

# MAUPIN

## Comprehensive Land Use Plan

1980





M A U P I N

COMPREHENSIVE LAND USE PLAN  
MAY, 1980

ORDINANCE NO. 157

Cover Photo by:

Dan Durow

# MID-COLUMBIA COUNCIL OF GOVERNMENTS

WASCO COUNTY COURTHOUSE ANNEX B 502 EAST FIFTH STREET  
THE DALLES, OREGON 97058

TELEPHONE (503) 298-4101

May 29, 1980

Honorable Al Troutman, Mayor  
Mr. Mel Richmond, Planning Commission  
Elected and Appointed Officials  
Citizens of Maupin

Ladies and Gentlemen:

The Mid-Columbia Council of Governments is pleased to present this document entitled Maupin Comprehensive Land Use Plan, 1980. This plan represents an update and modification of the 1978 plan as required by the Land Conservation and Development Commission. This plan in addition to the 1980 zoning ordinance was prepared by the MCCOG staff pursuant to the request of the Town Council and as outlined in the contract for planning services dated the 23rd day of May, 1979.

This land use plan contains base information which is not only necessary in formulating land use policy but can also serve as the community resource reference document. The policies in this plan along with the accompanying maps will form the basis for all future land use decisions. Your periodic review of the policies and maps should help assure that the changing needs and desires of the community are met.

Our responsibilities and obligations to the Town of Maupin will continue until compliance is granted. Upon the LCDC's granting of compliance MCCOG's obligations will be discharged. However, the MCCOG Board of Directors and staff stand ready to assist the Town in any way possible to help review, revise and implement the plan as the chosen course of action.

We trust that the implementation of this plan will preserve the desirable physical and social characteristics of the community and lead to balanced growth and development.

Very truly yours,



Mike O'Herron  
Executive Director

MO/DD/cjw

THE COMPREHENSIVE LAND USE PLAN  
MAUPIN, OREGON

Prepared by:

Mid-Columbia Council of Governments

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Executive Director

for the  
TOWN OF MAUPIN

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The preparation of this plan was financed in part through a comprehensive planning grant from the Department of Housing and Urban Development, under the provisions of Section 701 of the Housing Act of 1954, as amended.

Additional financial assistance was obtained through the State of Oregon Department of Land Conservation and Development.

ORDINANCE NO. 157

MAUPIN COMPREHENSIVE LAND USE PLAN

AN ORDINANCE ESTABLISHING LAND USES AND LAND USE POLICIES TO PROVIDE FOR ORDERLY AND EFFICIENT GROWTH AND DEVELOPMENT OF THE TOWN OF MAUPIN URBAN GROWTH AREA, REPEALING ORDINANCE NO. 135 AND ALL OTHER ORDINANCES IN CONFLICT HEREWITH AND DECLARING AN EMERGENCY.

Be It ordained by the Common Council of the Town of Maupin as follows:

Section 1. Title. This ordinance shall be known as the Maupin Comprehensive Land Use Plan.

Section 2. The final draft of the Maupin Comprehensive Land Use Plan and official planning maps are hereby adopted and are by this reference incorporated in this ordinance as of the date of its passage.

Section 3. Emergency. That whereas conditions in the Town of Maupin are such that this ordinance is necessary for the immediate preservation of the public health, peace and safety, an emergency is hereby declared to exist and this ordinance shall take effect and be in full force and effect after its approval by the Mayor.

Passed by the Council this 28 day of May, 1980

by the following vote:

YES 5

NO 0

ABSENT 1

Submitted to the Mayor on 28 May 1980  
DATE

Approved by the Mayor on 28 May 1980  
DATE

[Signature]  
MAYOR

ATTEST: [Signature]  
City Recorder

- ELECTED AND APPOINTED OFFICIALS -

TOWN COUNCIL:

Albert Troutman, Mayor  
Wyman Faircloth  
Albert Green  
James Puckett  
Raymond Richmond  
Rita Rolph  
Herb Snodgrass

PLANNING COMMISSION:

Melvin Richmond, Chairman  
Jean Gabel  
Ronald Holliday  
George Jackson  
G.O. McClendon  
Florabelle Moynihan  
Orin Stuart

RECORDER:

Vera Burgett

ATTORNEY:

Stan Heisler

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## FOREWORD

### PLANNING FOR MAUPIN

This comprehensive plan is being developed for the City of Maupin to serve as the guiding document for all land use decisions. It is designed to do several things: to insure the future livability, so that Maupin is at least as nice to live in in the future as it is today; to manage future growth and development so that it is orderly and is in harmony with the public desires of the area; and to conserve natural resources to provide for their wise utilization or preservation. It also will provide the basis for business, the public, and individuals that make sound investments decisions. By knowing where and how development may occur, financial savings will be realized and development can proceed more rapidly while attaining the desired livability goals determined by the area.

Those living in Central Oregon are fortunate to have an environment with natural resources that often provide an economic livelihood along with abundant scenic and natural amenities. However, poorly considered land use decisions leading to a disorderly and often uneconomic land use pattern can threaten this enviable way of life.

Once land has been committed to a particular use it is often physically impossible, or economically impractical to reclaim it. Consequently, this and the high private costs of site development and the higher public costs of providing utilities and services make it essential that all options be carefully considered prior to land use decision. Such is the purpose of this planning process.

### PLANNING PROCESS

The basic questions that must be addressed in land use planning are as follows:

- A. What do we have today?
- B. What type of land use patterns do we want in the years to come?
- C. How do we achieve these aspirations?

In over simplified terms, the answers to these questions are sought through the planning process.

Generally defined, the planning process, includes: Researching of inventories, analysis, planning, implementation and review. The formulation of this plan combines the first three of these phases. The review phase indicates that the process is dynamic and ongoing rather than a static one-time event. Review of the comprehensive plan should be scheduled annually with a total update scheduled for a three to five year period. The review and update are necessary to include and reflect changing social values, attitudes and competition for the use of the land.

Citizen participation in the planning process is not only desirable but essential if the community is to have a complete understanding of the comprehensive plan.

Residents from the City of Maupin have had the chance to become involved at the earliest stages of the planning process, through writing and distribution of questionnaires, activity on the planning group and various tasks assigned to complete the plan. Many of these people have remained involved throughout the construction of the entire Comprehensive Plan.

Special purpose districts and agencies of all types have also had their opportunity to be involved.

#### PLANNING INTENT

The intent of this plan is to establish a single, coordinated set of policies which will act to provide for orderly development of Maupin and its surrounding area. These policy statements are intended:

- (1) To give direction to planning, to establish priorities for action, and to serve as guidelines for future decision making.
- (2) To provide a standard by which accomplishments and progress can be measured; and
- (3) To promote a sense of common identity that will unite and strengthen the community so that they might maintain and improve the quality of life in the area.

Finally, it is the intent of the plan to assist the general public, private enterprise, special purpose districts, federal, state and local agencies, city and county administrators, and all other special interests in understanding the desires of the citizens of Maupin. The regulatory measures designed to implement the city's desires are also discussed in this plan.

#### COMPREHENSIVE PLAN DEFINITION, ORS 197.015

"Comprehensive Plan" means a generalized, coordinated land use map and policy statement of the governing body of a state agency, city,

county or special district that interrelates all functional and natural systems and activities relating to the use of land, including but not limited to sewer and water systems, transportation systems, educational systems, recreational facilities, and natural resources and air and water quality management programs. "Comprehensive" means all-inclusive, both in terms of the geographic area covered and functional and natural activities and systems occurring in the area covered by the plan. "General nature" means a summary of policies and proposals in broad categories and does not necessarily indicate specific locations of any area, activity or use. A plan is "coordinated" when the needs of all levels of governments, semi-public and private agencies and the citizens of Oregon have been considered and accommodated as much as possible. "Land" includes water, both surface and subsurface, and the air.

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## INTRODUCTION

### HISTORY OF MAUPIN

Perry Maupin arrived at the present townsite of Maupin in 1872. He realized the possibilities of the location and constructed a ferry, which he operated from the west side of the Deschutes to the mouth of Bakeoven Creek. He continued to operate the ferry for five years, during which time he built the first house in Maupin, now occupied by Mrs. G.I. Derthick, after which he left Maupin.

The next settlers were "Deacon" and Eli Hinman, uncle and nephew. Eli filed on a homestead at the present site of Maupin and after he received his patent he sold to E.D. Dufur, December 26, 1890. Mr. Dufur sold to Mrs. Isabella Slusher, later the wife of W.H. Staats. She sold in 1908 to J.O. Elrod who platted the town but later turned the property back to Mrs. Staats who filed the platt in Wasco County records May 5, 1910, signed by W.H. and Isabella Staats.

In 1898 Jim Brown, stockman, established a ferry service, hiring J.H. Chastain, Sr., a millwright and carpenter to do the construction work. The high water of 1903 washed the dock and ferry away. J.H. Chastain had also built a ferry that summer for R.B. Darnall, near the Oregon Truck depot at Cambrai. After the death of Mr. Darnall in 1905, W.H. Hunt purchased the Darnall holdings and thereafter Maupin was known as "HUNT'S" FERRY. Mr. Hunt's ferry washed away in 1911, but he built a new one which served the people until the building of the bridge. (1912)

The first store in Maupin was started by W.H. Staats, who occupies a small building on the site of the Clarke Richardson home. He freighted his goods from Dufur (1909) and his first grocery order was filled for Mrs. Mary Cunningham who selected and took the goods off the freight wagon before they were unloaded! Mr. Staats was first postmaster of Maupin and named the town at the suggestion of Mrs. Olevia Confer. At the time the railroads were building up, the Deschutes and the Oregon Trunk railroad is credited with laying its rails into Maupin a few days ahead of the Union Pacific Railroad. With the coming of the railroads Maupin took a rapid growth. Staats built a 30' X 60' store and 20' X 60' warehouse at the O.P. Weberg residence corner. He later sold to R.E. Wilson who conducted the business at the time of the big 1921 fire.

On September 10, 1921 Maupin was levelled by a fire that virtually destroyed every business place in town! The fire started in the Shattuck store and spread to the south and west, taking every building in its path. Among the buildings burned were the Wilson Store, John Confer residence, Jory's Grocery, Cook's Hotel, the Maupin State Bank, F.C. Butler residence, Cyrs Confectionery and the Post Office. The loss was estimated at \$70,000 (\$200,000 1952) partly covered by insurance. Most of those losing property began rebuilding immediately. Shattuck, Butler and the bank erected concrete fireproof buildings. Lincoln Harpan put up a hollow tile building for a hotel.

The City of Maupin was incorporated June 28, 1922 with R.W. Wilson, Mayor; George McDonald, recorder; O.F. Renick, marshal; W.H. Staats, Dr. J.L. Elwood, L.S. Stovall, Bates Shattuck, F.C. Butler, and J.H. Woodcock, councilmen<sup>1</sup>. The City was named after the Maupin family, who were early settlers in the area.

Since the city incorporated in 1922, it has steadily grown to its present size. In the most recent years, the community has attracted retired people, sportsmen and those who just enjoy the atmosphere of country living.

#### HISTORICAL SITES

The remaining historical sites in Maupin are those which survived the great fire on September 10, 1921. Four structures are recorded in the 1976 compilation for the Oregon State Historic Preservation Office. They include the Riverside Hotel on U.S. Highway 197, overlooking the Deschutes River; the Burlington-Northern/Union Pacific Railroad Depot, erected c. 1910; the Odd Fellows Lodge #209 Hall, built prior to the 1921 fire and moved later, and Hunt's Ferry Warehouse Company Elevator, located on Bakeoven Road near the banks of the Deschutes River.

The inventory in which these sites appear is the pool for which nominations to the National Register of historic places are drawn. State and federal laws exist to protect historic sites and buildings.

#### POLITICAL STRUCTURE

The city government consists of Mayor, six member City Council, and a Planning Commission. The City provides a variety of services such as, sewer and water facilities, fire protection, a library, and community park.

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<sup>1</sup>Illustrated History of Central Oregon, Western Historical Publishing Company, 1905. Carroll Richmond, a Maupin native, assisted in the compilation of material for this book.



## PLAN AMENDMENTS

### COMPREHENSIVE PLAN AMENDMENT PROCESS

This plan is not cast in concrete. It is a public plan by a changing society in a developing and renewing, dynamic situation. The plan will be reviewed yearly to assure that it reflects the desires and needs of the people it is designed to serve, and that the plan is achieving the desired goals. However, it will not be changed dramatically or capriciously at each review if individuals, organizations, and public agencies are to be able to rely on it. With these reviews most adjustments will be small and easily accommodated. Those people and agencies, as well as the general public who were involved with the preparation of this plan, will be given the opportunity to be included in any review so their understanding and support of the plan will continue.

### TYPES OF AMENDMENTS

A Comprehensive Plan Amendment may take the following forms:

1. Amendment of one or more policies of the plan.  
(Legislative Revision)
2. Amendment to the text of the plan. (Legislative Revision)
3. Amendment of a portion of the Comprehensive Plan map.  
(Legislative Revision or Quasi-Judicial Change)

### LEGISLATIVE REVISIONS

Legislative revisions include land use changes that have widespread and significant impact beyond the immediate area such as quantitative changes producing large volumes of traffic; a qualitative change in the character of the land use itself, such as conversion of residential to industrial use; or a spatial change that affects large areas or many different ownerships. The plan and implementation measures should be revised when public needs and desires change and when development occurs at a different rate than anticipated. Legislative revisions can only be made by the Town Council through the public hearing process. However, the Planning Commission may make recommendations on plan amendments to the Town Council for final consideration.

## QUASI-JUDICIAL

Quasi-judicial changes are, those which do not have significant effect beyond the immediate area of the change, i.e., narrow in scope and focusing on specific situations. Quasi-judicial changes may be initiated by a property owner, by filing the application with the Town Recorder and paying the plan change fee.

A public hearing shall be required before any quasi-judicial plan change takes place. The following criteria must be followed in deciding upon a plan change.

### Substantive Criteria

1. The burden in all land use proceedings is upon the applicant.
2. In reviewing the record a court will look to the following in deciding upon a plan change:
  - a. The proposal is in accordance with the comprehensive plan goals and policies.
  - b. The public need is best served by changing the planned use on the property under consideration.

### Procedural Process

1. Parties at a plan change hearing must have an opportunity to be heard and to present and rebut evidence.
2. There must be a record which will support the findings made by the Town Council.
3. There must be no pre-hearing contacts on the subject of the hearing.

## NOTIFICATION OF HEARING

1. Notice of Public Hearings shall summarize the issues in an understandable and meaningful manner.
2. Affected persons of plan changes shall have notice by record of mailing of proposed comprehensive plan changes. Affected persons of plan changes include those owners of record of real property located within at least 300 feet of the proposed change.

3. Notice of a legislative or quasi-judicial public hearing shall be given by publishing a notice in newspapers of general circulation at least 10 days prior to the day on which the hearing is to be held.

## CITIZEN PARTICIPATION

### THE STATEWIDE GOAL

A Comprehensive Land Use Plan deals with almost every aspect of community activity, from recreation to commercial development, from industrial site designation to residential and agricultural placements. That is why citizen involvement is so important. To plan a community without the community doing the planning is just unworkable. The citizens of a given area must have the opportunity to express both their majority and minority feelings towards the future of their community if the plan is to have support and be workable.

The State of Oregon has recognized this very important aspect of community planning and has (in SB 100) mandated that citizen involvement be part of every comprehensive planning process in Oregon.

### CITIZEN INVOLVEMENT IN MAUPIN

The following program was developed and adopted by the city early in 1976 to insure citizen involvement in planning for the City of Maupin.

- (1.) A planning committee consisting of all interested citizens, city council members, planning commission members, those representing state, local and private interest groups and agencies, was established. There was no limit set on the number of people involved.
- (2.) Regular meetings of the planning committee were held monthly with close cooperation with the city planning commission and council. Time was always available for citizen's comments, questions and corrections to data presented.
- (3.) Meetings of the planning committee were well publicized in the local newspaper and posters were placed throughout the city to inform people of the next meeting.
- (4.) Minutes were kept for each meeting and available upon request by those interested.
- (5.) Technical data was kept in both the City Hall and the Mid-Columbia Council of Government's library for citizen review.
- (6.) Funds for operation of the planning program were supplied by the State Department of Land Conservation and Development with a 10 percent In-Kind match from the City.

The program is aggressively aimed at providing the opportunity for local citizens to become actively involved in the local planning process. This program of citizen involvement will not end with the adoption of this plan but will continue as outlined here and in the policies portion of this plan.

## PHYSICAL CHARACTERISTICS

### GENERAL LOCATION

The City of Maupin is located near the geographic center of Wasco County along the canyon of the Deschutes River, (see location map on the inside cover). Via U.S. Highway 197, The Dalles is 41 miles to the north and Madras is 50 miles to the south. The nearest metropolitan area is Portland about 95 miles to the west. Because of the city's natural setting on the Deschutes River and the rural atmosphere many people from more urban areas are now attracted to Maupin for retirement and recreational homesites. Surrounded in almost every direction by wheat farms, the city also serves as a rural service center, as well as supplying sporting goods to residents and tourists.

Maupin, located in Wasco County, is a member of the Mid-Columbia Council of Governments. The COG is comprised of three Oregon Counties; Hood River, Wasco, and Sherman (see location map). The COG has three distinct geographical provinces of which the differences are abrupt and distinctive. The provinces are the Cascades, the High Plateaus and the Columbia River Gorge. The High Plateaus are sparsely populated and contain mostly wheat land; it is in this regional province that Maupin is located.

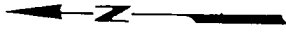
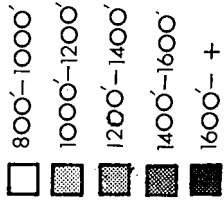
### TOPOGRAPHY

The City of Maupin has a unique topographic setting. The most striking feature is an elevation change of over 800 feet from the High Plateau area on the western border down the canyon to the Deschutes River, with a total linear distance at one point of less than  $\frac{1}{2}$  mile. The city proper is located on a bench cut in Columbia River Basalt between 160' and 220' above the level of the River. Within the city limits, the river's course changes more than 120 degrees nearly circling the developed portion of the city. The last major topographic feature is a flat area located on the remnants of an intracanyon flow of the Cascades Formation. This area is below the plateau and above, and to the southwest of, the city proper.

The city limits delineate an area of approximately 795 acres of land surface with a portion of that total acreage figure covered by the Deschutes River.

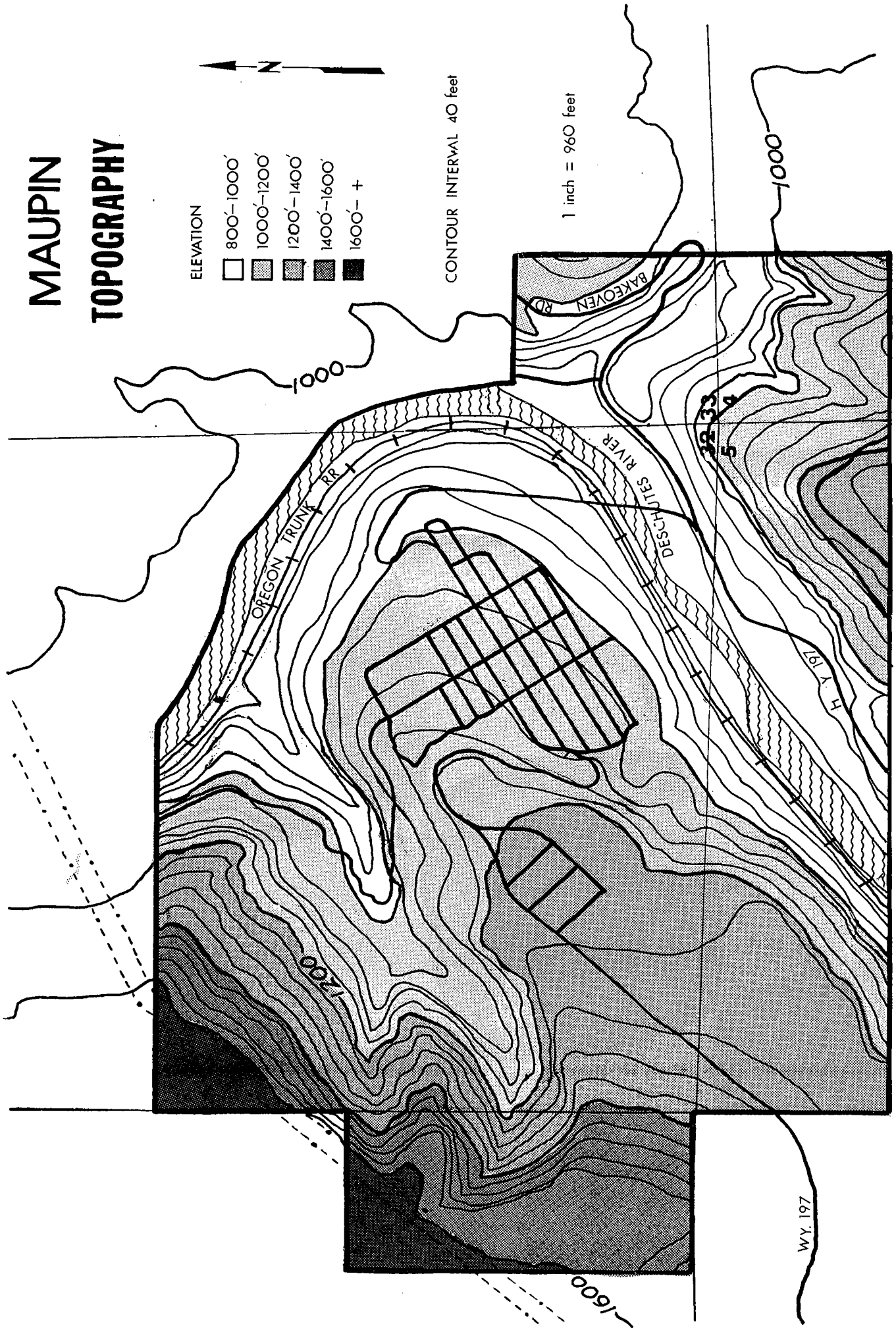
# MAUPIN TOPOGRAPHY

ELEVATION



CONTOUR INTERVAL 40 feet

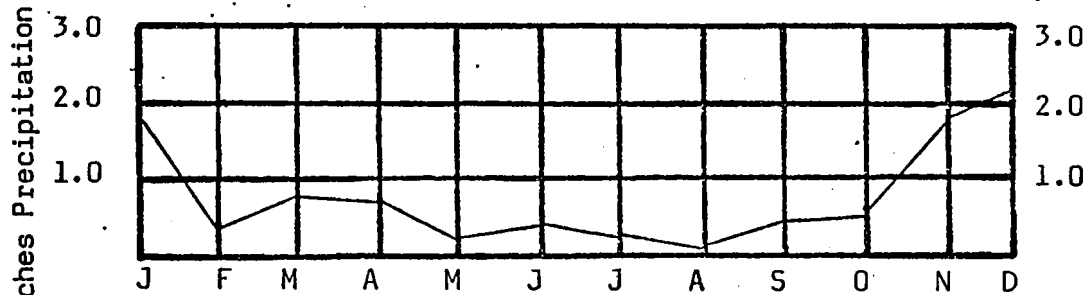
1 inch = 960 feet



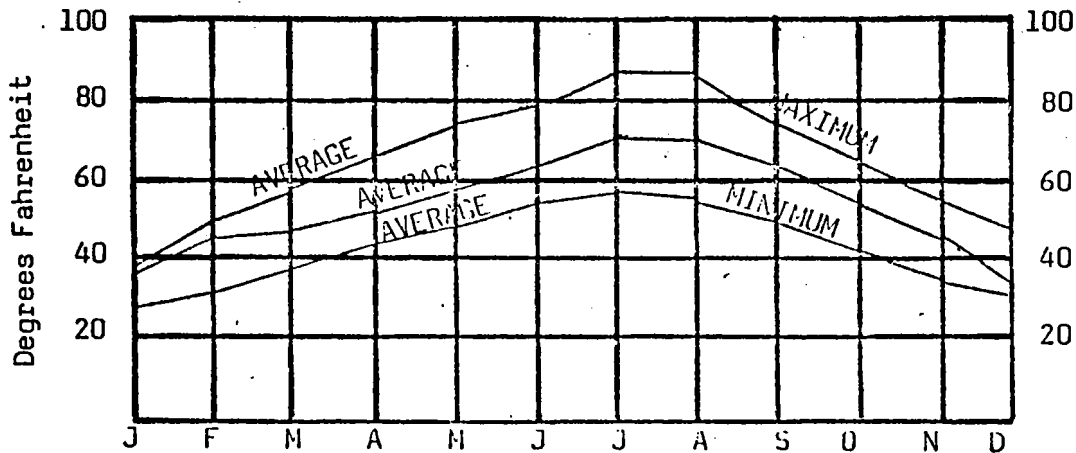
CLIMATE

The climate of the study area is characterized by warm, dry summers and cold, comparatively dry winters. Maupin has 350 sunny days per year and an annual rainfall of just under 9 inches. During the season of maximum recreation use (April to October), the area experiences dry, warm climate with maximum daytime temperatures ranging from 80° to 115° F. There is a difference of plus 5 degrees in the mean temperatures on the flat tablelands above the canyon rim. The milder climate in the river canyon extends the season of recreation use by one or two months as compared to other Oregon recreation areas.

TABLE 1  
 5-YEAR AVERAGE  
 PRECIPITATION AND TEMPERATURE RECORDS  
 OF 4 WEATHER STATIONS IN  
 NORTH CENTRAL OREGON  
 (DUFUR, MORO, PELTON DAM, THE DALLES)



Average Monthly Precipitation  
 (Average Annual Precipitation: 10.47 inches)



Average Monthly Temperatures



## AIR QUALITY

Wasco County is located within the Central Oregon Intrastate Air Quality Control Region, Region 190. Air quality sampling stations within this region are located in The Dalles, Bend, Klamath Falls and at the Oregon Institute of Technology, located about 2 miles north of Klamath Falls. The data collected at the sampling stations was evaluated with respect to the National Ambient Air Quality Standards listed below.

