE ATLAS

- NATURAL
- HUMAN
- ECONOMIC
- PUBLIC

APRIL 1973

EXTENSION *Community Development* PROJECT

OREGON STATE UNIVERSITY

Wheeler County, Oregon

RESOURCE

ATLAS

NATURAL

HUMAN

ECONOMIC

PUBLIC

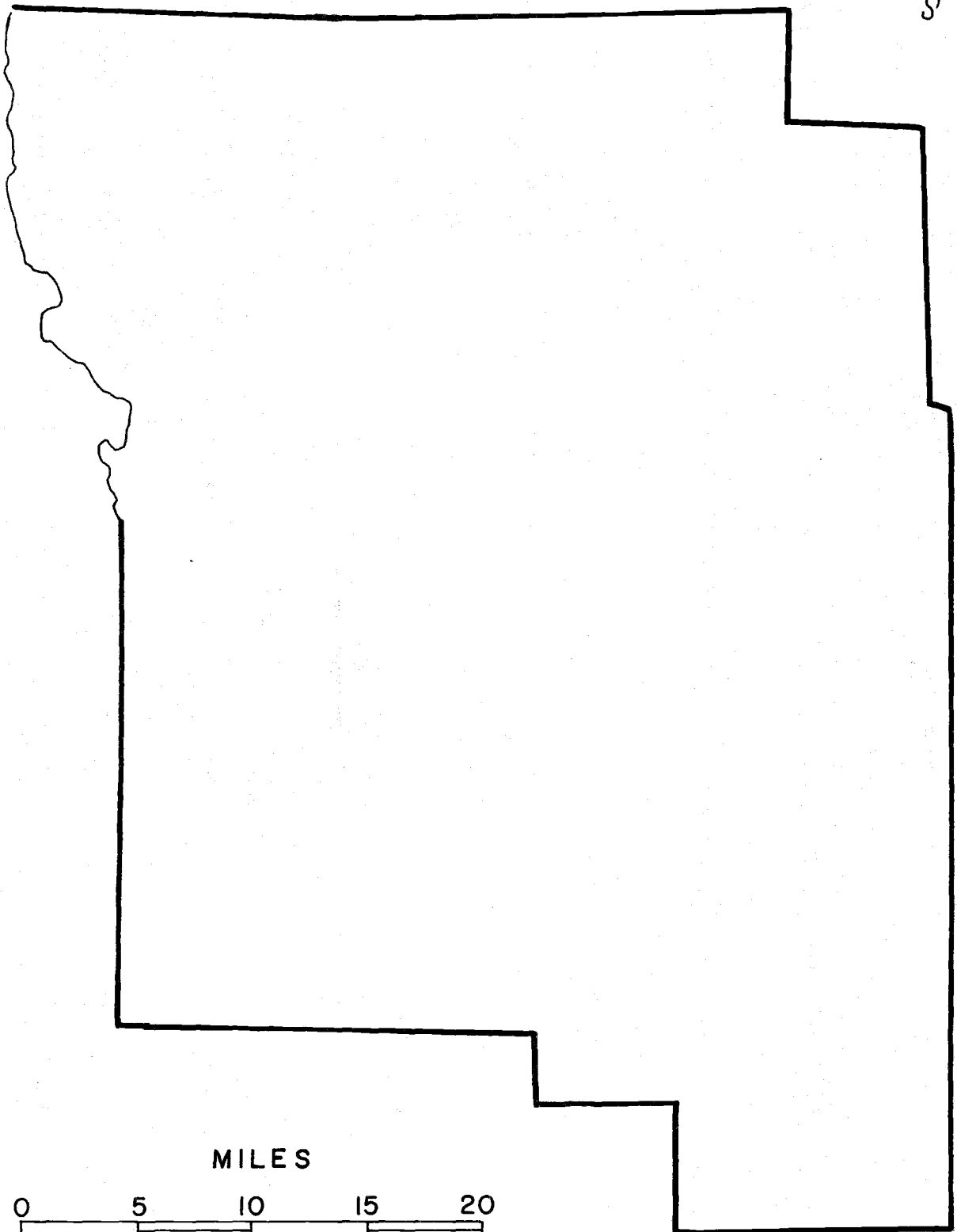
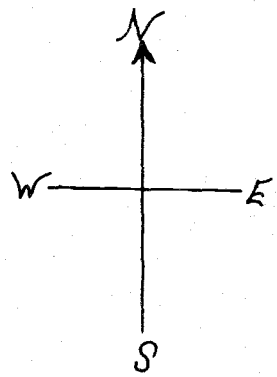
April 1973

Oregon State University Extension Service

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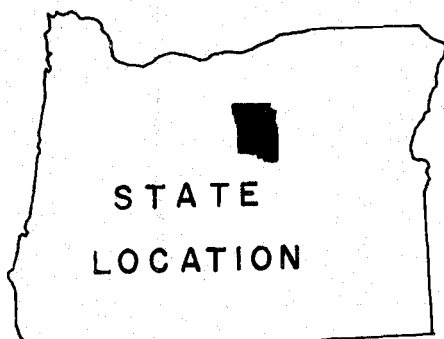
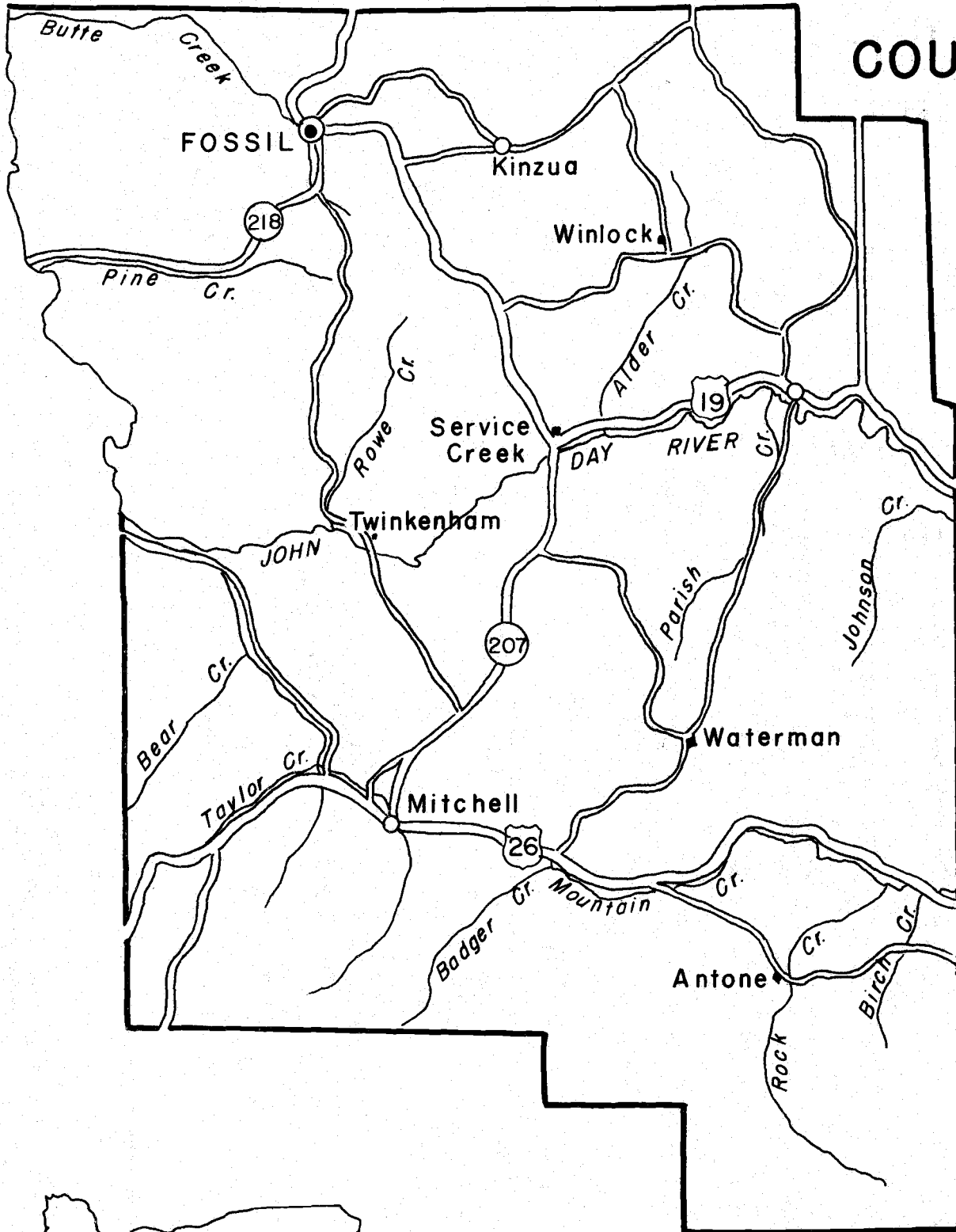
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WHEELER COUNTY



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WHEELER COUNTY



LEGEND

- PRIMARY HIGHWAYS
- SECONDARY HIGHWAYS
- COUNTY ROADS
- INTERSTATE HIGHWAYS

TABLE OF CONTENTS

	Page
General Description.....	1
Physical Aspects.....	2
Climate.....	2
Soils.....	3
Soil Characteristics and Land Capability.....	7
Land Ownership.....	10
Land Use.....	11
Agricultural Land.....	12
Forest Land.....	13
Water.....	14
Water Recreation.....	17
Minerals.....	19
Wildlife.....	19
Human Resources.....	20
Population.....	20
Employment.....	24
Income.....	28
Education.....	31
Health and Vital Statistics.....	34
Public Welfare.....	34
Housing.....	35
The County's Economy.....	37
Agriculture.....	37
Logging and Wood Products.....	42
Mining.....	44
Outdoor Recreation.....	45
Business.....	47
Public Service.....	49
Transportation.....	49
Communication.....	50
Library Facilities.....	51
Utilities.....	51
Public Finance.....	52
Selected List of Agencies.....	57
Selected Bibliography.....	59

GENERAL DESCRIPTION

Wheeler County is located on the eastern side of the Cascade Mountains in Central Oregon. It is bordered on the west by Jefferson, Crook, and Wasco counties, on the south by Crook, on the north by Gilliam and on the east by Grant County. The county has a total area of 1,707 square miles.

The county's population of 1,849 is spread over 1.1 million acres. All of the county is listed as rural in the census and a 32% decline in population occurred between 1960 and 1970.

Gently rolling hills and severely dissected land forms along the John Day River characterize the county. About 3/4 of the land is privately owned with the rest being principally Federal lands. These Federal lands are mostly forests with ponderosa pine occupying 56% of the area. More than half the commercial forest land in the county is privately owned.

The county was created on February 17, 1899 by an act of the Legislature from parts of Grant, Gilliam and Crook counties. It is named for Henry Wheeler who operated the first stage line through the county in 1864. Permanent settlers began arriving in the area that is now Wheeler county in 1863. The first Post Office opened in 1867. The first school opened in 1872; and in 1876 discovery was made of the bones of a prehistoric animal. Since that date the fossil beds have yielded much of the history of life that existed millions of years ago. A brief summary of the facts about Wheeler County is listed below.

Area: 1,707 square miles
1,092,480 acres

Population: 1,820 (1972)

True Cash Value: \$24,601,255 (1971)

Elevation at Fossil: 2,654 feet

Principal Industries:
Agriculture, Livestock,
Lumbering

Average Temperature:
Summer - 65.4
Winter - 37.4

County Seat: Fossil

SOURCE: Oregon State Executive Department, Clay Meyers, Secretary of State, Oregon Blue Book, 1971-72, January 1971; Oregon State University Extension Service, Agriculture in Oregon Counties-Farm Sales and General Characteristics, Special Report 330, Oregon State University, 1972.

PHYSICAL ASPECTS

Climate

Table 1. Temperature and Precipitation, Wheeler County, By Month 1971

Station	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
Average Temperature	- - - - - degrees Farenheit - - - - -												
Fossil.....	35.7	36.3	35.9	42.3	50.5	53.9	63.1	66.4	51.9	46.6	39.7	33.9	46.4
Mitchell.....	35.6	36.9	38.8	45.7	54.9	58.5	68.9	72.0	53.5	43.2	38.9	33.4	48.4
Spray.....	37.6	39.9	42.2	50.0	59.4	63.9	74.1	77.7	60.3	50.1	42.5	34.5	52.7
Total Precipitation	- - - - - inches - - - - -												
Fossil.....	1.43	.54	1.31	1.15	2.07	.45	.28	.56	.59	1.34	2.28	1.35	13.35
Mitchell.....	1.28	.19	1.16	1.14	.92	.99	.64	.25	.41	1.32	2.00	1.35	11.65
Spray.....	2.04	.87	1.71	1.15	1.62	.76	.75	.20	.67	2.22	2.92	3.38	18.29

SOURCE: U.S. Department of Commerce, National Oceanic & Atmospheric Administration, Environmental Data Service, Climatological Data Annual Summary 1971, Oregon Vol.77, No. 13.

