IN THE BOARD OF COUNTY COMMISSIONERS OF THE STATE OF OREGON

81-154

FOR THE COUNTY OF YAMHILL

FILED
YAMHILL COUNTY, OREGON
APR 17 1 36 PM '81
CHARLES STERN
COUNTY CLERK
DEPUTY

SITTING FOR THE TRANSACTION OF COUNTY BUSINESS

An Ordinance Adopting an Urban Growth Boundary, Adopting the City of Newberg's Comprehensive Plan Designations Within the UGB, and Approving Amendments to the Comprehensive Plan, Inventory and Implementing Ordinances of the City of Newberg, Oregon, Repealing Ordinance No. 241 and Amending Ordinance No. 214.	ORDINANCE NO. 263

THE BOARD OF COMMISSIONERS OF YAMHILL COUNTY, OREGON (the Board), on the 15th day of April, 1981, sat for the transaction of County business in regular session, Commissioners COLIN ARMSTRONG, TED LOPUSZYNSKI and ROBIN J. HAMBLET being present.

WHEREAS, Yamhill County has the responsibility for coordinating and reviewing all planning activities affecting land uses within the County pursuant to ORS 197.190 and ORS 197.255; and

WHEREAS the Board, on the 20th day of June, 1979, adopted Ordinance No. 214, which Ordinance adopted the City of Newberg's Comprehensive Land Use Plan as part of the Yamhill County Comprehensive Plan; and

WHEREAS the Board, on the 25th day of June, 1980, adopted Ordinance No. 241, which Ordinance approved revisions to the Newberg Comprehensive Plan for the purpose of submission to the Land Conservation and Development Commission (LCDC); and

WHEREAS, the Board held a public hearing on April 15, 1981 to consider subsequent revisions made by the City of Newberg to their Comprehensive Plan; NOW, THEREFORE,

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5th & Evans Streets
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THE YAMHILL COUNTY BOARD OF COMMISSIONERS ORDAINS AS FOLLOWS:

SECTION 1. -- The Board and the City Council of the City of Newberg (the City) have agreed upon and adopted an Urban Growth Boundary (UGB) for the City. The UGB was adopted by the Board on August 3, 1977, by Ordinance No. 142. Said Ordinance was amended by Ordinance No. 214, and adopted by the Board on June 20, 1979. Said Ordinance No. 214 and Urban Growth Boundary are hereby amended to conform to the Urban Growth Boundary adopted by the City on June 4, 1979, attached hereto as "Exhibit A" and, by this reference, made a part hereof and are based upon the findings adopted by the City.

SECTION 2. -- The Board and the City Council of Newberg have agreed upon and adopted an Urban Growth Management Agreement which establishes a procedure to amend the UGB and to manage growth within the UGB. The Board adopted the Urban Growth Management Agreement by Ordinance No. 214 on June 20, 1979.

SECTION 3. --The Board hereby adopts the City of Newberg Plan Map, a copy of which is attached hereto as "Exhibit A" and, by this reference, incorporated herein for that area of Yamhill County which is within the City's Urban Growth Boundary (UGB) and is outside the corporate limits of the City of Newberg. The Planning Director is hereby authorized and directed to amend the Yamhill County Comprehensive Plan accordingly. Where the County Plan does not have a designation which corresponds to the City of Newberg Plan Map designation, the land shall be designated

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as "Future Urbanizable Land."

SECTION 4. -- The Board has reviewed the amendments to the City's Comprehensive Plan, Inventory and implementing ordinances, attached hereto as "Exhibit B," incorporated herein by reference thereto, and finds that the amendments comply with the requirements outlined in LCDC'S Continuance Order dated December 7, 1980.

SECTION 5. -- The Board finds that the City's Comprehensive Plan, Inventory and implementing ordinances are coordinated, integrated, and in conformity with LCDC'S statewide planning goals and hereby recommends them to LCDC for acknowledgement of compliance.

SECTION 6. -- Ordinance No. 241 is hereby repealed in its entirety and Ordinance No. 214 amended to incorporated the amendments attached hereto as "Exhibit A" and Exhibit B."

SECTION 7. -- This Ordinance being necessary for the health, safety and welfare of the people of Yamhill County, and

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the Board having declared an emergency to exist, it shall be effective upon the approval hereof.

APPROVED this 15th day of April, 1981, at McMinnville, Oregon.

ATTEST:
CHARLES STERN, County Clerk
by:
Patricia A. Mullen
PATRICIA A. MULLEN, Deputy

YAMHILL COUNTY BOARD OF COMMISSIONERS:

Colin Armstrong
Chairman COLIN ARMSTRONG

Ted Lopuszynski
Commissioner TED LOPUSZYNSKI

Robin J. Hamblet
Commissioner ROBIN J. HAMBLET

APPROVED AS TO FORM BY
COUNTY COUNSEL:

DARYL S. GARRETTSON

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ORDINANCE NO. 2047

AN ORDINANCE AMENDING ORDINANCE NO. 1967 WHICH ADOPTED THE NEWBERG COMPREHENSIVE PLAN, NEWBERG COMPREHENSIVE PLAN DESIGNATION MAP, URBAN GROWTH BOUNDARY, URBAN GROWTH BOUNDARY MANAGEMENT AGREEMENT, AND THE INVENTORY OF NATURAL AND CULTURAL RESOURCES, AND AMENDING ORDINANCE NO. 1968, THE NEWBERG ZONING ORDINANCE, BOTH PASSED AND APPROVED JULY 2, 1979, AS AMENDED, AND REPEALING ORDINANCE NO. 2011 WHICH AMENDED ORDINANCE NO. 1967, PASSED AND APPROVED JUNE 2, 1980; TO REVISE THE INVENTORY OF NATURAL AND CULTURAL RESOURCES APPROVED AND ADOPTED BY SECTION 1 OF ORDINANCE NO. 1967; TO REVISE THE NEWBERG COMPREHENSIVE PLAN AND NEWBERG COMPREHENSIVE PLAN DESIGNATION MAP ADOPTED BY SECTION 2 OF ORDINANCE NO. 1967; TO REVISE SECTIONS 552, 554, 562 AND 564 OF ORDINANCE NO. 1968 AND THE NEWBERG, OREGON ZONING MAP ADOPTED BY SECTION 900 OF ORDINANCE NO. 1968; AND TO REPEAL ALL OF ORDINANCE NO. 2011; ALL AMENDMENTS BEING REQUIRED FOR COMPLIANCE WITH THE OREGON STATEWIDE LAND CONSERVATION AND DEVELOPMENT COMMISSION GOALS FOR ACKNOWLEDGMENT OF THE NEWBERG COMPREHENSIVE PLAN; AND DECLARING AN EMERGENCY.

WHEREAS, at the LCDC acknowledgment hearing in October, 1980 the Newberg Comprehensive Plan was found to be deficient in meeting the State Land Conservation and Development Commission goals and policies; and

WHEREAS, the amendments as attached hereto, will enable the Newberg Comprehensive Plan to comply and be consistent with the statewide goals and guidelines; and

WHEREAS, an inventory and a general analysis of needs was completed, entitled Inventory of Natural and Cultural Resources, in January 1978 and is amended to reflect current data as of 1980; and

WHEREAS, the Inventory was used as a basis for preparing the goals and policies and use needs and determining the location of the Urban Growth Boundary found within the Newberg Comprehensive Plan; and

WHEREAS, the Urban Growth Boundary is intended to provide adequate space for land use needs to the year 2000 and defines an area within which the urban services can be provided; and

WHEREAS, the City of Newberg insured the opportunity for citizens to be involved in all phases of the amendments proposed for the Newberg Comprehensive Plan, and implementing ordinances by holding public hearings; and

WHEREAS, after numerous public hearings, the Newberg Citizen's Involvement Advisory Committee and the Newberg Planning Commission have recommended to the City Council that the amendments be adopted for the purpose of complying with the Oregon Statewide Land Conservation and Development Commission planning goals for the acknowledgment of the Newberg Comprehensive Plan and implementing ordinances; and

WHEREAS, the amendments are being made in accordance with a continuance order issued by the State Land Conservation and Development Commission for the purpose of obtaining acknowledgment of compliance to the statewide planning goals; and

WHEREAS, the amendments as attached hereto provide the justification and conclusions in support of the Newberg Urban Growth Boundary and the City's land use needs to the year 2000; and

WHEREAS, the Citizen's Involvement Advisory Committee and the Newberg Planning Commission established criteria based upon goals and policies of the Newberg Comprehensive Plan and the statewide Land Conservation and Development Commission goals which were used in locating additional multi-family designated lands; and

WHEREAS, the Newberg City Council has held two public hearings on these amendments and changes; and

WHEREAS, the provisions of the LCDC continuance order require resubmittal of the plan by mid April, 1981.

NOW, THEREFORE, THE CITY OF NEWBERG ORDAINS AS FOLLOWS:

Section 1. That the City of Newberg Inventory of Natural and Cultural Resources approved and adopted by Section 1 of Ordinance No. 1967, passed and approved July 2, 1979 is hereby amended as follows, to-wit:

Pages 3-7, 43, 84, 93-96, 102-108, 111, 112, 117-123, 145-149, 152, 154, 172-177 179-186 of the Inventory of Natural and Cultural Resources are hereby deleted and in their place the Inventory of Natural and Cultural Resources is hereby amended to include pages 3-7a, 43, 43a, 84, 93-96, 102-108, 111, 112, 117-123, 145-149a, 152, 154, 172-176, 179-192 which are attached hereto as "Exhibit A" and incorporated herein at this point by reference.

Section 2. Ordinance No. 1967 passed and approved July 2, 1979, as amended is hereby amended as follows, to-wit:

Pages 7, 9 and 29-38 of the Newberg Comprehensive Plan are hereby deleted. The Newberg Comprehensive Plan is hereby amended to include pages 7, 9, and 29-38 which are attached hereto as "Exhibit B" and incorporated herein at this point by reference. The Newberg Comprehensive Plan Designation Map is hereby amended to conform to and to reflect the changes in the map which is attached hereto as "Exhibit C" and incorporated herein at this point by reference.

Section 3. Ordinance No. 1968, the Newberg Zoning Ordinance, passed and approved July 2, 1979 is hereby amended as follows, to-wit:

Existing sections 552, 554, 562 and 564 are hereby deleted and new sections 552, 554, 562, 564, and 566 which are attached hereto as "Exhibit D" and incorporated herein at this point by reference are hereby included into said Ordinance No. 1968. The Newberg Zoning Map adopted by Section 900 of Ordinance No. 1968 is hereby amended to reflect the changes identified on the Newberg, Oregon Zoning Map which is attached hereto as "Exhibit E" and incorporated herein at this point by reference.

Section 4. Ordinance No. 2011 passed and approved June 2, 1980 of the City of Newberg is hereby repealed.

Section 5. Because of the mid April deadline for submittal of our revised plan in accordance with the Land Conservation and Development Commission continuance order and because of the important effects on the community in having the Newberg Comprehensive Plan acknowledged, NOW, THEREFORE, an emergency is hereby declared to exist and is declared to be necessary for the preservation of the peace, health and safety of the people of the City of Newberg that this ordinance should take effect immediately upon its passage by the Council and its approval by the Mayor.

PASSED by the Council this 6th day of April, 1981 by the following votes:

Ayes: 8 Nays: 0 Absent: 0

Arvilla Page

Arvilla Page - City Recorder

APPROVED by the Mayor this 6th day of April, 1981.

Elvern Hall

Elvern Hall - Mayor

Exhibit A

SUMMARY

The following general summary capsulizes the major findings of the Natural and Cultural Resources Inventory. Details and additional information relative to each topic can be found in the balance of this report.

CITIZEN INVOLVEMENT

In Newberg, the Citizen Involvement Advisory Committee makes recommendations to the Planning Commission and City Council on long-range planning concerns. The Committee also annually evaluates the effectiveness of citizen participation in the planning process.

Other methods for encouraging citizen representation in planning decisions include publicity of planning issues and proposals; the holding of well-advertised public meetings and the distributions of community questionnaires.

AGRICULTURAL LANDS

The City of Newberg is generally situated on Class II agricultural land.

Currently, 20% of the land within the City is being used for agricultural purposes.

Future growth of the City will, out of necessity, occur on prime agricultural soils within the designated Urban Growth Boundary. Wasteful land use practices, however, should be discouraged.

FOREST LANDS

Within the planning area, there are approximately 108 acres of wooded area. This is 3% of the planning area.

Currently, there are no areas of commercially harvestable timber within the planning area. At the same time, wooded areas provide open space, serve as habitats for wildlife, help buffer incompatible uses, and protect the watershed area.

MINERAL AND AGGREGATE RESOURCES

There are no mineral or aggregate resource deposits identified within the Newberg planning area.

Regionally, aggregate resource deposits are located near Dundee, in the Chehalem Mountains, and in portions of the Willamette River in Yamhill County.

FISH AND WILDLIFE

The Newberg planning area is the habitat for a variety of mammals, birds, amphibians and reptiles.

There are no known fish or wildlife on the threatened or endangered species list in the area. There are, however, nine species of undetermined or possibly endangered status.

The Hess Creek drainageway, Chehalem Creek drainageway, and the floodplains of the Willamette River have been identified as fish and wildlife habitats.

WATER RESOURCES

Within the planning area no wetlands have been identified.

City of Newberg water comes primarily from springs on the southwest flank of the Chehalem Mountains from the Columbia River Basalt formation. Wells in young alluvium formations on the other side of the Willamette River serve as additional water sources.

Local water quality is currently within acceptable limits established by EPA and DEQ.

Major drainageways of the Newberg area are Hess, Chehalem and Springbrook Creeks.

AREAS SUBJECT TO HAZARDS AND NATURAL DISASTERS

The 100-year flood for the Willamette River in the Newberg area is projected at a flow of 285,000 cubic feet per second and an elevation of 90 to 92 feet.

Erosion and landslide activity in the planning area is primarily associated with the banks of the Willamette River and with drainageway escarpment lands where the slopes are 20% or greater.

A small geological fault area exists along the eastern edge of the planning area.