<u>Contaminant</u>	<u>Federal Standards (micrograms/cubic meter)</u>	
	<u>Primary</u>	<u>Secondary</u>
Suspended Particulate	(1) 75 ug/M <sup>3</sup> annual geometric mean	(1) 60 ug/M <sup>3</sup> annual geometric mean
	(2) 260 ug/M <sup>3</sup> max. 24-hour	(1) 150 ug/M <sup>3</sup> max. 24-hour concen- tration (a)
Sulfur-Dioxide	(1) 80 ug/M <sup>3</sup> max. 24-hr. concen- tration (a)	
	(2) 365 ug/M <sup>3</sup> max. 24-hr. concen- tration (a)	(2) 1300 ug/M <sup>3</sup> max. 3-hr. average (a)

(a) not to be exceeded more than once/year.

The primary and secondary annual geometric mean standards for suspended particulates have been exceeded within the region. The primary standards were exceeded in 1971 at the Klamath Falls sampling station but has not been exceeded since at Klamath Falls or at any other station. The secondary standard for suspended particulates was exceeded on a frequent basis during the 1970-75 period at the Klamath Falls Station but was not exceeded at any other station. The primary and secondary standards for sulfur dioxide have not been exceeded with the Region (Department of Environmental Quality, 1975).

Suspended soil particulates are considered to be the primary cause for air quality degradation in the region. Microscopic examinations of the samples collected at the Klamath Falls Station indicate that wind borne dust is responsible for 55 percent of the average sample. It is anticipated that a similar percentage of wind entrained dust would be present in other samples in different locations within the region.

Wasco County air quality is excellent and is anticipated to continue at such high levels in the future.

## WATER QUALITY

The following pages show water quality readings from the closest source to Maupin that was available. The following are some general DEQ standards.

### General Discharge Standards into Deschutes River:

#### WATER QUALITY STANDARDS

D.O.	Not less than 90% entire stream Not less than 95% in spawning areas
Temperature	No measurable increase when stream temperature is 58 degrees F. or greater  or  No more than .5 degrees F. from a single source when it is 57.5 degrees F.  or  No more than 2 degrees F. when it is 56 degrees F. overall discharges
Turbidity	No more than 10% increase
P.H.	6.5 to 8.5
Fecal Chloroform	Average concentration not to exceed 240/100 millimeters

The flow of the lower Deschutes River remains almost constant due to the upstream regulating flows. This provides consistently cool water temperatures and, consequently, ideal habitat for rainbow trout and anadromous fish. Numerous springs also contribute to the river's low water temperature and quality.

Potable water of suitable quality is believed to be readily available along the river. The BLM has water developments at Macks Canyon and Beavertail Recreation Sites and at Gray Eagle Springs. There are numerous other water developments for domestic use and other purposes.

The allowable uses of water from the Deschutes River have been explicitly decided in a series of legal acts and degrees by State Engineer and the State Water Resources Board. From its mouth to river mile 100 the unappropriated waters are set aside solely for domestic, livestock, recreation, fish and wildlife purposes. Above Bend the river waters were withdrawn as early as 1913 for only irrigation, domestic, and power uses.

It is significant to note that no allowance has been made for industrial uses of unappropriated waters from the Deschutes River.<sup>1</sup> Potential industries that would use a significant amount of water would have to obtain it from some other source before locating in the Maupin area.

Additional water quality information and river characteristics can be found in the appendix.

## GEOLOGY AND GEOLOGIC HAZARDS

Bedrock geologic units in the Maupin area include Columbia River Basalt (Tcr) east of the Deschutes River and low on the slopes west of the Deschutes River, Dalles Formation (Tpd) on the middle and upper slopes west of the Deschutes River, and lava flows of the Cascades Formation capping the ridges west of the Deschutes River.<sup>2</sup>

Flood hazards include torrential flooding in major canyons and localized lowland flooding of alluvial units along the Deschutes River. For example, the 1964 flood washed a house down Bakeoven Creek and against the Standard Oil building near the confluence with the Deschutes River.

Mass-movement hazards exist in the talus of the Columbia River Basalt east of the Deschutes River and west of Deschutes River, southwest of Maupin. Steep slopes and shallow subsurface flow of ground water in these areas favor shallow debris flows and cutbank failures during the rainy season. North of Maupin, in the Spring Creek area, talus overlies the Dalles Formation. Potential hazards include low cutbank stability and landslides, especially near springs. Developers should be guided by engineering investigations of slope stability, ground water, and potential for deep slide activity.<sup>3</sup>

In May of 1976 an earthquake occurred in Oregon with its center traced to the vicinity of Maupin; this is an always present hazard but heavy, destructive quakes are not expected.

The geology and topography of the study area has had a profound effect on past development and will continue to exert a major influence on future development. The elevation differences, the nearness to bedrock and the thick talus all make it difficult to provide and install utilities in many areas.

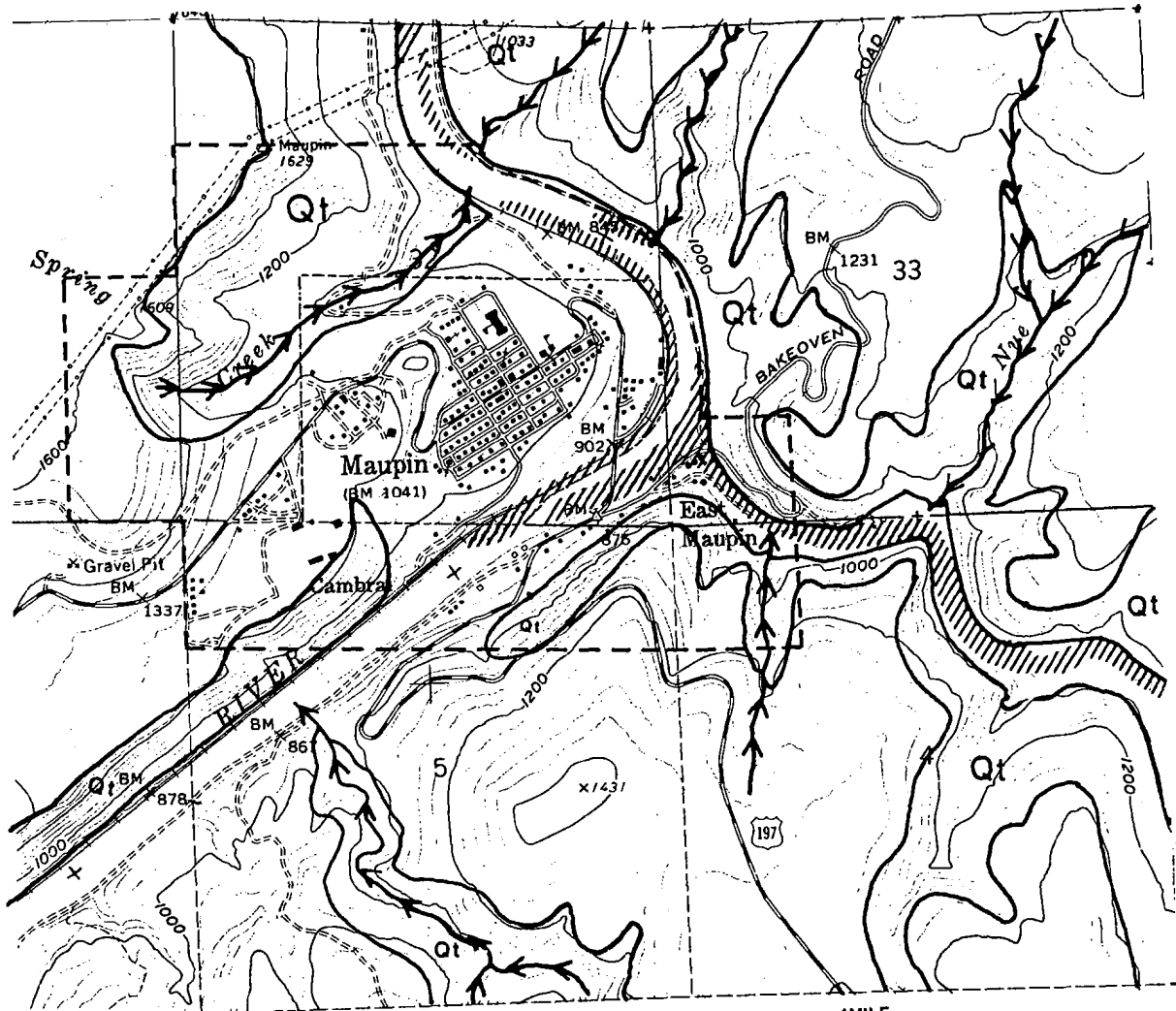
The flood plain area within the city is limited to the lower river bank of the Deschutes on the East Maupin side. During flood stages, it has been known to rise and inundate this area by as much as 2 feet above the normal river flow. At present the only development on these areas consists of 3 residences, one commercial establishment, and one mobile home. A park, restrooms, and a vacant building are also in this area.

<sup>1</sup>Deschutes River Basin Program April 1, 1980 and Lower Deschutes Basin Program April 3, 1964

<sup>2</sup>Geologic Hazards of Parts of Northern Hood River Wasco, and Sherman Counties, Department of Geology and Mineral Industries, 1977

<sup>3</sup>IBID








# GEOLOGIC HAZARDS



SCALE: 1 MILE

## GEOLOGIC HAZARDS

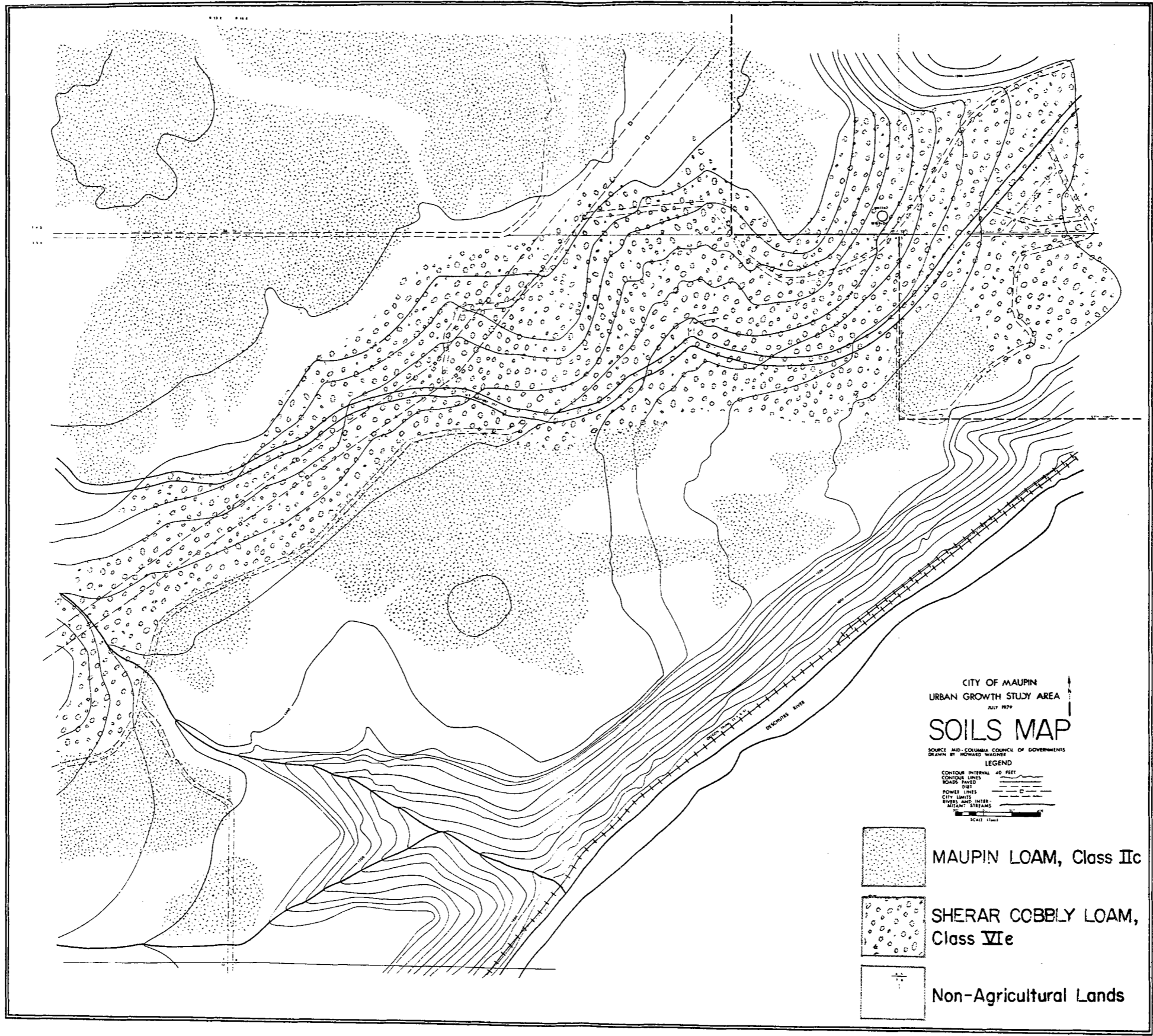
### HAZARD LEGEND

-  DEEP BEDROCK SLIDE
-  ROCKFALL AND ROCKSLIDE
-  STEEP SLOPE FAILURE
-  SPRINGS
-  LOWLAND FLOODING
-  TORRENTIAL FLOODING
-  THICK TALUS



## MAUPIN AND VICINITY

MAP SOURCE: Geologic Hazards of Parts of Northern Hood River, Wasco, and Sherman Counties, Oregon. John D. Beaulieu, 1977.



To regulate the use of lands within this flood prone area, the city (in 1975) adopted an ordinance establishing a flood plain zone, this qualified the city for flood insurance.

### AGRICULTURAL SOILS

Little agricultural soil exists within the city limits. The only productive soil is located on Juniper Flat in the northwestern part of the city. Those soils not already committed to urban development and unsuitable for future development will be preserved for agricultural use. The soils map can be found in the Land Use section and the soil interpretation in the appendix.

Within the city limits Maupin has soils in class II and IV. The majority of soil class IV has already been committed to other uses in the developed portion of the city. A few acres of soil class II land within the city limits can be found on the plateau area in the western portion of the city.

### WILDLIFE RESOURCES<sup>1</sup>

The diversity of wildlife resources (includes wildlife habitat and wildlife species) is more or less restricted in urban areas as the result of human related activities.

The rural nature of the Maupin urban area plus the presence of the Deschutes River contributes to considerable wildlife resources diversity. The present level of activity development and human activity in the area permits the kinds of wildlife use of the urban area perimeters that are uncommon to most communities. Such wildlife species include mule deer, coyote, bobcat, badger, skunk, porcupine, valley quail, chuckar partridge, and ring-necked pheasant.

The Deschutes River and associated riparian habitat contributes to the limited presence of such furbearers as racoon, mink, otter, beaver, and muskrat. Avian wildlife includes several species of waterfowl of which the common merganser is the most abundant. A host of nongame wildlife that utilizes riverbank vegetation includes the notable northern oriole.

Wildlife habitat within the developed urban area consists mainly of introduced vegetation such as shade trees, fruit and ornamental trees and shrubs, flowers, and grass. Also included are the undeveloped vacant areas containing brush and weeds. A majority of wildlife in the core urban area are in the nongame category consisting mainly of songbirds and small mammals. Nongame wildlife values are of a nonconsumptive nature such as for viewing and esthetics.

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<sup>1</sup>

The Dalles District, Department of Fish and Wildlife, State of Oregon

In summary, the diversity and quantity of wildlife in and adjacent to the urban environment, to many individuals, are an index of human livability. Wildlife resources are an amenity that cannot be adequately evaluated in terms of economic gains or losses. Therefore, future development decisions relative to the Maupin urban area should impartially consider potential impacts on wildlife resources.

The Deschutes River is inhabited by a significant resident and anadromous trout population as well as a notable salmon population. The river also supports a wide variety of other aquatic life ranging from an abundant aquatic insect population to a variety of nongame fish. A significant number of steelhead trout enter Bakeoven Creek annually to spawn in the upstream spawning areas.

## POPULATION AND ECONOMIC CONDITIONS

### POPULATION

The population count for the City of Maupin is estimated at 605 according to the 1975 center of population research, Portland State University. The 1970 U.S. Census of population showed 428 residents of the city. This would indicate an increase of approximately 40% in only 5 years. Several factors account for this increase. During the 1970 census, the East Maupin area and the residential area in the vicinity of the lumber mill were not within the city limits. These areas have since been annexed, which accounts for much of the additional population increase. The lumber mill has in the last four years provided housing which has been sold to local residents and which has further added to the city's population.

The following population figures show a continual increase in the amount of people living in the city since 1940.

Table 2

<u>YEAR</u>	<u>POPULATION</u>	<u>PERCENT CHANGE</u>
1940	267	16%
1950	312	22%
1960	381	12%
1970	428	12%
1974	600	40%
1975	605	1%
1980	714	18%
1985	823	15% (Projections based
1990	930	15% on historical trends)
1995	1069	15%
2000	1229	15%

Three major factors will influence the continued rise in population for the city in the future: (1) The first being a stable economic market for the products of the Mt. Fir Lumber Company, (2) Second, continued increase in interest for recreation and retirement homes sites within the city, (3) Third, a factor which influences growth in any city is the availability of housing, or in Maupin's case, the availability of housing sites within the city. A greater portion of employees at Mt. Fir Lumber Company, BLM and others who do not reside in the city would probably move to the community if the current level of housing were increased. A program in Maupin to develop new housing would accelerate growth of the city.



If all three factors prove favorable for the city in the years to come, it can be anticipated this city's population count will continue to increase at least at a moderate rate, which would be slightly greater than population increases in other parts of southern Wasco County.

"Growth indicators and population trends reveal that north Wasco County, particularly those cities located within close proximity to the Columbia River and Highway I-80N, will receive the bulk of population increase. Cities situated within central and southern Wasco County will remain in a stable condition with only a slight upward increase in population and each city's economic base."<sup>1</sup>

ECONOMIC CONDITIONS

The economic character of the City of Maupin is predominantly forest product oriented, accompanied by seasonal recreational activity.

The historical economic functions of Maupin are threefold. First, the area serves as a rural service center for the surrounding agricultural community, and as a transportation center for those crossing the Deschutes River. Second, the community has a small but growing recreation sector resulting primarily from water related recreation on the Deschutes and sales to tourists and travelers. Thirdly, the city has a sector of primary production and employment predominately the result of lumber production at Mt. Fir Lumber Company.

Total employment in the community stayed about the same since 1970 which greatly contrasts with increase in population during the period 1970 to 1975, 428 to 605.

Table 3  
EMPLOYMENT

	<u>1970</u>	<u>1975</u>
Employment Sources		
General Services	14	13
Retail & Wholesale	5	6
Government (A)	86	91
Drink, Rentals (B)	20	26
Food		
Production & Storage (C)	108	101
Transporation & Utilities	<u>13</u>	<u>11</u>
TOTAL	246	248

- A Includes employment with the Bureau of Land Management
- B Does not include employment for the Riverside Inn
- C Includes direct employment at Mt. Fir Lumber Company but no employment in logging operations. The number of logging trucks in use, however, increased from 40 in 1970 to 70 in 1975 but mill production dropped.

<sup>1</sup> City of Maupin Facility Plan, Part A, Toronto & Associates, Inc., 1976

Clearly the 41% increase in population since 1970 is not due to increases in employment or economic growth. Employment in food services increased 30% but all other sectors remained basically constant or decreased. If continued over the long run this lack of economic growth could create major problems for the city.

The only solution to such a problem would be increasing the flow of money into the community to create jobs or increase incomes. It should be pointed out that in the near future population will probably continue to increase if housing is available regardless of economic factors.

The economy of an area and employment can be divided into two major sectors: Basic . . . and non-basic. Generally the basic sector supports a community.

Because Maupin lacks a variety of businesses in the basic sector and has a potential economic growth problem a better understanding of the "basic" - "non-basic" relationship is necessary to predict future needs and trends.

The basic sector (or industry) is one which exports goods and services to areas outside the study area, whether statewide, nationwide or even on the international level. Mt. Fir Lumber Company and farming operations are the major "producers" in the Maupin area which fit this category. The basic sector can also bring customers to the area for products which cannot be physically moved elsewhere. BLM (government employment that is paid through state or federal sources) and recreation oriented businesses providing services to fishermen, sportsmen and travelers fit this category. In both types of "basic" business, money is brought into the community from sales to customers outside the area. If this money (wages, income, profits) is respent in the area additional businesses and jobs are created to serve the local population. Some types of "basic" businesses spend more money locally on wages, products, and services than others. In agriculture, for example, much less revenue is spent locally than in past years because machines have replaced workers. Farming equipment is purchased from sources outside the area. More of the wage payments at Mt. Fir or BLM on the other hand are spent locally.

The non-basic (secondary and tertiary sectors) such as retail trade, are those which serve the "home market" and one determined by forces within the local or regional economy. Businesses in this sector cannot provide economic growth or employment increases unless the basic sector grows first. Retail trade builds up as the result of new employment in the basic sector to serve the local population. For example, in today's economy, 100 jobs in the basic industry creates approximately 75 jobs in the non-basic businesses.

## BASIC SECTOR DISCUSSION

Because Maupin is a small town it lacks economic diversity. This is important in large communities with many businesses in the basic sector. If one closes down or a new one starts up the changes facing a community are easier to accommodate. In Maupin, Mt. Fir Lumber Company is the primary source of employment accounting for 39 percent of all jobs in the community. If it were to close or expand the community would face major changes. The Bureau of Land Management currently employs about 17 percent of the local labor force.

Fortunately the mill operations are stable and apparently will continue for some time in the future. It is extremely important for the city to do its share to protect this source of employment and therefore the city's economic base.

From the time it began operations in 1954 until recently, Mt. Fir's production and employment have steadily increased. However, from 1970 to 1975 production declined slightly.

Table 4

### Mt. Fir Lumber Company History of Production and Employment

	<u>1954</u>	<u>1960</u>	<u>1970</u>	<u>1975</u>
Production (million board feet per year)	21,000 mbf	29,210 mbf	51,794 mbf	43,510 mbf
Employment	40	44	102	95

Source: Mt. Fir Lumber Company, 1976

Virtually all of the lumber is logged from land in the Mt. Hood National Forest - about 99 percent of the total. The plant installed equipment in 1969 to mill small pine logs, as well as larger red fir and hemlock logs. The mill produces primarily finished lumber with markets in California, the Midwest and East. Bark and chips are also sold but in Oregon and Washington markets.

Production and employment are determined mainly by both the supply of logs and market prices of the finished lumber although such things as wage rates, the cost of production and pollution control costs also have an affect. The Mt. Hood National Forest's Timber Management Plan determines the supply of timber available to the mill.

Part of the reason population in the city increased from 1970 to 1975 was because more housing was available but almost a third of the mill's workers still reside outside the community.

Table 5

Mt. Fir Lumber Company  
Employee Residence Patterns

<u>Place of Residence</u>	<u>Percent of Total Employment</u>
Maupin	69.5%
Tygh Valley	20.0%
Dufur	2.1%
The Dalles	8.4%
TOTAL	100.0%

Although agriculture is an important part of southern Wasco County's economic activity it has a small impact in Maupin. The services or products provided for agricultural use are through petroleum products distribution operations, grain storage and transportation. Agriculture accounts for five or six jobs in the community.

Recreation business is a growing part of the economic base in Maupin. According to a survey, as much as 80 percent of some business operations are the result of sales to non-resident sportsmen or travelers. About 16 jobs exist because of this recreation oriented business which is 7 percent of all jobs in the community.

If this industry continues to develop, interest should be taken to create the type of business that generates new employment sources for the community.

By adding employment at Mt. Fir, BLM, Interior Elevator, and agriculturally related activities plus employment in recreational business, the basic sector accounts for about 64 percent of all employment in the city.

NON-BASIC SECTOR DISCUSSION

The commercial sector is fairly well developed for a town of over 600 people. There are eighteen commercial businesses in the community.<sup>1</sup> These businesses generate 49 jobs. The community is slightly deficient in service oriented businesses and locally oriented recreation opportunities. Both deficiencies are due primarily to the size of the community.

This sector could increase somewhat in the near future as population increases but will not change substantially unless changes in the basic sector occur first.

<sup>1</sup> This does not include the basic production sector, government, utilities, or transportation.

## COMMUNITY FACILITIES AND SERVICES

### POLICE PROTECTION

The City of Maupin has double police coverage, the resident County Sheriff's deputy with the quickest response time, and of course the Oregon State Police, who are based out of The Dalles. Police protection for Maupin seems to be adequate at this time.

### FIRE PROTECTION

Maupin's Fire Department serves the City residences utilizing city fire hydrants. The Mountain Fir Lumber Company also has fire fighting equipment with one fire engine that primarily responds to mill fires. The Fire Department recently acquired an additional engine and expanded the building to house the additional equipment. Fire protection is adequate at this time.

### HEALTH FACILITIES

Resident medical and dental services do not exist in Maupin. The nearest hospital and clinic facilities are located in The Dalles or 45 miles south of Maupin, in Madras. One nurse from the Wasco-Sherman County Public Health Department is responsible for health services to schools and families, and makes a routine once-a-week visit to Maupin schools on Wednesdays.

Two ambulances operated by the South Wasco County Ambulance Service may be called by residents of Maupin. The city budgets \$500 annually for their operation and they are staffed by volunteers who have received emergency training.

Mental health services are available through the Mid-Columbia Center for Living whose services are threefold. A consultant from The Dalles is provided for school consultation by the Intermediate Educational District which contracts for the services of a psychologist from the Center who visits Union High School and Maupin Elementary School on Wednesdays when he calls on all the schools in southern Wasco County. There is twenty-four hour emergency service available by contacting the county sheriff; and, on October 12, 1977, a weekly evening clinic for families and individuals was instituted which is held at Maupin Elementary School from the hours of four to nine p.m. The clinic is available to anyone in that area (Wamic, Tygh Valley, etc.), and appointments may be made by calling the Center in

The Dalles, "collect", at 296-5452. Fees are determined on a sliding scale basis and adjusted according to family income, family size, and other factors. The Center is a cooperative effort by Federal, State, and County to provide local mental health services to residents of Hood River, Wasco and Sherman Counties.

