

DRAIN COMPREHENSIVE PLAN

(As revised through Periodic Review, October 1997)



October 1997

CITY OF DRAIN PLANNING COMMISSION
Susan Anderson, Chairman

UMPQUA REGIONAL COUNCIL OF GOVERNMENTS

Acknowledgements

This comprehensive plan reflects many hours of thought and effort on behalf of the people who collaborated in its preparation. The people who played major roles in the review and development of this plan include:

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Preface to the 1997 Drain Comprehensive Plan Update

The City of Drain's first Comprehensive Plan under Oregon's Statewide Planning Program was developed in 1978 with the assistance of the Umpqua Regional Council of Governments. The Comprehensive Plan was revised in 1989 following the City's first Periodic Review. The City of Drain completed its second Periodic Review in 1997. This newly-revised Comprehensive Plan document was developed by the City of Drain and the Umpqua Regional Council of Governments during the 1997 Periodic Review.

The City of Drain's 1997 Comprehensive Plan contains numerous upgrades in substance and form. The City's 1994 evaluation of its Comprehensive Plan identified the following areas of deficiency. Each is addressed in this Comprehensive Plan, in supporting documents, or in implementing ordinances.

1994 Periodic Review Evaluation Results

Citizen review of the existing Comprehensive Plan and development ordinances yielded the following needs:

- Revise the Urban Growth Management Agreement
- Revise the Development Ordinance and Standards
- Revise the Comprehensive Plan
- Update the Comprehensive Plan with New Information
- Develop and Adopt Cooperative Agreements with Special Districts
- Coordinate with State Agencies to Address New Requirements

The 1997 Comprehensive Plan contains new information relative to the tasks outlined above. The Plan incorporates changes to basic factual data, such as population, employment, housing, public facilities, and land use. It includes new information related to various State agency requirements, and it ensures proper coordination with any agencies or special districts affected by Drain's Comprehensive Plan. Wherever necessary, the Plan revisits the City's original goals and policies to ensure that they have kept pace with the community's changing needs and aspirations.

In addition to the substantive changes, the format of the Comprehensive Plan has been revised. The 1997 Comprehensive Plan is organized by chapters which correspond to the 14 non-coastal Oregon Statewide Planning Goals. This new format has advantages over the old format. It provides a clear connection between Oregon's Statewide Planning Program and Drain's Comprehensive Plan. It clarifies the relationship between Oregon's Statewide Planning Goals and the City of Drain's goals and policies. The new format is easier for citizens, government agencies, developers, and investors to understand because it follows a standard sequence used by Douglas County and many other jurisdictions. Finally, by describing the corresponding Statewide Planning Goal – and its associated local planning requirements – at the beginning of each chapter, the 1997 Comprehensive Plan allows readers to understand and appreciate the regional context of local policies.

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A. INTRODUCTION

Background

The basic purpose of a city comprehensive plan is to provide a document to refer to in making city decisions concerning land use. As mandated by the Oregon State Legislature, a comprehensive plan shall be developed for each city and county throughout the State of Oregon. The importance of these plans is that they are to act as a guiding land use document that ensures each community will grow in a most timely, economical and efficient manner. To make sure these objectives will be achieved, the State Legislature, under Senate Bill 100, has established statewide coordination of all planning activities, including the establishment of 14 statewide goals and guidelines. These goals and guidelines are to be monitored by the Land Conservation and Development Commission (LCDC) and must be adequately addressed before a comprehensive plan can be approved. In light of these standards it was deemed necessary for the City of Drain to develop its first comprehensive plan.

Location

The City of Drain is located in northern Douglas County, at the confluence of Pass and Elk Creeks. Drain is known as the "Gateway to the Pacific Ocean." The valley in which Drain is located provides a natural and scenic corridor for both passing tourists and residents of the area. It is approximately 59 miles from the Pacific Coast and 37 miles from Roseburg, the county seat.

Scope

Information has been collected for the City of Drain and the surrounding rural area. It was felt that due to Drain's unique geographic location, a study area should be included that designates those areas which may have a potential impact on the City. Therefore, the Planning Commission has chosen to include a vast amount of land surrounding Drain. As the study area map indicates, hills encompassing the City and valleys found to the north and west of Drain have been incorporated into the study area.

Review

This plan should be viewed as a summary of the desires and goals of the people of Drain. As the community grows and conditions change, the plan and policies should be continually reconsidered and amended to reflect changes. In light of changing conditions, the City should review the comprehensive plan at least every two to five years. If and when changes are needed they should be in accordance with current state law.

Citizen Involvement

One of the primary goals of LCDC is that of citizen involvement. The state requires each community involved in developing a comprehensive plan to actively encourage citizen participation. This can be accomplished in a number of ways. Local news media, such as newspapers, bulletin boards, radio and TV stations are particularly helpful in soliciting participation. Another method to ensure citizen involvement is to form a Citizen Advisory Committee (CAC) that actively represents the people of the community. This ensures that the comprehensive can be developed in the community's interest.

Although considerable time has been invested in soliciting the involvement of residents of the area, through written invitations and the local news media, response has been poor. In light of this, the five member Planning Commission has been appointed by the City Council to officially act as Drain's Citizen Advisory Committee. Their role has been to review the preparation of the comprehensive plan and to make policy recommendations.

B. PLAN TEXT

In developing the Comprehensive Plan for Drain, it was necessary to divide the text into two parts: the Comprehensive Plan Support Document and the Comprehensive Plan itself.

Support Document

Briefly, the Comprehensive Plan Support Document is a text that contains all pertinent information that was collected during the planning period. It can be used as a reference for technical information that is not included in the following Comprehensive Plan. If anyone wishes to review this document, it can be found in Drain City Hall and at the Umpqua Regional Council of Governments office at the Douglas County Courthouse in Roseburg.

Plan Document

This Comprehensive Plan is actually a condensed version of the Support Document. It is composed of studies that were collected throughout the inventory stage of the plan. Instead of technical information, it is rather a summarization of pertinent data used directly in the development of the goals and policies.

There are three parts to this plan: 1) a narrative summary of pertinent information (findings) considered in the planning process; 2) goal and policy recommendations and 3) a map designating future land uses and urban growth area.

The narrative summary of pertinent information was derived from a number of studies that were compiled during the inventory stage of the plan. In developing the plan, these studies have been grouped into six major elements that summarize all related information. Elements by order are Natural Features, Economics and Population, Housing, Community Facilities and Services, Transportation and Land Use and Urbanization.

Following each element are goals and policies. Goals can be defined as general statements which indicate the desired approach toward specific issues. They set the city's direction. They have a direct role in future planning, as a city cannot legally be in opposition to its own goals. Programs should be directed toward achieving these goals. Policies are more specific. They provide recommended methods to achieve each goal. They have a strong effect on a city because city decisions and programs must be in accordance with each policy. It should be noted that both goals and policy statements work as a combined force to make the comprehensive plan a tool for the city to communicate its desires to the community.

The future land use map and designated urban growth area is another important part of the plan. The purpose of the land use map is to act as a graphic representation of goals and policies and estimated land needs to meet future demands.

Historical Background

The earliest inhabitants of the Drain area were Indians. Before settlers arrived in the area, the bulk of the Indian population had been decimated by epidemics of Old World diseases, which may have accounted for the Indians' extreme passivity toward white settlers. Whatever the cause, the natives made virtually no objection to pioneer settlement.

The first recorded settler was Warren Goodell, who arrived in 1847. After passage of the Donation Land Claim Act in 1850, a handful of other pioneers staked claims in the Drain area. Several started farming west of Drain in Tin Pot (now Sunnydale). By 1850 sheep were being raised; soon livestock production would be a major aspect of agriculture in the area.

1860 was the year that Charles Drain came to Douglas County. By the time he settled in the area that was to bear his name, Drain was already a prominent man. Upon arrival he began buying land from several early settlers, including the Goodell claims, which Jesse Applegate had bought a few years earlier. Eventually Drain acquired 1,700 acres.

By 1861 enough settlers had come to warrant the organization of School District #22 and the construction of a log schoolhouse in Tin Pot. The area was developing into a prosperous farm community, but there was no town until 1872, when the Oregon and California Railroad reached northern Douglas County. Charles Drain donated sixty acres to the railroad. In exchange, they surveyed and platted a town, named it Drain, and made it a stop on the railroad. Almost immediately two stores and a hall used as a schoolroom and church were built, and a post office was established. The City of Drain officially incorporated on March 11, 1887.

For the rest of the decade the town grew rapidly. A grist mill went up on Pass Creek, and a sawmill was erected halfway between Drain and Boswell. Roads in the area were improved, and a state route was set up between Drain and Scottsburg, where passengers could make steamer connections for Coos Bay.

In the early 1880's the Drain Academy, a Methodist school was built. A few years later the Oregon legislature designated it as one of four state normal schools.

When Walling wrote his *History of Southern Oregon* in 1884, he described Drain as one of the most important business centers in Douglas County. In 1890 the *Roseburg Plaindealer* reported, "In the immediate districts of the town, say to Yoncalla in one direction and the Smith River in another, there are, perhaps, more really well-to-do settlers than in any other section of the country." Thus, despite a population of only 300 (plus 147 scholars), Drain could boast two schools, over twenty businesses, two hotels, two churches, and an important role as a transportation center, shipping out livestock, wool, wheat, and hides. By the turn of the century Drain was also shipping out a significant amount of timber, reflecting the growth of logging in the area.

Development slowed in the early 1900's. In 1907 the State of Oregon legislature did not appropriate funds for the Central Oregon Normal School at Drain, and it was forced to close. Drain entered the modern age in this period. Telephones and electricity became available, and the daily stage run to Scottsburg was made in an automobile.

In 1914 the project to construct a Drain-Coos Bay railroad, which had been sporadically worked on for almost ten years and discussed for twice that long, was abandoned. On the other hand, transportation was improved in 1922 with the completion of Highway 99 connecting Drain with the Willamette Valley and points to the south.

From that point until the late 1930's, Drain experienced minimal growth, despite construction of the coast Highway 38 in 1932. In the 1940's, however, the town underwent a tremendous boom. There had always been logging in the area, but during and after World War II an increased demand for wood products spurred production. Logging flourished; at one point in the late 1940's there were eighteen sawmills in Drain. By 1950 the population had increased to almost its present level.

Since the boom, the wood products industry has continued to dominate Drain's economy, although the number of separate timber enterprises has diminished markedly.

C. NATURAL FEATURES ELEMENT

Introduction

The City of Drain is located in a unique natural setting characterized by steep slopes, open grasslands and mixed forest. Although these attractions add to the visual appearance of the Drain area, the relationship these natural features have on locating future urbanizable lands is most important.

The purpose of this element is to identify and present information concerning the natural features of the Drain area. Once these features are identified and discussed, future land use decisions can be made that will be beneficial to both the urban and natural environment of Drain.

Historically many land use decisions have been made that have overlooked the correlation between natural features and the urban environment. This is most evident in the community of Drain. For example, development in the floodplain and on steep slopes accounts for over 60% of Drain's urbanized lands. Although hazards associated with these two natural features are sometimes quite high, depending on location, many landowners and developers have bypassed these constraints for personal gain. The result of this approach has the potential to greatly jeopardize the safety and welfare of many residents.

This element of the plan is composed of a variety of topics concerning the natural environment of the Drain area. These topics include such resources as air, water, and land quality, soils, geology, vegetation, wildlife habitats, and energy resources. Also included are discussions concerning steep slopes and flood hazards.

Air, Water and Land Resources Quality

The major objective of Goal 6 of the statewide Planning Goals is to ensure that the "carrying capacity" of the air, land, and water is adequate to support not only the current development in the area, but also any proposed development. With regard to Goal 6, each of these resources has been evaluated in conjunction with pollution and waste products currently being generated, and with those anticipated for future development.

Two agencies that have provided information related to these three resources are the Department of Environmental Quality (DEQ) and the Douglas County Health and Sanitation Department.

Air Quality

Generally, air quality in the Drain area is good. The nearest ambient air monitoring station is in

Roseburg. That station indicates compliance with the class II Prevention of Significant Deterioration (PSD) standards; therefore, by using the guidelines in the DEQ "Handbook for Environmental Quality Elements of Oregon Local Comprehensive Plans (Air Quality Section)" the City of Drain does not appear to conflict with Class II PSD Air Quality Standards.

It has been determined by using the carbon monoxide screening procedure in the DEQ publication, "DEQ Handbook for Environmental Quality Elements of Oregon Local Comprehensive Plans (Air Quality Section)" and support documentation that the roads within the City of Drain Comprehensive Plan area do not cause existing or future violations of the 8 hour carbon monoxide standard.

Projects with possible air quality impacts should be individually reviewed by the City and submitted to the DEQ for determination as to compliance with State and Federal air quality standards.

Noise

Current noise sources in Drain include North Douglas Wood Products, Duco-Lam, Emerald Forest Products, Fab-Mac, Southern Pacific Railroad, and Highways 99 and 38. Accurate noise level data is unavailable at this time, however, the degree of disturbance to residents will vary with time, frequency, and magnitude of the noise. From a practical standpoint, the noise sources and their degree of disturbance is well known to residents. (As amended by Ord. 287)

Water Quality

Surface water resources in the Drain area are abundant. This is due in combination to the four creeks and two reservoirs that serve that area. There are, in order of priority, Bear Creek, Bear Creek Dam, Allen Creek, the emergency reservoir, Elk Creek, and Pass Creek. All but the latter two resources (Elk and Pass Creeks) directly supply the City with water for domestic use. Elk and Pass Creeks, which flow directly through the town, are used for irrigational purposes.

Because of the importance of Bear Creek and Allen Creek to the City's water, it is important that their quality be protected. Currently the City and the Bureau of Land Management have an agreement specifying logging practices and forbidding livestock grazing on BLM land in these watersheds. The City should regard these areas as areas of special concern and pursue County implementation of such conditions for all remaining lands in these watersheds to protect the City's water. A map of these watersheds is located in the support document.

Although during the summer months the creeks supplying Drain's domestic water supply experience seasonal low flows, recent studies have indicated that the two storage reservoirs have enough capacity to meet the summer peak daily demands. In addition studies have shown that with the combination of source and storage capacity, the untreated water volume is more

than sufficient to meet the projected population demands by the year 2020.