OPEN SPACE, NATURAL, SCENIC, HISTORIC AND RECREATIONAL RESOURCES

Fifty-seven percent of the land area within the Urban Growth Boundary is currently in an open space/vacant category.

Approximately 11% of the area within the Urban Growth Boundary can be classified as non-buildable because of flood hazards, severe slope, wet or unstable soil.

One site and ten structures in Newberg have been designated by the State Historical Society as having historic significance.

Within the Newberg area there are six developed recreation facilities ranging in size from 2.1 acres to 12.4 acres. In addition, there are a number of undeveloped park sites and regional facilities available.

Park service areas are becoming increasingly over-extended in the north portion of the planning area. Also, by 1985 existing park space will be inadequate.

THE ECONOMY

Population within the Newberg planning area is projected to reach 27,000 by the year 2000.

Future growth in the Newberg area is projected to increase the percentage of people in their 20's and 30's.

Incomes in the Newberg area have ranged slightly below the state median through 1970.

Newberg's economy is expected to continue its steady growth.

In the past eight years, industrial employment has more than tripled.

It is projected that retail sales will continue to increase as growth occurs in the community.

HOUSING

From 1973 to 1977 the percentage of single-family dwelling units in the area declined while mobile homes and multi-family units showed a gain.

A projected 6,450 dwelling units will have to be added to the area's housing inventory by the year 2000 to accommodate projected new households.

TRANSPORTATION

The modes of travel available to and from Newberg include a U. S. Highway, rail, river travel and an airport. Present travel is primarily by motor vehicles.

Within Newberg, automobiles and trucks are again the main modes of transportation. At the same time, bicycles, pedestrians, vans and taxis provide local mobility and may become increasingly important in coming years.

PUBLIC FACILITIES AND SERVICES

Schools

In 1976, the Newberg School District operated seven schools with an enrollment of 3,345 students.

Assuming that the community grows as projected, there will be a need for four new grade schools, a new junior high school and a new senior high school by the year 2000.

Water System

The City currently uses two water storage facilities with a total water storage capacity of 8 million gallons. The well fields found across the Willamette River provide an abundant source for additional water to meet the City's increasing demands.

Sewage Disposal

It is projected with improvements, Newberg's treatment plant will be able to serve a population of 16,000 to 20,000. The City will need to expand the sewer treatment facilities in order to meet expected needs.

Solid Waste Disposal

The City currently utilizes a privately-owned 42-acre site.

The site is estimated to have a life span of at least 3 more years.

Other Services

The City provides police and fire protection services. Both services will be requiring additional facilities before the year 2000.

The City has a range of additional services which include a library, a 45-bed hospital, and a human resources center.

ENERGY

By making much more efficient use of energy resources, it is estimated that energy consumption in Newberg could be reduced as much as 25% without noticeably changing the standard of living.

OVERALL LAND USE NEEDS

Land requirements for all uses have been projected and summarized in five year intervals to enable comparison and monitoring of population projections and development trends.

LAND USE REQUIREMENTS
1985 - 2000

Use	1980	1985	1990	1995	2000	Available
Residential	1,208	1,415	1,658	1,942	2,140	2,194
Commercial	207	232	259	290	324	324
Industrial	264	338	433	554	709	709
Public	172	196	223	263	299	218
Parks	19	29	44	66	100	45
Unbuildable	462	462	462	462	462	462
TOTAL	2,332	2,672	3,079	3,567	4,034	3,952

The above Table indicates that 4,034 acres may be required for urban uses by the year 2000. Since 3,952 acres are presently included within the Newberg UGB, a limited amount of acreage may need to be added at some future time, depending upon trends of urban growth.

To use the table, traffic counts for a particular street may be matched with the official speed limit to determine whether or not DEQ carbon monoxide standards will be violated. If, for instance, traffic counts for one road are 8,800 and the posted speed limit is 20 miles per hour, the carbon monoxide standard will be violated by 25% during stagnant air conditions.

Accordingly, the area with the highest potential for air quality problems in Newberg is along 99W from the Hillsboro-Silverton Highway to Villa Road. There, given adverse weather conditions, carbon monoxide levels may exceed standards by 50%. Other potential problem areas occur on 99W near Everest Road, on River Street between First and Hancock, on First and Hancock Streets from River Street to the Yamhill-Newberg Highway (OR 240), and on 99W at the western city limits. All of these areas potentially have carbon monoxide levels up to 25% higher than the standard. With a growing population and increasing traffic levels, pollution from automobile traffic could become a more significant problem in these areas. Already, automobile-related studies such as roads and parking facilities are considered to be indirect air pollution sources. As such, DEQ requires an impact review of these facilities and alternative actions are sometimes required.

Besides examining transportation options, other considerations will be important in improving and maintaining Newberg's air quality as well. Impacts of prospective new industries or major expansions of existing uses on the air resource should be examined. The location of these uses should be reviewed in terms of micro-climate and wind direction and incompatible uses should not be allowed without adequate buffering.

Noise Pollution

Noise pollution is not considered to be a substantial problem within the Newberg Urban Area. Very few complaints are received annually regarding noise problems. Complaints about noise pollution problems can be directed to the City Planning Department, City or County Police Department or to the State Department of Environmental Quality. Excessive noise pollution problems are enforcable through the State Department of Environmental Quality noise pollution standards.

Noise Pollution Inventory

A noise pollution inventory was prepared as part of the Newberg Comprehensive Plan. The inventory of noise pollution sources is necessary in order to identify the locations of noise pollution sources within the Urban Growth Boundary.

The inventory was prepared with data assistance from the Department of Environmental Quality and was developed utilizing the following criteria:

1. It is expected that all areas within Industrial Designations will have noise levels within those limits permitted by the Department of Environmental Quality. These areas are considered to be desirable locations

for the type of activities associated with industrial uses. Although these areas may emit noise pollution, they are not considered to be undesirable provided the noise levels stay within those limits permitted by the Department of Environmental Quality. For these reasons, all areas identified by the Comprehensive Plan as industrial can be considered as potential noise pollution sources, even though no noise pollution conflict has been determined to exist at the present time.

2. All major transportation arterial streets and railroad rights-of-way were considered sources of noise pollution because of heavy commuting traffic, truck traffic or railway traffic. For these reasons, the following areas are considered sources of noise pollution:

(1) Highway 99W
(2) College Street (Hillsboro Highway)
(3) St. Paul Highway
(4) Southern Pacific Railroad
(5) Industrial Railroad spur located on Blaine Street

3. All non-conforming uses and structures were reviewed to determine if complaints had been registered through the City or the Department of Environmental Quality. It was found that no formal complaints had been received regarding these uses and thereby determined that no noise pollution conflicts exist.

4. The Sportsman Airport, which is a small airport designed to accommodate private propeller-driven aircraft and Western Helicopters Heliport was also reviewed for potential noise pollution. It was determined that the lands surrounding these uses are not considered to be noise sensitive areas, as the airport and heliport are located adjacent to the St. Paul Highway, industrially designated vacant lands and a riparian vegetative cover which corresponds to the City's Open Space overlay designation. Further, the approach zones for these two uses are predominantly over commercial or industrial areas which are considered to have a compatible noise pollution potential. No significant noise pollution conflict has been determined to exist relating to these uses.

The regulation of noise pollution sources is implemented by the Department of Environmental Quality.

Looking to the future, the adequacy of the existing and planned parks can be compared with the projected population, and future park needs estimated. Regional parks, for which NRPA standards suggest 20 acres per 1,000 population may also be examined.

TABLE 10

Comparison of Park Acreages with Projected Population

Park Type	Existing Acreage	Standard*	1980 10,351	1990 18,200	2000 27,000	Needed Acreage
Neighborhood	21.3	2.5	2.1	1.2	0.8	46.2
Community	28.0	2.5	2.7	1.5	1.0	39.5
Regional	625.4	20.0	60.4	34.4	23.2	0
				TOTAL		85.7

* In acres per 1,000 population, from NRPA's "National Park Recreation and Open Space Standards"

According to the table, Newberg's park lands of all types generally meet NRPA standards at the present time. By the year 1990, however, increasing population would render existing space in both neighborhood and community parks inadequate. By that year 24.2 additional acres of neighborhood parks and 17.5 acres of community parks would be needed to meet the standards. By the year 2000, these figures would rise to 46.2 and 39.5 acres, respectively, or 85.7 acres total.

The Comprehensive Plan Map currently designates 26.7 acres for future parks. Therefore, 15 additional total acres would be needed by the year 1990, and between 1990 and 2000, an additional 44 total acres would be needed for park uses. A total of 59 additional acres of park lands would be needed by the year 2000.

TABLE 11

POPULATION GROWTH RATES FOR SELECTED AREAS, 1950 - 1980

Area	1950	1960	%change	1970	%change	1980	%change
Newberg	3,946	4,204	6.5	6,507	54.8	10,351	59.1
Yamhill County	33,484	32,478	-3.1	40,213	23.8	55,230	37.3
Portland SMSA[1/]	704,829	821,897	16.7	1,009,129	22.8	1,290,062	27.9[2/]
State	1,521,341	1,768,687	16.3	2,091,385	18.2	2,632,663	25.9

1/ Standard Metropolitan Statistical Area
2/ The increase in the 1980 growth rate of the Portland SMSA is due to the addition of Yamhill County to the area included in the SMSA in 1980.
Source: U.S. Bureau of Census

Since 1960, growth rates for Newberg and Yamhill County increased significantly while growth in the Portland SMSA and the State remained relatively constant. Between 1960 and 1970, Newberg grew by nearly 55%, which was more than double the growth rate of Yamhill County, and triple that of the state as a whole. Between 1970 and 1980, the population of Newberg increased by over 59%, again almost double the growth rate of Yamhill County and the State.

Steadily increasing rates of growth in Newberg, Yamhill County, and Oregon have established trends of population change in these areas during the past twenty years. Projections of these trends are presented in Table 12.

Future Growth Expectations

Projections of population growth in Newberg depend on historic trends of growth in the City as well as its share in the growth of the region as a whole. Unlike a prediction, a projection is an extension of identified trends which in turn is based on past experience. The figures presented in Table 11 indicate that the population of both Newberg and Yamhill County has not only grown substantially over the past 20 years, but also has grown at rates which have been increasing over time. For example, between 1960 and 1970, the population of Yamhill County increased at an average rate of nearly 2.2 percent per year, but between 1970 and 1980 this rate of growth increased to over 3.2 percent per year. The corresponding figures for Newberg are 4.5 and 4.7 percent, respectively. At the same time, Newberg has accounted for an increasing share of the total population in the County. In 1960, the population of Newberg was 12.9 percent of the County total. By 1970 Newberg's share increased to 16.2 percent, and by 1980 it was 18.7 percent. These trends are presumed to be well established and are expected to continue for the next twenty year period as shown by the following table:

TABLE 12

POPULATION PROJECTIONS, 1980 - 2000

Area	1980	1985	1990	1995	2000
Newberg	11,000	14,500	18,200	22,500	27,000
Dundee	1,230	1,480	1,720	1,970	2,215
McMinnville	14,800	17,900	21,600	26,000	31,500
Yamhill Co.	53,570	61,740	70,640	80,940	92,910

Source: Mid-Willamette Valley Council of Governments
Section "208" Water Quality Projections

The above projections were adopted as part of the regional master sewerage plan, and are used to estimate the capacity of waste water treatment facilities The data indicates that the population of Newberg is expected to continue to grow at an average rate of 4.6 percent per year over the next twenty years, and account for about 29% of the total County population by the year 2000. The 1980 Census documents a population of 10,351 for the City of Newberg, which was within 5.9% of the projected population. The 1980 census data for Dundee and McMinnville are 1,231 and 14,044 respectively. The 1980 County total differs from the projection by 1,660, which was only 3 percent of the projected population.

The findings presented in Table 21 anticipate that the population of Newberg will increase by about 2½ times over the next 20 years. Newberg's population grew by this same amount between 1960 and 1980. Consequently, it is expected that the expansion of public facilities, services, housing and economic activities during the next 20 years will be comparable to changes that have occurred in Newberg's physical and economic environment since 1960.

There are three factors which could affect the growth patterns in Newberg. The first is an increase in employment opportunities in Newberg. While there is a strong desire in the community to see such an expansion, it is not anticipated that this will occur on a major scale. The second factor is the tendency of many Portland residents to move out of the metropolitan area. This factor has been one of the primary reasons for Newberg's growth and should continue to be important as the region develops. As more industries locate on the suburban fringes of Portland, commuting from Newberg will become increasingly desirable. On the other hand, the third factor is the rising transportation cost. It is anticipated that commuting will, in the long run, become more difficult and costly. Therefore, living in the outlying communities may eventually not be as attractive as it has been in the past.

Analysis of the past growth history of Newberg has led to the conclusion that the adopted population projections are suitable for purposes of 20 year land use and public facilities planning. Therefore, the expected future growth of the Newberg area is projected as follows:

1980	11,000
1985	14,500
1990	18,200
1995	22,500
2000	27,000

Age Characteristics

Newberg has relatively low percentages of persons in the 30-59 year age brackets. In 1970, 33.4% of the State's population was between the ages of 30 and 59, while the comparable figure for Newberg was only 27.6%. Likewise, Newberg has a significantly higher percentage of elderly persons. In 1970, 7.2% of the statewide population was seventy or over, while 13.7% of the Newberg population was in this higher age category. Correspondingly, Newberg has a significantly higher percentage of elderly persons. However, the percentage of elderly persons in Newberg is quite comparable with other Yamhill County cities.

Per capita incomes in Newberg have increased significantly over the past decade. As indicated below, per capita incomes rose 47.5% during the period between 1969 and 1974.

ESTIMATED PER CAPITA MONEY INCOME
(Dollars)

	1974	1972	1969	Percent Change 1969 to 1974
Newberg	4,132	3,468	2,801	47.5

Source: U.S. Department of Commerce, Survey of Current Business

This increase is somewhat exaggerated in that it is not adjusted for inflated consumer prices. In terms of estimated real per capita income or the estimated equivalent increase in purchasing power per person, the growth in Oregon was estimated at 3.4% annually from 1970 to 1974. From 1975 to 1980 real per capita income is expected to initially increase by 4% annually due to the recovery from the 1974-1975 recession. Thereafter, the growth rates were estimated to fall to 2% from 1980 to 1985, to 1.7% from 1985 to 1990, and then rise to 1.8% from 1990 to 1995. 1/ Therefore, real incomes in Newberg can be expected to continue to increase, but at a slower rate than previously.

