

# CITY OF MOLALLA COMPREHENSIVE PLAN

## TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE NO.</u>
<b>I. INTRODUCTION</b>	
A. PURPOSE.....	1
B. DESCRIPTION.....	2
C. HISTORY.....	3
D. CITIZEN INVOLVEMENT.....	4
E. CO-ORDINATION WITH COUNTY, AGENCIES AND SPECIAL DISTRICTS.....	7
F. HOW TO USE THE PLAN.....	7
<b>II. FRAMEWORK FOR PLANNING</b>	
A. URBAN GROWTH BOUNDARY.....	9
B. POPULATION.....	17
C. ECONOMY OF THE CITY AND SURROUNDING AREA.....	27
D. NATURAL RESOURC BASE (TOPOGRAPHY, SOILS, BIOLOGY, ETC.).....	35
E. AREAS WITH POTENTIAL NATURAL HAZARDS (FLOOD PLAIN, SOILS, SLOPES, ETC).....	47
<b>III. PLAN ELEMENTS</b>	
A. LAND USE PLAN MAP.....	52
B. RESIDNETIAL (HOUSING).....	52
C. COMMERCE.....	70
D. INDUSTRY.....	82
<b>E. COMMUNITY FACILITIES</b>	
1. WATER.....	92
2. SEWER.....	97
3. STORM DRAINAGE.....	105
4. SOLID WATE DISPOSAL.....	107
5. TRANSPORTATION.....	108
6. PARKS AND RECREATION.....	120

7. SCHOOLS.....	128
8. POLICE.....	134
9. FIRE.....	136
10. OTHER PUBLIC FACILITIES.....	138
11. GENERAL DEVELOPMENT SCHEDULE.....	141
F. HISTORIC PRESERVATION.....	144
G. LAND USE PLAN	
LAND USE PLAN.....	147
URBANIZATION FORECAST.....	148
IV. PLAN IMPLEMENTATION	
A. ZONING ORDINANCE.....	149
B. SUBDIVISION ORDINANCE.....	149
C. OTHER ORDINANCE.....	150
V. PLAN REVIEW AND REVISIONS.....	151
VI. REFERENCES.....	155

# **I. INTRODUCTION**

## **INTRODUCTION**

### **A. PURPOSE**

The 1973 legislative assembly of the State of Oregon determined that to assure the “highest possible level of livability” in the state it is necessary to have properly prepared and coordinated comprehensive plans for cities and counties. The assembly went on to state that these plans: must be adopted by the local governing body; are expressions of public policy; shall be the basis for ordinances which implement the plan; are to assure that all public actions are consistent with the plan; and shall be regularly reviewed and revised as necessary to meet the changing public needs they are designed to serve. (ORS 197.010) Under this legislation each city and county in Oregon must accomplish the following”:

- (a) Prepare and adopt Comprehensive Plans consistent with Statewide Planning Goals approved by the Commission;” (LCDC) and
- (b) Enact zoning, subdivision and other ordinances or regulations to implement their Comprehensive Plan.” (ORS 197.175).

The Land Conservation and Development Commission was subsequently created by the assembly and asked to establish statewide goals, review comprehensive plan for conformance with those goals, and to insure citizen involvement in the process.

The plan will provide the opportunity for citizens of Molalla to have a voice in determining the form of future development in their community by their participation in the planning process. On the basis of an adopted comprehensive plan, ordinances can be drafted which will put the plan into effect. Those persons seeking to develop in the community will then have the plan and its implementing ordinances to guide the preparation of their proposals in accordance with the policies of the community.

It is the purpose of this document to fulfill the requirements of the State Statutes and Goals regarding a comprehensive plan for the City of Molalla.

### **B. DESCRIPTION**

The City of Molalla is a growing rural farm/timber community located in the southwest section of Clackamas County. Molalla is 14 miles south of Oregon City via State Highway 213, 25 miles northeast of Salem, and 27 miles south of Portland, the metropolitan center. The terrain in the study area is level to gentle sloping with city center 365 feet elevation. The lands in the surrounding area are predominantly used for agricultural purposes, while timber and related uses are found in the Cascade foothills, nearby. Many of the 3050 residents of the city are employed in lumber related businesses.

The study area encompassed by this plan includes approximately 857 acres within the existing city limits and 757 acres in the adjoining portion of Clackamas County. The area is more precisely defined as the Molalla Urban Growth Boundary. (See Land Use Plan Map).

### **C. HISTORY**

The first white man to settle in the Molalla area was William Russell who took up a land claim in 1840. The fertile soil, ample water and rich grasses of the Willamette Valley soon lured other settlers to follow. Soon the land, once the favorite hunting ground of the Indian, was under cultivation. Ten years later on April 9, 1850, the first post office was established near the present site of Liberal, approximately 5 miles to the north. The post office was discontinued in 1851 and reestablished December 2, 1868. Although available records do not give the location it is assumed that this is the date it was placed at the community of Molalla.

By 1856 Molalla was a thriving agricultural center. Legend has it that two pioneer trails, east-west and north-south, met at the present intersection of Molalla Avenue and Main Street, and as a natural consequence a town developed. The first schools were established at that time, and the first general store opened a year later. Molalla developed rapidly as an important trade center and developed rapidly as an important trade center and later, as mills were established, as a lumber-manufacturing town.

1913 seemed to be the magic year for Molalla. The first railroad, the Willamette Valley Southern, steamed through town. With the railroad came a new post office, a new school, and the first weekly newspaper. The first Molalla Buckaroo was held in 1913, the year the City incorporated.

The name “Molalla” has had many different spellings over the years, and there are a number of theories as to its origin. Founded in historic Indian country, Molalla may have been named for the Molalla Indians, although they were a small and relatively unimportant tribe by the time the white man settled in the Willamette Valley. William Hatchett “Uncle Billy” Vaughn, a pioneer of 1885, claimed that the name originated from two Chinook Ian words, “moolek” for elk and “olilla” for berries, both plentiful in the mountain region during that time. Whatever the case, the twenty-seven different spellings of “Molalla” have been narrowed down to one; a wide usage has established the present recognized spelling.

### **D. CITIZEN INVOLVEMENT**

There are many means by which citizen participation can be incorporated into the administrative process of government. These range from opinion sampling and surveys, to the use of independent boards with defined memberships and responsibilities. The City of Molalla has chosen to go beyond the usual and required elements of citizen involvement in the planning process, and developed a comprehensive plan, which exemplifies the highest ideals of participatory democracy. The City established a precedent in land use planning, which guaranteed citizen participation in virtually all phases of plan preparation. In compliance with LCDC Goal No. 1 – The Citizens themselves developed the entire plan.

The planning process for Molalla began during the summer of 1975. Notices were published in the weekly newspaper requesting that all persons interested in Molalla's future development attend a meeting at City Hall. Hence, the Citizen's Advisory Committee was formed. Three and one-half years later the CAC had not yet been provided a plan that complied with the fourteen (14) Goals and Guidelines set forth by LCDC. Then in December 1978 an expanded CAC took on the monumental task of preparing a comprehensive plan for the City. The City of Molalla Comprehensive Plan is the finished product of endless hours of research on the part of CAC and members of the city staff.

Numerous opportunities have been provided to encourage citizen participation in the development of the plan. Only a few are documented below:

1. June 23, 1975

A notice was published a week prior in the Molalla Pioneer requesting that citizens interested in the future development of Molalla attend a CAC meeting at city hall. Mr. Don Pence was elected as chairman of the committee. The City's planner Mr. Eldon Edwards was introduced to the group and LCDC goals and guidelines were reviewed. The CAC was asked to list their problems, issues and concerns for future study.

2. July 17, 1975

Notices of this meeting were published in obvious places in the City. During this meeting the CAC was asked what type of community the citizens were desirous of having. The response was to try to equalize the residential, industrial and commercial lands to supply the service community. CRAG representative Rod Sandoz presented the CRAG viewpoint.

3. August 21, 1975

The purpose of this meeting was to discuss Urban Growth Boundary issues. Immediate Urban and Future Urban lands were points of discussion.

4. August 1975 – May 1976

Fifteen meetings of the CAC were conducted during this period. The public received notification by notice or telephone.

5. January 24, 1978

LCDC and community goals were points of discussion., The determination was made that no forest lands existed within the study area.

6. October 30, 1978

The meeting of October 30 was called by telephone and posting notices. The purpose was to discuss the problems with the City's planner and the inadequacies of the plan. A presentation pas work was made by former employees of Eldon Edwards.

7. December 13, 1978

A special meeting of the CAC was called by the mayor-elect to request assistance from the CAC in developing a comprehensive plan for the City. The response was favorable. As the Land Use map had drawn considerable criticism from residents of the area the mayor-elect requested a special committee be formed to review the map and make necessary changes. The written portion of the text was discussed.

8. January 8 – January 12, 1979

Four committees met to discuss various plan issues. Information was compiled on housing, population, transportation, etc.

9. February 8, 1979

This meeting was called to get progress reports from various groups who were developing the written portion of the text. The revised Land Use Map was presented and approved.

10. March 1979 to December 1979

Meetings of the committees and CAC resulted in a completed plan text. Resource maps were drafted and added to the text. Copies of the plan draft were printed.

11. March 20, 1980

A public meeting of the CAC was conducted to discuss the Comprehensive Plan Draft. Notice of the hearing was published in the Molalla Pioneer the previous week. The CAC made final revisions in the draft and considered city staff additions. The plan draft plus staff additions were approved by the CAC and forwarded to the Planning Commission.

12. March 27, 1980

The Planning Commission conducted a public hearing on the plan draft recommended by the CAC. Individual notices were sent to all property owners inside the urban growth boundary plus property owners within 250 feet of the boundary. The Planning Commission heard public testimony on the plan draft. After deliberation on the testimony and the plan, the Commission adopted the plan with amendments. Approximately 20 people attended the meeting.

13. April 24, 1980

The City Council conducted a public hearing on the recommended Comprehensive Plan Draft. Individual notices with maps were sent to affected parties. The plan notices were reviewed section by section and citizen comment was invited. The hearing was continued until May 1, 1980. Approximately 20 people attended this meeting.

14. May 1, 1980 and May 5, 1980

The previous week's hearing was continued and further public testimony heard. The remaining plan policies were reviewed. The Council began study of testimony and proposed amendments at the May 1<sup>st</sup> meeting and completed the study at the regular Council meeting on May 5, 1980.

The involvement of the CAC in the plan has allowed a broad representation of interests in Molalla. Input from business, government, residential and other interests was used in development of this plan. All areas of the city are represented in the CAC.

CAC involvement will be encouraged in the future after the plan has been adopted. The function of the CAC will change after plan adoption to include activities such as participation in plan review and revision, and community/economic development programs: To insure the participation of the CAC programs. To insure the participation of the CAC and other citizens, the policies of the City will be:

- (1) To continue notification of affected parties on proposed land use actions and legislative exchanges as required by ordinance;
- (2) To make planning documents and reports available, as appropriate, through City offices and public library;
- (3) To promote informed citizen participation in decision through providing publications and printed materials.
- (4) To respond to citizen recommendations through appropriate mechanisms and procedures.
- (5) To maintain the CAC via appointment of the Planning Commission. Provide a mechanism for reappointment of the CAC as an independent body at the discretion of the Mayor.

**E. Coordination with County, Agencies and Special Districts**

The City of Molalla recognizes that its land use actions impact areas outside its jurisdiction. Coordination with government agencies, special districts and utilities is necessary in the planning process. To insure co-ordination with these groups the policies of the city will be:

- (1) To assist the citizens in contacting and communicating with other government agencies;
- (2) To continue participation in the Dual Interest Area Agreement with Clackamas County to insure consistency between City and County plans;
- (3) To participate in interagency co-ordination efforts with various special districts, utilities and government agencies. The City will maintain a current list of districts, utilities and agencies, and encourage their involvement in appropriate land use actions.

## **F. HOW TO USE THIS PLAN**

Once public hearings before the Planning Commission and the City Council have been concluded and the plan has been officially adopted, it becomes the official policy statement of the governing body (City Council) of the City of Molalla. The policies contained herein are the city's stated position with regard to achieving Statewide Goals, and in meeting citizen needs and desires regarding livability and how the city should develop in the future.

Certain policies are reflected in the arrangement of the plan map, which indicated the various land uses within the city and urban growth boundary. Other policies stated in the plan will be utilized to prepare a zoning ordinance, which will integrate the intent of the appropriate policies in legal requirements for development. While the plan may be amended periodically as conditions change within the city, it represents a convenient source of information about the city and the policies which it has developed to guide it in its chosen direction. This document is a tool for:

THE CITIZEN – who is concerned how his city will develop in the future and the actions his elected officials should take as his representative.

THE DEVELOPER – who needs to know which lands in the city have been designated for certain uses, and the goals and policies to be addressed in providing that a given proposal complies with the City of Molalla Comprehensive Plan.

THE PLANNING COMMISSION – who must determine that the proposals which are submitted for its approval comply with the goals and policies of the plan, and that its own actions meet the intent of the plan.

THE CITY COUNCIL – who must consider not only how the policies of the plan relate to land use actions within their preview, but further, how these policies relate to other matters which come before them in their administration of the city's business.

# **II. FRAMEWORK FOR PLANNING**

## FRAMEWORK FOR PLANNING

### A. URBAN GROWTH BOUNDARY

#### 1. BACKGROUND

The determination of the Molalla Urban Growth Boundary represents a joint coordinated action between the City of Molalla and Clackamas County. The future urbanized policies of the urban growth boundary from conflicting uses and preserves them for future urbanization. A Dual Interest Area Agreement was entered into by two jurisdictions on June 19, 1979 to coordinate land use actions on unincorporated lands within the urban growth boundary. A copy of the Dual Interest Agreement and a map showing the Dual Interest Area are furnished as attachments to the plan.

Pertinent information used in the determination of the boundary is located throughout this plan, however for purposes of convenience, selected portions are presented in this section as an indication of the basis for selecting the boundary.

#### 2. GROWTH BOUNDARY DETERMINATION

Many factors were considered in the determination of the Urban Growth Boundary. The following are summaries of the factors considered more detailed information is located throughout the plan.

##### a. Existing Land Use

In order to obtain baseline land use data an existing land survey of the city was conducted. Quantification of this survey revealed that 75.2% (641.7 acres including streets) of the city's area is currently developed. The remaining 212 vacant acres are in all land classifications. The existing land use is listed by category in Table 26, Data Base Update.

Residential lots vary from 5,000 square feet to over an acre in size with the acre sized lots mainly occurring along Toliver Road. Many 10,000 square foot lots are located in Sunrise Acres in the southeast section of the city. Commercial uses occur approximately in the center of Molalla along both sides of Main Street and Molalla Avenue. There is also limited commercial development at the intersection of Highway 211 and Mathias Road in the eastern section of the city.

Industrial facilities take up a high percentage of the total land use. The Molalla School Districts U4 and 35 owns approximately 80 acres of land within the current city limits. This is due to the fact that the school districts serve a large rural area plus the City of Molalla.

Streets make up a smaller percentage (13%) of developed land within the current city limits.

b. Population and Housing

Population projections determine possible population growth over a period of time (to the year 2000). Population growth translates primarily into land needed for development. The future land needs leaves a balance of land needed for urban growth. The remaining “build able lands” are determined as to location and use by reviewing available land by criteria based upon existing uses, natural hazards, service availability, ownership, accessibility and soils. All developable lands are considered in a single category and are capable of being developed at such time as urban services are provided. The specific type of land use will be finally determined depending on community needs and policies of housing, recreation, public facilities, commerce, industry, transportation, etc.

A study of Molalla’s population and history of growth was made by the city’s planning consultant in 1977. As this data was considered outdated, the projections were recalculated taking the current population and present building activity in to account. The projections were then crosschecked with the Clackamas County Planning Department, and subsequently used in determining the Urban Growth Boundary.

For the purpose of developing an urban growth boundary and establishing specific land use needs a median average annual growth rate of 4.04% is used. This established population growth estimated of 3663, 5952, and 7465 for the years 1980, 1990 and 2000. Population forecasts and yearly trends are further discussed in Section B of this element.

The population calculations indicate the amount of residential lands set aside should be sufficient to accommodate an estimated 7645 persons within the Urban Growth Boundary, or an increase of 4221 people by 2000. Although a 65-35 split in residential densities is considered ideal, the CAC felt a 70-30 split was more in keeping with the rural nature of the area. Of the 369.9 total acres of residential lands outside the city limits but within the Urban Growth Boundary, 332.8 acres have been designated for single-family purposes and 37.1 acres have been designated for multi family purposes.

c. Commerce

Molalla acts as a trade center for an estimated 25,000-35,000 people (see Market Area Map Page 80). The city also needs to lessen its dependence on the lumber industry and related activities. To better facilitate the market area and diversify the city’s employment base by attracting new industry to the are, 101.6 acres of General Commercial (C-2), 65.7 acres of Light Industrial (M-1) and 183.9 acres of Heavy Industrial (M-2) lands have been set aside beyond the city limits. These lands and the commercial and industrial activity already occurring on them are discussed in the appropriate sections of the plan.

d. Services

The location of the Urban Growth Boundary reflects the city's efforts to direct growth to an area where services can be provided in an orderly and economic manner. Consideration of existing services and future service plans was made in locating the boundary.

The location of the new sewage treatment plant to the west of the city was a factor in determining the growth boundary. Directing growth to the west would facilitate efficient and inexpensive sewer provision to urbanizing lands. Area to the northeast of Molalla, north of Highway 211, were not included as they drain in a direction away from the city.

The existing transportation system was also a factor in location of the growth boundary. Toliver Road and Highway 211 provide two major east-west routes within the study area. Future urbanization to the west would utilize these existing streets. Development to the west would create less congestion in the central city as traffic would not be directed to that area. Toliver Road and Highway 211 also intersect with Highway 213 west of the city, providing an excellent location for commercial and industrial development. Areas to the east and south of Molalla lack the transportation system, which exists to the west. Development to the east of town would direct traffic through the city center, which already has congestion problems.

The existing water system serves the Molalla city limits. Plans call for future expansion of the system to the west of the city. The expanded system will ultimately run back east to the city, creating a more efficient loop water system. Development of lands to the west could utilize the water facilities existing in the area.

Other service issues were considered when determining the Urban Growth Boundary. The location of school and recreation facilities and the need for police, fire, solid waste and other city services were also factors in determination of the boundary. Police, fire and sanitary services are facilitated by efficient street systems and could efficiently serve developing areas to the west. A new site has been designated west of the city for park or recreation use.

e. Impacts of Urbanization

The Urban Growth Boundary defines where urban growth will occur in the future. It is inevitable that there will be impacts on the community due to this growth.

Social impacts associated with urbanization are difficult to measure, but still affect everyone in the community. Many longtime residents may feel discontented at seeing their town change due to the increased population. General congestion and inconvenience is felt from an increased number of people at banks, stores or restaurants. By designating enough commercial lands and locating residential lands in appropriate areas, Molalla feels it can lessen the congestion problems usually associated with urbanization. Orderly growth to meet appropriate needs may minimize the discontentment people may feel as the community changes.

The economic impacts of urbanization can be counted as benefits and costs to a community. Economic benefits result from increased tax revenues from businesses and homeowners. Local businesses also benefit through increased sales to additional people who shop in our town. Molalla is encouraging the economic benefits by designating adequate amounts of industrial and commercial land to provide jobs for local residents and stimulate the flow of money through the local economy. Economic costs are the results of providing services to areas for new development. Those costs not borne by the developer are paid by local citizens through taxes. Molalla is decreasing those costs by directing their growth to the west, where services already exist or can be easily expanded.

Urbanization also creates additional demands on energy supplies. New homes and businesses will need energy in the form of oil, natural gas, or electricity. Urbanization may lead to traffic congestion and an increased consumption of gasoline by automobiles. Molalla has attempted to reduce increased energy demands by encouraging energy efficient homes and directing its growth to the west of the central city traffic congestion.

Urbanization can lead to a wide range of environmental impacts. Water pollution can be caused by increased runoff from developments, industrial waste and erosion when ground cover is removed. Air pollution from automobiles and industry are characteristics of urban areas. Noise pollution is also a result of urban development due to the concentration of activities in a relatively small area. Through location of its growth boundary and appropriate land use designations, Molalla plans to mitigate the pollution caused by urbanization. By providing adequate services to developed areas and protecting water resources from development, water pollution can be reduced. An efficient transportation system can reduce traffic congestion and pollution. Noise pollution can be mitigated by locating sources of noise away from residential areas and providing buffers.

f. Agricultural Lands

Molalla is a rural community with farmland located near the city in all directions. One of the factors considered in location of the Urban Growth Boundary was the preservation of that agricultural land and buffering between agricultural and urban uses. Large agricultural areas remain to the north, northeast and east of the city outside of the proposed growth boundary. The land to the east is across Highway 211 from the city. To the northeast, the agricultural areas are bordered by the Buckeroo grounds and senior high. The one agricultural area included in the growth boundary is located north of Toliver Road and east of Highway 213. This area is located just north of Toliver Road, adjacent to sewer and water service. Three stub streets provide access to the area, and the large lot sizes allow for efficient development. Development in this area would be sufficiently buffered from the agricultural land to the north (see policy 14, page 113-114 and policy 11, page 53).

The Clackamas County lands to the west which are inside of the proposed Urban Growth Boundary were included in the County's Rural Plan Amendment I. Most of the area was included in rural area 53 of the County's plan. This statistical area was designated and zones for rural five-acre use. A general description indicated that the 435 acre area has 146 parcels, of which 118 are five acres or smaller. Average parcel size is 3.0 acres. The 130 ownerships average 3.3 acres. There are 128 dwelling units in the area for an average of one dwelling unit per 3.4 acres. The County's rural designation for this area indicates that it is developed and committed to non-farm and non-forest uses.

3. GOALS AND POLICES

a. GENERAL

STATEWIDE GOAL 14 – To provide for an orderly and efficient transition from rural to urban land use.

Urban growth boundaries shall be established to identify and separate urbanizable lands from rural land. (Excerpt)

COMMUNITY GOAL – To provide for the orderly and timely growth of urban lands.

GENERAL POLICIES

- (1) To designate the city and the area within the Urban Growth Boundary Immediate Urban and Future Urban.
- (2) To base such designations on a justified need and/or to solve problems known to exist in the “dual interest” area.
- (3) The Immediate Urban, Future Urban, and Urban Growth Boundary will be reviewed in joint city-county study in 1985 and thereafter as the need arises to be determined by the City of Molalla or Clackamas County.

IMMEDIATE URBAN POLICIES

Immediate urban lands are lands within Urban Growth Boundaries which meet at least one of the following conditions: (1) Served by public sewer; (2) included within boundaries of cities or within special districts capable of providing public sewer and planned to be served in the near future; or (3) substantially developed or surrounded by development at urban densities.

- (4) Changes in Urban Growth Boundary may be proposed by individuals, by the City of Molalla, or by Clackamas County. Changes will be made only after completion of City requirements, the plan amendment process in Clackamas County and applicable LCDC requirements.
- (5) Unless stated elsewhere in the plan, all land in the Immediate Urban Area is assumed to be available for development when desired by property owners and if consistent with the Comprehensive Plan, zoning and subdivision provisions.

- (6) Use of service available in the Immediate Urban Area will be maximized by encouraging new development at densities prescribed by the Comprehensive Plan and Land Use Ordinances, and through the infilling of partially developed lands.
- (7) To designate new areas for Urban use only when a determination has been made that the property can be adequately served by municipal water sewer and roads, and consideration of the amount of immediate urban infill.

#### FUTURE URBAN POLICIES

Future Urban lands are lands within Urban Growth Boundaries but outside Immediate Urban areas. Future Urban Lands are planned to be served with public sewer, but are currently lacking a provider of sewer service. Future Urban lands are substantially undeveloped and will be retained in their current use to insure future availability for urban need.

- (8) To coordinate with Clackamas County to insure large lot zoning designation or special holding zones are applied to lands within the Urban Growth Boundary to prevent development, which would be detrimental to future urban development.

#### ANNEXATION POLICY

Annexation is the process, which converts Future Urban lands in Immediate Urban.

- (9) Annexation may be permitted if:

- The site abuts the city limits of Molalla.
- The site is within the Urban Growth Boundary.
- The proposed use for the site complies with the City of Molalla Comprehensive Plan.
- The capacity exists to provide the site with urban services.
- The proposed annexation will have a positive fiscal impact upon the city.

## **B. POPULATION**

### **1. EXISTING DATA**

The current population of the City of Molalla has been placed at 3180 persons by the center for population research at Portland State in July, 1986. The major residential concentration outside the city limits but within the Urban Growth Boundary lies to the west between State Highway 211 and Toliver Road. Average household size is expected to decrease between 1987 and 2000. The estimate of household size for the Metro Region in the year 2000 is 2.5 persons per household. Field observations by members of the CAC estimate there are approximately 120 housing units in the Urban Growth Area. It is estimated the 374 people live in the area between the city limits and Urban Growth Boundary, for a total population of 3424.

## 2. YEARLY TRENDS

During the years from 1970 to 1977 Molalla experienced a total growth of 47 percent, or 7 percent annually. This phenomenon appears to have occurred because of the move to non-urban environments common throughout the United States, particularly in the west. For the northwest in general, this move from the cities and past the suburbs has resulted in an approximate 15 percent growth rate between 1976 and 1977 in non-urban communities. The total growth of 47 percent for Molalla is particularly interesting when compared to the 33.6 percent growth from 1960 to 1970, which averages to 3.4 percent annually, for Molalla. Population figures and percent of annual increase are shown in Table I.

TABLE I

<u>YEAR</u>	<u>POPULATION</u>	<u>% INCREASE</u>
1950	1497	---
1960	1501	---
1970	2005	3.4
1971	2180	8.7
1972	2300	5.5
1973	2435	5.9
1974	2625	7.8
1975	2760	5.1
1976	2780*	---
1977	2950*	3.4
1978	3050	3.4
1984	3025	.8

\*Building Moratorium (See Housing)

In addition to population figures for the City itself, statistics are available for Census Tract 239, of which Molalla is a part. Molalla's population in relation to that of the total tract illustrates the City's history of growth in another manner. In 1970 Molalla comprised 58 percent of the census tract population. In 5 years the population had increased to the degree that it made up 65 percent of the total tract.

## 3. GROWTH PROSPECTS

Molalla's population has increased an average of 7 percent annually since 1970. The significant increase in building activity during recent months indicates Molalla is entering a period of accelerated growth. To predict how rapid the growth will occur is impossible at this point in time. Given the limitations of travel time from the urban area, however, it would seem reasonable to predict the current 7 percent annual growth rate will continue through 1985. Following 1985 it is anticipated that a leveling off in the population shift will occur giving Molalla a more reasonable 3 percent annual increase in population for another 10 years, at which time approximately a 2 percent annual population increase will occur through 2000. (Table II-2)

TABLE II-2  
POPULATION PROJECTION

<u>YEAR</u>	<u>POPULATION</u>
1979	3424
1980	3663
1981	3919
1982	4193
1983	4486
1984	4800
1985	5136
1986	5290
1987	5448
1988	5611
1989	5779
1990	5952
1991	6130
1992	6313
1993	6502
1994	6697
1995	6897
1996	7034
1997	7174
1998	7317
1999	7463
2000	7645
2005	7940

4. PERCENT OF COUNTY

The total estimated population for Molalla in 1978 was 3050 people, comprising about 1.4 percent of the County total. This figure has increased steadily over the ten year period from 1968 to 1978 at a rate of approximately .1 percent every 4 years. Should this trend continue Molalla would comprise about 2.1 percent of the county's population by 2000. The "208" population projection for Clackamas County for the year 2000 is for 364,900 people. If the figures in Table II-3 can be used as an indicator, Molalla's population would be placed at 7665 people by 2000, which is slightly higher than actually projected.

TABLE II-3

<u>YEAR</u>	<u>CLACK. COUNTY</u>	<u>MOLALLA</u>	<u>% OF COUNTY</u>
1968	158,990	1,700	1.1
1969	164,800	1,800	1.1
1970	166,088	2,005	1.2
1971	174,900	2,180	1.2
1972	178,400	2,300	1.3
1973	185,600	2,435	1.3
1974	196,900	2,625	1.3
1975	202,900	2,760	1.4
1976	205,800	2,780	1.4
1977	208,496	2,950	1.4
1978	220,000	3,050	1.4
---	---	---	---
---	---	---	---
2000	264,900*	7,665	2.1

\*Clackamas County “208” projection

5. AGE AND SEX

Molalla has a substantial proportion of children, making up 37% of the City’s population, with 25% of them of school age. Children make up only 33% of the County’s population as a whole, and even less ... 30%, of the Portland Metropolitan Statistical Area. Much of this difference is made up of children under 5 (12% in Molalla vs. 7% elsewhere).

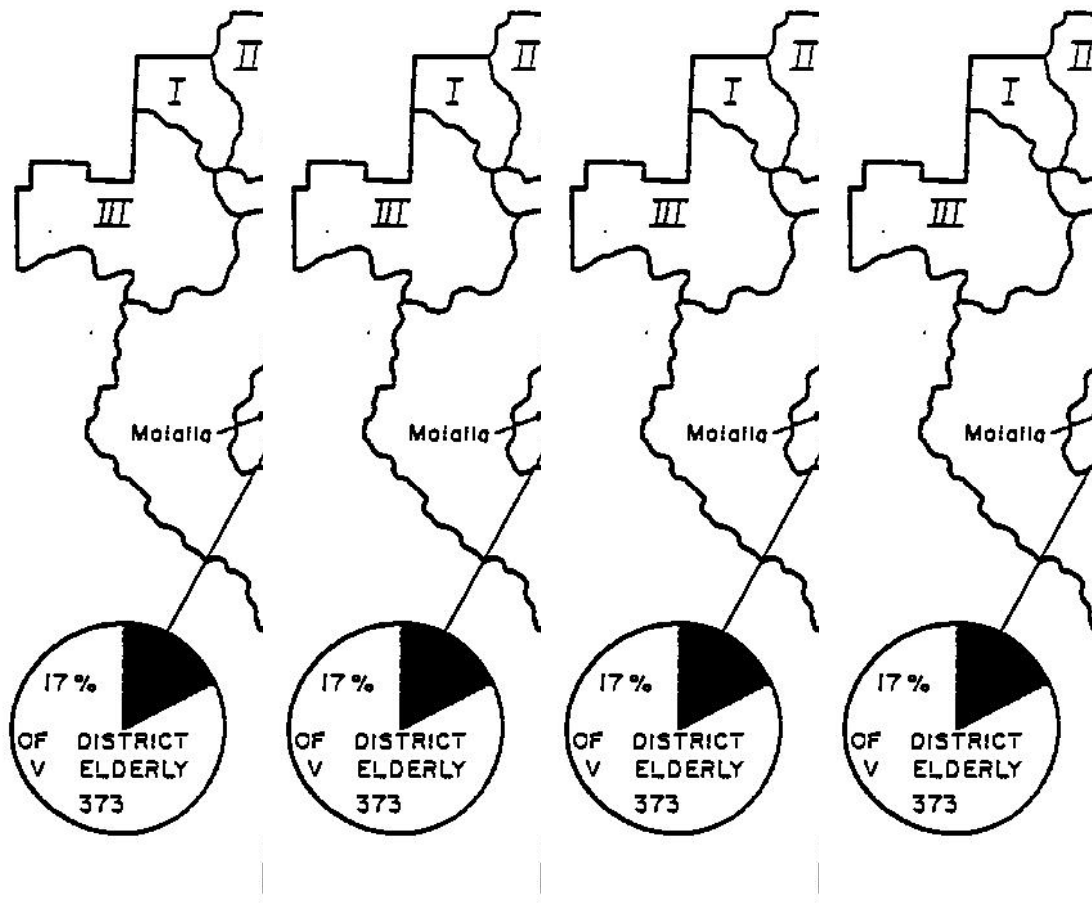
Molalla has 13% of its population over 65. This compares to the County and the region’s proportion of elderly persons of 9% and 11% respectively.