Pass and Elk Creeks also experience low flows during the summer months. Prior to the establishment of the City's wastewater effluent dispersal field, water quality in Elk Creek was detrimentally impacted by discharge from the sewage treatment plant into the creek. DEQ indicated that water quality in Elk Creek was below acceptable levels during low flow periods because of the discharge. When constructed, the dispersal field was one of the first built in the state and has dramatically improved water quality in Elk Creek during low flow periods. Water quality is now within acceptable levels in Elk Creek.

The groundwater resource in the study area is somewhat limited when compared to the surface water resources of the area. A 1977 United States Geological Survey (USGS) report shows that a variety of geological formations are found in the Drain area. Associated with each formation are facts concerning rock permeability and suitability for wells. A general analysis indicates that most wells are capable of serving a single family household, but should be considered inadequate for irrigation, community, or large industrial use. Therefore, Drain must continue to rely on surface water for community water supply. Improvements to the water system would consist of improvements to any part of the system, such as increased treated water storage capacity, better distribution, or improved treatment.

The water supply is adequate to serve the projected population by the year 2020.

Land Quality

The quality for the land in the study area is also adversely affected by sewage problems. The Douglas County Health Department stresses the importance of: 1) avoiding sewage emerging and flowing along the surface of the ground, and 2) protecting groundwater used for drinking from contamination.

The alluvial plain in the north and west portions of the study area is generally composed of clay soils with a perched high winter table. The Health Department reports a high incidence of septic tank failure in the western area during the winter months, and concludes that the area's potential for future development is extremely limited without the installation of sewers. Thus, development in the area hinges on the availability of an adequate sewerage system.

Soils

One of the prime concerns of this plan is to consider the natural resource of soils. In the State of Oregon the Land Conservation and Development Commission (LCDC) is concerned that in the past, urban development has utilized soils that are best suited for agriculture and timber production. In an effort to curtail this practice, two of the statewide planning goals, Goals 3 and 4, address the preservation of soils which are identified as having a high resource value for

agriculture and timber production.

A simplified classification system based on the Soil Conservation Service's interpretation charts has been used to identify the various types of lands in the study area, in order to prevent other uses of these lands. The four categories - Agriculture Capability, Douglas Fir Woodland Suitability, Urban Development Suitability, and Recreation Suitability - have been placed in a soil matrix found in the support document. These categories are the end result of a soil survey conducted by a private soil consultant.

Agriculture Capability is divided into eight classes of soils, I-VIII, with I being the prime soil for agriculture and VIII being the most limited soil for this use. LCDC, utilizing this same eight class system, has directed soils of Classes I-II be set aside for agricultural use. The Agriculture Capability Map illustrates the distribution of the eight soil classes in the Drain Study Area. It can be noted that there are long strips of Class III land along Elk and Pass Creeks, and that a small representation of Class I lies to the southwest of the city limits near Elk Creek. Much of the land already within the city limits is Class II, but LCDC does not apply its preservation priority to lands within existing city limits.

The Douglas Fir Woodland Suitability category consists of five major classes with present potential productivity of the soils. The potential productivity classes are based on average total height of dominant and co-dominant 100 year--old trees in stands in the various areas surveyed. The classes are ranked in order with Class I having the highest and Class 5 the lowest productivity.

Soils of Classes 2, 3, and 4 are found in the study area. The best forest use soils in the area, Class 2, lie on the north-facing slopes and lower altitudes south of the city limits. The Class 4 soils are located on the south facing steep slopes just north of the city limits above Elk Creek. The dominant forest soil in the area is Class 3, which lies on the higher elevations and down along the streambanks. These riparian lands or stream bank soils have already been used for farming, however. Other than these low altitude Class 3 lands, there should be little competition from other possible uses as most of these lands are relatively steep and inaccessible. It should be noted that the 3 Woodland Suitability Classes in Drain (classes 2, 3, and 4) can be converted to cubic foot site classes 2, 3, and 4.

Urban Development Suitability has no soil classes as such, but is instead considered in terms of restrictive features and degree of restriction in four urban development categories - dwellings without basements, shallow excavations, small commercial buildings, and local roads and streets. Restrictions are rated either slight, moderate, or severe. The majority of soil types in the study area have moderate to severe restrictions for urban development, with restrictive features ranging from excessive slope to flooding susceptibility.

For Recreational Suitability, the primary restriction of soils in the study area is the slope, with a

majority of those surveyed having a severe degree of restriction. The impact of this information on future development will be discussed in the land use section.

Geology/Mineral Resources

The data provided by geological information is most helpful in measuring the performance and capability of the land. Characteristics such as rock formations, soil types and mineral deposits are important elements to consider before developing an area.

The best available published geologic information for the community of Drain is found on two reports by the state of Oregon Department of Geology and Mineral Industries, *Geology and Mineral Resources of Douglas County, Oregon, 1972, (Bulletin 75)*, and *Environmental Geology of Western Coos and Douglas Counties, Oregon, 1975, (Bulletin 87)*. These two reports identify four geological formations which include Basalt of the Roseburg formation, the Roseburg formation, the Tyee Formation and the Quaternary Alluvium. Associated with each geological formation are characteristics that determine land use suitability, resources and associated hazards. (See support document.)

As energy fuel costs rise across the nation, areas of possible mineral deposits overlooked because of high exploration and development costs may come under renewed interest. The rock types found in the Drain area are potential sources of oil and coal. It should be remembered, however, that development of either of these alternatives is potentially hazardous to the local environment.

Vegetation/Habitat

The economy of Drain relies heavily on the area's vegetation. The timber industry uses the hard and soft woods as the raw material for its products. Agriculture uses grazing lands and crop lands. Tourism takes advantage of the scenic qualities of the local plant life, as well as the wildlife habitat it provides.

Vegetation is a product of soil types and climatic conditions, but, like all natural features, it has been influenced by human activity. Logging, farming, and urban development have all left their mark.

A simplified version of the wildlife habitat categories established by the Oregon Department of Fish and Wildlife will be used to identify and locate different vegetation types in the area. The five categories are: douglas fir/mix, deciduous and evergreen hardwoods, riparian lands vegetation, grasslands/agriculture lands, and urban vegetation. Consult the Vegetation/Habitat map for the distribution of each category in the study area.

The douglas fir/mix category is dominated by dense stands of virgin or mature second growth

douglas fir. The "mix" species are cedar, trailing blackberry, big-leafed and vine maple, red alder, western hemlock, sugar pine, madrone, ponderosa and jeffery pine, and similar species. Manzanita and other brush species are present when the area has been burned, logged or otherwise disturbed. Deer, black bears, mountain quail, doves, and silver gray squirrels are abundant. The principal stands of douglas fir, mostly second growth, are located north and west of Drain.

The deciduous and evergreen hardwoods category found in this area has white and black oak. Evergreen hardwoods are: tan and canyon live oak, chinquapin and madrone. Understory vegetation includes poison oak, ceanohus, manzanita, and grasses. Blacktailed deer, silver gray squirrels, valley and mountain quail, black bears and bobcats inhabit this area. Of the woodlands in the study area, mixed forest with deciduous and evergreen hardwoods is the dominant vegetation type, especially the hillsides to the and east of Drain.

Riparian vegetation is that type found in dense, narrow bands along streams, rivers, and other areas subject to water flows. Water dependent plants such as willows, cottonwoods, and alders are found here. This area is extremely important to fish and wildlife, for food, shelter, and nesting grounds for a number of game and non-game species, thus acting as a concentration point for these species. The cover function of this area allows the open grasslands and agricultural areas, which are often located in the immediate vicinity of these areas, to be used as feeding grounds for wildlife. Riparian vegetation, located primarily along Pass and Elk Creeks, has been considerably modified by urban and rural development. For example, the west bank of Elk Creek from Gardner Street to Applegate Street has been thinned to create more space. Adverse consequences can result from removing riparian vegetation, because vegetation stabilizes stream banks and helps diminish erosion during flooding.

The agricultural lands, including irrigated and non-irrigated croplands and open "prairies" supporting native and domestic grasslands, are very important to the support of the wildlife habitat of the riparian area. Deer, elk, grouse, wild turkeys, mountain quail, and many other small animals and waterfowl use these lands for feeding and cover. These lands are primarily found in the creek valleys or where uplands have been modified by burning or logging activities. The majority are non-irrigated lands used mainly for hay crops and grazing.

Urban vegetation is basically those trees, plants, and grasses used to landscape commercial and residential developments. On the fringe of urban areas a greater variety of wildlife can be anticipated, while in more densely developed areas the number of different species found will be limited.

Urban development can be blended with parkland so that a great variety of plant life can be encouraged to thrive in the commercial center. There are numerous advantages to this approach: windbreaks in inclement weather, shade from trees in summer, and a more attractive commercial district. Plants add color movement, and revitalized air, while breaking up the

straight line monotony and tension of most commercial districts.

Energy Resources

Currently, besides the potential energy resources of oil and coal, which have yet to be discovered, the sun is Drain's only natural energy resource.

Flood Hazards

The most severe natural hazard experienced in the Drain area is flooding. Located along both Pass and Elk Creeks, the City of Drain and outlying areas have periodically been damaged by floods. Part of the explanation for this damage has been the improper and unsafe development in flood-prone areas.

According to a recent flood insurance study (U.S. Department of Housing and Urban Development, Federal Insurance Administration), large portions of commercial and residential land within the City limits are subject to flooding. Floodplain maps indicate that the southwestern area of Drain below the confluence of Elk and Pass Creeks is a major area of concern. Currently it is estimated that nearly half the residents of Drain are subject to possible flooding in this location.

Due to the severity of flooding in this area, the City of Drain has adopted a floodplain ordinance in accordance with federal standards that addresses how future development in flood prone areas will occur. Policies have been developed in light of this ordinance.

Flood hazards are depicted on the natural features map. Two primary areas of concern are the floodway and floodplain as discussed here:

1. Floodway- the floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment in order that the 100-year flood can be carried without substantial increases in flood heights.
2. Floodplain- lands adjacent to streams that are inundated with standing water during flooding.

Slope

Slope, or steepness of terrain, is another potential natural hazard factor to be considered in land use planning. Most of the study area has slopes of 25% or greater. These areas usually have thin, rocky soils susceptible to sliding, and so require special design and construction techniques to ensure that development is not detrimental to their stability. Slopes of 12-25% are more suitable for most development, but are also subject to limitations; roads must traverse

the slope, and building is often difficult and expensive. View potential is good, however. The best lands for development are those of 0-12% slope, which includes the majority of land within Drain, and some of the land immediately adjacent to the City. One limitation to the development of these lands is that they may be located within the 100-year flood boundary and may be subject to flooding.

NATURAL FEATURES

GOALS AND POLICIES

GOAL A: TO PROTECT PERSONS AND PROPERTY, DISCOURAGE DEVELOPMENT ON STEEP SLOPES AND NATURAL HAZARD AREAS.

CITY POLICIES:

1. Prohibit encroachments, including fill, new construction, substantial improvements, and other development in the flood unless a licensed engineer or architect certifies that encroachments shall not result in any increase in flood levels during the occurrence of a 100-year flood.
2. New construction, manufactured home placement and substantial improvements in residential and non-residential areas must have a finish floor elevation (including basement) elevated to 1' above the base (100-year) flood.
3. Encourage urban densities to occur on slopes less than 25%.
4. Development on slopes of 12-25% shall be permitted only after a licensed engineer or geologist certifies that the activity will not create hazardous conditions.
5. Development on slopes of 12-25% on soils designated by the city as unsuitable shall be permitted only after a licensed engineer or geologist certifies that the activity will not create hazardous conditions.

GOAL B: TO PROTECT DRAIN'S ENVIRONMENT BY CONSERVING THE AREA'S NATURAL RESOURCES.

CITY POLICIES:

1. Encourage the retention of the area's natural vegetation.
2. The conversion of urbanized land to urban uses shall be based on consideration of:
 1. Orderly, economic provision for public facilities and services;
 2. Availability of sufficient land for the various uses to insure choices in the market place;
 3. Land Conservation and Development Commission goals; and

4. Encourage retention of soils suitable for the growth of Douglas fir for forest use.

GOAL C: TO PROTECT THE QUALITY OF AIR, LAND AND WATER IN AND AROUND DRAIN.

CITY POLICIES:

1. Designate the Bear Creek and Allen Creek watersheds as areas of special concern.
2. Encourage the landholders of the watersheds to have a management program that will diminish erosion and potential pollution problems for the city's water supply.
3. Pursue measures which would adequately control any activities such as logging, road building, land clearing or excavation, stream alteration, or heavy grazing which could have adverse effect on the watersheds.
4. Develop a tree planting program in the city's watershed to enhance water retention and storage.
5. The city shall periodically monitor the quality of water on Elk Creek below the sewage treatment facility.
6. Discharges of contaminants, including noise, into the air, water, and land of the Drain area shall comply with state and federal regulations for environmental quality. The Statewide Water Quality Management Plan will be used as a guide for evaluation of water quality. The city shall urge all governmental agencies with jurisdiction in these matters to monitor discharge quality on a regular and continuing basis and shall submit to the DEQ for evaluation of conformance to state and federal laws any applications which may have serious impacts on environmental quality.

GOAL D: TO PROTECT RIPARIAN VEGETATION FOR ITS RECOGNIZED VALUE AS A CRITICAL HABITAT AND NATURAL STREAM BANK STABILIZER, CONTROL THE REMOVAL OF STREAM BANK (RIPARIAN) VEGETATION.

CITY POLICY:

1. Protect against riparian habitat removal by use of the flood prevention standards and the subdivision ordinance when possible.
2. Maintain a 50 foot structural setback and retention of riparian vegetation along Elk Creek and Pass Creek.

D. ECONOMY/POPULATION ELEMENT

Introduction

The purpose of this element is twofold: to discuss the economy of the Drain area and to establish population projections. Both features are most significant when planning for the future. Understanding the economy allows employment predictions to be made and hence a better understanding of what future populations and housing demands might be. The knowledge of the local economy will also help to meet the needs of various employment sectors. Population projections, which are very likely one of the most significant elements in this plan, allow the city to anticipate future community needs.