### SCHOOLS

Maupin has an elementary school and a Union High School. Maupin Elementary has grades one through eight, and at present has 172 students enrolled. The building's capacity is 200 students. There are 10 classrooms and 11 teachers at the elementary school, giving a student/teacher ration of 16:1.

The high school is the Wasco County Union High School #1. It has an enrollment of 134 pupils, with a capacity of 200 for the building and its facilities. There are 11 classrooms with 12 full-time teachers, 1 part-time teacher, and the school principal.

Students come from as far north as Wamic, as far west as Bear Springs Ranger Station, and as far southeast as Shaniko and South Junction.

### TELEPHONE

The Deschutes Telephone Company, a branch of the Northwest Utilities Company now serves Maupin's telephone needs. Its headquarters are in Lebanon, Oregon.

### POST OFFICE

The City of Maupin is served by one class "3" post office located in the central business district at Fourth and Deschutes. Lock boxes are provided and hours are from 8:00 a.m. till 8:00 p.m. Monday through Friday and 9:00 a.m. till 8:00 p.m. Saturday and Sunday.

### NEWSPAPERS

There is no city newspaper in Maupin. Although no separate breakdown is available, a total of 295 copies of both The Dalles Chronicle and The Shopper reaches Maupin. The Dalles Chronicle is the official public notice newspaper for the city and 97 copies of The Chronicle are delivered by carrier. The Oregonian and the Oregon Journal were able to provide only composite figures for Maupin, Shaniko and Antelope. The Oregonian has a circulation figure of approximately 400 for the Sunday paper, 60 for the daily paper, and the Journal lists 25 including delivery by mail and newsstands for the three communities combined. The Dalles Reminder places 120 copies in resident's post office boxes.

## LIBRARY FACILITIES

Maupin residents have enjoyed the services of a public library since 1914. On April 15, 1972 the newly built Southern Wasco County Library had its grand opening. The new facility is located on Deschutes Avenue next to City Hall and was built by primarily volunteer labor on a lot donated by the city. It represented a total community effort with a citizens' drive for funds, books and furnishings; the Garden Club landscaped the grounds.

The library is staffed by a salaried librarian, Grace Kirkpatrick, and six volunteers who are "on call" to serve on Saturdays. Hours are 1 to 5 p.m. Monday through Saturday. No library cards are required, but books withdrawn are registered and a card remains at the library. For the fiscal year ending June, 1976, 2,500 volumes were reported and the number of books circulated was approximately 5,260, an increase from 2,000 in eight years. Funds to operate the library come from Wasco County, the City of Maupin, and private sources and fund raising. A Friends of the Library was recently organized to promote public relations and community service and to help raise funds. It has instituted a monthly "Activity Night" to feature a variety of topics and interests, and a reading group for pre-kindergarten children. Every two weeks, during the Winter months, books are shipped to Bear Springs Ranger Station for use in that area.

Library services by mail are also available -- from the Wasco County Library in The Dalles and through the State of Oregon's inter-library loan service.

## PARKS, RECREATION AND OPEN SPACE

Only one city park now serves the residents of Maupin. This city park is located on the eastern bank of the Deschutes River and is approximately four acres in size. The river itself serves anglers, raftsmen, picnickers and sightseers, but is hazardous for swimming.

Through the use of a city public opinion survey, the citizens of Maupin expressed the desire to have additional recreation facilities available to them in the near future. An additional park, centrally located, with a swimming pool was most often mentioned.

The available open space, scenic and natural resources associated with the city could mostly be classified as those canyon lands along the Deschutes River and Spring Creek, the river itself and Juniper Flat.

The Deschutes River from Pelton re-regulating dam to its mouth at the Columbia River excluding the limits of Maupin as of 10/04/77, a distance of about 100 miles, has been designated a State Scenic Waterway. This segment of the Deschutes River Scenic Waterway is managed by the Oregon Department of Transportation, State Parks and Recreation Division, Scenic Waterway Program, in order to maintain the outstanding scenic, natural and recreational values of the river and land within  $\frac{1}{4}$  mile of each riverbank.

## ORGANIZATIONS

Active organizations in the city include: Maupin Dig & Hoe Garden Club, Maupin Lions Club, the Izaak Walton League, the American Legion Post & Auxiliary, and the Redside Sports Club.

## UTILITIES

### TRANSPORTATION

U.S. Highway 197 is the only highway transportation route serving Maupin. It is a north-south route connecting the City of Maupin with The Dalles on the north and with Madras and Bend on the south. Two miles northwest of Maupin U.S. 197 intersects with State Route 216 which connects with U.S. Highway 26. Portland is 95 miles from Maupin by this route. Other area routes include the Bureau of Land Management road which goes north from Maupin and connects with State 216 at Shearers Bridge; and the Bakeoven Road goes east from Maupin and connects with U.S. 97 at Shaniko.

Traffic volumes on these principal highways are as follows:

<u>Highway</u>	<u>Location</u>	<u>ADT</u>
U.S.197	MP 42.62, .01 mile south of ORE 216	1,250
U.S.197	MP 43.96, west city limits of Maupin	1,400
U.S.197	MP 45.82, Deschutes River Bridge	1,200
U.S.197	MP 46.40, south city limits of Maupin	410
ORE 216	MP 25.79, .38 miles west of U.S. 197	720

Maupin aslo has rail service for freight. The Oregon Trunk Line follows the Deschutes River from the Columbia River south through Maupin to California. This line is maintained and operated by both Union Pacific and Burlington Northern.

Golden Age Transportation provides Maupin residents 65 years of age or older with a way to travel to The Dalles every other Tuesday. The bus leaves Maupin from the drug store at 10 a.m. and begins the return trip at 3 p.m. Handicapped patrons are picked up from and delivered to their homes and assisted with groceries and parcels. Additional services include delivery of medicine and other essential errands. Arrangements may be made by telephoning 296-5408, and fees are collected on a voluntary donation basis.

### MINERAL AND AGGREGATE RESOURCES

One aggregate resource, a gravel pit, has been identified within the urban growth area and no fossil fuel capability exists. The ODOT owns and operates the pit for use on state highways.



## ENERGY

Due to the rising costs of conventional energy production, research is being conducted to find alternate sources of economical and dependable energy. One such source of essentially free energy is that of the sun's radiation. Although no conclusions have been reached in this area, testing has been conducted in the Pacific Northwest, on a limited scale, for several years. In addition to the laboratory testing, experimental houses have been built and the preliminary results indicate that solar heating and cooling of residential structures is economically feasible in Oregon.

In January the available solar energy in the Maupin area is about 125 langleys and in July 600 langleys. One langley is equal to 3.69 BTU's of heat falling on a horizontal square foot. The table below compares space heating needs of a house with available heat in Maupin. .

TABLE 7

MONTH	DAILY HOME HEATING NEEDS* (BTU per sq. ft.)	AVAILABLE DAILY SOLAR HEAT (BTU per sq. ft.)
January	300	461.25
April	180	1,660.50
July	12	2,306.25
October	144	830.25

\* Heating needs for a house in Eugene, Oregon. Oregon Office of Energy Research and Planning, Transition, page A-206

In all months there is a surplus of energy, allowing a saving of electricity and fossil fuels at some future time when the resource is tapped.

### Electric and Propane

At this time Wasco Electric Cooperative serves Maupin's electrical needs. Propane is also used in the city which is supplied from The Dalles, 45 miles north of Maupin.

There are no appropriate sites for power plants in the city of Maupin. Neither is there any indicated need for additional transmission lines to accompany the already existing lines in the north part of the city. These lines are currently being rebuilt by BPA.

## WATER SYSTEM

### Source of Supply

The city's present source of water is obtained from the original Maupin Springs. The water is cold (56°F.), of exceptionally good quality with a pH of 6.7. These two large free flowing 900 gpm springs have provided a steady water supply source for the past 45 years. Flow tests indicate that combined pumpage to the reservoir from the springs collection chamber is approximately 650 gpm. The unused portion of the spring water overflows into a creek that then flows into the Deschutes River.

A rock and cement grout foundation was constructed around the perimeter of the two springs in 1924. Later a masonry wall and roof was added to the rock foundation. One of the springs is contained within a rectangular structure and the other spring within a triangular structure. Each of the springs are well covered with heavy quality corrugated metal roofing material. Dimensions of the rectangular structure are approximately 27' x 14'. The triangular structure has a base length of approximately 24' with a perpendicular height of 20'. The perimeter wall foundation is constructed 3½' above ground and 4' to 6' below ground. The city's spring collection structures are in good condition and the source of supply will be adequate for the next 20 years.

East Maupin obtains its water from the East Maupin spring situated approximately 300' south of the city's supply source. East Maupin, containing approximately 15 residences (includes combination Restaurant and Lodge, Auto Court and Mobile Homes), operates its water system through the East Maupin Water District. Water is transmitted across the river through a 2" I.D. steel pipeline to approximately 15 water users.

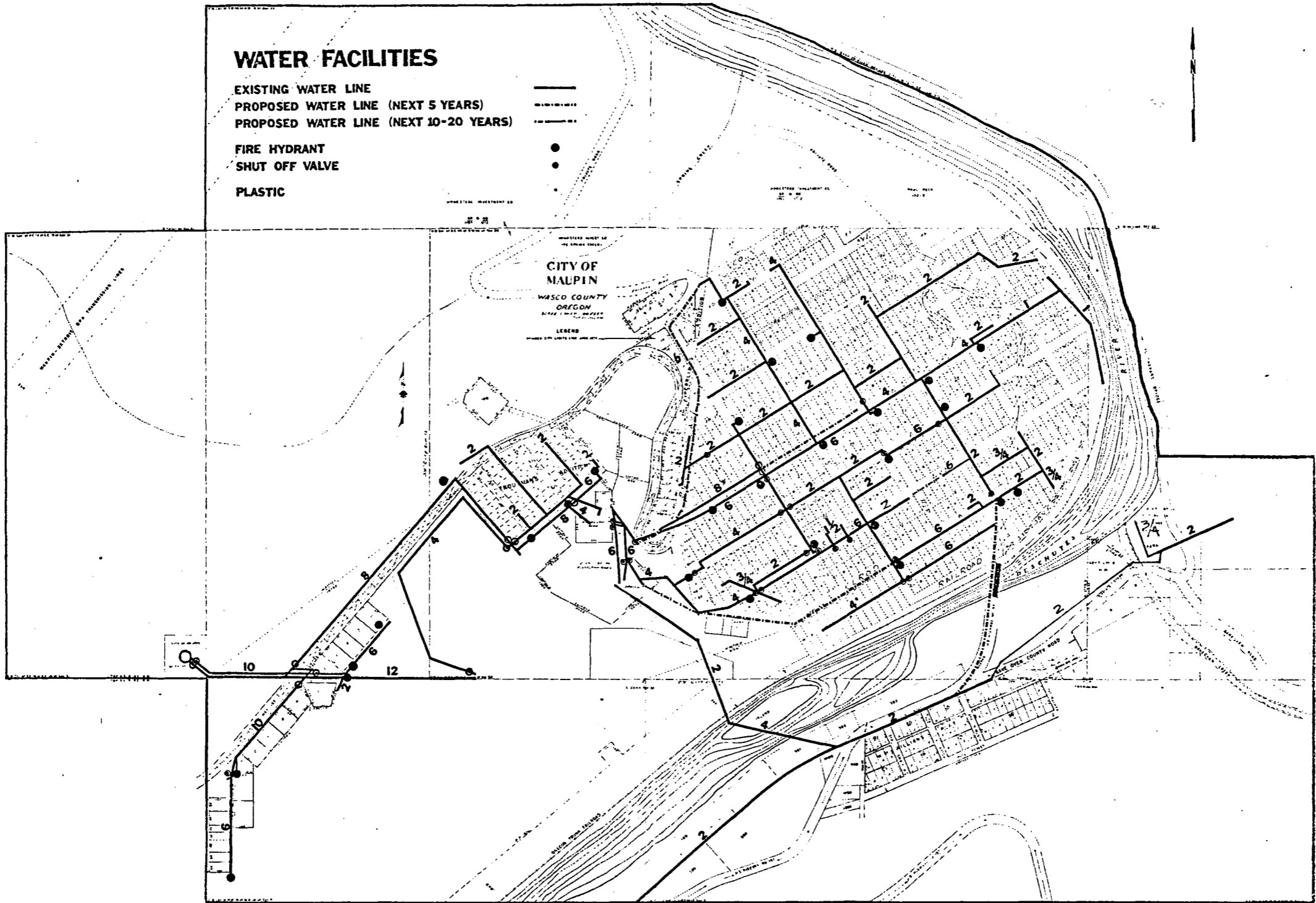
### Reservoir

The existing below ground concrete reservoir which is 75' x 75' x 10½' deep, is a single cell 300,000 gallon capacity, constructed about 1930, and appears to be in relatively fair condition. A proper analysis is extremely difficult without draining the entire reservoir for a more thorough examination. It is possible for insects to gain entry into the reservoir by way of two-inch space around the wooden box lid covering the two discharge pipes located on the south exposure of the concrete reservoir walls. Sawdust particles from the adjacent mill are collecting inside and some insects have gained entry, possibly from the above described location and/or from the top of the concrete wall section that supports the main roof truss structure.

A new 1.0 million gallon steel reservoir is located one-half mile northwest of the town's 300,000 gallon reservoir. The city currently has storage capacity for 2,600 people. No additional storage facility will be needed for 20 years within the existing city limits. However, when the urban growth area becomes developed an additional storage facility may be needed to supplement existing storage capacity.

# WATER FACILITIES

- EXISTING WATER LINE
- PROPOSED WATER LINE (NEXT 5 YEARS)
- PROPOSED WATER LINE (NEXT 10-20 YEARS)
- FIRE HYDRANT
- SHUT OFF VALVE
- PLASTIC



## Pumphouse and Plant

Pumping plant facilities consist of two structure plant units. The upper unit is adjacent to and north of the town's reservoir, while the lower unit is adjacent to and east of the water supply source.

The upper level pump station unit is of recent concrete block construction and is equipped with 2 pumps, 15 and 30 horsepower. This station supplies water to the 1.0 million gallon reservoir. The upper level pumping plant provides service to the residences situated in the northwest part of the city. The lower level pumping plant unit is housed in a block building and contains three pumps; 20, 30, and 50 horsepower. A new chlorinator has also been installed. One of the pumps appears to have been manufactured years ago while the other two appear newer. These newer units provide the main supply of water to the town and the reservoir.

Each motor and pump discharges to a 6" steel pipe to the concrete reservoir. One of the 6" discharge pipes to the reservoir is situated above ground and the other is a below ground installation. The below ground pipeline was constructed and placed prior to the above ground pipe. The three pumps and motors in this plant unit are actuated by float valves from within the reservoir.

## Distribution System

The existing water distribution system was installed around 1930, with extensions made when required. Basically the water system grid consists of a 6" diameter cast iron trunk line, 4" diameter mains and numerous 3" diameter deadend laterals. Generally the lines have been placed at 1½' to 3' depth.

The cast iron piping is 40 years old and should be serviceable for another 10-20 years. The existing distribution system has only one main conveying water to downtown Maupin. The 6" diameter main is inadequate in size to provide fire flows. The larger diameter pipe is in better condition than the smaller pipe, which may indicate that the smaller 2" diameter pipe was manufactured as bare (untreated) pipe or of inferior quality.

## SEWER SYSTEM

### Existing System

The City of Maupin is one of the three cities in Wasco County that contains a sanitary sewer and waste disposal system. Additions and

# SEWER FACILITIES

EXISTING SEWER LINES ———  
PROPOSED SEWER LINES - - - - -  
STANDARD MANHOLE ●

Proposed STP

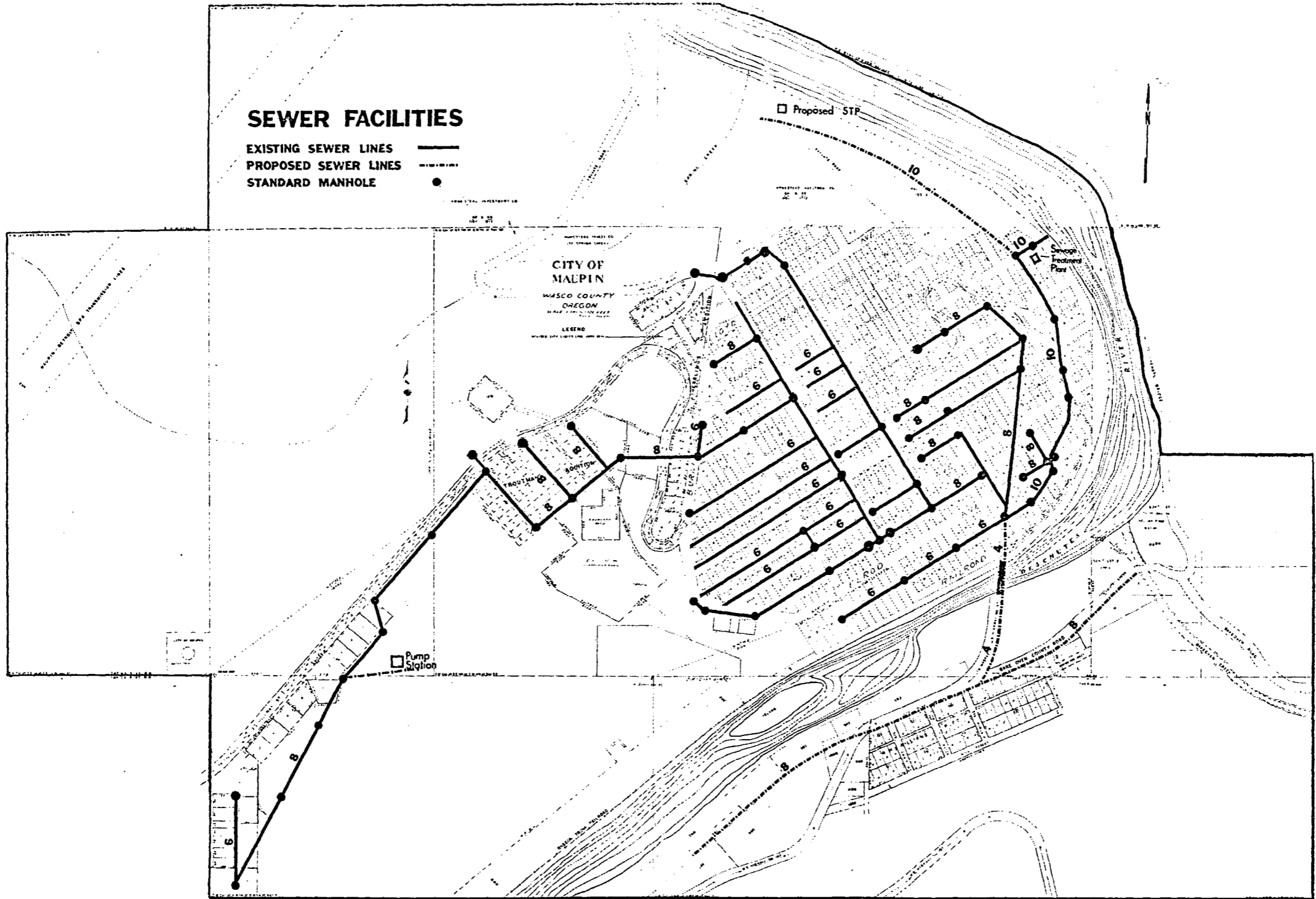
Proposed  
Treatment  
Plant

Pump  
Station

CITY OF  
MALPIN

WASCO COUNTY  
OREGON

LEGEND



extensions are made to the sanitary sewer main and laterals when necessary and/or required.

The completion of the new treatment plant this year will serve the waste disposal needs of Maupin through the planning period. With additional on site expansion of the new plant, the capacity of the system can be expanded to serve the needs of Maupin well into the twenty-first century.

#### SOLID WASTE DISPOSAL

February 1, 1976, the old Maupin dump (solid waste site) was closed. At present, the city has its solid wastes picked up by a private contractor and taken to The Dalles solid waste site. The disposal capacity of The Dalles site will be sufficient through the planning period.

## HOUSING

### EXISTING CONDITIONS

According to the 1970 Federal Census there were 141 single family dwelling units in Maupin, with 13 mobile homes, and 12 units in buildings containing two or more units. Since 1970 the city has annexed two large portions of land. These additions combined with new homes built and new mobile homes brought into the city, raises the total number of living units to 251.

	<u>Single Family Dwellings</u>	<u>Mobile Homes</u>	<u>Other</u>
1970 Census Count	141	13	13
Acquired by Annexation	28	4	6
Built or moved in since 1970	<u>29</u>	<u>15</u>	<u>2</u>
TOTAL	198	32	21

Housing statistics from the 1970 Census are presented in the following table:

Owner occupied	-	93
Renter occupied	-	57

Count of owner-occupied units for which value is tabulated by value:

Less than \$5,000	14
\$5,000 - \$9,999	26
\$10,000 - \$14,999	27
\$15,000 - \$19,999	8
\$20,000 - \$24,999	3
Above	0

Count of renter-occupied units for which rent is tabulated by monthly contract rent:

with cash rent less than \$40	5
with cash rent \$40 - \$59	19
with cash rent \$60 - \$79	18
with cash rent \$80 - \$99	3
with cash rent \$100 - \$119	4
without payment of cash rent	6

### HOUSING SURVEYS

Two surveys were taken in the City of Maupin (see appendix). Survey "A" was a statistical and public opinion survey taken in May, 1976 with the help of the high school students, while Survey "B" was concerned with statistics, housing conditions and needs, in addition to general public opinion questions. This survey was taken in July, 1976. This information was used to help the planning committee and City Council determine growth or development policies in this plan. These surveys can also be used to support development of local housing programs and documentation for federal or state grant assistance.

### HOUSING NEEDS

By collating the results of Survey "B", and looking at the housing conditions and needs questions, we can determine the general housing needs of the City of Maupin.

- Question #1 indicates there is a need for multi-family units.
- Question #9 indicates many people feel their present home is too small.
- Question #11 indicates many people feel their homes are too old.
- Question #26 indicates housing is just not available.
- Question #32 indicates that there is a strong feeling that more housing is need in the city.
- Question #34 indicates Maupin is drawing people from a wide geographic range.
- Question #36 indicates additional city growth is desirable.
- Question #38 indicates citizens would support additional city expenditures for services and improvements. This would indicate that these people are not transitory in nature but concerned with the long term benefits to the community.

The 1970 Census count on the number of renter-occupied units for the city is very low.

It is reasonably clear by this data that the City of Maupin is not much different from the majority of communities across America, in that housing is indeed a real need and planning must accommodate for these needs in the years to come.



## LAND USE

### EXISTING LAND USE, City Limits

The relationships and patterns of the existing land uses are products of historic influence, the regional transportation system and the topography of the area. A detailed land use survey was completed in August of 1976 and updated in July of 1979. The results are presented on the Existing Land Use map and analyzed in the following text. There are nine basic categories of land uses identified within the Maupin city limits:

1. *Residential*
2. *Commercial*
3. *Industrial*
4. *Transportation*
5. *Recreational*
6. *Institutional/Governmental*
7. *Communication/Utilities*
8. *Agricultural*
9. *Open Space/Range/Vacant*

Development has occurred primarily on the flat basalt bench cut between 160 and 320 feet above the level of the Deschutes River. This development is illustrated on the Existing Land Use map and on the Cross Sectional View of Urban Development on the succeeding page.

The City of Maupin consists of approximately 795 acres within its incorporated boundaries. Of this total, 582.1 acres or 73.2 percent of the area is undeveloped, 50.7 acres or 6.4 percent is water area, 52.5 acres or 6.6 percent is agricultural, and 478.9 acres or 60.2 percent is open space, range or vacant land.

The developed portion of the city consists of 212.9 acres or 26.8 percent of the total land area. Of the developed portion, 32.9 acres or 15.5 percent is residential, 7.7 acres or 1.0 percent is commercial, 63.7 acres or 8.0 percent is industrial, and 70.6 acres or 8.9 percent is transportation. These figures, along with the totals from all land use categories, are listed on table 8.

#### *Residential*

Residential uses are all concentrated within the city limits and most are located where full utilities are available. Approximately 32.9 acres or 15.5 percent of the developed land is in residential use. Most of this

acreage is in single family use<sup>1</sup> and located on the flat basalt bench along the Deschutes River. Recent residential construction has not been concentrated in any specific area. Homes are being built as small parcels of land become available within the residential area.

### *Commercial*

Commercial uses are generally concentrated along U.S. Highway 197, the primary street through Maupin. Approximately 7.7 acres or 3.6 percent of the developed portion of the city is in commercial use. Much of the commercial development exists in a two block area between 4th and 6th streets along U.S. Highway 197. This area is the commercial core or Central Business District of Maupin. Homes have been built on most of the lots contiguous to the commercial core area making it difficult to expand the area without removing existing housing. Vacant lots and some vacant buildings are available in the core area.

Three other commercial areas exist as seen on the Existing Land Use map. The commercial development in East Maupin, which caters to the tourist and recreator, consists of a motel, cafe, hotel, petroleum products outlet and beauty salon. The commercial area just north of the bridge also caters to the tourist with a restaurant, motel and gas station. The last commercial area, consisting of a motel, is located along the highway just east of the lumber mill.

### *Industrial*

Industrial uses occupy approximately 63.7 acres or 29.9 percent of the developed portion of the city and in acreage is second only to transportation which totals just over 70 acres. The majority of the industrial use is made up of Mt. Fir Lumber Company property which is located on the flat above the city proper. Other industrial land is related to the railroad and to petroleum products distribution.

### *Transportation*

Included in this category are all roads, parking areas and railroads. These uses occupy 70.6 acres or 33.2 percent of the developed area and constitute the largest land use category. Traffic problem areas do exist and are associated with Highway 197; truck traffic, bicycle and pedestrians traffic, sharp curves and speeding all contribute to a sometimes unsafe condition.