Employment

The economy of Newberg was originally based on agriculture. Newberg's economic base has since diversified to include forest products, food processing and, more recently, durable goods industries such as medical and electronic equipment. These industries, combined with agricultural operations in Newberg, constitute the "basic" or "export" sector of the local economy. Basic industries export goods and services in exchange for cash from outside the area. Basic industries are therefore the key to an area's economic strength and vitality. Expansion of the basic sector generally stimulates the

1/ Oregon Department of Energy, Demographic and Economic Forecasts for Oregon, February 1977, pp 9 - 12.

growth of commercial, service and construction industries which comprise the non-basic sector.

Generally, a ratio of basic to non-basic employment reveals how the gain or loss of jobs in industry and agriculture will affect total employment. In 1978, of a total of 3,250 employees working in the Newberg area, 1,035 were employed in manufacturing while 2,215 were employed in commercial and service occupations. Consequently, the basic to non-basic ratio in 1978 was about 2 to 1, which means that for every new job in manufacturing industries, corresponding growth in commercial and service activities would result in two additional jobs.

While this ratio is useful in analyzing the existing and future employment situations, two important qualifications limit its predictive quality in Newberg. First, in the last few years, Newberg has increasingly become a bedroom community with residents living in Newberg, but working elsewhere. Estimates of Newberg commuters range from 35 - 45 percent of the work force. 1/ Second, at least 10% of those people working in Newberg live in Dundee or other areas outside of the City. 2/ In isolated communities the effects of basic or non-basic industries are easier to predict.

In a community like Newberg, the City's economy is inextricably mixed with the economies of Portland and the surrounding area. To some extent, Newberg's basic to non-basic ratio may currently be higher because Newberg's commuters work elsewhere but do much of their shopping where they live. Also, in smaller communities like Newberg, major changes in the ratio may occur rapidly with the addition of new employment or shopping opportunities either within the City boundaries or in other parts of the region.

1/ Informal surveys of the State Employment Office.
2/ Telephone interview of August 11, 1977 with V.G. Anderson of Publisher's Paper.

One other important qualification of the basic to non-basic ratio is that the service sector is also somewhat inflated by the classification of George Fox College. The College, one of the largest employers in the City, is counted as a non-basic industry. At the same time, it brings in students from other areas who require and purchase goods and services in Newberg. This raises the service ratio independently of the basic industrial/agricultural sector.

Overall, Newberg's economy is quite healthy. Over the past several years, the Newberg economy has experienced a gradual but steady growth. This pace of growth is expected to continue.

Newberg's economy does experience some seasonal fluctuations in employment. During the summer months, overall employment generally rises due to increased activities in agriculture, construction and the food processing industries. In addition, some of the major employers in the area hire additional summer assistance. George Fox College also has a seasonal employment pattern, but it runs counter to the general seasonal trend. This tends to further stabilize the economy.

Newberg is still vulnerable to changes in wood products activities, in agriculture, and in the food processing industries. Newberg's economy is slightly more diversified than many other communities of similar size and is becoming more diverse and stable as the city grows. A-Dec, a manufacturer of dental equipment and currently Newberg's largest employer, has had an increasingly stabilizing effect on the local economy since it entered the area over 10 years ago. Publisher's Paper has also helped to make the economy more stable by switching to the manufacture of pulp and newsprint from the more variable production of other wood products.

Ten new industrial operations located in Newberg in the decade between 1968-1978. Industrial employment more than tripled during the same time period, increasing from 315 employees in 1968 to 1,035 employees in 1978. The new industrial operations generally employed between 2-50 persons.[1/] There is not likely to be a rapid influx of firms, however. Numerous industrial sites of adequate sizes still exist closer to Portland and it is generally advantageous for industries to minimize transportation costs. Newberg also offers no particular advantages in terms of raw

1/ Directory of Manufacturers - 1968 and 1976.

materials. At the same time, some industries prefer to locate in smaller cities like Newberg because output per worker is sometimes higher, labor is often of a better quality, and both labor and land tend to cost less.

The following table provides detailed data on employment by industry in Newberg.

TABLE 17

EMPLOYMENT BY INDUSTRY IN NEWBERG AND YAMHILL COUNTY, BY PLACE OF WORK, IN 1978

Industry	Newberg	Yamhill County	Percent of County
Total	3,250	15,020	21.6
Manufacturing	1,035	4,930	21.0
Durable Goods	917	3,700	24.8
Lumber & Wood	35	1,940	1.8
Other Durables	882	1,760	50.1
Non-Durable Goods	119	1,230	9.7
Food Products	19	620	3.0
Other Non-Durables	100	610	16.5
Non-Manufacturing	2,215	10,090	22.0
Construction	258	750	34.4
Transp., Comm. & Public Utilities	87	370	23.5
Wholesale-Retail Trade	610	3,010	20.3
Finance, Ins. & Real Estate	25	820	30.5
Services	816	2,700	30.2
Government	419	2,490	17.2

Source: Mid-Willamette Valley Council of Governments, Oregon Employment Division

The information presented in Table 17 provides an economic profile of Newberg in comparison with the larger economic region of Yamhill County. While both Newberg and Yamhill County have about the same proportion of basic and non-basic employment, the composition of each area's manufacturing base reveals significant differences. First, Newberg's manufacturing sector is dominated by fast-growth durable goods industries (with the exception of lumber and wood products). More than 85% of all manufacturing employment in Newberg is concentrated in the "Other Durables" category. This category includes the manufacture of medical equipment, electronic equipment, and machinery. Employment in these industries has grown at an average rate of 10½% per year. In contrast, nearly 52% of the total manufacturing employment in Yamhill County is concentrated in slow growth, and recently declining, forest and food products industries. Since 1965, employment in these industries has grown at an annual average rate of 5.7%.

Even more significant is the concentration of the county's "Other Durable" goods manufacturing activities in Newberg. Slightly more than half of all "Other Durable" goods manufacturing employment in Yamhill County is situated in the Newberg area. This fact, coupled with the high rate of growth of these industries, makes Newberg the center for this type of basic industry in the county. The implication of this conclusion is that Newberg may expect to accommodate an increasing share of growth in the County's durable goods manufacturing industries. Consequently, the city needs to provide appropriately zoned land and public facilities to accommodate this anticipated growth.

Employment in commercial and service industries has grown at an average annual rate of approximately 5%, which is close to the rate of growth of Newberg's population. Newberg's share of the total county commercial and service employment is about 20%, which approximates Newberg's share of the total county population. This is to be expected, since such economic activities are generally oriented to serving the needs of the resident population of their market areas.

Employment in wholesale-retail trade, transportation, communications, public utilities and government (which includes public education), is closely related to the needs of the immediate population in the Newberg area. Additionally, Newberg serves as a market center for a wider area for enterprises such as construction, finance and services (including hotels and motels; personal, business and professional services; auto service centers; theaters). Consequently, Newberg should expect to provide the land and public facilities necessary to accommodate anticipated levels of population and commercial growth.

In addition to employment, retail sales figures are an important indicator of Newberg's commercial and economic well-being. Retail sales figures are increasing in Newberg as both the population and per capita income rise. At the same time, it is important to compare the retail sales growth in Newberg with other cities to see how well Newberg is succeeding in capturing the commercial sales of the region.

TABLE 18

TOTAL RETAIL SALES (In $1,000)

	1963	1967	1972
Newberg	6,446	7,913	17,668
McMinnville	21,693	26,147	48,826
Yamhill County	40,659	45,906	71,158

Source: 1967 - 1972 Censuses of Business - Retail Trade.

Currently, Newberg serves as a marketing center for eastern Yamhill County. It is also, however, in direct competition with McMinnville. Apparently, judging from its higher per capita sales figures, McMinnville is still capturing significantly more of Yamhill County's retail sales. In the period from 1967 to 1972 Newberg's percentage of county sales has increased faster than McMinnville's (8.6% to 2.8%) but McMinnville clearly remains the dominant market center for the County.

HOUSING

Introduction

Housing in Newberg is a resource very closely related to population, lifestyle and the economy. As the population expands, the housing supply must also increase to accommodate new households. Also, as lifestyles and economic conditions change, the types of housing which will be demanded will vary. Currently, low density, single-family housing is the predominant form of dwelling unit in Newberg. Increasing numbers of multiple units are being constructed, but, based on the existing numbers of units and on present housing demands, it seems likely that single-family dwelling units will continue as the dominant form of housing in the future.

In Newberg, as elsewhere, housing has a major affect on the health and welfare of its citizens. It also affects the overall appearance of neighborhoods and of the community as a whole. Further, the numbers, types and densities of housing units will determine land use needs for residential uses. For these reasons, the following section examines current housing conditions and projects needs for future housing resources.

Current Housing

The composition and number of housing units in Newberg are presented in Table 21. Type of units are broken down by number and percent to indicate housing trends in Newberg.

TABLE 21

HOUSING TRENDS, 1960 - 1980

	1960		1970		1975		1979	
/pe of Unit	Number	Percent	Number	Percent	Number	Percent	Number	Percent
.ngle Family	1,451	91.5	1,662	74.2	1,956	67.1	2,129	60.0
ılti Family	135	8.5	474	21.2	738	25.3	1,056	29.8
›bile Homes	*		103	4.6	221	7.6	361	10.2
)TAL	1,586		2,239		2,915		3,546	

* In 1960, Mobile Homes were counted as single family units
Source: U.S. Bureau of the Census, Center for Population Research and Census

Table 21 reveals significant changes in both the number and composition of Newberg's housing stock. Although the number of single family units has increased at a rate of 2.3% annually, the proportion of this type of housing has declined from 74.2% of the total housing stock in 1970 to 60% in 1979. During the same time period, the number of multi-family units increased at a rate of 9.3% annually. Additionally, the proportion of multi-family units relative to the total housing stock increased from 21.2% in 1970 to 29.8% in 1979. The number of mobile homes in Newberg more than tripled between 1970 and 1979, representing an annual average growth rate of 14.9%.

Clearly, the number of mobile homes has grown at the fastest rate over the past decade, although the single family unit is still the predominant housing type. The total number of housing units in Newberg increased at an average rate of 3.5% per year between 1960 and 1970, and at a rate of 5.2% per year since 1970. Overall, the total number of housing units has increased by 58% since 1970, and by 124% since 1960.

Newberg has two other special categories of housing which have not been added to the above totals for single, multiple and mobile home units. Group quarter or institutional housing provided in conjunction with George Fox College and Friendsview Manor constitutes a significant housing type. The number of group or institutional units increased from 707 units in 1976 to 744 units in 1977. In 1960, total group quarters population was 109; in 1970 it was 473; and in 1979 it was 986. This represents an increase of 15.8% per year between 1960 and 1970, and 8.5% per year since 1970.

Currently, almost no homes are sold for under $25,000. A sample of selling prices of 75 homes constructed in 1980 with an average floor area of 1,350 feet indicated that the average selling price of new single family homes in Newberg was $62,390. The average building permit valuation for single family units was about $40,550, which excludes costs of land and financing.

Costs of land and financing have been the most rapidly increasing portion of housing costs. Since 1976 these costs have risen by more than 30% and since 1973, by more than 230%. Because of increased inflation and demands of a growing population, it can be expected that housing, land and financing costs will continue to increase.

Before 1970, incomes were rising faster than housing costs. Since that time, however, the trend has reversed, with costs of housing now rising faster than income.

Purchase prices for new homes are only part of the housing costs. Other monthly expenses of homeowning generally involve mortgage payments, property taxes, and insurance costs. Allowing for these costs, the City of Woodburn calculated that in order not to spend more than 25% of income on housing, household earnings would have to equal a minimum of $13,300 to afford a new minimally priced ($30,000) home. To afford the more average priced $45,000 home, annual household income would have to exceed $20,000. 1/

Assuming similar cost figures, about 50% of Newberg households would be financially capable of purchasing the $30,000 home, if they could locate one, and some number less than 40% could afford the averaged price home. 2/ Apparently, half of the households in Newberg could afford older housing costing between $30,000 and $32,000. These figures do not, however, take into consideration the households with incomes lower than the required levels but who retain substantial equity in their current housing. As of January, 1979, median family income in Yamhill County was $17,920. Assuming that 25% went for housing, a family would be able to pay about $4,480 per year on housing, or $373.00 per month. At this rate, assuming a 30 year mortgage at a 12% annual interest rate, a family could afford a single-family home costing $40,385 if a down payment of 20% were made. Compared with average prices of new homes above $60,000, there is no question that costs of new homes are presently beyond the reach of the median income resident in Yamhill County.

1/ City of Woodburn Housing Element, Ch2M Hill, June 1977, p. 16.
2/ See the Economy Section for mean household incomes.

Persons owning and renting their houses are about evenly split in Newberg. According to the Mid-Willamette Valley Council of Government's 1976 housing inventory, 51% of all dwelling units were owner-occupied, while 49% were rented. Rental costs in Newberg were relatively low in 1976. Monthly rental payments on a three bedroom home ran about $250 in 1976. A new two-bedroom garden apartment rented for approximately $150 to $170 a month. Rental costs, however, have increased rapidly in recent years. 1/

Two agencies have been responsible for providing housing assistance to lower income households in Newberg. The first agency, the Housing Authority of Yamhill County, does not construct and operate housing projects, but instead leases privately owned rentals on an individual basis. Cherry Hill and Colonial Village are two multiple-family projects that were specifically built for the authority to lease. In addition, individual single-family homes are leased to low income families. In all, there are 76 of these rental units in Newberg of which over 40% are leased to elderly tenants. Apparently, there is a considerable demand for such housing in Newberg as the Housing Authority has received 123 additional applications from low income families. Income restrictions are $6,200 for one person, $6,800 for two persons and so on according to the number of persons in the household. 2/ These units are funded through the Department of Housing and Urban Development (HUD) under its Section 23 Leasing Program.