The economy of a small town like Drain is tied, to a very large extent, to the regional economy. This is particularly true in Douglas County, because of the nature of the dominant wood products industry.

In light of the regional nature of the economy, and because little specific economic data is available on the local level, the Overall Economic Improvement Association has been used to provide insight into Drain's local economy. In addition, employment statistics from the Oregon State Employment division have also been helpful in understanding the local economy.

Regional Economy

Historically, the timber industry has been a major employer in Douglas County. Dramatic changes in the industry and in federal forest management practices have seriously impacted the region in recent years. In 1976, employment statistics showed that over 28% of Douglas County's residents were employed in the wood products industry. By 1990 this figure had fallen to 25.0%, and by 1995 to 17.9%. The 1995 figure is still quite substantial when compared to a statewide figure of only 3.8%.

The wood products industry was destabilized in the early 1980's and again in the early 90's by changing market forces and federal forest policy. The seasonal aspect of the industry, and its tendency to follow certain market trends of the national economy, make its employment levels subject to fluctuation. High interest rates in the early 80's had a devastating affect on housing starts nationwide. As housing starts fell, the market for wood products fell and employment fell correspondingly.

A movement to severely limit the volume of timber harvested from federal forests has significantly reduced the availability of raw logs for processing. Mills that were dependent on timber from Forest Service or Bureau of Land Management lands scrambled to find timber on private lands. Many mills simply closed for lack of logs.

The Oregon Department of Employment, in its 1996 Regional Economic Profile, predicts that wood products manufacturing will continue a gradual decline in the region.

Another important industry in Douglas County is agriculture, the largest sector of which is livestock production. Although agricultural land in Douglas County is currently under-utilized, it is thought that as the major market areas (the Willamette and Sacramento Valleys) become more urbanized, grazing could be displaced. If this happens, then Douglas County's livestock industry could benefit from this displacement.

Tourism is another major industry in Douglas County. According to the OEDP, tourism is likely to rise throughout Douglas County in the future. This is due to three trends: rising per capita income; increased per capita recreational time; and increased population. Some opportunities exist in Drain for developing highway commercial oriented businesses to serve visitors traveling from I-5 to the coast on State Hwy 38.

The economic sector which provides goods and services is another important part of Douglas County's economy. Although employment grew rapidly in the early 70's, employment in this sector slowed significantly between 1990 and 1995 to an average annual rate of just over 1% per year. In addition, 1995 figures show that total employment in goods and services within Douglas County (73.2%) is much lower than the statewide percentage (80.9%). This could indicate that Douglas County is experiencing a "trade drain". Total employment in Drain in goods and services accounts for only 46.6% of all jobs.

Local Economy

The easiest way to approach Drain's local economy is by comparing it to the already discussed regional economy. The following chart shows employment figures for Drain for 1995.

Comparison of Local Employment with County and State in 1995

	Drain 1995-Number of Employed	Drain 1995-% of Employed	Douglas County 1995-% of Employed	State of Oregon 1995-% of Employed
Manufacturing				
Wood Products	217	35.6	17.9	3.8
Food Products	0	-----	.4	1.8
Other	88	14.5	6.2	10.6
Total Manufacturing	306	50.1	24.6	16.1

	Drain 1995-Number of Employed	Drain 1995-% of Employed	Douglas County 1995-% of Employed	State of Oregon 1995-% of Employed
Non-Manufacturing				
Construction	10	1.6	3.4	4.9
Trans.& Comm. & Utilities	30	4.9	4.4	4.8
Retail Trade	86	14.1	22.3	25.4
Financial, Insurance, Real Estate	21	3.4	2.6	5.2
Service & Misc.	33	5.4	20.3	25.0
Government	104	17.1	20.1	15.6
Total Non- Manufacturing	284	46.6	73.2	80.9
Other	20	3.3	2.2	3.0
Total Employment	610	100%	100%	100%

As the chart shows, slightly over 50% of the people working in Drain are employed in manufacturing, and 70.9% of those work in wood products. These figures are considerably higher than those for the county or the state, and they illustrate Drain's economic dependence on the wood products industry. An emerging area of Drain's economy is in "Other" manufacturing, that is, non-wood related products. In 1977 just .4% of those employed in manufacturing worked in the "Other" category. In 1995, that number had increased to 14.5%. This reflects the recent diversification of small manufacturing in Drain.

As already discussed, because of decreased raw material supply, employment in the wood products industry in Douglas County is expected to continue in gradual decline. To what extent this will affect the Drain study area cannot be exactly determined, but it is reasonable to assume that there would be a local cutback with corresponding lay-offs.

After wood products, retail trade and services account for the second and third largest employment sectors in Drain. While retail trade and services, as the two major non-manufacturing employers, account for 14.1% and 5.4% of the work force respectively, they

still constitute a lower percentage of employees in Drain than they do on a statewide basis. This indicates that the town is experiencing a "trade drain"; people often go outside the area to purchase goods and services. On this, Drain is similar to the county as a whole. Just as there is a potential for expansion in trade and services countywide, so too there is potential for their expansion in Drain.

Drain may also benefit from the increase in agricultural production projected for Douglas County since there is a considerable amount of good grazing land in the Drain area. Although increased agricultural production would not directly create a large number of new jobs, it would boost the purchasing power of those engaged in agriculture and would result in increased employment in agricultural support services.

Finally, highway commercial services is a significant source of economic activity in Drain. Although there are no readily identifiable tourist attractions in the area, the town's location on two major arterials, Highways 99 and 38, one of which is a major route to the Umpqua River and the Oregon coast, insures a certain degree of tourist/auto-related trade. If tourism in the county increases as projected, Drain will no doubt reap some of the benefits.

Other Factors

Two other factors which influence a community's economic growth are the local labor force and the infrastructure. Both are discussed below.

Labor Force

The U.S. Government defines the labor force as all people sixteen years of age or older who are either employed or actively seeking employment. In 1980 there were 415 persons in the workforce, accounting for 36% of the population. By 1990, the number had climbed to 445 persons in the workforce at 41% of the population. While there is no information available on Drain's labor force per se, pertinent data can be gleaned from the demographic profile presented in the support document. It showed that between 1970 and 1980 and 1990, Drain's 0-18 age group decreased from 40% to 34% to 26% of the total population respectively. In the same period, the 19-24 age group grew from 8.2% to 10.4% and then dropped to 7.2% of the population. These figures illustrate the fact that, in general, the population is getting older, but they also shed light on the labor force. Because many people enter the labor force when they are in the 19-24 age group, and because this age group has increased and then decreased in Drain, it is safe to assume that there is a significant demand in Drain for entry level positions.

In addition, the demographic profile pointed out that in 1980, over 34% of Drain's population over twenty-five years old had not completed high school. The 1990 Census showed that number had dropped to 26%. Hence the labor force not only includes a number of people seeking their first full-time job, but also encompasses a significant number of people who must

work in unskilled or semi-skilled labor intensive positions.

Infrastructure

Infrastructure simply means the framework that underlies any system. A local economy's infrastructure consists of the area's community facilities, both physical (roads, water system, sewer network, etc.) and social (schools, health care facilities, and other services which effect the area's liveability). The reports on housing, transportation, community facilities, and land use provide a comprehensive description of Drain's infrastructure. Some of the information from the transportation and community facilities reports will be repeated here, since those two topics are especially relevant to the economy and to the community's ability to absorb future economic growth.

Drain is served by two modes of transportation, the railroad and motor vehicles. Although the railroad does not offer passenger service, it does serve the area's major industries, providing quick efficient transportation of wood products. The street network (especially Highways 99 and 38) also has economic significance, providing transportation routes for people and goods and bringing travelers through the area.

Conclusion

The preceding narrative provides an interesting view of the changes taking place in both Douglas County and the City of Drain. One common area of interest is the wood products industry. Currently, statistics show that the wood products industry (manufacturing) is the major employer in both Douglas County and the City of Drain. This is of great importance because future predictions call for gradual but continuing decline in wood products employment in the region. If a decline in employment does occur, it will surely affect a major portion of Drain's residents. This includes those individuals who are also employed in non-manufacturing jobs, such as construction, transportation and communication, goods and services, etc. It is very clear that due to the uncertainty of the wood products industry the people of Drain must no longer rely solely on this industry to employ newcomers in the labor force, but instead must continue to diversify. Diversified manufacturing has already yielded fruit for the community, providing 14% of all jobs in Drain, filling in for the decline wood products employment. Such diversification may be necessary to keep local citizens employed in the area.

Population

In developing this plan, one of the primary responsibilities of the city has been to make a population forecast. This forecasts the number of people expected to reside in the Drain area by the year 2020. In order to accurately forecast what Drain's future population might be, city officials have studied a variety of population projections (see support document). In light of these studies, the following narrative summarizes the foundation of Drain's year 2020

population projections.

The Center for Population Research at Portland State University estimated that from 1990 to 1996 Douglas County's population increased from 94,649 to 98,600. This represents a total increase of 4.2% and an average yearly increase of .7%. The population growth of Drain during the same time period appears to be slower than the County as a whole. Statistics show that in the six year time period between 1990 and 1996, Drain's population increased from 1,086 to 1,115. This represents a total increase of 2.7% and an average yearly increase of .4%.

Drain has suffered cyclical population loss and recovery tied to the economy since 1970. The following table shows historical population for 1980, 1990 and 1996. The community (and County as well) were seriously impacted by economic recession in the early 80's. Drain is slowly regaining population that was lost and has now exceeded the 1980 figure. The chart shows also shows figures indicating the average annual growth rate and the total percent of change between 1990 and 1996. These figures best depict recent trends in Drain.

Recent Population Trends

	1980	1990	1996	%of Change 1990-1996	Average Annual Growth Rate
Drain	1,148	1,086	1,115	2.7	.45
Douglas County	93,748	94,649	98,600	4.2	.87

Evaluating population growth between 1990 and 1996, the average annual growth rate was lower for the City of Drain (.45%) than Douglas County (.87%). It is difficult to use these numbers to project a population figure for the future. Dramatic forces impacting employment and population in Drain in the early 80's and again in 1991 have skewed recent growth rate figures. The growth rate since between 1990 and 1996 has been positive. While slower than the County as a whole, a projected rate of growth through the year 2020 has been set by the Douglas County Planning Department as mandated by the State. This rate was established considering recent trends and the economic outlook for the County as a whole. The projected rate is 1% per year through the year 2020. At this rate, the anticipated population of Drain will 1,160 in the year 2000, 1,282 in 2010 and 1,416 in 2020.

The following table shows a breakdown of Drain's projected population. These figures shown represent a 1% yearly increase from 1996 through the year 2020.

**Drain's Projected Population Based on a
One Percent Average Annual Growth Rate**

Year	Projected Population
1996	1,115
1997	1,126
1998	1,137
1999	1,149
2000	1,160
2005	1,219
2010	1,282
2020	1,416

ECONOMY/POPULATION

GOALS AND POLICIES

GOAL: TO DIVERSIFY AND IMPROVE THE ECONOMY OF DRAIN.

CITY POLICIES:

1. Support the Coos-Curry-Douglas Business Development Corporation in its attempts to improve the welfare and diversification of the regional economy.
2. Encourage and support the diversification of the local economy from the wood products industry.
3. Encourage the continued development of the timber industry by promoting a reforestation program on public and private lands.
4. Encourage the development of additional retail trade and services in the community to reduce the local trade drain.
5. Provide adequate parking for existing and future commercial development to promote local shopping.
6. Encourage the development of recreational areas and tourist attractions that are compatible with the environment, in order to promote tourism without damaging the area's natural attractiveness.
7. Preserve and maintain the agriculture land base in order to increase the agricultural productivity of the area.
8. Upgrade the wastewater treatment plant and the water service system to encourage the development of commercial and industrial activities that will benefit Drain's local economy.
9. Integrate community and economic planning efforts with strategic planning efforts of the North County Economic Development group and business retention and development efforts of the Chamber of Commerce.
10. Initiate and support efforts to beautify Drain's central business district.
11. Encourage improvement of the state and county highways, right of ways and intersections within the Drain urban growth boundary.

12. Seek to identify and promote those historic assests in the community which might be used to attract visitors and encourage further development of tourism in Drain.

E. HOUSING ELEMENT

Introduction

Housing is a basic need; it provides shelter from the elements. It is also a place to retreat for privacy and a place to gather with one's family. In addition, a house can act as a medium for self-expression.

Throughout history and in different cultures, housing has taken on other meanings due to changing perceptions of its role. At the current time in this country, a home is viewed as a major financial investment to offset the declining value of the dollar.

Housing also has a broader significance, because it occupies a large percentage of a city's land. Therefore, it is a substantial part of the local tax base. It also influences the physical character of a community and hence the image that people have of that community.

On the federal level, housing availability has under-pinned various policies. The Housing Act of 1949 encouraged "the realization as soon as feasible of the goal of a decent home and suitable living environment for every American family". To this end, there have been various programs to provide new and rehabilitated housing for low income households. Many households have benefitted from interest subsidies on mortgages either outright or through negative taxation. Finally, the State of Oregon, through the Land Conservation and Development Commission (LCDC), has directed all lesser jurisdictions to make provision in their comprehensive plan for housing to accommodate the needs of people of all income levels.

Hence it is both important and necessary for cities to review and plan for local housing. Before beginning such review, however, it is valuable to examine how much influence the City actually has in planning and maintaining its housing stock. Certain factors are outside the city's sphere of influence. For example, the City has no direct control over housing costs in areas such as the cost of existing homes, land, labor, building supplies, and mortgage interest rates. Another constraint on the city's influence is the possible inability of existing housing to meet criteria necessary for securing financing. State and federal taxing policies and housing assistance programs are also a factor over which the City has little control.

Despite these constraints, however, the City has a sizeable role in housing. Through its comprehensive plan, Drain will have the opportunity to designate various land areas in the City for residential purposes. It will also be able to control the density of buildings for a given unit of land. The City can further influence housing by the amount of land it allocates in the comprehensive plan for various support activities such as commercial and industrial enterprises. Whether or not the City provides ancillary services and facilities, such as sewer, water, streets, and police and fire protection, also effects housing development.

To assist the City of Drain in exercising its role in the provision of housing, this element includes a brief summary of the following: the number and different types of existing housing units, the age and physical condition of the housing stock, the number of households who own and rent, the cost of housing and the ability of residents to afford housing. Furthermore, future housing needs will be discussed.