TABLE II-4  
AGE AND SEX

<u>AGE</u>	<u>MOLALLA CITY LIMITS</u>				<u>CT 239 CLACKAMAS</u>		<u>PORTLAND</u>	
	<u>MALE</u>	<u>FEMALE</u>	<u>TOTAL</u>	<u>%</u>	<u>TOTAL</u>	<u>%</u>	<u>COUNTY</u>	<u>SMSA</u>
							<u>%</u>	<u>%</u>
<u>Pre-School</u>								
Under 5	180	166	346	12 (12%)	490	10 (10%)	7 (7%)	7 (7%)
<u>School Age</u>								
5 – 9	141	115	256	9	385	8	8	7
10 – 14	107	111	7	380	8	9		8
15 – 19	128	136	9	429 (25%)	9	9 (25%)	8 (26%)	8 (23%)
<u>Working Age</u>								
20 – 24	128	136	9	372	8	7		9
25 – 29	135	155	10	439	9	9		10
30 – 34	99	104	7	356	7	9		9
35 – 44	137	147	9	482	10	14		12
45 – 54	103	119	7	387	8	10		10
55 – 59	46	76	4	213	4	5		5
60 – 67	57	57	4	206 (50%)	4	4 (52%)	4 (58%)	4 (59%)
<u>Retires</u>								
63 – 74	94	133	8	360	8	6		7
75 – 84	43	91	4	205	4	3		3
85 and over		13	34	1 (47%)(13%)	61	1 (13%)	1 (9%)	1 (11%)
Total		2,992		4,766				
Median Age	25.8	29.1	27.5		N/A		30.7	N/A

In 1970, the elderly made up 14,900 or 9 percent of the County's population. South Rural District V, which includes Molalla, had 2,176 or 14.6 percent of the County's elderly. This in itself is not significant until compared to the Census Tract figures for the same period. In 1970, there were 373 persons in the Census Tract over 65 making up 17.2 percent of the District's elderly population.

A recent survey of County households done by Portland State University indicates that while the number of elderly in the District increased by 307 between 1970 and 1977, the District's portion of the County's elderly dropped, slightly from 14.6 to 13.5 percent. Even with this slight decline, Molalla has a substantial number of elderly persons.



## 6. HOUSEHOLD INCOME

Many of the characteristics noted earlier would lead us to the conclusion that Molalla would have a lower average income than surrounding areas. Indeed, Molalla's median household income in 1979 was only \$13,887, about 65% of the County's median household income of \$21,177. Molalla's median household income was also substantially below the surrounding rural area as a whole and the Portland region as a whole. Less than 10% of households have a household income over \$30,000 per year, as opposed to 24% of the County's households.

Table II-7 shows that Molalla has a substantially lower median income, for both all households and family household than the surrounding rural census tract, the County and region, and surrounding cities.

TABLE II-6  
HOUSEHOLD INCOME

	Percent of Total			
	<u>Molalla City</u>	<u>of CI239</u>	<u>Clackamas Co.</u>	<u>Portland MSA</u>
Less than \$10,000	34%	29%	19%	25%
\$10,000 to \$12,999	11%	1%	7%	8%
\$13,000 to \$14,999	8%	6%	6%	7%
\$15,000 to \$19,999	13%	8%	14%	14%
\$20,000 to \$24,999	14%	21%	14%	13%
\$25,000 to \$29,999	9%	11%	11%	10%
\$30,000 to \$34,999	4%	11%	8%	8%
\$35,000 to \$39,999	3%	6%	9%	10%
\$40,000 to \$49,999	1%	1%	6%	1%
\$50,000 to \$74,999	1%	4%	4%	4%
\$75,000 or more %	1%	1%	2%	1%

The average household income for Clackamas County in 1984 was slightly less than \$25,000 with 19 percent of the households making less than \$10,000. The average income for District V was approximately \$20,000 per year with 17.6 percent of the households making less than \$8,000.

TABLE II-7  
HOUSEHOLD AND FAMILY INCOME FOR COMPARABLE AREAS

	<u>Median*</u> <u>Family</u> <u>Income</u>	<u>Median</u> <u>Household</u> <u>Income</u>
Molalla	\$16,200	\$13,887
Remainder of C1239	N/A	\$20,878
Clackamas County	\$23,572	\$21,177
PMSA	N/A	\$18,423
<u>Comparable Cities:</u>		
Canby	\$19,722	\$17,707
Estacada	\$20,880	\$13,125
Lake Oswego	\$33,651	\$29,132
Oregon City	\$19,901	\$17,706
Sandy	\$19,462	\$17,176
West Linn	\$26,652	\$24,182
Unincorporated Clackamas Co.	\$26,801	\$24,732

\*Families include all persons living together related by blood or marriage. Households include all persons (a) living together and (b) single person households.

It is common to attribute lower median household incomes in communities to a large concentration of elderly, which are stereotypically on low, fixed incomes. However, if we separate out the “non-family” households (single person households and households of non-related persons), we find that Molalla’s median family income is still substantially lower than the County as a whole (Table II-6). Table II-7 explores this idea further. In Molalla a larger proportion of the households headed by a person over 65 than persons 16 to 64 are in poverty, however, both the poverty level and low-income groups are still dominated by younger households.

7. LABOR FORCE AND EMPLOYMENT

The 1970 census provides labor force and occupational information for Census Tract 230. The labor force data have been extrapolated to provide an annual average employment rate for 1977. The labor force figures were arrived at by finding the proportion of total employment and unemployment to the Portland Standard Metropolitan Statistical Area (SMSA). It is necessary to realize that this assumes that the proportion of employment and unemployment is the same for both Molalla and the SMSA as a whole. Closer figures would be difficult to estimate, however, because of the lack of the current statistical information on employment in the Molalla area. The labor force and occupational data pertain to persons 16 years old and over.

1970 CENSUS				
	<u>Labor Force</u>	<u>Employ- ment</u>	<u>Unemploy- ment</u>	<u>Unemploy- ment Rate</u>
Census Tract 239 – Molalla	1,256	1,188	68	5.4%
1977 ANNUAL AVERAGE				
Census Tract 239 – Molalla	1,600	1,500	100	6.3%

TABLE II-8

MANUFACTURING FIRMS IN MOLALLA ND VICINITY, 1982-83

<u>Firm Name</u>	<u>Type of Firm</u>	<u># of Employees</u>	<u>In City Limits</u>
Publishers Paper Co.	Lumber Mill	450	No
Avison Lumber Co.	Lumber Mill	300	Yes
Brazier Forest Products	Lumber Mill	160	No
Electronic Controls Design*	Electronic Components	95	No
Crown Zellerback Corp.	Logging	55	No
Crawford Logging & Construct.	Logging	50	
Graves Logging	Logging	27	
Harvey Buche Logging Co.	Logging	20	
Sharp Construction	Clay Products	15	
Reisch Logging	Logging	12	
Pitman Logging Co.	Logging	11	
Brush Machine	Machinery	10	
Artcraft Distributing	Metal Plate Work	10	No
Union Mills	Animal Feed and Milling	7	No
B&T Logging	Logging	6	
Kropf Lumber	Sawmill	6	
Molalla Iron Works	Fabricated Metals	6	
The Molalla Pioneer	Publishing	6	Yes
Rodney Schoenborn Logging	Logging	5	
Mountain Timber Cutting	Logging	5	
Foothills Forest Products	Logging	4	
Moehnke Logging	Logging	4	
Molalla Meats	Meat Packing	4	
Molalla Sand & Gravel	Sand & Gravel Products	4	
Huston Welding*	Fabricated Metal	6-8	Yes
Molalla Machine Shop	Vehicle		Yes
Clancy's Custom Cabinets	Sausages	2	No
Jorgensen's Rock Products	Sand & Gravel Products	2-4	
Klassic Kabinets*	Wood Kitchen Cabinets	2	No
Assur's Custom Cabinets	Wood Kitchen Cabinets	1	No
Robbins Lumber	Logging	1	
Harold Gibboney Logging	Logging	NA	
Mountain Stream Meat Co.	Meat Packing	NA	
Portland Metal Fabrication	Sheet Metal Work	NA	
Total		1,301	

\*Updated per local information

Source: Oregon Department of Economic Development, Directorate of Human Resources

**8. URBAN GROWTH AREA INFORMATION**

When the City of Molalla CAC studied the needs of Molalla for an Urban Growth Boundary, it was determined that current planning data indicated a year 2000 population in the Urban Growth Boundary of 7,646 people. It was further determined that approximately 323.9 acres of vacant build able land was needed to provide housing for that population.

## 9. FINDINGS

- The existing population of the City of Molalla has been estimated at 3,050 persons (1978).
- The existing population of the study area (City of Molalla and the Urban Growth Area) has been estimated at 3,360 persons.
- The rate of population growth in Molalla since 1970 has been relatively high. However, has remained relatively stable since 1980.
- Molalla has a high percentage of elderly persons.
- The average annual income for Molalla area residents in 1984 was slightly lower than other communities in Clackamas County.
- The Urban Growth Boundary contains an adequate supply of residential land to meet the City's need until 2005.
- The 1980 census provides statistic on the occupations characteristics of people in Census Tracts 239.

## C. ECONOMY OF THE CITY AND SURROUNDING AREA

### 1. THE ECONOMIC BASE

The major source of employment in the Molalla area is built around logging; log hauling, lumbering and related forest products activities. In 1978 the local timber industry provided employment for approximately 900 persons in and around the area. The largest of these employers is Avison Lumber Co., a sawmill engaged in timber planting and lumber sales.

The industrial activities found in the area are divided into goods and services. A typical ratio for this kind of community would be 1:1 since demographers have found that in a rural community one-service worker is needed to supply the needs of one basic worker. However, Molalla has about two service workers to one basic worker. The high number of service workers can be attributed to the role Molalla plays as a trading center for a large area, and its relative isolation from other commercial centers.

The second largest source of employment in the Molalla area is the local school district. School District 35 (Molalla Elementary) employs 100 full and part time persons. The U4 School District (Mid High and Senior High) provides employment for approximately 110 persons. Various local commercial establishments also serve as a source of employment for Molalla area residents. Table II-8 lists the number and types of businesses in the area.

There is also some support to the local economy from retirement income, and income from commuters who work outside the area. The use of the Molalla River for recreational purposes and the Buckeroo and related activities provide seasonal support to the economy.

### 2. THE CITY INFRASTRUCTURE

The infrastructure (roads, water, sewer, etc.) of Molalla will be discussed in detail in the Community Facilities section of this plan. In an economic sense it is necessary to point out that many improvements are needed to the City's streets and sidewalks. The problem is accentuated by the limited funds available to the city due to its limited resources. Every attempt will have to be made to obtain outside funding wherever possible through grant programs. The city should educate itself and the public on forming local improvement districts, which would provide an alternate method of financing the upgrading and repair of streets.

3. THE CITY TAX RATE

The CAC has studied the 1979 – 80 fiscal year assessment and the tax rolls for Clackamas County. The following are intended to show a comparison between Molalla's rates per \$1000 with that of other communities.

TABLE II-9  
TAX RATES, 1983-84

<u>Levy Code Area</u>	<u>City Planner</u>	<u>Rate per \$1000</u>	
		<u>Assessed Value</u>	
35-002	Molalla	25.70	
35-009	Molalla	25.06	
108-002	Estacada	22.33	
86-002	Canby	21.62	
46-002	Sandy	24.55	
46-011	Sandy	24.55	
62-946	Oregon City	31.60	
62-948	Oregon City	31.67	
12-017	Gladstone	23.65	
115-041	Gladstone	26.25	
12-002	Milwaukie	21.28	
3-021	Wilsonville	18.96	
305-006	Wilsonville	23.04	

When reviewing the above figures, however, one must realize that Molalla has a relatively low total assessed valuation, and because of this the tax rate per \$1000 of assessed valuation must be higher to raise the revenues required to operate the city. One method of alleviating the problem of high taxation is to raise the value of the city by adding new development, which would allow the tax rate to be reduced somewhat as this new development occurs. The problem is difficult to remedy, however, as the tax rate itself can be a hindrance on new development or redevelopment of either residences or industries due to the additional costs that are added to either doing business or maintaining a residence.

#### 4. ECONOMIC STRUCTURE

The economy of the Molalla area is dominated by the raising, harvesting and milling of timber. Other “basic”, natural resource oriented industries are agriculture and clay products. Residents not directly involved in these activities are usually involved in “support services” for these industries and their workers – retail stores; business, repair and personal services; and education. There are also some small manufacturers that are not connected to the lumber industry. Probably equally critical to the local economy are the many resident workers (60%) who commute into the Portland and perhaps Salem metropolitan areas to work. This economic structure is fairly typical of Willamette Valley small towns on the fringe of metropolitan areas.

Molalla’s economy in 1984 is in a state of flux, reflecting the national slump in the lumber industry. The businesses and services located in the community are as unstable as the mills they are supported by, so turnover is very high and employment estimates very rough. This section discusses the sectors of the Molalla area economy.

#### 5. OPPORTUNITIES

In spite of the problems in the economic sphere, Molalla has some definite opportunities to improve its overall situation. These opportunities are related to a number of factors including the state highways (211 and 213), and the railroad. Both offer an asset to potential industrial expansion that has yet to be fully exploited.

Molalla also has several natural resources, which might be developed to increase the industrial activity in the area. The State of Oregon Department of Geology and Mineral Industries indicated that there are clays throughout the Molalla area that are very good for the manufacture of brick. Molalla Clay Products, located approximately 2 miles northwest of the city, utilizes clay to produce clay tile and bricks.

The availability of timber and product manufacturing and the resultant residues could make possible the development of a plant utilizing bark, chips or sawdust. Such development might be fiberboard manufacturing, presto logs, or wood chemicals. With proper economic development planning Molalla could become a satellite city to the metropolitan center, providing the environment for scientific research and light industrial use in connection with the lumber industry.

As agricultural land near Portland and Oregon City is being converted to residential and industrial use, replacement becomes necessary. This means other lands not now used for this purpose must be developed. The U.S. Department of Agriculture has indicated that certain lands in the Molalla area are suitable for agriculture, including primarily root and above ground vegetables (parsnips, rutabagas, and cabbage). Other crops might include black raspberries, red raspberries, evergreen and Marion blackberries among others. An increase in production of any of the above crops could stimulate food processing operations as well as sales of farm machinery and feed.

Molalla acts as the trading center for a relatively large area, and for this reason any new activity within this area will directly stimulate the economy of the city. In previous discussion it was noted that two service workers were needed to provide for the needs of one basic worker. This expansion of service industries is contingent on the basic industries. New industry, no matter where it is located within the trading area, will stimulate the expansion of Molalla's central business district.

## 6. ECONOMIC DEVELOPMENT ANALYSIS

Throughout development of this plan the citizens have expressed their wishes to diversify the city's economic base by encouraging new non-polluting industries and related facilities to the area. The only way this can be successfully accomplished, however, is by sound economic development planning. To achieve this goal the city is currently reviewing "How to do Economic Development Planning" by the Department of Economic Development to determine the most feasible method for initiating such a plan for Molalla. Once such a plan is developed the city will have the necessary tools to guide it in proper development of the commercial and industrial lands set aside in the urban Growth Boundary.

Molalla recently enlisted the aid of the Port of Portland to provide technical assistance in preparing a "community profile" for the city. The Port of Portland and Clackamas County are presently involved in a study of the outlying cities in Clackamas County. The product of this study will include a community profile for the city. The request, a result of a coordinated action between the City of Molalla and the Molalla Area Chamber of Commerce, will involve collecting general socio-economic information and statistics regarding the Molalla area. Once studies are completed the information and a suggested brochure layout will be made available to the city that will then have it printed. The completed brochure will be used as one means of attracting outside economic resources.

## 7. FINDINGS

- Molalla is predominately a lumber oriented community and there is a high dependence on the lumber industry.
- The three major sources of employment in the Molalla area are lumber production, the two school districts, and local commercial activities.
- Secondary economic support comes from retirement income, commuter income, and seasonal income from recreational use of the Molalla River, and the Buckeroo and related activities.
- The infrastructure (roads, sidewalks, etc.) in the City of Molalla is in need of improvement in certain areas. Due to its own lack of resources the city should seek outside funding grants wherever possible.
- The property owners in the City of Molalla are subject to one of the highest property tax rates in Clackamas County.
- The value of the property within the city should be increased by new development or redevelopment as a means of reducing the tax rate.

- The high tax rate is likely to discourage new development due to the added cost of doing business or maintaining a residence. This same factor may discourage owners from improving existing properties within the city by remodeling, etc.
- Very little pertinent economic data exists for the study area.
- The service of the City by state highways 211 and 213, and the railroad, has not been fully utilized in developing the industrial potential of the area.
- There is a decline in the availability of timber. This decline could have an impact at any time and will almost certainly have an impact by 1990.
- Molalla has several natural resources, which might be developed to increase the industrial activity in the area.
- The city is presently studying various methods to initiate an overall economic development plan of Molalla.
- The Port of Portland and Clackamas County are currently preparing a “community profile” for the city, which will be used as a means to attract new business and industry to the area.

#### 8. GOALS AND POLICIES

Goals and policies, which are relevant to these findings, have been established in the appropriate sections of the plan

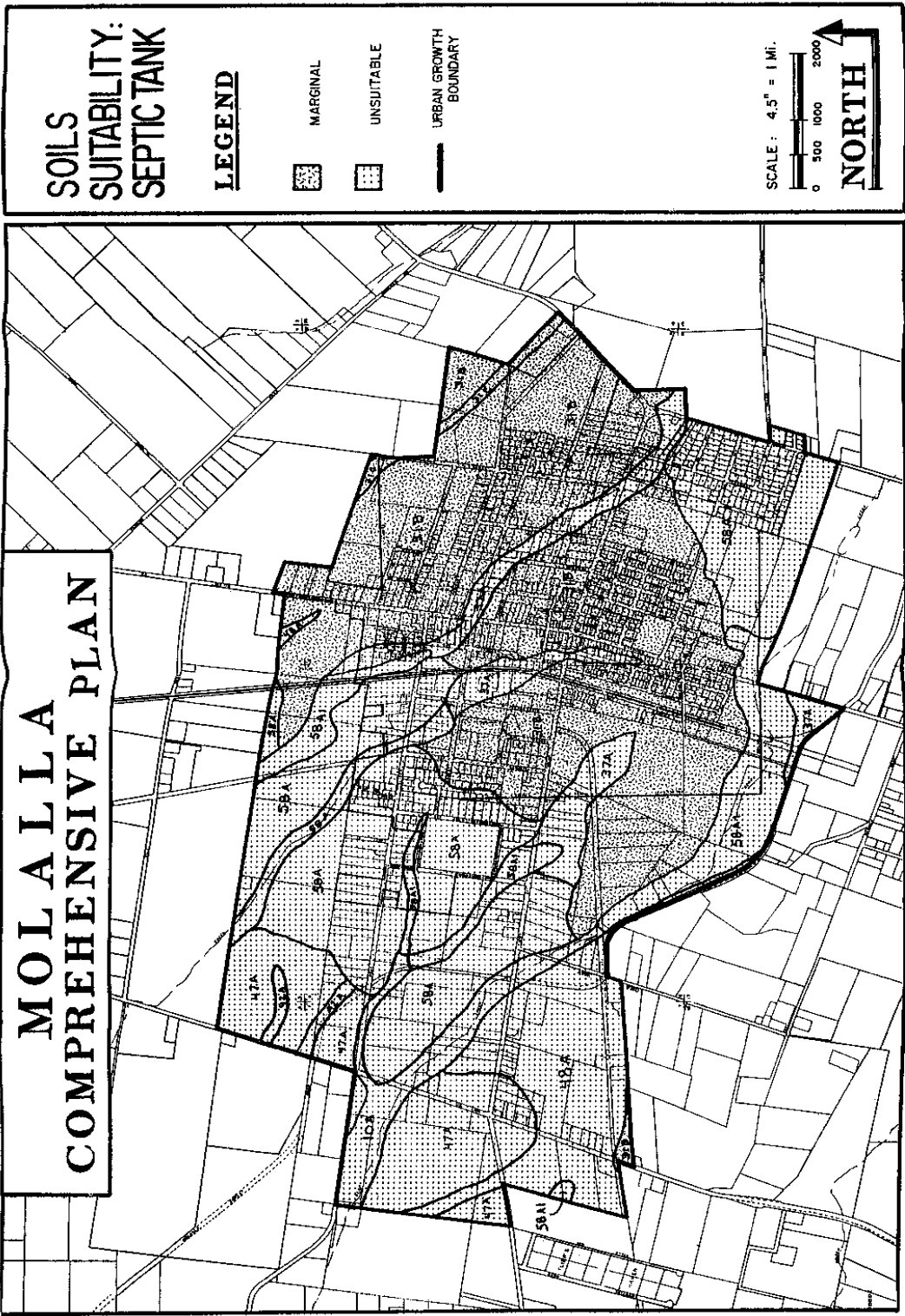
TABLE II-10

MANUFACTURING FIRMS IN MOLALLA ND VICINITY, 1982-83

<u>Firm Name</u>	<u>Type of Firm</u>	<u># of Employees</u>	<u>In City Limits</u>
Publishers Paper Co.	Lumber Mill	450	No
Avison Lumber Co.	Lumber Mill	300	Yes
Brazier Forest Products	Lumber Mill	160	No
Electronic Controls Design*	Electronic Components	95	No
Crown Zellerback Corp.	Logging	55	No
Crawford Logging & Construct.	Logging	50	
Graves Logging	Logging	27	
Harvey Buche Logging Co.	Logging	20	
Sharp Construction	Clay Products	15	
Reisch Logging	Logging	12	
Pitman Logging Co.	Logging	11	
Brush Machine	Machinery	10	
Artcraft Distributing	Metal Plate Work	10	No
Union Mills	Animal Feed and Milling	7	No
B&T Logging	Logging	6	
Kropf Lumber	Sawmill	6	
Molalla Iron Works	Fabricated Metals	6	
The Molalla Pioneer	Publishing	6	Yes
Rodney Schoenborn Logging	Logging	5	
Mountain Timber Cutting	Logging	5	
Foothills Forest Products	Logging	4	
Moehnke Logging	Logging	4	
Molalla Meats	Meat Packing	4	
Molalla Sand & Gravel	Sand & Gravel Products	4	
Huston Welding*	Fabricated Metal	6-8	Yes
Molalla Machine Shop	Vehicle		Yes
Clancy's Custom Cabinets	Sausages	2	No
Jorgensen's Rock Products	Sand & Gravel Products	2-4	
Klassic Kabinets*	Wood Kitchen Cabinets	2	No
Assur's Custom Cabinets	Wood Kitchen Cabinets	1	No
Robbins Lumber	Logging	1	
Harold Gibboney Logging	Logging	NA	
Mountain Stream Meat Co.	Meat Packing	NA	
Portland Metal Fabrication	Sheet Metal Work	NA	
Total		1,301	

\*Updated per local information

Source: Oregon Department of Economic Development, Directory of Human Resources



344

# MOLALLA COMPREHENSIVE PLAN

SOILS  
SUITABILITY:  
AGRICULTURE

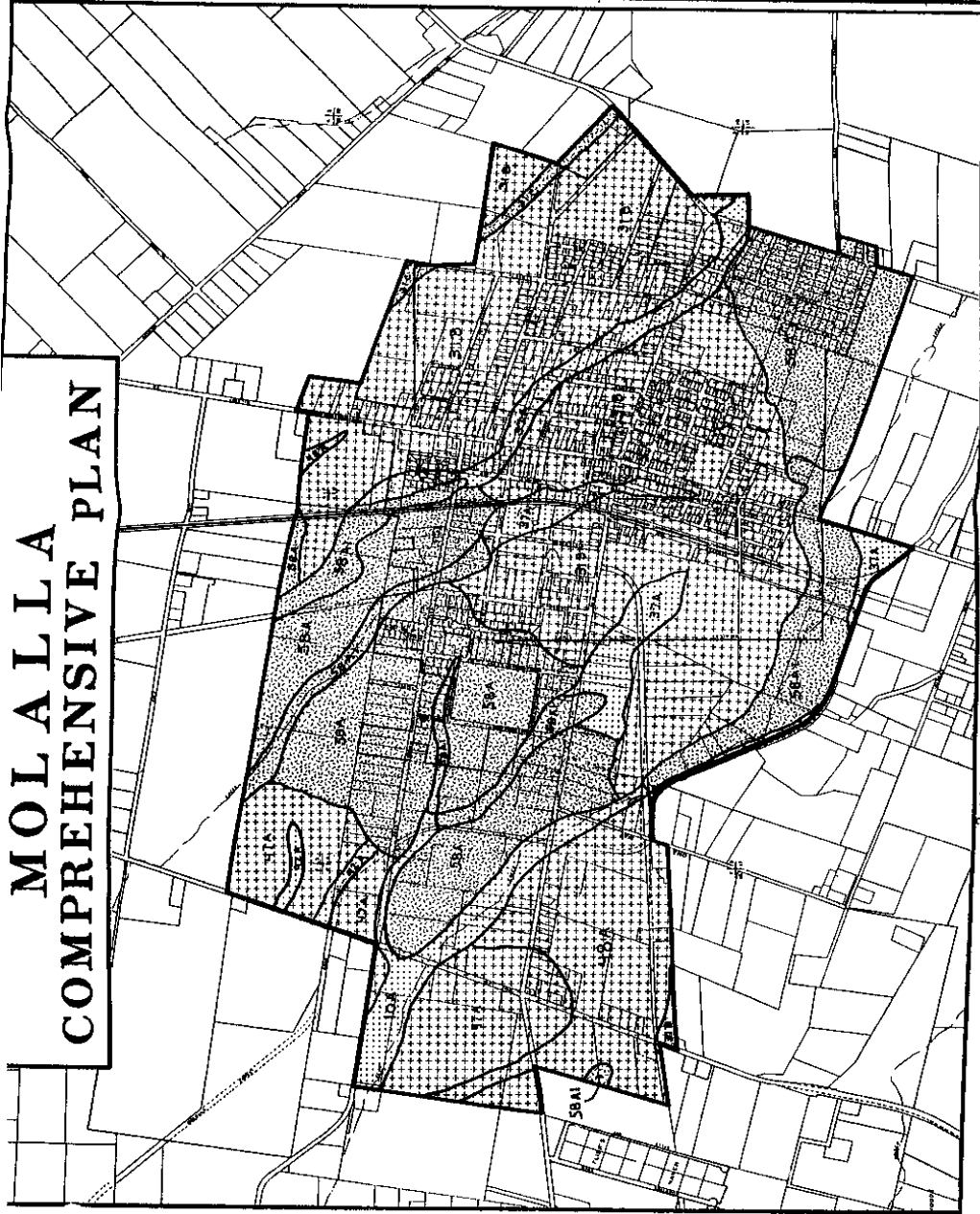
## LEGEND

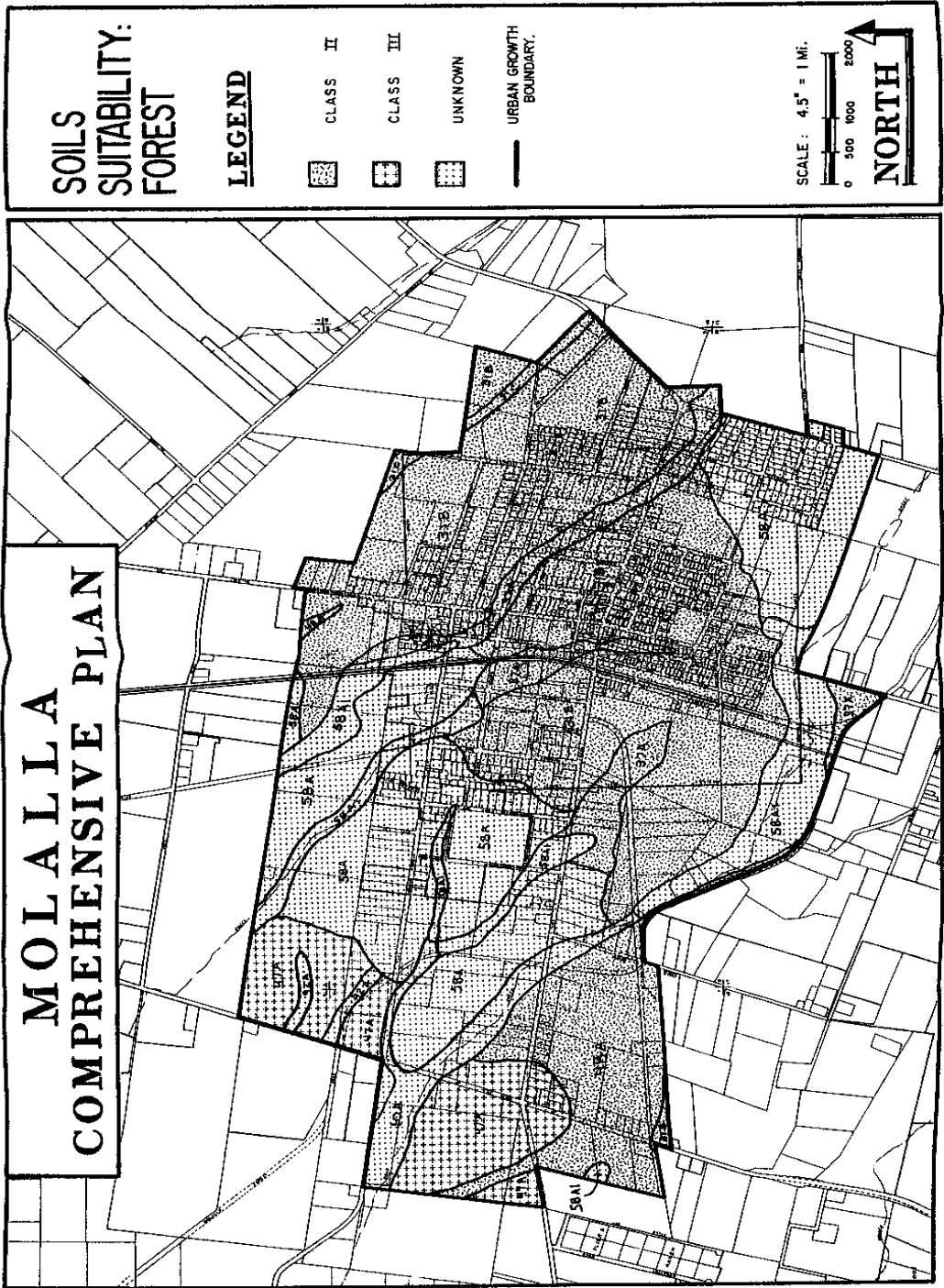
- CLASS II
- CLASS III
- CLASS IV
- URBAN GROWTH BOUNDARY

SCALE: 4.5" = 1 MI.



NORTH





**D. NATURAL RESOURCE BASE**

**1. TOPOGRAPHY**

Molalla is built generally in a gently sloping area, with ground surface slopes within the study area ranging from less than 1 percent to 10 percent. Elevations range from 365 to 374 feet. Creamery Creek flows diagonally across the city from the southeast to the northwest, and drains into the Molalla River some distance outside of the study area. Bear Creek is located outside the city limits in the southern portion of the study area and flows generally in the same direction as Creamery Creek, eventually emptying into the Pudding River. The urbanizing area is separated from the agricultural area on the east by State Highway 211 and on the west by development along State Highway 213.

**2. SOILS**

The importance of soils in the process of urban development has only recently received the attention it deserves. Soil data is important in determining possible limitations for various potential uses on specific parcels of land. Further, the statewide goals require that plans be based upon an inventory of known hazards in an attempt to avoid such problems as development occurs.

Molalla is located in an area of soils called Concord-Clackamas-Amity and Briedwell Associations. These associations of soils have high seasonal water tables and a depth to hard rock of 20 to 40 inches. These soil types can be characterized within the silt classification as clay, gravel or loam; all being somewhat poorly drained. The limitations for septic tanks in this soil classification are moderate to severe, while building sites have only slight to moderate soil limitation and have fair stability. The specific soil types in the Molalla study area are identified in Table II.11.

