Back to Web Site

Monmouth, Oregon
Promoting pride, progress, and friendly hometown values

Monmouth Comprehensive Plan

The City of Monmouth originally adopted the Comprehensive Plan in December 1978. In September 1988, the City adopted a Local Review Order, which provided findings and amendments to the Comprehensive Plan. The Local Review Order was intended to address the City's responsibilities under Oregon's Periodic Review process.

In October 2001, the City adopted a number of revised sections to the Comprehensive Plan. These included a Land Use Element, which includes a buildable lands inventory, a Housing Element, and an Economics Element. An updated Comprehensive Plan Map was also adopted at this time. The revised sections were intended to update and replace the corresponding sections in the Local Review Order.

The City adopted an updated Public Facilities section in April 2007. In January 2008, the City adopted a revised Economics element that conforms to the requirements for an Economic Opportunities Analysis as specified in Oregon Administrative Rules, Chapter 660, Division 9.

The Monmouth Transportation System Plan, prepared in October 1997, is part of the Comprehensive Plan. Information within the Transportation System Plan is intended to replace the transportation system findings found in the Local Review Order. The City is currently updating the Transportation System Plan.

The current Monmouth Comprehensive Plan consists of the revised sections adopted in 2001, 2007, and 2008 as well as the other pertinent sections from the 1988 Local Review Order and the Transportation System Plan. The Comprehensive Plan goals and policies and sections included here are those sections that were updated beginning in 2001. Copies of the 1988 Local Review Order and Transportation System Plan are available at the Community Development office at City Hall. The City is continuing to pursue funding opportunities to update and consolidate the Comprehensive Plan.

- **Comprehensive Plan Goals and Policies.pdf**
- **Land Use Element.pdf**
- **Housing Element.pdf**
- **Economics Element.pdf**
- **Public Facilities Element.pdf**

Thank you for visiting the City of Monmouth's Website. (Created 12.2004)

URBANIZATION

GOAL: TO PROVIDE FOR AN ORDERLY AND EFFICIENT TRANSITION FROM RURAL TO URBAN LAND.

Policies

1. The City of Monmouth shall not extend urban services beyond city boundaries unless waivers for future annexation are obtained.

2. The City of Monmouth shall review the urban growth boundary at least every five (5) years throughout the planning period. The review will direct special attention toward population increase and the projection of future land requirements.

3. Annexation to the city will be permitted if:

    - The city is able to provide adequate sewer, water, storm drainage, administration and fire protection services to the area.

    - The new area will meet city standards for all public improvements.

    - The are to be annexed is contiguous to the city and represents a logical direction for city expansion.

    - The area is within the urban growth boundary.

4. Polk County will submit to the City of Monmouth for review all proposals for partitions, subdivisions, comprehensive plan or zone changes within the urban growth boundary. Management of the area between the city limits and the urban growth boundary is viewed as a joint city/county responsibility. Decisions will be governed by the jointly adopted Urban Growth Management Agreement and the Monmouth Comprehensive Plan (included as part of the Polk County Comprehensive Plan).

5. Changes to expand or reduce the Urban Growth Boundary will be based upon consideration of the following factors:

    - Accommodation of additional population

    - Housing, employment opportunities and livability

    - Orderly and economical provision of public facilities and services

    - Maximum efficiency of land uses within and on the fringe of the existing urban area

    - Compatibility of the proposed urban use with nearby agricultural activities

LAND USE

GOAL: TO ENCOURAGE EFFICIENT LAND USE, MEET FUTURE LAND USE NEEDS OF THE PROJECTED POPULATION TO THE YEAR 2020, AND TO MAINTAIN LAND USE DESIGNATIONS APPROPRIATE FOR THE CHARACTER OF THE CITY OF MONMOUTH.

Policies

1. The City of Monmouth shall update and revise land use designations when necessary to accommodate demonstrated need for changing circumstances.

2. The City of Monmouth shall establish and utilize low, medium, mixed and high-density residential land use designations.