### *Recreational*

Recreational facilities occupy 8.7 acres or 4.1 percent of the developed land. This total includes the city park (located on the river), school playgrounds and athletic fields. Separate from this total, but closely related, the Deschutes River occupies 50.7 acres or 6.4 percent of the total land area of the city. The river is widely used for recreation and attracts

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<sup>1</sup> See Housing Section

many visitors to the area each year. The park offers one of a very few good put-in, take-out points along the lower 100 miles of the river, resulting in seasonal over-use conditions.

### *Institutional/Governmental*

Totaling 7.3 acres or 3.4 percent of the developed area these uses consist of the schools and closely associated grounds (not including athletic field or playgrounds), City Hall, churches, Legion Hall, the state highway building, library and post office.

### *Communication/Utility*

At present 22.0 acres or 10.3 percent of the area consists of these uses. Included in this category are the sewage treatment plant, water reservoir, spring areas and electric transmission lines not associated with the city proper.

### *Agricultural*

Agricultural lands included in this category are only those lands currently used for the raising of crops and are not reflective of soil classes 1 through 6. (See soils map) The lands used for agricultural purposes are located in two general areas; along the river in East Maupin and high on Juniper Flat on the northwest fringe of the city. This use consists of 52.5 acres or 6.6 percent of the total land area.

### *Open Space/Range/Vacant*

Approximately 478.9 acres or 60.2 percent of the total land area is comprised of this last category. Open space areas are those which generally are not used because of ownership or hazardous conditions. These areas are found along the Spring Creek canyon and the Deschutes River canyon. Range areas are located on Juniper Flat and in East Maupin where horses and cattle can sometimes be seen. Vacant areas are those that have at one time been used but are now unoccupied, e.g. vacant commercial buildings. These uses account for only a small percentage of the total acreage and are located at random within the city. Vacant residential lots were included in the residential use classification.

TABLE 8  
EXISTING LAND USE, CITY OF MAUPIN, 1979

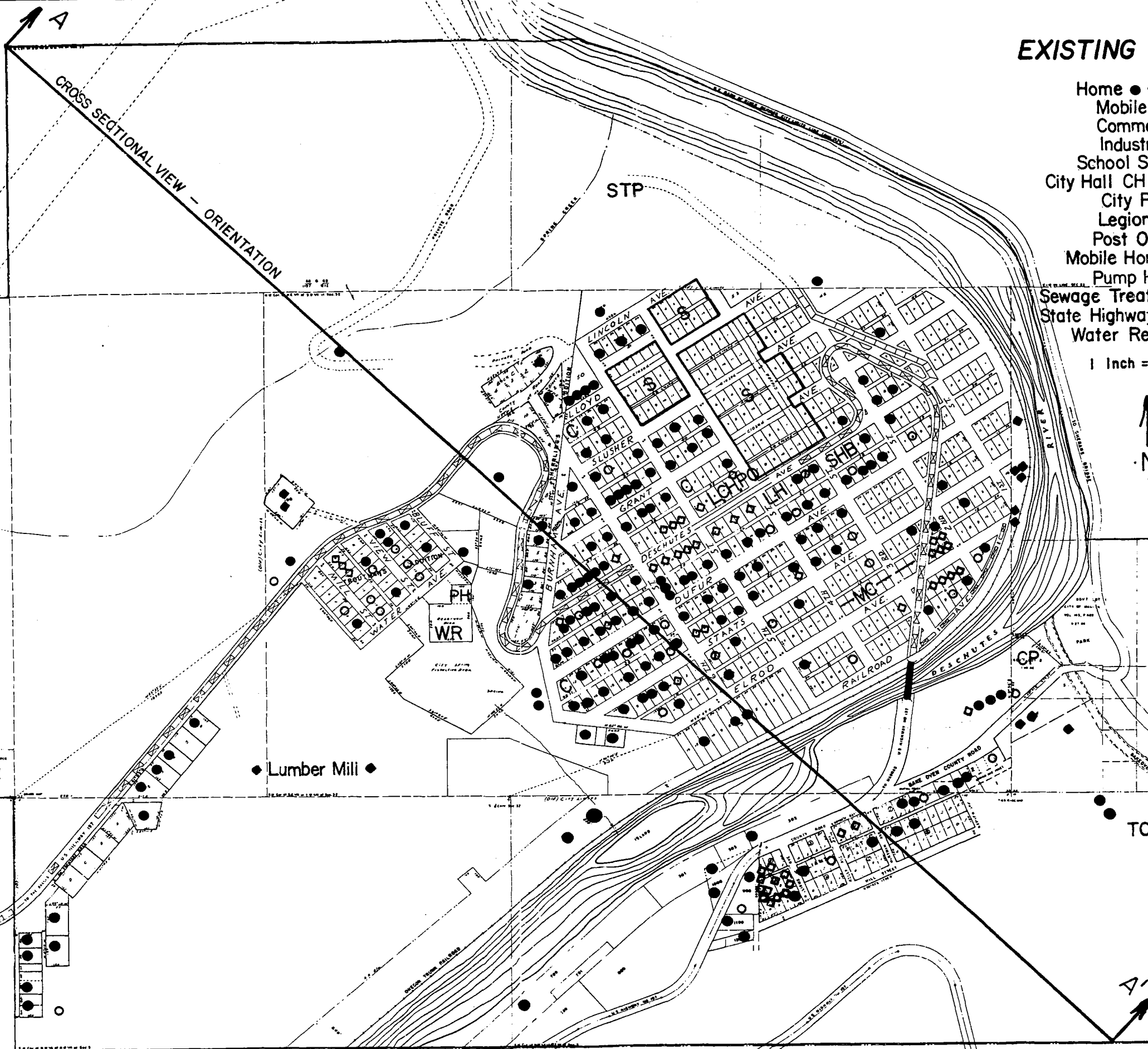
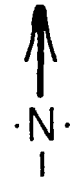
LAND USE CLASSIFICATION	AREA IN ACRES	PERCENTAGE OF TOTAL LAND AREA	PERCENTAGE OF DEVELOPED LAND
Developed			
Residential	32.9	4.1	15.5
Commercial	7.7	1.0	3.6
Industrial	63.7	8.0	29.9
Institutional/Governmental	7.3	0.9	3.4
Communication/Utility	22.0	2.8	10.3
Recreational	8.7	1.1	4.1
Transportation	70.6	8.9	33.2
Total Developed	212.9	26.8	100.0
Undeveloped			
Agricultural	52.5	6.6	
Open Space, Range, Vacant	478.9	60.2	
Water	50.7	6.4	
Total Undeveloped	582.1	73.2	
Total Land Area	795.0	100.0	

Source: Mid-Columbia Council of Governments

# EXISTING LAND USE

- Home ● Duplex ●
- Mobile Home ○
- Commercial ◇
- Industrial ◆
- School S Church C
- City Hall CH Library L
- City Park CP
- Legion Hall LH
- Post Office PO
- Mobile Home Court MC
- Pump House PH
- Sewage Treatment Plant STP
- State Highway Building SHB
- Water Reservoir WR

1 Inch = 528 Feet



CROSS SECTIONAL VIEW - ORIENTATION

STP

◆ Lumber Mill ◆

WR

TC

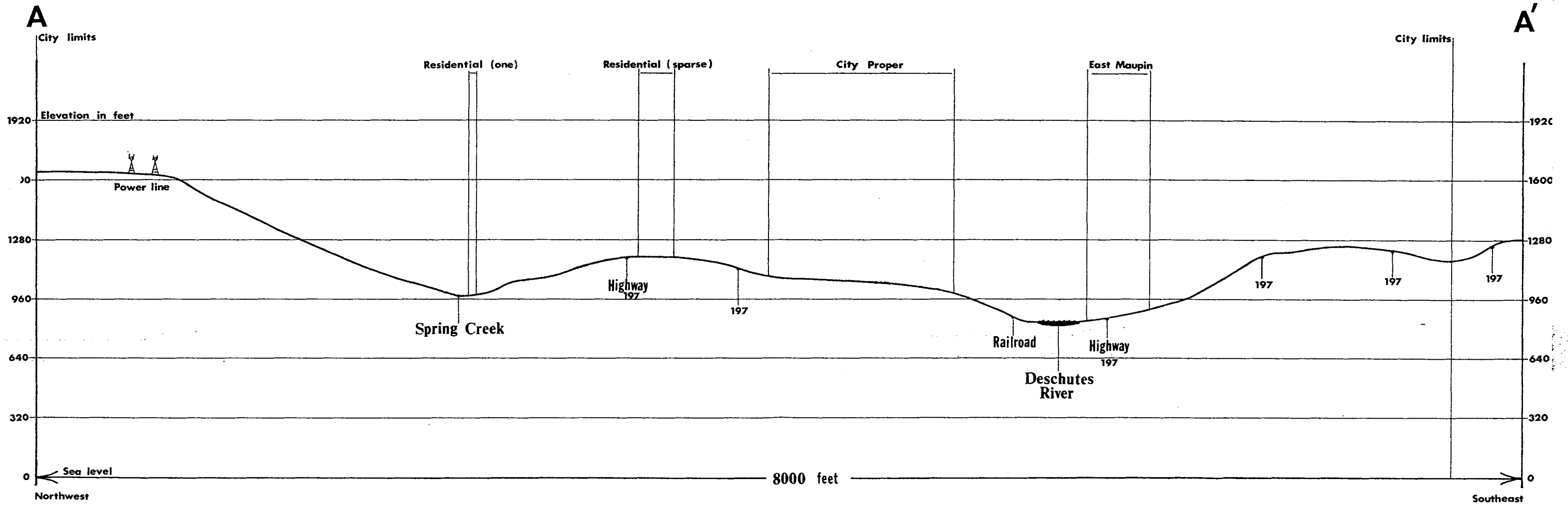
A'

# Maupin

## Cross Sectional View

### Showing Urban Development and Slope

(Orientation found on Existing Land Use Map)



## LAND USE NEEDS

The estimates of future land use needs established in this section are based upon several overall assumptions, in addition to the more specific assumptions made for each land use category. The overall assumptions reflect current demographic and economic conditions of both the City of Maupin and the State of Oregon.

### Assumptions:

1. The Mt. Fir Lumber Company will continue to operate in Maupin at the current level of production and the market for wood products will continue strong over the planning period.
2. The recreation sector of Maupin will continue to grow at current rates.
3. The demand for retirement home sites will continue to increase as the general population becomes older.
4. The state-wide population growth rate will continue as projected.
5. The current trend of population migration away from urban areas will continue, especially to the smaller communities that have water and sewer system capacities which can accommodate additional growth.
6. The cost of transportation will continue to increase causing more non-local employees to move to Maupin.

The straight-line population projection used for Maupin<sup>1</sup> was based upon the overall assumptions (which suggest continued growth) and the rate of growth over the past 40 years. This simple method was used, rather than the more complicated cohort survival projection method, because in smaller communities the reliability of projections, no matter how detailed, are always suspect. Application of planning standards in translating population forecast data into land area requirements will generally offset any population estimate inaccuracy, even in small communities. However, it is more important that the planning process, including continued review and readjustment, be applied.

### *Residential Needs*

At present there are 32.9 acres of residential land use which includes single family conventional housing, duplexes, mobile homes, mobile home courts and multi-family dwellings. In-filling of existing residential areas

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<sup>1</sup> See 'Population and Economic Conditions' section

will probably not occur to any large extent because of the unwillingness of owners to sell. Many vacant residential lots are used by the owners for gardens or other related uses. The overall density of the community will therefore remain the same (at 5,709 sq. ft. per household), or decrease due to larger minimum lot size requirements and the demand for retirement home sites, as the population increases.

The following analysis determines the need for additional residential land by the year 2000:

given;

- (A) 1979 estimate of population = 692
- (B) 1979 estimate of households = 251
- (C) 1979 existing residential land use = 32.9 acres
- (D) 2000 estimate of population = 1229
- (E) Number of persons per household = 2.9

\*Note: calculations may, at times, be rounded.

$$\frac{(D - A)}{E} \times \frac{C}{B} = \underline{\text{Acres of residential land use need}}$$

$$\frac{1229 - 692}{2.9} \times \frac{32.9}{251} = \underline{24.2 \text{ acres of residential land use need}}$$

As mentioned, the existing density will probably decrease with the demand for retirement home sites and the larger lot size requirements (See zoning ordinance). Therefore the current density of 5,709 sq. ft. per household should be decreased to 6,500 sq. ft.<sup>1</sup> per household, increasing the total acreage requirement as shown:

$$\begin{array}{r} 6,500 \text{ sq. ft.} \\ -5,709 \text{ sq. ft.} \\ \hline 791 \text{ sq. ft. increase per household} \end{array}$$

. . . with the number of additional households at 185,  $\frac{(D - A)}{E}$ , the adjusted acreage requirement is:

$$\begin{array}{r} 791 \text{ (sq. ft.)} \times 185 \text{ (households)} \div 43,560 \text{ (sq. ft./acre)} = 3.4 \text{ acres} \\ 3.4 \text{ acres} \\ +24.2 \text{ acres} \\ \hline \underline{27.6 \text{ acres of adjusted, residential land use need}} \end{array}$$

<sup>1</sup>The 6,500 sq. ft. density figure is an estimate based on the subjective information given, rather than purely objective data, and only applies to future household density.



Using the information from the 'Housing' section the required acreages for housing by type are derived from the 'adjusted residential land use need' figure of 27.6 acres as follows:

1979 estimates of housing by type;

- (1) 201 Single family dwellings (including double-wide mobile homes)<sup>1</sup>
- (2) 29 Mobile homes (single-wide only)
- (3) 21 Duplexes or apartment units (estimated number of structures, 9)
  - (1) 80 percent of existing total area = 22.1 acres needed
  - (2) 11.5 percent of existing total area = 3.2 acres needed
  - (3) 8.5 percent of existing total area = 2.3 acres needed

27.6 acres, total residential land needed

*Commercial Needs*

The demand for commercial land is expected to increase moderately due to the recreation sector growth and in-migration during the planning period. The following assumption is made in determining acreage requirements for commercial needs: the ratio of commercial land will remain nearly constant in relation to residential land use increases.

Using this assumption an additional 6.5 acres of commercial land will be needed during the planning period as shown:

7.7 acres of existing commercial land  
x .84 the rate of residential growth  
6.5 acres of additional commercial land needed

*Industrial Needs*

The industrial land requirements are not expected to increase significantly during the planning period. No future industrial expansion has been identified or expressed except for continued expansion of the Mt. Fir Lumber Company within its existing land area. Because Maupin is so dependent upon the lumber mill for basic sector employment, every effort to protect that industry through the planning process must be made. Additionally, to encourage employment diversification, additional land should be planned for industrial uses, even though no industrial development has been identified. Without the land it cannot happen.

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<sup>1</sup> See Maupin zoning ordinance for definition of single family dwelling.

### *Transportation Needs*

Transportation needs will increase in proportion to the increases in residential and commercial land uses. No more railroad or highway construction is expected to occur during the planning period. A bicycle and pedestrian way will have to be developed to provide a safe route between the urban growth area, outside the city limits, and the city proper where the schools and businesses are located.

The ratio of existing residential land to residential street right-of-way is 3 to 2. Using the established residential use need of 27.6 acres, the acreage required for residential streets will be 18.5 acres.

Because most commercial developments require parking areas, the ratio will be somewhat higher. Using a 1 to 1 ratio, transportation needs in commercial areas, over the planning period, will total 19.5 acres.

2.5	acres for bicycle and pedestrian way
18.5	acres for residential streets
<u>19.5</u>	acres for commercial transportation needs
<u>40.5</u>	acres needed for all transportation uses

### *Recreational Needs*

The standard of 10 acres per 1000 population is generally accepted as a reasonable basis for park needs.<sup>1</sup> It is unreasonable to assume that this standard will be attained exactly as suggested, however, it is a measure of need or a goal to be achieved.

As mentioned in the existing land use section, 8.7 acres can be classified as recreational lands. However, upon close examination of those uses it becomes clear that a large portion of that acreage is restricted to a specific group or designed for recreators coming from outside the community. For these reasons, most of the schools sport and athletic fields and a portion of city park have been deleted from the total acreage used to determine recreational needs for Maupin citizens.

#### Assumptions:

- (1) Maupin's city park can best be classified as a 'wayside park' using the Oregon State Parks definition of purpose: "To provide access to linear recreation areas or other recreation resources".
- (2) No 'community parks' exist; again using the O.S.P.'s definition "to provide a variety of moderate density use recreation and/or cultural opportunities; centrally located for citizens of the community and immediate outlying areas".

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<sup>1</sup> Oregon State Parks and Recreation Branch. SCORP

- (3) A small area of the school grounds can be described as a tot-lot or 'pocket-park' where playground equipment is available for small children. These parks have a small service area, usually only a few city blocks.

The acreages for park types should be distributed as follows:

Pocket Parks - 1 acre per 1000 population  
 Community Parks - 9 acres per 1000 population

The following recreation needs table was developed using these assumptions and the standard of 10 acres per one thousand population:

Population Estimates

<u>Year</u>	<u>Population</u>
1979	692
1985	823
1990	930
1995	1069
2000	1229

Table 9

Local Park Acreage Needs

<u>Park Type</u>	<u>Existing Acreage</u>	<u>Need</u>	<u>Needs</u>	<u>1990</u>	<u>1995</u>	<u>2000</u>
	<u>1979</u>	<u>1979</u>	<u>1985</u>			
Pocket Parks	0.25*	0.69	0.82	0.93	1.07	1.23
Community Parks	1.50**	6.23	7.41	8.37	9.63	11.07
<b>Total</b>	<b>1.75</b>	<b>6.92</b>	<b>8.23</b>	<b>9.30</b>	<b>10.70</b>	<b>12.30</b>

\*Includes a small area of school grounds and excludes sport and athletic fields

\*\*Includes only that portion of city park which is most often used by local residents.

Additional recreational needs exist for expanded facilities at city park to accommodate the heavy seasonal, non-local, use of the park. The State Marine Board, in their July, 1979 State-wide Boating Facilities Plan, has identified the need for additional boat ramps, parking areas and restrooms at the Maupin park. The 1978 SCORP also identified the need for "Access to fishing areas (parking, bank access, public piers, etc.)" as the number one priority for 'special resources' needs statewide. The future expansion of city park should not be used as fulfilling local park needs.

The total local park need for the planning period is:

0.98 Pocket park areas  
+10.55 Community park areas  
11.53 Acres of local recreational land use need

No multiplication factor will be used to increase the recreational acreage. The city will allow public parks as permitted uses in most zones to provide a choice of park locations as the land and money for acquisition and development become available.

## FUNDING

Funding of recreational developments comes from various local sources and from state and federal assistance programs.

Local sources:

- (1) Sale of bonds
- (2) Allocations from the local tax base
- (3) Allocations from revenue sharing
- (4) Donations from individuals and organizations
- (5) User fees

State and federal sources:

- (1) State Grant-in-Aid funds
- (2) Land and Water Conservation funds
- (3) Small Business Act 1953, PL 87-305
- (4) State Marine Board

### *Institutional/Governmental*

No significant increase in this category is expected. Most, if not all, increases which will occur can be absorbed from other categories.

### *Communication/Utilities*

With water and sewer system supplies and capacities above expected demand, little additional land will be required for these uses during the planning period.

The total land use need for this category is:

0.25 acres for site of water system booster pump

*Agriculture*

No increase is expected due to lack of agricultural soils.

*Open Space/Range/Vacant*

The open space, range and vacant land will be used for urban expansion where suitable and available.

*Total Land Need*

The total land use need for urban expansion during the planning period is:

In acres	37.60	residential
	6.50	commercial
	40.00	industrial
	40.50	transportation
	11.53	recreation
	<u>.25</u>	utility
	126.38	acres needed for urban expansion

BUILDABLE LAND SURVEY, City Limits

Land must be both suitable and available to be considered buildable<sup>1</sup>. There are no established rules for determining buildable lands, only numerous criteria which are used in various combinations by local jurisdictions. The criteria used in Maupin are as much a matter of choice as necessity. For example, the 'determination of suitability is dependent on the amount of personal and environmental risk that the community is willing to allow and the amount of money that the private developer is willing to spend to mitigate environmental hazard'.<sup>2</sup> In Maupin's case, a few isolated sites within an identified geologic hazard area have the potential for residential use. The community is willing to allow residential development to occur with the stipulation that site specific hazard studies be completed at the developer's cost prior to permit review.

*Suitable*

Topography has had a major influence on urban development as already mentioned; steep slopes being the single most limiting factor for urban development in the community. Not only are developments on slopes difficult to service but are also much more expensive to design and construct. The following estimates were prepared by the Salem Home Builders Association for a presentation to the Council of Governments in 1976.

<u>Percent of Slope</u>	<u>Percent Increase of Housing Cost</u>
0 - 5	0
6 - 8	10 - 12
8 - 12	12 - 50
12 - 15	50 - 75
18+	100+

The Prevailing Slope Map shows the extent of steep slopes in Maupin. The numbers used to indicate percent of slope are the average for that area. Small areas within each slope category may vary considerably from the average.

In Maupin, 332 acres or 41.7 percent of the land area has slopes greater than 20 percent, with some areas reaching 75 percent. Added to this acreage are the areas which cannot be serviced, i.e. the area on Juniper Flat which totals 52.5 acres or 6.6 percent of the total land area. The total area with excessive slopes and/or unserviceable land is 384.5 acres or 48.4 percent of the total land area.

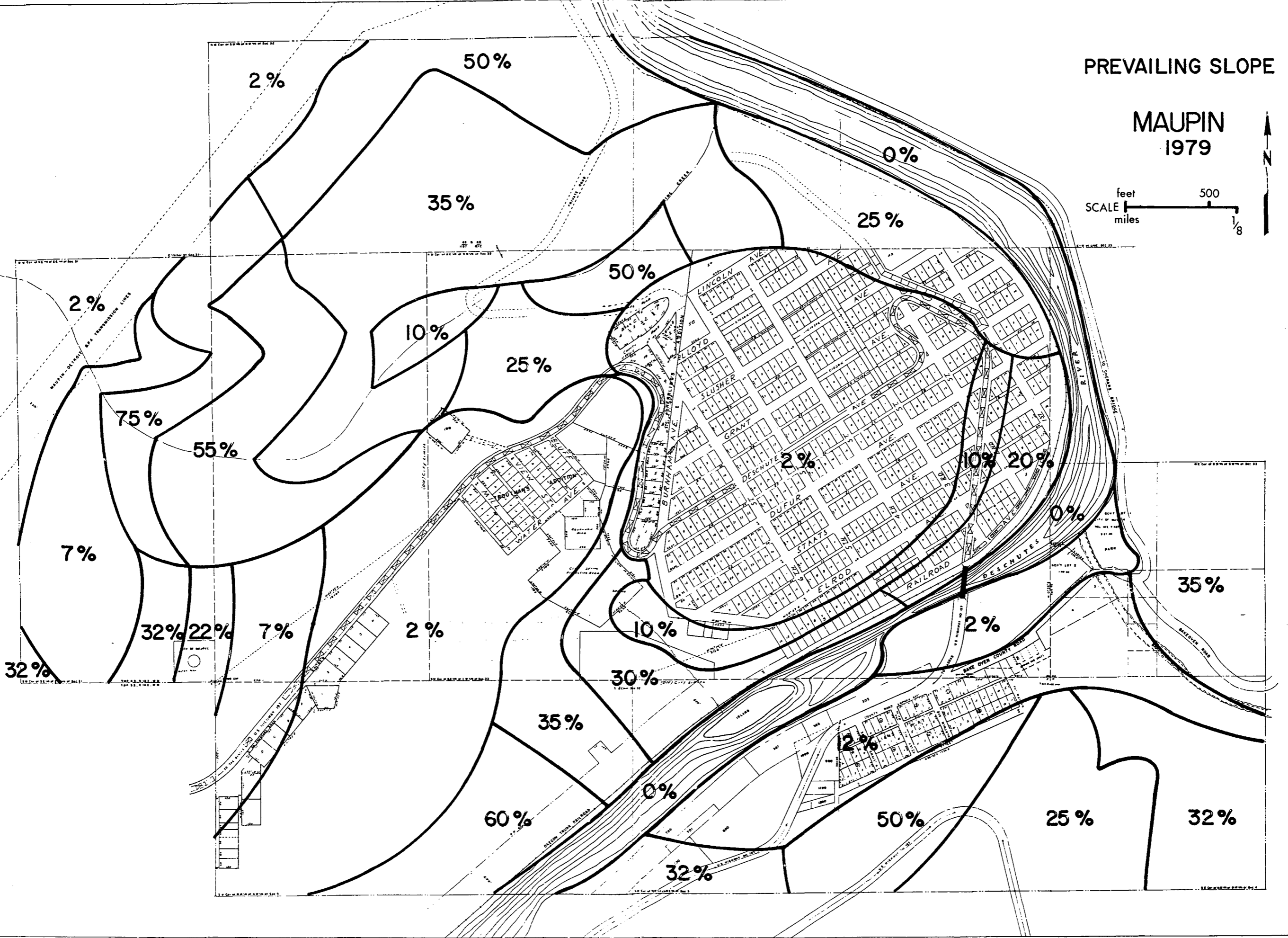
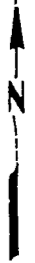
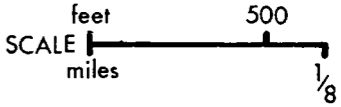
In acres:	795.0	Total land area
	<u>- 50.7</u>	Water area
	744.3	
	<u>-384.5</u>	Excessive slopes (+20%) or unserviceable land
	359.8	
	<u>-212.9</u>	Developed Land
	146.9	Suitable land area

<sup>1</sup> LCDC, Goal 10

<sup>2</sup> Chapter 3 of the DLCD *Housing Handbook*

PREVAILING SLOPE

MAUPIN  
1979



Potential geologic hazard areas exist but are mostly coterminous with the excessive slopes and water areas.<sup>1</sup> Effectively, this does not reduce the suitable land area but will affect the procedure for obtaining building permits.<sup>2</sup>

Areas unsuitable for development will be planned and zoned agricultural or open space. These uses are consistent with the preservation of open space and scenic areas goal.