Table 2. Spring-Fall, 1971, Freeze Temperature Data, Wheeler County

Station	Last day of Spring - First day of Fall				
	16° or below	20°	24°	28°	32°
Fossil.....	3/20-10/28	4/12-10/17	5/17-9/17	6/29-7/7	6/30-7/3
Mitchell.....	1/12-10/28	3/2-10/16	3/19-10/16	5/17-10/14	5/20-9/18
Spray.....	2/7-10/29	3/18-10/28	3/19-10/28	4/28-10/14	5/30-9/17

SOURCE: U.S. Department of Commerce, Climatic Summary of the United States Supplement for 1951-1960, Oregon, Washington D.C., 1965.

Table 3. Temperature Averages By Month, Wheeler County, 1951-1960

Station	No. of Years	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Mean Daily Max. Temp.		- - - - - degrees Farenheit - - - - -												
Fossil....	Per ^{1/} Rec ^{2/}	8 41.3	46.0	50.5	60.0	68.4	74.5	86.4	83.1	76.8	66.0	50.4	44.6	62.3
		12 40.1	45.7	50.7	59.7	67.9	74.1	86.0	83.4	76.7	64.7	50.4	44.4	62.0
Mitchell..	Per Rec	8 42.5	46.5	50.7	60.0	67.1	75.5	87.3	82.3	76.5	64.3	49.2	44.0	62.2
		22 42.5	46.4	52.7	61.7	69.1	76.3	86.7	84.3	76.9	65.9	51.4	44.7	63.2
Spray.....	Per Rec	-- --	--	--	--	--	--	--	--	--	--	--	--	--
Mean Daily Min. Temp.		- - - - - degrees Farenheit - - - - -												
Fossil....	Per Rec	8 22.9	26.2	26.1	30.2	36.0	40.5	53.6	42.0	38.7	33.2	26.7	25.4	32.6
		22 21.2	25.6	26.9	30.4	35.8	41.0	43.6	42.3	38.6	33.1	27.8	25.9	32.7
Mitchell..	Per Rec	8 24.7	27.0	28.3	33.2	39.2	45.6	51.2	48.6	44.3	36.4	28.2	26.3	36.1
		22 24.3	27.2	29.9	34.3	39.7	45.9	50.9	48.8	44.0	37.3	29.3	26.9	36.5
Spray.....	Per Rec	-- --	--	--	--	--	--	--	--	--	--	--	--	--

^{1/} Per indicates the period or number of years the data were gathered.

^{2/} Rec is the number of records or how many times the data were recorded at the station.

SOURCE: U.S. Department of Commerce, Climatic Summary of the United States Supplement for 1951-1960, Oregon, Washington D.C., 1965.

Soils^{1/}

Wheeler County is made up of numerous soil types. Because of the extreme variety of soil types, the only ones discussed below will be those which make up 1% of the land area or more.

The Anatone series consists of shallow, well-drained, very stony soils formed over weathered basalt. They occur on nearly level to steep uplands at elevations of 3,800 to 5,000 feet under an annual precipitation of 16 to 20 inches. The mean annual air temperature centers around 43° F. and the growing season is less than 90 days.

The Board Tree series consists of deep, well-drained soils formed in pumice ash over old waterlaid sediments on upland slopes at 4,200 to 5,000 feet elevation. The soil occurs on steep, north-facing slopes

^{1/} Oregon State Water Resources Board, Oregon's Long Range Requirements for Water, John Day Drainage Basin, 1969. For further information on soils and maps of their exact location in Wheeler County see this source and Oregon Conservation Needs Inventory Committee, Oregon Soil and Water Conservation Needs Inventory, Jan. 1971.

and nearly level areas at higher elevations. The mean annual precipitation is 16 to 20 inches and annual air temperature is around 43°. The growing season is less than 90 days.

The Dayville series consists of deep, somewhat poorly drained soils formed in alluvium on stream bottoms. They have silt surface soils of loam or sandy loam subsoils. They occur on alluvial flood plains at elevations of 2,200 to 3,500 feet under an annual precipitation of 11 to 15 inches. The mean annual air temperature centers around 48° and the average growing season ranges from 100-125 days. Poor drainage restricts the use of Dayville soil to irrigated hay and pasture.

The Fopiano series consists of shallow, well-drained soils over weathered volcanic tuff, with firm subsoils. They occur in high mountain valleys at elevations of 3,800 to 4,600 feet with an annual precipitation of 13 to 16 inches. The mean air temperature is 43° F. and the growing season is less than 90 days.

Ginser soils are moderately deep, well-drained soils formed over tuff or fractured igneous bedrock. These soils occur at elevations of 3,000 to 4,000 feet with a mean annual precipitation of 13 to 16 inches on the steep, north-facing slopes in western Wheeler County. The growing season ranges from 90 to 120 days with the mean annual temperature around 49° F.

The Gwin series consists of very stony, shallow, well-drained moderately fine textured soils over basalt bedrock. They are formed on gently to very steep, south-facing slopes with annual rainfall of 13 to 16 inches. The mean air temperature centers around 47° F. and the growing season is from 90 to 120 days.

The Hall Ranch soils are moderately deep and well-drained and formed over igneous rock. They occur at elevations between 4,200 and 5,000 feet and precipitation ranges from 16 to 20 inches. The mean annual temperature is 43° with a growing season of less than 90 days.

The Hankins series consists of deep, well-drained soils formed over waterlaid sediments. They occur on gently sloping to very steep uplands with elevations ranging from 4,200 to 5,200 feet. The average annual rainfall is between 17 and 24 inches with a mean temperature of 43° and a growing season of less than 90 days.

The Izee series is made up of deep, well-drained upland soils formed over shale. They occur on steep north-facing slopes at elevations of 3,800 to 5,000 feet with annual precipitation of 13 to 16 inches. The mean annual air temperature is 42° with a growing season of about 90 days.

The Klicker soils are moderately deep, well-drained upland soils formed over basalt. They are found on gentle to very steep slopes between 4,200 and 5,000 feet elevation. The mean annual air temperature

is 43° with 16 to 20 inches precipitation and a growing season less than 90 days.

Laycock soils are moderately deep, well-drained upland soils formed over finely fractured shale. They occur at elevations of 4,200 to 5,000 feet under an annual precipitation of 16 to 20 inches. The mean annual air temperature centers around 43° and the growing season is less than 90 days.

The Lickskillet series consists of shallow, stony, well-drained soils formed over basalt bedrock. They occur on steep and very steep south-facing slopes between 1,200 and 3,000 feet elevation under an annual precipitation of 10 to 13 inches. The mean annual air temperature centers around 50° F. with a growing season over 150 days.

Ridgeway and Day series consist of deep, well-drained, fine textured soils formed over waterlaid sediments. They occur at elevations of 1,500 to 3,200 feet under a mean annual precipitation of 11 to 14 inches on gentle to steep slopes. The growing season ranges from 100 to 130 days with a mean air temperature of 50° F.

The Rock Creek series consists of very shallow, very stony, well-drained soils over basalt bedrock. They occur at elevations of 3,000 to 4,500 feet under an annual precipitation of 13 to 16 inches. The mean annual air temperature is 47° F. and the growing season lasts from 100-120 days.

Simas soils are very limited in use and are used almost entirely for range. They consist of deep, fine textured, well-drained soils formed in old waterlaid sediments. The elevations range from 1,600 to 4,000 feet and mean annual precipitation ranges from 12 to 16 inches. The mean air temperature is 49° and the growing season lasts 100-130 days.

Sorefoot soils are deep, fine textured soils formed over old, unconsolidated waterlaid sediments. They occur on steep uplands at elevations from 1,300 to 2,800 feet under mean annual precipitation of 10 - 13 inches. The growing season is relatively long at 120 to 150 days, and the mean annual air temperature is about 50° F.

Tolo soils consist of deep, well-drained soils formed from ash and older, buried soil materials. The annual precipitation is 17-25 inches and they are found on north and east-facing slopes at elevations of 4,200 to 5,000 feet. The mean annual air temperature is 43° with the growing season less than 90 days.

The Tub series is made up of moderately deep, well-drained soils over old unconsolidated sediments. They occur on gentle to very steep north-facing slopes at elevations of 3,000 to 4,000 feet under a mean annual precipitation of 13 to 16 inches. The mean annual temperature centers at 49° F. and the growing season is 100-130 days.

The Ukiah series of soils are moderately deep, well-drained soils formed over volcanic tuff bedrock. They occur on gently sloping to

steep uplands at elevations of 3,000 to 4,000 feet under a mean annual precipitation of 13 to 18 inches. The growing season is 90-110 days and the mean annual air temperature is 47°F.

Table 4. Acreage of Soil Series or Land Types, Wheeler County

Soil Series	Phase Symbol	Acreage (1,000)
Anatone	An 2,3	3.7
.....	An 4	1.7
.....	An 5,6	20.6
Bakeoven-Condon.....	BaCd 2,3	2.3
Board Tree.....	Bd 2	.8
.....	Bd 4	1.9
.....	Bd 5,6	11.5
Condon.....	Cd 2,3,4	1.6
Courtrock.....	Ct 1,2	1.0
.....	Ctx 2,3	.1
(Cp)	Cp 5,6	2.1
Current.....	Pi 5,6	2.8
Dayville.....	Dy	.4
(Do).....	Do 4	1.1
.....	Do 5,6	10.6
Fopiano.....	Fb 2,3	18.5
.....	Fb 4	9.0
.....	Fb 5,6	22.1
Ginser.....	Gs 6	10.7
Gwin.....	Gw 2,3	11.0
.....	Gw 4	23.7
.....	Gw 5,6	69.9
Hack.....	Hk 2	.1
Hack Variant.....	Hv 2,3	4.9
Hall Ranch.....	Hr 2,3	5.9
.....	Hr 4	3.4
.....	Hr 5,6	14.5
Hankins.....	Ha 2,3	4.6
.....	Ha 4	8.2
.....	Ha 5,6	40.3
Hankins, north aspect.....	Han 4,5,6	10.9
Izee.....	Iz 4,5	17.9
Kimberly.....	Km	4.7
Klicker.....	Kl 2,3,4,5,6	89.4
Klicker, north aspect.....	Kln 5,6	1.3
Laycock.....	La 4,5,6	5.9
Laycock, variant rocky.....	Lax 4,5,Lv5,6	3.9
Lickskillet.....	Li 5,6	116.5
Marsden.....	Ma 1,2	1.6

SOURCE: State Water Resources Board, Oregon's Long Range Requirements for Water, John Day Drainage Basin, 1969.

Table 4, cont. Acreage of Soil Series or Land Types, Wheeler County

Soil Series	Phase Symbol	Acreage (1,000)
Morrow.....	Mo 3	2.0
Ridgeway & Day.....	Rd 3,4,5	36.1
Ritter.....	Rt 2,3	3.5
Ritzville.....	Rv 2,3	1.0
Rock Creek.....	Rc 2,3,4,5,6	44.0
Scabland-Biscuit.....	SB	4.0
Schrier.....	Sz 2,3	1.4
(Sq).....	Sq 1,2	1.9
Silvies.....	Si, Sih	1.4
Simas.....	Sm 3,4	4.7
Simas, very stony.....	Smx 3,4,5,6	96.6
Snell.....	Sn 4,5,6	7.7
Sorefoot.....	Sr 5,6	65.0
Tolo.....	To 2,3,4,5,6	48.1
Tub.....	Tu 2,3,4,5,6	66.2
Ukiah, ext. stony.....	Ukx 2,3,4,5	14.1
Utley.....	Ut 2,3,4	2.8
Veazie.....	Ve	.2
Waha.....	Wy 2,3,4,5,6	1.9
Wrentham.....	Wr 5,6	4.2

SOURCE: State Water Resources Board Oregon's Long Range Requirements for Water, John Day Drainage Basin, 1969.

Soil Characteristics and Land Capability

Oregon's land varies widely in its capability for agricultural use. Because of this a capability classification system has been developed that is intended to show their suitability for most kinds of farming.

The classes are based on limitations of the soil, damage when they are used, and way in which they respond to treatment. The classes are designated by Roman Numerals I through VIII with number I having the least number of limitations and number VIII having the most.

The classes are divided into subclasses designated e, w, s, or c. The subclasses indicate the major limiting factor of the particular soil. The letter e shows that the main limitation is erosion, w shows that water in or on the soil interferes with plant growth or cultivation; s indicates the soil is limited mainly because it is stony, shallow or droughty; and c shows that the chief limitation is climate, either too cold or too dry.

Table 5. Use of Wheeler County Inventory Acreage by Capability Class, 1967

Capability Class	Cropland	Pasture-Range	Forest	Other	Total
II.....	5,131	1,554		1,972	8,657
III.....	33,734	23,206	5,529	320	62,798
IV.....	2,578	777		2,141	5,496
VI.....		101,012	210,566	100	311,678
VII.....		282,755	150,905	5,662	439,322

SOURCE: Oregon Conservation Needs Committee, Oregon Soil and Water Conservation Needs Inventory, U.S. Soil Conservation Service, 1971.