Number and Type

The housing survey conducted by the U.S. Census in 1990 indicates that the City of Drain had 395 housing units. Of the 395 dwelling units, 278 or 70.3% were single family, 62 or 15.7% were manufactured homes, 29 or 6.6% were multiple family units, and 20 or 5% were duplexes.

Age and Condition

To get an idea of the age and condition of housing available in the community, two surveys were made of each unit. The housing age survey conducted by the 1990 U.S. Census shows that 67% of all Drain's housing units had been built before 1980, 35% had been built before 1950, and 22% had been built before 1939.

The last housing condition survey was conducted by the Umpqua Regional Council of Governments in 1978. Within this survey each housing unit was given one of four ratings, as follows: Standard, Substandard Minor, Substandard Major and Dilapidated (for a definition of each rating see support document). Using this survey, it appears that 72% of the housing of Drain is in standard condition, 28% is considered less than standard and 1% was rated as dilapidated.

The Drain Residential Improvement Program, initiated in 1992, has provided financing to low income households to rehabilitate less than standard and dilapidated housing. Since its inception, more than 40 homes have been repaired. The program maintains a revolving loan fund that reinvests rehabilitation funds as loans are repaid. This effort should be continued and expanded in the future to continue its housing rehabilitation effort.

Tenure/Tenancy

The 1990 U.S. Census survey also revealed that 53% of the community's households were owner-occupied, 41% were renter-occupied and the remainder, 6% were vacant. In comparison to Douglas County as a whole, which had 65% owner-occupied and 29% renter-occupied, Drain had a lower percentage of owner-occupied units and a higher percentage of rental units.

Although the 1990 U.S. Census housing survey has been most helpful in understanding the tenure and tenancy of Drain's housing stock, it is important to point out that currently (1997) there is a high demand for housing in the Drain area. Local sources have indicated that there

are few housing units for sale or rent. The vacancy rate in 1990 was just 6%. In 1996, there were fewer than 12 homes for sale in Drain (3% of the housing stock).

Cost of Housing

Because the amount that a family can afford to pay for housing varies from one household to the next, a general standard has been developed. For owner-occupied units it is generally assumed that a family can afford to live in a house which value is no more than 2.5 times the annual household income. Using the standard as a guide, it can be estimated that an income of \$22,400 was needed to purchase the average home in Douglas County, which cost \$56,000 in 1990. Since the medium household income in Drain in 1990 was \$20,880, the average home in Drain would have had to cost \$52,200 to have achieved a balance between cost and income. The median home value was \$42,300 in 1990.

The general standard for renting is that a family should spend no more than 25% of its income for rent. In the 1990 U.S. Census, 45% of those renting paid more than 25% of their incomes for housing. About 14% of all homeowners paid more than 25% of their incomes for housing.

Studying the cost of housing for both owner and renter-occupied units, it appears that a large percentage of people in Drain are spending more than 25% of their income on housing. In view of this fact, city officials a variety of housing be made available, with emphasis placed on the construction of low cost units. However, there will still be those who cannot afford housing at the market price and may require subsidies in order to obtain adequate housing at a reasonable cost.

Future Housing

Future housing in Drain can be broken into two parts: the number of additional housing units expected by the year 2020, and the make-up or mix at which this new housing will be developed.

In 1990, Drain's average household size was 2.9 persons (U.S. Census). Based on that figure, the desired vacancy rate, and assuming a 1% average annual population increase is achieved, Drain can be expected to have 488 household units by the year 2020. This is an increase of 93 housing units.

In 1978, the City decided to strive for a year 2000 housing mix of 58% single family units, 21% manufactured homes, 13% multiple family, and 8% duplexes. The decision to strive for this housing make-up was based on historic housing trends and the ability to afford housing between 1970 and 1978. The city has no restrictions on tenure nor finance of these units. In 1993, legislation was passed requiring cities to amend their comprehensive plans and land use regulations to allow siting of manufactured homes on all land zoned for single-family

residences. The City of Drain complied with this new law by adopting a manufactured home ordinance which encated the required changes in the Development Ordinance and Development Standards. For the purposes of the this Plan, housing mix projections in the future shall merge mobile or manufactured homes with single family dwellings. (As amended by Ord. 287 & 331)

HOUSING

GOALS AND POLICIES

GOAL: TO PROVIDE ADEQUATE, ENERGY EFFICIENT AND AFFORDABLE HOUSING TO MEET THE NEED OF CURRENT AND FUTURE RESIDENTS.

CITY POLICIES:

1. Encourage periodic updates of housing information to determine housing needs.
2. Maintain an up-to-date list of financial programs available to the residents for improvement, modernization, and insulation of their homes.
3. In order to meet the needs of 301 additional people by the year 2020, the City shall encourage a variety of housing types. The 93 expected new housing units shall consist of the following mix:

59 or 63% single family dwellings
24 or 26% multiple family dwellings
10 or 11% duplexes
93 100% TOTAL

(These percentages are consistent with those set forth by Ord. 287)

4. Encourage government assisted housing as a source of affordable, safe, and sanitary housing opportunity for persons of lower, middle and fixed incomes.
(As amended by Ord. 321)

F. COMMUNITY FACILITIES AND SERVICES

Introduction

Community facilities and services are those necessities and amenities which can make an area more habitable. They can be provided by government agencies or by the private sector. Examples of community facilities provided by local government include streets, water and sewer service, recreational facilities, schools, and police and fire protection. Services such as health care, public transportation, solid waste disposal, and nature and level of community facilities in any one area are determined by the demand for those services and the willingness and ability of the community to finance them. Facilities and services offered, therefore, vary from one community to another.

To meet the goals set by LCDC, a major study of Drain's community facilities and services has been completed. In conjunction with future population projections this study has been helpful in identifying anticipated needs and problems. Although attention has been given to all aspects of Drain's community facilities, major attention has been focused on two features: the water system and the sanitary sewerage system.

Water System

The City of Drain owns and operates its municipal water system. The system includes a water source supply reservoir and an emergency reservoir for the storage of untreated water, a treatment plant, a service reservoir in which the treated water is stored and a distribution network to transmit the purified water to its consumers.

Source

Drain has 1909 and 1912 water right for a total of 4 cfs (cubic feet per second) on Bear Creek just downstream from its confluence with Allen Creek, to the southwest edge of the City. In all, available water is equivalent to 2.59 mgd (million gallons per day). Using information taken from the 1976 Water System Study prepared by CH2M Hill, a consulting firm, it appears that this volume should be more than sufficient to meet the projected demands for the year 2020. However, water rights do not necessarily guarantee that the agreed upon volume of water will be there; there is very little water in Bear and Allen Creeks during the summer months. This problem has been overcome by the construction of Bear Creek Dam and an additional emergency storage reservoir. Together, the two reservoirs provide the City of Drain with an untreated storage capacity of 120 million gallons. So it appears that with the combination of source and storage Drain's untreated water demands will be met through the year 2020.

Treatment Facility

The present water treatment facility has a filter capacity to provide for needs of approximately 1,900 people. If the City's desired annual growth rate of 1% is achieved, the population of Drain in the year 2020 will be 1,416. From this it can be seen that the treatment capacity will have to be increased prior to that time, to meet the needs of the increased population. Because the figures being worked with are not facts but projections, the exact year in which the population's water demands will reach the facility's capacity cannot be determined. But assuming an average annual growth rate of 1%, the treatment facility is projected to reach capacity in the year 2050. To insure continued service, a proactive maintenance program and planning for expansion in advance of actual need is required.

Storage

The service reservoir, located above the southwestern fringe of the City, has a treated water storage capacity of 750,000 gallons. A second 500,000 gallon tank was recently constructed, raising the City's total storage capacity to 1.2 million gallons.

The reservoirs are located at an elevation at or below 490 feet. For this reason, adequate water pressure is difficult to deliver at elevations above 390 feet. As storage improvements are made, a re-evaluation of the maximum service elevation (390') should be made.

Distribution

The water system's final component is distribution. According to the CH2M Hill "Water System Study," Drain's water distribution system needs major upgrading. The 1976 report recommends a program which would improve the water distribution system to provide an adequate level of service to the City's water customers.

A program of planned replacement of older lines is reducing the volume of water lost through leaks and breaks in lines. The main line connecting the Treatment Plant with the 750,000 gallon reservoir needs to be replaced. The old pipe requires frequent repair. The continuing expense of repair and resulting service interruptions make line replacement a high priority need.

Sewage System

The City of Drain owns and maintains its own sewage treatment plant. Located approximately .12 miles west of Drain on Division Street, the treatment plant was constructed in 1958 and updated in 1988. The plant is considered to be a primary and secondary treatment facility.

The plant has a peak hydraulic capacity of 900,000 gallons per day (gpd) and a treatment capacity of 300,000 gpd. Peak flows have exceeded 900,000 gpd during the winter months. Vastly increased inflow during the rainy season is caused by water infiltrating the collection system through broken pipes, leaking joints, etc. The City has been sealing lines to reduce the

problem. (As amended by Ord. 321)

After May 1, 1987, the treatment was required to meet a standard of 20 milligrams per liter (mg/l) biochemical oxygen demand (BOD) and total suspended solids (TSS) prior to pond discharge with chlorination to achieve chloroform kill prior to land irrigation from the pond. Between November 1 to April 30, a discharge to Elk Creek of 30 mg/l for BOD and TSS is allowed. The plant improvements, and the practice of using effluent for field irrigation during dry months has enabled the City to meet these higher standards for emission

Looking to the future, the City does not provide adequate service to some of its residents. Currently there are no sewerage lines in the developed northern portion of Drain. With the expansion of the urban growth boundary to include land for residential and industrial development to the north, extension of sewer service is needed.

OTHER COMMUNITY SERVICES

Health Care

Private medical care in Drain is provided by one doctor. Regional medical facilities including hospital and clinic facilities are available in Cottage Grove, about 20 minutes to the north of Drain. Residents who are covered under the Oregon Health Plan generally need to seek care through member physicians of Roseburg Health Enterprises Inc.(RHEI) in Roseburg. Douglas County's Health and Social Services maintains a branch office in Drain providing a variety of health care services. These include the Well-Child Clinic, Family Planning, Women Infants and Children (WIC) Program, and Senior Services. These programs are staffed by the County and include visiting community health and a pediatric nurses, in addition to office staff.

Electricity

Drain has its own electrical distribution system, which receives power from the Bonneville Power Administration substation located south of the city park on Front Street. A service boundary is mutually agreed upon by the City and the Douglas Electric Cooperative, Inc. The City must provide service to all customers (currently 725) within the boundary, and Douglas Electric serves anyone outside it.

The City charges \$150.00 for meter hookup, and there a minimum monthly rate of \$8.50. Monthly rates cover the cost of all line extensions. The existing service boundary cannot be altered without agreement between the City and Douglas Electric. Efforts should be made to insure that extension of the City's electrical distribution system occurs with any expansion of the City's limits. Representatives of the federally organized Bonneville Power Administration indicated that they are capable of meeting any foreseeable electrical needs in the Drain area.

Telephone

Telephone service is provided by PTI through a franchise agreement whereby a percentage of their annual gross income from services within the city limits is paid to the City. Fiber optic cable is currently being laid in the railroad right of way. Fiber optic service should be available soon to local customers. Internet access is possible through service providers in Roseburg and Cottage Grove. The City is working with telephone officials to establish local internet access.

Emergency Services

Fire and ambulance services in Drain and the surrounding area is provided by the Drain Rural Fire District. The District has three full-time and several part-time paid staff members. A trained force of 40 volunteers drill regularly to respond to fire, rescue and emergency medical

response calls. Fire crews train to combat both structure and woodland fires, recognizing its responsibility to protect urban areas, but also large areas of forest and rural lands.

The District operates three pumpers and a tender at two stations. In addition to fire and rescue, the District recently assumed responsibility for emergency medical response and transport from the City.

Emergency medical response and transport is provided by two full-time EMT's, eight part-time EMT's and an additional ten volunteers. These staff the Fire District's four ambulance units located in Drain, Elkton and Curtin. Response coverage for the ambulance service extends south to Oakland, north to Cottage Grove, and west to Scottsburg.

The 1997 Insurance Services Office (ISO) rating for the City is a four based on a scale of one to ten, with one being the best possible score. This reflects well on the District and the City's efforts to upgrade its water system (particularly its water storage capacity). The 1974 rating for Drain was seven.

The Fire Department plays a key role in the community. As the City facilities, equipment and manpower should be continually upgraded to insure the continuing safety and welfare of the community.

Library

The Douglas County Library has a branch in the Drain Civic Center. The County provides books (approximately 5,905), furnishings, and a salary for one employee. Space in the building, maintenance, and utilities are provided by the city. The library has an annual circulation of 15,000 books and is open sixteen hours a week.

Police

The City of Drain contracts with the Douglas County Sheriff's Department for its police protection. Employees include a sergeant in charge of four officers. The department has several patrol cars; one is on duty at all times. There is no jail, so all prisoners are transferred to the Douglas County Jail in Roseburg. Law enforcement for the unincorporated areas near Drain is provided by three additional Douglas County deputy sheriffs, one based in Elkton, one in Yoncalla, and one in Drain itself.

Although police protection appears to be sufficient in Drain, law enforcement services will need to be upgraded as growth continues.

Refuse

Solid waste collection is provided by a franchise agreement with a private firm, Drain Sanitary Service, although the agreement does not currently assign a fee to the city. Customers pay for a collection and disposal of garbage from within the city limits. Refuse can also be disposed of at Douglas County's Yoncalla Transfer station approximately 3.5 miles south of Drain at no charge.

Waste from the transfer station is hauled to the landfill in Roseburg. Within the time frame of this plan, the landfill will need to be upgraded. The city participates in the County Solid Waste Disposal Plan which will need to be revised to adequately deal with solid waste in the future.

Storm Drainage

Storm drainage is by underground and open public storm drains, as illustrated in the storm drainage map. Runoff is directed to Pass and Elk Creeks. Improvements to the storm drainage system are planned to be undertaken with street improvement projects to upgrade the system.