### *Available*

Lot yield, a criterion for availability, is the number of lots that can be placed on an acre of land. The steeper the slope, the fewer the number of lots. The lot yield for the remaining 146.9 acres of suitable land is mixed. Areas with slopes between 6 and 20 percent, 90 percent of the remaining suitable land or 130 acres, will have lots which are significantly larger than the minimum lot size for that zone. This reduces the buildable land by the same amount of lot area which is in excess of the zone minimum. The total reduction in buildable land area over the planning period is dependent on a number of site specific characteristics including access, slope, availability of city services, drainage and erosion. The estimate of lot yield on the remaining 132 acres is 1/3 the yield of land with a 0 to 5 percent slope.

90 percent of 146.9	=	132 acres
67 percent of 132	=	88.5 acres not available because of lot yield
146.9 - 88.5	=	<u>58.4 acres</u>

Ownership, like slope, is a major criterion in determining available land from the suitable land supply. Of the 146.9 acres of suitable land, much is in relatively large parcel ownerships. A significant percentage of this land cannot be considered buildable because the owners are reluctant to sell: Capital gains taxes, indecision, speculation, family ties and the need for personal open space all serve to reduce the available buildable land supply. Availability implies a willing seller and a willing buyer, this condition can vary on a daily basis due to changing human circumstances. For this reason, the total acreage reduction cannot be correctly measured at any time. However, it is safe to assume that the reduction in available land is substantial. The strongest evidence to support this assumption is the very small number of subdivisions or land partitions which have occurred in the past several years. The last subdivision to occur was in 1969 or eleven years ago. Other larger lots have been bought and sold but few have been further partitioned during the last 10 years.

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<sup>1</sup> See Geologic Hazards Map

<sup>2</sup> The City has adopted flood plain regulations as well as the requirement for site specific hazards studies prior to permit review.



Suitable land for urban development can always be objectively determined and justifiably measured; conversely, availability is often a subjective term and its measurement can only be made on assumptions which are open to criticism. The citizens of Maupin through the local planning process have determined that five acres, or less, can be considered available within the city limits.

The total land needed for urban development, outside of the city limits, is 126.38 acres:

126.38	acres needed for urban development
- 5.00	acres buildable within the city limits
<u>121.38</u>	<u>acres needed outside the city limits</u>

#### EXISTING LAND USE, Urban Growth Study Area

The urban growth study area was determined by a simple review of the topographic constraints on urban expansion. There is only one area in which urban development can occur, as shown on the Urban Growth Study Area (UGSA) map. The UGSA map delineates an area of approximately 920 acres north of the Deschutes River and west of the city limits. The area of special concern lies between the Deschutes River canyon on the south, the township line between T.4S. and T.5S. on the north, the city limits on the east and the Township line between R.13E. and R.14E. on the west. This area of special concern consists of approximately 352 acres.

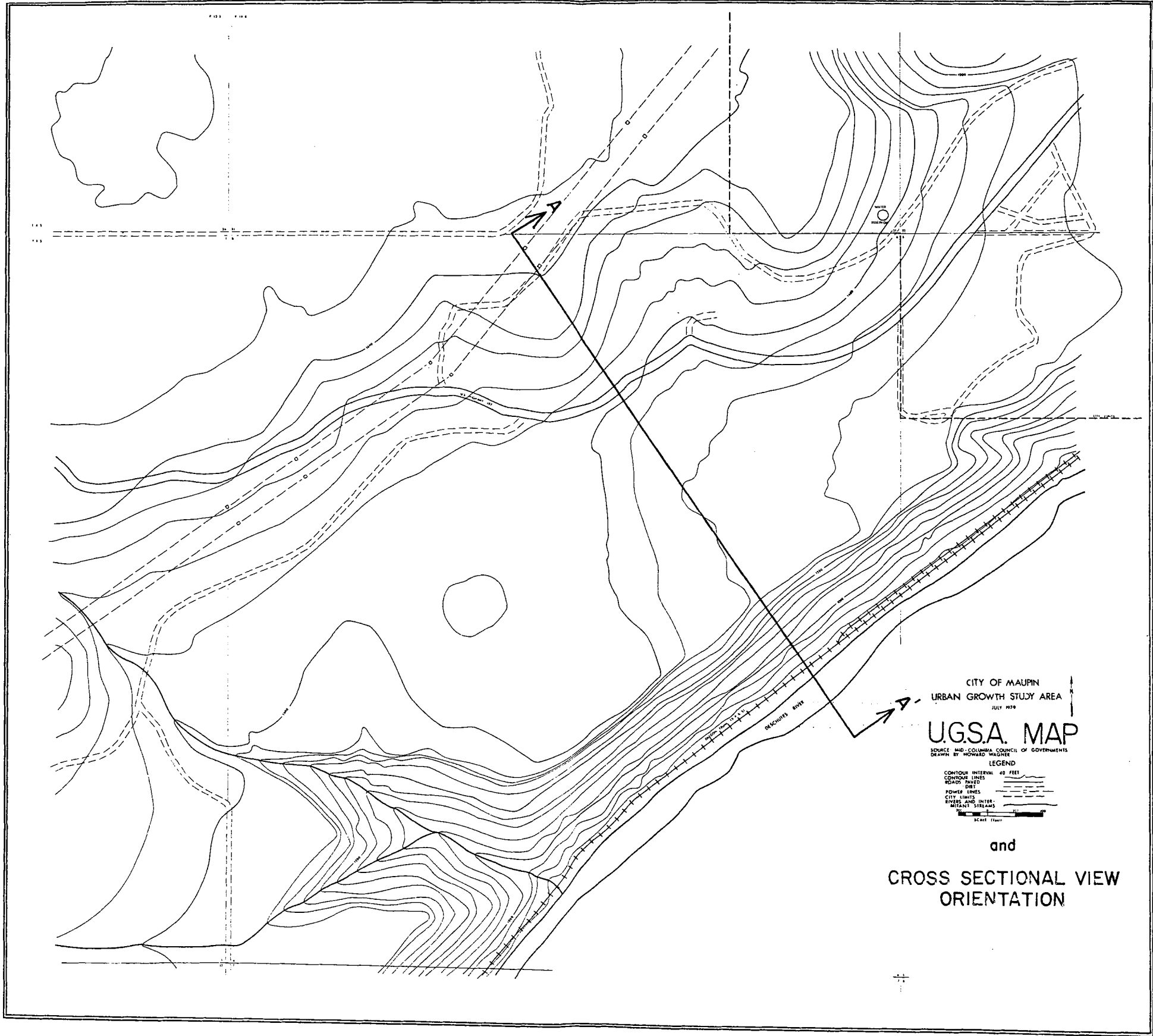
Land use within this area consists largely of open space and range land with only a small portion (30 acres) recently under till. Vegetation consists of bunch grass, juniper, sage brush and various other weeds. Other uses include an Oregon Department of Transportation highway maintenance section station, gravel quarry and storage yard. About 30 acres are owned by the ODOT and expansion of the existing facility is expected. A good supply of quarry rock exists at the site and should supply the needs of the station for many years. A long-standing commitment by Maupin will allow the use of city water and sewer at the station.

Transportation uses in the area include Highway 197 and county gravel roads. Acreage totals for these uses are as follows:

Highway 197	-	9.1 acres
County roads	-	4.5 acres

The Bonneville Power Administration's Maupin to Detroit electric transmission line, totaling 18.4 acres, is the only utility easement in the special concern area. The transmission line is currently being reconstructed to handle more power.

Two single family dwellings have been constructed in the area and one is being serviced by city water.



CITY OF MAUPIN  
URBAN GROWTH STUDY AREA  
JULY 1978

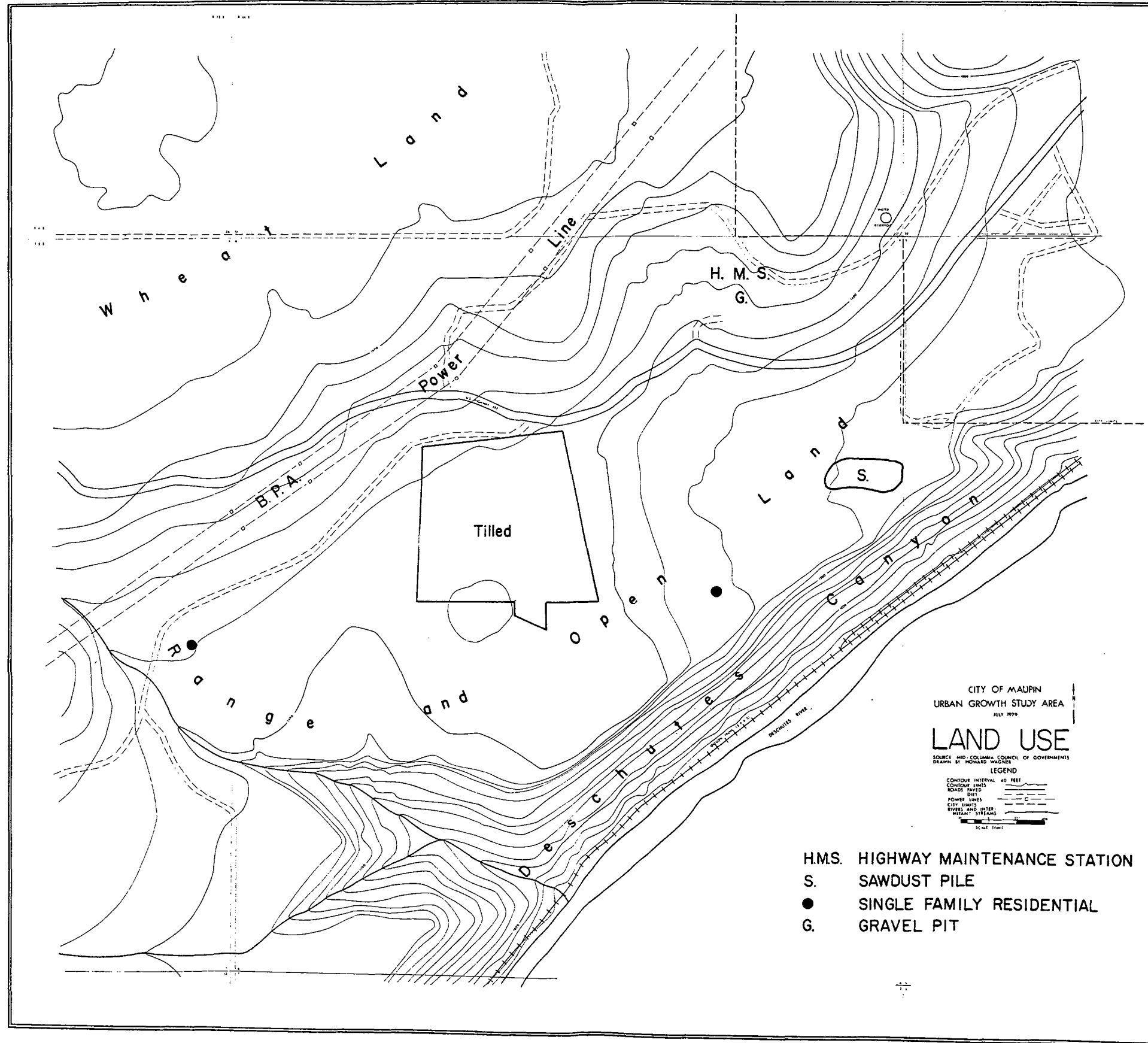
### U.G.S.A. MAP

SOURCE: MID-COLUMBIA COUNCIL OF GOVERNMENTS  
DRAWN BY: HOWARD WAGNER

- LEGEND
- CONTOUR INTERVAL 40 FEET
  - CONTOUR LINES
  - ROADS PAVED
  - ROADS UNPAVED
  - POWER LINES
  - CITY LIMITS
  - RIVERS AND INTER-URBAN STREAMS



and  
CROSS SECTIONAL VIEW  
ORIENTATION



CITY OF MAUPIN  
 URBAN GROWTH STUDY AREA  
 JULY 1979  
**LAND USE**  
 SOURCE AND COLUMBIA COUNCIL OF GOVERNMENTS  
 GROUP BY RONALD WAGNER  
 LEGEND  
 CONTOUR INTERVAL 40 FEET  
 CONTOUR LINES  
 ROADS PAVED  
 DMS  
 POWER LINES  
 CITY LIMITS  
 RIVERS AND INTER-  
 IRRIIGATION SYSTEMS  
 SCALE 1:1000

- H.M.S. HIGHWAY MAINTENANCE STATION
- S. SAWDUST PILE
- SINGLE FAMILY RESIDENTIAL
- G. GRAVEL PIT

BUILDABLE LAND SURVEY, Urban Growth Study Area

*Suitable*

The prevailing slope map shows the extent and degree of slope in the UGSA. In the area of special concern, 204.8 acres or 58.2 percent of the land area (352 acres) have slopes of less than 3 percent. Of the remaining area, 32.4 acres or 9.2 percent have slopes of 10 percent, 83.6 acres or 23.7 percent have slopes of 15 percent and 31.2 acres or 8.9 percent have slopes of 25 percent.

The unsuitable land consists of Juniper Flat in the northwest corner of the area of special concern (2 and 10 percent slopes) and that area of 25 percent slope just to the south of Juniper Flat and north of Highway 197. These areas are unsuitable because of access and service problems and contain 63.2 acres.

No geologic hazard areas exist.

The BPA electric power line right-of-way contains another 4.6 acres in the remaining area of special concern making that land unsuitable for further development. The remainder of the area of special concern can be considered suitable for urban development.

352.0 acres in area of special concern  
- 67.8 acres unsuitable (access and service, right-of-way)  
284.2 acres suitable for urban development

*Available*

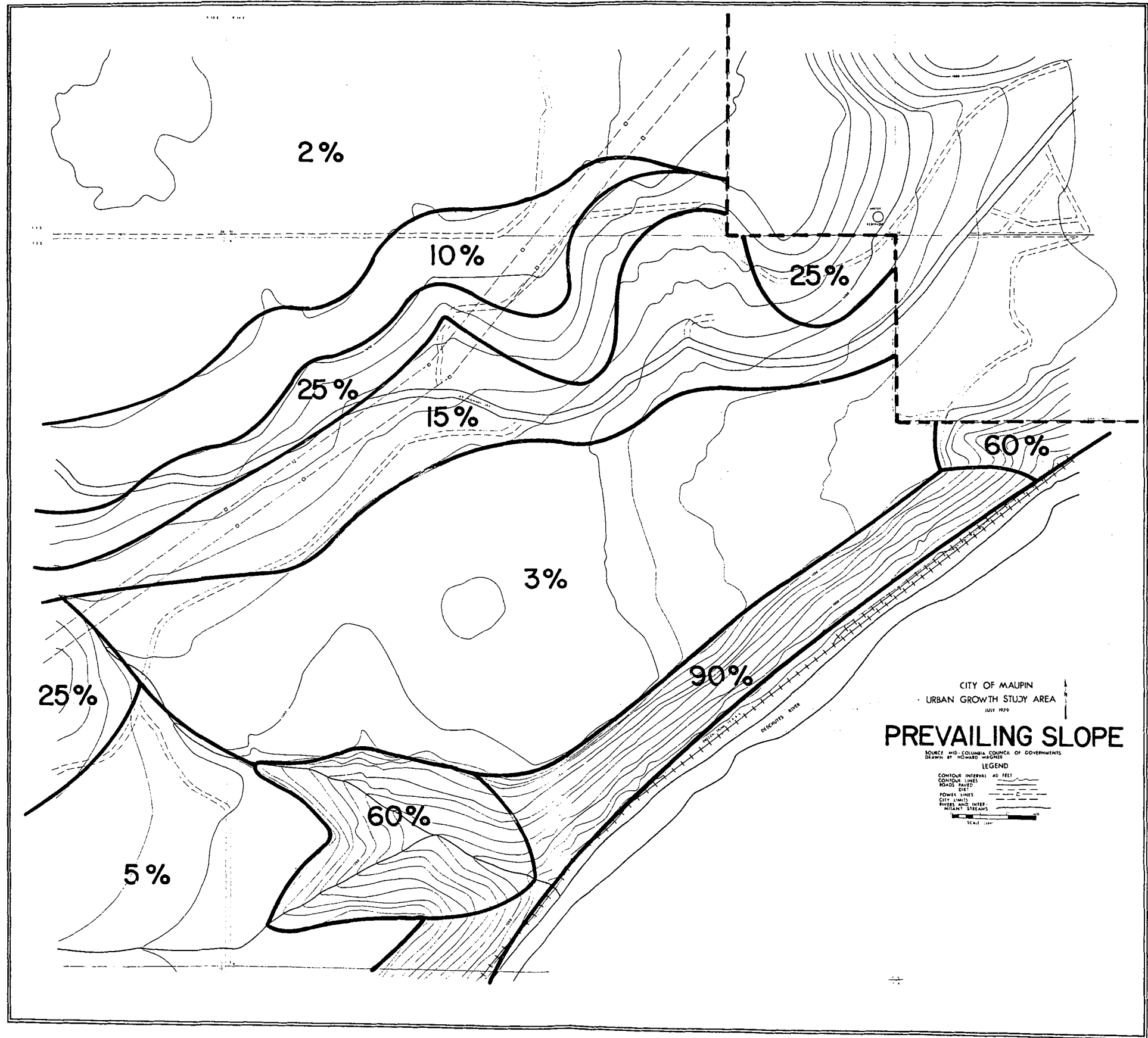
The lot yield (as discussed before) for the remaining 284.2 acres of suitable land is fair to good. The buildable land within the area of special concern will not be substantially reduced by this availability criterion because lot yield should approximate the minimum lot size requirements. A maximum of 10 acres will not be available.

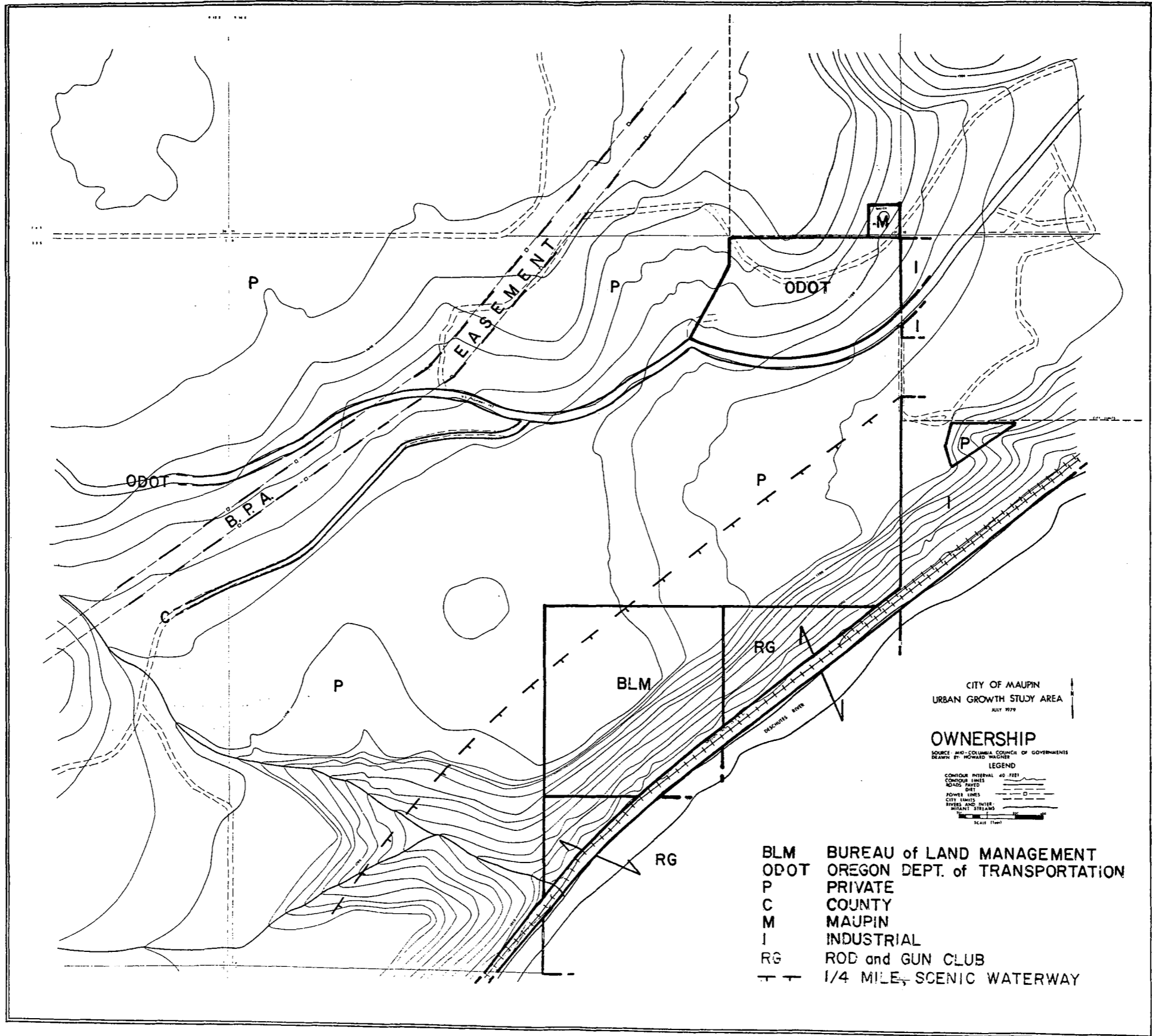
284.2 acres of suitable land  
- 10.0 acres not suitable  
274.2 remaining acres

Ownership characteristics in the area of special concern consists mostly of public and private, large parcel holdings. The ownership map shows that 63.6 acres are currently owned by various levels and agencies of government.

39.1 acres, Oregon Department of Transportation  
20.0 acres, Bureau of Land Management  
4.5 acres, Wasco County  
63.6 acres in public ownership

The land owned by the ODOT and Wasco County cannot be considered available for urban development. However, Congress has passed legislation which would enable the BLM to sell land which is located within





CITY OF MAUPIN  
 URBAN GROWTH STUDY AREA  
 JULY 1979

**OWNERSHIP**  
 SOURCE AND COLUMBIA COUNCIL OF GOVERNMENTS  
 DRAWN BY HOWARD HUGHES

**LEGEND**

CONTOUR INTERVAL 40 FEET  
 CONTOUR LINES  
 ROAD PAVED  
 DIRT  
 POWER LINES  
 CITY LIMITS  
 RIVERS AND INTER-  
 RIVER ISLANDS

SCALE 1:1000

BLM BUREAU of LAND MANAGEMENT  
 ODOT OREGON DEPT. of TRANSPORTATION  
 P PRIVATE  
 C COUNTY  
 M MAUPIN  
 I INDUSTRIAL  
 RG ROD and GUN CLUB  
 - - - 1/4 MILE SCENIC WATERWAY

urban or urbanizing areas for urban development. The rules and regulations which would govern such sales have yet to be completed by the BLM. Therefore, the 20 acres owned by the BLM (although not yet available) will be considered available for urban development within the planning period.

Private ownership accounts for the remainder of the area and includes only three landowners. Two land owners border the existing city limits in the area of special concern and the third is more than a quarter mile away. The available land supply would be substantially affected by the creation of an artificial monopoly if only two of the three land owners were included in the urban growth area. To help assure choice in the market place and to increase availability within the urban growth area, an area larger than the demonstrated need must be planned so that all three ownerships are included. The assumption made is that between one-half to two-thirds of the privately owned land will not be available at any given time during the planning period.

274.2	acres suitable for development
- 39.1	acres owned by ODOT
- 4.6	acres owned by Wasco County
<u>-140.0</u>	<u>- 105.0</u> acres not available due to private ownership
<u>90.5</u>	<u>to 125.5</u> acres of buildable land in the urban growth area

#### *Deschutes River Scenic Waterway*

The ownership map and the cross section through the urban growth study area illustrate the extent of the scenic waterway within the area of special concern. Approximately 60.0 acera of buildable land above the canyon rim fall within the quarter-mile boundary of the Scenic Waterway Act (ORS 390.805 to 390.925). Virtually all the land surfaces which is above the canyon rim is not visible from the river. The cross sectional view and UGSA map illustrate this fact. Therefore, most of the 60 acera can be considered available for urban expansion with few (if any) additional construction requirements or permit regulations.

#### *Soils*

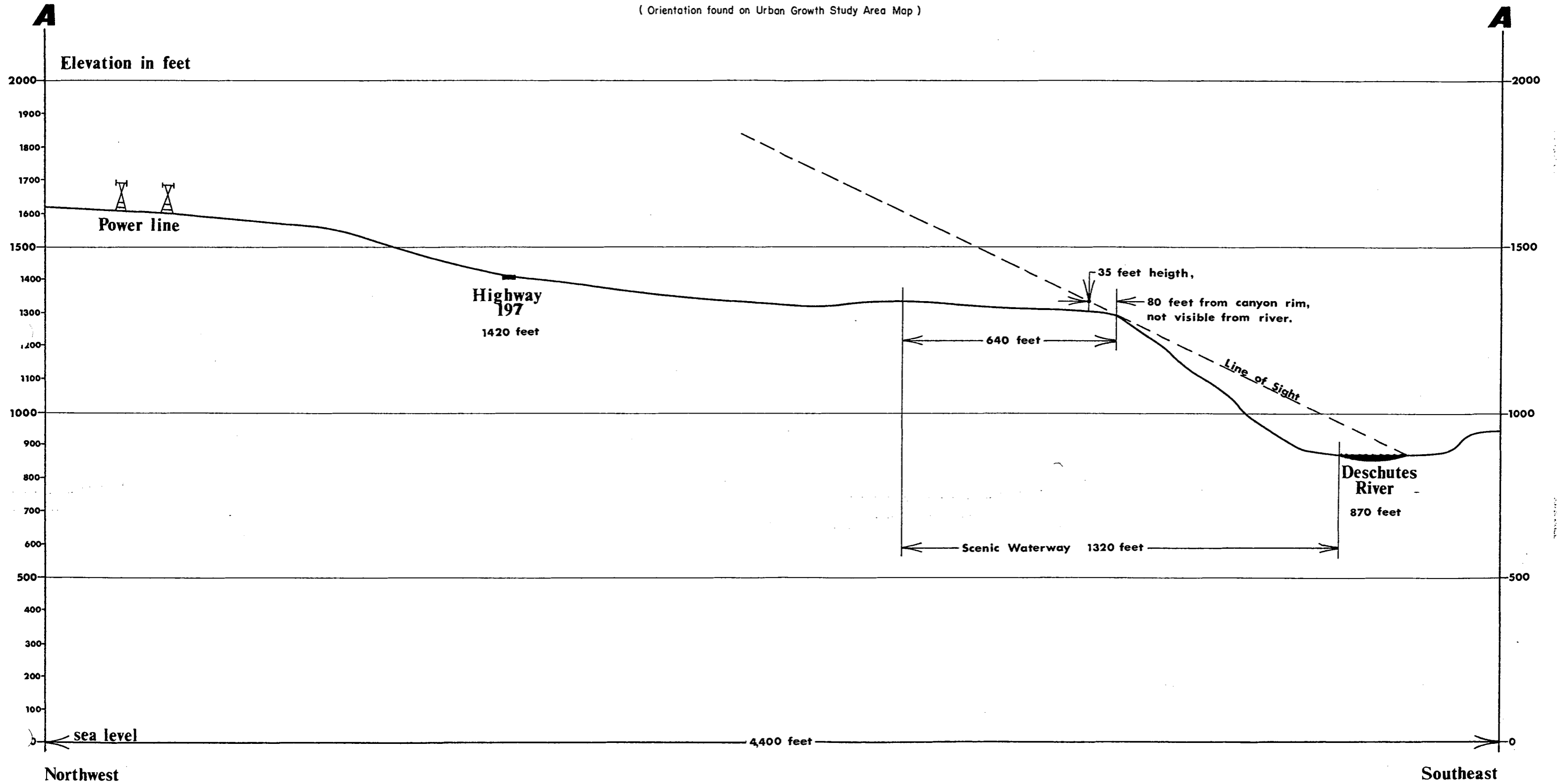
Productive agricultural soil, as illustrated on the soils map, includes only the "Maupin Loam" class IIc. This soil under 'high level management' techniques will only produce 30 bushels of wheat per acre in ideal climate conditions. It is marginal crop land at best. The Soil Conservation Service also lists the 'Sherar Cobbly Loam' as class VIe but lists no production capability. (See appendix for soil interpretations.)