1/ Interviews with Ralph Johnson at Sandager Real Estate on August 17, 1977 and with Millard Leslie at Newberg Realty Company on the same date.

2/ Telephone interview with James Zupo, Director of the Housing Authority of Yamhill County on August 12, 1977.

The other agency which offers housing assistance to low and moderate income households in Newberg is the Farmers Home Administration. Housing funds from this agency have come under Section 502-Rural Housing Loans. Provisions of this program are as follows:

Rural Housing Loans - Section 502 - This direct loan program may be used to fund new construction, rehabilitation or the purchase of existing housing. Interest rates vary from about 1% to 8% depending on the type of 502 loan and on adjusted family income.

In addition, Yamhill County has applied for 150 units of Section 8 housing. Under this HUD program, a lower income family pays 25% of its monthly income for rent. The federal government then pays the difference between this amount and the "fair market" rent for their housing unit.

In terms of regional allocation of subsidized housing funds, Newberg is likely to rank quite high. In the preliminary housing plan of the Mid-Willamette Valley Council of Governments, Newberg has received high priority classifications for both short and long time periods. On the five criteria used Newberg ranked as follows:

1. Housing Needs - medium
2. Availability to Essential Consumer Services - high
3. Rate of Urbanization - high
4. Proximity to Central Cities/Jobs - high
5. Availability of Transit - low.1/

These criteria and the ultimate priority ranking for funding, however are still subject to change.

Future Housing Needs

Projections of housing needs depend on estimates of future household size. Household size figures vary with each housing type. The following table presents 1977 household size figures and year 2000 household size projections:

Type of Unit	Persons per Household	
	1977	Projected
Single Family	2.82	2.75
Multi Family	2.14	1.92
Mobile Home	2.07	1.98

1/ Mid-Willamette Valley Council of Governments, Areawide Housing Opportunity Plan (Preliminary draft), September, 1977.

Projections of housing needs also depend on estimates of the future composition of the housing stock by type of unit. Based on the trend of change in the composition of the housing stock indicated in Table 21, it is projected on an average for the 20 year planning period, that new housing construction in Newberg will be comprised of 45% single family units, 35% multi-family units and 20% mobile homes.

The following table presents the number of housing units needed by the year 2000, based on documented population projections, housing type and household size assumptions. In addition, it is projected that the population living in group quarters will increase to about 1300 persons by the year 2000. This figure is subtracted from the total projection.

TABLE 25

PROJECTED HOUSING NEEDS

Housing Type	Percent Share	Household Size	Additional Units Required
Single Family	45%	2.75	2,906
Multi Family	35%	1.92	2,260
Mobile Homes	20%	1.98	1,292
		TOTAL	6,458

By the year 2000, about 6,458 more units would be required. These figures, however, do not represent the actual housing needs in Newberg, as some existing units will be torn down and will need to be replaced. In addition, vacancy rates, although low, will account for some units being unoccupied. Finally, there are a number of units which are presently committed but not yet built. Table 26 reflects the adjustments made to take the above factors into account.

TABLE 26

PROJECTED HOUSING NEEDS INCLUDING REPLACEMENT AND VACANCY FACTORS

Type of Unit	Additional Units	Replacement Factor	Vacancy Factor	Units Committed	Net Additional Units
Single Family	2,906	.5%	3.0%	427	2,552
Multi Family	2,260	.5%	3.0%	28	2,289
Mobile Home	1,292	.5%	3.0%	32	1,292
TOTAL	6,458				6,133

According to the above projections, an additional 6,133 total units will be needed by the year 2000, assuming a .5% replacement factor and a 3.0 % vacancy rate. This represents an average increase of about 4.9% per year, and will result in nearly 9,680 housing units in Newberg by the year 2000. The following table presents future housing needs by type in five year intervals.

TABLE 27

PROJECTED FUTURE HOUSING UNITS BY TYPE

Year	Single Family Units	Multi Family Units	Mobile Homes	Total Units
1980	2,210	1,115	388	3,713
1985	2,666	1,468	558	4,692
1990	3,268	1,932	801	6,001
1995	3,880	2,542	1,151	7,573
2000	4,681	3,345	1,653	9,679

TRANSPORTATION

Introduction

Within the City, Newberg's transportation system is the network which interconnects the various land uses and activities. Automobiles and trucks are by far the dominant means of moving people, goods and services around the City, although bicycles, vans, a taxi service and walking also contribute to intra-city movement.

In a larger context, Newberg is connected with other communities and areas by means of automobiles, trucks, a railroad, a bus line, special service vans and airplanes. Again, automobiles and trucks traveling on a highway network are the dominant means of transport, although rail transportation is also quite important in the inter-city shipment of bulk goods.

The City has budgeted (subject to voter approval) a Transportation/Traffic Safety Plan to be initiated in the 1981 - 1982 fiscal year. This plan will further define the overall transportation and traffic safety needs within the Urban Growth Boundary, as well as to suggest transportation improvement standards and possible methods for financing various improvement projects.

This plan is proposed to be initiated to serve as a basis for improving the existing transportation system and will act as a guide, used in conjunction with Comprehensive Plan policies, when reviewing land use requests.

INTRA-CITY TRANSPORTATION

Automobile

Passenger travel within Newberg is overwhelmingly by automobile. The separation of different land uses combined with the low density of most residential areas in Newberg encourages the use of automobiles. With substantial distances required for trips of different purposes, the automobile is generally the fastest and most convenient means of traveling from place to place. This is particularly true, because there are no bikeways or direct pedestrian pathways.

Newberg's road network with its varied street widths and traffic regulations helps to determine the routes automobiles will take in traveling from one destination to another. Road characteristics and

Due to a five-year time frame used, the projections and recommendations of the ad hoc committee are limited in scope. The comprehensive land use plan is based on a 20 year time frame. Additionally, the City has projected that the population of Newberg will more than double in the next 20 years, resulting in needs beyond those anticipated by the five-year projection. Consequently, the Planning Department has extended the forecast to the year 2000. To maintain consistency, the same pupil per household ratios were used. These figures are as follows:

Table 30
Pupil per Household Ratios

Type of Housing	Students Per Household	Grade
Single Family	.50	1-6
	.40	7-12
Multi Family	.25	1-6
	.25	7-12

Source: Newberg School District ad hoc Committee

These figures, combined with population projections and the assumed housing mix, can be used to project the school age population between 1976 and the year 2000.

The following table presents current and projected school enrollments. The figures indicate students added during each five year increment.

Table 31
Current and Projected School Enrollments

Grade	1977	1980	1985	1990	1995	2000
1-6	1480	2003	2595	3200	3600	4000
7-12	1597	1617	1863	2800	3200	3700
TOTAL	3077	3620	4458	6000	6800	7700

As presented in Table 31, it is expected that school enrollments will more than double by the year 2000. The figures also indicate that the current capacity in grades 1-6 will be exceeded in 1980. Current capacity for these grades will allow for 164 new pupils while expected increases will reach 500 in 1980. In grades 7-12, an additional 348 students can be accommodated based on the current program, which is expected to reach capacity in the early 1980's. In general, it

can be concluded that additional schools will be needed to satisfy educational demands over the next twenty years.

In order to accommodate the additional students, the Newberg Public Schools Superintendent has estimated that six new schools should be planned for, which would require new sites totalling 81 acres.

TABLE 31 (a)
Projected School and Site Needs

School	Capacity	Site
1 High School	1,100	22 acres
1 Junior High School	600	15 acres
4 Elementary Schools	1,800	44 acres
6 Schools	3,500	81 acres

The above facilities would provide a total capacity of about 8,100 students if all schools were optimally full. However, since pupil distributions are not ideal, the above capacities cannot be 100% utilized.

It should be noted that these projections are limited to the Newberg area, and do not include school needs in Dundee or Yamhill County. It is assumed that the majority of growth will occur within the Newberg Urban Growth Boundary.

Private Schools

One factor which has not been addressed up to this point is the amount of service provided by private schools in the area. Currently there

is one private school serving the area, Chehalem Valley Christian. The school includes grades kindergarten to eighth grade, has an enrollment of 74, and a capacity of 75. Costs are $675 per year for kindergarten through seventh grade and $850 for eighth grade.

The school contains approximately 4% of the total grade school population. This ratio will probably remain constant over time. Based on estimated students for grades 1-6 in the year 2000, the total demand for public elementary schools would be reduced by approximately 60 students. Seventh and eight grade demands would be about 15 students lower. These reductions would not have a significant impact on service requirements. Further, since this private school does not serve grade levels beyond eighth grade, there would not be a reduced demand at the senior high school level.

Even if a private school were established to serve the senior high age group, there would not be a significant reduction in demand. The added cost of private school tuition, while not prohibitive, will tend to discourage significant student shifts to private education.

It should also be noted that the only private school serving this area is of a religious orientation. Consequently, future enrollment may be tied to school positions on matters of religious orientation.

Summary

If growth parallels the population projections, four new grade schools, one new junior high school and a senior high school will be needed by the year 2000. Any decrease in the assumed pupil per household ratio or single-family to multi-family housing mix will impact these projections, however.

The locations of these facilities will have a significant impact on land use patterns. Care should be taken to locate schools in areas planned for increasing residential activities. Access should be adequate

NEWBERG PUBLIC SCHOOLS

Gerald E. Post, Ed.D.
Superintendent

Newberg, Oregon
97132

February 25, 1980

Mr. Clay Moorehead, Planner
City of Newberg
414 East First St.
Newberg, Oregon 97132

Dear Clay:

I phoned some numbers to your secretary that I hope will help. Let me use this letter to try to explain how I arrived at them.

The original projections in the Comp plan were based on 18,000 total population. I merely doubled the student figures to take us to a 27,000 population figure. I believe that is safe because of the continuing decline in family size. I used the school district figures for student enrollment rather than the city's because our projections appear to be almost exactly on target in the 1980 projections in the plan.

This means that the 1977 enrollment would grow as follows:

	1977	1980 Growth	Total
1-6	1480	2500	3980
7-12	1597	2100	3697
			7677

In order to have this many students we would need additional sites for

22 acres	1 High School for 1100 students (max.)
15 acres	1 Jr. High for 600 students (max.)
33 acres	*3 elem. schools 1800 students (max.)

*In addition to the Crater site already planned for.

These sites would give us a capacity of about 8100 students if all schools were optimally full. Assuming that we would not have an ideal pupil distribution, I believe we would need to plan as above. I suspect that one of the elementary schools would be in the Sunnycrest area and may be outside of the UGB.

These are relatively crude figures but I hope they help you in your planning.

Very truly yours,

GERALD E. POST
Superintendent

GEP:cw

and increased volumes of automobile, bus, bicycle, and pedestrian traffic should be anticipated. Finally, the school facilities themselves should be built to meet the future needs of Newberg's students and other residents.

WATER SUPPLY SYSTEM

Introduction

The water supply and distribution system affects the orderly and efficient expansion of the urban area. This system can promote or prohibit growth in any given area, including limiting certain areas to specific uses through the provision of different line sizes.

The City relies upon groundwater as its water source. The main supply comes from springs in the Chehalem Mountains. Otis Springs to the east provides about .35 million gallons per day (m.g.d.) and several springs to the north of Newberg's reservoir provide .35 m.g.d. The reservoir, with a 4 million gallon capacity provides storage for the system. A second reservoir was constructed in 1977 as part of a public works grant from the Department of Economic Development. This facility provides added storage of 4 million gallons per day.

The other source of supply comes from wells situated across the Willamette River in Marion County. These wells are located in gravels of young alluvium in the Willamette River floodplain and utilized during the summer months and at other times when water in the reservoir drops from the capacity at 402 feet to 396 feet in elevation. Two new wells have been added in this area providing an additional 6.3 m.g.d. of capacity during periods of low water in the reservoir.

The existing distribution system consists of a looped network with several dead end lines. Pipe sizes range from a minimum of four inches to a maximum of eighteen inches. The eighteen inch line is the main line from the reservoir, while a twelve inch line supplies the system from the treatment plant.

Demand

A study completed in 1973 showed an average daily demand for residential and commercial/industrial users of 1.54 m.g.d. 1/

As a part of the 208 Water Quality projections, an estimate for 1980 shows that population increases will result in 1192 new connections by 1980. This figure was obtained by dividing the estimated population increase (2980) by an average of 2.5 people per household. Current levels of usage (130 g.p.d.) per household would result in an increased demand of 387,400 g.p.d. This figure does not include increases in commercial or industrial use. Such figures would be difficult to determine because specific users have widely varying demands.

Water System Analysis

As a result of the 1973 water system analysis, a 1990 distribution system was designed. One key factor used in this analysis was a population projection of 19,000 by 1990. The current population projection for Newberg is 18,200 by 1990. For the purpose of this report, the water system analysis and population projection are consistent and remain valid.

The 1973 analysis included a "Hardy Cross" computer analysis to determine adequacy of line sizes. The information is not included here because of its technical nature. In general the analysis was used to identify areas where insufficient flows could cause fire protection problems. The results were used in developing the 1990 system.

During 1976 a distribution line was installed in Springbrook Street from Highway 99W to the northern city limits to provide additional water service to the N.E. Newberg area and to replace undersized water lines with completion of the project by early 1978. During the years 1976 - 1980 numerous minor water lines were replaced to reinforce the water system.

Robert E. Meyer Consultants were hired by the City to complete a water study for the City of Newberg to develop a plan for increasing the City's water source supply capacity. As a result of this study the following improvements were initiated.

During 1979 a 4 million gallon water resovoir was added to the City water supply system, doubling water storage capacity to alleviate water shortage problems during summer months.

1/ Robert E. Meyer Engineers, Inc., Water System Analysis Report for Newberg, Oregon, dated August, 1973.

A major water system improvement project was begun in mid-1980 which consisted of establishment of two new well sites across the Willamette River to be put on line in 1981 and distributed via 815 linear feet of pipe crossing the Willamette River and 1310 linear feet of pipe to the water treatment facility. This facility was under expansion from 3.73 m.g.d. to 5.63 m.g.d. with a completion date of mid-1981. 8100 linear feet of 18" pipe was installed from Eleventh Street and Wynooski to Edwards and First Streets to connect into an 18" water line to the water reservoir north of the City for expanded water distribution capabilities.