Parks and Recreation

Anna Drain Park, owned by the County and maintained by the City, is the only developed park in Drain. Located off Moreland Avenue near the Bonneville Power substation, this 1.7 acre facility offers picnic tables, a multiple-unit barbecue, a horseshoe court, and playground equipment. Another play area is located next to the Civic Center.

The North Douglas County Parks and Recreation District owns and maintains a swimming pool and tennis court. The District also coordinates a summer recreational activities including a summer baseball program. Athletic fields at the high school are also available for public use. Although it is fifteen miles north-west of town, the 80 acre Smith River Gunter Park has 2-3 acres developed and affords easily accessible recreational opportunities to Drain residents. Park visitors can fish, swim, and picnic.

Although existing recreational facilities appear to be adequate in Drain, as growth continues the city realizes the importance of additional facilities.

Cable Television

The City of Drain has a franchise agreement with Falcon Cable System, set at 7% annual gross income. Service is available in the city and to outlying areas 1 mile north and 2.5 miles west of the city limits at a cost of \$15.84 per month. There are almost 500 connections within the service area. A spokesman for the company indicated that the technology of cable TV is such that all future service demands can be satisfied by simply rectifying the system.

Schools

The entire study area is within North Douglas School District #22, which is served by Drain Elementary School and North Douglas High School. First through eighth grade students attend the elementary school, which is located on twenty-one acres at the end of "A" Street. The High School, on nineteen acres near Moreland Avenue, handles grades nine through twelve.

Regarding the elementary school, recent concern has been focused on the school's ability to meet the challenges of budget cutbacks and to accommodate additional students.

Conclusion

In reviewing this element, it is evident that if Drain is to sufficiently meet future population demands, major attention must be given to upgrading or expanding some of its community facilities and services. Two major facilities include the water distribution system and the sewage collection system. Replacing the main water supply line to the City from the treatment plant and extending sewer service to north Drain remains a priority. These two improvements will greatly influence the City's ability to meet future demands.

COMMUNITY FACILITIES AND SERVICES

GOALS AND POLICIES

WATER SUPPLY AND SERVICE

GOAL A: TO PROVIDE DRAIN WITH AN ADEQUATE AND CONTINUING WATER SUPPLY SYSTEM FOR RESIDENTIAL, COMMERCIAL, INDUSTRIAL, DOMESTIC AND FIRE FLOW NEEDS.

CITY POLICIES:

1. The adequacy of the water treatment plant should be reviewed and a strategy devised to ensure that necessary improvements are made to serve future residents of Drain. This strategy shall include an aggressive maintenance and replacement program for all water treatment, storage and transmission facilities.
2. Require all new development (as defined by the State-wide Planning Goals) within the city needing water supply to connect to the city water system. Require all new development needing water supply within the urban growth boundary and outside of the city to connect to the city water system, except that development of a single dwelling on an existing vacant parcel within the urban growth boundary and outside of the city which is in excess of 200 feet from an adequate water line is not required to connect to the city water system must receive approval of the DEQ for water supply.
3. Prohibit development above 390 feet until adequate water pressure can be provided to those areas.
4. An in-depth study of the distribution system shall be encouraged to determine improvements necessary to serve the projected population of 1,416 by the year 2020.
5. Replacement of the water main connecting the treatment plant and the 750,000 gallon reservoir shall be given a high priority.
6. Annexation or a building agreement between the city and the landowner, which must be transferred with ownership of the land and specifies that annexation will be required immediately upon completion of development, should be a pre-requisite to use of city water service; priority shall be placed on serving existing land in the city limits before serving land to be annexed.

SANITARY SEWER SYSTEM

GOAL B: TO PROVIDE DRAIN WITH A SANITARY SEWER SYSTEM WHICH MEETS HEALTH AND SAFETY STANDARDS AND IS ECONOMICAL AND EFFICIENT TO USE.

CITY POLICIES:

1. The city shall maintain a proactive program of maintenance of the wastewater treatment system.
2. Upgrade the existing sewage collection system in order to minimize inflow and infiltration of groundwater.
3. The city shall provide sewer service to the northern portion of Drain.
4. Require all new development (as defined by the Statewide Planning Goals) within the city needing sewage disposal to connect to the city sewer system. Require all new development needing sewage disposal within the urban growth boundary and outside of the city to connect to the city sewer system, except that development of a single dwelling on an existing vacant parcel within the urban growth boundary and outside the city which is in excess of 200 feet from an adequate sewer line is not required to connect to the city system to develop. Any development not connected to the city sewer system must receive approval of the DEQ for sewage disposal.
5. Annexation or a binding agreement between the city and the landowner, which must be transferred with ownership of the land and specifies that an annexation will be required immediately upon completion of the development shall be a prerequisite to connection to the city sewer system.
6. Priority is placed on serving land within the city limits before serving land to be annexed. (As amended by Ord. 321)

OTHER COMMUNITY FACILITIES AND SERVICES

GOAL C: TO PROVIDE THE EXISTING AND FUTURE RESIDENTS OF DRAIN WITH AN ADEQUATE LEVEL OF COMMUNITY FACILITIES.

CITY POLICIES:

1. Analyze the present storm sewer system and develop a plan that will determine the best methods to dispose of storm water.

2. Ensure that storm drain is properly addressed in new developments.
3. Determine the feasibility of placing existing public facility lines underground. All public facilities to new development should be placed underground.

GOAL D: TO PROVIDE THE EXISTING AND FUTURE RESIDENTS OF DRAIN WITH AN ADEQUATE LEVEL OF COMMUNITY SERVICES.

CITY POLICIES:

1. Maintain the present level of community services, including police, fire, library, schools, health care, refuse disposal, and cable TV.
2. Support the development of additional recreation and park facilities within the community, to accommodate all needs including the handicapped, minorities and senior citizens.

G. TRANSPORTATION ELEMENT

Introduction

Goal 12 of the Statewide Planning Goals is "to provide and encourage a safe, convenient and economic transportation system". The main statewide planning guidelines state that all modes of transportation should be encouraged. They also state that the plan should be based upon an inventory of local, regional and state needs, and that the plan should facilitate the flow of goods and services to strengthen the local and regional economy and to conserve energy.

The advances in transportation since the beginning of the 20th century have probably had as much to do with the physical form cities have taken as any other single factor. America's urban areas have changed from concentrated higher density cities, that relied upon foot and mass transit to move its residents, to dispersed urban sprawl forms which are almost totally reliant upon the automobile for the movement of people.

There is a strong feeling that the evolving energy situation, which is resulting in the loss of "cheap energy", will be the next major influence on the form America's cities will take. According to this school of thought, the higher cost of energy will impede urban sprawl and encourage a return to a more concentrated urban form.

As in many smaller cities, however, transportation in Drain is still almost entirely dominated by the automobile. Hence, a large section of the following inventory of transportation modes in Drain is devoted to the city's street network.

Street Network

Not only for transportation purposes, but also because of cost and aesthetics, every street within a community need not be identical. It is advantageous to a community to establish a street plan which identifies the future function each street in the community will serve, so that existing streets can be repaired or improved in accordance with their assigned function. The street plan also identifies the general location and functional type of major streets proposed for future development.

Such a street plan is also important because of the non-transportation functions that are provided by street rights-of-way. Normally, rights-of-way support the location of the various utilities needed to serve adjacent properties. They also provide air, light, and open space between buildings.

Each street in Drain was classified by its function as either an arterial, a local, or a collector.

Local Street Conditions

Rating	Miles	Percentage of Developed Streets	Percentage of All Streets
Good	1.41	20%	17%
Fair	2.71	38%	32%
Gravel or Dirt	.98	14%	12%
Undeveloped	1.29	--	15%
Total	8.36	100%	100%

Even though a combined total of 58% of Drain's developed streets were rated either good or fair, it is worth noting that neither of the arterials and only a few of the collectors were judged to be in good condition.

At this time adequate parking is not a problem in Drain. There is free on-street parking throughout town, along with a number of parking lots owned by various businesses.

Access between the east and west sides of Drain is somewhat limited. The present access, "B" Street, has some functional constraints. First, the intersection with Highway 38 is difficult, mainly due to the through traffic on the highway, particularly since the traffic is turning. Traffic flow is also restricted by the railroad tracks, both because of train crossings. The bridge over Pass Creek is also somewhat of a hindrance because the sidewalks are narrow and the bridge tends to restrict traffic flow.

Emergency access is also an important circulation consideration. An accident on "B" Street, or a train, could greatly affect response to emergency situations on the east side of town. Currently, there is alternate access down First Street and under the railroad tracks, or further down First Street over the covered bridge and then under the railroad tracks to Anna Drain Park. Both of these alternate access routes are marginal due to conditions and size of the crossings under the tracks and the size and condition of the bridge.

These situations suggest that a second link, perhaps one that crosses Elk Creek and the railroad tracks, would be appropriate. Until that time, efforts should be made to ensure that the present alternate routes are adequate for use of emergency vehicles.

Arterials are the principal streets. Their main function is to move large volumes of traffic. The arterials in Drain are Highway 99 and "B" Street from the western city limits to First Street. Both arterials are significant not only to Drain, but also as part of the countywide transportation network. Highway 99 runs the length of the county; "B" Street feeds into Highway 38 just west of the city limits and connects Highways 99 and 38.

Local streets provide access to abutting property. They are usually located in residential areas and are not designed for through traffic.

A collector filters traffic from local streets onto an arterial, and its right-of-way is usually wider than a local but narrower than an arterial. Collectors in Drain are: William Street from the western city limits to Lane Street, Lane Street, Main Street, Division and "C" Streets from the western city limits to Highway 99, Applegate Street, "B" Street from Highway 99 to Main Street from "B" Street to Alta Vista Street, and Alta Vista Street. These seem adequate to satisfy the community's need for collector streets.

The Circulation System map shows the function classification assigned to each of Drain's streets. It also indicates traffic counts taken in 1970 and 1976. In general, the counts show a slight increase in traffic flow, which appears to be proportionate to population growth during this period.

In order to evaluate the condition of Drain's street network, a visual survey was done in July, 1978. Streets were assigned one of five ratings. A street rated good has an asphalt or concrete surface in good condition, with pavement wide enough for the type and volume of traffic using it, and with curbs and gutters for drainage. A fair street has a paved surface suffering from one or more of the following: surface defects, width inadequate for the volume of traffic using the street, or inadequate drainage. Streets rated poor have an improved surface with a combination of some or all of the following: major defects in or deterioration of the surface, inadequate width, and poor or non-existent drainage. Any unimproved street open for traffic falls into the gravel or dirt category. The final rating category, undeveloped, covers streets that have been platted but have not been improved and are not used as thoroughfares.

The Street Conditions map shows the condition ratings for Drain's streets, and the following chart indicates the percentage of streets in each category:

Sidewalks

Sidewalks are another element in an urban transportation system. They enable people to get safely to community activities and services by foot, encouraging walking, and therefore diminishing reliance upon automobiles.

Drain has only a limited sidewalk network, with sidewalks located primarily in the central business district and non-continuous sidewalks, along "B" Street from Highway 99 to the elementary school, and in the few blocks surrounding the elementary and high schools. Although the historic covered bridge in Anne Drain Park provides a safe pedestrian route across Elk Creek for school children, its value is diminished by the absence of a good pedestrian route across the railroad tracks that lie between the creek and the schools. Much of Drain's sidewalk system is in need of repair.

The City of Drain's Development Ordinance requires sidewalks in new developments. Provision for financing curbs, gutters and sidewalks in existing developments have been recently adopted in the form of ordinances establishing a mechanism for local improvement and advance financing districts.

Rail and Freight

There is no passenger railroad service to Drain; the nearest passenger railhead is in Eugene. Southern Pacific offers freight service once daily, but it is confined to Duco Lam and Emerald Forest Products. Freight and package delivery for private individuals is provided by the Pacific Motor Trucking Company and by the United Parcel Service, both of which offer door-to-door pickup and delivery.

Bus

Access to Greyhound Bus service is available at depots in Cottage Grove and Sutherlin.

Airport

Commercial and charter air service is available to Drain residents through Roseburg and Eugene airports.

TRANSPORTATION

GOALS AND POLICIES

GOAL A: TO PROVIDE FOR A SAFE AND EFFICIENT STREET SYSTEM AND FLOW OF TRAFFIC.

CITY POLICIES:

1. All developed parcels of land should adjoin a street which connects to a citywide network.
2. Parcels of land with residential or commercial uses should have little or no driveway access to an arterial street. Access to arterial streets should be through collector streets or local streets where possible. If direct access is used, driveways shall be limited in number and properly spaced to prevent traffic congestion.
3. Develop a street plan and, as funds become available, emphasis should be placed on upgrading the following streets. In order of priority: (1) "B" Street between Highway 99 and Main Street, (2) "C" Street between Third Street and Highway 38, (3) 2nd Street between "C" Street and "E" Street, (4) Moreland Avenue between Carl Street and Kent Street, (5) Douglas Street and (6) Moreland Avenue north of North Douglas High School, (7) Applegate St. between Cedar and Fir Streets, (8) East "D" from Main St. east to the end of the street, (9) "D" Street between Hwy. 99 and Third St., (10) N. Main St. from "D" St. to the end of the road.
4. Upgrade gravel and dirt streets as soon as feasible.
5. Standard curbs, gutters and sidewalks should be added when streets are upgraded.
6. Encourage the installation of street lights at intersections as needed.
7. Sidewalks in new developments shall be constructed on at least one side of collector and local streets. They shall be constructed (in new developments) on both sides of arterial streets and streets in commercial neighborhoods.
8. Explore the need, feasibility, and financing of a second transportation link between the east and west side of Drain. Until such a link is made, ensure that at least one of the alternate routes is adequate for use by emergency vehicles.
9. Encourage the Oregon Department of Transportation to make improvements to Highways 38 and 99 and continue to cooperate with the Department to better the transportation system and advance the policies in this plan. (As amended by Ord. 321)

GOAL B: TO PROMOTE TRANSPORTATION ALTERNATIVES.

CITY POLICIES:

1. Promote volunteer programs for the transportation of the elderly and the disadvantaged.
2. Encourage the eventual expansion of the train passenger system to Drain.
3. Develop a designated bike path system in conjunction with the community's arterial and collector streets and leading to the schools.
4. Bicycle racks shall be provided at a number of convenient locations in the business district.
5. Improve the sidewalk network to facilitate walking.