A small portion of the "Maupin Loam" soil was recently tilled; however, historically the area has not been farmed. Urban development in this area will not interfere with existing farms higher on Juniper Flat.

# Maupin

## Cross Section Through Urban Growth Study Area

( Orientation found on Urban Growth Study Area Map )





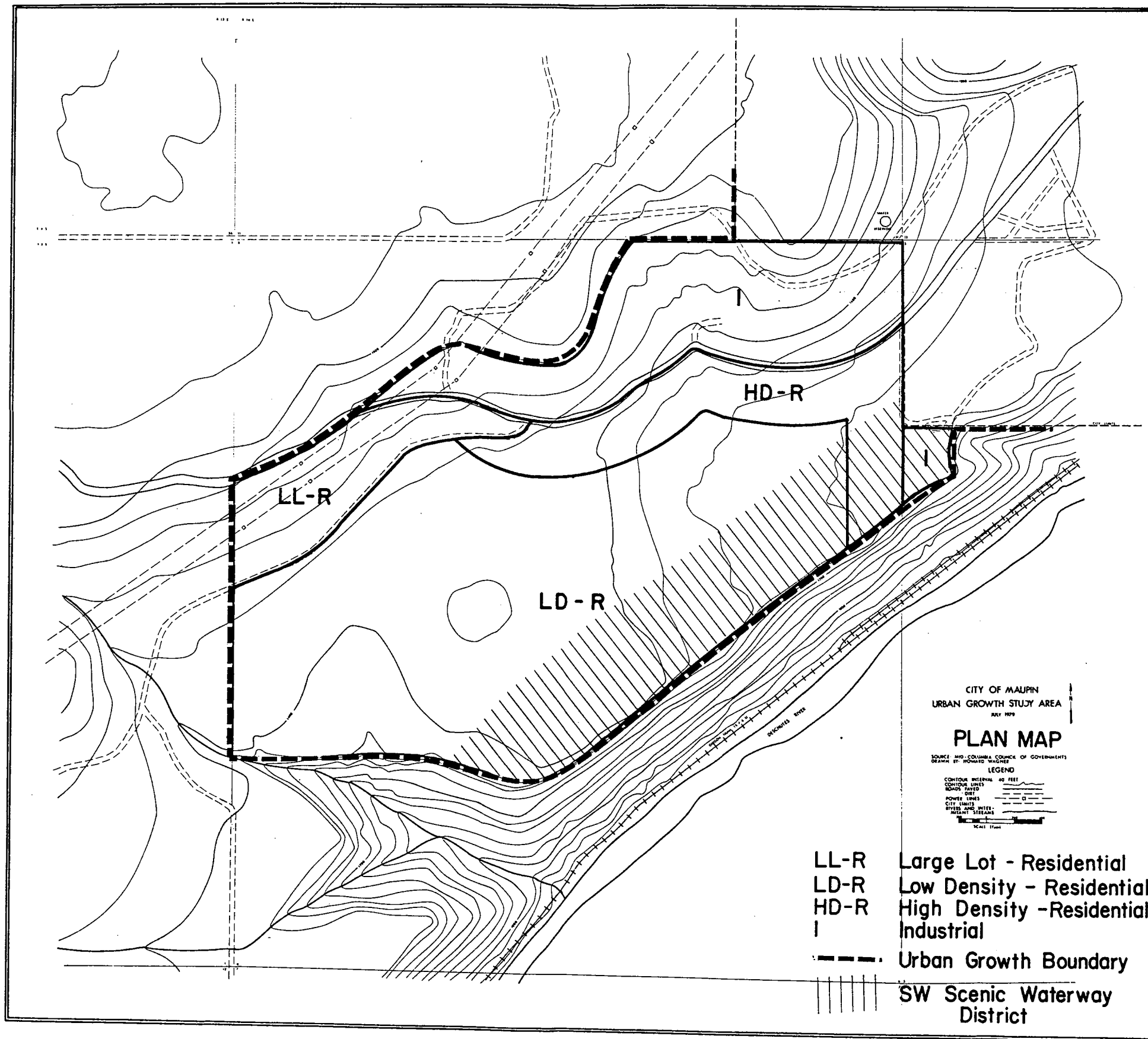
Buildable land within the area of special concern approximates the need identified for urban growth outside the city limits:

126.38 acres needed for urban development outside the city limits  
90.5 - 125.5 acres of buildable land supply in the urban growth study area.

Natural and man-made features were used to facilitate the description of the Urban Growth Boundary, and to allow an additional margin for the uncertain availability of land due to private ownership.

The establishment of the boundaries was based upon consideration of the following factors:

1. Demonstrated need to accommodate long-range urban population growth requirements consistent with LCDC goals. (See Land Use part IX, Section on Land Use Needs, pages 45 through 51 .)
2. Need for housing, employment opportunities, and livability. (See Land Use part IX, section on Land Use Needs - Residential needs, pages 45 through 47 ; See Population and Economic Conditions part V, pages 19 through 23 ; and Land Use part IX. Section on Land Use Needs - Industrial Needs, page 47.
3. Orderly and economic provision for public facilities and services. (See Community Facilities and Services part VI and Utilities part VII, pages 25 through 35 ; Land Use part IX, Section on Buildable Land Survey, City Limits, pages 52 through 55 ; Findings, Goals and Policies, pages 67 through 77 ; Implementation, sections on Urban Growth Management Agreement and Capital Improvements Program.)
4. Maximum efficiency of land uses within and on the fringe of the existing urban areas. (See Land Use part IX, Sections on the Plan Maps for the city limits and urban growth area; Findings, Goals and Policies - Sections on Community Facilities and Services, Utilities, Land Use; Implementation, Section on Urban Growth Management Agreement.)
5. Environmental, energy, economic and social consequences. (See Land Use part IX; Findings, Goals and Policies parts IV through IX.)
6. Retention of agricultural land as defined, with class I being the highest priority for retention and class VI the lowest priority; and, (See Land Use part IX; Findings, Goals and Policies, Section on physical characteristics.)
7. Compatibility of the proposed urban uses with nearby agricultural activities. (See Land Use part IX, pages 41 and 61)



# MAUPIN

1980

# PLAN MAP



Scale |-----| 500 feet  
|-----| 1/8 mile

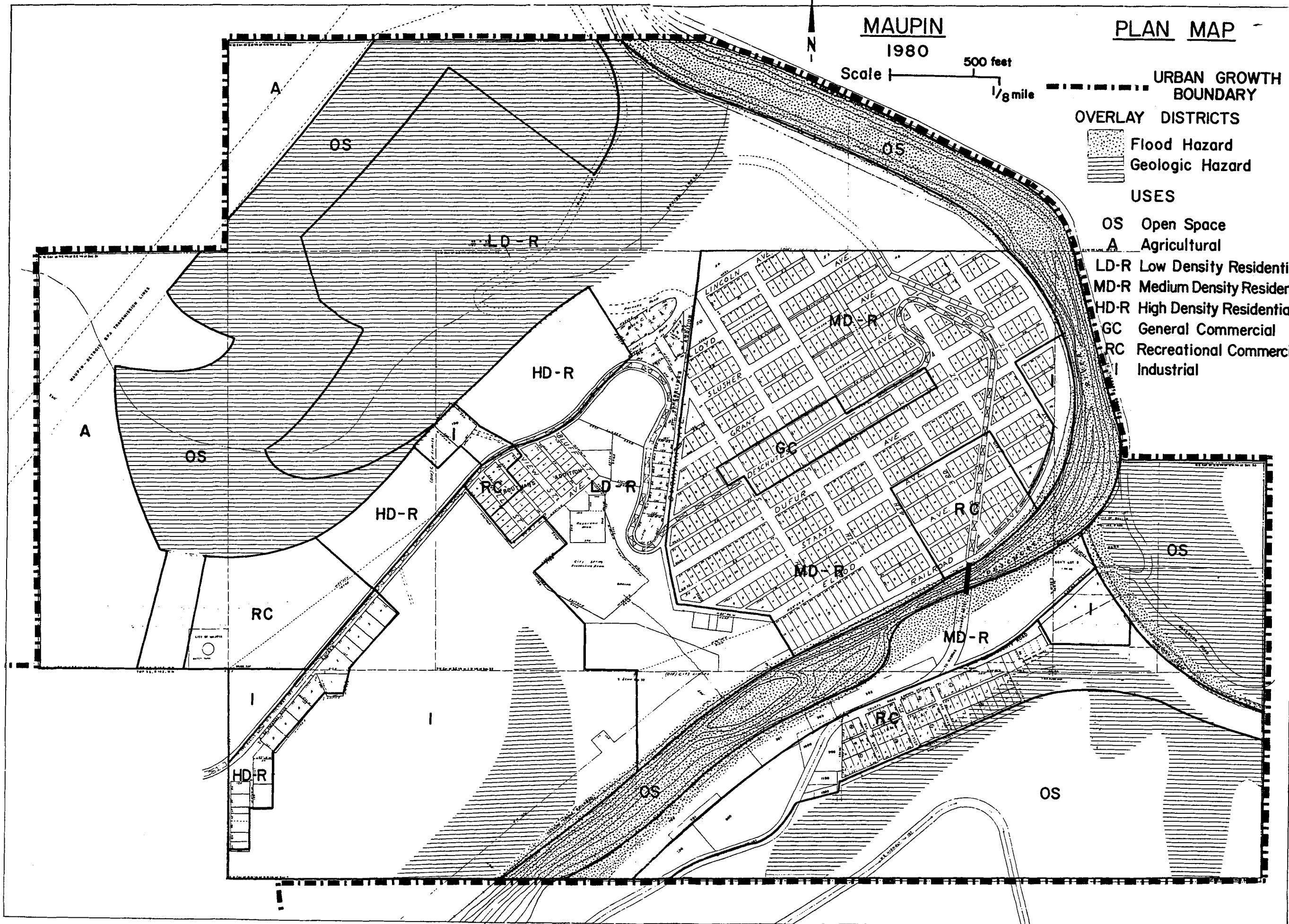
----- URBAN GROWTH BOUNDARY

### OVERLAY DISTRICTS

-  Flood Hazard
-  Geologic Hazard

### USES

- OS Open Space
- A Agricultural
- LD-R Low Density Residential
- MD-R Medium Density Resident.
- HD-R High Density Residential
- GC General Commercial
- RC Recreational Commercial
- I Industrial



## FINDINGS, GOALS AND POLICIES

### OVERALL GOAL

The overall goal of the Maupin Comprehensive Land Use Plan is (1) to recognize and protect existing development and those related investments which have been made in the community, (2) to maintain or enhance economic stability without diminishing livability of the area, (3) to conserve those air, land, and water resources which make the area a desirable place in which to live, and work, (4) to provide for community housing, employment, and recreation needs within the financial and natural limitations of the area.

The organization of the findings, goals and policies in this section conforms to the table of contents.

### FINDINGS, GOALS AND POLICIES

#### Part I. INTRODUCTION

##### Findings I.

1. This section was developed in light of the state wide goals on Land Use Planning (Goal 2) and historic area. (Goal 5).
2. The State of Oregon has mandated that every city and county prepare a comprehensive land use plan.
3. No national historic sites or buildings exist in Maupin.
4. Four structures are, at present, listed on the statewide inventory of historic sites and buildings, these are all privately owned.
5. The community church building was identified in the community survey as a possibel historic building.

- Goal 1. A. To prepare, adopt and revise this plan in conformance with ORS Chapter 197 and the statewide planning goals.

Goal I. B. To protect the significant cultural and historic resources of the community.

- Policies I B.
1. The City's inventory of historic resources shall be periodically updated to include any additional sites or buildings.
  2. The City's inventoried historic sites or buildings shall be protected from incompatible surrounding development and whenever possible enhanced as important community resources.
  3. The City shall, whenever appropriate, encourage the preservation, restoration, reconstruction or rehabilitation of the cultural resources currently owned by private person. A 60 day review period shall be required for a demolition permit on any historic building identified in the plan to allow for a determination of the historic value by the Planning Commission and what steps, if any, should be taken to save the structure.
  4. The City shall investigate funding sources applicable for historic preservation, restoration, reconstruction or rehabilitation in the event that a historic site or building becomes publicly owned.

## Part II. PLAN REVISION

### Findings II.

1. The land use map and policies developed in this plan will be based on projecting existing conditions to the year 2000.
2. It is understood that existing conditions may change before the planning period has ended, making a plan change necessary.

Goal II. A. To update the plan and keep it current with the changing needs and desires of the community.

- Policies II A.
1. That the goals, policies and map shall be reviewed on an annual basis beginning in January or February.
  2. That the capital improvements program shall be updated each year during the annual plan review.
  3. That the resource information shall be updated every 5 years or when new and important information becomes available.
  4. That planning-related decisions shall be made on a factual base, and that such base will be updated at the time of major plan revisions.

- Policies II A.
5. That the plans of other local, state, and federal agencies shall be taken into account in preparing land use plans, and making related decisions.
  6. That the proposed activities of local, state and federal agencies which affect land use actions within the Maupin urban growth boundary shall be coordinated with the city council for their review.

Part III. CITIZEN PARTICIPATION

- Findings III.
1. This section was developed by the citizens of Maupin in conformance with the statewide goal on citizen involvement (Goal 1).
  2. Citizen participation is vital in the planning process and implementation of the plan.
  3. The plan reflects the needs and desires of the community.
  4. Participation in public affairs at its current level is adequate and a formal organization for citizen participation would not significantly increase the opportunity for participation in community affairs or service to the public.

Goal III. A. To provide the opportunity for all citizens to participate in the planning process.

- Policies III A.
1. That citizens shall have the opportunity to participate in all phases of the planning process and that participation of area citizens be encouraged.
  2. That all land use planning meetings shall be open to the public.
  3. That all land use planning meetings shall be advertised in newspapers of general circulation, and on community bulletin boards.
  4. That any resident of the community shall be allowed to participate in meetings of the Planning Commission.
  5. That the Citizen Involvement Program adopted by the City shall continue.

## Part IV. PHYSICAL CHARACTERISTICS

### Findings IV.

1. This section was developed in light of the statewide goals relating to agricultural lands (Goal 3); open space, scenic and natural resources (Goal 5); air, water and land resource quality (Goal 6); and areas subject to natural disasters (Goal 7).
2. Maupin enjoys a high quality physical environment.
3. Air quality is excellent.
4. Water quality of the Deschutes River is excellent.
5. The source of the city's potable water supply is protected by an easement which is owned by the city.
6. The potable water is of sufficient quality and quantity that no other source or treatment facility will be needed before the end of the planning period.
7. Within the city limits agricultural lands exist.
8. The preservation of agricultural lands is consistent with open space and scenic areas preservation.
9. No forest lands exist.
10. Excessive slope areas exist making them unserviceable.
11. The preservation of excessive slope areas is consistent with open space and scenic area preservation and with limiting urban development in geologic hazard areas.
12. The city has a flood plain ordinance.
13. The preservation of water areas and immediate flood plains is consistent with open spaces, scenic and natural resources preservation.
14. The Federal government and the Oregon legislature have enacted laws relating to air, land and water quality.
15. Agencies of the state and federal governments have rules and regulations relating to environmental standards.
16. All areas within the existing city limits of Maupin are exempt from the State's Scenic Waterway Act.
17. Portions of the Urban Growth Area, outside the existing city limits, are within the quarter mile boundary of the Deschutes Scenic Waterway and are subject to the requirements of the Oregon Transportation Commission's rules and regulations for scenic waterway management.

Findings IV.

18. The scenic value of the Deschutes River is only affected by developments which can be seen from the river. The line of sight ratio of object visibility from the river, as derived from the Cross Section through the Urban Growth Study Area, is just under 2 to 1. An object 1 foot high which is 2 feet back from the canyon rim would not be visible from the river.

Goal IV. A. To preserve agricultural land.

- Policies IV A. 1. That agricultural lands within the city limits identified on the land use map and not already committed to urban development shall be preserved and maintained for agricultural uses.

Goal IV. B. To preserve open space, scenic and natural resources.

- Policies IV B. 1. That uses with unsuitable characteristics such as; height, color, odor, noise, increased traffic, lighting, etc. shall be prohibited from locating in areas where such conditions are incompatible with surrounding area development.
2. That street right-of-way, and all other public lands shall be considered for; park, open space or other public uses prior to their vacation.
3. That public facilities and various agency services shall be designed and maintained so as to be as visually attractive as possible.
4. That areas with excessive slopes be planned as open space to preserve scenic values.
5. That the city shall encourage management practices that would maintain or increase the population of fish and all other river related resources.
6. That any development within the scenic waterway shall first be approved by the Scenic Waterway Program of the State Parks and Recreation Division. The City expects that any development which is not visible from the river shall be approved by the Scenic Waterway Program.
7. That any development within the scenic waterway allowed by the zoning ordinance and the Transportation Commission's rules of the Scenic Waterway shall be allowed.

Goal IV. C. To maintain or improve air, land and water quality in areas of urban development.

- Policies IV C. 1. That the best practical methods shall be used to prevent erosion when building, or road construction occurs.



- Policies IV C.
2. That the City shall comply with all applicable state and federal environmental standards and regulations.
  3. That the City shall coordinate future planning with the 303e water quality program, provided that program has made substantial progress statewide.
  4. That no development shall be allowed which may threaten the city's water supply.
  5. That any development in the city or its surrounding area, either temporary or permanent occurring on either side of the Deschutes River, shall not discharge effluent or disturb the river's flow nor shall it negatively effect the Deschutes River's environmental, biological or water quality.

Goal IV. D. To protect life and property from natural disasters and hazards.

- Policies IVD.
1. That proposed developments in areas of known geologic hazard, as identified in this plan, be carefully studied to insure that such development will not result in property loss or personal injury due to such hazards. Site specific evaluations of proposed developments in identified hazardous areas shall be required and that those costs be born by the developer.
  2. That city ordinance No. 106 establishing a flood plain zone shall be enforced.

## Part V. POPULATION AND ECONOMIC CONDITIONS

### Findings V.

1. This section was developed to conform to the statewide goal on the economy (Goal 9).
2. Maupin is a member of the Mid-Columbia Economic Development District which does regional economic planning.
3. The Mt. Fir Lumber Company is the largest single employer in the area.
4. Recreation is an important economic activity.
5. Demographic characteristics show a general trend of migration away from urban areas to rural areas especially retirement age people.
6. Maupin lacks economic diversity.
7. Agriculture has only a small impact on Maupin's economy.

Goal V. A. To diversify the economy and protect existing industries.

- Policies V A.
1. That development shall be encouraged which will improve employment opportunities.
  2. That those employment opportunities shall be encouraged which are compatible with existing and anticipated uses of land as shown in the plan.
  3. That home occupations shall be encouraged within the Town.
  4. That the impacts of major development project proposals shall be consistent with or enhance the social, environmental and economic quality and rural character of the community.
  5. That a coordinated effort between regional governments and the county to stimulate economic development at the level the Town of Maupin desires shall be encouraged.
  6. That decisions related to employment opportunities shall take into account alternative sites for proposed uses.
  7. That commercial development be concentrated so as to maintain or improve the stability of existing commercial areas.
  8. That commercial-tourist and recreation development shall be concentrated in East Maupin and that area just West of the Maupin bridge.
  9. That environmental effects to air, water and land resources quality shall be considered in addition to social economic factors when making economic planning decisions.

Part VI. COMMUNITY FACILITIES AND SERVICES

Findings VI.

1. This section was developed in light of the statewide goal on Public Facilities and Services (Goal 11); and Recreational Needs (Goal 8).
2. Maupin contracts with the Wasco County Sheriff's Department and has a resident sheriff.
3. Maupin has good firefighting capability.
4. The nearest hospital or clinic is 42 miles away in The Dalles.

Findings VI.

5. South Wasco County Ambulance Service serves Maupin with volunteers who have had emergency training.
6. The city budgets \$500.00 annually for the ambulance service.
7. Mental health services are available through the Mid-Columbia Center for Living in The Dalles.
8. Both the elementary school and the high school have additional enrollment capacity.
9. Maupin has an excellent library.
10. Additional recreational sites and activities are needed and desired by Maupin citizens.

Goal VI.. A. To provide for efficient development and maintenance of public facilities and services.

- Policies VI A.
1. That the city shall provide the best police protection practicable.
  2. That the city shall continue efforts to improve fire protection within the city limits and urban growth area.
  3. That the city shall continue to support the ambulance service monetarily.
  4. That the city shall cooperate with the schools to provide for adequate school facilities.
  5. That development which may generate the need for urban services and facilities shall be approved only in those areas where such services and facilities are available, suitable and desirable.
  6. That public facilities and various agency services shall be designed and maintained so as to be as visually attractive as possible.
  7. That the City shall try to satisfy the recreational needs of the citizens, at such time as the City acquires the needed revenues.

## Part VII. UTILITIES

### Findings VII.

1. This section was developed in light of the Public Facilities and Services goal (Goal 11), the Transportation goal (Goal 12) the Energy goal, (Goal 13), and the Urbanization goal (Goal 14).
2. Maupin's transportation system consists of city streets, Highway 197 and rail service.
3. Golden Age Transportation provides the only mass transportation available for older citizens.
4. One gravel pit has been identified within the urban growth boundary.
5. Planning for orderly and efficient growth saves energy.
6. The source of water supply is a spring which is protected by a city owned easement.
7. The new sewage treatment plant can serve the needs of Maupin through the planning period.
8. No solid waste site exists. Solid waste is trucked to The Dalles Landfill which has adequate capacity through the planning period.
9. A bike-way and/or pedestrian-way will be needed as the urban growth area becomes developed.

Goal VII. A. To provide a safe, convenient and economic transportation system.

- Policies VII A.
1. That the ODOT gravel pit shall be allowed to continue operating in the urban growth area.
  2. That the city shall consider the possible location of a bike-way and/or pedestrian-way when reviewing building permits or subdivisions proposals.
  3. That roads created in subdividing or land parceling shall be designed to tie into existing road systems and overall road design approved by the city council.
  4. That the city shall encourage transportation systems for the transportation disadvantaged.
- 5,

Goal VII. B. To conserve energy.

- Policies VII B.
1. That the city shall encourage residential construction so that those who currently commute to Maupin to work can find adequate housing.
  2. That height limitations shall be placed on all residential buildings to allow for future solar energy utilization.

Goal VII. C. To provide for an orderly and efficient transition from rural to urban land use.

- Policies VII C.
1. That additional city growth shall remain inside the designated Urban Growth Boundary.
  2. That partitioning or subdividing shall be approved only for parcels adjacent, or having approved access to a public street or road.
  3. That alternative sites and alternative uses shall be considered in making land use decisions.
  4. That commercial and high density residential development shall be located in areas where access, sewer, water and other related facilities and services can best accommodate such development.
  5. That the city shall not provide sewerage or water services outside the city limits, except as provided for in the Urban Growth Area Management Agreement.
  6. That the cost for water, sewer, streets, and other improvements deemed necessary by city council for unimproved land being converted to urban uses, shall be borne by the developer.

## Part VIII. HOUSING

### Findings VIII.

1. This section was developed in light of the Housing goal (Goal 10).
2. A distinct need for single and multi-family dwellings both to rent and to buy is evident in Maupin.
3. Maupin residents feel additional growth is desirable.
4. Maupin residents would support additional city expenditures for services and improvements to help encourage residential construction.
5. A majority of homes need repair.

Goal VIII. A. To provide for the identified housing need.

- Policies VIII A.
1. Areas where residential development exists, shall be protected from encroachment of incompatible land uses.
  2. That a range of housing prices and variety of housing types and locations shall be encouraged.
  3. That multi-family housing shall be encouraged only in those locations where city water and sewer services are available to accommodate the needs anticipated by such units.
  4. That mobile homes shall not be permitted in single family residential - low density planned areas.

*Deleted by Ordinance No. 200, 11/14/90*

## IMPLEMENTATION

### PLAN IMPLEMENTATION

The success or failure of any comprehensive land use plan is always dependent upon those who administer or implement the policies within the plan. Recognizing both the importance of planning and the necessity of implementing the plan, the Oregon Supreme Court has fairly recently begun to clarify several fundamental planning issues.