TABLE II.11

<u>Name</u>	<u>% Slope</u>	<u>Ag Land Suitability</u>	<u>Forest Land Suitability</u>	<u>Septic Tank Suitability</u>
Wapato Silty Clay Loam	0-3	III	Unknown	Unsuitable
Amity Silt Loam	0-3	II	2	Unsuitable
Dayton Silt Loam	0-3	IV	Unknown	Unsuitable
Dayton Silt Loam Thick Surface	0-3	IV	Unknown	Unsuitable
Clackamas Silt Loam	0-3	III	2	Unsuitable
Huyberly Silt Loam	0-3	III	Unknown	Unsuitable
Aloha Silt Loam	0-3	VI	3	Unsuitable
Briedwell Silt Loam	0-7	II	2	Marginal
Briedwell Silt Loam	7-12	IV	2	Marginal

- a. Definition of Land Classification – The Land Conservation and Development Commission (LCDC) has basically defined agricultural land in western Oregon as Class I-IV soils in the Soil Capability Classification System of the Soil Conservation Service. The risks of soil damage of limitation in use becomes progressively greater from Class I to Class IV as follows:

Class I – Soils have few limitations that restrict their use and are excellent for cultivated crops.

Class II – Soils have some limitation that reduce the choice of plants or require moderate conservation practices and are good for cultivated crops.

Class III – Soils have severe limitations that reduce the choice of plants or require special conservation practices, or both.

Class IV – Soils have very severe limitation that restrict the choice of plants, require very careful management, or both. They are poor for cultivated crops. All four-capability classes can be used for pasture, woodland, and wildlife food and cover.

Detailed soil maps for the Molalla area show the soil suitability for agriculture as 30 percent Class II, 10 percent Class III, and 60 percent Class IV. The soil suitability for Douglas Fir is 60 percent Class II, 10 percent Class III and 30 percent unclassified. Unclassified soils are those soil types where Douglas Fir growth does not occur often enough to develop a site classification. Over half the soils in the Molalla area has an agricultural classification of IV approximately one-third of the area soils are unclassified for Douglas Fir growth (see soils map).

- b. Definition of Building Site Limitations – The rating and limitations are for structures used as residences, stores, offices and small industries with basements that are less than three stories high. The kind of sewage system is not part of the rating. These ratings are:

Slight – Soils that have slight limitations of use as building sites have slopes of less than 12 percent, good or moderately good drainage, no flooding, depth of hard rock more than 40 inches, low to moderate shrink-swell potential and low slide hazard.

Moderate – Soils that have moderate limitations for use as building sites have slopes of 12 to 20 percent, somewhat poor drainage with a seasonal high water table, no flooding, fair stability, moderate shrink-swell potential, or soil depth of 20 to 40 inches to hard rock.

Severe – Soils that have severe limitation for use as building sites have slopes of more than 20 percent, poor drainage, flooding, poor stability, high slide hazard, or less than 20 inches of soil depth to rock.

Soil maps for the Molalla Study Area show that building sites suffer moderate soil limitation and have fair stability. These lands in the study area generally lie to the west and south of the city. The city’s sewage treatment plant lies to the west of the city and all of this area can be potentially served by it.

- c. Definition of Septic Tank Limitations – The term “septic tank filter fields” refers to a sewage system in which waste is distributed to a central tank and the effluent from the tank is dispersed through lines buried in the soil under a fairly large field. These ratings are:

Slight – Soils that have slight limitation for use as septic tank filter fields are well drained, are not subject to flooding, are at the upper end of moderate permeability, are more than 50 inches deep to hard rock, and have slopes of less than 7 percent.

Moderate – Soils that have moderate limitations for septic tank filter fields have slopes of 7 to 12 percent and permeability is moderate to somewhat less than moderate.

Severe – Soils that have severe limitation for use as septic tank filter fields have slopes of more than 12 percent, have moderately slow to very slow permeability, high water table, hard rock at depth of less than 50 inches, or are subject to flooding.

Soil maps for the Molalla Study Area show that the suitability of the soil for septic tank systems is 45 percent marginal and 55 percent unsuitable. (See soils map)

In general, the soils in the Molalla Study Area are not favorable for the installation of septic tanks and drain fields. There may be individual exceptions to this condition but in the long run the best policy for avoiding future problems is to require all new development in small urban lots to be hooked up to the sanitary sewer. The same policy should apply to existing development when septic systems have failed and to developed property seeking annexation.

### 3. GROUNDWATER

Historically, groundwater has been a most economic source of water supply. However, in addition to the economics that are attendant with groundwater, it is an elusive and somewhat uncertain resource. Finding groundwater is not enough; it must be found in sufficient quantity and quality to be of substantial value as a municipal water supply.

The City of Molalla lies in the northeast section of the Molalla-Salem slope area. This area lies along the eastern side of the northern Willamette Valley and extends eastward into the foothills of the Cascade Range. The wells located in the Molalla area tap a variety of rock units that generally yield small to modest quantities of water. Due to the composition of these formations, the water bearing characteristics of these units vary from place to place.

The availability of groundwater in the Molalla area is dependent upon geologic formations, which are complex in places, thus groundwater development involves significant risk. While some wells yield water of medium to high quality, others yield water that is relatively hard with moderate to high contents of iron and manganese. Chemical analysis of these groundwater's frequently show concentrations of some elements that exceed the limits recommended by the U.S. Public Health Service.

The best source of information concerning groundwater is the existing wells. Since the early 1950's well drillers have been required to submit "well logs" to the Office of the State Engineer. These logs contain information concerning the location of the wells, the depth, the yield and the various geologic layers penetrated during drilling.

A review of the well logs for the area substantiates the geological findings. Most of the high yield wells in the Molalla-Salem Slope area are located approximately 10 miles southwest of Molalla near Mt. Angel. Wells in this area have reported yields to 700 gallons/min.

The majority of wells in the vicinity of Molalla, however, are low yielding (less than 90 GPM).

A projection of water use data indicates that Molalla would need a well (or wells), which would supply 1300 GPM to be used as a municipal water supply at the present time. The well logs and the local geology indicates that the chance of drilling such a well in the immediate area of Molalla is very remote. It should be noted also that the June, 1980 report on "Water Service for Molalla and Environs", designates the Molalla River as being the best source of water for the city.(10)

#### 4. BIOLOGICAL HABITATION

##### a. Vegetation

Molalla is situated on a prairie land, and the vegetation in the study areas can be broken into three generally occurring groups. These groups are: agriculture, urban and stream bank.

Much of the agriculture group involves pastureland that supports various species of native grass. Little or none of the area is still used in the production of crops. Limited strips and patches of native plants and grasses occur along ditch banks, roads, and fence lines.

The urban group occupies the populated area within the existing City limits and the Urban Growth Boundary. The vacant areas contain trees common to the area such as Douglas fir, western red cedar, white oak, alder, bigleaf maple, and dogwood. Native plants including himalya blackberry, scotch broom, Oregon grape, ferns and wild grasses can also be found in quantity. These developed areas also support lawns, flowers and vegetable gardens, ornamental shrubs and trees, and fruit trees in addition to the natural growth.

A relatively narrow strip of vegetation of stream bank group lies along Bear Creek in the western portion of the study area. Vegetation in this group includes trees native to the area and various swamp grasses. This group functions to provide bank stability for Bear Creek.(11)

##### b. Wildlife Habitat

###### 1. Bird and Animal Life

There are several game bird species in the Molalla Study Area including ring-necked pheasants, valley quail, and morning doves. Game birds have continued to thrive in the study area because of the cover provided by stands of trees and other vacant areas where native grasses and pastureland provide food and cover. Wild species of birds such as swallows, sparrow, robins, wild canaries, hummingbirds, and others are also found in relatively large numbers throughout the area.

The only big game animal in the Molalla area is the black tailed deer, which has undoubtedly survived because of the favorable habitat in the nearby forests and its ability to adapt to areas also supporting human life. Furbearers such as raccoons and skunk are also found in limited numbers.

While exceptions may be found, no rare or endangered species of bird or animal life have been identified as residing in the Molalla area.(11)

2. Aquatic Life

As the Oregon Fish and Game Commission has no available data on the aquatic life in Bear Creek, none will be provided in this report. At such time as information becomes available, recommendations concerning conservation and compliance with LCDC Goal #6 will be numerous aquatic insects.

5. CLIMATE

Molalla has a temperature maritime climate with dry, moderately warm summers and wet, generally mild winters. The prevailing winds are from the west and northeast in the summer and from the south and the southwest in the winter. Periods of easterly winds bring cold, clear weather in winter and exceptionally dry, hot weather in the summer.

About 60 percent of the annual precipitation occurs from November through February while only about 10 percent occurs from June through September (Table II-12). As shown in Tables II-13, winter temperatures below 10 degrees and summer temperatures above 100 degrees are rare. Snowfall records are not kept on Molalla, however Salem, the nearest town where records are kept, averages 6.2 inches of snow per year.(6)

TABLE II-12 (12)

Precipitation – Inches

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
8.23	4.87	5.57	3.27	2.79	2.68	.30	.77	1.80	4.56	5.67	6.91	47.60

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
11	10	11	3	1*	0	0	0	1*	2	10	12	59

\*Indicates year of record.

TABLE II-14 (12)

Maximum Temperature  
Degrees Fahrenheit

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
46.4	50.2	52.9	61.2	71.9	81	79.8	79.8	76.1	64.4	52.7	47.5	62.6

Minimum Temperature  
Degrees Fahrenheit

34.1 35.2 35.6 39.2 44.3 49.0 50.2 50.4 47.4 42.9 36.6 34.9 41.7

6. AIR, WATER AND LAND RESOURCES

The City of Molalla maintains air and water quality, and noise level standards in accordance with the following federal laws:

- Clean Air Act (P.L. 88-206)
- Federal Water Pollution Control Act (PL-92-500)
- Safe Drinking Water Act (P-93-523)
- Resource Conservation & Recovery Act (PL-94-580)
- Noise Control Act (PL-92-574)

And state laws:

- Pollution Control (ORS 468)
- Sewage Treatment & Disposal System (ORS 454)
- Solid Waste Control Act (ORS 467)
- Noise Control Act (ORS 467)

The Department of Environmental Quality has jurisdiction over air, water and noise quality in Oregon, and has established various standards and policies to ensure that the above referenced laws are complied with.

Molalla is in a Class II Prevention of Significant Deterioration (PSD) area. Under federal EPA regulations, “clean areas” of the nation can be designated under one of three classes (I, II, III). Specified numerical increases are permitted under each class up to a level considered to be significant for that area. Class I increments permit only insignificant air quality deterioration (wilderness areas are designated Class I PSD areas); Class II increments permit moderate deterioration of air quality; Class III increments allow for the greatest amount of deterioration, but in no case beyond the national air quality standards. (DEQ Manual, pg. C-21).

It has been determined, by using the guidelines in the Department of Environmental Quality Publication “DEQ Handbook for Environmental Elements of Oregon Local Comprehensive Plans” and through discussions with DEQ staff that the Molalla Comprehensive Plan does not appear to:

- a) Conflict with Class II PSD air standards; or
- b) Cause existing or future violation of the eight-hour carbon monoxide standard. Additionally, based upon Table 4.2, “Percent Class II PSD Increment Available”, (pg. C-24 DEQ Handbook), the City of Molalla has 100% of the Class II Total Suspended Particulate (TSP) matter and sulphur dioxide (SO<sub>2</sub>) increments available.

An aerial survey on 1976 by DEQ showed high ozone content in the atmosphere throughout the Molalla area. The source of the ozone is the Portland Metropolitan area, which is then carried by wind currents to the Molalla area. As the source of the air pollution problem lies in the Portland Air Quality Maintenance Area, there is little Molalla can do to alleviate the problem. However, improvements in air quality are expected as a result of the efforts of Portland metropolitan area in reducing air pollution over the next few years.

Molalla, since it is located in the same air shed with other eastern valley communities, experiences much of the same air pollution problems as Woodburn or Silverton. The two principal pollutants in the area are ozone's (sulfur oxides and nitrogen oxides) and particulates. Sulfur oxides are generated by industrial plants such as paper mills, and in small amounts by oil heating. Nitrogen combustion engines, especially automobiles. Particulates in the air include dust, ashes and liquid compounds small enough to remain suspended. Local sources of particulate are open field burning and tilling on agricultural soils, periodic slash burning on nearby timber lands and logging truck traffic.

The city has also reviewed the DEQ Handbook noise pollution control section. The city does not have any major noise pollution sources. The only real problem experiences by the city is Highway 211, which bisects the city bringing extra traffic, particularly trucks, through the city center. This problem is discussed further under the transportation element of the comprehensive plan. The city would like to re-route through-traffic on Highway 211, both to relieve noise and the congestion it causes (see policies 11 and 10, pages 53 and 113), and is working on finding an alternative route.

The city will consider requiring more mitigating measures if warranted for new residential development, such as buffer strips or noise barriers (earth berms, or noise walls) to prevent street traffic from becoming a source of noise pollution. Industrial uses approved in the city will be required to meet DEQ standards and the city will consider developing and adopting performance standards for all industrial activities (see related policies 5 and 13, on pages 74 & 75).

The only significant source of water pollution in the study area has been from the log pond located next to Bear Creek. In the past, water from the log pond has polluted Bear Creek in the southern portion of the study area. The Department of Environmental Quality is aware of the situation and the log ponds are being filled.

## 7. OTHER RESOURCES

There are no energy sources located in the Molalla study area. None of the following resources have been designated in the Molalla study area: significant natural areas, scenic views and sites; wilderness; Oregon recreational trails, and scenic highways.

## 8. FINDINGS

- The lands within the Molalla Urban Growth Boundary are nearly level with slopes of less than 10 percent making them favorable for most types and intensity of land use.

- All of the soils in the study area are unsuitable or marginal for septic tank installation. Because of this, all new development within the city, and development seeking to annex, will be required to hook up to the sanitary sewer.
- The soils in the study area suffer slight or moderate limitations for building sites and have fair stability.
- The soils within the study area are nearly all of agricultural quality as defined under LCDC Goal 3. Over half, however, have a classification of Class IV. Agriculture is an acceptable interim land use for properties in the area until they are needed for urbanization.
- Groundwater supplies from wells in the study area have low to modest yield and thus would not be sufficient for municipal water use. Yields are sufficient, however, to accommodate private and certain industrial uses.
- The study area is near or contains agricultural lands, other vegetation groups, birds, animals, and limited aquatic life. The plan should attempt to preserve such areas from development where possible, specifically along Bear Creek.
- The high annual rainfall which is common to this area must be considered when studying the soil hazards and septic tank limitations.
- Molalla is in a Class II PSD (Prevention of Significant Deterioration) area.
- The Molalla Comprehensive Plan is consistent with all standards established by the Department of Environmental Quality for maintaining air, water and noise quality.

## 9. GOALS AND POLICIES

STATEWIDE GOAL 6 – To maintain and improve the quality of the air, water and land resource of the state. (excerpt)

To achieve this goal the policies of the City will be:

- 1) To maintain and where possible enhance the air and water quality of Molalla;
- 2) To comply with all state environmental standards established by DEQ and to require all development in the city meet state and federal standards for air and water quality and noise levels.

Other goals and policies which are relevant to these findings have been established in the appropriate section of the plan.

## E. AREAS WITH POTENTIAL NATURAL HAZARDS AND OPEN SPACE AREAS

### 1. OPEN SPACE AS A POTENTIAL USE FOR NATURAL HAZARD AREAS

Open space offers a wide range of possible uses and functions for land with problems that make urban development impractical or unwise. Such hazardous areas when left in a natural state can be a visual asset to the city, while providing stream bank stabilization, protection against erosion and siltation, wildlife habitat, protection of air

quality and some recreational opportunities such as riding and hiking trails, greenways, etc.

## 2. FLOOD PLAINS

### a. Background

Flood plains are those areas, which are dry during some season of the year but may be covered with water when heavy rain, melting snow, or other conditions cause adjacent rivers, streams, or lakes to overflow their banks. The determination of the extent of this overflow is the first consideration in planning for the use and control of such areas. The “100 year” flood, or regional flood, is the commonly used term to identify the boundary of the flood prone area. The term refers to a flood, which has a one percent chance of occurrence in any year. Obviously, this does not mean that a higher flood will not occur in the future. However, if development is designed to avoid damage during a 100 year flood, normally by locating outside the flood plain, the risk of loss will be reduced to the point where serious loss is unlikely.(14)

Recent studies by James M. Montgomery, Consulting Engineers, Inc. have determined that Bear Creek in the Molalla study area has a 100-year flood plain of undetermined width. Further studies were conducted to determine the extent of flooding in the area. The results indicated that no special flood hazard areas exist at this time within the corporate city limits of Molalla. As Bear Creek lies some distance outside the city limits it is not know if further studies are planned, or what the results might be. Should planned, or what the results might be. Should a 100-year flood plain be determined for Bear Creek at some future date, LCDC Goal 7 will be taken into account. The city has stated its concerns about development along Bear Creek in Policy 5 page 49. Specific criteria for determination of the non-development easement will be developed at the same time as the implementing ordinances.

Creamery Creek, a natural drainage way and tributary to Bear Creek runs diagonally across the city and study area. Most of the drainage way has been enclosed by the use of concrete culverts, and that which remains open will be treated accordingly. The city was recently awarded a HUD Grant for additional improvements to the Creamery Creek drainage way. The 100-year flood plain of the creek is not known and since it is not a major waterway, the Army Corps of Engineers will not determine its 100-year flood plain.

### b. Findings

- An area of 100-year flood plain could exist in the western portion of the study area, however studies are inconclusive at this time.
- A drainage way that is a tributary to Bear Creek is located within the study area. No data has been found regarding the extent of its flood plain, however the installation of culverts currently underway will eliminate the need for further studies.

c. Goals and Policies

Statewide Goal 5 – (Open Space, Scenic and Historic Areas, and Natural Resources.) To conserve open space and protect natural and scenic resources. (excerpt)

Statewide Goal 7 – (Areas Subject to Natural Disasters and Hazards.) To protect life and property from natural disasters and hazards. (excerpt)

Community Goal – To avoid the development in incompatible uses in natural hazard areas.

To achieve these goals, the city’s polices will be:

- 1) To discourage the inappropriate use of possible flood plains by providing suitable sites for urban development in areas which are not subject to this or other hazards.
- 2) To preserve the wildlife habitat and stream bank stability by discouraging the removal of trees and streamside vegetation along Bear Creek.
- 3) To continue to seek outside funding grants wherever possible for improvements to the Creamery Creek drainage way.
- 4) To continue to use the “Master Drainage and Preliminary Street Plans Report” as the overall guidance in future improvements to the Creamery Creek drainage way.
- 5) To create a non-development easement along Bear Creek in order to preserve stream bank stability, water quality and fish and wildlife habitat.

3. SOIL HAZARDS

During the study of the soils as part of the natural resource base it was discovered that of the nine soil types found in the area, two had “slight” building site limitations, three had “moderate” building site limitations and four were in the “severe” category, generally due to a high fluctuating groundwater table during the winter months.

While these conditions are know to exist in the area, Chapter 70 of the State Uniform Building Code which builders are required to comply with, appears adequate to handle the problem,.

4. STEEP SLOPES

There are no steep slopes in the Molalla study area.

5. SEISMEIC AND FAULT HAZARDS

a. Background

Oregon is located within the circum-Pacific belt of crustal instability along with California, Washington, British Columbia and Alaska. All of these states and provinces which border the Pacific Ocean have received violent earthquake shocks in recent years. Fewer earthquakes have been received in Oregon than in either of the neighboring states, however, the total and particularly the number of

those recorded in the Portland area, is impressive. Since 1841, the state has experienced 167 earthquakes and of these, 47 were centered in the Portland vicinity.(15)

Earthquakes are caused primarily by deep-seated movements in the earth's crust, which generally can be associated with surface expressions of major fault systems. Earthquakes have occurred in the vicinity of Molalla, however the State of Oregon Department of Geology and Mineral studies has no specific information on earthquake activity in the area. At such time data does become available, LCDC Goal 7 will be taken into account.

b. Findings

- Earthquake activity occurs along the Pacific Coast states from California to Alaska. From 1841 to 1967 the Portland vicinity experienced 57 earthquakes.
- Earthquakes have occurred in the vicinity of Molalla, however specific information on seismic activity and fault hazards is not available.

c. Goals and Policies

To concentrate urban uses on suitable lands based on research of available information showing the absence of known hazards including but not limited to flooding and unfavorable soil conditions.

6. EROSION AND DEPOSITION

There are no erosion or deposition problems in the study area.

7. HIGH GROUNDWATER

The Molalla study area is subject to periods of high groundwater during the winter months. The situation is common throughout the area, however no additional structural requirements are necessary.

8. WETLANDS

- a. Wetland areas, as defined in the Municipal Code, have been identified within the Urban Growth Boundary of Molalla. These areas are identified on the Molalla Comprehensive Plan, Wetland Map. Specific criteria for development of wetland areas are being adopted in order to protect these areas to the greatest reasonable extent.

b. Findings

Wetland areas have been identified in the Molalla area by the U.S. Fish and Wildlife Service. City staff and State Federal Fish and Wildlife representatives have identified significant wetland areas (see Molalla Comprehensive Plan, Wetland Map).

c. Goals and Policies

STATEWIDE GOAL 5 – (Open Space, scenic and Historic Areas, and Natural Resources). To conserve open space and protect natural and scenic resources.  
(excerpt)

To achieve this goal the polices of the city will be:

- 1) Adopt an implementing ordinance to protect and control development of areas identified on the Molalla Comprehensive Plan, Wetland Map.
- 2) Formally request Clackamas County take action to protect those wetland areas within the Urban Growth Boundary but outside the city limits.

# **II PLAN ELEMENTS**

## PLAN ELEMENTS

### A. LAND USE PLAN MAP

The land use designations on the plan map establish the type, location and density of development to occur in the future. The zoning ordinances will implement the designation with specific development regulations, and it is anticipated that additional zoning districts may be provided within the designations.

### B. RESIDENTIAL (HOUSING)

#### 1. EXISTING CONDITIONS

##### a. Quality of Existing Housing Units by Type

During a February 1979 interview with Portland General Electric representatives in Molalla, CAC members were advised that PGE currently supplies power to 908 housing units within the existing city limits. Of these 626 (68.9%) are single-family units, 201, (22.1%) are multi-family units and 81 (9%) are mobile home units. The single-family units are scattered throughout the city, with preponderance of multi-family units on Fenton Street, Heintz Avenue, Ridings Avenue, and Toliver Road. The mobile homes are situated in three mobile home parks; Molalla Mobile Manor on Shirley Street, Twin Fir Mobile Home Park on Toliver Road, and Triple M Mobile Home Park on Leroy Avenue.

Outside the city, but inside the study area in Clackamas County are approximately 112 single-family dwelling units, 1 multi-family unit (duplex) and 4 mobile homes according to field observations. The estimated total housing in the study area is 738 single family, 205-multi family and 85 mobile homes for a total of 1028 units.

##### b. Age and Condition of Housing

Most of the housing in the Molalla area is family owner occupied. Field observations have shown that the condition of existing homes range from fair to good, those generally considered fair having been built prior to the time foundations were required by the State Uniform Building Code. Approximately 31.8% of the housing was constructed prior to 1940.(8)

The housing constructed since 1970 are mainly three bedroom one-car garage tract style homes. Many have been funded through the Farmers Home Administration through their low-income subsidy program. As these homes are resold they are brought up to current energy efficient standards as a condition of the new loan. The older residential homes are generally between bungalow and ranch styles. There are many fine older homes also, most of which are beautifully maintained. The energy efficiency of the older homes is not specifically known, however it is reasonable to assume that the majority of these homes are not energy efficient. A combination of rehabilitation of existing units and future construction will improve Molalla's housing stock.

c. Patterns and Trends

All types of housing units (single family, multi-family, and mobile homes) have increased significantly since 1970. Multi-family units showed the largest gain, from 80 to 201 units. (Table III-1) During the nine year period from 1970 to 1979 Molalla experienced a 30 percent increase in combined housing types. Housing has increased 1.86% from 1980 through 1983 (see Table 16, 17, Data Base Page 37-38).

TABLE III-1 (16)

	<u>1970</u>	<u>1979</u>	<u>Percentage of Increase</u>
Single Family	550	626	13.8%
Multi-Family	80	201	151.3%
Mobile Homes	69	81	17.4%

The notable increase in multi-family housing units is due in part to the recent construction of several government subsidized apartment complexes. It should be pointed out the 56 percent of all multi-family units in Molalla fall within the low-income category. Table III-2 lists the existing units and the type of subsidy provided to construct them.

TABLE III-2

	<u>No. of Units</u>	<u>Type of Subsidy</u>
Rondel Court	30 (Family)	HUD Section 236
Pioneer Plaza	30 (Family)	FmHA
Toliver Terrace	32 (Elderly)	FmHA
Ridings Terrace	20 (Family)	Multi-Unit Finance Program, Housing Division,  Department of Commerce

d. Vacancy Rate

Molalla had a relatively low vacancy rate (3.10%) in 1980, compared to the County and the region (See Table 20, Data Base)

TABLE III-3  
HOUSING IN 1980

	Molalla		Clackamas	
	<u>City</u>	<u>CT239</u>	<u>County</u>	<u>PMSA</u>
No. of Year-Round Units	1,096	1,743	88,957	504,146
Occupied	96.9%	96.3%	95.2%	94.7%
Vacant	3.1%	3.7%	4.8%	5.3%
For Sale	(.4)	(.3)	(1.5)	(1.3)
For Rent	(1.1)	(.9)	(1.4)	(2.3)
Other Vacant	(1.6)	(2.5)	(1.9)	(1.7)
Vacancy Rate	3.10	3.73	4.79	5.28%
No. of Rooms				
1	.5%	.6%	1%	2%
2	3.8	2.8	2	4
3	10.9	9.1	6	9
4	21.4	19.8	17	19
5	27.3	26.3	20	24
6 or more	36	41.4	54	46
Median #	5	N/A	5.6	N/A
Units at Address				
1	74.2%	77.4%	81.3%	78.1%
2-9	11.2	10.0	5.1	7.1
10+	8.2	5.2	6.3	11.3
Mobile Home	6.3	7.4	7.3	3.5
Owner Occupied				
#	667	1,141	63,352	299,882
%	62%	68%	74.8%	62.8%
Renter Occupied				
#	395	537	21,346	177,631
%	37.2%	32%	25.2%	37.2%
Persons Per Unit				
Total				
1	25	21.8	17.8	25.4
2	29.1	30.7	33	33.5
3	16.2	17.2	18.1	16.3
4	16.1	16.9	18.4	14.7
5	7.4	7.7	8.2	6.4
6+	6.1	5.8	4.5	3.7
Median	2.36	2.47		
Mean	2.74	2.82		

Owner Occupied

1	20.2	17.3	13.1	16.9
2	31	32.3	33.4	35.4
3	14.2	16.2	18.4	17.5
4	17.5	18	20.6	18
5	9.4	9.3	9.3	7.8
6+	7.5	5	5	4.3

Renter Occupied

1	33.2	31.3	31.6	39.8
2	25.8	27.1	31.8	30.4
3	19.5	19.2	17.2	14.3
4	13.7	14.6	11.6	9
5	4.1	4.3	4.8	3.8
6+	3.8	3.5	19.7	12.5

Owner-Occupied-Unit Value

\$0 - \$24,999	8.1	8	2.5	3.9
\$25,000 - \$39,999	17.4	15.5	7.1	11.3
\$40,000 - \$49,999	23.6	20.6	9.3	13.7
\$50,000 - \$79,999	44.5	45.3	45.8	45.5
\$80,000 - \$99,999	4.4	7.1	17.6	13.1
\$100,000 +	1.9	3.5	19.7	12.5

Median Value

Contract Rent

\$0 - \$99	19.5	17.4	5.1	6.7
\$100 - \$199	36.9	37.1	23.8	28.6
\$200 - \$249	14.4	14	25.4	25.8
\$250 - \$299	19.5	17.6	20.3	18.4
\$300 - \$399	5.6	6.4	14.8	14.1
\$400 - \$499	.3	.6	5.1	3.1
\$500 +	.3	.2	1.5	.9

e. Cost of Housing and Income Level

Housing prices were much lower in Molalla in 1980 than the region and the County. One quarter of the owner-occupied units in Molalla were valued (by the owners) at less than \$40,000, compared to 14% in the region and less than one-tenth in the County. On the other end of the price range, only 6% of Molalla owner-occupants priced their dwelling over \$80,000, relatively less than the region (25%) and the County (37%).

Rents were also much lower in Molalla, with nearly 20% of the rented units charging less than \$100 contract rent per month, compared to 7 and 5% for the region and County. According to the 1980 census, over half of Molalla's rent were \$200 or less per month, compared to 36% for the region and 29% for the County. This is probably a reflection of federally assisted housing. See Table 20, Data Base.

f. Housing Starts and Subdivision Activity

As estimated 107 residences have been constructed since 1979 on approximately 12.5 acres. Much of the anticipated new residential construction is expected to occur on the North and Northeast sides of Molalla.

g. Building Permit Activity

Residential construction in Molalla has not significantly added to housing since 1980. Permits issued were 69 single-family units and 24 multi-family units. (See Table 16, Data Base).

h. Anticipated Future Housing Need

Molalla's planning area has sufficient land designated single family residential under the existing plan to meet the needs to projected to the year 2005. There is very little "extra" vacant land in this category, however.

Clearly, there is sufficient multi-family and tow-family land available under Molalla's existing plan to meet the needs projected to year 2005. This counts only the vacant lands. In addition, a large area already developed in single-family use and planned to redevelop to greater densities.

The conclusion of this analysis is that Molalla's existing plan has designated sufficient residential land to meet its needs to the year 2005 as shown below. (See Pages 70-71, Data Base).

The most likely method will involve new construction of vacant lands within the city or annexation, Redevelopment, while a possibility, is not too likely due to the high cost of the new housing. People with affordable housing are not apt to sell it for redevelopment at a price, which makes redevelopment attractive, in exchange for higher house payments.

Population figures indicate the amount of land set aside for residential purposes should be sufficient to accommodate a projected population of 7,645 by year 2000, or an increase of 4,221 people. Using the average household size of 2.5 persons per dwelling unit, some 1,782.1 dwelling units will have to be provided. At a 70-30 percent split there will be a need for 1,233.3 single family and 548.8 multi family dwelling units. The current vacancy rate is 4.34 percent single family, and 8.45 percent multi-family. Figures of 4.3 dwelling units per acre single family and 15 dwelling units per acre multi-family were used to determine acreage needed. To accommodate the dwelling units projected, 286.81 acres of single family and 36.98 acres of multi-family land would be needed. The dwelling unit per acre and acreage needed figures referred to above are net acres including streets and rights of way. The dwelling unit per acre figures used to determine single family and multi-family acres needed are the lowest for each designation and the actual amounts of acres needed may be lower if higher densities occur.

i. Build able Land

The following criteria were used in determining build able lands:

1. Existing use: What is the existing use on the parcel? How much of the parcel is utilized? Is further development possible within existing regulations?
2. Natural Hazards: Are there any natural hazards such as floodplains, seismic faults, erosion, etc. which would limit or prohibit development?
3. Service Availability: Are urban services available? If not, does the city have the capacity to serve the property with existing or expanded services?
4. Ownership: Does the ownership of the parcel preclude its being designated as developable? Is the parcel already committed to development even though it may be vacant?
5. Accessibility: Is there existing access to the property adequate enough to allow development? Can access be created to the property within the regulations of the zoning and subdivision ordinances?
6. Soils: Are there soils characteristics such as slope and building site limitation, which would preclude development of the property?

Applying the developable land criteria above to all lands designated residential, it was determined that 300.25 gross acres of R-1, 24.20 net acres of R-2 and 38.65 net acres of R-3 land are build able. Using a figure of 15% to account for streets and right-of-ways, 255.21 net acres of R-1 and 20.57 net acres of R-2 land were found to be build able. Most of the land designated R-3 is located on collector streets and consequently a lower figure of 10% was used to account for streets and right-of-ways. Using the 10% figure, it was determined that 34.78 net acres of R-3 land was build able.