Support development of a rural transit system for North Douglas County, including Drain Yoncalla and Elkton.

H. LAND USE ELEMENT

Introduction

This Land Use and Urbanization Element is the final element in a series of many studies and decisions concerning the desired future development of Drain. Contained in this element are studies of Existing Land Use, Historic Conservation, Open Space, and Future Land Use and Urbanization.

General land use and urbanization policies follow this final element. Although there are many policies throughout this plan that have land use implications, they have not been repeated here. They, instead, can be found by carefully reading policy statements in each previous element.

Existing Land Use

In June of 1978 a detailed land use survey was taken of the Drain study area. The purpose of the survey was to plot various land use categories, identify land use patterns and problems, and determine the amount of open land within the city. The pattern of land use has changed little since the last survey.

The following chart displays the results of Drain's existing land use survey.

Drain Land Uses

	Units	Acres	% of Gross	% of Net
Gross Area (Total)		505.9	100	
Net Area (excludes Right-of-Ways, Pass Creek, Elk Creek)		424.4	83.9	100
Residential (Total)	*395	125.4	24.7	29.5
Single Family	*284	107.8		
Multi-Family	*29	1.6		
Duplexes	*20	2.8		

	Units	Acres	% of Gross	% of Net
Mobile Homes	*62	13.2		
Commercial		10.8	2.1	2.5
Public		32.5	6.4	7.7
Semi-Public		2.9	.1	.6
Right-of-Way (Total)		69.8	13.7	16.4
Public		56.6		
Railroad		13.2		
Industrial		102.1	20.2	24.1
Open		150.69	29.8	35.6
Pass Creek-Elk Creek		11.7	2.3	3.7

*Housing figures based on 1990 Census.

The chart above and the existing land use map reveal a great deal about land use in the City of Drain. Some observations follow.

Drain is laid out in a grid pattern, with small blocks throughout most of the city. The railroad runs north/south, bisecting the town.

The major land use in Drain, as in most cities, is residential, and the vast majority of residences are conventional single family homes. Multi-family housing, on the other hand, is fairly rare. Large amounts of land are also devoted to public, industrial, and commercial uses. Of the three, public uses take up the most land, followed by industrial and then commercial. Each is concentrated in a specific area of the city.

Historic Conservation and Open Space

There are many structures and sites in and around Drain which are of historic interest to the community. These structures and sites can or should be retained, it is agreed that once a historical site is lost, the community may lose part of its heritage. Therefore, the city has developed policies that acknowledge the historical significance of several structures. The following list recognizes these structures and includes: the Perkin House (111 First Street), the

Christian Church (now Church of Christ, Second and "D" Streets, dating from 1878), and the Hasard House (built about 1902, 105 "A" Street). At the Drain Civic Center there is a plaque and reconstructed covered wagon which was used in 1959 to retrace the path of the Oregon Trail in honor of the State's one hundredth anniversary of statehood. Also located in Drain is the Pass Creek covered bridge, located one block south of "A" Street and the access road to the Southern Pacific yards. The bridge was built in 1925. A most notable landmark is the Anna Drain house located near Anna Drain Park. Historic preservation is anticipated to be accommodated through state and federal assistance, since the city lacks resources. Interested parties will be directed to the State Historic Preservation Office. Pertinent laws pertaining to cultural resources protection is located in the support document.

Open space is beneficial in many ways: by buffering incompatible land uses, by helping create efficient land use patterns, by providing relief in heavily built-up areas, and by preserving recreational, agricultural and forest lands.

The need for open space in and around Drain has been addressed in two policies concerning slopes greater than 25% and the floodway (see Natural Features Policies). Due to the fact that Drain has an existing rural atmosphere, it was thought that these two policies in conjunction with schools and parks (found in the Community Facilities element) help meet the city's open space need.

Future Land Use

To date, city officials have been exposed to a great deal of inventory information which has been the basis for several land use decisions. These decisions, which have been formulated as goals policies, have provided the direction necessary in how future development in Drain will occur.

There are two phases involved in determining how future development in Drain will occur. The first phase is to determine how much land will be necessary to satisfy the community's projected needs due to population and economic growth. This need which is calculated in acres includes the categories of residential, commercial, industrial, public, and semi-public land uses.

The second phase in the process is to take calculated future land needs and policies that have been developed and determine where within the community there is appropriate land available to satisfy projected land needs. The end product of this process is the community's future land use map.

Population Projections

The initial step in assessing the amount of land that will be needed by the year 2020, is the use of population estimates. Following the review of the regional economy, the Planning

Commission has decided that the City's planning efforts should be directed toward a population of 1,416 by the year 2020. This figure is the equivalent of a 1% annual growth rate which results in 301 additional people.

Projected Population Based on a 1% Average Annual Growth Rate

1996	1997	2000	2005	2010	2020
1,115	1,126	1,160	1,219	1,282	1,416

It is important that the significance and limitations of the population projections be understood. The population projection are the best estimates of the future; but, by no means are they infallible. It is important to understand, therefore, that if the population projections prove accurate, they should be revised as needed. Obviously, this will affect the future land use map since it is based on the population projections, but the goals and policies should remain essentially the same.

Housing (Dwelling Units - Number and Type)

Another factor to be considered in assessing the amount of land that will be needed by the year 2020, is the number and type of dwelling units that will be needed to house the projected population. The number of units that will be required by the year 2020 can be found by dividing Drain's average of 2.57 persons per household into the anticipated number of people (1,416). This results in a need for 551 housing units. By applying a 6% vacancy rate (1990 Census), 595 units will be needed by the year 2020, or 206 additional units.

Estimated Future Housing Needs

Projected Population 2020	Projected Persons per Household	Total Dwelling Units Required to Meet Housing Needs	Existing Units (1990 Census)	Future Units Needed
1,416	2.57	595	395	200

The type of dwelling units that are to be built are also most important. In keeping with historic housing trends and future projections, it has been decided to provide a wide range of housing types to help accommodate all income levels in Drain. It is proposed that the housing stock should be comprised of 63% single family detached, 24% multiple family and 11% duplexes. This would result in the addition of 129 single family dwellings, 54 multiple family units, and 23 duplexes by the end of the planning period. (As amended by Ord. 321)

23 duplexes by the end of the planning period. (As amended by Ord. 321)

I. PHASE I: LAND AREA NEEDS

In determining the amount of land needed to satisfy Drain's projected needs, it is necessary to point out that two different calculation methods were used. For commercial, industrial, public, and semi-public land uses, future land needs were determined by establishing a ratio between the existing population and the number of acres currently in each particular land use. These ratios were then divided into the number of additional people (301 as forecasted in the planning period), as resulting in the total acres necessary to satisfy land uses, future lands needs were calculated based upon projected housing needs, and the density at which those lands are allowed to develop. This includes the land use categories of single family detached, multiple family units, and duplexes.

The following is a brief summary which shows the amount of land needed for each land use category.

Commercial and Semi-Public

Using the previously discussed formula for calculating land needs, it has been determined that by the year 2020 the City of Drain will need 2.6 acres for commercial use and .8 acres for semi-public use.

Public

In figuring future land needs for public lands, it has been determined that the North Douglas School District maintains the majority of public lands (approximately 26.4 acres) within the city. Due to the large amount of school owned land, it is unlikely that the need for this particular land will be repeated within the planning period. Therefore, in keeping with the previous formula for commercial and semi-public lands, an adjustment was made to the current total acreage figure prior to establishing the acreage to population ratio. In determining future acreage needed for public lands, 26.4 acres of school property was subtracted from the total acres of public land (32.5 acres) found within the city. The result was 6.1 acres. This figure was then subjected to the population figure to establish the acre-to-population ratio for public lands. The result was 1.6 acres of additional needed public land by the Year 2020.

Industrial

What was once perceived as a surplus of industrial land in the City of Drain has in recent years been eliminated. When including the land occupied by Emerald Forest Products, Drain has approximately 102 acres of industrial land within its Urban Growth Boundary. Much of this land is now occupied by several different industrial users, creating a shortage of vacant,

could be redeveloped. The recent sale of land once owned by Emerald Forest Products for development by Reinforced Tank Products is an example of such redevelopment. The City added the former Smith River mill site (40 acres) to its inventory of industrial property in 1989 when it expanded its Urban Growth Boundary to the north. While the site has potential for industrial redevelopment, it is handicapped by a lack of available sewer service to the area. Development of sewer and other infrastructure improvements are necessary before the North Drain industrial area is possible.

Residential

As was stated in the introduction to Land Area Needs, future residential land needs (including the categories of single family, manufactured home, multiple family, and duplexes) were calculated based upon two factors: the number of additional housing units expected by the year 2020, and the density at which future residential lands are allowed to develop. Conversion to other uses will be accounted for under Phase II. (As amended by Ord. 287)

Single Family- In determining the amount of land needed for single family housing by the year 2020, future land needs were calculated based on differing densities, depending on topography. A density of 4.3 units per gross acre is used for areas with no constraints to development as it approximates existing residential densities in the city and recognize the effects that parcel size and shape and moderate slope have on development densities. For the areas with constraint to development, a density of one dwelling unit per acre is assumed.

Using the above criteria, the minimum, (assuming no development on steep slopes) amount of land needed to satisfy the number of projected single family and manufactured home housing units can be calculated. In an effort to supply the needs of 123 combined single family units at 4.3 units per gross acre, it has been determined that 29.6 acres of land will be required to satisfy housing needs by the year 2020. (As amended by Ord. 287)

Multiple Family- In calculating future land requirements for multiple family housing, in keeping with existing densities for multiple family developments in Drain, a maximum density of 16 units per net acre (UPNA) was used (referring to the previous section on single family land needs, net acre excludes land for streets and parking). For multiple family housing, in already developed areas, an additional 25% for streets was not needed. In light of this fact, future multiple land needs were calculated by dividing the chosen density of 16 UPNA into the number of expected multiple family units. By doing so, this indicates that a total of 3.4 acres will be needed for multiple family development by the Year 2020. (As amended by Ord. 287)

Duplexes- By the year 2020 the City of Drain will need enough land to satisfy 23 additional duplex units. This means that enough land must be made available to accommodate 12 additional buildings. In determining the amount of land required to meet future duplex needs, the newly developed minimum lot size for duplexes of 10,000 square feet was used. By

estimating that 10,000 square feet will be required for each additional duplex building (12) it has been determined that 120,000 square feet of land will be necessary to satisfy future needs. Converted into net acres, it is estimated that approximately 2.75 acres will be needed for future duplex development. In addition to 2.75 acres, to make sure enough space is provided for streets and parking, an extra 25% has been added. In all, to accommodate room for duplexes and streets, approximately 3.43 acres will be needed for such development by the year 2020.

The method for determining future land needs, including Commercial, Semi- public, Public, Industrial and Residential land uses, has been summarized in the following charts. (As amended by Ord. 294)

Total Number of Housing Units and Acres Needed by 2020

Single Family	123 units	29.6 acres
Multiple Family	54 units	3.4 acres
Duplexes	23 units	3.4 acres
Total	200 units	36.4 acres

Formula for Calculating Future Residential Land Needs

Single Family	Density of 4.3 units per gross acre
Multiple Family	Density of 16 units per net acre
Duplexes	1 building having 2 units on minimum lot size of 10,000 sq. ft. + 25% for streets

By using the number of units expected by the year 2000 with the various formulas for calculating residential land needs, Drain's future land needs will be:

Estimated Additional Acreage Needed by 2020

Property Type	Acres
Commercial	12.6
Public	.8
Semi Public	1.6
Industrial	
Single Family	29.6

- see page I 1

Property Type	Acres
Multi-Family	3.4
Duplexes	3.4
Total	41.4

J. PHASE II: ACCOMMODATING FUTURE LAND NEEDS

Buildable Lands Inventory

One of the first steps involved in accommodating land available to satisfy future land needs is to determine the amount and location of buildable and unbuildable vacant land within the city. Once this is accomplished, then specific land uses can be designated in appropriate areas.

In determining the amount and location of unbuildable vacant land within Drain, three areas can be immediately identified: the floodway, State Highway Department right-of-way, and parcels with access problems.

The floodway, as stated in the Natural Features Element, is that area which is required so that water from a 100-year flood plan can run freely without having any manmade structures alter its normal water level. Throughout Drain the floodway is located along both Pass and Elk Creeks. To qualify for federally subsidized insurance the City of Drain has developed a policy prohibiting development in these areas. Currently 10.87 acres of the floodway are considered vacant and unbuildable.

Another area considered as vacant and unbuildable is those lands owned by the State Highway Department located in northern Drain. This area, which has been set aside for future highway expansion, encompasses approximately 8 acres of vacant land.

A third factor to consider is individual parcels of land within the city that are unbuildable due to location. This takes into account such parcels that are landlocked or have limited access only, via alleys. The buildable lands inventory indicates that approximately .75 acres in Drain fall within this category.

In considering land which is vacant and unbuildable, it was also necessary to include those with other constraints that may limit their use. Two such areas are those with slopes greater than 25% and those areas located within the 100-year floodplain. Although policies have been written that allow development in these locations, it was thought that both physical and economic constraints associated with developing these areas might be high. Therefore, it has been assumed that development in such areas will occur at a density of approximately 1 dwelling unit per acre. Figures indicate that of these categories, 23.75 acres of vacant land are on slopes greater than 25% and 10 acres of vacant land are in the floodplain.

The following chart summarizes the buildable lands inventory for Drain.

Total Acres of Vacant Land Within the City...88.5 Acres

Property Types	Acres
Unbuildable Vacant Land	
Floodway	10.87
ODOT Right-of-Way	8.00
Parcels with access problems	.75
Total	19.62
Buildable With Constraints	
Slopes in excess of 25%	23.75
Floodplain	10.00
Total	33.75
Buildable Without Constraints	
Total	35.13
Total	88.50

(As amended by Ord. 294)

Locating Future Commercial, Semi-Public, Public, Industrial and Residential Land Needs

In reviewing future land needs and the buildable lands inventory for Drain, figures show that of the 99.2+ acres needed for future development, only 68.9 acres can be supplied within the city. (The 68.9 acres represents the total amount of open buildable land within Drain. Also, it should be noted that 33.75 of these acres have some constraint to development. The lower density of development on this land will increase the number of acres needed outside the city limits to accommodate future growth.) By subtracting the 68.9 acres from the total land need of 99.2+ acres, it is obvious that it will be necessary for the city to include unincorporated land within its UGB to satisfy future growth.