These improvements are expected to serve the anticipated future growth need up to the year 1990. In order to properly plan for the City's water service needs, the City has currently authorized consulting engineers to update the Water System Master Plan. This plan, once completed, will project service needs and water facility improvement standards for an anticipated population of 27,000 people by the year 2000 as well as projected commercial, industrial and public service needs. By planning for these services well in advance of the anticipated need, the City is providing a plan for the timely, orderly and efficient arrangement of water facilities and services to serve as a framework for urban development.

According to the report, with improvements, Newberg's treatment plant is capable of serving a population of from 16,000 to 20,000 people. The system was designed to handle an average of 2.0 m.g.d. with peak treatment capacity of 4.0 m.g.d. Per capita sewage flow is generally assumed to be about 100 g.p.d. 1/ with additional and varied flows being created by commercial and industrial users.

The current collection system has been partly corrected for infiltration and inflow through an extensive program of repairs, which has resulted in additions to the system capacity. Further steps to reduce inflow include disconnection of storm drains and sump pumps from the sewer systems. Elimination of excessive levels of infiltration and inflow will significantly increase the system's capacity.

In 1975 the consulting firm of Robert E. Meyers analyzed the industrial sewer users and their sewage input into the system to determine rates that should be charged industrial users.

During 1977 Westech Engineering undertook a study of the system of drainage and developed a proposed drainage system for the entire City. Also during 1977 and 1978 a major sewer system improvement was undertaken in the northwest area of the City to serve areas in the City and County that had failing septic systems and to provide for future development in the northwest area of the City.

Also in 1978 a sanitary sewer extension was installed in Orchard Drive to provide for sewer service in an area with failing septic systems and prior to a street improvement in the area.

During 1980 larger pumps were installed at Eighth Street Pump Station to increase pumping capacity. A major sewer line was also installed in Hess Creek Canyon to provide additional capacity in sewer lines for development occuring in the northern section of Newberg. During that same year a rehabilitation project was begun to rehabilitate old sewer lines all over the City which were a major cause of ground water infiltration into the sewer system.

The City is currently in a process of completing the second phase of a $600,000 project which will significantly reduce the amount of inflow and infiltration 2/ of water into the sanitary sewer system. In addition, two major sanitary sewer trunk lines have been installed at a cost of $300,000 to upgrade and improve the overall sanitary sewer line network. Both of the major projects have been financially supported by the local citizens.

1/ Kevin Lynch, Site Planning, 2nd Edition, 1971

2/ Infiltration is water entering the sanitary sewer collection system through defective pipe, leaking joints and cracked or broken manholes. Infiltration water enters the system from underground. As a result, the height of the water table determines the amount of water entering the system through infiltration.

Inflow is storm water which directly enters the collection system. Some typical sources are roof drains, yard drains, catch basins connected to sanitary sewers, holes in manholes and other direct storm water connections. Inflow, which results primarily from runoff, occurs during and shortly following rain storms.

The City has further initiated a study to determine the current capacity of the sewage treatment facility and will be remodeling Industrial Waste Ordinances to mandate federal discharge requirements.

The City is anticipating a grant for the purpose of upgrading the sewer treatment facility. Currently, Newberg is listed as No. 21 on the Statewide water quality grant priority list.

It is evident that the existing treatment plant can be improved to accommodate population demands through 1990, based on new population projections. If significant industrial users are added to the system, however, the plant's capacity may be exceeded sooner. This would depend on the nature of the particular industrial users and cannot be projected without detailed information. In any event, the City of Newberg has made a committment through five years of work and studies, and is completing the first step of an EPA grant application to improve the sewage system and increase the City's sewage treatment plant capacity consistent with current projections.

Technological advances in treatment methods and systems may cause major changes in sewerage treatment. The Department of Environmental Quality is currently evaluating several experimental systems. This testing may eventually result in the development of systems which provide an efficient and cost-effective means of private treatment. If such systems become available, development patterns may be altered. Until that time, however, municipal treatment will be required to meet the demands of continued growth.

The City will continue to examine alternative methods for financing expansions of the Sewage Treatment facility. Improvements to the system will be made as an ongoing project consistant with the six year capital improvement program which will be designed in anticipating the projected population, industrial and commercial growth.

LAND USE

Introduction

In order to determine Newberg's future land use needs, the Planning Department has prepared an inventory of existing uses. [1/] The amount of land actually used for various purposes has been analyzed and related to existing zoning patterns. By noting discrepancies in the way land is zoned and the way it is actually used, patterns of existing under- and overzoning have become apparent. Major inventory report findings have been included in this section. Also included in this section are projections of land use needs through the year 2000. Projections have been made on the basis of existing land use to population ratios in Newberg, on land use to population ratios in other cities, on established land use standards, on current trends and in accordance with public goals and objectives.

Inventory

The land use inventory was based on information compiled by the Newberg Planning Department in 1979. This data was transferred to maps and field checked by means of a windshield survey. The data updates and augments the land use inventories and field surveys begun in 1972 and 1976 by adding a buildable lands inventory and adjusting the data to conform to the current land use plan map. The results of the land use inventory are summarized in the following table.

1/ City of Newberg Planning Department, Land Use 1976, (amended 1979)

NEWBERG LAND USE ANALYSIS

LAND USE	TOTAL	LDR	MDR	HDR	COM	MIX	IND	Q-PUB	PARKS
TOTAL	3,952.2	1,433.5	870.5	110.1	238.1	96.6	912.7	243.0	48.0
OPEN SPACE & HAZARDS	461.9	127.5	91.4	1.6	10.7	0	203.4	24.6	2.7
NET TOTAL	3,490.6	1,312.0	779.1	102.5	227.4	96.6	709.3	218.4	45.3
TOTAL VACANT	2,083.5	760.6	396.7	38.6	72.1	55.8	649.1	71.2	29.4
DEVELOPED/ COMMITTED	1,869.0	678.9	473.8	55.5	166.0	40.8	263.6	171.8	18.6
NET VACANT (BUILDABLE)	1,621.6	627.1	305.3	53.0	61.4	55.8	445.7	46.6	26.7
% NET VACANT	46.5	44.3	39.2	47.9	27.0	57.8	62.8	21.3	58.9
ANNUAL AVG GROWTH RATE	3.2	3.3	2.5	3.1	1.6	4.4	5.1	1.2	4.6

LDR: Low Density Residential (R-1 Zone)
MDR: Medium Density Residential (R-2 Zone)
HDR: High Density Residential (R-3 Zone)
COM: Commercial
MIX: Mixed Uses
IND: Industrial
Q-PUB: Quasi-Public
Parks: Existing and Future Parks

The total figure of 3952.5 is the number of acres contained within the currently adopted urban growth boundary. The total figure is made up of acreage figures representing amounts of land in the various land use categories shown across the top of the table. These uses correspond with the land uses designated on the land use plan map. Characteristics of various land use categories are shown down the side of the table. Such characteristics include open space and hazard areas which were described in the chapter on areas subject to natural disasters and hazards. These lands are subject to flooding and slope instability and are not considered buildable, except when in compliance with the restrictions outlined in the Newberg Zoning Ordinance. The net total is the total vacant acreage of land less acreage in open space and hazard areas and is considered to be buildable acreages. Developed and committed acreages include land which is already built up and land which is about to be developed. Net vacant acreages represent amounts of land in various land use categories which are available and buildable. The percent net vacant figures indicate the proportion of buildable vacant land in each land use category expressed as a percent of net total acreages. The last row of figures project the average annual rate of development of vacant land over the next twenty years. The growth rates do not reflect conversions of existing non-conforming uses in each land use category.

Residential Uses

Currently, about 2,414 acres are designated for residential uses within the Newberg UGB, while 1,208 acres of the total are developed residential areas or lands which are committed as non-buildable. A total of 985 acres are vacant and buildable for residential purposes.

The housing elements within the Newberg Comprehensive Plan are implemented primarily through the Newberg Zoning Ordinance. The Newberg Zoning Ordinance contains four residential zoning classifications. These classifications are identified as R-1 Low Density Residential, R-2 Medium Density Residential, R-3 High Density Residential, and R-P Residential-Professional. The R-1, R-2 and R-3 zoning districts correspond respectively to the low, medium and high comprehensive plan map designations. The R-P residential-professional district is a specialized zoning designation which will allow a mixture of residential and light intensive commercial uses together. This zoning district may be found in either residential or commercial plan designations and is primarily used as a buffer between existing residential and commercial areas.

As of early 1981 there was somewhat over 160 acres of vacant buildable lands found within the R-1 Low Density Residential district. Much of this land is found within areas which are currently difficult to service but will be servicable within the 20 year planning period. In addition, there are approximately 427 lots which are committed but not yet developed for Low Density Residential purposes. Within the City there are also over 100 acres of vacant, buildable land found within the R-2 Medium Density Residential district and over 30 acres

of vacant buildable land found within the R-3 High Density Residential zoning designation. Currently the City of Newberg has adequate lands and developments within the City of Newberg to meet the housing needs of the community for several years. By supplying lands in excess of the actual needs for housing, the City will ensure that adequate lands remain available to meet the needs in addition to encouraging competitive marketing of the units and allowing flexibility of location.

Within the Newberg UGB nearly 50% of all residentially zoned land is vacant or in agricultural use. This vacancy rate indicates that sufficient land exists to accommodate development needs while preserving competitive choices and prices in the land market. However, the previous section on housing concludes that additional acreage may be needed before the year 2000 to accommodate additional expected growth in population. Future updates of the Newberg land use inventory and plan should therefore monitor rates of development and amounts of remaining buildable vacant residential land and determine whether additional vacant acreage should be provided for residential uses.

Two other notable observations should be pointed out that will affect the supply of vacant buildable residential land. First, previous chapters contained information on the need for future park and school sites to maintain adequate educational and recreational facilities for the future population. The total needs for park and school sites amount to about 115 acres in addition to those lands indicated on the Plan Map. It is expected that most, if not all, of this needed acreage will be subtracted from currently vacant areas designated for low density residential uses. Future additions to vacant residential land should therefore take into account the amounts of land needed for school and park sites. Secondly, the results of the land use inventory reveal no significant non-conforming uses within the residential zones.

Commercial Uses

There are about 335 acres of zoned commercial land and land in mixed use zones of which about 207 acres are currently in use, and 117 are vacant and buildable. About 36% of total zoned commercial and mixed use acreage is vacant and buildable, which would provide for an overall annual average rate of growth of about 2.3%. While the previous section on Newberg's economy projects an average annual growth rate of commercial activity that is closer to the 4.6% population growth rate, it may appear that insufficient commercial land is available to support economic growth of the community. However, more than half of the 200 acres of developed acreage in commercial and mixed uses consist of single and multi-family housing units which tends to inflate the amount of land in commercial use. Since a policy of the City is to encourage retention of the downtown core as a primary shopping, service, and financial center, redevelopment and conversion of housing located in commercial core areas is envisioned to provide the needed additional commercial acreage.

Presently, there are three main types of commercial zones: C-1 Neighborhood Commercial, C-2 Community Commercial and C-3 Central Business District. In addition the R-P Residential Professional zoning district allows for the development of some light intensive professional or office related commercial uses together with higher intensity residential type uses. In terms of acreage, the C-2 Community Commercial zone is the largest of the existing commercial zones. This zone is predominently found adjacent to U. S. Highway 99W. Wherever possible, the zoning district was expanded in depth away from the Highway in order to lessen the impact of a strip commercial development land use pattern. In addition, the development of a public roadway within the area designated "mixed use" on the Comprehensive Plan will increase the efficiency of development within that area by providing an alternative to Highway 99W access.

The C-3 Central Business District zone is found only in the areas bounded by Second and Hancock and from Main to River Streets. This area represents the original business area of the community. Because the era in which this area was developed was characterized by inadequate parking, setback regulations and other design factors, the C-3 Central Business District zoning district was created. This zoning district provides special requirements which are unique only to this developed area of the City.

The C-1 Neighborhood Commercial zoning designation presently contains the least amount of acreage of all the commercial designations. This zone is typically found in or near residential neighborhoods and provides for the frequently recurring commercial needs of the area.

Industrial Uses

About 37% of usable industrial zoned land is currently developed, while nearly a quarter of total industrial zoned land is within areas subject to natural hazards. Almost 63% of net total industrial zoned acreage is vacant and buildable, and provides sufficient acreage to support an average rate of industrial growth of 5.1% per year.

Previous information contained in the chapter on Newberg's economy concluded that industrial activities in Newberg are in large part concentrated in fast-growing durable goods industries, and that total county employment in durable goods manufacturing is in turn concentrated in Newberg. Newberg, therefore, appears to be a suitable location for expansion and growth of this category of industrial development.

Much of the vacant industrial land is available in large parcels, including one 160 acre site. However, much of the land near the railroad is parcelized in small pieces. Several areas suitable for industry are located outside the City limits, but use of these areas would require the displacement of existing rural uses and public facility extensions. Without public facilities, these areas are not immediately available for industrial uses.

In the future, any committment to a major industrial development program would require the conversion of some of these additional lands into planned industrial areas. For such an effort to be successful, an active promotional effort would be required. Such an effort would involve the purchase of an industrial site or the establishment of some other type of incentive program. Also, the major expansion of public services would be a necessity.

The City of Newberg is not overzoned for industry. A relatively good relationship currently exists between the Plan and the zoning ordinance. Sufficient land is designated in the Plan, but conversion of land to industrial zoning should take place as the need arises.

Future Land Use Needs

As the population grows and as new industries and businesses enter the area, additional lands will be required for the various types of uses. Based on anticipated growth and on stated assumptions, the land use needs have been calculated for five-year increments until the year 2000. Due to the variability of the factors involved, these figures represent approximate and not precise needs.

Residential Land

Future housing needs have been presented in the chapter on housing. The chapter concluded that about 6,133 additional housing units would be needed by the year 2000. In addition, housing unit needs by type of unit were projected in accordance with trends in the composition of Newberg's housing stock.

Use of housing type figures and projected housing densities (units per acre) has resulted in estimates of amounts of land required to accommodate projected housing needs. These densities are 4.4 units per acre for single-family dwellings, 12 units per acre for multiple units, and 8 units per acre for mobile homes. Density figures include land areas necessary for street rights-of-way. Projected residential land use needs are summarized in Table 38.