As stated earlier, the actual amount of acres needed for residential land may be lower if development occurs at densities higher than residential lands within the city were not build able and were not included in the build able lands total. It is felt that the acreage amounts are sufficient to met the need and split for residential land.

j. Mobile Homes

Currently, mobile homes make up 9% of the total housing units in Molalla. In order to meet the need for mobile homes in the future, Molalla will allow mobile home parks and mobile home planned unit developments as conditional uses in all residential zones. It is felt that this will allow adequate development to meet the demand for mobile homes.

## 2. FINDINGS

The City of Molalla had a housing inventory of 1309 housing units in 1984. The inventory was composed of 1002 single family, 307 multi-family residences.

All types of housing (single family, multi-family and mobile homes) have increased significantly since 1970; however, realized small increases since 1980. The current vacancy rate in Molalla is 3.10 percent.

The cost of single family housing in Molalla indicates a need for alternative types of housing.

Growth can occur within the city on vacant land, by redevelopment to higher densities, and by annexation.

It is anticipated that an additional 2398 dwelling units are necessary to absorb the growth in the year 2005 on up to 345 acres of land.

It was determined that sufficient build able land existed to meet the need and split for residential land.

## 3. GOALS AND POLICIES

STATEWIDE GOAL 10 – To provide for the housing needs of the citizens of the state. (excerpt)

Housing conditions in Molalla are typical of what might be expected in any growing community. Single-family rentals are scarce and price levels of new homes severely limit dwelling purchases in many cases. Over the next several years Molalla expects a fairly rapid rate of growth due to the completion of both water and sewage treatment facilities. According to population projections it is anticipated that by the year 2000 Molalla will have to provide 2398 dwelling units on up to 345 acres of additional residential land.

STATEWIDE GOAL 13 – To conserve energy. (excerpt)

Electricity, natural gas and oil are all used for heating purposes in the Molalla area. With rising costs of all three sources of energy, wood is being used in ever increasing quantities. At the present time one facility, a medical clinic, utilizes solar energy as its principal energy source. For purposes of this report, per capita consumption of energy can be reduced by upgrading, whenever possible, older homes in the area to conform with the weatherization standards of new construction. It will be the city's responsibility to make an ongoing effort to keep abreast of current programs for increasing the energy efficiency of existing homes, making this information available to the residences of the area.

COMMUNITY GOAL – To encourage innovation in construction, funding and regulation of housing in order to provide safe, healthful, aesthetic, energy efficient housing.

To achieve these goals the city's policies will be:

- (1) To encourage, the rehabilitation of maintenance of existing sound structures which show evidence of deterioration, if economically reasonable.
- (2) To encourage the removal of structures which:
  - a) Are a danger to public safety;
  - b) Cannot be economically rehabilitated; and
  - c) Are not of historical significance
- (3) To aim future subsidized housing towards the elderly population and to coordinate with the housing authority of Clackamas County for the provision of low income housing for the elderly.
- (4) To encourage the development of sufficient numbers of multi-family and single family detached housing units to accommodate the existing and future population and to provide a choice in life styles.
- (5) To achieve a housing mix of approximately 30% multi-family to 70% single family within the time frame of the plan.
- (6) To encourage single-family development, outside medium density areas, to develop at a density not greater than 4.3 to 5.8 dwelling units per acre.
- (7) To encourage development of high-density areas to develop at a density of not greater than 15 to 18 dwelling units per acre in multi-family structures.
- (8) Mobile home parks shall be conditional uses in all residential zones.
- (9) To allow mobile homes outside mobile home parks and mobile home subdivisions subject to a temporary permit.
- (10) To develop site standards for mobile home parks.
- (11) To provide buffers between low-density residential areas, agricultural lands and commercial and industrial development wherever possible.
- (12) To provide the additional land needed to accommodate anticipated residential growth.
- (13) To protect the rights of property owners with non-conforming residential uses to rebuild their homes in the event that their home is inadvertently destroyed.
- (14) To located multi-family residential development near collector streets to provide efficient traffic movement.
- (15) To encourage all new residential construction to be as energy efficient as possible.
- (16) To encourage the upgrading of older residential units to improve energy efficiency.

- (17) To encourage developers of new residential construction to consider supplemental energy sources such as solar and wood.
- (18) To develop provisions in a zoning ordinance which preclude the use of residentially zoned lands for activities which interfere with the resident's right to the peaceful occupancy of his home.

4. LANDS DESIGNATED FOR RESIDENTIAL PURPOSES

The Comprehensive Plan Map indicates where residential development will be encouraged. Housing types and densities have been allowed to vary to best utilize existing land as well as providing the optimum conditions for residents of the area. High and low density areas have been designated to facilitate convenience and conserve energy. Other medium and high-density areas were placed in areas of irregular and long lots to prompt maximum utilization of land within the Urban Growth Boundary. The single family residential areas have been generally designated around the perimeter, and to the north and east of town in order to insure maximum buffering between commercial and industrial zones, and to locate the neighborhoods close to existing parks and schools.

In order to meet the needs of the present and the future residents of Molalla and the surrounding area for housing, rental and individually owned, and in order to comply with state and local goals and the policies established to implement those goals, the following described areas are established to provide a suitable quantity and quality of land in the most beneficial locations for each residential density in the City of Molalla.

**LOW DENSITY (R-1)**

This density provides for single family dwellings on moderately sized lots and allows up to 4.3 to 5.8 dwelling units per acre and has been applied to those lands within the city AND The Urban Growth Boundary which the city has determined are the most suitable for low density dwellings.

a. Description

This area is generally located around the perimeter of the city and the northwest section of the Urban Growth Boundary as shown on the Land Use Plan Map as follows:

1) North of Main Street and East of Molalla Avenue

This residential area lies to the north of the downtown commercial area and is near the new senior high school, buckaroo grounds, and the Buckaroo (Clark) Park. For the most part the single-family areas are buffered from the commercial areas by a small portion of medium density residential land. Approximately one-half of this residential area is developed and the remainder is platted for a new subdivision.

2) South of Main Street and East of Austin Road (Sunrise Acres)

The complexion of this neighborhood will remain single family and little change is expected, except in those instances where certain large lots will meet flag lot requirements, thus increasing the density in this well established single family neighborhood.

3) North of Toliver Road

This is predominantly underdeveloped on the northern edge. It is expected that considerable growth will occur in this area due to the existence of undeveloped tracts of ground within the service area of existing water and sewer lines. This area is in close proximity of the Molalla Grade School, Molalla Senior high, and recreational areas. These lands are located on the opposite side of the city away from the existing heavy industrial lands, thus providing a most desirable environment in a quiet residential area insulated from undesirable conditions.

This area immediately beyond the current city limits is of the quality looked for in first class development of these lands for the highest and best use by requiring sub dividers to use modern concepts in site planning and improvements. Developers should take advantage of views and natural settings whenever possible in order that the lands achieve their full potential as single-family residential home sites. They should also recognize the value of the rural settings and try to conserve the charm of the countryside by careful road placement and lot sizes.

b. Area

The acreage within the existing city limits is approximately 182.9 with 332.82 acres within the Urban Growth Boundary for a total of 515.7 acres.

c. Justification

1) Location

The location of the lands designated for low density residential use complies with the plan policy to concentrate low density housing on lands without potential hazards, on lands where optimum living conditions prevail for this housing type, and on lands outside of areas more suitable for higher density use.

2) Acreage

The acreage of this classification is based upon existing single-family area, the fact that single family dwellings are the most desired housing type, that the vacant lands designated for this density are desirable for this type of use, and that these lands are not needed for other purposes.

## **MEDIUM DENSITY (R-2)**

This density, which allows up to 4.9 to 9.8 dwelling units per acre, is intended to provide an opportunity for a mix of duplexes and single-family dwellings. This density is designed to allow more people to live in the city close to goods and services. This classification is also intended to encourage redevelopment of older properties in the city at such time it is economically beneficial to do so.

### a. Description

This area is generally located in the northeast quadrant of the city, and in the area south of Main Street as shown on the Land Use Plan Map and as follows:

#### 1) South of Main Street Between Hart Avenue and Eckerd Avenue

The predominant housing type in this area is single family residential, however this area has been set aside for duplexes in the future. This was prompted by the declining state of many of the homes in the neighborhood, and the existence of large double lots within the area that would be better utilized for duplexes. This will also ultimately provide for more intense utilization of the land from the core area outward.

#### 2) Between Fenton and Cole Avenue in the Northeast Quadrant

This area has been set aside for duplexes in the future to buffer low density residential lands to the east from commercial development, and to best utilize the lands in this section of the city.

### b. Area

The acreage within the existing city limits is approximately 82.2 acres with .0 acres outside the city limits for a total of 82.2 acres.

### c. Justification

#### 1) Location

The location of the medium density (R-2) land complies with the plan policy to locate medium density residential development away from areas with potential hazards, in areas close to goods and services, and in close proximity to arterial streets for efficient traffic flow.

## **HIGH DENSITY (R-3)**

This density, which allows up to 15 to 18 dwelling units per acre in multi-family structures is intended to provide the opportunity for developing high density residential areas close to city center for easy access to goods and services, and in close proximity to arterial streets for efficient traffic movement.

To a great extent these areas were set aside taking the older residents of the area into consideration. Often time older citizens enjoy being close to the activities provided by the business area of a city, including the library, entertainment, and churches, most of which are centrally located in Molalla, a major portion of the

lands designated for high density residential development are within a short distance of the proposed senior center.

This classification is intended to provide a higher concentration of dwellings on less space by multi-family unit construction to best utilize lands within the city and the Urban Growth Boundary. Those areas outside the existing city limits will require annexation and public water and sewer to develop at this density.

a. Description

These lands are located generally around the core within the existing city limits and to the south of Highway 211 within the Urban Growth Boundary as shown on the Land Use Plan Map.

b. Area

The acreage within the existing city limits is 86.8 acres with 37.1 acres within the Urban Growth Boundary for a total of 123.9 acres.

c. Justification

1) Location

The location of the land designated for multi-family residential use is based upon existing use, and complies with plan policy to locate this type of development away from areas with potential hazards, in areas near goods and services, and in close proximity to of at least a collector functional classification for efficient traffic flow.

2) Acreage

The acreage within the classification is based upon plan policy to provide adequate lands upon which multi unit construction can occur in order to encourage a high concentration of dwelling units in a minimum of space.

## **RESIDENTIAL LAND NEEDS**

### Areas of Substantial Change

An estimated 107 houses have been built since 1979 and have consumed an estimated 12.5 acres of residential land, much of which was counted as “developed” on the original inventory, since it was already platted. There has been virtually no commercial or industrial land development activity.

### Land Needs

For comprehensive planning purposes, it is essential for a community to designate build able lands in all land use categories sufficient to meet its projected needs. Molalla has done this very well in its existing plan. Even with the revised population and housing needs projections, the city’s existing land use designations meet the projected needs. The lands needed to

accommodate future growth are calculated and compared to land availability below.

### Lands Needed for Housing

The land needs for housing in Molalla in the year 2005 are calculated as follows:

#### Assumptions

- 80% of the new single-family units and all of the new multi-family units projected for Census Tract 239 will be accommodated in the Molalla Planning Area.
- Vacancy rates are assumed to be 3% for single-family homes and 6% for multi-family. This is already calculated into the housing needs projections.
- Densities for single-family units are assumed to be 4.3 units per acre for single-family units and 15 units per acre for multi-family.
- Molalla's plan has a "2-family residential" classification which allows a density of 4.9 to 9.8 units per acre, an average of 7.5 units per acre.

#### Calculations:

Single Family Units that can be accommodated on designated vacant single family lands, year 2005.

New Single Family Housing Units to be accommodated (including vacancies) = 1,381 units.

Vacant land area available presently designated Single Family Residential = 345 acres.

Units that can be accommodated on vacant single family lands = (345 acres) (4.3 units/acre) = 1,483 units.

Molalla's planning area appears to have sufficient land designated single family residential under the existing plan to meet the needs projected to the year 2005. There is very little "extra" vacant land in this category, however. Also, since much of the area presently developed in single-family homes is planned to convert to other uses, there may be a need for "replacement" lands, as well. This is difficult to calculate, since much of the planned conversion is unlikely to occur. However, replacement need can be calculated on gross level as follows:

Single Family Units to be replaced = 500 units

Land needed for replacement = (500 units) (1 acre/4.3 units) = 116 acres

Multi Family units that can be accommodated on designated Multi-Family lands, Year 2005.

New Multi-Family Housing Units to be accommodated (including vacancies) = 496 (both multi-family and 2-family)

Vacant Land Area Available –  
 Multi-Family = 48 acres  
 Two-Family = 26 acres

Units that can be accommodated in designated Multi-Family lands (48 acres)  
 x (15 units/1 acre) = 720 units

Units that can be accommodated in designated Two-Family lands (26 acres) x  
 (7.5 units/1 acre) = 192

Clearly, there is sufficient multi-family and 2-family land available under Molalla’s existing plan to meet the needs projected to the year 2005. This counts only the vacant lands. In addition, a large area already developed in single-family homes is designated for two or multi-family use and planned to redevelop to greater densities.

The conclusion of this analysis is that Molalla’s existing plans has designated sufficient residential lands to meet its need to the year 2005 as shown below:

	Needs to be Accommodated		Land Availability	
	New Units	Vacant Acres	New Units	Acres
Single-Family	1,394	321	1,483	345
Multi-Family	496			
Two-Family ---	approx. 33		195	25
Multi-Family ---	approx. 17		720	48
	---	---	---	---
Total	1,890	approx. 381	2,398	
	=====	====	=====	

- Acreage needed calculated assuming that half the new multi-family units will be developed on two-family land, and half on multi-family land.

C. COMMERCE

1. EXISTING CONDITIONS

a. Existing Establishments and Services

The City of Molalla has a number of commercial establishments and services in its business district. The central business district is elongated along both sides of Main Street with the greatest concentration to the North. Over the past several years the area in the northeast segment of the community has seen many new establishments and services. A new shopping center, bank, post office, real estate office, and a more recent doctors clinic are new additions to the community. A list of businesses in and around Molalla is furnished as part of this element.

The Molalla business district is located in approximately a twelve square block area divided by state Highway 211 running east and west, and by Molalla Avenue running north and south. The area is bounded on the east,

north and south by residences, and to the west by and large industrial complex of long standing.

There are two other commercial areas within the Urban Growth Boundary; one at the intersection of State Highway 211 and Lay Road to the east of the city, and the other at the intersection of State Highway 213 and State Highway 211 to the west of the city. These lands are capable of providing land uses of commercial and industrial type not compatible in a central business district. Establishments can be located here that are more oriented to the automobile traffic along the highway.

b. Parking

With the exception of the city parking lot, which is situated adjacent, and to the rear of City Hall, off-street parking facilities in the core area are severely limited. As a result, shoppers tend to park their vehicles along both highways during peak hours. New space for parking should be sought in this area.

c. Condition of Commercial Buildings

The age of the existing commercial buildings range from new or nearly new to very old. Of the older type, nearly all are in serviceable condition. Several commercial facilities are currently under construction and will be completed on the near future. Several structures in the southern segment of the city along Molalla Avenue are less than desirable in appearance as well as structure and should either be renovated or removed.

Many of the older buildings have undergone an exterior and interior upgrading which has done much in improving the overall appearance of the core area. Much of the “facelift” of the older commercial structures as well as the new construction has been voluntarily done in theme lending itself to the old west. Broad community support for the continuation of such them in future remodeling and new construction is indicated by letters from various community organizations.

d. Availability of Commercial Space

The majority of existing commercial uses are situated in the northeast sector of the community, of the total 45.0 acres of land currently zoned central commercial (C-1), 18.6 acres are in commercial use and parking, 7.1 acres are in residential use, 1.4 acres in public facilities use, 3.8 acres are in recreational use, 11.1 are in street right of way, and 3.0 acres are vacant.

Investigations by members of the CAC have determined that at the present time nearly all-available commercial space is occupied. This means there is little available space for new commerce or the expansion of existing establishment, this is to the detriment of the community as it limits expansion of jobs available on the local level and the provision of desirable new services.

Of the total 19.0 acres of general commercial (C-2) property, 5.2 acres are in commercial use and parking, 2.8 acres are in residential use, 6.5 acres are in

industrial use, 4.09 acres are in street right of way, and .50 acres are vacant. At the present time there is little general commercial (C-2) property available in the properties would aid in utilizing Highway 211 to its full potential.

e. Needed Establishments and Services

Molalla acts as the trading center for a relatively large area as shown on the Market Area Map of this element. The closest availability of a number of services lies in Portland or Salem, approximately 35 miles north or south of Molalla. The CAC has identified a large grocery store, a motel, additional restaurants and a theater as some desirable additions to the community.

f. Facilities Needed for Commercial Expansion

The primary need to be provided for future commercial expansion is land which can be suitably utilized for commercial progress. Such land needs good access and should be of sufficient size to provide off-street parking for customers, and must be served by public water and sewer. Once the city designates suitable lands for commercial development, it is the function of the private sector to either construct building spaces for tenants to lease or for the business itself to construct its own facility in accordance with city ordinances.

g. Designated Commercial Lands

A survey of commercially designated lands was conducted to determine the amount of commercial land available for future development. The same criteria used to determine build able resie3ndital land were used in this survey (see page 57). Four land use categories were established.

1. Developed – Land, which is developed with uses permitted in the commercial zones.
2. Developed with Other – Land, which is developed with uses not permitted in the commercial zones. This land could convert to redevelop with commercial uses in the future.
3. Constrained – Vacant land, which is not readily available for development due to constraints such as access, ownership or services.
4. Vacant – Vacant land which is available for development.

Using figures in Table III-7, after page 142, as a basis, the following acreage amounts were determined for each category.

	Central Commercial	General Commercial
Developed	38.3	54.1
Developed with Other	38.6	40.1
Constrained	-0-	3.1
Vacant	13.8	15.2
 Total	 90.7 acres ===	 112.5 acres =====

The city has designated approximately 203 acres within the study area for commercial use. 92 of 203 acres are developed with commercial uses. 79 acres are developed with other uses, primarily single-family residences. 29 acres of the land designated for commercial use is vacant and available for development. The remaining 3 acres are not readily available for commercial use due to development constraints.

Population projections for the study area (pages 19 and 20) indicate a doubling in population by the year 2000. The market area for Molalla also includes the Mulino, Marquam and Colton areas. A slight population increase can also be expected in these areas, especially along Highway 211 east of Molalla where Clackamas County has designated land for rural residential use. In order to meet the demands created by this increase in population, the city must designate additional land for commercial use. A number of businesses have recently developed in the city, adding to the economic base. This commercial base has enough capacity to serve a small increase in population. However, the amount of population increase expected over the next 20 years will require additional land for commercial development.

The City has provided for additional commercial development by designating vacant and redevelopable land for commercial use. Approximately 40% of the land designated for commercial use is developed with other uses, primarily single-family residences. The amounts these areas can contribute to future commercial needs will depend on economic demand and other factors. 14% of the land-designated commercial is vacant and available for development. This vacant land, together with land added through redevelopment conversion, should provide space for commercial development to meet a 100% population increase over the next 20 years.

The eventual development of the commercial land will depend in part on the City's service capacity. The sewer and water facilities are discussed in the Community Facilities Element of the Plan. The City's sewer facilities have a capacity of 5190 people by the year 1995. This figure includes population equivalent figures for commercial and industrial development. The City is presently at its limit for discharge of treated effluent into Bear Creek and is considering different methods to increase the amount of effluent, which can be discharged. Additional land can be purchased to increase the holding capacity of the treatment plant, but the amount of future development will be based in part on the City's ability to increase its discharge of treated effluents. The City's water facilities include a 2 million gallons per day (MGD) treatment plant and a 1.8 million gallon reservoir. Water is supplied through water rights from the Molalla River for 2 MGD. The current demand on the water supply is approximately 1.4 MGD. New sources of water will be needed in the near future to meet the demand created by new development. There is enough land at the water treatment plant site for additional reservoirs, but future development will be dependent on the City's ability to provide an adequate water supply. Other factors which will influence future commercial development, such as the current economic base,

labor market, pollution control requirements and transportation are discussed in other sections of the Plan.

## 2. FINDINGS

- The variety of commercial establishments and services, which serve the community, should be expanded to provide a wider range of facilities for the convenience of the residents and the benefit of the community at large.
- The Molalla business district does not have an adequate supply of off street parking.
- The condition of the commercial buildings in Molalla ranges from badly worn to excellent, however many of the older type have been remodeled and are in serviceable condition.
- There is little commercial space available for new businesses or expansion of existing facilities.
- Additional suitable commercial land must be provided to allow for commercial expansion.
- There is broad citizen support for adopting a western building theme in the City of Molalla.

## 3. GOALS AND POLICIES

STATEWIDE GOAL 9 – To diversify and improve the economy of the state. (excerpt)

Reducing the intent of this goal to the local level, more local resources could be spent in the city and improve the local economy if more dollars could be captured by the provision of a wider range of goods and services to the local residents. Also, more commercial uses in the city should decrease the tax rate through increasing the city's total value.

STATEWIDE GOAL 13 – To conserve energy. (excerpt)

This goal can also be partially implemented by providing additional services within the city to permit local purchases of goods and services, which now require additional trips to Oregon City, Portland, or other areas. The same might be said of the labor force, many of whom commute to other cities for employment. Limiting such trips would have an obvious benefit on fuel consumption.

STATEWIDE GOAL 5 – To conserve open space and protect natural and scenic resources and historical sites. (excerpt)

This goal can be partially implemented in a broad sense by adopting the “1880” architectural theme as the suggested design standard for future commercial buildings. Molalla is rich in history, and each year the Buckeroo Association presents an annual rodeo commemorating the old west. The adoption of this theme would preserve a great deal of the history of the community.

COMMUNITY GOAL – To develop a commercial district of a size and with a range of services related to the needs of the population and market area.

To achieve these goals the city's policies will be:

- 1) To encourage the private revitalization of existing commercial structures.
  - 2) To encourage provision of commercial services related to tourism.
  - 3) To encourage the establishment, in the City of Molalla, of these goods and services which are not presently locally available to area residents.
  - 4) To encourage commercial development as a means of gradually reducing the tax rate.
  - 5) To insure, through ordinance requirements, the adequate off-street parking is provided to the core area of the city to the greatest extent possible.
  - 6) To locate commercial lands where good access and public exposure exist.
  - 7) To provide the additional land needed for commercial expansion to serve the projected population growth and to insure choice in the market place.
  - 8) To provide for maximum flexibility in the use of the land by designing specific areas for a mix of commercial uses, i.e. a combination of commercial and light manufacturing.
  - 9) To locate commercial lands where public services exist or can be provided.
4. LANDS DESIGNATED FOR COMMERCIAL PURPOSES (C-1)

In order to meet the needs of the city and surrounding community for commercial goods and services and in order to comply with statewide goals and the policies established to provide a suitable quantity of land in the most beneficial location for commercial uses in the City of Molalla, the following lands are set forth:

a. Description

All the land to the south of Highway 211 between Eckerd Avenue and Hart Street extending to 3<sup>rd</sup> Street, and all the lands to the north of Highway 211 between Fenton Street and the Southern Pacific Railroad Spur extending to Heintz Street, all as shown on the Land Use Plan Map.

b. Area

Total acreage designated for central commercial (C-1) use is approximately 90.7 acres.

c. Justification

1. Location

The location of the land designated for commercial (C-1) use complies with the locational policies established to implement the goals of the plan by providing commercial uses with good access, available services and

public exposure, and in adequate quantity to meet the present and future needs of the residents.

2. Acreage

At the present time (1979), approximately 45 acres of central commercial (C-1) land are serving the population of 3050 persons in the city, although more services are desired. Using the existing ratio of population to commercial land and applying it to the year 2000 population of 7645 people, a need for an additional 50 acres is anticipated. Some of the additional land will be needed for off street parking.

5. LANDS DESIGNATED FOR COMMERCIAL PURPOSES (C-2)

In order to meet the needs of the city and surrounding community for goods and services and in order to comply with statewide and community goals and policies to provide a suitable amount of land with easy access to State Highway 211 and 213 for the present and future needs of the residents of the area, the following lands are set forth:

a. Description

All the lands on State Highway 211 between Public Road and Ridings Avenue to the north of Molalla avenue; the lands at the junction of Highway 211 in the eastern sector of the community; and the lands generally at the intersection of State Highway 211 and 213 in the western portion of the study area.

b. Area

The area designated for general commercial (C-2) use is approximately 10.9 acres within the existing city limits and 101.57 acres within the Urban Growth Boundary for a total of 112.5 acres.

c. Justification

1. Location

The location of the land designated for general commercial (C-2) purposes complies with the locational policies established to implement the goals of the plan by providing commercial lands near the highway and public services to encourage a wider range of goods and services.

2. Acreage

At the present time (1979) little commercial property (C-2) is available for development, which is detrimental to the community. By providing a suitable quantity of this type of commercial land, additional establishments can locate in the Molalla area, which will improve the overall economy.

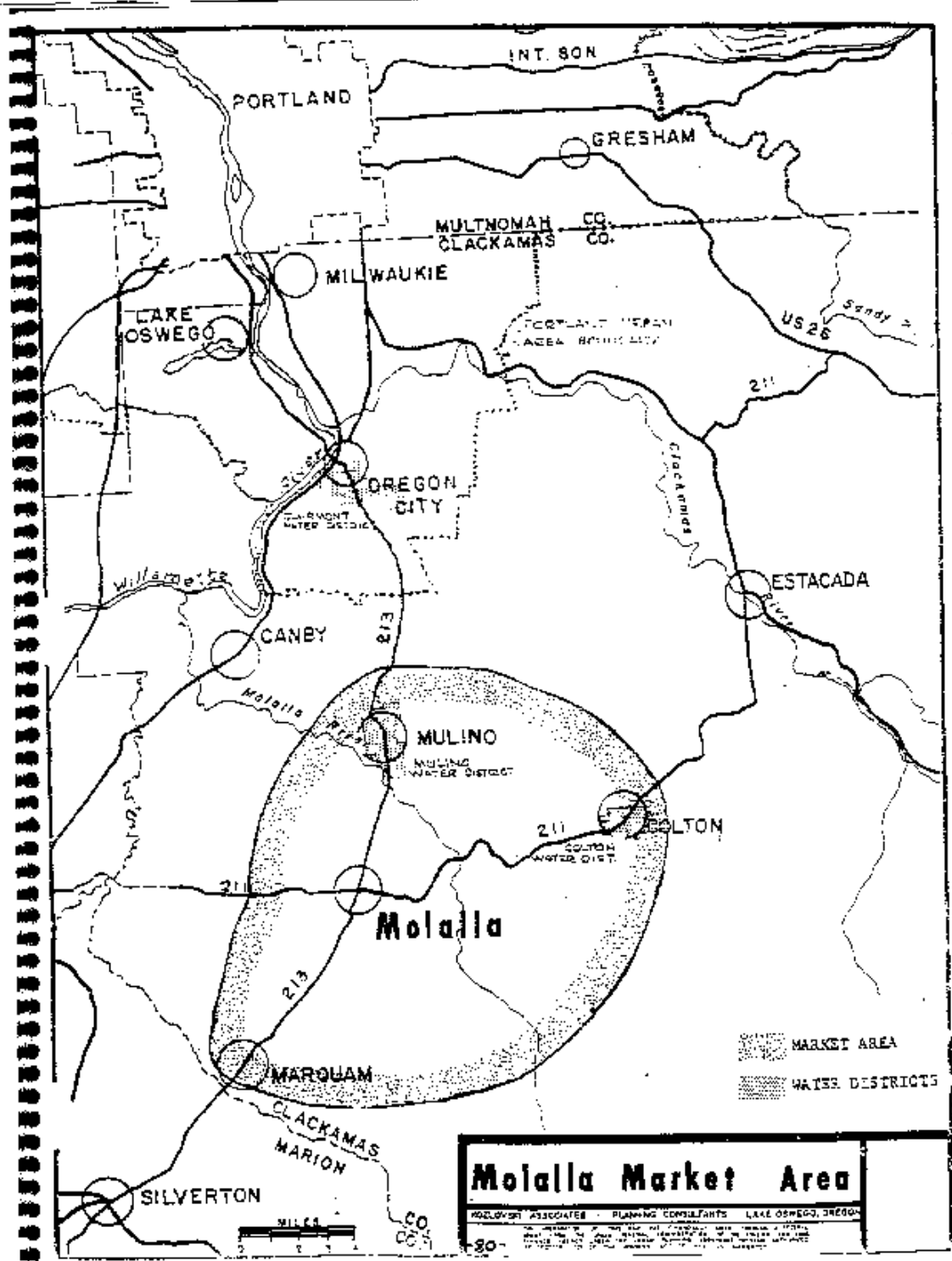


TABLE II-10

**MANUFACTURING FIRMS IN MOLALLA AND VICINITY, 1982-83**

<u>Firm Name</u>	<u>Type of Firm</u>	<u># of Employees</u>	<u>In City Limits</u>
Publishers Paper Co.	Lumber Mill	450	No
Avison Lumber Co.	Lumber Mill	300	Yes
Brazier Forest Products	Lumber Mill	160	No
Electronic Controls Design*	Electronic Components	95	No
Crown Zellerbach Corp.	Logging	55	No
Crawford Logging & Construct.	Logging	50	
Graves Logging	Logging	27	
Harvey Buche Logging Co.	Logging	20	
Sharp Construction	Clay products	15	
Reisch Logging	Logging	12	
Pitman Logging Co.	Logging	11	
Brush Machine	Machinery	10	
Artcraft Distributing	Metal Plate Work	10	No
Union Mills	Animal Feed & Milling	7	No
B&T Logging	Logging	6	
Kropf Lumber	Sawmill	6	
Molalla Iron Works	Fabricated metals	6	
Molalla Pioneer	Publishing	6	Yes
Rodney Schoenborn Logging	Logging	5	
Mountain Timber Cutting	Logging	5	
Foothills Forest Products	Logging	4	
Moehnke Logging	Logging	4	
Molalla Meats	Meat Packing	4	
Molalla Sand & Gravel	Sand & Gravel Products	4	
Huston Welding*	Fabricated Metal	6-8	Yes
Molalla Machine Shop	Vehicle		Yes
Clancy's Custom Kitchen	Sausages	2	No
Jorgensen's Rock Products	Sand & Gravel Products	2-4	No
Klassic Cabinets*	Wood Kitchen Cabinets	2	No
Assur's Custom Cabinets	Wood Kitchen Cabinets	1	
Robbins Lumber	Logging	1	
Harold Gibboney Logging	Logging	NA	
Mountain Stream Meat Co.	Meat Packing	NA	
Portland Metal Fabrication	Sheet Metal Work	NA	
Total		1,301	

- Updated per local information.

Source: Oregon Department of Economic Development, Directory of Manufacturers, 1982-83

## **D. INDUSTRY**

### **1. EXISTING CONDITIONS**

#### **a. Existing Industrial Activities**

The present industrial pattern in Molalla follows uses established when the city was very young, and with the exception of the mill located in the southeast

quadrant, follows route of the railroad which serves it. Avison Lumber Company, the largest industrial facility in Molalla, occupies approximately 85 acres of industrially zoned lands within the city limits. The lands owned by Avison are generally located in the southeast quadrant paralleling Shaver Street and the Southern Pacific Railroad spur, and in the northwest quadrant between Ridings Avenue and the Southern Pacific spur.

While limited, other industrial activity can also be found within the city limits. A blacksmith shop and a small engine repair shop are located in the Molalla business district on the west side of Molalla Avenue, and a fuel storage depot is situated in the western section of the city on Highway 211 near Whittenberg Avenue.