Table 6. Land Area and Use of Inventory Acreage, Wheeler County, 1967

Use	Acres
Inventory Acreage	
Cropland.....	41,443
Pasture.....	500
Range.....	408,804
Forest.....	367,000
Other Land.....	10,195
Total Land in Inventory.....	827,942
Non-Inventory Acreage	
Federal Land.....	254,505
Urban and Built-up.....	6,748
Small Water Areas.....	3,285
Total Non-Inventory.....	264,538
Total Land Area.....	1,092,480

SOURCE: Oregon Conservation Needs Committee, Oregon Soil and Water Conservation Needs Inventory, U.S. Soil Conservation Service, 1971.

Land Ownership

Wheeler County's land area is classified in this report as public, which includes federal, state, county or locally owned lands; or private lands. About 24% of the county is made up of federally owned land and .6% is state owned. The following tables give information on land ownership, value and income of public lands in Wheeler County.

Table 7. Inventory of State-Owned Real Property, Wheeler County, 1970

Item	Dept of Forestry	Division of State Lands	Highway Division		County Total
			Office & Maintenance	Parks	
Acres.....	4.41	4,030.50	2.95	493.20	4,531.06
Land Value.....	\$441	\$166,120	\$3,829	\$7,624	\$178,014
Improvement Value....	\$50,750	----	\$31,957	\$26,438	\$109,145
Total Value.....	\$51,191	\$166,120	\$35,786	\$34,062	\$287,159
Annual Rental Income..	\$564	----	\$540	----	\$1,104
Taxes Paid.....	----	----	----	----	----
Surplus Property.....	----	----	----	----	----
Acres.....	----	----	----	----	----
Value.....	----	----	----	----	----

SOURCE: Legislative Fiscal Committee, Inventory of State Owned Real Property, Section 7 , 115 State Capital, Salem, Oregon

Table 8. State Land Ownership, Wheeler County

Agency	Acres
Highway Commission.....	2,637
Land Board.....	3,951
Total.....	6,587

SOURCE: Oregon State Land Division, Inventory of State Owned Real Property, January 1970.

Table 9. Federal Land Ownership by Agency, Wheeler County

Agency	Acres
Administering Agents	
Agricultural Research Service.....	165,021
Federal Aviation Agency.....	165
Public Domain.....	89,524
Bureau of Reclamation.....	3,529
Total Federal Land.....	258,239
Total Area.....	1,092,480
Percent in Federal Area.....	23.6%

SOURCE: Carolan, W.B. Jr., Federal Land Oregon, Oregon State University, 1963.

Table 10. Land area in Highways, Streets and Roads, Wheeler County

Item	Acres
State Highways.....	1,810
County Roads.....	3,640
City Streets.....	55
Total.....	5,505

SOURCE: Oregon State Department of Revenue and Oregon State Highway Division, unpublished data.

Land Use

Table 11. Land Use Analysis Wheeler County

Use	Acres	True Cash Value Per Assessor Roll	Average Value Per Acre
- - (1,000) - - - -			
Urban			
Business, etc.....	50	\$ 41	\$ 820
Residential Rents.....	350	\$ 180	\$ 514
Quasi-Private Hospital.	63	\$ 44*	\$ 698*
Public Roads, etc.....	271	\$ 176*	\$ 650*
Total.....	734	\$ 441	\$ 601
Rurban			
Business.....	--	--	--
Residential.....	18	\$ 9	\$ 500
Agriculture.....	(1,698)	\$ (41)	\$ (24)
Quasi-Private.....	5	--	--
Public Roads, etc.....	45	\$ 1	\$ 122
Total Less Misc.....	68	\$ 10	\$ 147
Agricultural Grazing			
Private Inventory.....	657,733	\$ 9,880	\$ 15
Urban.....	1,698	\$ 40	\$ 24
Outlying.....	656,035	\$ 9,839	\$ 15
Allocation			
Residential-Rent.....	625	\$ 125	\$ 200
Best.....	7,000	\$ 1,400	\$ 200
Average.....	40,000	\$ 2,255	\$ 55
Poor.....	610,108	\$ 6,100	\$ 10
Public Inventory.....	179,128	\$ 1,795	\$ 10
Allocation			
Outlying.....	177,162	\$ 1,771	\$ 10
Roads, etc.....	1,966	\$ 24	\$ 12
Total.....	836,861	\$ 11,675	\$ 14
Forest			
Private Inventory.....	166,280	\$ 2,000	\$ 12
Allocation			
Residential-Rent.....	50	\$ 5	\$ 100
Outlying.....	166,230	\$ 1,995	\$ 12
Public Inventory.....	88,457	\$ 1,064	\$ 12
Allocation			
Outlying.....	86,491	\$ 1,040	\$ 12
Roads.....	1,966	\$ 24	\$ 12
Total.....	254,737	\$ 3,064	\$ 12
Total Land.....	1,092,400	\$ 15,190	\$ 14

* Tax exempt

SOURCE: Oregon Department of Revenue, unpublished data compiled by Waldo Carlson.

Table 12. Land Use in Oregon and Wheeler County, 1964

Use	Wheeler County	Oregon
	----- percent -----	-----
Urban.....	---	.49
Industrial.....	---	.16
Military.....	---	.10
Intensive Agriculture.....	.40	6.52
Dryland Farming.....	---	3.33
Forests.....	30.51	44.84
Parks.....	---	.32
Conservation.....	---	2.25
Grazing.....	69.09	41.50
Non-Productive Land.....	---	.49
Total Land Area.....	100.00	100.00

SOURCE: Oregon Department of Planning and Development, Resources for Development, March 1964.

Agricultural Land

Table 13. Agricultural Land, Wheeler County

Item	Acres	Percentage
Total Land Area.....	1,092,480	
Proportion in Farms.....		66.8
Acres in Farms.....	792,780	100.0
Total Cropland.....	37,892	4.8
Harvested Cropland.....	16,241	2.1
Cropland Pasture.....	7,398	.9
All Other Cropland <u>1/</u>	14,253	1.8
Woodland.....	124,112	15.7
All Other Land <u>2/</u>	567,776	71.6
Irrigated Land.....	6,881	.9

1/ includes cropland used for soil improvement crops, crop failure, cultivated summer fallow, and idle cropland.

2/ includes pastureland other than cropland and woodland pasture, rangeland, and land in house lots, barn lots, ponds, roads, wasteland, etc.

SOURCE: U.S. Bureau of the Census, Census of Agriculture, 1969, Vol. 1 Area Reports, Part 47, Oregon, U.S. Government Printing Office, Washington D.C. 1972.

Forest Land

Table 14. Forest Acreage Statistics, Wheeler County, 1968

Item	Acres (1,000)	Percent
Land		
Total Land.....	1,093	100
Forest Land.....	507	46
Commercial.....	312	29
Non-Commercial.....	195	17
Productive.....	2	---
Non-Productive.....	193	17
Non-Forest Land.....	586	54
Ownership		
Commercial Forest Land.....	312	100
Private.....	170	54
Forest Industry.....	80	25
Farmer & Misc. Private.....	90	29
Public.....	142	46
National Forest.....	133	43
Bureau of Land Mgmt.....	9	3
Other.....	---	---
Stand Size Classes		
Commercial Forest Land.....	312	100
Non-Stocked Areas.....	7	2
Seedlings & Saplings.....	17	6
Pole Timber.....	66	21
Saw Timber.....	222	71
Small (11.0"-20. ").....	180	58
Large (21" +).....	42	13

SOURCE: Pacific Northwest Forest and Range Experiment Station, U.S. Forest Service, Resource Bulletin PNW-24.

Table 15. Timber Volume Statistics, Wheeler County, 1968^{1/}

Item	Millions of Board Feet	Percent
Ownership		
Total Commercial Sawtimber.....	2,440	100
Forest Industry.....	315	13
Farmer & Misc. Private.....	197	8
National Forest.....	1,852	76
Other Public.....	76	3
Species		
Total Commercial Sawtimber.....	2,440	100
Softwoods.....	2,440	100
Douglas Fir.....	601	25
Grand Fir.....	8	---
Sub Alpine Fir.....	5	---
White Fir.....	274	11
Lodgepole Pine.....	14	1
Ponderosa Pine.....	1,285	53
Engelman Spruce.....	47	2
Western Larch.....	206	8
Hardwoods.....	---	---

1/ Includes Gilliam County.

SOURCE: Pacific Northwest Forest and Range Experiment Station, U.S. Forest Service, Resource Bulletin PNW-24/

Water

The John Day River heads in the Blue Moutains and flows into the Columbia River at river mile 218. Its main branches are the North and South Forks. Other major tributaries, from the headwaters downstream to the Wheeler-Gilliam county line, include Canyon, Beech, Rock, Service and Bridge Creeks.

Principal tributaries of the North Fork are Desolation and Camas Creeks, the John Day Middle Fork, and Cottonwood Creek. Murderers Creek is the most significant of the South Fork tributaries. All the larger tributaries head in the Blue Moutains or the spurs extending west from the main range.

In general, the streams exhibit relatively steep gradients (100 to 300 feet of drop per mile) in their headwater section, followed by smaller gradients (20 to 40 feet per mile) in their valley areas. Many of the streams then increase in gradient to 100 feet per mile through their lower sections while a few continue to level off (under 10 feet per mile) as they near their mouths.

Flow characteristics of the John Day River are typical of rivers of semiarid regions. Extreme differences exist not only in seasonal flows but also in annual yields.

The estimated average annual yield of the John Day River at its mouth is 1,410,000 acre-ft for the period 1927 to 1960. This period was chosen for the determination of average annual yields and mean monthly discharges to facilitate the comparison of different stream systems.

The gage located farthest downstream, which measures runoff from 95% of the river basin area, is on the John Day River at McDonald Ferry. Records at this gage have been continuous since 1905. The average annual yield at this gage is 1,406,000 acre-ft for the base period 1927-1960. The lowest annual yield was 461,500 acre-ft, recorded in 1934, and highest 2,670,000 acre-ft in 1948.

The North Fork of the John Day River contributes the largest amount of water to the yield of the area. The average annual yield of the North Fork at its mouth is 910,000 acre-ft for the period 1927-1960, compared to an average annual yield of 420,000 acre-ft of the main stem of the John Day River above the North Fork. This means a net average annual yield of 345 acre-ft per square mile is contributed by the North Fork, compared to 200 acre-ft per square mile by the main stem above their confluence.

Subtracting the combined yield of the North Fork and main stem above their confluence from the yield of the John Day River at its mouth leaves a net average annual contribution of only 80,000 acre-ft, or 25 acre-ft per square mile, by the lower John Day sub-basin. The average annual yield of the entire basin is 180 acre-ft per square mile. These figures reflect primarily the differences in climate and topography of the individual sub-basins.

Extreme differences exist between seasonal flows on most streams in the area. Average monthly discharges of the John Day River at McDonald Ferry for the period 1927-1960 range from 156 cu. ft. per sec. (cfs) for September to 5,000 cfs for April. Similiar differences between monthly discharges can be observed on most streams of the area.

Flows on most larger streams reach their peaks in the months of April and May as a result of snowmelt combined with spring rains. They drop quite rapidly in the following months, and reach their lows in August and September as a result of naturally low flows and extensive depletions, the latter primarily in the form of irrigation diversions. There is no storage of significance in the area, so flows are largely the result of natural flow conditions altered by direct diversions from the streams.

The same pattern can be observed on most smaller streams, with slightly different timing on streams originating at higher elevations. These reach their peak flows later in the year, as late as June, mainly as a result of later snowmelt on their watersheds.

To date, no ground water studies have been made in the basin, and existing wells serving the sparse population are so few and widespread that no general pattern of ground water occurrence and yield has been developed. Therefore, the ground water potential of the basin is not established. It is known that the alluvial areas and the more broken or

fractured basalt flows afford the best aquifers. Very meager ground water supplies are obtained from aquifers formed by the other rock types, principally volcanic, that make up much of the basin.

The yield and geographic distribution of ground water is governed mainly by precipitation, topography, and the infiltration characteristics of the various rock types. The average precipitation for the entire basin is estimated at approximately 19 inches per year. The topography is characterized by deeply incised streams and narrow river valleys, and varies from gently rolling plateaus with abrupt canyon slopes in the northern and central part to high mountains forming the southern and eastern perimeter of the basin.

The best known ground water source is the alluvium, particularly the gravels along the John Day River. This material is tapped by most of the wells in the area. The upper interflow zones of the more porous basalt flows form aquifers that are tapped by a number of municipal wells. Many springs, some used for municipal supplies, issue from these zones, where they have been exposed by erosion or faulting. Springs likewise issue from contact zones where lava flows rest upon impermeable eruptive material such as ash and tuff. These latter rocks generally yield only meager quantities of ground water.

Water for domestic purposes, which includes both small-scale human consumption and livestock use, is obtained from ground water, springs, and streams throughout the area. In general, springs are the predominant source of developed water for human consumption in the mountains, while shallow wells, with depths of usually not more than 30 feet, are the major source in the larger river valleys. Deep wells are found predominantly on the hills of the lower John Day River.