TABLE 38

RESIDENTIAL LAND USE NEEDS FOR THE YEAR 2000

Housing Type	No. of Units	Units Per Acre	Needed Acreage
Single Family	2,552	4.4	580.0
Multiple	2,289	12.0	190.8
Mobile Home	1,292	8.0	161.5
TOTAL	6,133		932.3

The total need for additional residential land then would equal about 932.3 acres, or 6.6 acres per 100 people. This figure is comparable to the 6.1 average figure for 33 Oregon cities. The following table presents projected residential land use needs in terms of land use designation.

TABLE 39
RESIDENTIAL LAND PROVIDED
(1981 UGB)

Land Use	No. of Units	Density	Needed Acreage	Available Acreage
Low Density	2,552	4.4	580.0	627.1
Medium Density	2,557	8.4	305.3	305.3
High Density	1,024	21.8	47.0	53.0
TOTAL	6,133		932.3	985.4

It is assumed that single family housing types will locate within low density zones, duplexes and mobile homes within medium density zones, and multiple units within high density zones. Duplex units are assumed to occupy medium density areas at a density of 8.8 units per acre.

The information presented in Table 39 indicates that sufficient land has been provided to meet projected housing needs. It must be noted, however, that future school and park sites are expected to be located within Low Density Residential zones. The City will monitor population growth and development trends to determine whether additional residential acreage will be required to accommodate needed housing units.

Commercial Land

Rates of growth of commercial land use in Newberg are closely correlated with rates of population growth. Based upon population growth rate projections, the amount of vacant commercial land in Newberg would accommodate only half the expected rate of commercial growth. However, it was pointed out that about half of existing development in commercial zones consists of older housing units near the downtown core, and that the City wished to encourage redevelopment of these areas consistent with the permitted uses within these zones.

At a growth rate of 5% per year, existing commercial uses are epxected to occupy nearly 325 acres of land by the year 2000. Of this total, about 117 acres of vacant land is expected to be developed into commercial uses, with about 85 acres of existing developed land expected to be redeveloped to new commercial uses.

Industrial Land

By the year 2000, about 709 acres of industrial land are expected to be needed to accommodate growth and development of manufacturing industries in Newberg. Existing developed and committed industrial land totals slightly over 260 acres, but little of this total includes non-industrial uses, and not much redevelopment is expected. Based on an expected average rate of growth of 5.1% annually, about 445 acres of buildable vacant industrial land will be necessary to accommodate future industrial development.

Industrial land use is also expected to become more intensive in the Newberg area. As of 1978, the ratio of the number of manufacturing employees per acre of land was about 4 to 1. This is a very low figure relative to an average statewide ratio of 12 employees per acre. This is probably influenced by the presence of forest products and other resource-based industries that require large areas for storage of raw materials, treatment of wastes, and are generally capital intensive in terms of plant, equipment and land requirements. The number of employees per acre of industrial land in Newberg is likely to rise however, with the rapid growth of higher technology durable goods industries; consequently, the growth rate of land development for industrial use is likely to be considerably less than the growth rate of employment in these industries.

Other Uses

Projections of land requirements for uses such as parks and schools have been prepared on the basis of accepted park standards (described in chapter on Recreational Resources), and in conjunction with school district plans for future school improvements (described in the chapter on Public Facilities and services). Land use requirements described in the chapters mentioned are summarized as follows:

Use	Acres Required
Schools	81
Parks	85.7
Miscellaneous Public	21.3
TOTAL	188

Only one area has been designated on the land use plan map as a future school site. Out of the required 85.7 additional acres for parks, about 26.7 acres have been shown on the plan map; and a total of 46.6 acres have been identified on the plan map and within the land use inventory for other public or quasi-public uses, leaving close to 115 acres yet to be designated.

As mentioned previously, this amount of land is expected to be subtracted from the existing vacant low density residential land inventory which, in turn, may be replaced pending the results of future review and updates of the Newberg land use plan.

Overall Land Use Needs

Land requirements for all uses have been projected and summarized in five-year intervals to enable comparison and monitoring of population projections and development trends.

TABLE 40

LAND USE REQUIREMENTS
1985 - 2000

Use	1980	1985	1990	1995	2000	Available
Residential	1,208	1,415	1,658	1,942	2,140	2,194
Commercial	207	232	259	290	324	324
Industrial	264	338	433	554	709	709
Public	172	196	223	263	299	218
Parks	19	29	44	66	100	45
Unbuildable	462	462	462	462	462	462
TOTAL	2,332	2,672	3,079	3,567	4,034	3,952

Table 40 indicates that 4,034 acres may be required for urban uses by the year 2000. Since 3,952 acres are presently included within the Newberg UGB, a limited amount of acreage may need to be added at some future time, depending on trends of urban growth.

Urban Growth Boundary Locational Factors

The purpose of this section is to provide a detailed physical description and analysis of the Newberg Urban Growth Boundary (UGB). Newberg's UGB is largely unchanged from the original boundary that was jointly adopted by Newberg and Yamhill County in August of 1977. The seven factors of Goal 14 provided the criteria for decisions to include or exclude specific areas within the Newberg UGB. Factors 1 and 2 deal with the amount of land necessary to meet future growth needs. Factors 3-7 relate to the best location of the boundary to meet the documented needs.

Relative to Factors 1 and 2, Newberg has determined land use needs for housing, employment and livability to accommodate a projected population of 27,000 by the year 2000 (Inventory, pp. 181-185). A summary of overall land use requirements is presented below:

	Year 2000 Land Use Requirements (Including Developed Lands)	
Use	Required	Available
Residential	2,140	2,194
Commercial	324	324
Industrial	709	709
Public	299	218
Parks	100	45
Unbuildable	462	462
TOTAL	4,034	3,952

In determining which lands to include within the UGB to meet demonstrated needs, the City has made extensive findings with respect to Factor 3 of Goal 14: "Orderly and economic provision for public facilities and services." Nearly all of the land within the adopted Urban Growth Boundary is located within the drainage basin of the existing sewage treatment plant and below the 300 foot contour water service elevation. Therefore, the City has documented a capability to service UGB lands on an orderly and economic basis.

The relative cost of providing public facilities was considered in the site-specific location of the Newberg UGB. For example, the potential location of the boundary to the east or west of the adopted UGB would have required expensive pumping facilities to service urban development.

Factor 4 of Goal 14 is designed to encourage land use efficiency. The establishment of an urban growth boundary which limits the supply of buildable land creates pressures to increase densities and promote development near the existing urban area. Assumptions and policy statements articulated in the Newberg Comprehensive Plan illustrate the City's commitment to land use efficiency. For example, it is assumed that the number of employees per acre of industrial land use is likely to rise during the planning period. This assumption is reflected in the calculation of land needs for industry. Additionally,

Newberg's housing mix and density assumptions reflect the City's commitment for compact and efficient residential development.

Factor 5 of Goal 14 requires consideration of the environmental, energy, economic and social consequences of the location of the UGB. Several criteria were considered by the City in determining the appropriate location of the UGB. These criteria are presented below and specifically relate to Factor 5 of Goal 14:

Factor 5 Considerations	City Criteria
Environmental Consequences	/presence of health hazards such as septic failures that should be corrected by sewer extensions.
	/open space and scenic/recreational resources.
	/topographical features such as waterways that pose natural barriers to urban expansion.
Economic & Energy Consequences	/contour lines that limit feasible extensions of sewer and water facilities
	/size of parcels of land
	/efficiency of providing city services
Social Consequences	/areas already annexed or committed to urban development
	/requests of property owners to be excluded from or included within the urban area

Factors 6 and 7 of Goal 14 require that the location of an urban growth boundary be based upon consideration of the retention of agricultural land and the compatibility of the proposed urban uses with nearby agricultural activities. Prime agricultural lands are recognized as an important resource in the Newberg area. However, nearly all areas which are available for urban expansion are located on Class II soils which pose few development limitations, as they are relatively flat, well-drained and stable. Areas of Class III through Class VI soils are found either along waterways where drainage is a major problem, or on terrace escarpments where excessive slopes and unstable soils pose erosion and slide hazards. Consequently, it is unavoidable that some Class II acreages will necessarily be converted to urban uses.

The compatibility of proposed urban uses with nearby agricultural activities was considered by the City in the delineation of the UGB and the designation of land uses within the boundary. The UGB was located to parallel topographical features as much as possible. Features such as waterways and steep slopes pose natural barriers to expansion and also buffer urban uses from agricultural activities outside of the boundary.

The City has prepared a detailed description of the location of the Newberg UGB to explain the logic of the boundary location with respect to Goal 14 factors. The description documents land use and other characteristics of specific areas adjacent to segments of the UGB. The information is presented according to numbered UGB segments and corresponds to the numbers identified on the accompanying map. (Note: segments are described in clockwise order.)

In summary the following factors were applied in order to determine the appropriate location of the Newberg Urban Growth Boundary:

1. Recognition of the need for preservation of prime agricultural and forest lands.
2. Topographical features that pose natural barriers to urban expansion.
3. The elevation of land which limit the feasibility of extensions of sewer and water facilities.
4. Areas already annexed or otherwise committed to urban development.
5. The size of parcels of land.
6. The presence of health hazards such as septic failures.
7. The need for open space, and scenic/recreational resources.
8. Requests from property owners to be excluded from or included within the Urban Growth Boundary.
9. The efficiency of providing City services to surrounding areas.
10. The need for public service related lands.
11. Visual boundary features.
12. Land lying within the centralized drainage basin.
13. Slope.
14. The need for lands which would facilitate development of necessary transportation systems.

Boundary Segment No. 1 begins at a point near the old Wynooski Street Bridge and follows the Yamhill County side of the Willamette River west to its conjunction with Chehalem Creek, thence northwest along Chehalem Creek to a point which touches the incorporated City Limits. The Willamette River/Chehalem Creek boundary segment coincides with the natural barrier presented by the two waterways, and further provides a limitation of the extension of municipal sewer and water lines. The incorporated City Limits are very close to Chehalem Creek so all lands between the City Limits and the drainageway were incorporated into the Urban Growth Boundary. In addition, much of the land within the drainageway and also adjacent to the Willamette River are within a General Hazard or Flood Hazard district which has restricted building requirements. The area between the Willamette River and the City Limits consists of industrially zoned areas some of which lie partly within Flood Hazard areas and the Willamette River Greenway. The Newberg landfill, the municipal sewage treatment plant, boat ramp, water treatment facility, and Publisher's Paper manufacturing plant all lie within this area. The lands which lie between the City Limits and the Willamette River which are zoned industrial are for the most part developed, as

can be indicated by noting the number of industrial uses found within the area, and was therefore considered to be committed to urban development or developed lands which were thus included into the Urban Growth Boundary.

Boundary Segment No. 2 coincides with the Newberg City Limits and lies along the crest of a tributary feeding to Chehalem Creek. This portion of the boundary segment would extend to the Yamhill Highway No. 151. The City chose to consider no further expansions of the boundary in this location as the drainageway includes relatively steep slopes which constitute a natural barrier.

Boundary Segment No. 3 coincides with property boundaries which bisect an area lying between Main Street and Chehalem Drive, to a point where it intersects Crater Lane. The boundary then follows Crater Lane to a point near its terminus. The City found that those areas lying within the boundary at that location were in an in-fill type of development process. The City had recently installed a main line sewer system within the area through a local improvement district and development was rapidly taking place. The line that was ultimately drawn at this location divides those areas which were expected to be developed through in-fill processes relating to the sewer from rural tracts of land which gain their primary access from Chehalem Drive. The boundary will also establish a line which will provide a clear identification of the City in this location. The Urban Growth Boundary at this location does intersect with the Newberg City Limits in several areas. All lands within the area can be served by municipal services which are currently developed or are located within reasonably close proximity to those lands expected for further in-filling. These lands which are within the in-fill development are predominantly low density residential in character.

Boundary Segment No. 4 includes two parcels; one containing approximately 5 acres, the other containing approximately 19 acres. Both of these properties were included upon request of the property owners or purchasers. The smaller parcel was included primarily because sewer and water services were available and were developed abutting the subject property. The larger parcel was included specifically for the purpose of providing a site location for an elementary school. The specific site underwent extensive discussion relating to its location and it is found by the City that the site is an appropriate location to provide generalized district needs for serving student populations within eastern Yamhill County locations.

Boundary Segment No. 5 includes property which all lie within an area which can and is being served by a main line municipal sewer system. The sewer system currently extends to this tract of land and is designed to adequately accommodate any anticipated development thereon. A developing urban density residential development is currently taking place abutting this tract of land. Those lands lying between the established Urban Growth Boundary and Chehalem Drive to the west and North Valley Road to the north were excluded during the initial review of the Urban Growth Boundary, by request of the property owners.

Boundary Segment No. 6 follows North Valley Road northeasterly to the intersection of Highway 140, thence south for a distance of approximately 1300 feet to a point on Highway 140. This segment of the

boundary includes an area which was developed in the County many years ago and consists of a platted subdivision and other tracts of land which provide locations for residential homes. The tracts of land in this area vary in size from approximately ½ acre to 2½ acres. This area is currently served with City water. Sewer disposal is by septic tanks. This tract of land was therefore included to the Urban Growth Boundary anticipating that municipal sewer may be necessary to alleviate a potential health hazard at some later date. The boundary was drawn along existing major roadways which provide a natural barrier for the extension of services and urban development.

Boundary Segment No. 7 begins at a point on Highway 140 and follows a property line east to County Road 57, the boundary then follows the county road southeasterly to a point where the road turns directly south. This section of the boundary for the most part follows a 300 ft. contour elevation which was picked as an elevation which can be adequately served by municipal water. The City water storage facilities are located north of this area at an elevation of approximately 350 ft. Therefore, all lands within reasonably close proximity lying below a 300 ft. elevation can be supplied municipal water without pumping. In addition, the boundary segment primarily follows a County roadway. By following a County roadway, access may easily be provided when development occurs in this area which will guarantee good east-west traffic flow. It will be necessary to provide access from County Road 57 as this will interconnect the transportation network within this area and provide for adequate emergency vehicular service to proposed residential developments which are anticipated to occur within this area over the next 20 year period. Lands lying within the boundary at this location range from relatively flat to rolling hillsides that vary in slope from 0 to approximately 15% in certain locations. Lands lying to the north of this portion of the boundary segment are characterized by rolling to steep topography. The line is considered to be located near the base of the foothills to Chehalem Mountain. In this location, County Road 57 was found to be the most predominant feature which could generally be used for dividing urban and urbanizable lands from rural and agricultural tracts.