Nearly all of the industrial development outside of the city limits but within the Urban Growth Boundary lies to the west along Highway 211 and 213. An automotive repair shop can be found on the north side of Highway 211 near Ona Way Road. Crawford Logging Co. is located in the same general vicinity on the south side of Highway 211. I.T.C., a steel fabrication plant, is situated on Highway 213 a short distance south of the 211 intersection. A body and fender shop can also be found on Highway 213, north of the 211 intersection.

b. Condition of Industrial Buildings

The buildings in the city and study area appear to be adequate for their present use, although their actual structural condition is not known. The expansion of the Avison facility discussed earlier in this plan will be in accordance with local and state regulations.

c. Availability of Industrial Space

At the present time there are approximately 143 acres of land within the city limits zoned for light industrial (M-1) use. Of those lands, 2.0 acres are in residential use, .5 acres are in commercial use, .3 acres are in public use, 11.7 acres are in street right of way, 56.5 acres are in heavy industrial use, and 72.0 acres are vacant. Approximately 69 of the vacant acres, however, are owned by Avison Lumber Company and used for log storage and related activities. Any expansion of the Avison facility in terms of its present status or in secondary wood processing products would necessitate the use of these lands.

Consequently, they are not available for other industries who may wish to locate in Molalla, at least during the time period of this plan. The remaining 2.4 acres is available and for sale at the present time. Due to its relatively small size, however, this site may be incompatible with a number of uses, which would require a larger area in order to develop. This is detrimental to the community as it limits the capability of the city in term of diversifying its economic base as well as providing additional job opportunities on the local level.

The Portland Metropolitan Boundary Commission approved in March, 1986 an 86 acres annexation to the city. Of the area annexed, approximately 44.5 acres are planned for light industrial uses. This represents an area, previously unavailable

for industrial development, which may allow significant diversification of the existing industrial employment base.

d. Needed Industrial Activities

Members of the CAC have determined that the future industrial facilities in the City of Molalla should ideally be light industrial in nature. They have listed electronic components and general assembly plants as having potential in the Molalla area.

Information about how much land is used by these firms and other firms which would be located in the Molalla area helped in deciding how much industrial land to designate. Two documents were used to obtain this information. The 1980-1981 Directory of Manufacturers provided information on the different industry groups. A Columbia Region Association of Governments' report supplied employee per acre figures for industries in urban and suburban areas. The actual figures would be lower for rural areas like Molalla since land prices are generally lower and industries use more land.

The following industries are a few examples of the types of business, which have potential in the Molalla area:

- 1) Firms manufacturing electronic components for most part range from 20 to 150 employees and have 15 employees per acre;
- 2) Firms assembling metal doors and related items have a general range of 15 to 80 employees and have 8.25 employees per acre;
- 3) Businesses engaged in fabricated plate work range from 10 to 50 employees and have 8.25 employees per acre;
- 4) Firms producing general industrial machinery and equipment range from 10 to 50 employees and have 8.25 employees per acre.

As a result of preparing the Economic Development Analysis, three general target firms have been identified which are likely to locate in the City of Molalla. Those firms are typically "Footloose" which need to move via expansion for lower operating cost requirements. Secondary wood products manufacturers are also expected to locate in the Molalla area. Examples of this industry are door and cabinet makers, etc. The final target industry is expected to be agricultural packaging. The latter frequently starts as a home occupation expanding its operation into a larger facility located in the industrial areas.

e. Facilities Needed for Industrial Uses

When discussing the attraction of new industry, it should be pointed out that industry has several criteria on which it bases selection of location. Among these are adequate land, good access to highways or railroads to facilitate the transporting of raw materials and finished products, and good residential environment for workers. Water and sewer needs of industry must also be considered. If capacities are limited this may limit the types of uses, which can be

reasonably accommodated. The availability of other utilities such as storm drainage and gas, electricity and telephone may also be important.

Some aspects of seeking industrial uses, such as water, sewer and perhaps roads may have significant effects on the city's budget and may limit the types of industry, which would locate in Molalla based solely on the need for basic facilities. Probably those uses, which require the least public investment in facilities, would be best for the city at this time.

f. Designated Industrial Lands

A survey of industrially designated lands was conducted to determine the amount of commercial land available for future development. The same criteria used to determine build able residential land are used in this survey (see page 57). Four land use categories were established.

- 1) Developed. Land, which is developed with uses, permitted in the industrial zones.
- 2) Developed with Other. Land, which is developed with uses, not permitted in the industrial zones. This land could redevelop with industrial uses in the future.
- 3) Constrained. Vacant land which is not readily available for development due to constraints such as access, ownership or services.
- 4) Vacant. Vacant land which is available for development.

Using figures in Table III-7, after page, as a basis, the following acreage amounts were determined for:

	Light Industrial	Heavy Industrial
Developed	22.3	156.5
Developed with Other	21.8	19.6
Constrained	8.8	85
Vacant	48	57
<b>Total</b>	<b>100.9 acres</b>	<b>318.1 acres</b>

The City has designated 419 acres for light and heavy industrial use. These figures designated land is currently in industrial primarily single-family houses. 25% of the land designated for industrial use is vacant and available for development. The large amount of constrained land under the Heavy Industrial category is located between Highway 211 and Molalla Forest Road, west of the city limits. Access to this area is via two private parties owned by Crown Zellerbach. Use of these roads by private parties is controlled by Crown Zellerbach. The development potential of this area is limited by the access constraint.

The city has projected a doubling of its population by the year 2000. The economic base of the city is dependent on the lumber industry and little vacant

land is presently available. In order to expand its economic base and provide job opportunities for the increased population the city must designate additional industrial land. 105 acres of the lands designated for industrial use are vacant and available for development. An additional 41 acres are developed with other uses, primarily single-family residences. The redevelopment/conversion of these lands to industrial use will depend to a large extent on the economic market. These two categories total 146 acres. This compares with the 179 acres of land presently developed with industrial uses, a good portion of which is devoted to the Avison Lumber Mill. The amount of vacant and redevelopable industrial land is adequate to serve a population increase of 100% over the next 20 years.

The city has identified the type of industry it would like to attract and has researched the employee and acreage demands of these industries (see page 84). In order to attract these industries, the city is working with the Port of Portland and Clackamas County on a small cities industrial program. The actual number and type of industries, which will locate in Molalla depends on many factors. The city hopes to enhance its position by providing enough vacant developable land and by marketing itself through the industrial attraction program.

The eventual development of the industrial land will depend in part on the city's service capacity. The sewer and water facilities are discussed in the Community Facilities Element of the Plan. The City's sewer facilities have a capacity of 5190 people by the year 1995. This figure includes population equivalent figures for commercial and industrial development. The city's water facilities include a 2 million gallon per day (MGD) treatment plant and a 1.8 million gallon reservoir. Water is supplied by a water right from Molalla River for 2 MGD. The current demand on the water supply is approximately 1.4 MGD. New sources of water will be needed in the near future to meet the demand created by new development. There is enough land at the water treatment plant site for additional reservoirs, but future development will be dependent upon the city's ability to provide an adequate water supply.

Other factors which will influence future industrial development, such as the current economic base, labor market, pollution control requirements and transportation are discussed in other section of the plan.

## 2. FINDINGS

- The industrial inventory in Molalla is somewhat limited in scope due to the heavy dependence on the timber industry.
- There are several industrial facilities within the Molalla city limits and the Urban Growth Boundary.
- Nearly all of the city's industrially zoned lands are under one ownership, which prohibits their use for other industrial activity. Additional land is needed.
- There are 2.4 acres of industrially zoned land available for development within Molalla, however the size may not be sufficient for many industries seeking a site.

- The CAC has suggested that the city’s industrial inventory might be expanded in the areas of electronic components and general assembly plants.
- Providing the necessary facilities to attract new industries may place a burden on the city budget.

### 3. GOALS AND POLICIES

STATEWIDE GOAL 9 – To diversify and improve the economy of the state.  
(excerpt)

As in the commercial element, reducing the goal to the local level means that if more jobs can be provided in the city, there will be numerous benefits to the local economy. More industrial development in the city increases the value that can be taxed and reduces the tax rate, more jobs means more spend able income in the community supporting commercial uses and encouraging new construction of housing.

STATEWIDE GOAL 13 – To conserve energy. (excerpt)

This goal can be partially implemented by increasing job opportunities in the community. At the present time many of the Molalla area residents travel to Oregon City and Portland to their place of employment. While there may not be a direct correlation, depending upon the type of jobs provided, the opportunity to reduce the home to work distance and the resultant energy consumption may be offered.

COMMUNITY GOAL – To diversify the economic base of the City of Molalla in order to insure the lack of dependence upon any single industry.

To achieve these goals, the city’s policies will be:

- 1) To establish and maintain an inventory of industrial and of a quantity and quality necessary to attract industry to the City of Molalla. The city shall maintain a three-year supply of vacant industrial land to comply with state administrative rules.
- 2) To provide adequate water and sewer service to industrial lands.
- 3) To discourage land use actions which might limit the utilization of industrial lands.
- 4) To encourage industrial development as a means of gradually reducing the high city tax rate and providing jobs locally.
- 5) To provide an effective site development buffer between industrial uses and neighboring uses for the benefit of all concerned.
- 6) To encourage the location of non-polluting industries in Molalla.
- 7) To coordinate with Clackamas County in an ongoing economic development program.
- 8) To encourage development and implementation of a community wide economic development program.

- 9) To coordinate with the Oregon Department of economic Development in seeking new industrial uses for the city.
- 10) To designate land for industrial use which meets the needs of those industries most likely to locate in Molalla.
- 11) To designate an area large enough for several industries to cooperatively design an industrial park.
- 12) To coordinate with the Port of Portland in industrial development strategies to the greatest extent possible.
- 13) To prohibit industrial development in an M-1 zone, which may create excessive noise, smoke, odor, dust or gas.

4. LANDS DESIGNATED FOR INDUSTRIAL PURPOSE

In order to meet the needs of the city and surrounding community for providing local employment opportunities and encourage new industrial development, and in order to comply with local and statewide goals and the policies established to implement those goals, the following described areas are established to provide a suitable quantity and the quality of industrial land in the most favorable location of the City of Molalla.

**LIGHT INDUSTRIAL (M-1)**

Light industrial (M-1) areas are designated for non-polluting industries, which are generally compatible with residential and commercial activities. The light industrial concept for future development is envisioned in areas primarily west of the current city limits. Larger parcels have been designated in this location to attract industries that require greater land areas for the operation, or for several industries to cooperatively design an industrial park.

a. Description

Generally those lands fronting Highway 211 west of Molalla Avenue extending east and west, and a site to the north of Highway 211 on both sides of Highway 213 all as shown on the Land Use Plan Map.

b. Area

The designated acreage for Light Industrial (M-1) use is 35.21 acres within the city limits and 65.72 acres within the Urban Growth Boundary for a total of 100.93 acres.

c. Justification

1) Location

The location of the land designated for light industrial use is based on existing industrial uses, proximity to public services, highway access and the goals and policies of the plan to utilize land for industrial use which meets the needs of those industries most likely to locate in Molalla.

2) Acreage

At the present time there are 2.4 acres of industrial land available in the City of Molalla. The additional lands have been designated reflecting existing uses and to allow for industrial expansion.

### **HEAVY INDUSTRIAL (M-2)**

Heavy Industrial (M-2) uses include manufacturing, fabrication and processing, bulk handling, storage, warehousing and heavy trucking. Most heavy industrial uses are incompatible with residential and commercial uses.

a. Description

Generally those lands to the south and fronting 5<sup>th</sup> street, a segment of the land paralleling Shaver Street and the Southern Pacific Railroad spur; a site north of Highway 211 between Ridings Avenue and the S.P. spur, and a site which fronts Highway 213 to the south of Highway 211. All as shown on the Land Use Plan Map.

b. Area

The designated acreage for heavy industrial use is 134.2 acres within the city limits and 183.9 acres in the Urban Growth Boundary for a total of 318.1 acres.

c. Justification

1. Location

The location of lands designated for heavy industrial use is based upon existing uses, proximity to public services, rail and highway access and the goals and policies of the plan to designate heavy industrial use which meets the needs of the industries presently located in the area.

2. Acreage

Although vacant land exists in these areas, the designation primarily reflects existing uses rather than land for new heavy industrial development.

## **E. COMMUNITY FACILITIES**

### **1. WATER**

a. Existing Conditions

1. Source

The City of Molalla withdraws its domestic water from the Molalla River. The town presently has a water right to divert 1.94 million gallons per day (MGD), although there is an additional water right available on Trout Creek, a tributary of the Molalla River. No other water rights are available.

According to Molalla's director of public works, the present maximum demand on the water system is about 1.2 MGD (430 gallons per capita per day).

## 2. Treatment Facilities

A “Study of the Molalla Water System” was written in December 1973, for the City of Molalla by Clark and Groff Engineers of Salem. The study stated that to provide adequate fire protection and continuity of service in the city, additional distribution in the amount of 1.2 million gallons was recommended. This was accomplished by construction of the new facility at a cost of \$1,256,000.

The treatment plant is a package coagulation, sedimentation, filtration unit, and has a rated capacity of 2 MGD. Currently one 650 gallons per minute pump and one 350 gallons per minute pump deliver the raw water to the treatment plant which in turn delivers the treated water to a 1.2 million gallon covered reservoir for chlorine detention and storage. There is also a .6 million-gallon reservoir at the site that was used in conjunction with the old system. There is sufficient land at the site for additional reservoirs.

Water is delivered to the city via an 8, 10, and 14-inch transmission line at a rate of 4000 GPM. The three transmission lines take off an 18-inch line that extends back up to the reservoir. The 14-inch line parallels the 8 and 10 inch lines for a distance, and then job northwest crossing under North Molalla Avenue at the Miller Street intersection.

When extended west, the line will run along the northern portion of the study area paralleling Toliver Road. (See Water Facilities Map of this Element) The line will eventually extend south toward state Highway 211, at a point yet to be determined. Here it will run east back to the city and tie into the existing transmission lines serving the southeast section of Molalla. This will create a more functional loop water system and should eventually lower Molalla’s present fire rating from 7 to 5.

The director of public works estimates that there are approximately 90,000 feet of water lines serving the city. For the most part the distribution system is laid out in a grid pattern. However dead end lines do occur in some areas. A certain amount of leakage is also present.

## 3. Ongoing Planning

There is no ongoing water supply planning for Molalla since the existing facilities were just recently completed. If Molalla continues to grow at its present accelerated rate, expansion of the existing facilities will be required in 7 to 10 years.

## 4. Future Sources

The future sources for Molalla are limited to the Molalla River and its tributaries, and groundwater. Unless there are problems with over-appropriation of water on the Molalla River, it is expected the city will

continue to utilize the river as its primary source. The back-up or secondary sources would have to be groundwater since there are no other surface sources with adequate flow near the city.

5. Recommendation for Further Study

Because the City of Molalla has new facilities, which should be adequate for the next few years and were designated for easy expansion, the major concern to the city will be future low flows on the Molalla River. A study of the existing water rights and withdrawals should be made to assure that there is sufficient water for those who rely upon the Molalla River. This is especially a concern to Molalla since they have already experienced problems during low river flows. (20)

b. Findings

- The City of Molalla has a water right to divert 1.95 MGD from the Molalla River.
- There is a water right available on Trout Creek, tributary of the Molalla River.
- The city has recently completed construction on a new water treatment facility with a related capacity of 2MGD.
- The city owns adequate land at the site of the existing treatment plant for additional storage facilities.
- The city's water treatment plant could reach capacity in seven years.
- An adequate future municipal water supply is a major concern of the city, particularly during periods of low stream flows on the Molalla River.

c. Goals & Policies

The statewide goal, which generally applies, to nearly all facets of this element is:

STATEWIDE GOAL 11 – To plan and develop a timely, orderly, and efficient arrangement of public facilities and services to serve as a framework for urban and rural development. (excerpt)

COMMUNITY GOAL – To maintain an adequate water quality, supply and distribution system to meet the needs of the citizens of Molalla.

To achieve these goals, the policies of the city will be:

- 1) To secure the Trout Creek water right as soon as necessary.
- 2) To improve the condition of the water distribution system and curtail losses by leakage as soon as possible.
- 3) To investigate all possible sources of funding for future water system improvements.

- 4) To allow no extension of water service outside of the city limits which would result in a substandard level of service to existing city water customers or limit the future development potential of the city.
  - 5) To allow extension of water lines outside the city limits only when the service recipient has:
    - a) Agreed to pay the costs incurred by the city, and
    - b) Signed an annexation agreement or a service provisions agreement with the city.
  - 6) To allow hook-up by intervening properties only after they have met the requirement of Policy 5 above.
  - 7) To require applicants for new development to pay for the extension of water lines necessary to serve the property in accordance with city water service plans and specifications.
  - 8) To not allow extension of water lines outside the adopted Urban Growth Boundary.
  - 9) To conduct a study of water sources and future demands to insure a sufficient municipal water supply for future Molalla residents as soon as possible.
  - 10) To provide fire flows west of the SPRR Tracks as a high priority public facility project consistent with financial capability of the City.
  - 11) To adopt water distribution maps (public facilities plan) by reference depicting necessary service extensions.
- d. Lands Designated for Water Facilities

In order to meet the needs of the city and its present and future residents for water by providing a safe and economic public water system to meet domestic, commercial, industrial, and fire protection needs, and in order to comply with statewide and local goals and the policies established to implement those goals, the following lands have been designated for water treatment and storage facilities.

1) Description

Generally those 3 lands situated in an open area approximately 3 miles southeast of the city limits which lie to the west of Molalla Forest Road.

2) Area

The total area designated for water treatment and storage facilities is approximately 6.8 acres.

3) Jurisdiction

The site of the water treatment plant and reservoirs has been deemed appropriate due to its elevation, close proximity to the Molalla River, and size.

## 2. SEWER

### a. Existing Conditions

The City of Molalla is responsible for operating and maintaining the sewage treatment plant, located approximately one-half mile west of the city, began operation early this year. The plant and waste disposal system are currently designated to meet a total population of 5190 by the year 1995. Adequate room exists at the site to expand the facilities when needed.

#### 1. Condition of Collection System

The major portion of the Molalla sewage collection system was installed in 1955. Since that time various problems resulting from infiltration and inflow of storm waters and ground waters into the collection system have been experienced. As a result of these problems and the need for compliance with new sewage treatment regulations, the city retained Westech Engineering, Inc., in August, 1973 to make investigations into how the city could best provide adequate municipal sewer service for the next 20 to 30 years.

In March, 1974, Westech presented the city with a report entitled, "Facilities Planning Report, Sewage Collection and Treatment Works, Part I". The report provided the following information: 1) established the planned future service area; 2) estimated future service population and needs; and, 3) investigated the existing sewage collection, treatment, and discharge system, particularly the infiltration/inflow problem.

The Facilities Plan, Part I, was submitted to the EPA for review. In 1975 EPA notified the city of the concurrence with the Part I conclusion of probable excessive infiltration/inflow existing in the city's sewage collection system. A detailed investigation (Part II, Sewer System Evaluation) was then determined to be required. In March 1975, the city was presented a second report entitled "Facilities Planning Report Sewer System Evaluation – Part II". The report outlined a specific program for making cost-effective repairs to the sewer system. Westech Engineering was then authorized to proceed with the remaining planning work needed to establish the recommended sewer treatment plant facilities, costs, financing recommendations and plans for implementation of the city's sewer system improvement program.

In 1976 the city employed Gelco Grouting Service to begin repairing the faulty sewer lines in hopes of eliminating the excessive infiltration of groundwater's. Repairs are in process at the present time. Westech estimated that if major problems with infiltration and leakage of the collection system were remedied, the theoretical design of the system would increase by 71 percent.

Refer to public facilities plan document for progress in the lateral rehabilitation program and alternative methods in addition to the grouting program.

## 2. Septic Systems

In addition to the existing sewage facilities, homes and business within the study area are served by septic systems. There have been many reported failures of these systems, especially along Highway 211 to the east and west of the city limits. The city maintains files of reported system failures, which includes a church, equipment rental facility, grocery store, and several single-family dwellings. At one time or another nearly all the homes and businesses along Highway 211 to the junction of Highway 213 have reported septic failures. The most recent involves a drive-in restaurant to the east of the city limits. Annexation proceedings are currently underway in order that the facility can connect to the city sewer.

### b. Sewage Treatment Service Areas and Capacity

#### 1. Planning and Service Areas

The sewage treatment and waste disposal facilities in Molalla were designed for a population of 5190 by year 1995, while the trunk and lateral sewers were designed for an ultimate population of 9677.

The service areas of the sanitary sewer as shown on the "Sanitary Sewer Service Areas" map illustrates how growth is expected to occur over a 20 year period. Area "A" to the north along Toliver Road are lands that can be serviced immediately via an existing 15" trunk line and are expected to develop within a five year period.

Area "B" is the area in which development is expected to occur in 5 to 15 years, as servicing this area would require installation of a sewer trunk line along Bear Creek. To provide service to the area prior to the trunk line, a "pump" station of interim "lift" station would be required as land slopes preclude an extension of gravity service to this area. The lift station would be abandoned at such time as the trunk lines were installed.

Service to the area south of the city along Wilhoit Road can be provided by the existing pump station. Capacity and condition of the pumps should be checked to determine the need for new pumps to serve the increased service area. Discharge will be to the existing gravity system.

It is estimated that the actual cost of the Bear Creek lift station could range up to \$25,000. Should persons in the area desire annexation to the city for the provision of sewer service, construction costs could be financed through a local improvement district.

#### 2. Sewer Capacity

The sewage treatment plant is designed for an average sewage flow of .8 million gallons per day. The sewage runs initially into an open aeration basin with an average detention of 1.6 days. The aerated sewage is then pumped into two large holding ponds where it is then purified by a dissolved at

flotation process followed by filtration and chlorination. The clean effluent is then released into Bear Creek, a tributary of the Pudding River.

As the summer flow of Bear Creek is often very low and insufficient to allow discharge of all treated wastewaters most of the flow to the plant must be stored during the dry weather months and released when there is adequate stream flow.

The storage capacity of the treatment plant could be expanded during the summer months by using the treated effluent for irrigation purposes. If storage facilities become limited, the excess wastewaters can be applied to the land as long as no runoff of wastewater result; no health hazard or potential health hazards are created, and suitable land is available. (6)

Several of the major soils formations in the Molalla area are rated as favorable for irrigation during the summer months. The drainage of these soils is generally slow with very high groundwater levels during the winter. For this reason land disposal of treated effluents during the winter months is not considered practical. The cut has received one letter to date requesting irrigation of 55 acres near the treatment plant.

c. Findings

- The sewage treatment facilities are owned and operated by the City of Molalla.
- A new sewerage treatment plant has been constructed which meets the minimum federal requirements.
- There are major problems with infiltration and leakage in the collection system.
- The city has an ongoing sewer rehabilitation program.
- The sewage treatment and waste disposal facilities in Molalla were designed for 5190 people by the year 1995, while trunk and lateral sewers were designed for an ultimate population of 9677.
- The design capacity of the plant could be theoretically increased by curtailing infiltration and leakage of the collection system.
- The septic systems in the Molalla area are generally in poor condition and there are many reported failures.
- Area "A" to the north and west of the city can be serviced immediately by gravity feed sewer.
- Area "B" to the south and west of the city cannot be served by gravity feed sewer until construction to the Bear Creek trunk line. Until this time service can be provided by interim lift station.
- Treated wastewater must be stored during summer months and released during winter months when stream flows on Bear Creek are adequate.

- The storage capability of the treatment plant could be expanded by land disposal of treated wastewaters.
- Adequate lands are available near the treatment plant to receive treated wastewater.

d. Goals and Policies

The provision and maintenance of adequate transmission and treatment facilities relates to the following Statewide Goals:

STATEWIDE GOAL 6 – To maintain and improve the quality of the air, water and land resources of the state. (excerpt)

STATEWIDE GOAL 11 – To plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development. (excerpt)

COMMUNITY GOAL – To provide adequate sewage treatment and collection facilities for the exiting and future residents of the City of Molalla.

To achieve these goals the policies of the city will be:

- 1) To continue rehabilitation of the sewage collection system to curtail infiltration and leakage to the greatest extent possible.
- 2) To require all existing and new development within the city to connect to the sewer line.
- 3) To seek outside funding for expansion, improvements, and repairs of existing sewage treatment facilities wherever possible.
- 4) Septic tanks may be allowed in the Urban Growth Area outside the city limits on existing rural parcels by Clackamas County, subject to Health Department approval.
- 5) To periodically evaluate the sewage treatment facilities to insure they are compatible with projected future growth.
- 6) Sewage systems or other appropriate methods of sewage disposal may be required to eliminate a public health hazard or water pollution problem which has been identified by DEQ or the State Department of Health. The level of service shall support only those areas identified within the public health hazard or water pollution area.
- 7) To allow extension of sewer service in area “B” prior to installation of the Bear Creek trunk line, only when the recipient has been annexed and has agreed to pay all cost of an interim lift station, and only when it has been determined that such an extension will not limit the development potential of the city.
- 8) To continue to provide treatment facilities and disposal methods that meet the water quality standards set by the State and Environmental Protection Agency.

- 9) To continue to provide treatment facilities and disposal methods that meet the water quality standards set by the State and Environmental Protection Agency.
- 10) To encourage land disposal of treated wastewaters during summer months and to make information available to the public concerning use of such wastewaters.
- 11) To discourage land disposal of treated wastewaters during winter months when groundwater levels are generally high.
- 12) Not to allow any land disposal of treated wastewaters, which would create a health hazard or potentially health hazard.
- 13) The sewage collection and distribution facilities map contained in the public facilities plan showing needed facilities to serve the city and future urban areas is hereby adopted by reference.

e. Lands Designated for Sewage Treatment Facilities

In order to meet the needs of the city and its present and future residents for sanitary sewer by providing a safe and economic sewage treatment plant to meet domestic, commercial, and industrial needs, and in order to comply with local and statewide goals and the policies established to implement those goals, the following lands have been designated for sewage treatment facilities.

1. Description

The sewage treatment plant is situated in an area to the west of State Highway 213 outside the city limits and within the Urban Growth Boundary as shown on the Sewage Facilities Map of this element.

2. Area

The total area designated for sewage treatment facilities is approximately 58 acres.

3. Justification

The site of the new storage treatment facilities was deemed the most suitable because of the size, location in relationship to Bear Creek, and topographical characteristics.

3. STORM DETENTION

a. Existing Conditions

The City of Molalla has experienced a substantial population increase during recent years. Various land developments within and adjacent to the city have placed increasing burdens on the local storm drainage system.

Although no serious municipal drainage problems have been reported, there are numerous standing water nuisance problem areas throughout the city. An abundance of concrete driveway culverts exist along many partially improved streets such as Toliver Road and Ridings Avenue. In some instances the existing

roadway and culvert system are not functioning well due to grade siltation and hydraulic capacity problems. Inadequately sized and shallow driveway culvert installations have constricted flows and caused water ponding problems along some streets. The principal natural drainage outlets for the city are Creamery Creeks and Bear Creek.

Molalla has recognized the need for a coordinated master drainage/street plan in order to ensure that these facilities are adequate for orderly growth and development of the community. In July of 1976 the city issued requests to consultants for proposals to undertake the master street/drainage planning work. Molalla subsequently accepted a proposal submitted by Westech Engineering, Inc., and in June 1977 the city was presented a “Master Drainage and Preliminary Street Plans” report.

b. Findings

- Various land developments within and adjacent to the city have placed increasing burdens on the local storm drainage system.
- There are numerous standing water nuisance problem areas through the city.
- The City of Molalla has a coordinated master drainage/street plan.

c. Goals and Policies

The statewide goal which is considered applicable to the City’s storm drainage system is:

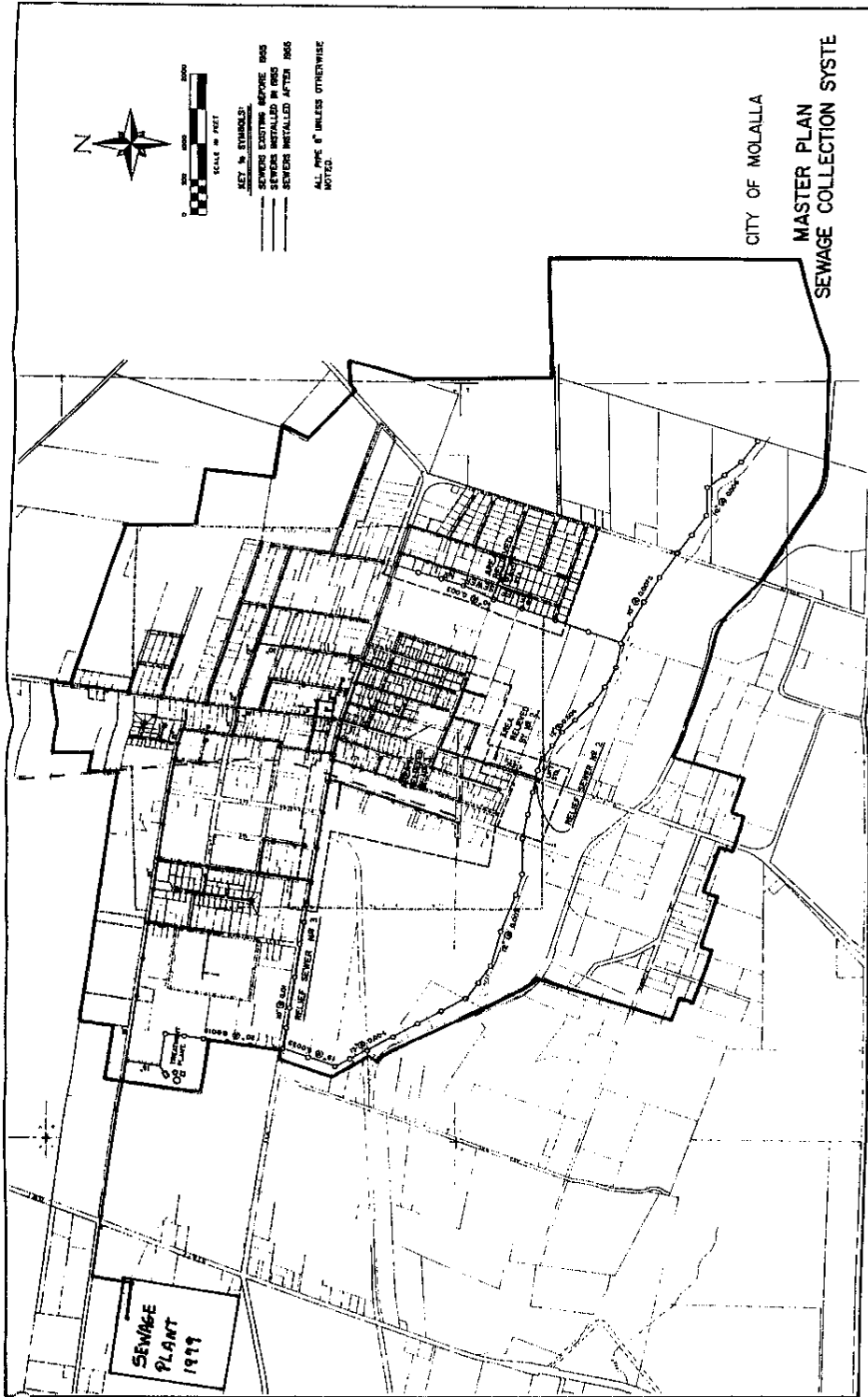
STATEWIDE GOAL 11 – To plan and develop a timely, orderly, and efficient arrangement as a framework for urban and rural development. (excerpt)

COMMUNITY GOAL – To provide an adequate storm drainage collection system.