The total water quantities presently utilized for livestock purposes are unknown. However, it is estimated at less than 700 acre-feet is consumed.

Water rights for power total 128 cfs, but less than 50% of them have been used during recent years. Most small hydroelectric power plants in the area discontinued generation after cheaper power from outside the area began service.

The only major hydroelectric development existing at present is the Fremont power plant (Grant County) of the California Pacific Utilities Co. It obtains its water supply from Lake Creek, Lost Creek, and storage in Olive Lake, has an installed capacity of 1,000 kilowatts (kw), and had an average annual generation of five million kilowatt hours (kwh) during the 10 year period 1951-1960. During dry years, there is insufficient water to utilize available storage which results in a drop in power production at this plant.

The principal industrial water users in the area are lumber mills, which are scattered throughout. Most of these have their own sources of supply (wells, springs, or streams) and do not depend on community water systems. Small quantities of water are also used by a few dairies and slaughter houses.

Water Recreation

Water-based recreation is limited, since streamflows are extremely low in the summer and fall months. There are only three lakes of significance: Magone, Strawberry, and Olive Lakes. The largest of these, Olive Lake, is only 150 acres in size. Magone and Strawberry Lakes and their facilities are over-crowded during summer weekends. Recreational use of Olive Lake is limited because of its remoteness, but it would have great potential for increased use if access roads were improved.

Water is not reserved for wildlife, and except for waterfowl and some furbearers, wildlife use of water is small. Waters of the John Day River system provide habitat for both anadromous and resident fish. Steelhead trout are the principal anadromous species, with spring and fall chinook and silver salmon being found in small numbers. Resident fish include rainbow, eastern brook, Dolly Varden, and cutthroat trout, kokanee salmon, whitefish, warmwater game fish, and scrap fish.

Water rights for fish total 17 cfs for the area. Of the total, 10 cfs is used by the Game Commission for the Canyon Creek Meadows Reservoir, 2 cfs for maintenance of the Bull Prairie Reservoir, and the remaining 5 cfs are for private fish propagation in ponds near Dayville. 1/

Table 16. Annual Yield of Streams in Wheeler County, Discharge in cfs, Water Year Oct. 1967-Sept. 1968, John Day River at Service Creek, Oregon

Item	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean...	257	383	515	797	1,781	1,509	1,010	1,456	923	132	136	113
Max....	448	502	1,780	1,380	5,300	2,490	1,200	2,150	2,020	337	352	197
Min....	73	320	206	442	619	934	819	1,060	343	43	30	56
Ac-Ft..	15,820	22,800	31,650	49,010	102,400	92,810	60,090	89,510	54,930	100	8,360	6,750

Water Year 1968

Total cfs	273,393
Mean.....	747
Maximum.....	5,300
Minimum.....	30
Acre-feet.....	542,300

SOURCE: U.S. Dept of the Interior, Geological Survey in cooperation with the State Engineer of Oregon, Water Resources Data for Oregon Part 1 Surface Water Records, 1968.

1/ State Water Resources Board, March 1962; U.S.D.A. and State Water Resources Board, Sept. 1961, John Day River Basin.

Table 17. Reconnaissance Data on Reservoir Sites, John Day River Basin, 1961

Subbasin	Drainage Area	Annual Yield	Storage	Surface Area	Fill & Storage	Possible Uses <u>1/</u>
	sq. mi.	- - ac.	ft. - - -	acres	cy/ac.ft.	
North Fork John Day						
Camas Creek	105	66,840	12,390	399	57	I,F,R
Snipe Creek	29	15,444	52,390	498	15	I R
Middle Fork	69	16,500	1,800	175	39	I,F,R
Crawford Creek	0.5	400	400	75	40	I,F,R
Shumway Meadow	0.1	100	450	30	67	I, R
Long Creek	21	7,500	300	21	450	I, R
Upper John Day						
Birch Creek	1	500	155	22	226	I, R
Beech Creek	87	21,500	600	50	309	I, R
S. Fork Murderers Cr.	3.5	1,400	1,150	90	109	R
Upper S. Fork	35	8,800	2,500	125	200	I,F,R
Venator Creek	3	1,200	250	30	260	R
Rock Creek	83	22,180	2,420	70	168	R
Fort Creek	9	1,165	1,165	97	73	I, R
Mountain Creek	29	6,100	3,560	178	24	I, R
Sixshooter Creek	32	4,200	2,333	149	9	I, R
Lower John Day						
Rosebush Creek	16	416	407	43	65	I
Butte Creek	31	2,500	332	24	218	I,F
Hoover Creek	6	294	68	8	32	I
Straw Fork Butte Cr.	5	408	124	9	139	I
Currant Creek	30	500	140	11	439	I
Bridge Creek	1.2	131	131	8	179	I
Alder Creek	30	3,140	2,205	81	49	I, R
Horseshoe Creek	4	810	740	74	54	I, R
Kahler Creek	38	4,080	900	50	140	I
Henry Creek	5	641	582	19	241	I

1/ I- irrigation, F- flood protection, R- recreation--fishing, hunting, and boating.

SOURCE: Based on a survey by the U.S. Department of Agriculture Field Party.

Minerals

Table 18. Value of Mineral Production In Grant and Wheeler Counties

County	1960	1963	1964	1970	Minerals Produced in Order of Value
Grant	\$ 42,000	\$ 428,000	\$358,000	\$538,000	Stone, Sand and Gravel Mercury, Copper, Gold, Silver, Zinc, Lead
Wheeler	\$ 98,000	\$ 126,000	\$ 59,000	----- ^{1/}	Stone, Sand and Gravel

^{1/} Wheeler figure withheld to avoid disclosing individual companies confidential data; included with undistributed.

SOURCE: Bureau of Business and Economic Research, Oregon Economic Statistics 1972, University of Oregon, 1972; and, U.S. Department of the Interior Bureau of Mines, Minerals Yearbook, 1964, Vol. III, 1965.

Wildlife

Table 19. Wheeler County Deer and Elk Season, 1970

Item	Deer	Elk
Number of Hunters.....	8,340	290
Hunter Days.....	36,010	1,380
Bucks: 1-2 points.....	1,910	NA
3 points +.....	680	NA
Antlerless.....	1,150	12
Yearling Bulls.....	NA	16
Adult Bulls.....	NA	9
General Season Total.....	3,740	37
Percent Hunter Success.....	45	13
Percent 1-2 point Bucks.....	74	NA
Percent Yearling Bulls.....	NA	64
Additional Harvest		
Early Season	0	NA
Late Season.....	0	NA
Total Harvest.....	3,740	37
Hunters per sq. mi.....	---	.23
Harvest per sq. mi.....	2.75	.03

NA - Not Applicable

SOURCE: Oregon State Game Commission, 1968 and 1971 Annual Report, Oregon State Game Commission.

HUMAN RESOURCES

Population

The population of Wheeler County was about 1,820 in 1972 or about 1.07 persons per square mile. About 49 percent of the people live in the incorporated urban areas, while the other 51% is largely unincorporated in farm or rural non-farm areas. Fossil, the county's largest town, has a population of 510. The population of Wheeler County, in regard to rank on a statewide basis, is 36. This is the smallest populus of all Oregon counties.

The following table gives a breakdown of Wheeler's population by race. Caucasian, Spanish Language, Black, American Indian, and "Other" racial categories are given.

Table 20. Number of Persons by Racial Group, Wheeler County, 1970

Racial Group	Number of Persons
Total.....	1,849
Caucasian.....	1,837
Spanish Language.....	7
Black.....	---
American Indian.....	3
Other.....	2

SOURCE: O.S.U. Extension Service, Income and Poverty Data for Racial Groups: A Compilation for Oregon Census County Divisions, Special Report 367, Oregon State University, 1972.

Table 21. Racial Population by Sex in Wheeler County

Race	Male	Female
All Races.....	952	897
White 1/.....	948	896
Black.....	---	---
American Indian.....	2	1
Japanese.....	---	---
Chinese.....	---	---
Filipino.....	---	---
All other.....	2	---

1/ Includes Spanish Language

SOURCE: U.S. Bureau of the Census, Census of Population: 1970 General Population Characteristics, Final Report PC(1) - B39, Oregon, U.S. Government Printing Office, Washington, D.C., 1971.

Table 22. Population by Age, Race and Sex in Wheeler County, 1970

Age	All Races			White ^{1/}		Black	
	Total	M	F	M	F	M	F
Total Population.	1,849	952	897	948	896	---	---
Under 5 years..	151	63	88	63	87	---	---
5-9 years.....	157	82	75	82	75	---	---
10-14 years....	174	98	76	98	76	---	---
15-19 years....	182	96	86	96	86	---	---
20-24 years....	102	42	60	42	60	---	---
25-29 years....	103	53	50	52	50	---	---
30-34 years....	92	49	43	48	43	---	---
35-39 years....	106	49	57	48	57	---	---
40-44 years....	101	49	52	49	52	---	---
45-49 years....	115	59	56	59	56	---	---
50-54 years....	153	91	62	91	62	---	---
55-59 years....	129	72	57	72	57	---	---
60-64 years....	84	47	37	47	37	---	---
65-69 years....	78	47	31	46	31	---	---
70-74 years....	59	25	34	25	34	---	---
75-79 years....	35	21	14	21	14	---	---
80-84 years....	23	7	16	7	16	---	---
85 years +.....	5	2	3	2	3	---	---
Under 18 years...	613	311	302	311	301	---	---
62 years +.....	254	132	122	131	122	---	---
65 years +.....	200	102	98	101	98	---	---
Median Age.....	33.0	34.3	31.6	34.3	31.6	---	---

^{1/} Includes Spanish language.

SOURCE: U.S. Bureau of the Census, Census of Population: 1970 General Population Characteristics, Final Report PC(1) - B39, Oregon, U.S. Government Printing Office, Washington, D.C., 1971.

Table 23. Social Characteristics of the Population in Wheeler County, 1970

Item	Number
Total Population.....	1,849
Nativity and Parentage	
Native.....	1,743
Native Parentage.....	1,630
Foreign or Mixed Parentage.....	101
Foreign Born.....	12
State of Birth	
Born in Oregon.....	1,070
Born in Different State.....	679
Northeast.....	10
North Central.....	178
South.....	212
West.....	279
Born Abroad, At Sea, etc.....	15
Not Reported.....	46

SOURCE: U.S. Bureau of the Census, Census of Population: 1970
General Social and Economic Characteristics, Final Report
PC(1)-C39 Oregon, U.S. Government Printing Office, Washington
D.C., 1971.

Table 24. Population Estimates of Incorporated Cities, Wheeler Co.

City and County	1960	1965	1971	1972
Wheeler.....	2,722	1,800	1,850	1,820
Fossil.....	672	528	515	510
Mitchell.....	236	208	195	195
Spray.....	194	212	180	185
Incorporated Area..	1,102	948	890	890
Unincorporated Area.	1,620	852	960	930

SOURCE: Center for Population Research and Census, Population Estimates
of Counties and Incorporated Cities of Oregon, Portland State
University, July 1972.

Population growth in Wheeler County has been decreasing slightly in recent years. But during the period 1950-1970 there was a great decrease in population. The growth rate is continuing to drop but at a relatively slow rate of about 1.6% per annum.

Table 25. Population Growth in Wheeler County

Year	Population	Percent Increase	
		Period	Percent
1900.....	2,480		
1910.....	2,520	1900-10	1.61
1920.....	2,650	1910-20	5.16
1930.....	2,650	1920-30	0
1940.....	3,000	1930-40	13.21
1950.....	3,400	1940-50	13.33
1960.....	2,722	1950-60	-20.0
1970.....	1,849	1960-70	-32.07
1972.....	1,820	1970-72	- 1.57

SOURCE: Center for Population Research and Census, Population Estimates of Counties and Incorporated Cities of Oregon, Portland State University, July 1972.

The composition of Wheeler County's population by age and sex, is much the same as that of the state of Oregon.

Table 26. Population by Age and Sex, Wheeler County, 1960 and 1970

Age Group	Male		Female		Total		Percent	
	1960	1970	1960	1970	1960	1970	1960	1970
Total Population	1,393	952	1,329	897	2,722	1,849	100	100
Under 5....	153	63	160	88	313	151	11.5	8.17
5-9....	144	82	175	75	319	157	11.7	8.49
10-14....	121	98	140	76	261	174	9.6	9.41
15-19....	114	96	113	86	227	182	8.3	9.84
20-24....	78	42	95	60	173	102	6.4	5.52
25-34....	166	102	161	93	227	195	12.0	10.55
35-44....	188	98	165	109	353	207	13.0	11.20
45-54....	181	150	136	118	317	268	11.6	14.49
55-64....	140	119	98	94	238	213	8.7	11.52
65 and over....	108	102	86	98	194	200	7.2	10.82
Median Age.....	30.9	34.3	24.0	31.6	27.5	33.0		

SOURCE: U.S. Bureau of the Census, Census of Population: 1970 General Population Characteristics, Final Report PC(1)-B39 Oregon, U.S. Government Printing Office, Washington D.C., 1971.