At this point in time, to locate future land needs, the City of Drain finds itself faced with these questions: "What type and quantity of land needs will be located in the City?" and "What type

and quantity of land needs will be located outside the city?"

In an attempt to answer these questions, city officials have made several land use decisions that affect how future development in Drain will occur. Decisions such as specifically locating areas for future commercial, public and multiple family uses have been most helpful in determining where other land uses will be located. The following briefly summarizes criteria for locating commercial, semi-public, public, industrial and residential land needs. (As amended by Ord. 294)

Commercial

In locating those lands suitable for commercial development, the Planning Commission has encouraged future commercial activities to be located near the existing central business district (CBD). This area results from a desire to centralize commercial activities in order to reduce the number of individual shopping trips, thereby reducing energy consumption and parking needs. Centralized commercial activities, by being convenient for the shopper, also reduce the "trade drain". To help accommodate the decision to centralize commercial areas, those lands considered as vacant and buildable located near the CBD have been set aside for commercial use. Protection of these properties from competing land uses will help promote growth of the commercial area.

The commercial land needs show a total need for 5.5 acres, however, the redesignation of 3 acres from commercial to industrial has shifted the burden of accommodating commercial expansion to encouraging reuse of underutilized or vacant building in the CBD, so the remainder of the commercial needs (2.5 acres) is to be satisfied by residential conversion. However, as evident on the land use map, many of the buildings in the core commercial area are older single family dwellings. Single family dwellings are also common in the area surrounding the core commercial area itself. The presence of these single family dwellings presents some special circumstances for commercial development in the city.

In the past, conversion of single family dwellings to commercial uses has been a common practice. Many light commercial or office uses have found single family dwelling conversions ideal because of their location, the ease of converting from single family dwelling to commercial, and the low cost. Although this practice is not to be discouraged, it must be recognized that the conversion depends upon the residents vacating the unit. Because many of these are owner-occupied, their conversion is difficult to predict. Conversion must be orderly so that occupants are not rapidly displaced. Conversions are also attractive if the appearance of the unit can be maintained, because the visual incomparability of residential and commercial units is minimized.

The overall effect of the commercial land needs and the existing pattern of development suggest that more than 2.5 acres of conversions need to be included because they will not occur as

densely as new commercial construction on open land, to make sure that enough units are available for conversion so that commercial needs are met, and premature conversion and residential displacement are avoided.

The conversion of single family dwellings becomes even more important with the removal of the city-owned three acre parcel for satisfying commercial land needs. Therefore, in addition to 3 acres of buildable vacant lands, 2.5 acres of land designated commercial which must be converted from residential use, another 2.6 acres are designated in a classification that allowed single family units, but also allows conversions to office or light retail use. (As amended by Ord. 294 and Ord. 337)

Semi-Public and Public

In locating those lands suitable for semi-public and public development, the city has chose to develop .43 acres of public land within the city. This area, located north of "B" Street adjacent to Pass Creek, will be primarily created for recreational use. In locating the remainder of public and semi-public land needs, because of the unique characteristics associated with each category (churches, cemeteries, parks, libraries, recreational centers, etc.), it is hard to determine the exact site on which these land uses will be located. Given this fact, to make sure enough space is provided for these uses, the semi-public and public acreage needs have been added to Drain's residential land needs. (As amended by Ord. 294)

Industrial

Drain has approximately 102 acres of industrial land within its Urban Growth Boundary. Much of this land is now occupied by several different industrial users, creating a shortage of vacant, serviced, available industrial sites. Some of the land that is occupied is under utilized and could be redeveloped. The recent sale of land once owned by Emerald Forest Products for development by Reinforced Tank Products is an example of such redevelopment.

The City added the former Smith River mill site (40 acres) to its inventory of industrial property in 1989 when it expanded its Urban Growth Boundary to the north. While the site has potential for industrial redevelopment, it is handicapped by a lack of available sewer service to the area. Development of sewer and other infrastructure improvements are necessary before the North Drain industrial area is possible.

Multiple Family

To help accommodate Drain's multiple family housing needs (5.7 acres) three areas thought to be most suitable for multiple family use have been designated. Evenly distributed, they are located in the eastern, central and western portions of Drain. (See Future Land Use Map.) Of

the 5.7 acres provided to meet the multiple family needs, 2.7 acres will be satisfied through buildable vacant lands, while 3.0 acres will be acquired through the conversion of existing residential land.

In locating areas suitable for multiple family development it was necessary to choose sites carefully. To locate such areas, several factors were taken into account. They include analyzing: 1) existing land uses; 2) slope characteristics; 3) facilities and services, and 4) accessibility. Each one of these factors was examined to make sure multiple family housing would be cost efficient and compatible with the surrounding neighborhood. (As amended by Ord. 294)

Duplexes, Single Family

City officials have chosen not to specifically locate residential land needs associated with future duplex and single family development. Provided certain standards are met, these land uses will be allowed to develop. Provided certain standards are met, these land uses will be allowed to develop freely throughout the community in residential zones.

In locating future duplex development, the new minimum lot size of 10,000 square feet greatly influences where such development can occur. In effect, before a duplex can adequately be developed, it will be necessary to develop or join lots that will be equal to 10,000 square feet.

In an attempt to provide a variety of housing types, future duplex development will be allowed to locate throughout all residential districts in Drain. Therefore, the 10.5 acres needed to satisfy future duplex needs has been added to the total amount of land needed to satisfy all residential needs.

In locating single family detached land needs, excluding those areas set aside for other uses, single family dwellings are allowed to develop throughout Drain. Like the previous residential categories, single-family detached land needs are a part of Drain's total residential land needs.

In reviewing the criteria for locating future land needs, the following conclusion summarizes the type and amount of land area that can be provided inside the city and the type and amount of land needed outside the city.

Conclusion

The previous information indicates that all commercial and multiple family needs (11.2 acres) have been satisfied within the city, as can the 4.9 acre need for public, semi-public land. 2.5 acres of Commercial-Residential land has also been supplied within the city so that a total of 18.6 acres of land in the city has been allocated. However, not all of this land is vacant; some is to be converted from other uses. These conversions total 6.8 acres (only one-half of the

Commercial- Residential areas were included with the conversions because it is expected that one-half of this area will remain in residential use.)

By subtracting the 6.8 acres of conversions from total land allocated so far, we see that there are 11.8 acres of vacant land allocated. Since we had 68.9 acres of vacant land available and we have allocated 11.8 acres, we see there is 57.1 acres (68.9 acres minus 11.8 acres) of vacant land available in the city (33.75 of which have constraints to development) to satisfy the future single family, manufactured home, and duplex land use needs of the city. It is assumed, for the purpose of these computations, that all areas with constraints to development will be developed with single family or manufactured homes and that duplex development will occur within the city. Thus, the remaining buildable vacant land within the city would accommodate the projected 55 duplex units (10.4 acres) and 85 of the 312 additional single family and manufactured homes projected (11.6 acres at 4.3 du/ac = 50 du plus 35.1 acres at 1 du/ac = 35 du). This means that land outside of the city limits will need to be included within the UGB to satisfy the remainder of this need. To accommodate this need, the land discussed in the following section was added to the UGB. Also Table V summarizes the acreage and development potential of these areas. (As amended by Ord. 287)

K. THE URBAN GROWTH BOUNDARY

The Urban Growth Boundary is a specific boundary line delineated on the Drain Future Land Use Map. Within the boundary lie lands that are, (1) committed, some portions of which are urbanizable, (2) linkage land, and (3) urbanizable land as explained below. These lands that will satisfy land needs beyond what can be accommodated within the city. As noted in the previous section, enough land to accommodate the equivalent of 200 dwelling units is needed.

Urbanizable Land

Urbanizable land includes those areas outside the existing corporate limits that, over a period of time, may be needed to support future urban growth. They were chosen as the best location for urbanization to occur.

There were many constraints to designating areas for urbanization, related primarily to community facilities and natural features policies. Previous plan policies were used to screen areas to determine those most suitable. Thus, location below the 390 foot elevation and on slopes under 25% were used as a guide. It is hoped that by trying to limit growth with these guidelines, future development will be serviceable and occur in a manner that will be economically beneficial to the community.

There are other practical factors that enter into the determination of sites for future housing. As in any city, there was a desire to include parcels of such size and shape that subdivisions would be feasible in addition to lots for infill to help ensure a variety of lots are available. Furthermore, in a small town such as Drain, individual landowners significantly influence development. Even the vacant lots scattered in existing developments are owned by relatively few people who have no immediate desire to either develop or sell the lots. Other existing lots may never come on the market because they serve as buffers or are used for yards and gardens. To prevent monopolization of developable land, the city wants urbanizable areas to reflect a variety of owners.

To provide adequate areas in which urbanization can occur, the city has designated six areas for urbanization outside of the current city limits (refer to Urbanizable and Committed Lands Map in the support document). Other urbanizable lands are available in Committed and Linkage areas. The densities projected for development of these areas are the same as those used for vacant lands within the city limits.

All of the areas desired for future urban use have soil with good to moderate agricultural and woodland capabilities. As indicated in the soils map (found in the Map Appendix), these areas have agricultural soils of Classes II-IV and forest soils of Classes II and III.

Each of the areas have other constraints too; all are on sloping terrain, some are above the water

service elevation, and others lack good access or sewer lines. This is a reflection of the terrain and existing development of the city. The description of the six areas designated for urbanization and the committed and linkage lands that are urbanizable, demonstrates each area's constraints and the reason for its inclusion.

Area One, located south of the mill on Hayhurst Road (Drain Section No. 24A), contains 6.3 acres of land with 12-25% slopes below the water service elevation. It is adjacent to platted lots, existing homes, water service, and sewer lines and can get access off Hayhurst Road. The land has a woodland suitability of Class II. The major deterrent to development of this property is its location across the street from the mill, which may limit its desirability. This area can accommodate 27 units.

The second area, northeast of the city, is a 2.5 acre extension of current development next to the elementary school. The property is adjacent to Moreland Avenue and existing residential development. It is below the water service elevation, has slopes of 0-12% and 12-25%, and is mapped as having woodland suitability of Class III, and "none or undetermined". Due to slopes and size, 11 units could be accommodated here.

Area Three is also adjacent to the elementary school, existing development, and to Carl Street. The property contains 7.1 acres, has woodland soil suitability of II, III, and "none or undetermined," and is below the water service level. With slopes of 12-25%, 31 units are projected for this area.

Area Four is 8.3 acres which, due to developable soils of 12-25% slope and parcel layout, could accommodate 36 units. This area is adjacent to existing development and the water service line defines its western boundary. The woodland suitability index is III and "none or undetermined". This area was included because the city has been requested to install a sewer trunk line to serve the vicinity and has been setting aside funds for that purpose. Without the line, development of the area will be difficult. No completion date has been set, so development in this area may be delayed. In addition, urbanization of this area will probably depend on increased development occurring on the adjacent properties between area 4 and the highway. These properties, which are in the city, will also depend on the sewer line and access improvements.

Area Five is approximately 2.5 acres in size and is adjacent to the southern city limits and some existing development. It was originally subdivided in 1906 and is served by dedicated streets. Slopes range from 6% to 28%; development of this area must reflect the contours of the ground. Approximately two acres are urbanizable and it is expected that 9 units could be accommodated. It has a woodland suitability Class IV rating and Class II and VI agricultural soils. The slope, small acreage and conflict with urban uses make agricultural or forestry uses unfeasible.

Area Six contains 45 acres with varied topography. Eighteen acres are on slopes of 25% or greater and 15 acres are included as access. Both are discussed under linkage lands. There are also 12 acres which, although hilly, could accommodate 53 units. Including Area 6 in the Urban Growth Boundary will also promote better development of the adjacent property now in the city by allowing road placement and subdivision layout to be designed with the land contours.

Woodland suitability of Area 6 is Class II and III, and the best agricultural soils are portions of classes III and IV. Vegetation is predominately grassland and agricultural and mixed deciduous/evergreen hardwoods. Previous agricultural uses have failed and there is no indication of significant agricultural potential. The forests are not commercially productive. Wildlife displacement that may occur with development is not expected to be significant, as this land is essentially adjacent to urban development and of a relatively minor size. (As amended by Ord. 287)

Committed and Linkage Lands With Urbanization Values

The lands shown as committed and linkage were examined for urbanizable potential. Much of this land is not of high value in meeting the urbanizable land needs of the city as can be seen from the committed land and linkage land discussions and the map appendix. This shows for the 43.66 acres along Hayhurst Road (Drain Section No. 24A on the Land Use Map), the great distance to the core of the city, its sprawling form, and its proximity to the Emerald Forest Products, which decreases its residential viability. Dis-economies of scale for further sewer extension result from the amount of line for relatively few units. Furthermore, small parcel sizes make development difficult, especially with existing units also present; hills also limit development, and circulation limitations from ownership patterns, existing development, terrain, and a large cut slope leading from the one access road to the property are other detracting factors. Not all of this 43.66 acres is undevelopable, however. There are 6 vacant acres in four ownerships which could be developed. Due to locational constraints, it is estimated that only 10 units could be accommodated here. There remain 18 developed parcels which contain single family residential units, manufactured homes, mobile home park, and a church. This is further discussed under

Committed Land.

The committed land discussion and map appendix also show the area north of the mill and south of Elk Creek has approximately 13.5 vacant acres; its urbanization value is reduced because it is directly behind the log pond (which has received overflow from the city's wastewater treatment plant), and directly adjacent to the city's wastewater treatment plant itself and a county maintenance yard. It is also on Class II and III agricultural soils, and is in the 100 year flood boundary. Due to these constraints, limited development of only 13 units is anticipated.

The area to the northeast that was included as committed also has some additional urbanization value. The 10 acres which is in private ownership contains 13 dwellings on approximately 6 acres. This area has slopes of 12-25% and over 25%; as can be expected, the existing dwellings are on the flatter portions, leaving room for only 4 more units on the steep portions.