To achieve these goals the city’s policies will be:

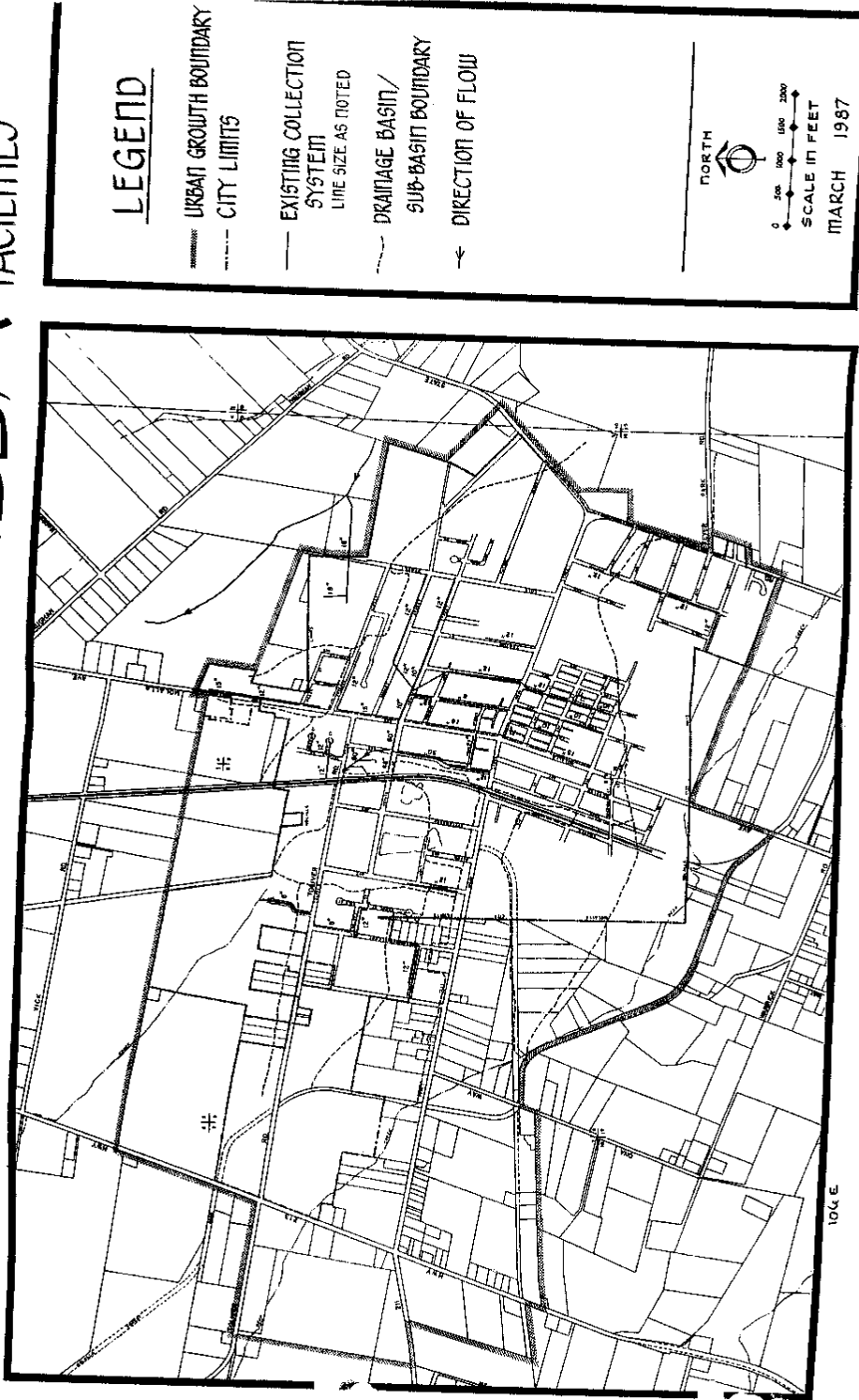
- 1) To seek outside funding for the improvement or expansion of the city’s storm drainage system wherever possible.
- 2) To improve the condition of the existing storm drainage system as soon as economically feasible.
- 3) To continue using the “Master Drainage and Preliminary Street Plan” as guidance for the overall improvement of the storm drainage system in the City of Molalla.
- 4) To initiate or assist with the formation of local improvement districts for upgrading the city’s storm drainage system when and where local support is available.
- 5) To adopt a general drainage policy which outlines responsibilities, procedures and guidelines for joint public and private participation in local drainage improvements.

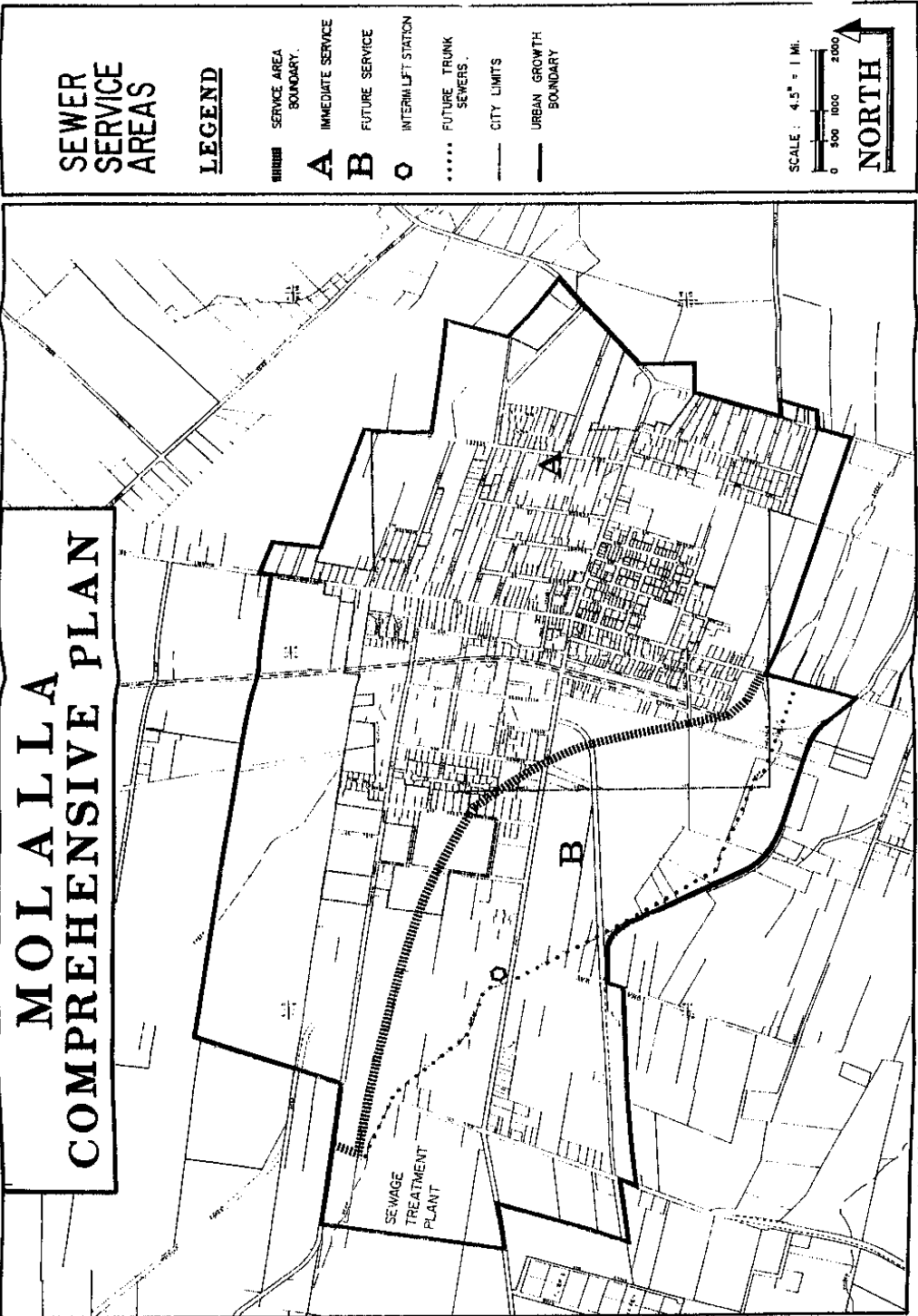
- 6) The storm drainage facilities map showing needed facilities to serve the city and future urban area is hereby adopted by reference.



# CITY OF HIKOLALLA

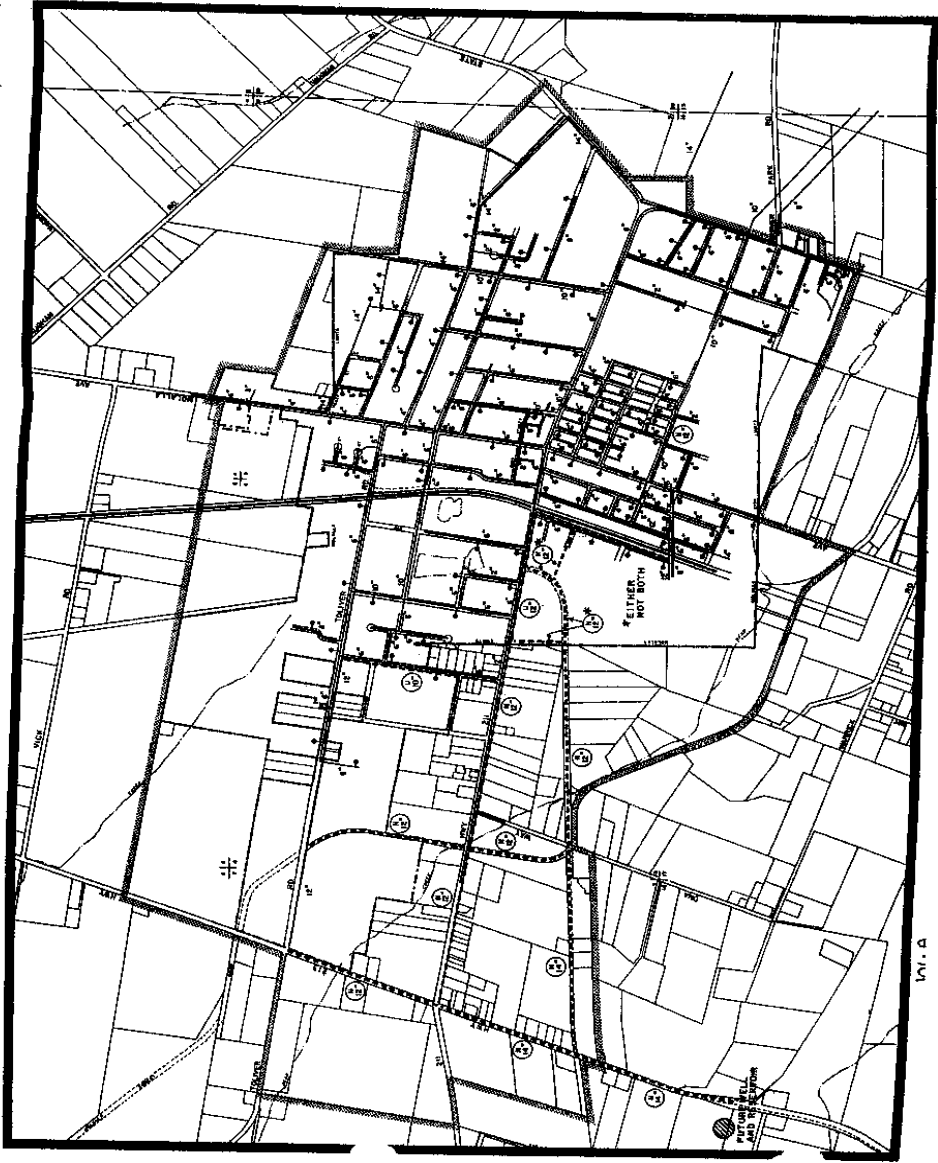
## STORM DRAINAGE FACILITIES





# CITY OF MOLALLA


## WATER DISTRIBUTION SYSTEM



**LEGEND**

- URBAN GROWTH BOUNDARY
- CITY LIMITS
- EXISTING DISTRIBUTION
- PROPOSED DISTRIBUTION
- ⊙ NEW
- ⊙ UPGRADE EXISTING
- FIRE HYDRANT
- INDICATES CHANGE IN LINE SIZE AS NOTED

NORTH



0 500 1000 1500 2000  
SCALE IN FEET  
MARCH 1987

# CITY OF MOLALLA SEWAGE COLLECTION SYSTEM



**LEGEND**

- URBAN GROWTH BOUNDARY
- CITY LIMITS
- EXISTING SEWERS
  - INSTALLED BEFORE 1955
  - INSTALLED 1955 OR LATER
- PROPOSED SEWERS
- NEW
- UPGRADE EXISTING
- MANHOLE
- OBSERVATION MANHOLE
- LIFT STATION

NOTE: ALL PIPE 8" UNLESS OTHERWISE NOTED

NORTH

0 500 1000 1500 2000  
SCALE IN FEET  
MARCH 1987

#### 4. SOLID WASTE

##### a. Existing Conditions

The City of Molalla is responsible for solid waste management within the city limits. The city franchises with the Molalla Sanitary Service to provide garbage service for the local area. Garbage is hauled approximately 13 miles to Rossman's Landfill site located at 1101 17<sup>th</sup> Street, Oregon City. No problems with sanitary service were indicated at this time.

##### b. Findings

- The City of Molalla is responsible for solid waste management within its corporate city limits.
- The city is served by a private disposal company.

##### c. Goals and Policies

The stateside goal considered applicable to the city's solid waste disposal facilities is:

STATEWIDE GOAL 11 – To plan and develop a timely, orderly, and efficient arrangement of public facilities and services to serve as a framework for urban and rural development.

To meet current and long range needs, a provision for solid waste disposal sites, including sites for inert waste, shall be included in each plan. (excerpt)

COMMUNITY GOAL – To have a convenient and economical solid waste disposal service for the City of Molalla.

To achieve these goals the policies of the city will be:

- 1) To seek economical and convenient solid waste disposal service for the city residents through the franchise granting process.
- 2) To support the Metropolitan Service District in its efforts to provide suitable sites for solid waste disposal.

##### d. Lands Designated for Solid Waste Disposal

The landfill site in Oregon City is appropriate for Molalla's present solid waste disposal needs although it is expected to reach capacity in 1983. At such time that the Metropolitan Service District selects a more suitable site the city will continue to franchise a suitable sanitary service to meet the needs of the residents of the area. There is no land planned for a solid waste site in Molalla.

#### 5. TRANSPORTATION

##### a. Street and Roads

###### 1. Existing Conditions

Molalla's street system includes a variety of street arranging from the newly improved type with curbs, sidewalks and storm drainage to those surfaced with oil mat, shorcoat, gravel or a combination of the three. Some of the streets are paralleled with open ditches and lack modern storm drainage improvements.

a. Traffic Land and Capacity

There are two state highways that pass through the Molalla study area; State Highway 211, designated as Main Street within the city limits and State Highway 213, which runs north and south along the western edge of the study area. Highway 211 is the only east west through street within the city. Both highways are 60-foot right-of-ways with two paved lanes.

Highway 211 connects with State Highway 26 in Sandy, forty miles to the northeast, and State Highway 99E in Woodburn, thirteen miles west of Molalla. There is also an interchange with Interstate 5 in Woodburn. Highway 211 is the major traffic carrier between Woodburn, Molalla and Estacada. As the areas to the north and east of Molalla have been developed due to the timber industry, this highway is used as a major truck route by the logging firms and mills in the area.

b. Traffic Volume in the Downtown Area

State Highway 211 intersects with Molalla Avenue in the core commercial area of the city. Both are two lane highways and are curbed with parallel parking allowed throughout the downtown area. Highway 211 (Main Street) is 52 feet wide to the west of Molalla Avenue, and 40 feet wide to the east. The intersection is controlled by a four-way flashing red beacon. As these are the only through streets within the city, traffic flow at this intersection is severely impeded, especially during peak traffic hours.

According to the Oregon State Highway Division's 1983 counts, the traffic volumes on Highway 211 were 7800 at the intersection with Stowers, 8100 at the east leg of the Molalla Avenue intersection, 7300 at the west leg of the Molalla Avenue intersection, 7800 at the intersection with Hart and 6700 just west of Leroy Avenue. Traffic volumes for the intersection of Highway 211 and 213 are 3050 for the north leg, 3550 for the west leg, 2300 for the south leg and 5600 for the east leg. (21)

c. Safety Conditions

A study of the accident history on Main Street indicated that in the three year period from 1971 to 1973 there were 30 reported accidents in the 1.3 mile section from the west city limits to the east city limits. These accidents were distributed fairly evenly throughout the length of the section with no unusual concentrations of accidents in any one area. The three-year accident rate is 4.43 accidents per million vehicle miles traveled, which compares favorably with the 1972 statewide average for secondary urban non-freeways of 4.63.

At the intersection of Main Street and Molalla Avenue there were seven reported accidents between 1970 and 1974. Based upon this data there does not appear to be an accident problem in the city.

d. Truck Traffic

The state has designated the highways capable from a construction standpoint of carrying the loads permitted on logging trucks. The only roads in the vicinity of Molalla so designated are Highways 211 (Main Street east and west) and 213. As a result, heavy hauling traverses Main Street from the east to the west boundary of the study area. The Oregon State Highway Division reports that about 25 percent of the through traffic on Main Street consists of trucks. The busiest intersection in Molalla is seriously affected by this truck traffic, as are other areas of the city during peak hours.

There are several alternate truck routes being considered at the present time. Development of any of these, however, would be difficult and extremely costly. The environmental, economic, social and energy impacts of any alternatives will be addressed in a project impact statement.

One proposed route connects State Highway 211 with State Highway 213. Starting at the intersection of County Road 925 and Levi Robbins Road and connecting to an extension of 7<sup>th</sup> to Hart Street, then following the present alignment of Hart and the railroad to the West Main Street, and continuing in a northerly direction to the east side of the railroad, it ultimately joins State Highways 213 near Liberal. This route would circumvent the railroad crossings encountered at present, and eliminate much of the traffic carried by North Molalla Avenue.

Another alternative lies along the south border of the planning area. Most of this land is committed to manufacturing or is undeveloped. Crown Zellerbach owns and maintains a private logging road in this same general area and uses the road to haul logs from the Molalla area to the Willamette River near Canby. At such time as the road becomes available, if in fact it does, this would serve as a truck route between Lay Road and Highway 213.

e. Condition of Streets and Highways

State Highways 211 and 213 are maintained by the State Highway Department. These highways are in fair condition, although severe winter conditions have caused pot holes to occur in numerous places. The Clackamas County Road Department has the responsibility for maintaining Molalla Avenue. The condition of this street is fair, with surface damage occurring in places due to winter conditions.

The City of Molalla Public Works Department maintains the other streets in the city within its limitations. Many of these have surface damage due to weather conditions. Others are in need of upgrading to include curbs and storm drainage systems. The “Master Drainage and Preliminary Street Plans Report” is discussed earlier in this element.

## 2. Findings

- State Highways 211 and 213 are located within the Molalla study area.
- The State Highway Division, Clackamas County, and the City of Molalla maintain streets in the Molalla study area.
- Sidewalks and storm drainage systems exist on some of the city’s streets.
- State Highway 211 (Main Street) and Molalla Avenue are the only main arterial streets within the City of Molalla.
- There is a high volume of traffic at the intersection of Main Street and Molalla Avenue causing a circulation problem in the core area, especially during peak traffic hours.
- Log trucks account for a portion of the traffic congestions within the city.
- The city is in dire need of an alternate truck route to divert the heavy truck traffic away from the downtown area.
- There does not appear to be a problem with traffic accidents in the city.
- Many of the city’s streets are in need of up-grading.

## 3. Goals and Policies

State goals which apply to the consideration of transportation facilities to serve the City of Molalla are:

STATEWIDE GOAL 11 – To plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development. (excerpt)

STATEWIDE GOAL 12 – To provide and encourage a safe, convenient and economic transportation system. (excerpt)

STATEWIDE GOAL 13 – To conserve energy. (excerpt)

COMMUNITY GOAL – To minimize the vehicular impact upon the City of Molalla and to integrate Molalla with the various transportation planning and development systems within the state.

To achieve these goals the city's policies will be:

- 1) To designate arterial, collector, and local streets for urban and rural areas within the Urban Growth Boundary.
- 2) To emphasize maintenance of existing roadways, with improvements where appropriate, to improve traffic flow and safety at a reasonable cost.
- 3) To upgrade substandard city streets as funds become available.
- 4) To investigate all possible sources of funding for street improvements.
- 5) To require applicant for development in the Molalla urban area to construct streets within and serving the development to city standards including curbs, gutters, sidewalks and drainage facilities.
- 6) To coordinate with the Oregon Department of Transportation to improve State Highway 211 in Molalla to provide general improvement of traffic movement.
- 7) To coordinate with Clackamas County with regard to city actions and needs which may affect Molalla Avenue.
- 8) To provide safe pedestrian access to schools, parks, and shopping to make walking a realistic alternative to driving within the city.
- 9) To encourage bicycle paths within the city to the greatest extent possible funds permitting.
- 10) To explore all possibilities for developing an alternate truck route to divert the heavy truck traffic away from the core area.
- 11) To develop a transportation plan for the City of Molalla as soon as funds become available.
- 12) To develop and implement a systems development charge to help alleviate the impact of development on off-site transportation facilities.
- 13) To allow flexible roadway standards to accommodate characteristics of terrain and planned density.

- 14) To pursue with other government agencies the possibility of providing transit service for people at the senior center.
- 15) To provide for the needs of transportation handicapped to the greatest extent possible.
- 16) To adopt the future public road alignments map contained in public facilities plan by reference. Upgrade Shirley, Cole, and Heintz Streets from Highway 211 westerly to Molalla Avenue as an upgraded collector. It will be necessary to extend Heintz Street easterly to Shirley Street as a collector at such time as the vacant property in proximity develops. Following extension and upgrade, the portions of Shirley and Cole Streets should be downgraded in minor (local) status.

4. Street Road Designations

In order to meet the needs of the city and its present and future residents for access and transportation by providing a safe and efficient public road system in conjunction with Clackamas County and the State of Oregon and in order to comply with local and statewide goals, the following street classifications are established to form a street and road network to serve the land use and population growth to serve the land use and population growth anticipated for the City of Molalla.

**MINOR STREETS**

The basic function of minor streets is to provide access to the fronting property owner. These streets carry traffic to collector or arterial streets. All the streets in Molalla which are not classified as collectors or as arterial are either urban or rural minor streets.

- a) Standards: Minor streets shall be constructed in accordance with the standards drawn for urban minor streets (SD-1) or rural minor streets (SD-2) all as shown in this element.
- b) Designation: The following existing streets and their proposed future extensions are hereby designated in the listed category:

Urban Minor Street

Third  
 Shirley (portion) Fourth  
 Frances (portion) Fifth (to be extended)  
 Miller Sixth  
 Kennel Seventh  
 Metzler

Rural Minor Streets

Ona Way Road

Public Road

- c) Maintenance: The maintenance of all urban minor streets is the responsibility of the City of Molalla. Clackamas County is responsible for the maintenance of Ona Way Road.

**COLLECTOR STREETS**

The function of collector streets is to collect traffic from minor streets and to distribute it to the arterial street system. There are several collector streets in Molalla and the study area which will serve this purpose.

- a) Standards: Collector streets shall be constructed in accordance with the standards drawing for urban collector streets (SD-3) or rural collector street (SD-4) all as shown in this element.
- b) Designation: The following existing extensions and improvements are hereby designated in the listed category:

Urban Collector Streets

Toliver  
 Heintz (to be extended)  
 Shirley (portion)  
 Frances (portion)

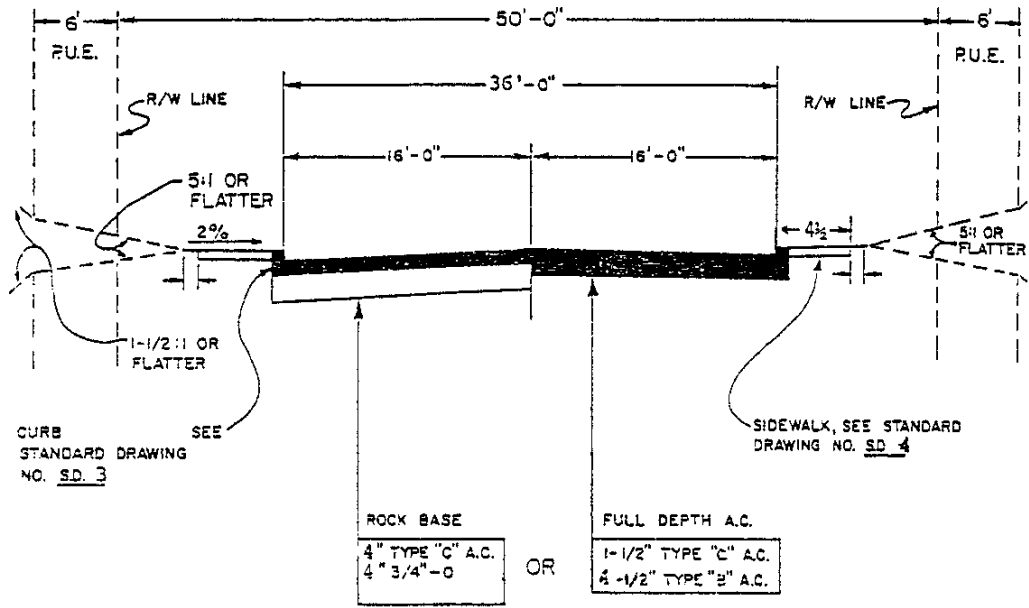
Cole  
 Center

Rural Collector Streets

Lay (Mathais) Road

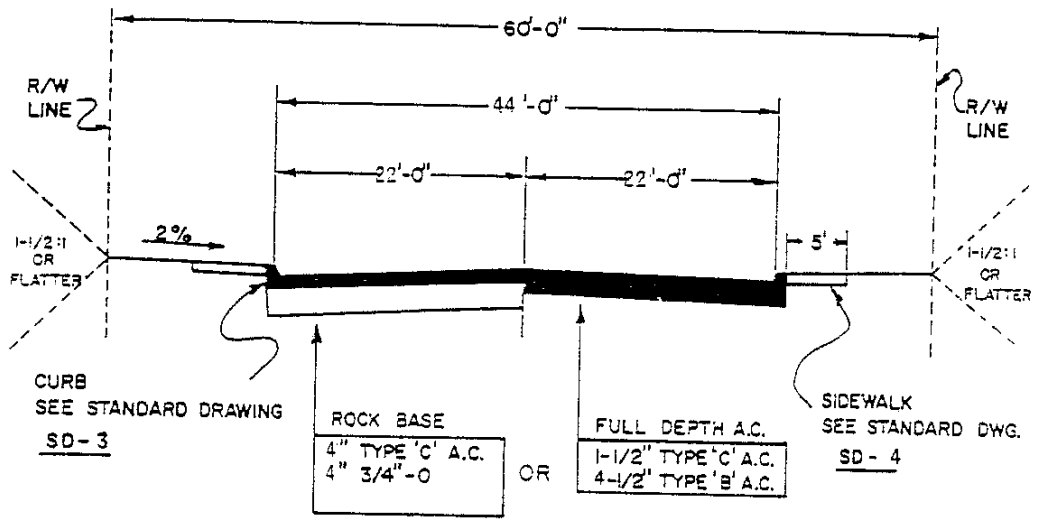
Toliver Road

- c) Maintenance: The maintenance of Toliver Road (portion), Heintz, Cole and Center Streets is the responsibility of the City of Molalla. Clackamas County is responsible for the maintenance of Lay (Mathais) Road and Toliver Road (portion) outside the city limits.



NOTE: TOP OF CURB TO BE SAME ELEVATION AS CENTER CROWN.

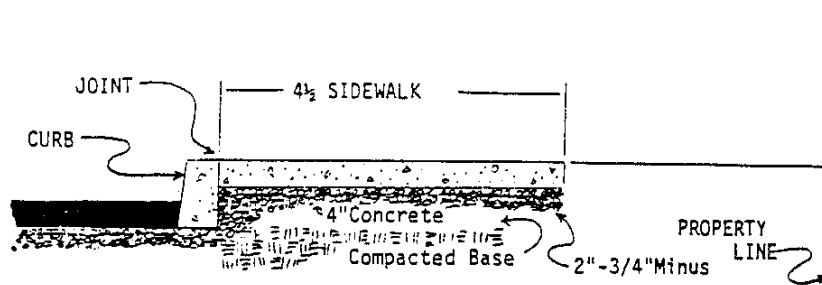
STD. DWG.			RE
SD-1	CITY OF MOLALLA	TYPICAL CROSS SECTION URBAN MINOR STREET	



**NOTE:**

- 1) TOP OF CURB TO BE SAME ELEVATION AS CENTER CROWN
- 2) ALTERNATE LOCATION OF SIDEWALK IS 0.5' FROM R/W

STD. DWG.			REV.
SD-2	CITY OF MOLALLA	TYPICAL CROSS-SECTION URBAN COLLECTOR STREET	

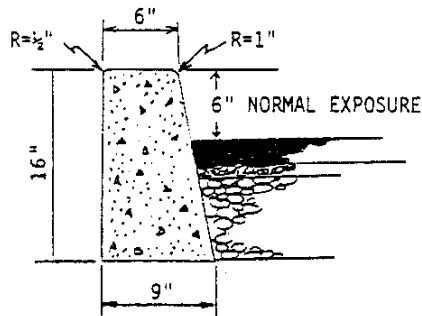


NOTES:

1. CONCRETE SHALL BE 3000 P.S.I. AT 28 DAYS, 6 SACK MIX, SLUMP RANGE OF 1-1/2" TO 3"
2. MINIMUM SIDEWALK THICKNESS SHALL BE 4"
3. 1/4" TO FT. CROSS SLOPE
4. SIDEWALK PANELS SHALL BE 5 FEET SQUARE
5. EXPANSION JOINTS AT THE SIDES OF DRIVEWAY APPROACHES, AND UTILITY.
6. JOINT AT CURB - EXPANSION JOINT IF POURED AT THE SAME TIME OR COLD JOINT IF JOINING EXISTING CURB.

**SD-4**

STANDARD SIDEWALK



STD. DWG.

**SD 3**

CITY OF MOLALLA

CURB

## ARTERIAL STREETS

The function of arterial streets is to facilitate traffic movement between communities. Three highways in the city and study area will serve this purpose.

- a) Standards: Since two of the highways in question are under the jurisdiction of the State of Oregon they will be constructed and maintained in accordance with the standards of the Oregon Department of Transportation. The remaining highway is under the jurisdiction of Clackamas County and will be maintained according to county specifications.
- b) Designation: State Highway 211 and 213 and Molalla Avenue are designated as arterial streets within the City of Molalla and the study area.
- c) Maintenance: The maintenance of State Highway 211 and 213 is the responsibility of the Oregon Department of Transportation. Clackamas County is responsible for the maintenance of Molalla Avenue.

### b. Railroad

#### 1) Existing Conditions

Southern Pacific Railroad tracks run in a north-south direction along the entire western portion of the study area. The spur connects with the main Willamette Valley line near Canby, and terminates in Molalla.

##### a) Conditions of Facilities and Levels of Service

Southern Pacific Railroad owns and maintains the railroad facilities in Molalla. A railroad crossing with lights and gates is located on State Highway 211 within the Molalla city limits. The railroad freight service to the Avison Mill on an average of once per day. It is assumed that the train tracks are in adequate condition for the existing level of service.

##### b) Potential for Accommodating Molalla's Growth

Applications can be made to Southern Pacific Railroad requesting freight service in Molalla. Expansion of the railroad service is not foreseen in the near future, however personnel from Southern Pacific attended a CAC meeting and indicated they would be able to increase the level of service should the demand occur. Passenger service is not available and none is anticipated.

#### 2) Findings

- The Southern Pacific Railroad owns, maintains, and operates rail freight service in Molalla on tracks located in the western portion of the city. One train serves Molalla per day.
- Molalla's major rail user is Avison Lumber Co. who uses the service to haul lumber and timber products.
- The Southern Pacific Railroad indicates additional freight service can be provided should the demand occur.

### 3) Goals and Policies

STATEWIDE GOAL 12 – To provide and encourage a safe, convenient and economic transportation system. (excerpt)

COMMUNITY GOAL – To utilize existing railroad facilities to the maximum benefit of the community in attracting industry and as a potential means of mass transit in the future.