Employment

Table 27. Local Government Employees and Payrolls, Wheeler County
October, 1967

Item	Number
Population.....	1,800
Employees.....	121
Fulltime only.....	71
October Payroll (1,000).....	\$ 34
Education.....	\$ 26
Teachers only.....	\$ 18
Functions other than Education.....	\$ 7
Average Earnings, Fulltime Employees	
Teachers.....	\$ 527
Others.....	\$ 338
Fulltime Equivalent Employment.....	81
Education.....	60
Teachers only.....	34
Functions other than Education.....	21
Highways.....	7
Health.....	1
Police Protection.....	1
Sewerage.....	1
Libraries.....	5
Financial Administration.....	5
Other Local Utilities.....	1
Other and Unallocable.....	40

SOURCE: U.S. Department of Commerce, Bureau of the Census, 1967
Census of Governments, Compendium of Public Employment,
Vol. 3, Number 2.

Table 28. Employment Status of Population in Wheeler County, 1960, 1970

Subject	1960 ^{1/}	1970
Total Males, 16 Yrs & Over.....	955	682
Total Labor Force.....	789	557
Armed Forces.....	---	---
Civilian Labor Force.....	789	557
Employed.....	709	536
Unemployed.....	80	21
Not in Labor Force.....	166	125
Inmate of Institution.....	---	---
Enrolled in School.....	88	35
Other.....	78	90
Total Females, 16 Yrs & Over.....	916	626
Total Labor Force.....	252	205
Employed.....	246	176
Unemployed.....	6	29
Not in Labor Force.....	664	421
Inmate of Institution.....	---	---
Enrolled in School.....	111	36
Other.....	553	385
Married (Husband present).....	---	472

^{1/} 14 years and over

SOURCE: U.S. Bureau of the Census, Census of Population: 1970 General Social and Economic Characteristics, Final Report PC(1)-C39 Oregon, U.S. Government Printing Office, Washington D.C. 1972.

Table 29. Percentage of Persons in Labor Force by Sex and Age
Wheeler County, 1970

Age Group	Male	Female
14-15.....	10.6	15.6
16-17.....	15.2	---
18-19.....	72.0	55.6
20-21.....	---	---
22-24.....	100.0	---
25-34.....	100.0	41.1
35-44.....	96.7	51.9
45-64.....	88.4	44.7
65 +	39.8	7.0

SOURCE: U.S. Bureau of the Census, Census of Population: 1970 General Social and Economic Characteristics, Final Report PC(1)-C39 Oregon, U.S. Government Printing Office, Washington, D.C., 1972.

Table 30. Industry Group of Employed in Wheeler County, 1970

Industry	Number
Total Employed, 16 Yrs. +	536
Agriculture, Forestry, Fisheries.....	164
Mining, Construction.....	29
Manufacturing.....	228
Furniture, Lumber, Wood Products.....	216
Other Durables.....	5
Non-Durables.....	7
Transportation.....	---
Communications.....	6
Wholesale Trade.....	5
Retail Trade.....	31
Business Services, Repair Service.....	5
Personal Services.....	21
Hospitals.....	---
Educational Services.....	23
Professional & Related.....	5
Public Administration.....	11

SOURCE: U.S. Bureau of the Census, Census of Population: 1970 General Social and Economic Characteristics, Final Report PC(1)-C39 Oregon, U.S. Government Printing Office, Washington, D.C., 1972.

Table 31. Median Earnings of Selected Occupation Groups, Wheeler County, 1970

Occupation Group	Dollars
Male, 16 Yrs old and over.....	\$ 6,234
Professional, Managerial and Kindred Workers.....	7,842
Craftsmen, Foremen and Kindred Workers.....	6,286
Operatives, including Transport.....	7,172
Laborers, except Farm.....	5,667
Farmers, Farm Managers.....	2,958
Farm Laborers, except unpaid and Foremen.....	6,114
Female, 16 Yrs old and over.....	2,635
Clerical and Kindred Workers.....	2,596
Operatives, including Transport.....	---

SOURCE: U.S. Bureau of the Census, Census of Population: 1970 General Social and Economic Characteristics, Final Report PC(1)-C39 Oregon, U.S. Government Printing Office, Washington, D.C., 1972.

Table 32. Employees of Major Occupation Groups in Wheeler County, 16 Yrs. Or Older, 1970

Occupation	Male	Female
Professional, Technical & Kindred Workers.....	9	9
Managers & Administrators, except farm.....	45	23
Sales Workers.....	12	6
Clerical & Kindred Workers.....	6	30
Operatives, including Transport.....	95	--
Craftsmen, Foremen & Kindred Workers.....	85	--
Laborers, except Farm.....	76	5
Farmers & Farm Managers.....	16	--
Farm Laborers, unpaid Family Worker.....	--	--
Farm Laborers, exc. unpaid & Farm Foremen.....	22	--
Service Workers, including Private Household..	13	34
Other Blue Collar Workers.....	--	12

SOURCE: U.S. Bureau of the Census, Census of Population: 1970 General Social and Economic Characteristics, Final Report PC(1)-C39 Oregon, U.S. Government Printing Office, Washington, D.C., 1972.

Table 33. Labor Force in Wheeler County, 1965, 1968, and 1971

Industry	Number		
	1965	1968	1971
Civilian Labor Force.....	930	840	790
Workers in Labor Management			
Disputes.....	0	0	0
Unemployment.....	70	50	60
Percent of Labor Force.....	7.5	6.0	7.6
Employment.....	860	790	730
Agricultural.....	230	230	250
Non-Agricultural.....	630	560	480
Self-employed, unpaid Family			
& Domestic.....	90	80	60
Wage & Salary Worker.....	530	480	420
Manufacturing.....	330	290	230
Durables.....	330	290	230
Lumber & Wood.....	330	290	230
Other Durable.....	---	---	---
Nondurables.....	---	---	---
Non-Manufacturing.....	200	190	190
Contract Construction.....	0	0	0
Trans-Utilities.....	10	10	20
Wholesale & Retail.....	30	30	30
Finance, Insurance & Real			
Estate.....	20	10	10
Service & Miscellaneous.....	10	10	10
Government.....	130	130	120

SOURCE: Oregon State Department of Human Resources, Employment Division, Labor Force and Employment in Oregon by County, 1965, 1968, 1971, Research and Statistics Division, 1966, 1969, 1972.

Income

Table 34. Net Effective Buying Income Estimates, 1970

Area	Net Dollars (1,000)	Percent of U.S. Total	Per Household
Oregon	\$ 6,650,690	.9806	\$ 9,440
Wheeler County...	\$ 5,418	.0008	\$ 7,740

SOURCE: Bureau of Business and Economic Research, Oregon Economic Statistics 1972, University of Oregon, 1972.

Table 35. Oregon Covered Employment and Payrolls, 1970

Location	Av. Monthly Employment	Employment as Percent of State Total	Total Annual Payroll (1,000)	Av. Annual Payroll Per Worker
Wheeler County..	315	0.06	\$ 2,493	\$ 7,914
Oregon.....	567,707	100.00	\$ 4,057,385	\$ 7,147

SOURCE: Bureau of Business and Economic Research, Oregon Economic Statistics 1972, University of Oregon, 1972.

Table 36. Bank Debits^{1/} and Deposits, Wheeler County, 1967-1971

Year	Bank Debits ^{1/} ----- 1,000 Dollars -----	Bank Deposits -----
1967.....	149,385	2,954
1968.....	152,169	3,113
1969.....	169,075	3,411
1970.....	157,576	3,424
1971.....	177,408	

^{1/} Combined debits of Wheeler, Jefferson and Gilliam Counties.

Bank debits represent the dollar value of checks drawn against deposit accounts of individuals and businesses. Included are debits to demand accounts of individuals, business firms, and state and other political subdivisions, and payment from escrow or trust accounts. Excluded are debits to U.S. government, interbank, time, and savings accounts, and several other categories of accounts.

SOURCE: Oregon State Department of Commerce, Annual Report, various years, and Special Report, February 1971 taken from Oregon Economic Statistics, 1969 and 1972, Bureau of Business and Economic Research, University of Oregon, 1972.

Table 37. Income and Poverty Data for Racial Groups, Wheeler County, 1970

Category	Number	Percent
Mean Income		
Families: All races.....	\$ 7,996	
Caucasian.....	\$ 7,996	
Black.....	---	
Unrelated Individuals:		
All races.....	\$ 3,191	
Caucasian.....	\$ 3,191	
Families, by Family Income Class		
All races		
Under \$3,999.....	88	17.06
\$4,000 - \$5,999.....	77	14.92
\$6,000 - \$11,999.....	293	56.78
\$12,000 +	58	11.24
Total.....	516	100.00
Income, below poverty level.(bpl)		
All races.....	53	100.00
Persons in family bpl.....	137	
Unrelated individuals bpl		
Under 65.....	36	
65 and over.....	28	
Male Family Head, 14-64 years, bpl		
Employed.....	30	
Unemployed.....	4	
Not in Labor Force.....	10	
Income Sources of Families and		
Unrelated Individuals, bpl		
Earnings.....	49	
Social Security or		
Railroad Retirement.....	54	
Public Assistance or Welfare...	12	

SOURCE: O.S.U. Extension Service, Income and Poverty Data for Racial Groups: A Compilation for Oregon Census County Divisions, Special Report 367, Oregon State University, 1972.

Education

Table 38. Formal Education Facilities, Wheeler County, 1971-72

District	Location	Certification ^{1/}	ADM ^{2/}
Wheeler Intermediate Education District.....	Fossil	1	
Fossil School District No.21....		17	
Wheeler High School.....	Fossil		95
Fossil Elementary School.....	Fossil		159
Mitchell School District No. 5..		8	
Mitchell High School.....	Mitchell		27
Mitchell Elementary School....	Mitchell		56
Spray School District No. 1.....		7	
Spray High School.....	Spray		18
Spray Elementary School.....	Spray		43

1/ Total Certified personnel in the district in 1969-1970.

2/ The ADM - average daily membership.

SOURCE: Oregon State Board of Education, 1971-72 Oregon School - Community College Directory.

Table 39. Racial and Ethnic Distribution of Public School Enrollment By School District, 1972

District	Caucasian	Black	American Indian	Spanish American	Total
Fossil.....	256	---	5	2	263
Mitchell.....	74	1	---	4	79
Spray.....	69	---	---	---	69
Total.....	399	1	5	6	411

SOURCE: Compiled from Oregon Board of Education Reports by O.S.U. Extension Service.

Table 40. Enrollment by Grade, Wheeler County Schools, Year Ending, June 30, 1971

Grade	Number
1.....	39
2.....	28
3.....	29
4.....	35
5.....	37
6.....	46
7.....	29
8.....	32
Total 1-8.....	275
9.....	41
10.....	32
11.....	45
12.....	35
Total 9-12.....	153
Total All Pupils.....	428

SOURCE: Unpublished data from Oregon Board of Education Management Services , Program Support, School Finance and Statistical Services.

Table 41. Years of School Completed By Population 25 Years and Older, Wheeler County

Category	Male	Female
25 Years and Over.....	576	512
No School Years.....	---	---
Elementary: 1-4 yrs.....	23	5
5-7 yrs.....	59	12
8 yrs.....	95	85
High School: 1-3 yrs.....	103	139
4 yrs.....	182	189
College: 1-3 yrs.....	63	53
4 yrs. or more....	51	29
Median School Years Completed....	12.0	12.1
Percent High School Graduates....	51.4	52.9

SOURCE: U.S. Bureau of Census, Census of Population: 1970 General Population Characteristics, Final Report PC(1)-B39 Oregon U.S. Government Printing Office, Washington, D.C., 1971.

Table 42. Wheeler County Residents Enrolled in Higher Education Institutions, Fall, 1971.

Institution	Number Enrolled
Total Enrolled.....	39
Eastern Oregon College.....	7
Oregon College of Education.....	4
Oregon State University.....	7
Portland State University.....	2
Southern Oregon College.....	2
University of Oregon.....	2
Linfield.....	2
Museum Art School.....	1
University of Portland.....	2
Blue Mountain Community College.....	6
Central Oregon Community College.....	2
Clatsop Community College.....	1
Mt. Hood Community College.....	1

SOURCE: Oregon Educational Coordinating Council, Post-Secondary Enrollment Distributions in Oregon, Fall, 1971.

Table 43. Youth Organizations, Wheeler County

Organization	Number of Members
4-H.....	153

SOURCE: Unpublished data compiled by O.S.U. Extension Service.

Health and Vital Statistics

There are no licensed medical personnel in Wheeler County, nor are there any health care facilities operating in the county. There is, however, a county health department which has a budget of \$2,606 or \$1.39 per capita. The following tables give information on births and deaths and health problems in the county.