In Fasano vs. Board of County Commissioners of Washington County, (March, 1973), the court recognized:

"The basic instrument for county or municipal land use planning is the comprehensive plan. The plan has been described as a general plan to control and direct the use and development of property in a municipality."

In the second case, Baker vs. City of Milwaukie, (April, 1975), the court refined the Fasano interpretation to:

"... a comprehensive plan is the controlling land use planning instrument for a city. Upon passage of a comprehensive plan, a city assumes a responsibility to effectuate that plan and conform prior conflicting zoning ordinances to it. We further hold that the zoning decisions of a city must be in accord with that plan and zoning ordinance which allows a more intensive use than that prescribed in the plan must fail."

As a result of these two cases, it is clear that the local comprehensive land use plan is the fundamental statement of local land use policy; and as such, all other municipal ordinances and policies affecting land use must be made compatible to it. Specifically, the city's zoning and subdivision ordinances should be reviewed and modified where necessary, to conform to the comprehensive plan.

### ZONING

Zoning is essentially a means of insuring that the land uses of a community are properly situated in relation on one another, providing adequate space for each type of development. This allows the control of development density in each area so that property can be adequately serviced, and no public or private health problems occur. It also directs new growth or proposed future growth into appropriate areas and protects existing property by requiring that new or future development be compatible with the existing land uses.

## SUBDIVISION

Subdivision regulations may serve a wide range of purposes. Often they are a means of insuring that new residential developments have adequate water supplies, sewage systems, drainage ways, right of way or access and safe street designs. They also provide a means of securing adequate records of land titles and assuring the prospective purchaser of a lot or parcel that he will receive a buildable, property oriented, well-drained lot, provided with adequate facilities in a subdivision whose value will hold up over the years. These regulations should reflect and reinforce the policies outlined in the comprehensive land use plan.

## OTHER IMPLEMENTATION TOOLS

Many capital improvements programs are a list of all projects "by priority" for the development of public improvements such as streets, parks and utilities. They should include a priority schedule for capital expenditures, based on community needs and policies. The program should be reanalyzed each year, revising estimated expenditures to account for inflation and the changing financial capability of the community. A functional capital improvement program will create a coordinated approach by which the city can provide additional water supply and sewage disposal systems, streets, recreational areas, and other community facilities.

The City of Maupin's capital improvement program prioritizes public improvements but does not list the actual costs of each project. The following is that prioritized list developed by the community of Maupin:

1. Sewage treatment plant and collection system
2. East Maupin water system and larger mains for better fire protection
3. Medical facilities and services
4. Moderate street and sidewalk improvements
5. Public day-use park facilities

## BUILDING CODES

Building codes provide a variety of construction standards for all buildings. These standards relate to health, safety and appearance of structures. They usually contain sections concerning the removal or rehabilitation of buildings deemed to be public nuisances. Such codes aid in maintaining the safety of buildings within a community.

## URBAN GROWTH AREA AGREEMENT

See Appendix



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## APPENDIX

URBAN GROWTH AREA  
JOINT  
MANAGEMENT AGREEMENT

WASCO COUNTY AND TOWN OF MAUPIN

URBAN GROWTH AREA JOINT MANAGEMENT AGREEMENT

The parties to this Joint Management Agreement shall be the Town of Maupin, Oregon and Wasco County, Oregon.

The terms of this Joint Management Agreement shall be applicable to the Maupin urban growth area. For the purposes of this Agreement, the urban growth area shall be defined as that area of land extending from the Maupin corporate limits to the Town of Maupin urban growth boundary as referenced and mapped in the Town of Maupin's Comprehensive Plan, 1980.

This Joint Management Agreement is entered into pursuant to ORS Chapters 190 and 197 and the Oregon Statewide Planning Goals for the purpose of facilitating the orderly transition from rural to urban land uses within the Town of Maupin's urban growth area.

Words and phrases used in this Joint Management Agreement shall be construed in accordance with ORS Chapters 92, 197, 215, and 227 and applicable Oregon Statewide Planning Goals unless otherwise specified. In the event two or more definitions are provided for a single word or phrase, the most restrictive definition shall be utilized in construing this Agreement.

I. Introductory Information

- A. This Joint Management Agreement is the culmination of a series of actions intended, in part, to facilitate the orderly and efficient transition from urbanizable to urban land uses within the urban growth area. Such actions include the preparation of the Town comprehensive plan, the cooperative establishment of an urban growth area, coordination with affected governmental units, and county review of the Town comprehensive plan.
- B. The Maupin Town Council has adopted by ordinance a comprehensive plan which includes an urban growth boundary and planning goals, objectives, and policies.

II. General Comprehensive Plan Provisions

- A. Wasco County and Town of Maupin shall have joint input for land use decisions and actions affecting the Maupin urban growth area. Wasco County's responsibility over any land within this urban growth area shall be maintained until such land is annexed to the Town.
- B. It is the policy of the Town of Maupin and Wasco County to maintain a rapid exchange of information relating to their respective land use decisions which affect the Town of Maupin urban growth area.
- C. After the Town of Maupin's Comprehensive Plan has been reviewed by the Wasco County Court, and after County concurrence with the Plan as to applicable statewide planning goals and adoption of the Plan for the urban growth area, all public sector actions which fall within the scope of the Town of Maupin's Comprehensive Plan shall be consistent with the Plan.

- D. The Maupin urban growth area has been identified as urbanizable and is considered to be available over time for urban expansion. In order to promote consistency between the town's planning effort and Wasco County land use decisions and actions affecting the urban growth area, Wasco County shall incorporate that portion of the Town of Maupin Comprehensive Plan which addresses the urban growth area into the Wasco County Comprehensive Plan.

### III. Zoning and Subdivision Ordinances

- A. The substantive, as opposed to procedural, portions of the Town of Maupin's Zoning and Subdivision Ordinances (see Attachments A and B) shall be incorporated into and made a part of the Wasco County Zoning and Subdivision Ordinances.
- B. For the purposes of this Joint Management Agreement:
  - 1. Substantive provisions of a zoning ordinance shall be those sections of the ordinance which establish outright uses, conditional uses, and zone requirements.
  - 2. Substantive provisions of a subdivision ordinance shall be those sections of the ordinance which establish design standards for required improvements.
- C. It is agreed that Wasco County will not exercise any right to waive conditions as authorized by either the Town of Maupin Zoning and Subdivision Ordinance unless prior written approval to do so has been obtained from the Town of Maupin.
- D. The above mentioned incorporated Ordinances shall only be applied to zone change, conditional use, variance, subdivision, major partition, minor partition and building permit requests affecting the Town of Maupin urban growth area.

### IV. Referred Application/Situations

- A. The Wasco County Planning Department shall refer each request affecting the Maupin urban growth area including zone change, conditional use, variance, subdivision, major partition, minor partition, building permit, to the Town of Maupin for its review and comment within 10 days of the date the request was filed with the Wasco County Planning Department.
- B. The Town of Maupin shall review the request and submit its recommendation to the Wasco County Planning Department within 30 days after receipt of the request by the Town. Requests for review period extensions shall not be granted for more than 60 days. In addition to its written recommendation the Town of Maupin may, if it so desires, be represented at the public hearing to express their views or rebut testimony. Recognizing that the Town of Maupin is directly concerned with land use changes occurring within the urban growth area, Wasco County shall fully weigh any and all Town of Maupin recommendations prior to making its decision.

- C. The Town's planning staff shall prepare reports and recommendations based upon the Town of Maupin's consideration of the requests. In the event that no planning staff exists, such duties shall be delegated by the Town Council. Staff reports and recommendations shall be signed by the Mayor.
- D. Should no recommendations be forthcoming within established response times, absent a request for an extension, the Town of Maupin shall be presumed to have no comment regarding the application.

#### V. City Services

- A. The Town of Maupin may extend city services to any site located within the Town of Maupin urban growth area at the affected property owner's request and expense. Such extension of Town services to sites not contiguous to the Town of Maupin shall be conditioned upon an unlimited agreement signed by the affected property owner that the site may be annexed by Maupin Town Council action as soon as the site becomes contiguous to the Town of Maupin.
- B. For the purposes of this Joint Management Agreement, town services shall be limited to water, sewer, and fire protection.
- C. Service and hook-on charges shall be established by the Maupin Town Council.

#### VI. Annexation

Annexation of sites within the Town of Maupin urban growth area shall be in accordance with relevant annexation procedures contained in the Oregon Revised Statutes, Oregon case law, and Maupin Town Ordinances and shall not occur until such sites become contiguous to the Town of Maupin as required by the Oregon Revised Statutes.

#### VII. Appeals

As Wasco County retains responsibility for land use decisions and actions affecting the urban growth area, appeals from such decisions and actions shall be in accordance with the appeals process specified in the Wasco County Zoning or Subdivision Ordinances. The Town of Maupin shall have standing to appeal any land use decision of the county involving the Urban Growth Area.

#### VIII. Urban Growth Boundary Reviews, Amendments and Agreements

The Town of Maupin's urban growth boundary shall be reviewed annually as prescribed by the Maupin Comprehensive Plan. Any proposed amendments to the urban growth boundary shall be initiated by the Town of Maupin and such amendments shall be adopted by a majority of both the Maupin Town Council and the Wasco County Court.

If the Town of Maupin's Comprehensive Plan, implementing measures, or both fail to conform to: the Oregon revised statutes, Oregon case law, Oregon statewide planning goals, or the requirements of either the citizens of Maupin or residents of the urban growth area, the nonconforming document shall be amended as soon as practicable. Such amendments shall be adopted by the appropriate governing body or bodies.

IN WITNESS THEREOF, this Urban Growth Area Joint Management Agreement is signed and executed this:

11 day of June, 1980

28 day of May, 1980

Wasco County Court

Maupin Town Council

Rick Cantrell Judge

Cliff Forester Mayor

Jim Cannon

Bob [unclear]

John Conway

Albert [unclear]

[unclear]

[unclear]

Wynne [unclear]

1. How many years have you lived in or near the city?

Less than 1 year	<u>4</u>	1-5 years	<u>17</u>	6-10 years	<u>16</u>	11-15 years	<u>8</u>	16-20 years	<u>11</u>
21-over	<u>39</u>								

2. How many years do you plan to remain in this area?

Less than 1 year	<u>3</u>	1-2 years	<u>8</u>	3-5 years	<u>4</u>	6-10 years	<u>5</u>	Permanently	<u>77</u>
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3. If you moved to this area within the past five years, why did you choose to come?

Jobs, Employment

4. How many people in your household fall into the following age groups?

Age under 10	<u>58</u>	10 to 17	<u>26</u>	18 to 22	<u>16</u>	23 to 35	<u>37</u>
36 to 50	<u>37</u>	51 to 64	<u>37</u>	65 and over	<u>41</u>		

5. What is the present primary occupation of the head of the household?

lumber industry	<u>25</u>	construction	<u>4</u>	other blue collar	<u>4</u>
agriculture	<u>1</u>	unemployed	<u>4</u>	professional/managerial	<u>9</u>
education	<u>13</u>	clerical/retail		other white collar	<u>1</u>
retired	<u>30</u>	trade	<u>6</u>		

6. If there is a second wage-earner in the household, what is his/her present occupation?

lumber	<u>3</u>	construction	<u>    </u>	other blue collar	<u>1</u>
agriculture	<u>    </u>	unemployed	<u>4</u>	professional/managerial	<u>5</u>
education	<u>5</u>	clerical/retail		other white collar	<u>2</u>
retired	<u>11</u>	trade	<u>5</u>		

7. In what areas are capital improvements needed in the city (mark as many as you wish, but indicate the order of importance)

water system	<u>18</u>	parks and recreation facilities	<u>39</u>
sewer system	<u>55</u>	public buildings	<u>26</u>
streets	<u>59</u>		



8. Are there additional improvements the city should make to improve the quality of the community? If so, what: Cleaning parks, More recreational facilities for local people

9. To pay for the improvements you have listed in questions 7 and 8, what is the annual maximum city tax rate you would approve of (Taxes per thousand dollars worth of property)?

less than \$1 11  
 1\$ to \$2 26  
 \$3 to \$4 19

5\$ to 6\$ 11  
 over \$6 if necessary 5

10. What other weak points do you feel the city has? Law Enforcement

11. Do you think the city should grow?

	yes	no
more people	( )	( )
more acreage	( )	( )

12. What do you like best in your community? Small community, The River, The quietness, the library

13. What are the best things the city has accomplished in the last five years?

New homes, sewer and water

14. What would you like to see the city accomplish in the next five years?

swimming pool 60  
 bank 34  
 other 14

15. Are you willing to work with the city council to do planning or to make the improvements necessary?

Yes 55  
 No 9

CITY OF WAUPIN PUBLIC OPINION AND HOUSING SURVEY

THIS SURVEY WILL TAKE BUT A FEW MINUTES OF YOUR TIME; YET, IF ANSWERED WITH A LITTLE THOUGHT, IT CAN BE A GREAT HELP IN PLANNING FOR YOUR CITY'S FUTURE. WE HOPE YOU'LL JOIN US IN THIS EFFORT MAKE YOUR CITY A BETTER PLACE TO LIVE.

YOUR ANSWERS WILL BE KEPT COMPLETELY ANONYMOUS, WE WISH TO KNOW ONLY YOUR OPINIONS, NOT YOUR NAME OR ADDRESS. IF YOU HAVE COMMENTS ABOUT ANY SPECIFIC AREAS, PLEASE WRITE THEM DOWN AS PART OF THE LAST QUESTION.

PLEASE PLACE THE QUESTIONNAIRE IN THE DROP BOXES WHICH ARE PROVIDED AT THE CITY HALL, POST OFFICE, AND THE OASIS MOTEL BY AUGUST 30.

MAYOR \_\_\_\_\_  
 PLANNING COMMITTEE  
 ROY HUBERD, LAND USE PLANNER, MID-COLUMBIA ECONOMIC  
 DEVELOPMENT DISTRICT

- \_\_\_\_\_ 1. Describe your home.
- |              |           |                            |   |                       |   |
|--------------|-----------|----------------------------|---|-----------------------|---|
| 1. apartment | 3. Duplex | 5. Mobile home             | 9 | 7. Summer Home        | 1 |
| 2. House     | 34        | 4. three-plex or four-plex |   | 6. Other              |   |
|              |           |                            |   | 8. Summer mobile home |   |
- \_\_\_\_\_ 2. How many bedrooms does your home have?
- |        |    |                 |    |
|--------|----|-----------------|----|
| 1. one | 5  | 3. Three        | 16 |
| 2. two | 15 | 4. four or more | 9  |
- \_\_\_\_\_ 3. How many major rooms does it have? (not bath, furnace, storage, utility or unfinished rooms)
- |          |   |         |    |          |    |                 |
|----------|---|---------|----|----------|----|-----------------|
| 1. one   | 1 | 4. four | 11 | 7. seven | 5  | 10. ten or more |
| 2. two   | 1 | 5. five | 11 | 8. eight |    |                 |
| 3. three | 7 | 6. six  | 7  | 9. nine  | 11 |                 |
- \_\_\_\_\_ 4. Do you own or rent?
- |        |    |         |    |
|--------|----|---------|----|
| 1. own | 35 | 2. rent | 11 |
|--------|----|---------|----|
- \_\_\_\_\_ 5. Would you rather own or rent?
- |        |    |         |   |
|--------|----|---------|---|
| 1. own | 35 | 2. rent | 7 |
|--------|----|---------|---|
- \_\_\_\_\_ 6. Estimate your average monthly housing costs (rent, utilities, mortgage payment, insurance, major repairs, real estate taxes, etc.)
- |            |   |            |   |            |   |              |   |
|------------|---|------------|---|------------|---|--------------|---|
| 1. \$ 0-59 | 2 | 4. 100-119 | 4 | 7. 200-249 | 2 | 10. 350-over | 3 |
| 2. 60-79   | 4 | 5. 120-149 | 7 | 8. 250-299 | 5 |              |   |
| 3. 80-99   | 1 | 6. 150-199 | 9 | 9. 300-349 | 3 |              |   |
- \_\_\_\_\_ 7. What is the present primary occupation of the head of the household?
- |                    |    |                          |   |                             |   |
|--------------------|----|--------------------------|---|-----------------------------|---|
| 1. lumber industry | 9  | 5. construction          |   | 9. other blue collar        | 2 |
| 2. agriculture     |    | 6. unemployed            | 1 | 10. professional/managerial | 4 |
| 3. education       | 9  | 7. clerical/retail trade | 2 | 11. other white collar      | 1 |
| 4. retired         | 16 | 8. governmental          | 3 |                             |   |
- \_\_\_\_\_ 8. Is your present housing adequate?
- |        |    |       |   |
|--------|----|-------|---|
| 1. yes | 37 | 2. no | 5 |
|--------|----|-------|---|
- How would you describe your home as to the following:
- \_\_\_\_\_ 9. Size
- |              |   |               |    |              |   |
|--------------|---|---------------|----|--------------|---|
| 1. too large | 3 | 2. just right | 29 | 3. too small | 9 |
|--------------|---|---------------|----|--------------|---|
- \_\_\_\_\_ 10. Cost
- |                  |   |               |    |              |   |
|------------------|---|---------------|----|--------------|---|
| 1. too expensive | 5 | 2. just right | 44 | 3. too cheap | 1 |
|------------------|---|---------------|----|--------------|---|
- \_\_\_\_\_ 11. Age
- |            |    |               |    |            |  |
|------------|----|---------------|----|------------|--|
| 1. too old | 14 | 2. just right | 30 | 3. too new |  |
|------------|----|---------------|----|------------|--|
- \_\_\_\_\_ 12. Plumbing (toilet, wash basin with hot & cold water, and tub or shower that your family doesn't share with another family)
- |                       |    |  |   |         |   |
|-----------------------|----|--|---|---------|---|
| 1. okay               | 32 | 3. lacking some facilities                   | 3 | 5. none | 2 |
| 2. needs major repair | 4  | 4. needs major repair and lacking facilities | 3 |         |   |

33. How long have you lived at this residence?  
 1. less than 1 year (1975) 11 4. 3 years (1972) 10 7. 11-20 years (1955-64) 7  
 2. 1 year (1974) 11 5. 4-5 years (1970-71) 4 8. 21-50 years (1925-54) 7  
 3. 2 years (1973) 2 6. 6-10 years (1965-60) 2 9. Always 7
34. Where did you have your residence immediately before you moved here?  
 1. In same town 14 6. Washington 1  
 2. In same county 9 7. Other Western State (Alaska, Hawaii, Idaho, Nevada, Arizona, Utah, New Mexico, Colorado, Wyoming, Montana) 2  
 3. Other Eastern Oregon (East of Cascades) 4 8. Other Central or Eastern State 12  
 4. Western Oregon (West of Cascades) 12 9. Foreign Country 1  
 5. California 2 10. Foreign Country, Military Service. 1
35. Do you think Maupin should create a River front management plan to control development on both sides of the Deschutes River?  
 1. yes 31 2. No 3 3. No opinion 8 Why \_\_\_\_\_
36. Is additional growth of the City desirable?  
 1. yes 30 2. No 7 3. Increase of how many residents \_\_\_\_\_  
 Why \_\_\_\_\_
37. Do you feel the community needs more professionals?  
 1. Doctors 32 3. Dentists 15 5. Others 2  
 2. Lawyers 5 4. Bankers 18
38. Would you support additional City expenditures for the following services or improvements?  
 1. yes 32 2. No 5 If yes, indicate support level
- |                                       | Slight   | Moderate  | Substantial |
|---------------------------------------|----------|-----------|-------------|
| Street Improvements (other than main) | <u>6</u> | <u>23</u> | <u>4</u>    |
| Sidewalks                             | <u>7</u> | <u>18</u> | <u>5</u>    |
39. Are there sites or building which should be identified and recognized for their historical significance? The only house that went through the fire, the community church building, Odd Fellows Hall, Ferry Sight.
40. What are the most serious problems in Maupin? Lack of police protection, nothing for the youth to do, lack of medical services, inadequate housing.
41. What would you like to see accomplished in Maupin during the next five to ten years? The building of a swimming pool, bank, medical facilities, and fire department also fix up streets.
42. Please make any comments which would help to make Maupin a better place to live, or any other comments you want to make. More recreational facilities for the youth more citizen involvement, better highway and streets.
43. What means of transportation do you use the most?  
 1. auto 40 2. bicycle 6 3. walk 4. Other \_\_\_\_\_
44. Does Maupin need a bus service to The Dalles?  
 1. yes 29 2. No 4 Comments \_\_\_\_\_
45. Do you feel the minimum lot size for residential areas should be.....  
 1. 50-100 9 2. 50-150 6 3. 75-100 15 4. 50-200 \_\_\_\_\_ 5. 100-100 or larger 13
46. How far from alley streets or other buildings do you feel another structure should be?  
 1. 5-10 7 2. 15-20 28 3. 30-40 4
47. If you have additional comments regarding any of the previous questions or any other topics, please write them on the back of this page or attach additional sheets if necessary.

DATE: 1/73 A-D-G MAUPIN SERIES SOILS:

1. Maupin loam, 0 to 5 percent slopes
2. Maupin loam, 5 to 12 percent slopes
- \*3. Stony Land-Maupin complex, 0 to 12 percent slopes

The Maupin series consists of well drained loam soils formed in wind-lain silts, volcanic ash and mixed alluvium. These upland soils have 0 to 12 percent slopes. Elevations range from 1600 to 3400 feet. Where not cultivated, vegetation includes bluebunch wheatgrass, Idaho fescue and related forbs and shrubs. Average annual precipitation is 10 to 12 inches; mean annual air temperature is 45° to 52° F. The average frost-free period (32° F.) is 120 to 170 days and 28° F. is 170 to 200 days.

Typically, the surface layer is grayish-brown (dry) loam about 10 inches thick. The subsoil is brown (dry) loam about 15 inches thick. The upper substratum is pale brown (dry) loam about 6 inches thick. Depth to hardpan and basalt bedrock is 20 to 40 inches.

Permeability is moderate. Available water capacity is 3 to 7 inches. Water-supplying capacity is 7.5 to 8.5 inches. Effective rooting depth is 20 to 40 inches. Runoff is slow on unit 1 and moderate on units 2 and 3. The erosion hazard is slight on unit 1 and moderate on units 2 and 3.

Maupin soils are used for dryfarm small grains, hay, pasture, range and wildlife. These soils occur in north central Oregon (B8).

The Maupin series is a member of the fine-loamy, mixed, mesic family of Orthodic Durixerolls.

ESTIMATED SOIL PROPERTIES

DEPTH FROM SURFACE (in.)	CLASSIFICATION			COARSE FRACT. OVER 3 IN.	% OF MATERIAL PASSING SIEVE				LIQUID LIMIT	PLASTICITY INDEX	PERMEABILITY (in/hr)	AVAIL. WATER CAP. (in/in)	SOIL REACTION (pH)	SHRINK SWELL POTENTIAL
	USDA TEXTURE	UNIFIED	AASHO		#4	#10	#40	#200						
0-31	loam	ML	A-4	0	95-100	95-100	80-95	55-75	25-30	NP-5	.6-2.0	.16-.18	6.6-8.4	low
31-37	hardpan													
37	basalt bedrock													
DEPTH (in.)	CONDUCTIVITY (mmhos/cm)	CORROSIVITY		EROSION FACTORS		WIND EROD. GROUPS	FLOODING			HIGH WATER TABLE			HYDROLOGIC GROUP	
		STEEL	CONCRETE	K	T		FREQUENCY	DURATION	MONTHS	DEPTH (ft.)	KIND	MONTHS		
0-31	.4 - .8	high	low	.37	2	-	none	-	-	> 6	-	-	-	G
							CEMENTED PAN		BEDROCK		FROST ACTION		REMARKS	
							DEPTH (in.)	HARDNESS	DEPTH (in.)	HARDNESS				
							20-40	rippable	20-40	hard				
SANITARY FACILITIES AND COMMUNITY DEVELOPMENT							SOURCE MATERIAL AND WATER MANAGEMENT							
USE	SOIL	RATING	RESTRICTIVE FEATURES				USE	SOIL	RATING	RESTRICTIVE FEATURES				
SEPTIC TANK ABSORPTION FIELDS	1,2,3	Severe	Depth to rock				ROADFILL	1,2,3	Poor	Borrow area damage				
SEWAGE LAGOONS	1,3 2	Severe Severe	Depth to rock Depth to rock, slope				SAND	1,2,3	Unsuited	Excessive fines				
SANITARY LANDFILL (TRENCH)	1,2,3	Severe	Depth to rock				GRAVEL	1,2,3	Unsuited	Excessive fines				
SANITARY LANDFILL (AREA)	1,3 2	Slight Moderate	- Slope				TOPSOIL	1,3 2	Good Fair	- Slope				
DAILY COVER FOR LANDFILL	1,3 2	Fair Fair	Thin layer Slope, thin layer				POND RESERVOIR AREA	1,2,3	Severe	Depth to rock				
SHALLOW EXCAVATIONS	1,2,3	Severe	Depth to rock				EMBANKMENTS DIKES AND LEVEES	1,2,3	Moderate	Low strength, piping				
DWELLINGS WITHOUT BASEMENTS	1,3 2	Moderate Moderate	Depth to rock Depth to rock, slope				DRAINAGE	1,2,3	-	Not needed				
DWELLINGS WITH BASEMENTS	1,2,3	Severe	Depth to rock				IRRIGATION	1,3 2	Fair Fair	Droughty, rooting depth Slope, droughty, rooting depth				
SMALL COMMERCIAL BUILDINGS	1,3 2	Moderate Severe	Depth to rock Slope				TERRACES AND DIVERSIONS	1,2,3	-	Not needed				
LOCAL ROADS AND STREETS	1,3 2	Moderate Moderate	Depth to rock, low strength Depth to rock, slope, low strength				GRASSED WATERWAYS	1,2,3	-	Not needed				

c = Climate  
e = Erosion  
s = Soil

RECREATION

USE	SOIL	RATING	RESTRICTIVE FEATURES	USE	SOIL	RATING	RESTRICTIVE FEATURES
CAMP AREAS	1,3 2	Slight Moderate	- Slope	PLAYGROUNDS	1,3 2	Moderate Moderate	Depth to rock Slope, depth to rock
PICNIC AREAS	1,3 2	Slight Moderate	- Slope	PATHS AND TRAILS	1,2,3	Slight	-

CAPABILITY AND PREDICTED YIELDS - CROPS AND PASTURE (HIGH LEVEL MANAGEMENT)

SOIL	CAPABILITY		Wheat (Bu)		Hay (Tons)										REMARKS
	NIRR	IRR	NIRR	IRR	NIRR	IRR	NIRR	IRR	NIRR	IRR	NIRR	IRR	NIRR	IRR	
1	IIC	IIe	30	-	-	5									
2	IIIe	IIIe	30	-	-	5									
3	VIIe	-	-	-	-	-									

WOODLAND SUITABILITY

SOIL	POTENTIAL PRODUCTIVITY		WOOD SUIT. GROUP	MANAGEMENT PROBLEMS					NATIVE SPECIES	
	SPECIES	SITE INDEX		EROSION HAZARD	EQUIPMENT LIMIT.	SEEDLING MORTALITY	WINDTHROW HAZARD	PLANT COMPET.		
1,2,3	None									

WINDBREAKS

SOILS	SPECIES	HT. AGE 20	PERFORMANCE	SPECIES	HT. AGE 20	PERFORMANCE	SPECIES	HT. AGE 20	PERFORMANCE

WILDLIFE HABITAT SUITABILITY

SOIL	POTENTIAL FOR HABITAT ELEMENTS							POTENTIAL AS HABITAT FOR:					
	GRAIN & SEED	GRASS & LEGUME	WILD HERB.	HARDWD TREES	CONIFER PLANTS	SHRUBS	WETLAND PLANTS	SHALLOW WATER	OPENLAND WILDLIFE	WOODLAND WILDLIFE	WETLAND WILDLIFE	RANGELAND WILDLIFE	
1,2(NIRR)	Fair	Good	Good	-	Poor	Poor	V.poor	V.poor	Fair	-	V.poor	Fair	
1,2(IRR)	Good	Good	Good	Poor	Poor	Poor	V.poor	Fair	Good	Fair	Poor	-	
3(NIRR)	Poor	Poor	Good	-	Poor	Poor	V.poor	V.poor	Fair	-	V.poor	Fair	

RANGELAND

RANGE SITE NAME	SOIL	KEY SPECIES AND % COVER	POTENTIAL YIELDS		NORMAL SEASON	
			TOTAL lb/Ac	USABLE Ac/AUM	GROWING	GRAZING
Rolling Hills	1,2	bluebunch whtg Idaho fescue	60 20	900	1.1-1.7	3/15 - 7/15 4/15 - 1/1

FOOTNOTES

\* See individual OR-SOILS-1 form for interpretation of the Stony land portion of the mapping unit.