Boundary Segment No. 8 continues north and east to a point on Zimri Road and includes an area already committed for low density residential uses. This area was platted through development within the County as a subdivision known as Bryce Acres which contains residential housing tracts ranging in size from approximately ½ to 2 acres. Most of these parcels currently have residences located thereon. Because of the close proximity to existing urban areas and because of the densities of development occuring at that location, the City found that these lands were committed to urban development.

Boundary Segment No. 9 begins at a point on Zimri Road and follows property lines easterly to County Road 55 near its intersection with the Southern Pacific railroad tracks. The boundary was drawn in this location as those lands lying within the boundary again fall within the 300 foot contour elevation and can be serviced reasonably with municipal water. In addition, the boundary was specifically being directed toward the intersection of County Road 55 and the Southern Pacific railroad tracks in order to stay within a general water

drainage basin. A tributary to Springbrook Creek is located near that location. The City was attempting to maintain the boundary locations within centralized drainage basins wherever possible.

Boundary Segment No. 10 continues from the intersection of County Road 55 with the Southern Pacific railroad tracks along County Road 54 which runs easterly for approximately 600 feet and thence southerly for a distance of approximately 1600 feet. From that location the boundary follows property lines southerly across State Highway 99W and thence around a large parcel containing over 300 acres under a single ownership to a point being approximately 600 feet east of the intersection of Springbrook Street. With the exception of two parcels containing a total acreage of approximately 7 acres, all lands lying within this boundary segment are currently within the Newberg City Limits. These lands are committed to urban development as they currently lie within the Newberg City Limits and are located within areas which have been designed or are expected to be served by municipal services.

Boundary Segment No. 11 runs from a point being 600 feet east of Springbrook Street on Fernwood Road to the intersection of the St. Paul Highway and County Road 48. The boundary was drawn in this location rather than along Springbrook Street in order to allow for development to occur on both sides of Springbrook Street. The UGB was drawn 600 feet east of Springbrook Street in order to provide reasonable flexibility for utilizing design and development standards within the area. By locating the boundary in this location, it will allow development to occur on both sides of Springbrook Street which will facilitate the development of the currently sub-standard road system. Springbrook Street now serves as a truck route serving the industrial area and also provides a by-pass of the Newberg area when traveling from St. Paul toward the Portland area. This roadway is proposed to be developed to a minor arterial status some time in the future. By allowing development to occur on both sides it is expected that the City will require developers, through individual development processes, to either construct portions of the roadway, or participate in the development of that roadway through a local improvement district.

Boundary Segment No. 12 extends from the intersection of County Road 48 and the St. Paul Highway along County Road 47 to the point of beginning which is located at the old Wynooski Street Bridge. Again, the boundary line follows a natural roadway system currently developed within the area. Lands lying north of the roadway are designated industrial and vary in size. The Newberg Sportsman Airpark, a private facility is located within the immediate vicinity north of this boundary. In addition, the boundary incorporates most of the property currently under the ownership of Publisher's Paper which is an industrial paper processing plant and considered to be a major employer to the Newberg area residents. Much of the lands within this portion of the boundary are currently committed or developed in industrial uses. Sewer and water facilities are either developed or expected to be extended to these lands within the next 20 year period. A major water transmission line is proposed to be developed along Boundary Segment

No. 12 and then following Springbrook Road to its intersection with a main line water system located near the intersection of Springbrook and Fernwood Road. This water system will provide a major circulation network and will greatly increase the efficiency of the City's water system once developed. Again, additional lands lying to the south were not included into the boundary as a need had not been identified for such lands at the time the boundary was initially drawn. In addition, those properties lying south of this boundary segment are more conducive to rural development as the Hess Creek drainage system with its tributaries meanders in and about this area to a large degree making development more difficult.

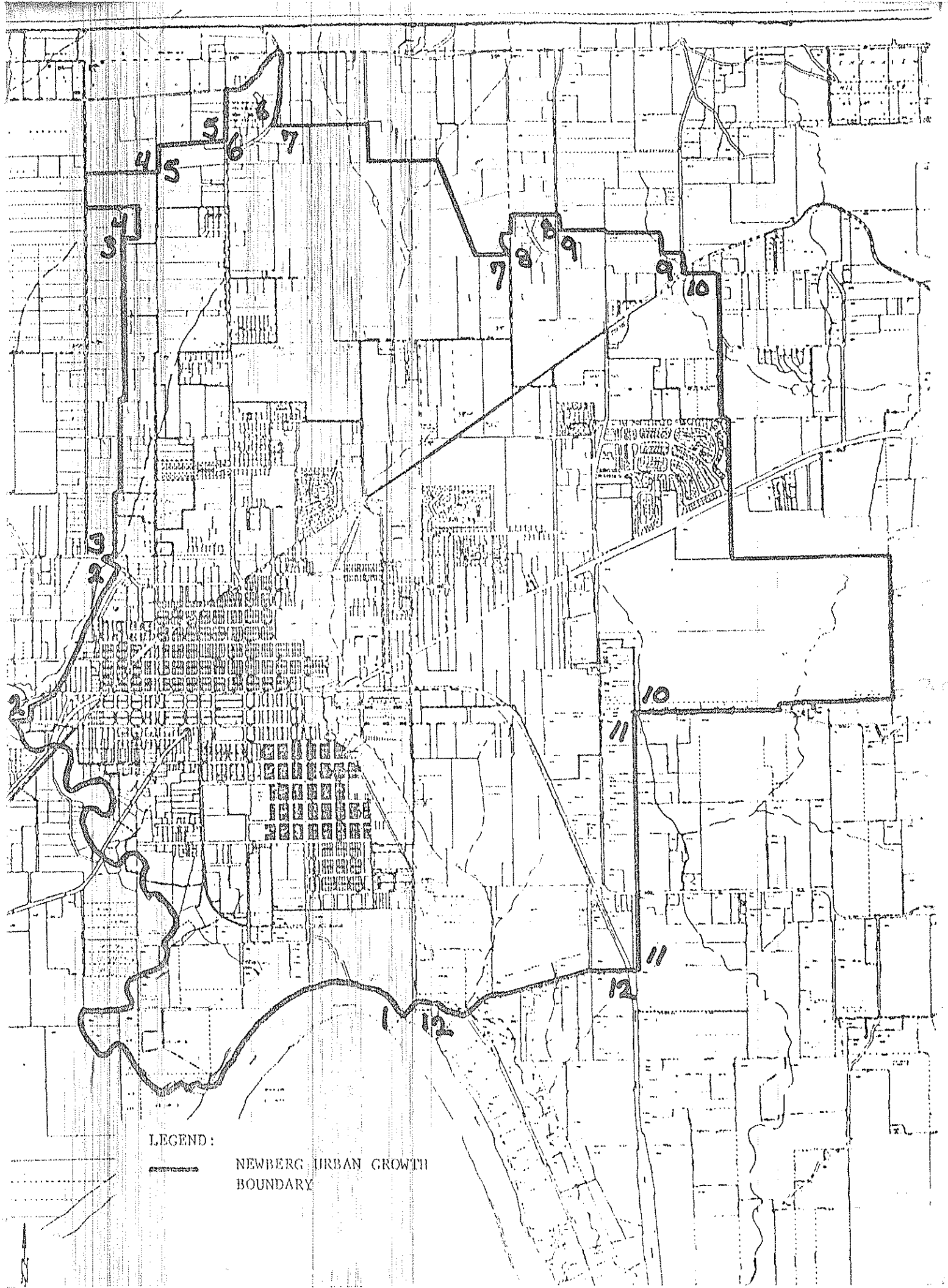
LEGEND:
NEWBERG URBAN GROWTH BOUNDARY

EXHIBIT B

EXHIBIT B

2. Beneficial uses of the Willamette River recognized by the Department of Environmental Quality shall be preserved.

3. Water quality in the Willamette River and tributary streams shall be protected.

4. The Newberg airshed shall be protected from excessive pollution levels resulting from urbanization.

5. Air pollution levels resulting from automobile traffic on Highway 99W should be minimized by limiting new access points and developing alternative routes.

6. New industry should be located in areas which minimize impacts upon the air, water, and land resource base, as well as upon surrounding land uses.

7. The City will cooperate with State and Federal agencies which regulate environmental quality and shall adhere to the standards established by these agencies in the issuance of any permits or approvals given by the City. This policy is intended to cover discharges and emissions which may impair air, water or land quality or exceed the established standards for noise or other emissions.

8. The threat of excessive noise will be considered when reviewing land use requests. In addition, any new commercial and industrial developments shall conform to DEQ noise pollution standards.

AREAS SUBJECT TO NATURAL DISASTERS AND HAZARDS

Goal:

To protect life and property from natural disasters and hazards.

Policies:

1. Newberg will adopt an ordinance to limit development within flood areas in order to protect the public safety and minimize property damage. The floodplain ordinance will be written in such a manner as to also insure compliance with the regulations of the Federal Flood Insurance Program. The ordinance shall include the designation of a floodway zone within which no obstructing structures may be placed. It shall also provide for a floodway fringe area where all new structures will be subject to minimum floor elevation regulations and other special construction criteria.

   The largest floodplain area within the Urban Growth Boundary is located within the Willamette Greenway. As such, this area will be subject to Greenway plans and regulations.

4. The dedication of easements for public use of drainageways should be encouraged when constituent properties are either developed or redeveloped. Development densities that would normally be allocated to portions of property in the drainageways may be transferred to adjoining areas up to a maximum increase of 10 percent.

5. The floodplains and drainageway areas in Newberg should be preserved with a largely open character to provide a basic open space framework for the community. The capacities of these areas shall be maintained to provide a natural storm water and drainage system, as well as to continue to provide a natural habitat for local fish and wildlife. Drainageways should be kept in open space uses, including pastureland, tree raising and light recreational uses. Bicycle and pedestrian pathways might be included in these areas. Care should be taken to minimize disturbances in these often erosive and steep areas. All uses should be compatible with the specific sites.

6. The Publisher's Paper processing plant has a waste treatment lagoon located outside the existing City Limits, but within a designated open space area. The waste treatment system has been in place for 30 years and is not incompatible with the identified fish and wildlife habitat. This system shall be permitted to continue, subject to applicable State and Federal environmental regulations.

Scenic Resources

1. The City shall take steps to maintain and improve the visual quality of the City.

Historic Resources

1. The continued preservation of Newberg's designated historic site and structures shall be encouraged. Special sources of funds as well as other incentives for restoration and preservation should be investigated.

2. Newberg's inventory shall be continually updated to reflect new information.

VACANT LAND INVENTORY

A vacant land inventory was prepared as part of the Newberg Comprehensive Plan. An inventory of vacant land was necessary in order to determine whether adequate amounts of suitable vacant land was provided in each identified land use to accomodate projected needs to the year 2000. The following factors were utilized in determining what lands were not suitable, available and vacant:

1. All lands above 20% slope
2. All street and railroad rights-of-way
3. Public land
4. Watercourses
5. Parcels with less than twice the minimum lot size, having generally sound structures situated thereon
6. Parcels that, because of odd shape, topography, irregular placement of buildings or limited accessability, could not be readily developed if urban services were available
7. Cemeteries
8. Developed portions of the Sportsman Airport
9. Parking lots

The vacant land inventory is plotted on 1974 Aerial Survey Topographical maps. Most of the maps used are quarter section maps at a scale of 1" = 200'. The vacant land inventory was prepared utilizing the above referenced criteria, then checked in the field for accuracy. By verifying the inventory through a visual land survey of all properties within the Urban Growth Boundary, it was possible to ensure that the vacant lands identified were actually vacant and suitable for building.

PLAN DESCRIPTION

INTRODUCTION

In addition to the overall goals and policies listed within the Comprehensive Plan, a land use map is included which ties land uses and densities to specific locations. The Land Use Plan is designed to provide adequate land for residential, commercial, industrial and other uses for a projected population of 27,000 people by the year 2000. The adopted urban growth boundary defines Newberg's planning area and is intended to accommodate land use needs over the 20 year period. The City of Newberg will periodically update the buildable lands inventory and closely monitor development rates to determine whether the UGB contains sufficient buildable lands to accommodate land use needs.

URBAN GROWTH BOUNDARY

The Urban Growth Boundary was established to separate urban and urbanizable areas from lands which are to remain in rural uses through the year 2000. The UGB contains approximately 3,952 acres, as compared with the current City area of approximately 2,450 acres. 1,622 acres have been identified as being vacant and buildable. These lands should satisfy the anticipated development needs of the City through the year 2000.

The Boundary was adopted based on anticipated needs for housing, employment and livability. In accordance with Statewide planning goals, the Boundary is designed to accommodate the projected population of 27,000 people, to allow for the orderly and economic provision of public facilities and services, and to provide for maximum efficiency of land uses both within and on the fringe of the existing urban area. Environmental, energy, economic and social consequences as well as the compatibility of proposed urban uses with nearby agricultural activities were also considered in the location of the UGB.

Overall, the UGB was based upon a service area concept. Nearly all of the land within the adopted boundary is within the drainage basin of the existing sewage treatment plant. Urban expansion to the east or west of the adopted UGB would require pumping facilities, unless an alternate sewage treatment facility were designed within another drainage basin.