Table 44. Summary of Vital Statistics, Wheeler County

Item	Number	Rate ^{1/}
Live Births.....	23	12.4
Immature births.....	2	87.0
Congenital malformations.....	1	43.5
Deaths-All Causes.....	13	7.0
Malignant neoplasms.....	1	54.1
Diabetes mellitus.....	2	108.1
Diseases of the heart.....	6	324.3
Arteriosclerosis.....	1	54.1
Accidents.....	2	108.1
Homicides.....	1	54.1
Therapeutic abortions.....	2	87.0
Diseases		
Influenza.....	13	702.7

^{1/} Rate per 100,000 population.

SOURCE: Oregon State Department of Human Resources, Oregon State Health Division, Vital Statistics Annual Report, Vital Statistics Section, 1971.

Public Welfare

Table 45. August 1972, Public Welfare Cases, Wheeler County ^{1/}

Category	Cases	Average	Total
Old Age Assistance.....	36	35.83	1,290
Aid to the Blind.....	0	---	---
Aid to the Disabled.....	19	68.95	1,310
Aid to Dependent Children.	223	34.93	7,789
General Assistance.....	5	56.24	281

^{1/} Wheeler County statistics are combined with Grant County.

SOURCE: Oregon State Department of Human Resources, Oregon Public Welfare Division, Public Welfare in Oregon, August 1972.

Table 46. Total Medical Payments by Type of Service, Wheeler

Item	Amount in Dollars
Physicians.....	1,413
Hospitals.....	3,946
Out Patients.....	302
Nursing Homes.....	8,367
Drugs.....	1,874
Dental.....	22
Visual.....	21
Transportation.....	218
Other.....	13
TOTAL.....	16,176

SOURCE: Oregon State Department of Human Resources, Oregon Public Welfare Division, Public Welfare in Oregon, August, 1972.

Housing

Table 47. Year-Round Housing Units by Type of Structure and Number of Rooms, Wheeler County

Item	Number	Percent
Total Units.....	773	100.00
By Structure		
1 Unit Structure.....	682	88.23
2 + Unit Structure.....	49	6.34
Mobile Homes.....	42	5.43
By Number of Rooms		
1 Room.....	32	
2 Rooms.....	45	
3 Rooms.....	54	
4 Rooms.....	168	
5 Rooms.....	189	
6 Rooms.....	144	
7 Rooms.....	73	
8 or More.....	68	

SOURCE: U.S. Bureau of the Census, Census of Housing: 1970 Detailed Housing Characteristics, Final Report HC(1)-B39 Oregon, U.S. Government Printing Office, Washington, D.C. 1972.

Table 48. Vacancy and Tenure Status, Wheeler County, 1970

Occupancy	Total	Rural	Occupied Rural Farm
Owner Occupied.....	364	364	83
Renter Occupied.....	296	296	67
Vacant Year-Round.....	132	132	
For sale only.....	9	9	
For rent.....	59	59	
Vacant less than 2 mos...	14	14	
Median rent asked.....	\$ 32	\$ 32	
Other vacant.....	64	64	

SOURCE: U.S. Bureau of the Census, Census of Housing: 1970 Detailed Housing Characteristics, Final Report HC(1)-B39 Oregon, U.S. Government Printing Office, Washington, D.C., 1972.

Table 49. Facilities in Housing Units

Facilities	Total	Occupied Rural Farm
Plumbing Facilities.....	719	141
Lacking some or all facilities.....	73	9
Lacking only hot water.....	4	---
Lacking other plumbing facilities...	69	9
Piped Water in Structure		
Hot and Cold.....	747	150
Cold only.....	20	---
None.....	25	---
Flush Toilet		
For exclusive use of household.....	723	141
Also used by another household.....	14	---
None.....	55	9
Bathtub or Shower		
For exclusive use of household.....	727	145
Also used by another household.....	14	---
None.....	51	5
Complete Kitchen Facilities		
For exclusive use of household.....	730	150
Also used by another household.....	---	---
No complete kitchen facilities.....	62	---

SOURCE: U.S. Bureau of the Census, Census of Housing: 1970 Detailed Housing Characteristics, Final Report HC(1)-B39 Oregon, U.S. Government Printing Office, Washington, D.C., 1972.

THE COUNTY'S ECONOMY

In recent years, Wheeler County's economy has been largely based on diversified agriculture, logging and the manufacture of wood products. Other manufacturing has been important source of income also.

Agriculture

Agriculture in Wheeler County is somewhat diversified. The soils of the area are favorable for the production of a few agricultural products.

Grain crops compose the major bulk of the county's field crops. About 5,080 acres are planted each year in wheat and other grains. Seed crops are also grown quite exclusively in the area. Over 10,500 acres are sowed each growing season with hay grasses, clover, and other seed crops. The market value of all agricultural products sold in 1969 was just under \$2.4 million, a relatively small sum, but a vast majority of revenue generated for a small county such as Wheeler. Livestock and dairy products are a valuable asset to Wheeler.

Table 50. Farm Size and Value, Wheeler County

Subject	1959	1964	1969
Approximate Land Area, acres..	---	1,092,450	1,092,480
Proportion in Farms.....	---	62.4	66.8
Total Number of Farms.....	141	129	110
Acres in Farms.....	---	682,475	729,780
Average Size of Farms.....	4,861.2	5,290.5	6,634.3
Value of Land & Buildings.....	---	NA	\$22,376,275
Average per Farm.....	\$73,496	\$115,135	\$ 203,420
Average per Acre.....	---	21.88	30.66

NA - Not available

SOURCE: U.S. Bureau of the Census, Census of Agriculture, 1969, Vol.1, Area Reports, Part 47, Oregon, U.S. Government Printing Office, Washington, D.C., 1969.

The next table shows a distribution of farm sizes. In keeping with the national trend, farms in the county have been growing in size with improvements in technology and becoming more specialized.

Table 51. Number and Percent of Farms by Size, Wheeler County

Size	1964		1969	
	Number	Percent	Number	Percent
Less than 10 Acres.....	1	.78	2	1.8
10 to 49 acres.....	2	1.6	---	---
50 to 69 acres.....	2	1.6	1	.91
70 to 99 acres.....	4	3.1	---	---
100 to 139 acres.....	5	3.9	5	4.5
140 to 179 acres.....	1	.78	---	---
180 to 219 acres.....	3	2.3	---	---
220 to 259 acres.....	1	.78	1	.91
260 to 499 acres.....	8	6.2	7	6.4
500 to 999 acres.....	22	17.1	15	13.6
1,000 to 1,999 acres.....	20	15.5	24	21.8
2,000 or more acres.....	60	46.5	55	50.0
Total Farms.....	129		110	

SOURCE: U.S. Bureau of the Census, Census of Agriculture, 1969, Vol. 1 Area Reports, Part 47, Oregon, U.S. Government Printing Office, Washington, D.C., 1969.

Table 52. Farm Operators by Tenure

Tenure	1964	1969
Full Owners.....	70	57
Part Owners.....	46	44
Managers.....	--	--
Tenants.....	12	9
Total Operators.....	128	110

SOURCE: U.S. Bureau of the Census, Census of Agriculture, 1969, Vol. 1, Area Reports, Part 47, Oregon, U.S. Government Printing Office, Washington, D.C., 1969.

Table 53. Types of Farms With Sales Over \$2,500, Wheeler County

Product	1964		1969	
	farms	acres	farms	acres
Field Corn.....	---	---	---	---
Sorghums.....	---	---	---	---
Alfalfa, hay.....	74	5,021	63	4,573
Clover, hay.....	5	613	7	1,104
Hay, Grass, Silage.....	53	6,099	53	4,431
Red Clover & Alfalfa Seed.	---	---	---	---
Strawberries.....	---	---	---	---
Wheat.....	42	4,312	41	3,987
Oats, Barley, Rye.....	32	1,737	38	1,668
Vegetables.....	---	---	---	---
Orchards-Vineyards.....	11	24	3	3
Nursery Products.....	---	---	---	---
Forest Products.....	5	---	6	---
	farms	number	farms	number
Livestock				
Cattle & Calves.....	88	18,678	83	21,330
Hogs & Pigs.....	27	513	17	282
Sheep & Lambs.....	28	9,161	19	6,185
Goats.....	2	9	3	12
Other.....	---	---	64	---

SOURCE: U.S. Bureau of the Census, Census of Agriculture, 1969, Vol. 1 Area Reports, Part 47, Oregon, U.S. Government Printing Office, Washington, D.C., 1972.

Table 54. Farm Operators by Age, Wheeler County

Subject	1964	1969
Under 25 Years.....	30	29
25 to 34.....	225	162
35 to 44.....	552	331
45 to 54.....	691	468
55 to 64.....	503	461
65 and over.....	433	291
Average Age.....	51.0	51.5

SOURCE: U.S. Bureau of the Census, Census of Agriculture, 1969, Vol. 1, Area Reports, Part 47, Oregon, U.S. Government Printing Office, Washington, D.C., 1972.

Table 55. Farms by Economic Class, Wheeler County

Economic Class	1964		1969	
	Number	Percent	Number	Percent
Commercial Farm				
Class I (sales \$40,000 +)....	8	6.2	10	9.1
Class II (\$20,000-\$39,999)...	16	12.4	21	19.1
Class III (\$10,000-\$19,999)..	15	11.6	21	19.1
Class IV (\$5,000- \$9,999)....	29	22.5	17	15.5
Class V (\$2,500-\$4,999).....	22	17.1	21	19.1
Class VI (\$50-\$2,499).....	11	8.5	4	3.6
Other Farms				
Parttime.....	21	16.3	14	10.9
Part-retirement.....	7	5.4	2	1.8
Abnormal.....	--	--	--	--
Total Farms.....	129	--	110	--

SOURCE: U.S. Bureau of the Census, Census of Agriculture, 1969, Vol. 1
Area Reports, Part 47, Oregon, U.S. Government Printing Office,
Washington, D.C., 1972.

Table 56. Value of Farm Products Sold, Wheeler County, 1966-1970

Product	1966	1967	1968	1969	1970
- - - - - thousand dollars - - - - -					
All crops, livestock, and livestock products.....	1,927	2,377	2,422	2,577	2,781
All crops.....	295	375	279	297	236
All grain, hay, and seeds.	239	252	184	201	201
All grain and hay.....	239	252	184	201	201
All hay.....	51	51	25	39	46
All grains.....	188	201	159	162	155
Wheat.....	154	176	147	138	139
Barley.....	30	20	8	20	11
Vegetables, fresh and for processing.....	1	---	---	---	---
All tree fruits and nuts..	---	1	---	1	---
All livestock and livestock products.....	1,632	2,002	2,143	2,280	2,545
Diary products.....	6	7	7	5	5
Poultry products.....	1	1	1	1	1
Cattle and calves.....	1,407	1,804	1,946	2,086	2,344
Sheep and lambs.....	115	104	106	113	117
Hogs.....	34	38	36	27	31

SOURCE: U.S.D.A. and OSU Cooperative Extension Service cooperating, "Oregon Commodity Data Sheets", Oregon State University, 1971-72.

Table 57. Acres of Crops Harvested, Wheeler County, 1969 and 1970

Crops Harvested	1969	1970
Small grains: Wheat.....	3,900	3,400
Oats.....	200	300
Barley.....	1,200	1,000
Hay crops.....	13,300	14,500

SOURCE: U.S.D.A. and OSU Cooperative Extension Service cooperating, "Oregon Commodity Data Sheets", Oregon State University, 1971-72.

Table 58. Livestock & Poultry Numbers, Wheeler County, 1950, 1960, 1969, & 1970

Category	1950	1960	1969	1970
All cattle.....	16,100	21,000	23,000	24,000
Dairy cattle.....	700	400	200	200
Sheep and lambs.....	14,500	22,000	7,500	7,000
Hogs.....	1,500	1,300	500	500
Chickens.....	4,000	4,000	4,000	4,000
Turkeys raised.....	---	---	100	---

SOURCE: U.S.D.A. and OSU Cooperative Extension Service cooperating, "Oregon Commodity Data Sheets", Oregon State University, 1971-72.

Logging and Wood-Using Industries

Table 59. Lumber and Wood Products Manufacturing Excluding Furniture, Wheeler County, 1968 and 1970

Product Group	Number of Firms		Employment	
	1968	1970	1968	1970
Logging camps and contractors.....	1	4	7	72
Sawmills and planing mills, general..	7	--	--	--
Special product sawmills.....	1	1	300	300
Total.....	9	5	307	372

SOURCES: Oregon State Department of Commerce, Economic Development Division, Directory of Oregon Manufacturers - 1970.
U.S. Forest Service, "1970 Timber Harvest", U.S.D.A. Forest Service Resource Bulletin PNW-38, Pacific Northwest Forest and Range Experiment Station, 1971.

Logging and sawmilling have been one of the largest industries in the county since its settlement. These industries employ a great many people from the county's population.

Table 60. Timber Harvest by Ownership, Wheeler County, 1970 ^{1/}

Ownership	Production*	Percent of Total
Total timber harvest.....	35,998	100.00
Private ^{2/}	2,831	7.86
Bureau of Land Management ^{3/}	52	0.14
National Forest ^{4/}	33,115	92.00
State.....	---	---

^{1/} Includes volume removed as logs but not volume removed for poles, piling, and wood cutting operations.