DATE: 1/73 A-D-G Sherar SERIES SOILS:

1. *Sherar cobbly loam, 5 to 45 percent slopes*
2. *Sherar very cobbly loam, 45 to 70 percent slopes*

The Sherar series consists of well drained soils that formed in wind-lain silts and weathered sedimentary material. Slopes are 5 to 70 percent. Elevation is 1500 to 2500 feet. Vegetation is bluebunch wheatgrass, Sandburg bluegrass, forbs, and shrubs. Average annual precipitation is 9 to 12 inches; average annual air temperature is 48° to 52° F. The average frost-free period (32° F.) is 120 to 170 days and 28° F. is 170 to 200 days.

Typically, the surface layer is grayish-brown (dry) cobbly loam about 3 inches thick. The upper subsoil is dark grayish-brown (dry) clay loam about 6 inches thick. The lower subsoil is dark brown (dry) clay about 20 inches thick. The substratum is dark brown (dry) very gravelly clay about 6 inches thick. Depth to very gravelly semi-consolidated tuff is 20 to 40 inches.

Permeability is slow. Available water capacity is 2 to 6 inches. Water supplying capacity is 2 to 5 inches. Effective rooting depth is 20 to 40 inches. Runoff is medium to rapid. The water erosion hazard is moderate to severe.

Sherar soils are used for range and wildlife habitat. These soils occur in north central Oregon (B8).

The Sherar series is a member of the fine, montmorillonitic, mesic family of Aridic Argixerolls.

ESTIMATED SOIL PROPERTIES

DEPTH FROM SURFACE (in.)	CLASSIFICATION			COARSE FRACT. OVER 3 IN.	% OF MATERIAL PASSING SIEVE				LIQUID LIMIT	PLASTICITY INDEX	PERMEABILITY (in/hr)	AVAIL. WATER CAP. (in/in)	SOIL REACTION (pH)	SHRINK SWELL POTENTIAL
	USDA TEXTURE	UNI-FIED	AASHO		#4	#10	#40	#200						
0-3	cobbly loam	ML	A-4	15-40	80-90	75-90	65-85	50-70	30-35	5-10	.6-2.0	.11-.15	6.6-7.3	low
3-9	clay loam	CL	A-6	5-20	80-95	75-95	70-95	50-75	35-40	15-20	.2-.6	.16-.20	6.6-7.3	moderate
9-29	clay	CH	A-7	5-20	80-95	75-95	70-95	55-90	50-65	25-35	.06-.2	.12-.14	6.6-7.8	high
29-35	very gravelly clay	GC	A-2, A-7	15-30	35-45	25-40	25-40	25-40	50-65	25-35	.06-.2	.07-.12	6.6-7.8	high
35	very gravelly semi-consolidated tuff													
DEPTH (in.)	CONDUCTIVITY (mmhos/cm)	CORROSION		EROSION FACTORS K T	WIND EROD. GROUPS	FLOODING			HIGH WATER TABLE			HYD. LOG. GRC		
		STEEL	CONCRETE			FREQUENCY	DURATION	MONTHS	DEPTH (ft.)	KIND	MONTHS			
0-3		low	low	.24	2	-	-	-	-	-	>6	-	-	C
3-9		mod.	low	.24	-	-	-	-	-	-	-	-	-	-
9-29		high	low	.17	-	-	-	-	-	-	-	-	-	-
29-35		high	low	.10	-	-	-	-	-	-	-	-	-	-
SANITARY FACILITIES AND COMMUNITY DEVELOPMENT						SOURCE MATERIAL AND WATER MANAGEMENT								
USE	SOIL	RATING	RESTRICTIVE FEATURES			USE	SOIL	RATING	RESTRICTIVE FEATURES					
SEPTIC TANK ABSORPTION FIELDS	1,2	Severe	Slope, percolates slowly			ROADFILL	1,2	Poor	Borrow area damage, shrink-swell, slope					
SEWAGE LAGOONS	1,2	Severe	Slope, cobbles			SAND	1,2	Unsuited	Excessive fines					
SANITARY LANDFILL (TRENCH)	1,2	Severe	Slope, depth to rock, too clayey			GRAVEL	1,2	Unsuited	Excessive fines					
SANITARY LANDFILL (AREA)	1,2	Severe	Slope			TOPSOIL	1,2	Poor	Slope, cobbles, too clayey					
DAILY COVER FOR LANDFILL	1,2	Poor	Too clayey, slope, cobbles			POND RESERVOIR AREA	1,2	Severe	Slope					
SHALLOW EXCAVATIONS	1,2	Severe	Slope, too clayey			EMBANKMENTS DIKES AND LEVEES	1,2	Moderate	Piping, low strength					
DWELLINGS WITHOUT BASEMENTS	1,2	Severe	Shrink-swell, slope, cobbles			DRAINAGE	1,2	-	-					
DWELLINGS WITH BASEMENTS	1,2	Severe	Shrink-swell, slope, cobbles			IRRIGATION	1,2	Unsuited	Slope, slow intake, cobbles					
SMALL COMMERCIAL BUILDINGS	1,2	Severe	Slope, shrink-swell, cobbles			TERRACES AND DIVERSIONS	1,2	-	Not needed					
LOCAL ROADS AND STREETS	1,2	Severe	Shrink-swell, slope			GRASSED WATERWAYS	1,2	-	Not needed					

RECREATION

USE	SOIL	RATING	RESTRICTIVE FEATURES	USE	SOIL	RATING	RESTRICTIVE FEATURES
CAMP AREAS	1,2	Severe	Slope, cobbles	PLAYGROUNDS	1,2	Severe	Slope, cobbles
PICNIC AREAS	1,2	Severe	Slope, cobbles	PATHS AND TRAILS	1 2	Moderate Severe	Slope, cobbles Slope, cobbles

CAPABILITY AND PREDICTED YIELDS - CROPS AND PASTURE (HIGH LEVEL MANAGEMENT)

SOIL	CAPABILITY														REMARKS
	NIRR	IRR	NIRR	IRR	NIRR	IRR	NIRR	IRR	NIRR	IRR	NIRR	IRR	NIRR	IRR	
1	VIe	-													
2	VIIe	-													

WOODLAND SUITABILITY

SOIL	POTENTIAL PRODUCTIVITY		WOOD SUIT. GROUP	MANAGEMENT PROBLEMS					NATIVE SPECIES
	SPECIES	SITE INDEX		EROSION HAZARD	EQUIPMENT LIMIT.	SEEDLING MORTALITY	WINDTHROW HAZARD	PLANT COMPET.	
1,2	None								

WINDBREAKS

SOILS	SPECIES	HT. AGE 20	PERFORMANCE	SPECIES	HT. AGE 20	PERFORMANCE	SPECIES	HT. AGE 20	PERFORMANCE
1,2	None								

WILDLIFE HABITAT SUITABILITY

SOIL	POTENTIAL FOR HABITAT ELEMENTS								POTENTIAL AS HABITAT FOR:			
	GRAIN & SEED	GRASS & LEGUME	WILD HERB.	HARDWD TREES	CONIFER PLANTS	SHRUBS	WETLAND PLANTS	SHALLOW WATER	OPENLAND WILDLIFE	WOODLAND WILDLIFE	WETLAND WILDLIFE	RANGELAND WILDLIFE
1,2	V.poor	V.poor	Fair	-	-	Poor	V.poor	V.poor	-	-	V.poor	Poor

RANGELAND

RANGE SITE NAME	SOIL	KEY SPECIES AND % COVER	POTENTIAL YIELDS		NORMAL SEASON	
			TOTAL lb/Ac	USABLE Ac/AUM	GROWING	GRAZING
Droughty South Exposure	1	bluebunch whtg 70	700	2-2.5	3/1 - 6/1	4/1 - 1/1
Droughty Steep South	2	bluebunch whtg 80	550	2-3	2/15 - 6/1	3/15 - 1/1

FOOTNOTES

PLAN CHANGE/ZONE CHANGE/VARIANCE/CONDITIONAL USE

DATE \_\_\_\_\_

OWNER/APPLICANT \_\_\_\_\_

ADDRESS \_\_\_\_\_ PHONE \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

CHECK ONE: PLAN CHANGE \_\_\_\_\_ ZONE CHANGE \_\_\_\_\_ VARIANCE \_\_\_\_\_ CONDITIONAL USE \_\_\_\_\_

DESCRIPTION OF PROPERTY:

TAX MAP \_\_\_\_\_ TAX LOTS \_\_\_\_\_

LEGAL DESCRIPTION \_\_\_\_\_

STREET ADDRESS \_\_\_\_\_

(APPROXIMATE LOCATION IF VACANT)

LOT SIZE \_\_\_\_\_

(ACRES OR SQUARE FEET)

LIST ALL PROPERTY OWNERS AND THEIR ADDRESSES THAT ARE WITHIN 300 FEET OF THE SUBJECT PROPERTY.


USE:

EXISTING PLANNED USE \_\_\_\_\_, PROPOSED \_\_\_\_\_

EXISTING ZONING USE \_\_\_\_\_, PROPOSED \_\_\_\_\_

BRIEF DESCRIPTION OF PROPOSAL \_\_\_\_\_

ANTICIPATED DEVELOPMENT DATE \_\_\_\_\_

UTILITIES:

WATER SERVICE \_\_\_\_\_

SANITATION SERVICE \_\_\_\_\_

SHOW PROPOSAL BY SKETCHING A PLOT PLAN ON REVERSE SIDE OF APPLICATION OR ATTACHED PAPER. SHOW LOT DIMENSIONS, LOCATION OF ALL BUILDINGS AND SETBACKS.

SIGNATURE OF OWNER \_\_\_\_\_

FEE SCHEDULE:

	OFFICE USE	PAID
PLAN CHANGE \$ _____	<input type="checkbox"/>	<input type="checkbox"/>
ZONE CHANGE \$ _____	<input type="checkbox"/>	<input type="checkbox"/>
VARIANCE \$ _____	<input type="checkbox"/>	<input type="checkbox"/>
CONDITIONAL USE \$ _____	<input type="checkbox"/>	<input type="checkbox"/>

REQUEST GRANTED \_\_\_\_\_, DATE \_\_\_\_\_

REQUEST DENIED \_\_\_\_\_, DATE \_\_\_\_\_

OTHER ACTION \_\_\_\_\_, DATE \_\_\_\_\_

CONDITIONS PLACED ON REQUEST \_\_\_\_\_

SIGNED \_\_\_\_\_, DATE \_\_\_\_\_  
CITY RECEIVER



Summary of 18 Water Turbidity Observations, Lower Deschutes  
River; September 10, 1963 - June 5, 1964

	Section I	Section II	Section III	Section IV	All Sections
No. of observations	0	4	8	6	18
Mean turbidity	-	16.6 ppm	22.4 ppm	23.2 ppm	21.4 ppm
Minimum observation	-	11 ppm	6 ppm	8 ppm	6 ppm
Maximum observation	-	24 ppm	40 ppm	35 ppm	40 ppm
Standard deviation	-	6.21	12.4	11.4	10.7

Summary of 34 Water Turbidity Analyses From the  
Deschutes River at Moody (Section IV);  
August 21, 1911 - July 25, 1912  
(Van Winkle, 1914)

No. of observations	34
Mean turbidity	31.5 ppm
Minimum observation	Trace (< 1 ppm)
Maximum observation	280 ppm
Standard deviation	50.7

Water Temperatures, Lower Deschutes River Mainstem and Major Tributaries

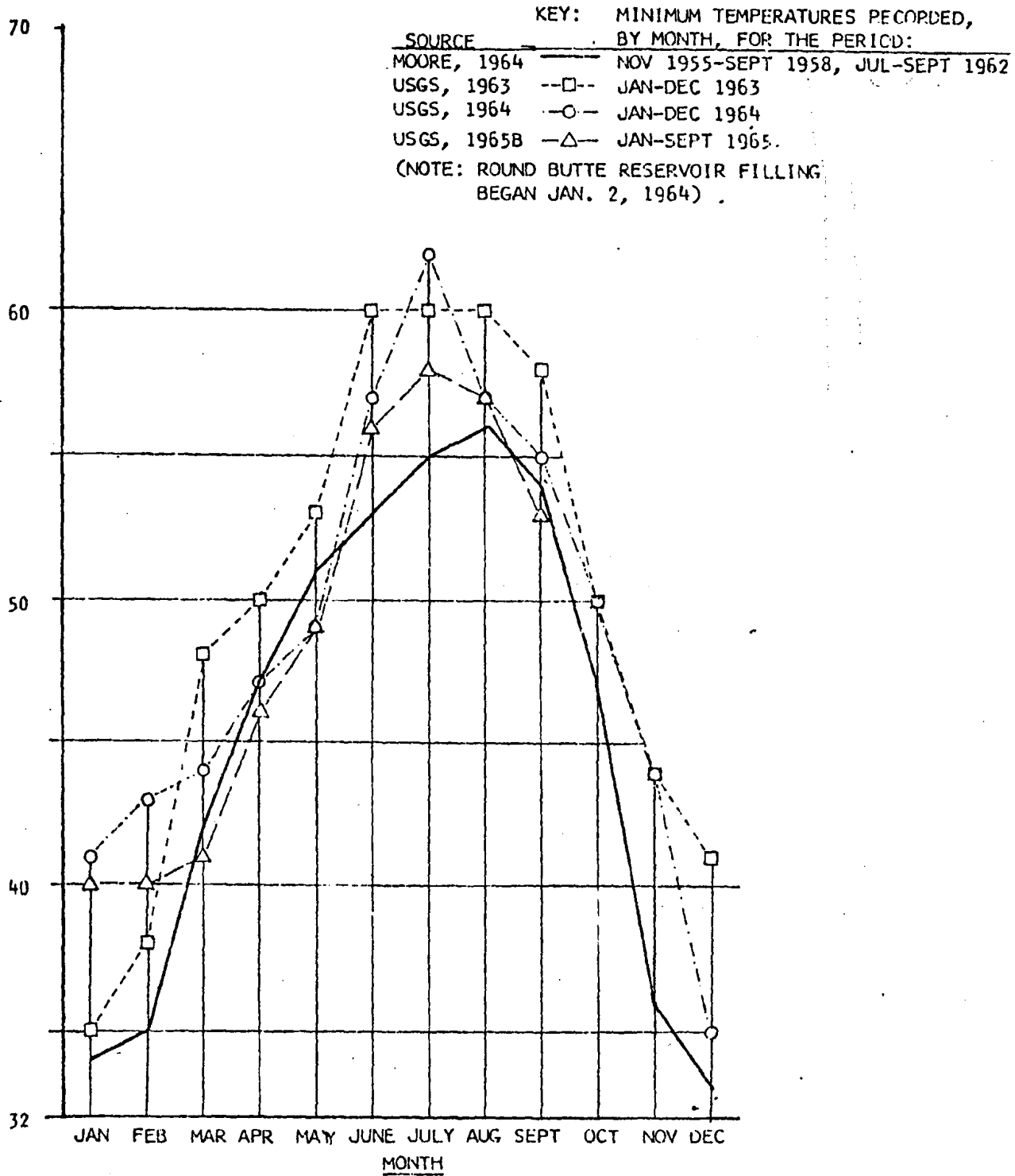
Station	River Mile	Period of Record		Water Temperature (°F)											
				Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Deschutes R. near Madras	101.6	1952-57	Mean	46	46	47	51	54	55	56	56	54	52	49	46
			Max-Min	48 43	49 43	51 44	56 46	59 49	59 51	59 53	59 50	58 50	55 49	52 44	50 43
Warm Springs <sup>a</sup> R. at HeHe		1950-54	Mean	37	38	40	44	46	50	53	51	48	44	40	38
			Max-Min	41 32	45 33	46 33	53 38	54 39	57 44	59 45	58 43	55 41	49 39	46 34	42 32
White R. below Tyrh V. <sup>b</sup>	2.0	1946-62	Mean	38	40	43	46	51	59	61	61	57	50	44	39
			Max-Min	43 32	46 36	50 36	53 36	64 42	69 45	72 48	70 51	67 47	61 41	51 37	45 35
Deschutes R. at Moody	1.4	1955-62	Mean	42	44	47	53	58	62	64	64	60	53	46	44
			Max-Min	46 34	49 35	53 42	63 47	66 51	71 53	71 55	69 56	67 54	59 47	53 36	50 33

<sup>a</sup> Measurements made upstream from the influence of the major thermal springs. Warm Springs River temperatures are usually considerably higher where it flows into the Deschutes River.

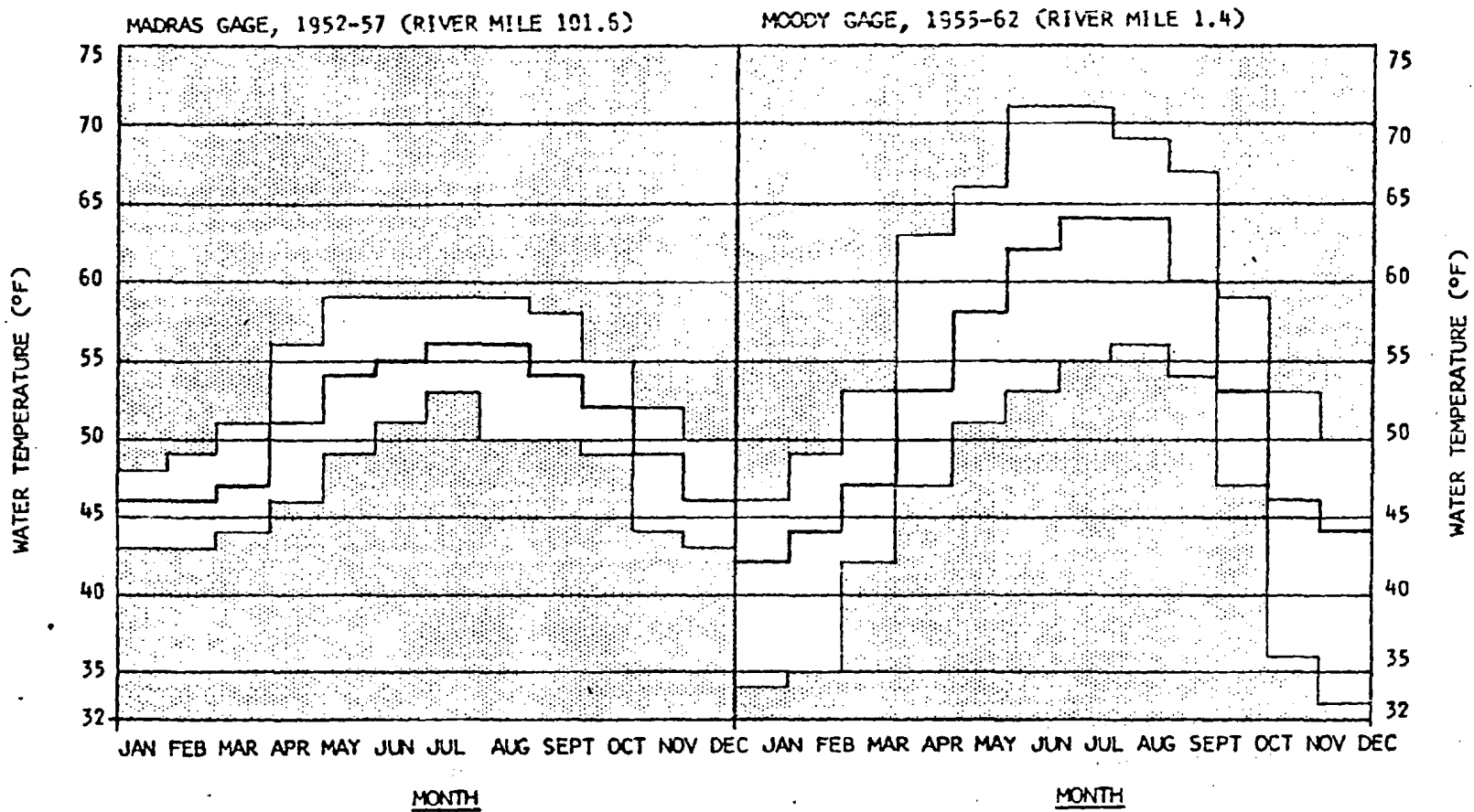
<sup>b</sup> 119 spot observations, adjustments to Mean, Minimum and Maximum values based on correlation with thermograph record for Desolation Creek near Dale.

All data and correlations by Moore (1964).

MINIMUM TEMPERATURES AT RIVER MILE 1.4, BY MONTH.  
 PERIOD OF RECORD (1955-1962) COMPARED WITH THE YEARS 1963, 1964 AND 1965,  
 LOWER DESCHUTES RIVER.



MINIMUM, MAXIMUM AND MEAN RIVER TEMPERATURES FOR PERIOD OF RECORD, USGS GAGES AT RIVER MILES 101.6 AND 1.4, LOWER DESCHUTES RIVER



WATER QUALITY SUMMARY - AVERAGE MONTHLY IN P.P.M.

Station: Deschutes River at mouth    Number: 11    Designation: CD-203,6

Period of Summary: 1954 - 1955

	Jan.	Feb.	Mar. <sup>2</sup>	April	May <sup>2</sup>	June <sup>1</sup>	July <sup>1</sup>	Aug. <sup>1</sup>	Sept. <sup>1</sup>	Oct.	Nov. <sup>1</sup>	Dec. <sup>1</sup>
C.F.S.												
Avg. Flow x 10 <sup>3</sup>		5.17		6.72		4.5	5.7	4.94	4.9		4.99	4.93
No. Sample Composites		1		1		1	3	5	2		1	1
Water Temp. °F		48.7		54.2		65.3	65.9	62.1	58.9		49.1	40.8
Diss. Oxygen		11.8		10.62		10.2	10.1	11.05	11.00		11.35	13.2
% D. O. Satur.		102.5		99		108	107.5	113.5	109		99	102
Carbon Dioxide		0		T		0	0	0.1	0		1	1
pH(3)		8.4		8.0		8.3	8.3	8.3	8.35		8.0	8.0
Ammonia NH <sub>3</sub>		0.70		0.04		-	0	T	T		0	T
Total Alk. CaCO <sub>3</sub>		55		52		53	54	66	62		61	66
HCO <sub>3</sub> <sup>-</sup>		55		52		47	49	58	57		61	66
CO <sub>3</sub> <sup>=</sup>		T		0		6	5	8	5		0	0
Total Hard. CaCO <sub>3</sub>		42		42		46	38	45	43		60	62
Carb. Hard. CaCO <sub>3</sub>		42		42		46	38	45	43		60	62
Non-Carb. Hard.		0		0		0	0	0	0		0	0
Sulfates SO <sub>4</sub> <sup>=</sup>		5		4		T	0.7	0.8	1		0	0
Color		8		17		5	10	9	4		2	0
Turbidity		9		18		4	2.3	4.2	4		1	3
Total Iron		-		-		-	0.05	-	-		-	-
Copper		-		-		-	0	-	-		-	-
Zinc		-		-		-	0	-	-		-	-
Lead		-		-		-	0	-	-		-	-
Aluminum		-		-		-	0	-	-		-	-
Calcium		-		-		-	7.0	-	-		-	-
Magnesium		-		-		-	1.8	-	-		-	-
Sodium		-		-		-	10	-	-		-	-
Potassium		-		-		-	2.2	-	-		-	-
Manganese		-		-		-	0	-	-		-	-
Silver		-		-		-	0	-	-		-	-
Total Solids		86		107		117	109	109	90		90	100
Cond. embos. 25°		101		102		104	108	126	127		139	111

1 1954  
2 1955