To achieve these goals the city's policies will be:

- 1) To coordinate with the Southern Pacific Railroad any future need to expand rail service to Molalla.
- 2) To urge all appropriate state and regional agencies to seriously consider the use of existing rail facilities for the development of a light rail, mass transit system, which would ultimately serve the City of Molalla.

### c. Public Transportation

#### 1) Bus Service

##### a) Existing Conditions

Molalla is served by Tri-Met six times daily except weekends and holidays. Canby, Oregon City and the Portland Metropolitan Center can be reached by Tri-Met on a regularly scheduled basis.

#### 2) Airports

There are two airports within five miles of Molalla. Hutchinson's Airpark is a private facility approximately one mile west on Highway 2211. Mulino Airport is located five miles to the north on Highway 213. Hutchinson's has a 2300 foot grass landing strip and is used primarily for recreational flying. Mulino currently has a 1800 foot grass strip used for recreational flying, and

school facilities. The Port of Portland is attempting to acquire and expand Mulino Airport to a General Aviation Reliever facility. County approvals are currently in litigation. The expansion, if successful, would incorporate one 3600 foot paved runway, navigational aids and support services, e.g. fuel, repair facilities, etc. There is also an all-weather airport in Aurora, 14 miles northwest of Molalla. Portland International Airport, 30 miles to the north, has eight scheduled airlines serving the area.

### 3) Findings

- There are no bicycle paths within the City of Molalla. The city is currently reviewing a request from the high school to establish a limited bikeway system.

### 4) Goals and Policies

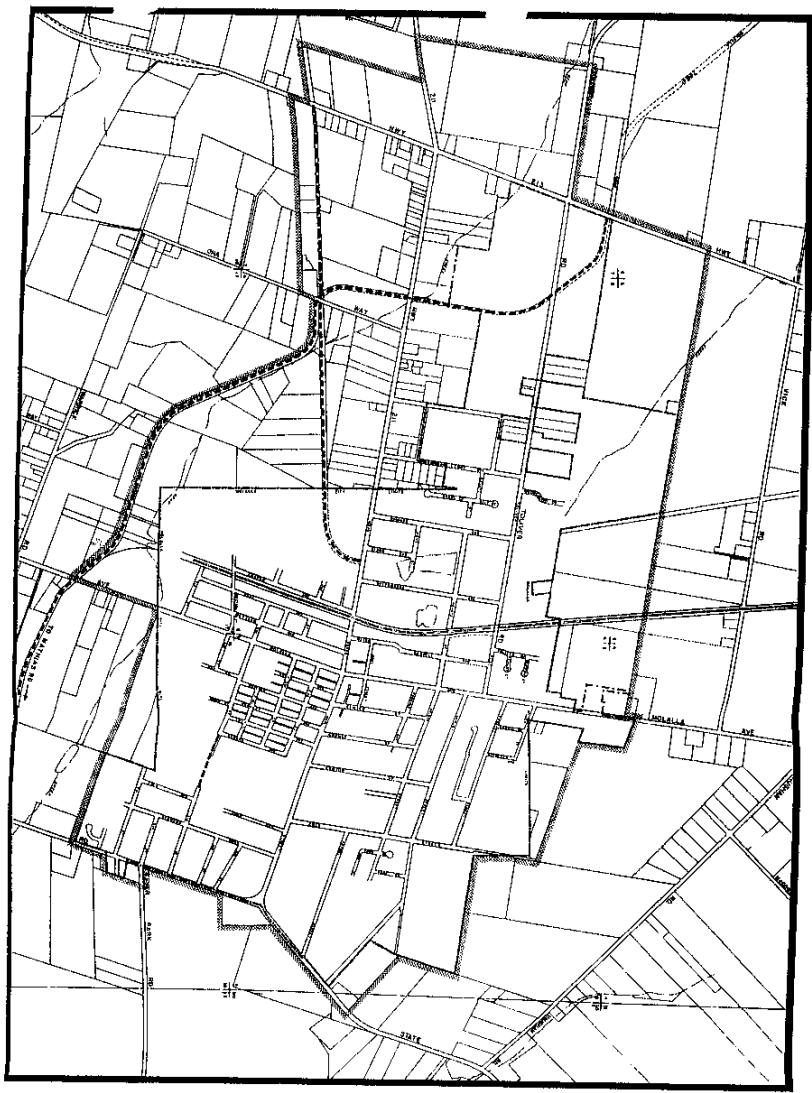
- 1) To support the development of pedestrian/bikeways along Molalla's road network to the greatest extent possible.
- 2) To coordinate with the public and private sector for the establishment of pedestrian/bikeways
- 3) To seek outside funding wherever possible for bicycle pathways and other energy savings methods of transportation.

### d. Other Systems

No water or pipeline transportation systems exist in the study area.

# CITY OF MOLALLA

## FUTURE PUBLIC ROAD ALIGNMENTS



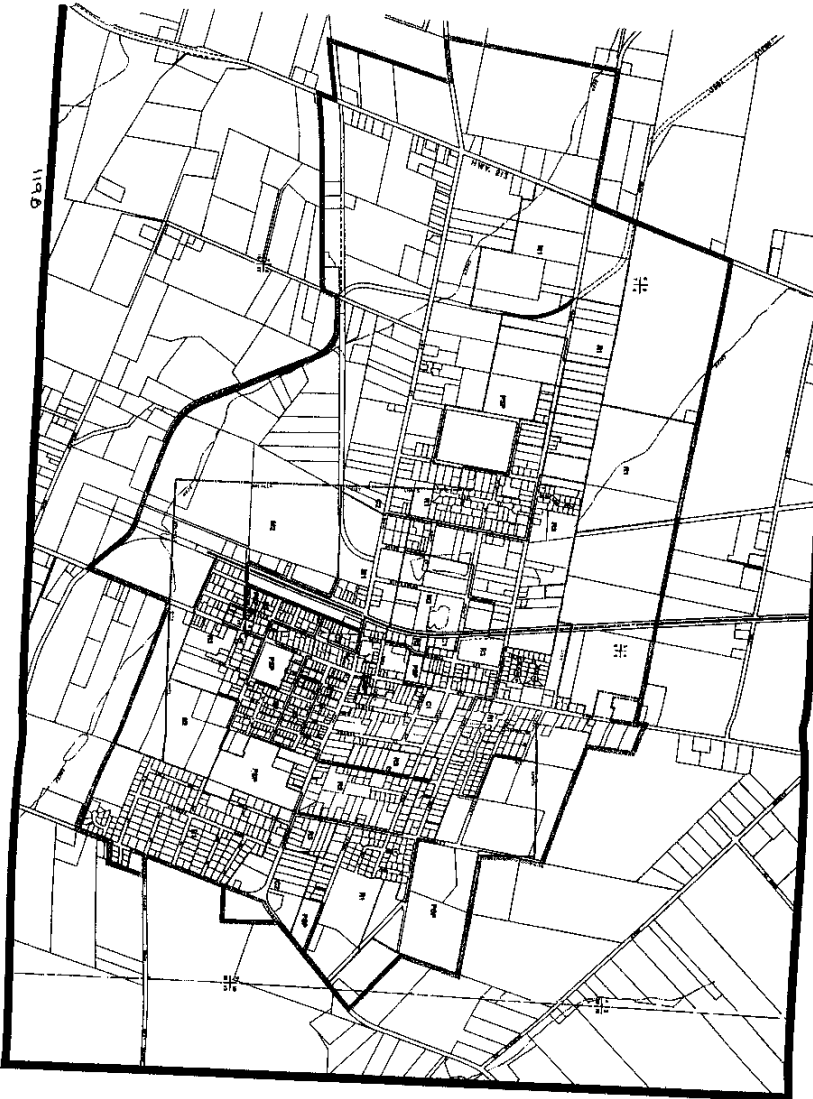
**LEGEND**

- URBAN GROWTH BOUNDARY
- - - CITY LIMITS
- FUTURE PUBLIC ROADWAYS

NORTH

0 500 1000 1500 2000  
SCALE IN FEET  
MARCH 1987

# CITY OF MOLALLA



## ZONING MAP

### LEGEND

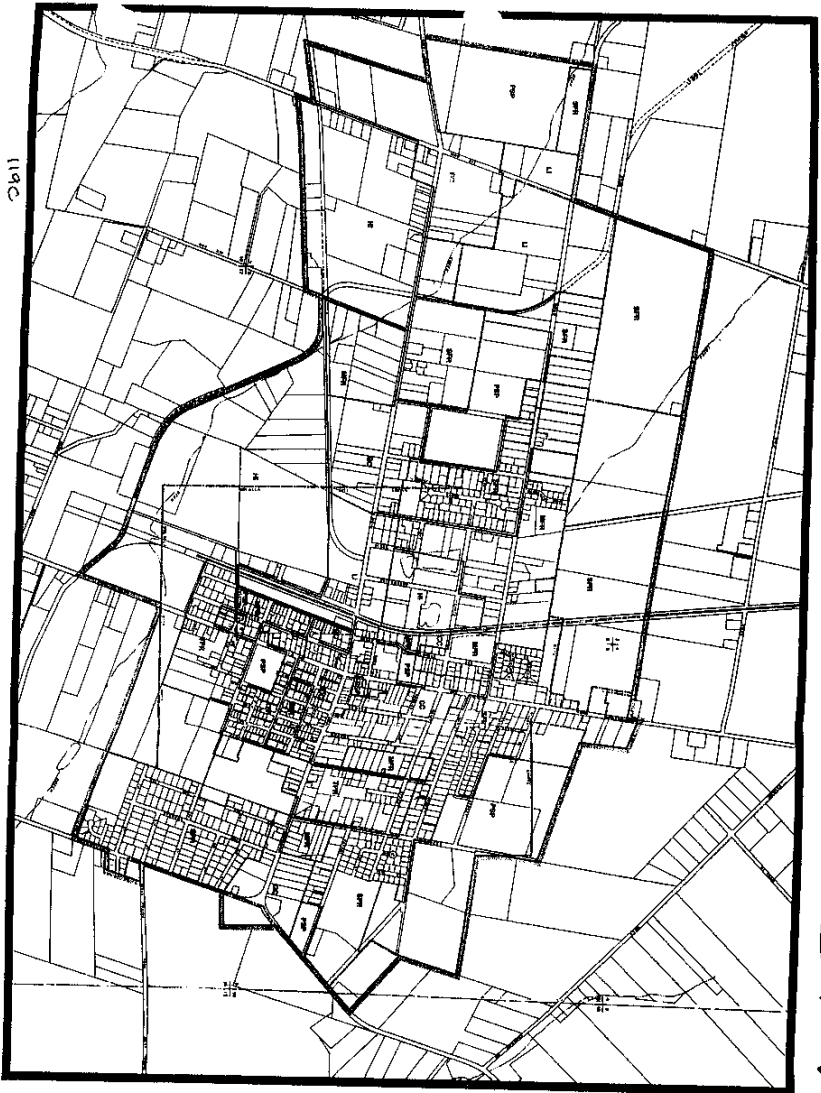
- R1 SINGLE FAMILY RESIDENTIAL
- R2 TWO FAMILY RESIDENTIAL
- R3 MULTI FAMILY RESIDENTIAL
- C1 CENTRAL COMMERCIAL
- C2 GENERAL COMMERCIAL
- M1 LIGHT INDUSTRIAL
- M2 HEAVY INDUSTRIAL
- PSP PUBLIC OR SEMI-PUBLIC
- URBAN GROWTH BOUNDARY
- CITY LIMITS

NORTH

0 500 1000 1500 2000  
SCALE IN FEET  
MARCH 1987

# CITY OF MOLALLA

## LAND USE PLAN MAP

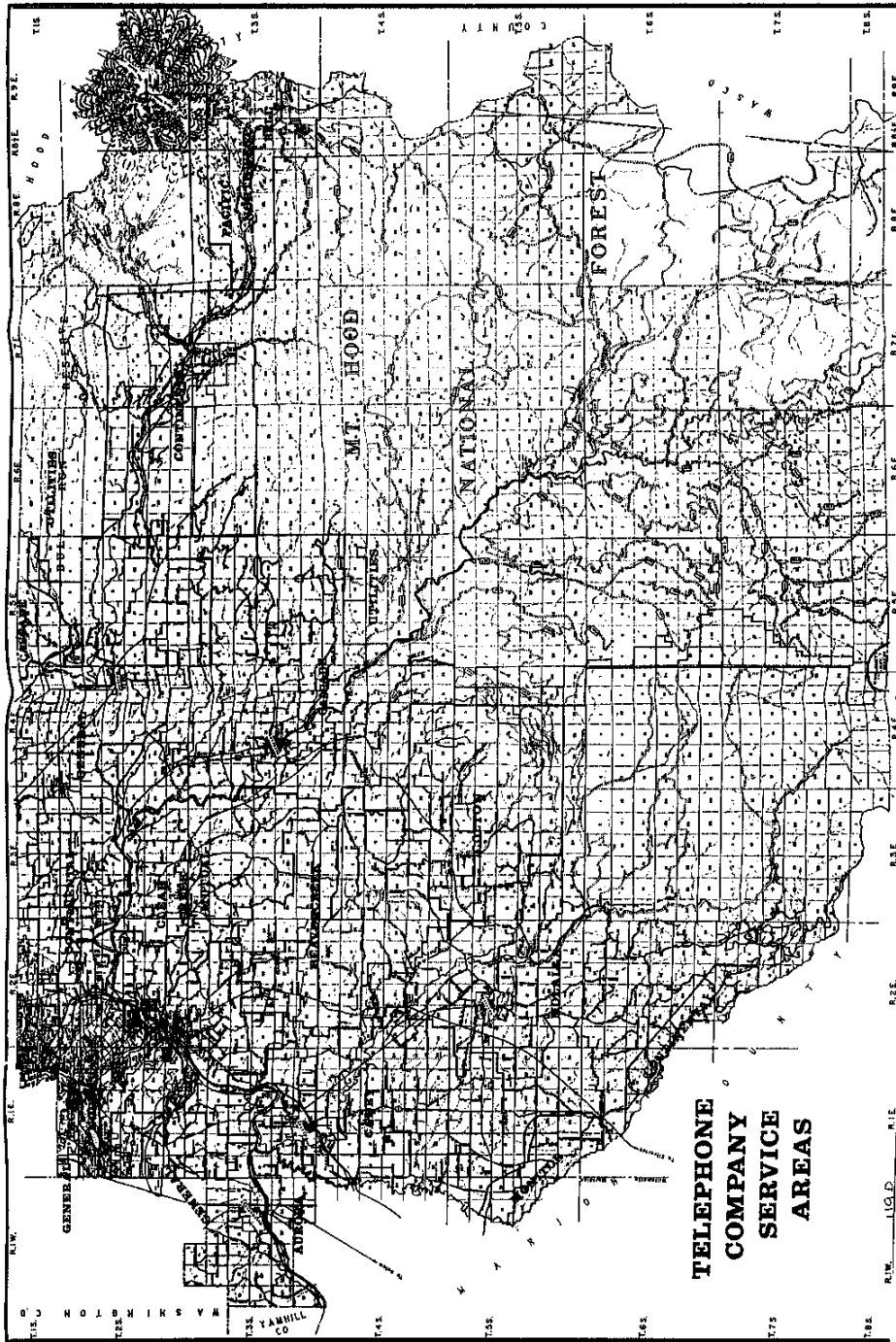


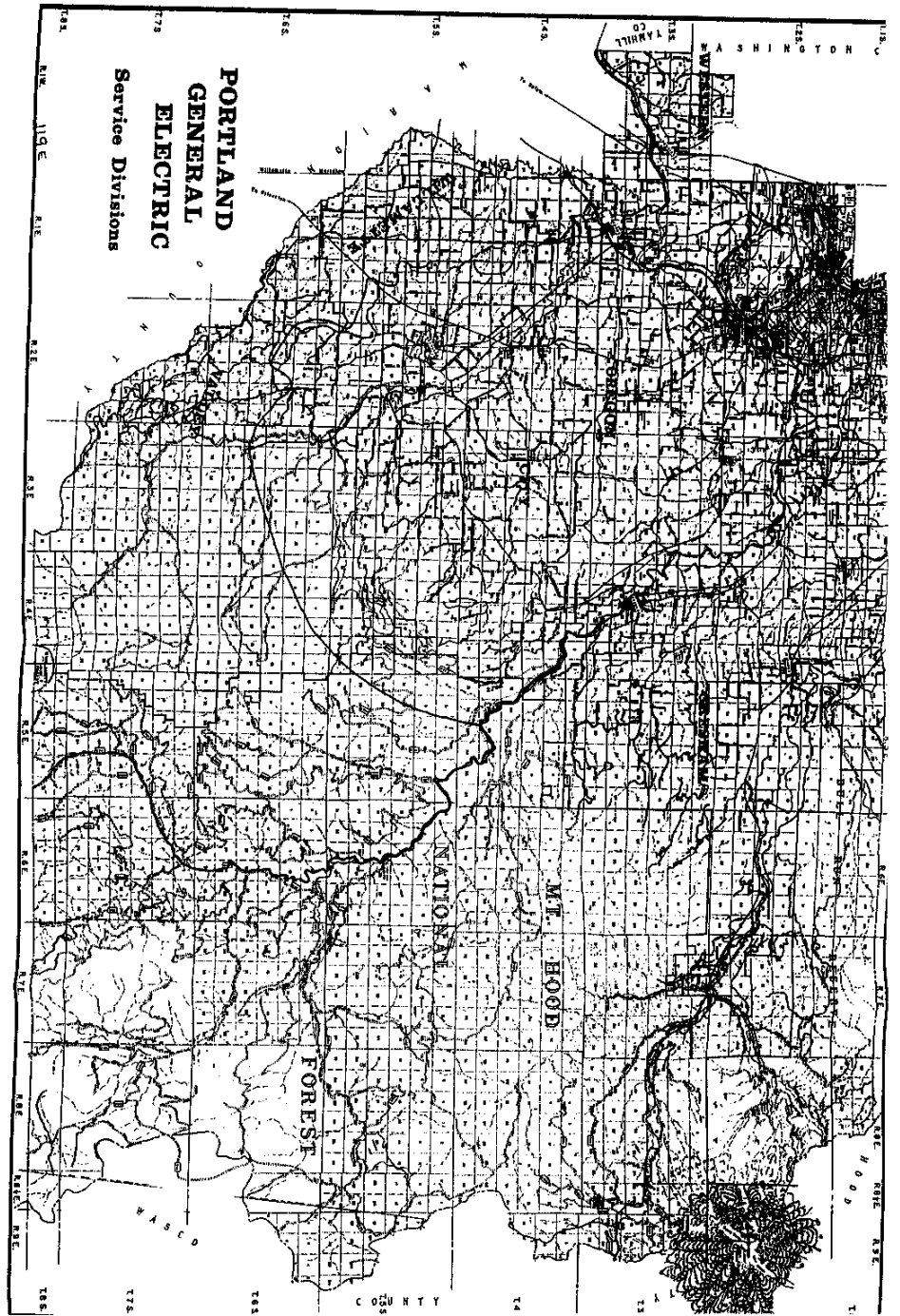
**LEGEND**

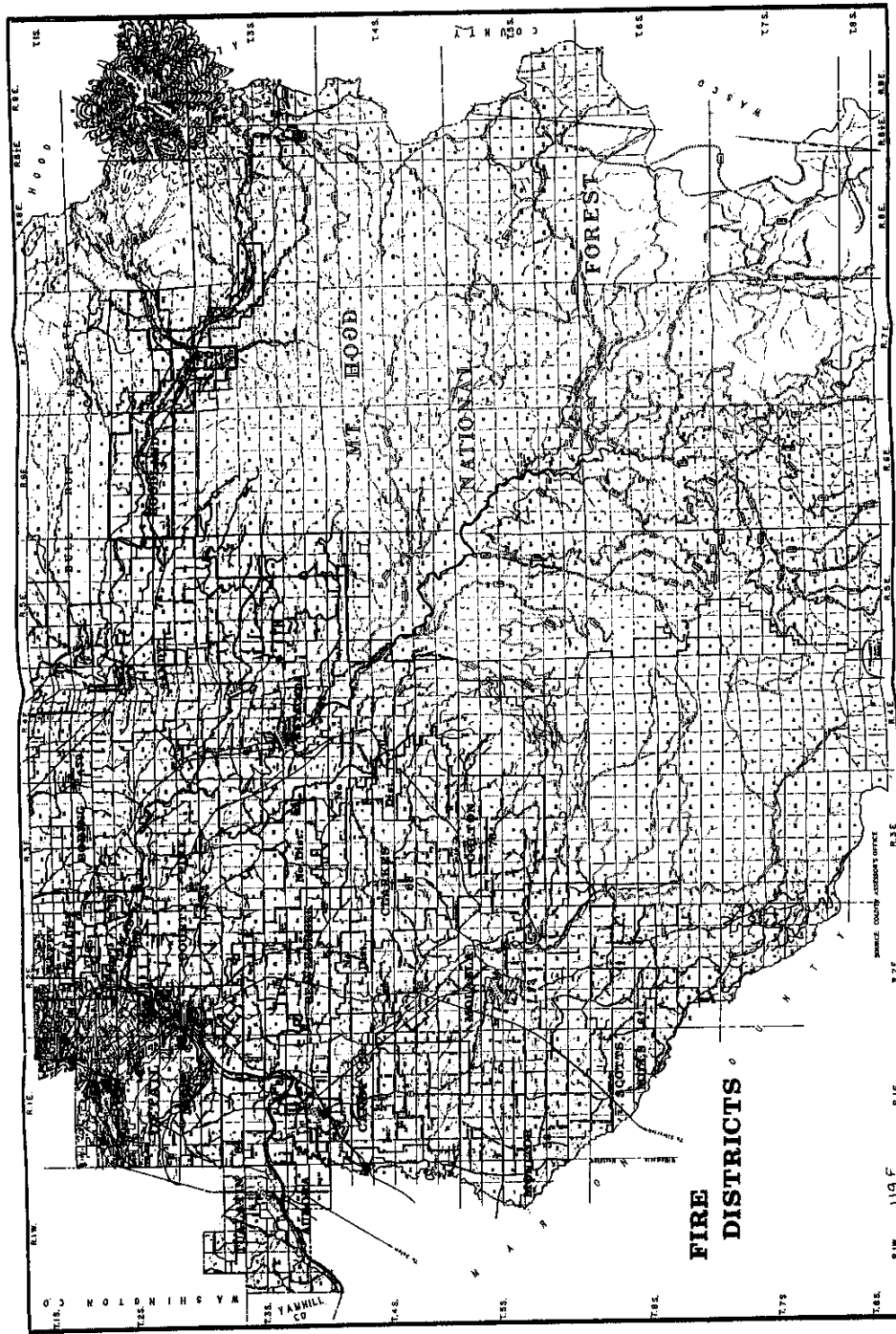
- SFR SINGLE FAMILY RESIDENTIAL
- TFR TWO FAMILY RESIDENTIAL
- MFR MULTI FAMILY RESIDENTIAL
- CC CENTRAL COMMERCIAL
- GC GENERAL COMMERCIAL
- LI LIGHT INDUSTRIAL
- HI HEAVY INDUSTRIAL
- PSP PUBLIC OR SEMI-PUBLIC
- URBAN GROWTH BOUNDARY
- CITY LIMITS

NORTH

0 500 1000 1500 2000  
SCALE IN FEET  
MARCH 1987







## 6. PARKS AND RECREATION

### a. Existing Conditions

#### 1) Existing Facilities

##### a) School Facilities

There are several school facilities which provide recreational areas for city residents. Heckard Field is located on Eckerd Avenue between 2<sup>nd</sup> and 5<sup>th</sup> Street. The approximately 18 acre site contains a football field, bleachers, two baseball diamonds, five tennis courts, a track, restroom facilities and concession stands.

The facilities currently available at the Molalla Grade School include two gymnasiums, three baseball diamonds, a track, and tennis courts. There is a play area to the west of the grade school which is used by elementary level students.

The Molalla Mid High has three gymnasiums which are utilized through the Community Schools Program for basketball, volleyball, tumbling, and related activities. Two tennis courts are also situated on the Mid High property facing 5<sup>th</sup> Street.

##### b) Public Parks

There are four areas currently in use as public parks within the Molalla Study area. City Park, Buckeroo (Clark) Park and Neighborhood Park are all within the city limits, and Sheets Field which lies in the northwest section of the study area beyond the city limits.

Molalla City Park is located between North Molalla Avenue and Kennel Street. The park has a playground, picnic and restroom facilities, and is situated on approximately 1.8 acres owned by the city. The site which is adjacent to the fire hall is basically rectangular with grass and trees, and is centrally located within the business section of the community.

Buckeroo (Clark) Park is located on the north end of Cole Street adjoining the Buckeroo Stadium. The total area of the site is 9.5 acres. Four acres of the relatively new facility have been recently seeded in grass and contain a baseball diamond and picnic area. The remaining 5.5 acres is in grass and trees and used as a picnic area. There are no restroom facilities at the present time although they are planned as funds become available.

Neighborhood Park is located on South Cole Avenue and 5<sup>th</sup> Street in the southeast section of Molalla. The 1.78 acre site is presently unimproved and remains in grass.

Feyrer Park is located on the Molalla River approximately four miles from the city outside of the proposed Urban Growth Boundary. Feyrer Park is heavily used during summer months and provides a baseball diamond, horseshoe pitch, covered and uncovered picnic areas, and swimming.

c) Golf Courses

Arrowhead Golf Course is located approximately three miles north of Molalla at Liberal. An eighteen hole course, clubhouse, and restaurant are included in the existing facilities. Future expansion is planned and will include the installation of three requetball courts and a tennis court. Ranch Hills, a smaller nine hole course, is located in the same general vicinity.

d) Buckeroo Stadium

The Molalla Buckeroo Stadium is located in eh eastern section of Molalla and is owned and operated by the City of Molalla. The facility, which is situated on approximately 28 acres of land has a seating capacity of 6,000 people and is nearly new, having been completed in 1977.

The Buckeroo Stadium is currently used only a few times during the year. The main event seen here is the annual 4<sup>th</sup> of July Rodeo which takes place over a four day period. The remainder of the year the stadium is basically unused. This is considered detrimental to the community as the facility could provide a wide range of recreational activities for residents of the area.

e) Molalla Senior Center

The city owned Senior Center is located at 315 Kennel Avenue, in the rear portion of City Park. The center provides a wide range of recreational activities for Molalla area seniors.

f) Other Recreational Facilities

The following recreational facilities/areas do not exist in the study area: camping; recreational lodging; trails; waterway use facilities; hunting; angling; winter sports; and mineral resources.

2) Future Recreational Needs

a) Park and Recreation Standards

Public and semi-public land requirements depend on the growth of all other land activities. As population increases, shops and stores are build and industry moves in, more leisure time and recreational facilities are needed. Churches, lodges, community centers, government, schools, parks and open space areas are some of the activities that occur on public and semi-public lands. The general guideline for determining park land requirements is 1 acre per 100 or 10 acres per 1000 people. Molalla will need approximately 40 additional acres to meet the needs of the people by the year 2000.

b) Parks and Recreation/Special Service District

The City of Molalla does not have separate parks and Recreation or Special Service District at the present time. Consequently, the maintaining or upgrading of existing and future recreational facilities is restricted by a limited city budget. Such a separate taxing entity would greatly enhance the city's prospects of providing a full range of recreational facilities and programs to residents of the area. It may also be the long range solution for utilizing the Buckeroo Arena to its highest potential. Whether or not the local residents would be receptive to the additional tax burden such a district would create is not known. The city is currently reviewing the necessary steps for establishing a Parks and Recreation Special Service District.

3) Findings

- The existing recreational facilities in eh City of Molalla are located in the city park and on school grounds. There are three city owned parks within he existing city limits of Molalla.
- Existing school facilities provide numerous recreational opportunities for residents of the area. These facilities include several gymnasiums, tennis courts, baseball diamonds, and a football field.
- The Molalla River and nearby golf courses provide additional recreational activities for residents of the area.
- The City of Molalla has constructed a senior center facility. This facility provides recreational activities for Molalla area seniors.
- The general guideline for determining park land requirements is 10 acres per 1000 people.

- The Buckeroo facility is located within the Molalla city limits. This facility is owned by the City. A wide range of recreational activities may be scheduled at this facility.
- The City of Molalla does not have a separate park and recreation or special service district at the present time. As a result, the city must rely on a limited city budget for any upgrading or expansion of its recreational facilities.

#### 4) Goals and Policies

There are a number of recreational areas within the existing city limits of Molalla. These include three city parks and school facilities.

A number of recreational areas are located outside the Molalla Study Area but are in close enough proximity to Molalla to allow for daily use. These areas include the Molalla River and several golf courses.

STATEWIDE GOAL 4 – To conserve forest lands for forest uses. (excerpt)

STATEWIDE GOAL 5 – To conserve open space and protect natural and scenic resources. (excerpt)

STATEWIDE GOAL 8 – To satisfy the recreational needs of the citizens of the state and visitors. (excerpt)

STATEWIDE GOAL 11 – To plan and develop a timely, orderly, and efficient arrangement of public facilities and services to serve as a framework for urban and rural development.

COMMUNITY GOAL – To develop a recreational systems which would use existing resources and which would recognize differing needs of various segments of the Molalla population.

- 1) To sustain a minimum standards of providing 10 acres of park land for every 1000 residents to the greatest extent possible. In addition to that provided in planned unit developments.
- 2) To encourage neighborhood parks in residential areas to the greatest extent possible.
- 3) To urge for completion of the senior center and to retain the adjacent park site to meet the recreational needs of the city residents and visitors.

- 4) To coordinate with the Molalla School Districts to allow use of school playground equipment and sports facilities by residents when the facilities are not in use by the school.
- 5) To continue to support the Molalla Community Schools Program in their endeavors to provide recreational activities to residents of the area to the greatest extent possible.
- 6) To encourage the siting of all new development to preclude the unnecessary removal of existing trees.
- 7) To limit the use of park lands to park and recreational and open space uses.
- 8) To continually explore all opportunities for financing the development and maintenance of parks and open space.
- 9) To coordinate with the private sector for use of certain lands, other than forest or agricultural lands, that are currently undeveloped and which would be better left in their natural state.
- 10) To consider initiating a Park and Recreation or Special Service District to provide a full range of recreational opportunities to Molalla area residents.
- 11) To coordinate with the Molalla Buckeroo Association for public use of the Buckeroo Stadium at the earliest possible date.
- 12) To provide site development buffering between any residential land use and park or activity used open space wherever possible.
- 13) To provide fences or other appropriate safety features in recreational areas that are near highways or other conditions which could be potentially hazardous, and to locate parklands away from such areas whenever possible.
- 14) To require any large subdivision to come in under PUD to ensure the provision of adequate parks and open space.
- 15) To encourage developers to provide open space and parks for recreational areas.
- 16) To develop a capital improvements program for parks and recreation facilities to make efficient use of all funding sources and to plan for needed facilities and their maintenance.

- 17) To support legislation enabling local governments to use up to 25 percent of their federal grants for normal park operating and maintenance expenses, rather than just for acquisition and development.
- 18) To coordinate the development of recreational facilities with Clackamas County should mutual concerns exist.
- 19) To encourage opportunities for citizen participation in future recreation facility decisions.
- 20) To encourage a high level of corporation and coordination between the school districts, Clackamas County and various state agencies and the City of Molalla in providing recreational facilities for residents of the area.