^{2/} Compiled by State Forester.

^{3/} Compiled by Bureau of Land Management.

^{4/} Compiled by U.S. Forest Service.

*Scribner Log Rule - thousand board feet

SOURCE: U.S. Forest Service, "1970 Timber Harvest", U.S.D.A. Forest Service Resource Bulletin PNW-38, Pacific Northwest Forest and Range Experiment Station, 1971.

Table 61. Forest Industry Statistics, Wheeler County

Item	Thousands of Dollars	Percent
<u>Forest Assessment and Taxation</u> ^a		
(Fiscal Year 1967-68)		
Assessed Value		
All taxable property.....	5,679	100.00
Real property assessment.....	4,144	73.00
Taxes		
Forest yield tax receipts		
(June 1967).....	1.2	
<u>Payrolls and Employment (1967)</u> ^b		
Payrolls, yearly		
All industries.....	2,334	100.00
Lumber and wood products.....	1,872	80.00
	persons	
Employment		
All industries.....	386	100.00
Lumber and wood products.....	286	74.00
<u>Log Production</u> ^c		
(Scribner Decimal C)		- - thousand board feet - -
Year - 1955.....	80,456	
1960.....	43,880	
1965.....	51,493	
1966.....	23,725	

SOURCES: a. Oregon State Tax Commission, "Summary of Assessment Rolls for 1967-68 Fiscal Year and 1966-67 Property Tax Collections," January 1968.

b. Oregon State Department of Human Resources, Employment Division, Oregon Covered Employments and Payrolls by Industry and County, 1967. Includes covered firms employing one or more persons.

c. State of Oregon Board of Forestry, "Approximate Acres Logged and MBF Volume Removed, State of Oregon", annual reports for 1955, 1960, 1965, and 1966.

Table 62. Log Consumption in Thousand Board Feet by Species and Industry,^{1/}
Wheeler County, 1968 ^{2/}

Species	Sawmills
All species.....	148,387
Douglas Fir.....	45,268
Hemlock.....	10,000
True Firs.....	4,724
Spruce.....	---
Ponderosa and Jeffery Pine....	83,595
White and Sugar Pine.....	4,800

^{1/} There are no veneer and plywood or shake and shingle plants in Wheeler County.

^{2/} Wheeler County combined with Jefferson and Wasco Counties to avoid disclosure.

SOURCE: U.S. Forest Service, "1970 Timber Harvest", U.S.D.A. Forest Service Resource Bulletin PNW-38, Pacific Northwest Forest and Range Experiment Station, 1971.

Table 63. Installed 8-Hour Capacity of Sawmills by Mill Size,
Wheeler County, 1968

Mill Size	Capacity ^{1/}
A - 120,000+ bd. ft.....	135
B - 80,000 to 119,000 bd. ft.....	0
C - 40,000 to 79,000 bd. ft.....	50
D - less than 40,000 bd. ft.....	0

^{1/} Scribner Log Rule - thousand board feet

SOURCE: U.S. Forest Service, "1970 Timber Harvest", U.S.D.A. Forest Service Resource Bulletin PNW-38, Pacific Northwest Forest and Range Experiment Station, 1971.

Mining - Mineral and Metal Industries

Most of the income from mineral production is derived from stone, sand and gravel, and some mercury. These mining operations vary from year to year depending on the construction activities within the county.

Table 64. Value of Mineral Production, Wheeler County, 1963, 1967, 1970

Year	Value	Minerals Produced in Order of Value
1963.....	\$126,000	Stone, sand and gravel, mercury
1967.....	37,000	Stone, sand and gravel, mercury
1970.....	*	Stone, sand and gravel

*Withheld to avoid disclosure

N.R. - not reported

SOURCES: U.S. Bureau of Mines, Minerals Yearbook, Bureau of Economic Research, Oregon Economic Statistics, various years, University of Oregon.

Outdoor Recreation

Wheeler County has very few parks for recreational purposes. Those parks that are within the county limits are well kept and provide a restful atmosphere for the weary traveler or vacationer. Painted Hills State Park is probably the most inviting to the tourist. Shelton Wayside is probably the only park with adequate facilities for the camper. Little revenue is provided by the park and recreation sectors. Parks are for enjoyment basically with slight emphasis on income-producing facilities.

Table 65. State Park Acreage, Wheeler County

Parks	Acreage	Split Counties Total for Park	County Acreage
Clarno State Park.....	100.00		
Painted Hills State Park.....	2,833.20		
Shelton State Wayside.....	180.00		
Thomas Condon - John Day Fossil Beds.....	240.00	4,344.68	3,553.2

SOURCE: Oregon State Highway Division, State Parks and Recreation Section, Oregon State Parks and Waysides, 1972.

State Parks and their Facilities, Wheeler County

Clarno State Park

An area of scenic rock formations near the John Day River. Limited picnic facilities. No drinking water available.

Painted Hills State Park

Contains highly colored domes and ridges. Many fossils of tree leaves and plants that grew millions of years ago are found in the Eocene Clarno formation. Picnic facilities available. No drinking water.

Shelton State Wayside

An area of yellow pine forest with a picnic area and overnight camp containing 26 unimproved campsites.

Thomas Condon-John Day Fossil Beds

Important fossil beds, estimated to be 30 million years old, which are the remains of extinct animals from horses of sheep size to mastadons. Sheep Rock, Turtle Cove, and the Cathedral are outstanding scenic features. Limited picnic facilities are provided.

Table 66. Attendance at State Parks in Wheeler County

Park and Use	1967-68	1968-69	1969-70	1970-71	1971-72
Shelton State Wayside ^{1/} Overnight camping.....	2,790	3,572	3,618	3,803	2,990
Clarno State Park Day attendance.....	---	---	---	---	15,280

^{1/} Shelton State Wayside brought in revenues of \$933.00 during the July 1, 1971-June 30, 1972 season: overnight camp-\$902.00, group camp-\$17.00, vehicle fee-\$14.00

SOURCE: Oregon State Department of Transportation, State Highway Division, "Day Visitor Attendance" and "Overnight Camping by the Public", State Parks and Recreation Section, 1972.

Hunting is a major sport in the county. Small game and water fowl of various sorts are the most abundant types of harvested game. There are some deer and elk available to the hunter, but the numbers are few.

Fishing is basically done on a private basis. No commercial fishing of known quantity is established. Warm water fish is the general type of the area. Stream fish of various sorts is fair during the fall and winter months. Trout is found to be running good in spring and fall.

The John Day River and its tributaries are the primary avenues of water sport. Boating and fishing, although not extensive, are done on these rivers.

Table 67. Wheeler County Game Harvest

Game	Hunters		Kill		Days Hunted
	Number	Percent of State Total	Number	Percent of State Total	
Pheasants.....	440	0.61	1,509	0.62	1,617
Quail.....	591	2.26	5,947	3.75	2,636
Blue and ruffed grouse.....	22	0.29	22	0.13	24
Mourning dove.....	234	1.43	4,251	2.16	1,308
Ducks.....	150	0.27	380	0.07	380
Hungarian Partridge.	406	7.92	953	5.99	1,641
Geese.....	150	0.53	190	0.30	450
Deer.....	7,810	2.80	320	0.40	---
Elk.....	450	0.60	60	0.60	---

SOURCE: Oregon State Game Commission, 1971 Annual Report, Oregon State Game Commission.

Business

Table 68. Business Statistics, Wheeler County, 1954, 1958, 1963, 1967

Item	No. of Establishments	Total Sales (\$1,000)
Retail Trade		
Year - 1954.....	26	1,311
1958.....	22	1,105
1963.....	33	1,814
1967.....	28	1,584
Wholesale Trade		
Year - 1954.....	4	759
1958.....	4	572
1963.....	2	---
1967.....	2	---
Selected Services		
Year - 1954.....	16	76
1958.....	9	70
1963.....	3	--
1967.....	12	67

SOURCE: Bureau of Business and Economic Research, Oregon Economic Statistics 1972, University of Oregon, 1972.

Table 69. Retail Trade, Wheeler County, 1954 and 1963

Kind of Business	1954		1963	
	Establish- ments #	Sales (\$1,000)	Establish- ments #	Sales (\$1,000)
Total Business Groups.....	26	1,311	33	1,814
Lumber, building materials, hardware, farm equipment dealers.....	2		--	--
General merchandise stores.....	3		4	141
Food stores.....	3	330	7	552
Automotive dealers.....	3	384	3	693
Gasoline service stations.....	7	258	6	166
Apparel, accessory stores.....	2		2	
Furniture, home equipment stores.....	--	--	--	--
Eating, drinking places.....	4	105	8	165
Drug stores.....	2		1	
Other retail stores.....	--	--	2	
Nonstore retailers.....	--	--	--	--

SOURCE: U.S. Bureau of the Census, U.S. Department of Commerce, 1954 and 1963.

Table 70. Selected Services, Wheeler County, 1954 and 1963

Kind of Business	1954		1963	
	Establish- ments #	Sales (\$1,000)	Establish- ments #	Sales (\$1,000)
Total Selected Services.....	16	76	3	
Personal Services.....	4	8	1	
Hotels, motels, etc.....		1		
Motion pictures.....	--	--	--	--
Other amusement, recreation services.....			1	

SOURCE: U.S. Bureau of the Census, U.S. Department of Commerce, 1954 and 1963.

PUBLIC SERVICES

Transportation

Wheeler County has a good road and highway system. The major flow of travel east and west is U.S. Highway 26. State routes 207 and 19 are major transportation routes. Primary and secondary roads, although few in number, stretch for many miles and provide easy access to points of interest.

Although having few buses itself, Wheeler's scheduled bus service is available on the state routes and some of the major highways. Motor freight service is available to the primary cities.

Private airstrips for the few planes available do provide adequate space for the air traffic, but are not adequate for public use.

Table 71. Motor Vehicle Registration, Wheeler County, 1968

Vehicle	Number Registered
Passenger vehicles.....	1,249
Buses.....	---
Trucks.....	190
Motorcycles.....	43
Trailers.....	118
Total vehicles.....	1,600

SOURCE: Oregon State Executive Department, Local Government Relations Division, District Facts, 1970.

Table 72. Number of Aircraft and Boats in Wheeler County, 1968

Subject	Number
Aircraft.....	9
Boats.....	958

SOURCE: Oregon State Executive Department, Local Government Relations Division, District Facts, 1970.

Communication

Table 73. Communication Facilities, Wheeler County

Type Service	Location
<u>Radio Stations</u>	
None	
<u>Telephone</u>	
Blue Mountain Telephone, Inc.....	Spray
Fossil Telephone Co.....	Fossil
<u>Television Stations</u>	
None within the county, but cable service is available	
<u>Newspapers</u>	
Fossil Journal.....	Fossil
<u>Telegraph</u>	
None	
<u>Post Offices</u>	
U.S. Post Offices.....	Fossil, Kinuza, Mitchell, Spray

SOURCE: Pacific Northwest Bell, unpublished data, 1971.
Oregon Association of Broadcasters, Directory of Radio and Television
Stations for the State of Oregon, 1972.

Table 74. Residential Communication Facilities, Wheeler County, 1960 & 1970

Facilities	Number of Housing Units	
	1960	1970
<u>Battery radio sets</u>		
Yes.....	486	493
No.....	145	206
<u>Telephone available</u>		
Yes.....		543
No.....		117
<u>Televisions sets</u>		
One.....	625	395
Two or more.....	26	134
None.....	171	170
<u>UHF equipped</u>		
Yes.....		174
No.....		355

SOURCE: U.S. Bureau of the Census, Census of Housing: 1970 Detailed Housing
Characteristics, Final Report HC (1) - B39 Oregon, U.S. Government
Printing Office, Washington, D.C., 1972.

Library Facilities ^{1/}

Public support for libraries located in Wheeler County is provided by local funds of the cities. In the 1970 fiscal year, total funds provided were \$513, while expenditures were \$65. The one library in the county has 1,926 volumes. The library, located at Fossil, is open 7 hours per week and has a circulation of 1,484 or .80 circulation per capita. The expenditure per capita is \$0.03.

Utilities

Table 75. Housing Units by Water Supply & Sewage System, 1960 and 1970

Subject	1960	1970
Water source		
Public system or private company.	700	556
Individual well.....	56	72
Other.....	51	161
Sewage Disposal		
Public sewer.....	268	226
Septic tank or cesspool.....	444	508
Other.....	95	55

SOURCE: U.S. Bureau of the Census, Census of Housing: 1970 Detailed Housing Characteristics, Final Report HC (1) - B39 Oregon, U.S. Government Printing Office, Washington, D.C., 1972.