LAND USE NEEDS

The provision of adequate land to meet future land use needs was one of the most important considerations in the design of the Newberg UGB. Land needs were determined by use of various methods. Residential land needs were projected on the basis of existing densities and housing mix trends. The housing mix ratios used reflect a decrease

in the proportion of single family units and an increase in the proportion of multi-family and mobile home units. Commercial and industrial land needs were based primarily upon projected economic growth rates as related to employees per acre. The acreage provided for commercial and industrial uses will be adequate to implement the City's long range policy of encouraging industrial growth and economic independence. Park land needs were calculated with use of suggested guidelines from the Chehalem Park and Recreation District and the National Recreation and Park Association. These guidelines suggest standards for providing recreational acreages based upon population. Public/Quasi-Public land needs were determined without the use of ratios. Needed school sites acreages were added to existing Public/ Quasi-Public lands.

Based upon an expected population of 27,000 by the year 2000, land use needs for the planning period were calculated as follows:

CITY OF NEWBERG
YEAR 2000 LAND USE NEEDS

Use	Land Use Needs	Land Available in UGB
Residential	2,140	2,194
Commercial	324	324
Industrial	709	709
Public	299	218
Parks	100	45
Unbuildable	462	462
Total	4,034	3,952

The above table indicates that 4,034 acres may be required for urban uses by the year 2000. Since 3,952 acres are presently included within the Newberg UGB, a limited amount of acreage may need to be added at some future time, depending upon trends of urban growth.

It should be noted that the UGB includes approximately 462 acres of land which are considered unbuildable due to steep slopes, unstable soils, flood hazards, or other natural conditions. These lands are most suitable for light agricultural or open space uses and are implemented by the General Hazard or Flood Hazard sub-district zoning designations.

PLAN CONCEPT

The land use plan map relates closely to goals, policies and projected needs. Also, existing land uses as well as 1973 Comprehensive Plan designations were carefully considered in the preparation of the Land Use Plan Map. The Plan is based upon the concept of maintaining a strong central core while also providing smaller neighborhood commercial centers. In general, medium and high density residential areas are clustered around commercial areas and along arterials. Lower density residential areas are generally located to the north of downtown and in peripheral areas.

The floodplain and drainageways provide a basic framework for Newberg's open space network. Existing and future park sites have been located at scattered locations throughout the planning area. In this way, all residential areas can be adequately served by neighborhood parks. Other future park locations will be defined as the need arises.

PLAN CLASSIFICATIONS

For the purpose of evaluating and eventually implementing the proposed Land Use Plan, descriptions of land use classifications are essential. Explanations of the various map designations are as follows:

Mixed Use

The objective of this land use designation is to provide a compatible mixture of commercial, office-employment and higher density residential uses. Commercial uses in the mixed use area are intended to include neighborhood convenience types of uses. Such uses may include convenience retail businesses, retail food establishments, personal service establishments, institutional uses and professional offices. Office employment uses may include office buildings, banks, theaters, and other similiar types of facilities. Residential uses will be primarily multi-plexes and low or medium rise multi-family dwellings. Light industrial uses which are compatible with the general character of the area may also be permitted.

Due to the unique location of this area, development should not be limited to a single type of use. Instead, this designation provides flexibility for the development of the area and recognizes that certain commercial, residential and industrial activities can be located together without conflicts. Proposals for the mixed use area should be consistent with the availability of services and should not adversely impact existing or potential development of adjacent lands.

Residential Land Use

Residential land is divided into three separate categories. Density rather than housing type is the most important development criteria which is used to classify different types of residential areas on the Plan. At this time, mobile home parks and mobile home subdivisions are permitted outright in the medium density residential zone. They are also permitted as a conditional use in the community commercial zone. As needs can be further defined, mobile homes as well as other innovative housing types may be permitted in other zones, provided proper design controls and standards can be met to reduce potential conflicts.

The following is a summary of the three residential land use categories.

Low Density Residential

The objective of this land use designation is to provide a wide range of housing types and styles, while allowing for up to an overall density of 4.4 units to the acre.

Typical housing types will include single-family attached and detached housing. Cluster areas within Planned Unit Developments or condominiums will include adequate open areas to maintain the low overall density of this classification.

Services shall include improved streets, underground utilities*, street lighting, sidewalks, and in some cases, bikeways.

Medium Density Residential

The objective of this land use designation is to provide a wide range of housing types and styles while maintaining an overall density of 8.8 units to the acre.

* Except electrical transmission lines.

Typical housing types will include single-family housing on small lots, attached or detached single-family or duplex units and tri- or four-plexes where adequate open areas exist and where the overall density is maintained. Cluster developments will be permitted when consistent with surrounding development patterns and where the density is within the limits of this classification.

Service shall include improved streets, underground utilities*, street lighting, sidewalks and, in some cases, bikeways.

High Density Residential

The objective of this land use designation is to provide multi-family housing of different types while maintaining an overall density of 21.8 units to the acre.

Typical housing types will include apartments, townhouses, and a variety of cluster developments. Density may vary within this classification depending on lot sizes, off-street parking and other site constraints.

Services shall include improved streets, underground utilities*, street lighting, sidewalks, and in some cases, bikeways.

Commercial Land Use

The objective of this land use designation is to provide for a wide variety of commercial activities including offices, retail sales, and services.

There are several areas designated for commercial use. The downtown core area is recognized as the Central Business District of Newberg. This area should remain as a stable commercial area and a primary location for offices and retail sales.

The area along Highway 99W east of the Central Business District is recognized as a potential commercial growth area. This area will serve primarily as a service type commercial area providing for shopping centers, restaurants, motels and other services.

Some neighborhood commercial areas are proposed on the Land Use Plan. These areas should provide convenience sales or services to the neighborhood in which they are located. The services provided should be at a scale consistent with the needs of the neighborhood and should be so designed as to be compatible with the general character of the area.

*Except electrical transmission lines.

Open Space

Open space lands are primarily areas in floodplains and drainageways which, due to natural limitations, are to be preserved in a largely open character. The open space lands also serve as a habitat for fish and wildlife. These lands form the basic open space framework for the community and may be augmented over time with other parcels of land possessing desirable natural and locational qualities. Boundaries of designated open space areas are defined as those lands below a 20% break in slope along the drainageways found within the Newberg urban area as well as some lands which have been identified as being generally hazardous due to geologic or soil conditions. Ownership of these lands may be public, private or a combination of these two. The open space lands were carefully examined in conjunction with fish and wildlife habitats. The General Hazard and Flood Hazard ordinances have been designed to ensure the protection and preservation of these lands.

Parks

Park lands are usually publicly-owned or leased open areas which provide recreational or other types of leisure-oriented opportunities. Boundaries of these areas are specifically defined on the Plan map. These areas shall be located throughout the planning area in order to minimize travel distances to recreation opportunities.

Future Park Site

The purpose of this designation is to provide the Parks District and/or the City of Newberg with a first option to buy part or all of the indicated areas.

Approximate Future Park and School Sites

The approximate future park and school site symbols indicate general locations of needed new facilities. Specific sites are not delineated due to financial constraints and, in some cases, to the lack of immediacy in the need for the facilities. As these projects become more feasible, symbols may be removed and specific future park or school sites may be added to the Land Use Plan map as needs become apparent.

Wherever possible, future school sites should be located adjacent to existing or future park sites.

Public/Quasi-Public

The public/quasi-public designation may be used to indicate the location of schools, public and private; airports; hospitals; cemeteries; government centers and other non-park facilities serving major community functions.

Except in cases where specific new sites are known, only existing public/quasi-public uses shall be shown on the Land Use Plan map.* In general, these areas will expand into adjacent areas of other uses when the need arises.

Industrial Use Areas

The objective of this land use designation is to provide land for a variety of light industrial, heavy industrial and industrial park areas.

Heavy industrial users should be located in the area near Publisher's Paper, an existing pulp and paper mill. Other designated areas should be developed to light industry or industrial park type uses.

In industrial areas, uses other than industrial may be permitted by conditional use permit only.

Commercial/Medium-High Density Center At Mountainview Road and College Street

Although specific boundaries for uses in this center are indicated on the Land Use Plan map, designations in the area are intended to indicate approximate acreages rather than exact locations of these areas. Accordingly, the center is meant to include approximately 2.3 acres of commercial land, two acres of high density residential land, and ten acres of medium density land in any type of well-designed land use pattern. Commercial uses in this area shall be limited to neighborhood convenience types of activities and commercial development shall not be permitted until transportation provisions are adequate. Such

* A Comprehensive Plan amendment to designate the civic center site shall be heard in conjunction with a review of the consultant's report on the site selection.

provisions shall include the completion of the Mountainview arterial from Springbrook to College Street and the installation of proper traffic controls.

Commercial/Industrial/Medium Density Area
South of 99W and East of Springbrook
(Tax Lots 3221-100 and 3216-2000)

The unusually large size of these parcels provides a special opportunity for a flexible development pattern. As a result, the location of designated uses in this area are not intended to be specific. Percentages of indicated land uses, however, should remain the same. These percentages should be approximately as follows:

Industrial	52%
Commercial	8%
Medium Density Residential	14%
Single Family	26%

PROVISION FOR FUTURE NEEDS

Land requirements for all uses have been projected and summarized in five-year intervals to enable comparison and monitoring of population projections and development trends.

LAND USE REQUIREMENTS
1985 - 2000

Use	1980	1985	1990	1995	2000	Available
Residential	1,208	1,415	1,658	1,942	2,140	2,194
Commercial	207	232	259	290	324	324
Industrial	264	338	433	554	709	709
Public	172	196	223	263	299	219
Parks	19	29	44	66	100	45
Unbuildable	462	462	462	462	462	462
TOTAL	2,332	2,672	3,079	3,567	4,034	3,952

The above Table indicates that 4,034 acres may be required for urban uses by the year 2000. Since 3,952 acres are presently included within the Newberg UGB, a limited amount of acreage may need to be added at some future time, depending upon trends of urban growth.

The Comprehensive Plan provides less park and public/quasi-public lands than are projected as needed. The acreage provided for public/quasi-public uses largely consists of areas already in these uses.

Additional lands are intended to be transferred from residential areas as needs for specific sites become apparent.

Overall, the Newberg Comprehensive Plan is well-balanced with respect to lands that are provided to accommodate projected needs. The City of Newberg will closely monitor development rates to determine whether the UGB contains sufficient buildable lands to accommodate land use needs. Any future change of the Newberg UGB will be based upon a consideration of the seven factors of Goal 14.

SUMMARY

The Comprehensive Plan provides the basis for making land use related decisions through the year 2000. The goals included in the Plan describe long-range community objectives, while related policies clarify in greater detail the intent of the Plan and directions for future planning decisions and activities. The Plan map with its related text indicates the geographic locations of different land uses and densities. Given current projections, the mapped land use pattern should be adequate to provide for land use needs through the year 2000. In order for the Comprehensive Plan to continue to provide reliable guidance, the Plan, its subsections and the implementing ordinances will be reviewed and revised as needed. A major review will take place every three years, based upon an examination of local concerns and other planning information, to determine whether revisions on the Plan, its subsections, implementing ordinances or the urban growth boundary will be necessary.

The Comprehensive Plan is intended to be flexible enough to meet changing needs. At the same time, it must be stable enough to provide reliable guidance. Overall, the Plan will provide for the continued development of Newberg as a healthy, well-balanced community offering a high quality of life.

EXHIBIT C

MAP

EXHIBIT D

General Provisions: Special Permit Requirements For General Hazard Sub-District

562 Purpose. These provisions are designed to implement the intent and purpose of the Newberg Comprehensive Plan; to promote the preservation and protection of those lands identified by the Plan under the classification of "Open Space"; and to provide for the proper and appropriate development requirements immediately adjacent to these areas.

564 Procedure Established. In addition to the building permit requirements and operating procedures established and approved by the City, no building permitted in the General Hazard sub-district shall hereafter be located, moved, erected or constructed in any General Hazard sub-district until a special building permit therefore has been obtained from the designated City official.

566 Requirements for Permit Issuance.

1. In order to ensure that adequate and appropriate lands are left in permanent open space, development of a structure must be located at a higher elevation than a line identified as the 20% break in slope, with the exception of a daylight basement or public recreation structure. The 20% break in slope line is determined by identifying that point at which the slope into the drainage ways equals 20% at its highest elevation within the General Hazard boundaries.
2. Special building permits shall be issued by the City when the City has determined that:
   - A. Such development is in conformance with Subsection 1 above.
   - B. The proposed building site is not within the flood-way or flood-way fringe as determined by U.S. Army Corp. of Engineer maps. When such maps are not available, the City shall not authorize development within these areas without substantial evidence identifying the site as not being within a potential flood-way fringe as may be approved by the Newberg Engineering and Planning Departments.
   - C. The proposed building site will not, during a potential earthquake or landslide, result in serious danger or injury to property or the health, safety or welfare of residents or future residents of the immediate area.
   - D. No improvements are proposed that will have the tendency to increase the danger of erosion or landslide activity, or alter the course and/or height of the water generated during a flood.
   - E. An engineering study shall be required when any development of a daylight basement or public recreation structure is to take place at an elevation which is lower than the 20% slope line or in any other area which is considered generally hazardous due to geologic or soil conditions.
   - F. Special requirements are attached to the building permits to assure that the conditions and purpose of this section will be met.

General Provisions: Flood Hazard Sub-Districts

552 Purpose. The purpose of this subdistrict is to ensure that no development occurs within those areas identified as lying within the 100 year flood-way or the flood-way fringe, and to insure the public health, safety and general welfare of the residents or future residents of the community. The parameters of the Flood Hazard sub-district would include all areas identified as a flood-way or a flood-way fringe on U. S. Army Corp. of Engineers flood map data. Where such data is not available, the Flood Hazard sub-district shall include all lands within a 10 foot elevation to the normal mean high water level of any water-way.

554 Special Conditions.

1. No improvements shall take place within the Flood Hazard sub-district that will have a tendency to change the flow of surface water during future flooding so as to endanger the health, safety and welfare of residents or property in the area.
2. No residential, commercial or industrial structure shall be located within the Flood Hazard sub-district.
3. No sub-surface sewage disposal system for a proposed building will be permitted which may cause a general hazard to the health, safety and welfare of residents or future residents of an area during times of flooding.
4. The finished floor elevation of any structure designed for occupancy shall be at least 1 foot above that elevation established as the flood-way fringe.
5. Dead-end access shall not be permitted within the Flood Hazard sub-district where such access is used as the principle means for getting to or from a place of occupancy.

EXHIBIT E

MAP