5) Lands Designated for Parks and Recreation

In order to meet the needs of the city and its present and future residents for parks and recreation areas and facilities by providing land for park purposes which are open to residents and visitors alike , and in order to comply with local and statewide goals and the policies established to implement those goals, a range of recreational opportunities have been identified as being available to Molalla area residents. Within the City the primary facilities are the city parks, and the school grounds which are available when not in use by the school. The senior center also provides an added recreational use. These facilities should be adequate for the city's use for the immediate future and until such time as the standards established in this plan have been exceeded. When a new site is needed the policies of this plan with regard to size and location should be observed. Several sites within the study area have a potential for park use. Some of the school property that is currently unused would be of benefit for recreational activities if such use is not contrary to the future plans of the school district. While none of these sites are very large, specialized use could fill a portion of the public need for recreation in the community. The city also owns approximately 7.5 acres of land adjacent to the new sewage treatment plant in the western portion of the study area that will be converted to recreational use should the need arise.

a) Description

The Buckeroo (Clark) Park and Buckeroo Stadium are located adjacent to one another near the north end of Cole Street in the northeast section of Molalla. City Park is centrally located to the west of Molalla Avenue is in the core area of the city, and Neighborhood Park is situated in the southwest section of Molalla. Sheets Fields is adjacent to Toliver Road outside the existing city limits but within the urban Growth Boundary. The city owned property which could provide future recreational facilities

is in the western portion of the study area near the new sewage treatment plant.

b) Area

The total area designated for park recreational use/open space is 51.4 acres. The Molalla Buckeroo Stadium is approximately 28 acres. The Buckeroo Park site is 9.5 acres. City Park and Neighborhood Park are approximately 1.8 acres each, and Sheets Field is 2 acres. The future potential recreational site owned by the city near the new sewage treatment plant is approximately 7.5 acres.

c) Justification

1) Location

The Molalla City Park has been used for park purposes for many years and is conveniently located to serve residents of the area. The Buckeroo Arena and Buckeroo (Clark) Park have been situated in an area readily accessible to all city residents and where parking facilities are available. Sheets Field is in an area near existing school facilities where students can easily walk to the site. The city property is in the area where recreational facilities would be otherwise limited.

2) Acreage

The acreage of this classification is based primarily on existing use and that this land will best suit the recreational needs of the Molalla area residents.

## 7. SCHOOLS

a. Existing Conditions

The Molalla School District Number 35, provides the Molalla community with first through eighth grade education facilities and services. The school district employs approximately 100 full and part-time people.

The University of Oregon recently completed a growth survey for District 35. The results of the survey were incorporated into the planned expansion of the existing facilities which will accommodate the educational needs of Molalla area residents for approximately 10 years. A bond issue for the expansion will be placed before the voters in the near future.

The Molalla School District (Number U4), provides the city and surrounding area with educational facilities for grades nine through twelve. The U4 district employs approximately 110 full and part-time people.

## 1) Location and Condition of Existing Facilities

### a) Molalla Grade School (District 35)

The district houses its elementary school on a 42 acre site at Leroy and Toliver Streets in the city and Clackamas County. Enrollment has increased at a fairly rapid rate over the past ten years. The existing facilities have undergone numerous expansion projects, and the number of classrooms has increased from 26 in 1949 to 48 at the present time.

In addition to the elementary school, the district's facilities in Molalla include two gymnasiums, a covered and uncovered play area, a track, a baseball field, and a soccer field.

Until 1971 Molalla Grade School had a typical September through June educational year. At that time the provide a year around 4-track year referred to as the "45-15" program. The program was designed to accommodate the large enrollment and overcrowded conditions that existed at the grade school.

Although the "45-15" program remains in effect, enrollment at the grade school has continued to increase creating physical operational problems. As of December 1978 the grade school had an average daily enrollment of 1105.3 students, reaffirming its position as Oregon's largest grade school within one physical plant. Although enrollment declined from 1084 in 1978 to 1074 in 1979, the crowded conditions remain.

It is anticipated that the enrollment in the 35 District will reach 1600 to 1800 students by 1990. The planned expansion of the facility will add 16 classrooms bringing the total to 64 available for use. Pending voter approval, the expanded facilities will be adequate for the projected growth of the area.

### b) Molalla Mid-High (U4)

The Molalla School District (U4), provides the residents of the area with grades nine through twelve. Grades nine and ten are housed in a separate facility on North Molalla Avenue and 4<sup>th</sup> Street. The structure provided for the educational needs of all four grades. Upon completion of a new senior high complies, the upper grades were transferred eliminating the overcrowded conditions at the Mid-High. Enrollment is currently 643 students.

A gymnasium was added to the Mid High in 1977, and a library in 1978. Several modular structures are also at the current site.

c) Molalla Senior High (District U4)

The Molalla Senior High School is located on a parcel of land at Frances and Cole Streets in the northeastern section of the community. The facility was constructed in 1977 and provides educational services for grades eleven and twelve. Enrollment is presently 446 students.

The U4 district's facilities are adequate at the present time. Should expansion become necessary in the next ten years, adequate land is available.

In addition to the Mid and Senior High, the U4 District's facilities include two tennis courts and a gymnasium at the Mid-High site, and a football field, two baseball diamonds, two softball diamonds, five tennis courts and a track at Heckard Field located to the east of the school.

b. Findings

- Facilities and services for the first through eighth grades are provided by Molalla School District 35. The Molalla U4 District provides for grades nine through twelve.
- Crowded conditions currently exist at the Molalla Grade School. A bond issue will be before the voters in the area in the near future which, if agreed, would eliminate those conditions for a projected 10 year period.
- The Molalla Elementary School site is approximately 42 acres with a portion of the land in Clackamas County.
- The U4 District adequately serves the present population. Adequate space is available to expand the facilities should the need arise.
- Heckard Field, which belongs to the U4 District, is separate from the other facilities and is located in the eastern section of the community a short distance from Highway 211.

a. Goals and Policies

STATEWIDE GOAL 11 – To plan and develop a timely, orderly, and efficient arrangement of public facilities to serve as a framework for urban and rural development. (excerpt)

COMMUNITY GOALS – To provide complete education facilities through the high school level.

To achieve this goal the city's policies will be:

- 1) To designate the school district's property and facilities for school purposes and coordinate expansion of the facilities as they are needed.
- 2) To allow the use of trailer homes and other modular structures for classrooms which would provide additional educational facilities as a conditional use.

STATEWIDE GOAL 13 – This goal can be partially implemented by providing well located and designed schools. To achieve this goal the city's policies will be:

- 1) To encourage the school district to continue bus service to students who live too far from the schools to walk.
- 2) To encourage maintenance and upgrading of existing school buildings to improve energy efficiency in terms of ventilation, heating, cooling and hot water use, and encourage energy efficient new buildings.
- 3) To locate parks near schools where possible so that their facilities can be coordinated.

a) Lands Designated for Public Schools

In order to meet the educational needs of the present and future residents of the city and the surrounding rural area, and in order to comply with local and statewide goals and the policies established to implement those goals, the Molalla School District 35's 42 acre site and the School District U4 7, 19, and 27 acre sites are designated for the retention and expansion of existing school facilities as needed.

1) Description

The three school sites and Heckerd Field are all centrally located within the City of Molalla and Clackamas County, all as shown on the Public Facilities Map on this element.

2) Area

a) School District 35

The total area designated for Molalla School District 35 is 41.9 acres, with 27.59 acres located within the present city limits and 14.29 acres in Clackamas County.

b) School District U4

The total area designated for Molalla School District U4 is 61.74 acres divided as follows: The Mid-High and Administration Building located at Molalla Avenue and 4<sup>th</sup> Street, 6.25 acres; the Senior High School 36.91 acres, 27.69 within the city limits and 8.95 outside the city limits, and Heckard Field, 18.58 acres.

3) Justification

The sites of the existing school facilities and athletic field are conveniently located to serve the Molalla area residents. The Grade School, Mid-High and Senior High properties are of sufficient size to expand the facilities as the need arises.

8. POLICE

a. Existing Conditions

Police protection in Molalla is provided 24 hours a day, seven days a week. The police department consists of a chief, seven patrol personnel, one full time police clerk and one part-time employee.

The police department coverage includes all areas within the existing city limits, accomplished by three shifts of officers and three patrol cars. The city currently maintains a ratio of over 2.0 policemen per 1000 population. The Molalla Police Department and Clackamas County cooperate in an emergency network. According to the city's police chief, Molalla enjoys one of the lowest accident and crime rates in Clackamas County.

The police department is presently located in the rear section of the city hall building.

b. Findings

- The Molalla Police Department is located in City Hall and employs seven full time officers to provide protection seven days a week within the city limits.
- The Police Department is equipped with three patrol cars.

c. Goals and Policies

STATEWIDE GOAL 11 – To plan and develop a timely, orderly, and efficient arrangement of public facilities and services to serve as a framework for urban and rural development. (excerpt)

COMMUNITY GOAL – To provide the city with men and material for optimum police protection in relation to the cost.

To achieve the Community Goal and Statewide Goal 11 the policies of the city will be:

- 1) To continue to maintain a cooperative emergency network with Clackamas County.
- 2) To retain the location of the Molalla Police Department where it is easily accessible to the public, and where off-street parking is available.
- 3) To continue to supply the Molalla Police Department with the man power and equipment which is necessary to sustain an adequate level of service.
- 4) To maintain a ratio of 1.8 to 2.0 uniformed police men for each 1000 population to the greatest extent possible.

d. Lands Designated for Police Purpose

In order to meet the public safety needs of the present and future residents of the city, and in order to comply with local and statewide goals and the policies established to implement those goals, the existing police department located in city hall are designated in the Public Facilities Plan Map of this element.

1) Description

The combined police department and city hall are located on North Molalla Avenue on a parcel north of Main Street.

2) Area

The acreage of the combined police department and city hall is 1.5 acres.

3) Justification

a) Location

The land designated for the police department complies with the locational policies by providing easily accessible and centrally located police facilities. Additionally, parking is available in the parking lot east of city hall.

b) Acreage

At the present time the police department occupies a site that is of sufficient size to permit future expansion of the facilities.

9. FIRE

a. Existing Conditions

The City of Molalla and the surrounding area is provided fire protection by the Molalla Rural Fire Protection District #73. The district is responsible for providing protection to approximately 100 square miles which includes the entire study area, Mulino and Dickey Prairie. The district utilizes two fire stations, with the main station located on North Molalla Avenue adjacent to City Park, and a sub-station in Mulino approximately five miles north of the city. The district maintains four pumpers, two tankers and one salvage/rescue vehicle, and has man power comprised of a fire chief and approximately 35 volunteer firemen. Protection is provided seven days a week.

The City of Molalla and areas outside the city which are within 1000 feet of a fire hydrant have a Fire Bureau rating of 7. With completion of the new water treatment facilities, it is expected that the rating will be lowered to 6. Those areas within the study area are not within 1000 feet of a fire hydrant have a Fire Bureau rating of 8. According to Molalla Fire Board members, the existing level of service is adequate to provide fire protection for Molalla's anticipated growth until the year 2000.

The fire station also provides housing for an all volunteer ambulance service staffed by six emergency medical technicians. Ambulance service is available twenty-four hours a day seven days a week. Ambulance service is provided to an area approximately the same shape and slightly larger than the Fire District boundary. 90% of the calls answered by the ambulance service are taken to Willamette Falls Hospital. No service problem were indicated at this time.

b. Findings

- The Molalla Rural Fire Protection District has a main fire station located on North Molalla Avenue adjacent to City Park, and a substation located in Mulino five miles north of the city. The facility also houses an all volunteer ambulance service.
- The Fire District maintains four pumpers, two tankers, and one salvage/rescue vehicle.

- The district employs a fire chief and approximately 35 volunteer firemen. There are also 6 volunteer trained as Emergency Medical Technician I's.

c. Goals and Policies

STATEWIDE GOAL 11 – To plan and develop a timely, orderly, and efficient arrangement of public facilities and services to serve as a framework for urban and rural development.

To achieve this goal the policies of the city will be:

- 1) To retain the location of the Fire District Headquarters, which is easily accessible to the public, and where off-street parking is provided.
- 2) To encourage the Molalla Rural Fire Protection District to maintain a sufficient number of firefighters to provide the area with an adequate level of fire protection.

d. Lands Designated for Fire Protection Purposes

In order to meet the fire protection needs of the present and future residents of the city an surrounding rural area, and in order to comply with the statewide goals and the policies established to implement those goals, the existing fire station is designated on Public Facilities Map of this element.

1) Description

The Molalla Rural Fire Protection District #73 station is located on North Molalla Avenue on a parcel of land adjacent to City Park as indicated in the Public Facilities Plan Map.

2) Area

The acreage of the fire station is 2.0 acres.

3) Justification

a) Location

The location of the land designated for fire protection complies with the locational policies to provide an easily accessible centrally located fire station.

b) Acreage

At the present time the fire station occupies a site which is of sufficient size to meet the present and future needs for this service.

10. OTHER PUBLIC FACILITIES

a. Existing Conditions

1) City Hall

Molalla's City Hall is located on North Molalla Avenue, north of Main Street. City Hall provides office space for the Mayor, City Administrator/Recorder, Director of Public Works and Chief of Police. A public library occupies the southern portion of the building. There are two meeting rooms which accommodate the City Council, Planning Commission, and Municipal Court.

2) U.S. Postal Service

A United States Post Office is located on Robbins Street west of Grange Street. Postal service is provided over a large area via rural route carriers. Service is provided within the city limits by rural carriers or post office boxes.

3) Electricity

The Portland General Electric Company provides the Molalla vicinity with electricity. A substation is presently located at the corner of Main Street and Molalla Avenue. PGE pays a city franchise fee in order to conduct business within the city limits. As of January 1979 there were 909 residential accounts and 205 commercial accounts within the existing city limits. According to PGE, there are no specific plans for the city except to meet the anticipated load growth of 6 percent over a one to three year period.

4) Telephone

The Molalla Telephone Company provides telephone service in the Molalla area. The local business office is located on Grange Avenue in the core area of the city. No limitation in providing the city with telephone service is expected to occur.

5) Natural Gas

Northwest Natural Gas Company provides the Molalla vicinity the natural gas. As of December 1979, there were 219 residential accounts 48 commercial accounts and 1 industrial account. Northwest Natural Gas has no

specific plans except to keep up with any growth in the area. No service problems were indicated at this time.

b. Findings

- Molalla's City Hall provides offices for the mayor, city recorder, director of public works and police department a meeting room for the Molalla City Council, Planning Commission and Municipal Court. A library is situated in the southern part of the facility.
- A United States Post Office services Molalla and vicinity out of Molalla's Robbins Street office.
- The Portland General Electric Company provides the Molalla area with the electricity.
- Phone service in the Molalla area is provided by Molalla Telephone Company.
- Northwest Natural Gas Company provides the Molalla area with natural gas.

c. Goals and Policies

STATEWIDE GOAL 11 – To plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development.

COMMUNITY GOAL – To provide the facilities necessary for governmental, postal, electrical, natural gas and telephone service.

To achieve these goals the policies of the city will be:

- 1) To support the continuation of a full service U.S. Post Office in the City of Molalla.
- 2) To support the continued provision of quality electrical, natural gas and telephone service which will be able to meet the city's needs as it grows.
- 3) To require all new subdivisions to utilize underground public facilities including telephone and electrical wiring.

d. Lands Designated for Other Public Facilities

Two of the aforementioned public facilities are located within one of the major plan elements designations (see Public Facilities Plan Map). The city hall is located in an easily accessible building in the Commercial area, the U.S. Postal

Service building is also within the core area, and PGE leases a building at the corner of Main Street and Molalla Avenue in the core area. PGE could relocate in the future.

1) Description

Two of the public facility locations are indicated on the Public Facilities Plan Map.

2) Area

City Hall (combined with the police department and library) 1.5 acres  
Post Office .12 acres  
General Telephone Office .11 acres  
PGE Office (leased) .24 acres

3) Justification

The locations and acreage of these public facilities is appropriate in meeting the needs of the community and are in compliance with the goals and policies of this section.

## 11. GENERAL DEVELOPMENT SCHEDULE

a. Background

The following schedule is intended to provide a relative order of priority of actions necessary to achieve the basic goals of the plan. Those actions which should commence immediately have been listed first for priority attention by the city. The other matters are listed over a span of years due to the fact that the city has no resources at the present time for these proposals. As the amount of fund available for any given period are limited, sufficient time is allowed for grants for various projects over there years. The projects should be coordinated to insure the new streets will not be torn up for drainage installation because the wrong project came first.

b. Development Charge

As stated above the city has limited financial resources for the priority projects in the general development schedule. Inflation is increasing the cost of those projects and other services provided by the city. Urban development creates the need for provision or expansion of community services beyond the boundaries of the specific development. At this time, the city does not have the capability to meet the service demands created by such developments without taking funds from priority projects or placing an unequal burden on the taxpayer. In order to provide services in a timely, orderly and efficient manner, the city is establishing

a development charge. This charge, levied at the time of development, will insure that the development pays an equitable share of the associated service costs. The services provided with funds from the charge will benefit people within the new development as well as people throughout the city.

c. Goals and Policies

The statewide goal which generally applies to nearly all facets of this element is:

STATEWIDE GOAL 11 – To plan and develop a timely, orderly, and efficient arrangement of public facilities and services to serve as a framework for urban and rural development.

A policy which applies to Molalla’s Community Facilities is:

- 1) To establish a development charge, the fund of which shall be used by the city to provide and improve municipal water, streets, sidewalks, drainage, and park and recreation facilities.

d. General Development Schedule Chart

## GENERAL DEVELOPMENT SCHEDULE CHART

Item No.	Project Description	Plan Elements Affected	Time Frame	Participants Involved
1.	City Hall Remodel/ expansion of Police Department	Community Fac	Immediate	City (consultant) Clackamas County Federal Government
2.	Sewer System Improvements	All	Immediate	City (consultant), Regional, Federal Governments
3.	Construction Senior Center	Community Fac.	0 – 2 years	City (consultant) Clackamas County Federal Government
4.	Water System Improvements			
	a. Rehab Existing Storage Reservoir	All	0 – 5 years	City (consultant) Regional, Federal Government
	b. Additional Major Distribution Lines	All	0 – 10 years	City (consultant) Regional, Federal Government
5.	Parks Development	Community Fac.	0 – 10 years	City, Clackamas County, Regional, Federal Government
6.	City Street Improve- ments (does not include state and county roads)	All	0 – 20 years	City, Regional, Federal Government
7.	City Storm Drainage	All	0 – 20 years	City, Clackamas County, Federal Government
8.	Pedestrian/Bicycle Pathways	Community Fac.	0 – 20 years	City, Clackamas County, Regional, Federal Government

## 12. HISTORIC PRESERVATION

### a. Existing Conditions

A brief history of Molalla is included in the introduction section of this plan. Three homes in the study area are included in the statewide Inventory of Historic Sites and Buildings. One of these, the Dibble House (c. 1859), a three quarter New-England saltbox, is listed in the National Historic Register. The Vonder Ahe

(Von-derahe) House (c. 1865)) was moved to its present site in 1973. Both structures are situated on the same property located on Molalla Avenue between Metzler Avenue and 7<sup>th</sup> Street. The .5 acre site and structures are owned by the Molalla Historical Society (22). The third structure is the Willard Robbins House, located on Molalla Avenue between Ross and Robbins Street. Extensive exterior and interior remodeling occurred about 20 years ago. The house is presently used as an apartment house. Consequently, the Molalla Historic Society has no plans for historic preservation for the house. A fourth historic house, the Asa Sanders house, is located 1 mile north of the city outside the study area.

b. Findings

- The Dibble House, Vonder Ahe House and Willard Robbins House are included in the Statewide Inventory of Historical Sites. The Dibble House is a National Historical Site.

c. Goals and Policies

The following goals and policies are intended to protect all historically significant structures and artifacts and to help make the community aware of their potential historical value.

STATEWIDE GOAL 5 – To conserve open space and protect natural and scenic resources, historic areas, sires, structures and objects. (excerpt)

COMMUNITY GOAL – To highlight the City of Molalla’s role in the development of the Willamette Valley through preservation of historic sites.

To achieve these goals the policies of the city will be:

- 1) To encourage the preservation of the Dibble House and Vonder Ahe House in their original character.
- 2) To investigate the possibility of receiving funding and tax benefits from the federal, state and local levels in order to support historic preservation.
- 3) To cooperate with the Molalla Historical Society and State Historical Preservation Office as necessary to identify and protect significant cultural resources in Molalla.
- 4) To recognize and comply with applicable State and Federal Statutes governing protection of cultural resources.
- 5) To encourage new development within the city to be harmonious in appearance with the historical character of the community.

- 6) The city will complete the requirements of Statewide Goal 5i (Historic areas, sites, structures and objects) by spring of 1991.

d. Lands Designated for Historical Preservation

In order to retain the historic character of the community and to comply with local and statewide goals regarding historic preservation, and the policies established to implement those goals, the following described properties are designated for historic preservation. These lands are subject to the goals and policies of this section.

a. Description

- 1) The Dibble House is located on South Molalla Avenue between Metzler Avenue and 7<sup>th</sup> Street.
- 2) The Vonder Ahe House is located adjacent to the Dibble House on the same .5 acres of land.

b. Area

The total acreage designated for historic preservation is .5 acres.

c. Justification

1) Location

The location of the land designated for historic preservation complies with the policies established to implement the statewide and local goals of the plan.

2) Acreage

The acreage indicated is the total of the tax lots for the two historic buildings.

CITY OF MOLALLA COMPREHENSIVE PLAN

LAND USE SUMMARY

	CITY	UGB
RESIDENTIAL		
Single Family Residential	182.9 Acres	332.8 Acres
Medium Family Residential	82.2	.0
Multi-Family Residential	86.8	37.1
COMMERCIAL		
Central Commercial	90.7	.0
Heavy Industrial	134.2	183.9
INDUSTRIAL		
Light Industrial	35.2	65.7
Heavy Industrial	134.2	183.9
PUBLIC FACILITIES		
Water		*6.8
Sewer		58
Parks and Open Space	43.1	8.3
Additional Public & Semi Public	24.6	32.1
SCHOOLS		
District U4	52.8	8.9
District 35	27.6	14.3
Total Acres	771	842.7
Within UGB		1613.7

\*Outside UGB

TABLE III-7

URBANIZATION FORECAST

ARES (Including streets)

LAND USE DESIGNATIONS	CITY		UNINCORPORATED		TOTAL			
	% OF CITY	ACRES DEVELOPED	ACRES VACANT	TOTAL ACRES	% OF UNINCORPORATED	TOTAL ACRES	% OF TOTAL	ACRES
Single Family Residential	23.8%	135	47.9	182.9	39.5	332.8(2)	32	515.7
Two Family Residential	10.4	54	28.2	82.2	---	---	5.1	82.2
Multi-Family Residential	11.3	75.2	11.6	86.8	4.5	37.1(2)	7.7	123.9
Central Commercial	11.8	87.7	3.0	90.7	---	---	5.6	90.7
General Commercial	1.5	10.4	.5	10.9	12	101.6	7	112.5
Light Industrial	4.6	32.8	2.4	35.2	7.8	65.7	6.2	100.9
Industrial	17.4	62.2	72	134.2	21.8	183.9	19.7	318.1
Public or Semi Public	13.6	105	---	105	13.4	113.3	13.5	218.3
Parks & Recreation	5.6	43.1	---	43.1	1.0	8.3	3.2	51.4
<b>Totals</b>	<b>100%</b>	<b>605.4</b>	<b>165.6</b>	<b>771</b>	<b>100%</b>	<b>842.7</b>	<b>100%</b>	<b>1613.7</b>

(1)Existing Land Use Map on file at Molalla City Hall

(2)See Projected Residential Use

# **IV PLAN IMPLEMENTATION**

## PLAN IMPLEMENTATION

Implementation can be generally defined as insuring actual fulfillment by definite measures. In terms of the City of Molalla Comprehensive Plan, this means that in order for the plan to become a reality in fact some steps must be taken to provide the tools necessary to do the job. While the plan established area for particular land uses and various intensity of use as well as policies which affect the use of land, it is not intended to deal with the specifics of the daily administration of land use, land division or other similar related functions. These functions are specifically dealt with by the following means:

### A. PREPERATION OF ZONING ORDINANCE

The Zoning Ordinance consists of two basic parts: 1) a map of the zones as they are assigned to lands within the city, and 2) a test which spells out in detail the provisions of each zoning district and related procedures and concerns.

Since the zoning ordinance is the primary implementation tool of the Comprehensive Plan it must reflect the land use designations and policies set down by the plan. Further, it must deal with those specific items which the plan is not intended to deal with such as permitted and conditional use, minimum lot sizes, yard setbacks, parking, and other special requirements.

### B. PREPERATION OF SUBDIVISION ORDINANCE

The subdivision ordinance is a special purpose ordinance which effectively deals with the basic concern of dividing land into streets and building sites. However, the ordinance has to reflect the concerns of two jurisdictions. First, the ordinance must comply with the standards established in Chapter 92 of the Oregon Revised Statutes to meet state requirements. Second, the ordinance must reflect the concerns of the Comprehensive Plan and the land division that takes place must meet the requirements of the zoning ordinances.

### C. OTHER ORDINANCES

By ordinance, the city shall specify the procedural requirements in making different classifications of land use decisions. Such ordinance will provide for a hearings officer to determine, after public hearing, most quasi-judicial land use decisions. Decisions, which the ordinance provides shall be made without the ordinance provides shall be made without prior public hearing, by city staff shall be appeal able to the hearings officer by interested parties. Appeals from the hearings officer shall be to the City Council based upon the record of the proceeding before the hearings officer, unless the City Council shall decide to accept further public testimony or evidence.

The function of the Planning Commission shall be directed towards consideration and review of amendments to the Comprehensive Plan and Land Use Ordinances. Until funds are available or the hearings officer is available in cases where the hearings officer is unable to sit or is disqualified, the Planning Commission shall exercise the function of the hearings officer. The primary source of funding for the hearings officer shall come from the applicants fee.

Other ordinances affecting the use of land within the City of Molalla shall be reviewed by the Planning Commission and if found to be in conflict with the Comprehensive Plan, the Planning Commission, after public hearing, shall make recommendations to the City Council for amendments to the ordinances to eliminate such conflict.

# **V PLAN REVIEW & REVISION**

## PLAN REVIEW AND REVISION

State statutes require that adopted Comprehensive Plans be regularly reviewed and revised to meet changing needs. The City's Comprehensive Plan must be kept up to date through periodic review and appropriate revisions. The city's policies to ensure that the Comprehensive Plan is regularly reviewed and revised will be:

1. Maintain current data on population, vacant lands, public facilities capacity, transportation systems, and economic and environmental conditions.
2. Continued public notification, and update agency review list to ensure their participation in plan review process.
3. Provide for a general five year Comprehensive Plan update, if appropriate. This plan update should either precede or coincide with the scheduled periodic review.
  - a. Review the data base;
  - b. Evaluation of the effectiveness of the policies in meeting statewide and community goals;
  - c. Evaluation of the effectiveness of the implementation measures in meeting statewide and community goals; and
  - d. Proposals for amendments to the goals policies or implementation measures.

The City Council will conduct a public hearing to review the Planning Commission report and provide an opportunity for public comment and recommendation shall follow the same procedures as for major plan amendments. Within thirty (30) days of the public hearing the City Council shall make findings of fact and adopt, adopt with changes, or deny the proposed amendments. Adoption of plan amendments shall be by ordinance,. Adoption of amendments shall consider LCDC goals, be approved and adopted by Clackamas County and LCDC when applicable.

### 4. Plan and Ordinance Amendments:

Amendments to the Comprehensive Plan and implementing ordinances may be initiated by property owners and residents within the area affected by the Comprehensive Plan. Amendment applications, accompanied by an established fee, shall be filed with the city. The City Council or Planning Commission may initiate a plan or change or ordinance amendment by motion, in which case the city bears the cost. If a zone change is required as a result of the proposed plan amendment, the zone change shall be processed at the same time as the plan amendment.

### 5. Major and Minor Plan and Implementing Ordinance Amendments Distinguished:

Major Plan and Implementing ordinance amendments include land use changes that have wide spread and significant impact beyond the immediate area, such a quantitative changes producing large volumes of traffic; a qualitative change and the character of the land use itself, such as conversion of residential to industrial use; or a spatial change that affect large areas or many different ownerships.

#### 6. Major Plan and Implementing Ordinance Amendments:

Major amendments shall be considered at separate public hearings of the Planning Commission and City Council. The Planning Commission shall hear the amendment within forty (40) days of the receipt of the application. At least thirty (30) days notice of the public hearing shall be provided. Within thirty (30) days notice of the close of the public hearing, the Planning Commission shall make a recommendation to the City Council to approve, approve with conditions, or deny the proposed amendments.

The City Council shall conduct a public hearing on the amendment upon receipt of the Planning Commission recommendation. At least thirty (30) days notice of the public hearing shall be provided. Within thirty (30) days of the hearing, the City Council shall make findings of fact and adopt, adopt with changes, or deny the proposed amendment; the proponent of the amendment must show:

- a. There is a public need for the amendment, and the amendment best meets the public interest.
- b. In the case of a change in designation, that the need will be best served by changing the designation of the property in question as compared with other available property.

Adoption of major plan amendments shall be by ordinance. Adoption of major plan amendments shall consider LCDC Goals, be approved and adopted by Clackamas County and LCDC when applicable.

#### 7. Minor Plan and Implementing Ordinance Amendments

An application for a minor plan or ordinance amendment shall be submitted to the hearings officer for public hearing. At least ten (10) days notice of such hearing shall be provided. At such hearing the applicant must show the following:

- a. There is a public need for the amendment and that such amendment best meets the public interest.
- b. In the case of a change in designation, that the need will be best served by changing the designation of the property in question as compared with other available property.
- c. The proposed amendment is a minor amendment.

The hearings office shall prepare within ten (10) days of such hearing written findings with regard to each of the above issues and submit such, along with a recommendation, to the City Council. The City Council shall make its own determination based upon the record of proceedings before the hearings officer, unless the City Council shall decide to hold further public hearings. Adoption of minor plan amendments shall consider LCDC Goals, be approved and adopted by Clackamas County and LCDC when applicable.

8. : Zone Change in Conjunction with Annexation:

A zone change in conjunction with annexation to the city shall be considered by Council on request for annexation. The zoning district shall implement the Comprehensive Land Use Map and shall become effective on issuance of the final annexation order.

# **VI REFERENCES**

## REFERENCES

1. Edward, Eldon, Molalla Comprehensive Plan, no date.
2. U.S. Department of Commerce. 1970 Census of Population and Housing for the CRAG Transportation Study Area 2000. December 1978.
3. CRAG, "Second Round" Regional Growth Allocation for the CRAG Transportation Study Area 2000. December 1978.
4. Directory of Oregon Manufacturers, 1978.
5. Center for Population Research and Census, Survey of Clackamas County, August 1978, unpublished.
6. Westech Engineering, Inc., Facilities Planning Report, Sewer System Evaluation Part II, February 1975.
7. U.S. Department of Agriculture – Soil Conservation Service, General Soil Map with Soil Interpretations for Land Use Planning, Clackamas County, March 1970.
8. Clackamas County Department of Environmental Services, Planning Department, Rural Zoning Project, April 1979.
9. U.S. Geological Survey, Records of Wells, Water Levels and Chemical Quality of Ground Water in the Molalla-Salem Slope area. Northern Willamette Valley, Oregon, August 1963.
10. Clark & Groff Engineers, a study of the Water System, City of Molalla, Oregon, May 1974.
11. Oregon State University Extension Service, Resource Atlas, Clackamas County, May 1974.
12. U.S. Department of Commerce, 1960 Census of Climate.
13. University of Oregon, Atlas of Oregon, 1976.
14. Bureau of Governmental Research, Water Resource Board, Flood Plain Management for Oregon Cities and Counties, 1971.
15. City of Gaston, Draft Comprehensive Plan, 1978.
16. Portland State University, Center for Population and Research, August 1979.

17. Building Permit Statistics and Assessors Office Records, Clackamas County, July 1979.
18. State of Oregon – Department of Economic Development, Directory of Oregon Manufacturers 1980-1981, January 1980.
19. Columbia Region Association of Governments, Second Round Regional Allocation for the CRAG Transportation Study Area Year 2000, October, 1978.
20. Corps of Engineers, Portland District, Inventory of Existing Water Supply Systems for Outliving Communities, March 1979.
21. Oregon State Department of Transportation, Letter to Dee Kraushaar, March 1980.
22. Molalla Historical Society, March 1979.
23. Ibid., February 1980.