Table 76. Types of Fuels and Fuel Usage, Wheeler County, 1960 and 1970

Type of Fuels	Home Heating Fuel		Water Heating Fuel		Cooking Fuel	
	1960	1970	1960	1970	1960	1970
Utility gas.....	---	---	---	---	19	---
Fuel oil, kerosene, etc..	269	343	---	---	---	---
Coal or coke.....	---	---	---	---	---	---
Wood.....	471	215	45	---	38	---
Electricity.....	63	78	687	660	567	594
Bottled, tank, or LP gas.	19	44	51	15	198	105
Other fuel.....	---	19	---	---	---	---
None.....	---	---	39	24	---	---

SOURCE: U.S. Bureau of the Census, Census of Housing: 1970 Detailed Housing Characteristics, Final Report HC (1) - B39 Oregon, U.S. Government Printing Office, Washington, D.C., 1972

^{1/} Oregon State Library, Directory of Oregon Libraries, annual statistics for the year ending June 30, 1970.

Table 77. Data on Appliances in Housing Units, Wheeler County, 1960 and 1970

Appliance	1960	1970
Clothes washing machine		
Wringer or spinner.....	319	81
Automatic or semi-automatic.....	357	530
None.....	83	88
Clothes dryer		
Gas heated.....	---	---
Electrically heated.....	217	510
None.....	605	189
Dishwasher		
Yes.....	NA	175
No.....	NA	524
Home food freezer		
Yes.....	395	472
No.....	427	227

NA - not available

SOURCE: U.S. Bureau of the Census, Census of Housing: 1970 Detailed Housing Characteristics, Final Report HC (1) - B39 Oregon, U.S. Government Printing Office, Washington, D.C., 1972.

PUBLIC FINANCE

Table 78. Amount and Percent of Unpaid Property Tax, Wheeler County, 1971

Item	Total Amount	Amount Unpaid	Percent of Unpaid
Property Taxable			
Real.....	\$298,681	\$58,312	19.52
Personal.....	82,938	17,941	21.63
Public Utilities.....	11,761	---	---
Western Oregon additional			
timber tax.....	---	---	---
Yield tax.....	59	---	---
Total.....	393,439	76,253	19.38

SOURCE: Oregon State Department of Revenue, Summary of Assessment and Tax Rolls for the 1971-72 Fiscal Year and 1969-70 and 1970-71 Property Tax Collections, 1972.

Table 79. Selected Items of Local Government Finance, Wheeler County, 1966-67

Item	Wheeler County		State
	Total Amount	Per Capita Amount	Per Capita Amount
General revenue, exc. interlocal...	\$605,000	\$336.12	\$308
Intergovernmental revenue.....	227,000	126.23	97
From state government.....	227,000	126.23	83
From local sources.....	378,000	209.89	210
Taxes.....	325,000	180.50	156
Property	323,000	179.56	151
Other.....	2,000	0.94	5
Charges and miscellaneous.....	53,000	29.40	54
Direct general expenditure.....	579,000	321.93	316
Capital outlay.....	47,000	26.14	62
Other.....	532,000	295.80	254
Education.....	385,000	214.12	180
Other than capital outlay.....	363,000	201.68	152
Highways.....	98,000	54.32	30
Other than capital outlay.....	81,000	45.02	20
Public welfare.....	1,000	0.29	2
Hospitals.....	---	---	6
Other than capital outlay.....	---	---	---
Health.....	3,000	1.43	4
Police protection.....	6,000	3.14	12
Fire protection.....	1,000	0.81	9
Sewerage.....	3,000	1.48	8
Other than capital outlay.....	1,000	0.81	3
Sanitation other than sewerage...	---	0.28	2
Parks and recreation.....	---	---	10
Natural resources.....	15,000	8.34	4
Housing and urban renewal.....	---	---	4
Corrections.....	---	---	2
Libraries.....	---	---	3
Financial administration.....	31,000	17.36	5
General control.....	9,000	5.12	8
General public buildings.....	6,000	3.26	3
Interest on general debt.....	3,000	1.82	6
Other and unallocable.....	18,000	10.15	21
Water supply revenue.....	7,000	4.08	12
Water supply expenditure.....	6,000	3.26	13
General debt outstanding.....	65,000	36.11	214
Long-term.....	65,000	36.11	203
Local schools.....	34,000	18.89	101
Other.....	31,000	17.22	101

SOURCE: U.S. Bureau of the Census, Census of Governments, 1967, Vol. 4, No. 5: Compendium of Government Finances, U.S. Government Printing Office, Washington, D.C., 1969.

Table 80. Per Capita City Taxes and Valuations Percentage Distribution of Consolidated Rates and Dollars Per Thousand Rates on True Cash Value in Wheeler County

Item	Fossil	Mitchell	Spray
True Cash Value (T.C.V.).....	\$1,731,660	\$394,969	\$234,918
Per Capita True Cash Value....	3,362	2,025	2,936
Per Capita Tax			
City.....	11	4	5
Consolidated.....	59	32	91
Percentage of Total Levy			
County.....	10.1	11.0	12.1
City.....	19.0	11.6	5.3
School.....	70.9	77.4	81.2
Other.....	.0	.0	1.5
Average Rate/\$TCV Basis			
County.....	1.76	1.76	3.74
City.....	3.32	1.85	1.63
School.....	12.36	12.36	25.15
Other.....	.00	.00	.46
Total.....	17.44	15.97	30.98

SOURCE: Oregon State Department of Revenue, Summary of Assessment and Tax Rolls for the 1971-72 Fiscal Year and 1969-70 and 1970-71 Property Tax Collections, 1972.

Table 81. City Valuation, Tax Rates and Taxes Extended in Wheeler County

Item	Fossil	Spray	Mitchell
Population.....	515	180	195
Code Area.....	1	2	3
Assessed Value.....	\$1,731,660	\$527,885	\$394,969
Assigned Ratio.....	100.00%	100.00%	100.00%
Rate/\$1,000 by the levying unit			
County.....	1.76	1.76	1.76
City.....	3.32	.00	1.85
School.....	12.36	12.64	12.36
Other.....	.00	.72	.00
Total.....	17.44	15.12	15.97
City Tax.....	\$5,749	---	\$731
Consolidated Tax.....	\$30,200	\$7,982	\$6,308

SOURCE: Oregon State Department of Revenue, Summary of Assessment and Tax Rolls for the 1971-72 Fiscal Year and 1969-70 and 1970-71 Property Tax Collections, 1972.

Table 82. Summary of Assessment Rolls for 1971-72 Fiscal Year Real Property, Personal Property and Utilities, Wheeler County

Item	Assessed Value	Percent of Total
<u>Class</u>		
Real Property		
Lands inside corporate limits.....	\$ 327,140	1.22
Lands outside corporate limits.....	13,462,800	50.34
Improvements inside corporate limits.....	2,001,180	7.48
Improvements outside corporate limits.....	4,181,470	15.64
Timber (excludes land).....	---	---
Less veterans exemptions.....	(-56,880)	(-0.21)
Less senior citizens residence exemptions...	(-43,250)	(-0.16)
Taxable real property.....	19,872,460	74.31
Personal Property		
Merchandise and stock in trade.....	1,359,960	5.09
Furniture, fixtures, and equipment.....	59,365	.22
Farm machinery and equipment.....	978,530	3.66
Other machinery and equipment.....	881,465	3.30
Livestock.....	2,693,773	10.07
Miscellaneous.....	82,145	.31
Less veterans exemptions.....	---	---
Less senior citizens residence exemptions...	(-1,750)	(-0.01)
Taxable personal property.....	6,053,488	22.64
Total taxable real and personal property.....	25,925,948	96.95
Utilities		
Airline companies.....	---	---
Electric companies.....	1,000	0.00
Express companies.....	---	---
Gas companies.....	---	---
Heating companies.....	---	---
Pipeline companies.....	---	---
Railroad companies.....	84,500	0.32
Tank and private car companies.....	---	---
Telegraph companies.....	---	---
Telephone companies.....	731,121	2.73
Water companies.....	---	---
Water transportation companies.....	---	---
Taxable utility property.....	816,621	3.05
Total taxable real, personal and utility property.....	26,742,569	100.00

SOURCE: Oregon State Department of Revenue, Summary of Assessment and Tax Rolls for the 1971-72 Fiscal Year and 1969-70 and 1970-71 Property Tax Collections, 1972.

Table 83. Summary of 1971-72 Property Tax Levies & Assessments, Wheeler County

Item	Amount in Dollars
<u>Levies</u>	
County.....	\$ 52,564
Cities.....	6,480
Community Colleges.....	---
Elementary and Secondary School Districts	
Intermediate county.....	318,764
Education joint.....	4,598
Union High.....	---
Elementary and unified.....	10,807
County unit.....	---
Total school districts.....	334,169
Total special districts.....	---
Total Gross Ad Valorem Levies.....	393,213
Special assessments	
Fire patrol.....	34,215
Forest fee.....	2,406
Diking and drainage.....	---
Irrigation.....	---
Lighting.....	---
Other.....	---
Total special assessments.....	36,621
Total Gross Levies and Assessments.....	429,834
Less property relief money	
Senior citizens.....	(-611)
Game commission.....	---
Total Net Ad Valorem Levies.....	392,602
Net Ad Valorem Taxes by Class	
Real property.....	292,681
Personal property.....	88,259
Utility property.....	11,662

SOURCE: Oregon State Department of Revenue, Summary of Assessment and Tax Rolls for the 1971-72 Fiscal Year and 1969-70 and 1970-71 Property Tax Collections, 1972.

Selected List of Agencies

The following list gives names and addresses of agencies that have served as data sources for this publication and may provide further or more current data on subjects of interest.

In addition, a number of local and county offices are available to offer local information and assistance, including:

Agriculture Stabilization and Conservation
Assessor
City Library
Corrections and Parole
County Engineer
County Extension
County Surveyor
Employment Division
Game Commission
Health Department
Public Welfare
Soil Conservation Service

1. Bureau of Business and Economic Research, University of Oregon, Eugene, Oregon 97403
2. Center for Population Research and Census, Portland State University, 724 S.W. Harrison, Portland, Oregon 97201
3. Children Services Division, Oregon State Department of Human Resources, Public Services Building, Salem, Oregon 97310
4. Department of Environmental Quality, 1234 S.W. Morrison, Portland, Oregon 97204
5. Economic Research Service, U.S.D.A. Extension Hall, Oregon State University, Corvallis, Oregon 97331
6. Extension Service, Oregon State University, Corvallis, Oregon 97331
7. Fish Commission of Oregon, 1400 S.W. 5th St., Portland, Oregon 97201
8. 4-H Youth Office, Extension Hall, Oregon State University, Corvallis, Oregon 97331
9. Forest Service, U.S.D.A., 319 S.W. Pine St., Portland, Oregon 97204
10. Governor's Office, Economic Development Special Projects, State Capitol Building, Salem, Oregon 97310

11. Local Government Relations Division, Oregon Executive Department, 240 Cottage S.E., Salem, Oregon 97310
12. Oregon Association of Broadcasters, Allen Hall, University of Oregon, Eugene, Oregon 97403
13. Oregon Board of Higher Education, School Finance and Statistical Services, 942 Lancaster Dr. N.E., Salem, Oregon 97310
14. Oregon Department of Geology and Mineral Industries, 1400 S.W. 5th St., Portland, Oregon 97201
15. Oregon Educational Coordinating Council, 4263 Commercial S.E., Salem, Oregon 97310
16. Oregon State Department of Revenue, State Office Building, Salem, Oregon 97310
17. Oregon State Employment Division, Community Manpower, Research and Statistics, or Rural Manpower sections, Lab. and Ind. Building, Salem, Oregon 97310
18. Oregon State Game Commission, 1634 Alder, Portland, Oregon 97214
19. Oregon State Health Division, Department of Human Resources, 1400 S.W. 5th, Portland, Oregon 97201
20. Oregon State Highway Division, State Parks and Recreation Section, 8009 E. Burnside, Portland, Oregon 97215
21. Oregon State Lands Division, 502 Winter N.E., Salem, Oregon 97310
22. Oregon State Library, State Library Building, Salem, Oregon 97310
23. Oregon State Public Welfare Division, Department of Human Resources, Public Services Building, Salem, Oregon 97310
24. Pacific Northwest Forest and Range Experiment Station, U.S. Forest Service, 809 N.E. 6th St., Portland, Oregon 97232
25. Secretary of State's Office, State Capitol Building, Salem, Oregon 97310
26. Soil Conservation Service, U.S.D.A., 1218 S.W. Washington, Portland, Oregon 97205
27. State Water Resources Board, 1158 Chemeketa N.E., Salem, Oregon 97310
28. U.S. Department of Commerce, 921 S.W. Washington, Portland, Oregon 97204 (for copies of U.S. Census publications)

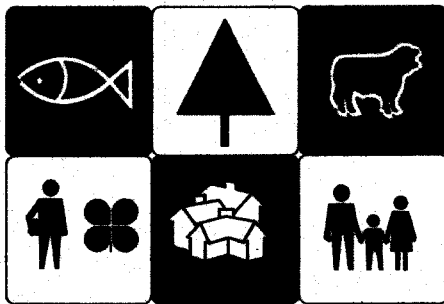
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OREGON STATE UNIVERSITY
**EXTENSION
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