More of these committed areas were not shown as urbanizable due to conflicts with Goals 10 (Housing), 11 (Public Facilities and Services), and 13 (Energy Conservation). The land is not suitable and economically feasible for more housing, and public facility extensions and services could not be installed in an orderly and efficient manner. Energy use would not be minimized due to distance to the urban core, and, of course, existing uses limit development.

The areas included as linkages will also allow some development. The steep 33.5 acres included in areas 5 and 6 are anticipated to develop at 1 unit/acre, yielding 33 units.

Many factors favor development in the areas noted. These areas could be integrated into the city's road and utility networks, are of adequate size and shape to be developed, are adjacent or close to existing development, and have fewer development constraints than other areas. The policies in the plan address the constraints to ensure that the development is not detrimental to the city and the citizens.

The development of agricultural and forest lands in these areas is justified because they are needed to accommodate housing and transportation needs. Alternative locations for urbanization which have lower soil classifications, such as north of Highway 38 and north of the city west of Highway 99, are forested and of 25% slopes or greater. Other alternative sites, to the northeast and southeast, have 25% and steeper slopes which are forested, farther from utilities and streets, and require other development to gain access. The 390 foot water service level, the floodplain, and slopes greater than 25% account for a vast amount of land around the city, leaving very little good land for urbanization.

Long term effects from the urban use of potential agricultural and forest lands will be slight and, due to the small amount of land involved, and proximity to urban uses. The environmental impacts will be long term because once the sites are urbanized they are not likely to be returned to their prior state. Since the use will be urban, social and energy consequences will be positive in that these lands lie adjacent to existing urbanization which integrates the area to the social environment and minimizes energy consumption from transportation; other energy impacts would not be affected. (As amended by Ord. 287)

The city has included within its Urban Growth Boundary (UGB) areas it determined to be committed to non-resource uses. These areas include developed land and vacant or under-utilized land surrounded by development. The criteria used to determine which areas are committed include: (a) city water service, (b) city sewer collection, (c) physical development

and parcel size, (d) existing development, and (e) social integration with the city. These factors alone or in combination make the likelihood of non-urban use slight, so the property is more properly considered urban than rural.

The areas included in the UGB due to commitment are west and northeast of Drain. They include developed portions, urbanizable portions, and unbuildable lands. The amount and location of development in the area to the west can be seen by examining the map appendix which shows existing land use and utility lines. The development which exists includes two mobile home parks, duplexes, a church, and numerous single family dwellings and manufactured homes. There is also city water service that extends to the western edge of the UGB. The city wastewater treatment plant, a county corporation yard, and a 36 acre industrial use are included in this area. Parcel sizes vary from under an acre to several acres, within at 11.54 acres.

The 43.66 acre portion of this area south of Elk Creek and Hayhurst Road (excluding the mill and north of the mill) has most of the residences and one of the mobile home parks. There are 39 units in this area, and much of the remaining land is unbuildable due to being in the floodplain (6 acres) or being steep (6.1 acres). Those parts that are urbanizable (6 acres) are discussed under the discussion of *Committed and Linkage Lands With Urbanizational Values*. This area has distinct boundaries, those being Elk Creek, the hills and water service elevation to the south, County Road 24 to the west, and the mill to the north.

The other portion of the committed area west of the city is north of Hayhurst Road and south of Elk Creek. It is 63 acres with the mill site, a mobile home park, and the city wastewater treatment plant. It contains 13.5 acres that are mostly vacant but is adjacent to the treatment plant and log pond as described in *Committed and Linkage Lands With Urbanization Values*. Thirty three (33) acres of this, including the 13.5 acres noted above, are in the floodplain.

The committed area to the northeast contains approximately 21 acres, of which about 11 acres are owned by the school district and to be used to satisfy public needs. The remaining area of about 10 acres contains 13 residences on 7 acres, some of which utilize city utilities. As noted in the *Committed and Linkage Lands With Urbanization Values* section, there is some land in this area that could accommodate additional units.

Given the use of city recreational, community and social facilities and services, a strong argument is made for inclusion of these areas in the UGB.

Since these properties are essentially developed and there are no adjacent agricultural uses, there is no agricultural compatibility problem. Agricultural soil retention is also not an issue because even the best soils, those of classes III and IV, are used only for gardens in conjunction with residential uses now. (As amended by Ord. 287)

Linkage Land

In order to include some urbanizable, committed or otherwise needed areas, other land was included in the Urban Growth Boundary. These linkages were needed for other purposes or to connect urbanizable or committed areas to the city.

They are: (1) an area of 25% or greater slopes south of Crowe Avenue (approximately 18 acres) which links the adjacent 12 urbanizable acres to the city, (2) a linear strip south of the North Douglas High School property and Alta Vista Avenue (15 acres), and (3) one-half acre south of John Street. The second area is to be used as a second access route linking the east and west sides of Drain. As pointed out in Goal A, Policy 10 of the Transportation Element, this access route is needed, since the bridge on "B" Street over Pass Creek is now the only link. The 1/2 acre south of John Street is included in the Urban Growth Boundary to connect with the flatter portions to the south. These areas are planned to develop at an average density of one unit per acre, since they are on steep ground. Thus, urbanization of these acres is discussed in *Committed and Linkage Lands With Urbanization Values*. (As amended by Ord. 287)

Conclusion

The introduction to this section of the plan stated enough land is needed within the Urban Growth Boundary (excluding incorporated lands) to accommodate 227 dwelling units. Although many of the areas planned for growth have limitations, the city has included sufficient lands for this projection.

The areas in the UGB included committed areas which are mostly developed and are socially and economically linked with the city. Urbanizable areas, those prime for development, were also included, as were linkage areas that linked urbanizable or committed lands to the city for the next 20 years can be met. (As amended by Ord. 287)

Unincorporated Land Included Within the Urban Growth Boundary

Urbanizable and Linkable Lands	Developed (Acres)	Undeveloped (Acres)	Additional Units which can be Accomodated
Area 1		6.3	27
2		2.5	11
3		7.1	31
4		8.3	36

Urbanizable and Linkable Lands	Developed (Acres)	Undeveloped (Acres)	Additional Units which can be Accomodated
5		2.5	9
6		12.0	53
Committed Land			
Hayhurst Road	37.7	6.0	10
North of Mill	49.5	13.5 (2)	13
Northeast of City	17.0	4.0 (1)	4
Subtotals	104.2	95.2	
Total (Developed and Undeveloped)	199.4 Acres		227 Units

(1) This land consists of slopes in excess of 25% slopes.

(2) This land is within the boundaries of the 100-year floodplain. (As amended by Ord. 287)

Future Implications

In formulating this plan, the City has identified several key issues that must be addressed if development is to occur in an orderly and economical manner as planned. These issues, which are the key to future development, are found in the previous elements of this plan. Although each element is in itself important, certain elements are particularly significant for their cost and possible constraint to development. Significant elements that must be noted include the improvement of sewer and water facilities, so that the city can provide adequate service to its population. Unless provisions are made to correct deficiencies associated with these facilities, they will act as a major constraint to future development. (As amended by Ord. 287)

LAND USE

GOALS AND POLICIES

- GOAL A: TO DEVELOP DRAIN IN A MANNER THAT ENSURES FUTURE DEVELOPMENT WILL BE COMPATIBLE WITH EXISTING LAND USES.
- GOAL B: TO ENSURE THAT FUTURE DEVELOPMENT IN DRAIN GROWS IN A COST AND ENERGY EFFICIENT MANNER.
- GOAL C: TO PROVIDE A VARIETY OF DWELLING TYPES.
- GOAL D: TO ENSURE A WELL ROUNDED COMMUNITY, DEVELOPMENT WHICH PROVIDES HOUSING, COMMERCIAL ACTIVITIES AND JOBS SHOULD BE ENCOURAGED.

CITY GENERAL LAND USE POLICIES:

1. Encourage the development of buildable vacant lands within the existing city limits before annexing additional lands.
2. In order to promote orderly and efficient growth, future development (as defined by the Statewide Planning Goals), except single homes on existing vacant parcel, should occur in the city and, where possible, contiguous to areas already developed.
3. Require city sewer and water service for all new development (as defined by the Statewide Planning Goals) in the city, and for all new development within the UGB, outside of the City, except single homes on existing vacant parcels which are over 200 feet from city sewer or water lines.
4. The City of Drain will try and preserve its historic resources by maintaining an inventory of historic resources and updating the inventory with the assistance of local historic societies.

Any alterations to historic sites should be reviewed by the Planning Commission or historic society to determine the impact of the alteration to the historic nature of the site and to determine if alternatives for the alteration should be explored.

In reviewing alterations, the following should be used as guidelines:

- 1) Uses of buildings should be encouraged which will be compatible with the nature of the building and not require substantial alteration.

- 2) Rehabilitation or remodeling should not destroy the distinguishing qualities of the site.
 - 3) Repair of architectural features, or replacement with like design and materials, should be encouraged. Those proposing such alterations should be referred to the State Historic Preservation Office for possible assistance.
 - 4) The decision of the Planning Commission or the historic society shall consider the alteration's impact to the historic nature of the site. Negative historic impacts shall be weighed against impacts of the alteration on the general betterment of the neighborhood and the city, reduction of hazards to property and life, desires of the property owner, degree of conflict between the proposal and historic characteristics, ease and expense involved in preserving at least some of the historic attributes, and feasible alternatives to the project. (As amended by Ord. 294)
5. Commercial areas should be protected from competing land uses.

CITY RESIDENTIAL LAND USE POLICIES:

1. Development of single family units shall be allowed outright in specific residential areas of the city.
2. Within the city, manufactured homes shall be only allowed in residential areas west of Main Street and then only on a conditional use basis. Within the urban growth area, standards devised by the city shall be applied and the city shall be afforded an opportunity to review and comment on all manufactured home placements.
3. Conditional use procedures and requirements shall not be used as a means to discriminate against certain housing types, but to ensure that future development satisfies specific design standards.
4. To ensure there is adequate space available for parking, yards and dwelling units, the city shall establish a new minimum lot size of 6,000 square feet.
5. High density multiple family housing shall be centrally located in areas which will reduce costs associated with transportation and cost of providing services.
6. Provided it can be shown to be safe, areas with slopes in excess of 25% within the city shall be allowed to develop at a density of one dwelling unit per acre.
7. Areas with slopes of 12-25% within the city shall be allowed to develop at urban densities,

taking into account for the natural features of the land which may limit the density and the layout of the development.

CITY COMMERCIAL LAND USE POLICIES:

1. Encourage future commercial development to be located in proximity to the majority of existing commercial activities, thus forming a centralized commercial district.
2. Promote off-street parking in the downtown area.
3. Encourage the development of a variety of businesses.
4. Commercial areas should be protected from competing land uses.

CITY INDUSTRIAL LAND USE POLICIES:

1. New industrial development should occur through the more intensive utilization of existing industrial lands, which must be protected from loss due to nonindustrial use.
2. Encourage a variety of industrial developments within Drain. (As amended by Ord. 287)

L. APPENDIX I

COMPREHENSIVE PLAN REVIEW, UPDATE AND COMMENT

The Planning Commission, in their annual report to the City Council, shall report on the status of the Comprehensive Plan, progress made in carrying out the goals and policies of the plan, and how the goals and policies will be carried out in the coming year.

The City Council of the City of Drain shall direct the Planning Commission and duly constituted Citizens Advisory Committee (CAC) for Comprehensive Planning to conduct a biennial review, or sooner should factors bearing on growth and development significantly change, of said plan prior to the end of each even-numbered fiscal year to further define and keep current policies and proposals of the plan. The report shall be submitted to the City Council for their review and acceptance.

Plan reviews shall be programmed in time and an appropriate schedule shall be published for informing the general public of the review process. Unless there are extenuating circumstances necessitating major plan review and amendment, this process shall be programmed in time for a maximum period of six (6) calendar months.

Such plan reviews shall be conducted through the Drain citizen involvement program.

The preparation of plans, implementation measures and plan amendments through the ongoing land use planning process will generally be based on the following broad phases:

1. Identify development problems and issues.
2. Collect necessary factual information.
3. Analyze information and its impacts on or conformance with the plan.
4. Prepare alternatives for dealing with the development problems and issues.
5. Identify and resolve any possible conflicts with plans of affected governmental units.
6. Recommend one alternative for adoption.
7. The opportunity for citizens to initiate proposals and/or review and comment on plans and revisions during each of these phases will be as follows:
8. An addition or amendment to the Drain Comprehensive Plan may be approached in two ways. An individual, group, organization, business agency, or the city staff and submit an

application for an addition or amendment to be revised at the time of the regularly scheduled plan review. Alternatively, an application to an addition or amendment may be submitted at any time, subject to a non-refundable processing fee, for any individual, group, organization, or business agency. The fee will be as established by resolution of the City Council.

9. Once the proposal has been scheduled for presentation to the Citizens Advisory Committee and Planning Commission, it will follow, to the extent possible, steps 1-6 above.
10. The Citizens Advisory Committee and Planning Commission determine those persons to be effected by the proposal and who should be directly notified and how.
11. The Citizens Advisory Committee and Planning Commission will review all materials, make findings and hold hearings as necessary to make a final recommendation to the City Council for action on the proposal.
12. Copies of any materials developed during steps 1-6 above will be made available to the Committee members, Planning Commission, applicant and at the City Hall for public review prior to the meeting at which the Committee and Planning Commission will discuss the proposal.
13. The Committee and Planning Commission will forward the proposal to the City Council with their recommendations, whether favorable or unfavorable, findings, and minutes of the meetings. All such materials will be made available to the public at City Hall and to the initiator.
14. The City Council, after giving notice to those notified for the Committee and Planning Commission hearings, will hold a final hearing to take action on the proposal. Written findings of the reasons for the decisions will be kept and made available to the public, Planning Commission, and the Citizens Advisory Committee.

All proposed amendments or revisions to the comprehensive plan of the City of Drain shall be coordinated with Douglas County in a manner consistent with the process established in the urban growth management agreement jointly adopted by the City of Drain and Douglas County.

Amendments to the Comprehensive Plan (map or text) are adopted by ordinances, amending original Comprehensive Plan ordinance. Copies of the plan's amendments will be distributed to agencies whose programs effect the Drain area.