3. The City of Monmouth shall establish and utilize a commercial land use designation.

4. The City of Monmouth shall establish and utilize an industrial land use designation.

5. The City of Monmouth shall insure that new industrial uses will be compatible with surrounding uses.

6. The City of Monmouth shall, by use of land use designation and property zoning techniques, establish the downtown business district along Main Street as the primary commercial area within the city and encourage its continuation as such.

7. The City of Monmouth shall encourage the use of energy-efficient design and energy-saving technology and methods for all buildings within the city.

HOUSING

GOAL: TO INSURE THE EXISTING AND FUTURE RESIDENTS OF MONMOUTH THE OPPORTUNITY TO LIVE IN SAFE AND HEALTHFUL HOUSING AND TO PROVIDE A CHOICE OF HOUSING TYPES AND DENSITIES.

Policies

1. The City of Monmouth shall encourage development of housing that meets the needs of all income groups of existing and future residents.

2. The City of Monmouth shall allow for the use of new land development techniques to encourage a variety of living areas and housing types in all residential districts.

3. The City of Monmouth shall ensure that multifamily-zoned lands exist to accommodate multifamily and manufactured home park uses.

4. The City of Monmouth shall encourage the maintenance, conservation and enhancement of existing residential areas and housing stock through use of federal and state funds for low interest home rehabilitation loans and grants to households of low and moderate income.

5. The City of Monmouth shall encourage the

6. Changes to expand or reduce the Urban Growth Boundary will be based upon consideration of the following factors:

    - Accommodation of additional population
    - Housing, employment opportunities and livability
    - Orderly and economical provision of public facilities and services
    - Maximum efficiency of land uses within and on the fringe of the existing urban area
    - Compatibility of the proposed urban use with nearby agricultural activities

TRANSPORTATION*

GOAL: TO PROVIDE FOR AND ENCOURAGE A SAFE, CONVENIENT, AND ECONOMIC TRANSPORTATION SYSTEM WHICH INCLUDES ADEQUATE ACCESSIBILITY TO ALL PLANNED LAND USES, ALTERNATIVES TO THE AUTOMOBILE, AND GOOD INFRASTRUCTURE MAINTENANCE.

Policies

1. The City of Monmouth will develop and maintain a transportation system plan that encourages alternatives to, and reduces reliance upon the automobile

2. The City of Monmouth will develop land use regulations and subdivision ordinances that allow needed transportation facilities and improvements and encourage development patterns that enhance opportunities for pedestrian travel, bicycle travel, and forms of public transportation.

3. The City of Monmouth shall strive to coordinate planning actions, provide transportation services, and implement the ODOT State Transportation Improvement Program (STIP) with affected jurisdictions in order to best serve the city's residents.

4. The City of Monmouth shall utilize the Transportation System Plan for guidance in all land use planning and project development activities.

5. The City of Monmouth shall protect transportation facilities, corridors, and sites for the functions identified in this plan.

* From the Monmouth Transportation System Plan, October 1997.

PUBLIC FACILITIES AND SERVICES
POLICIES

General

1. It shall be the policy of the City of Monmouth to investigate the feasibility of cooperation and coordination with other government and quasi-governmental agencies in planning and providing public facilities and services. Wherever feasible, cooperative projects should be promoted to insure the most economic and efficient provision of services to the citizens of the City of Monmouth.

2. The sizing and location of sewer, water and storm drainage lines is to reflect the requirements of desired land use arrangements and densities of the service area.

3. The installation, repair or resizing of municipal service lines should be done prior to, or concurrent with, street improvements.

Water Service

The provision of water service can be used effectively to guide and promote timely development in Monmouth. Therefore, it is the policy of Monmouth that:

1. The City of Monmouth will implement the water facilities plan adopted in 2007.

2. Extension of water service shall be contained to areas within the corporate limits of the city; and

3. All land use developments are required to install distribution lines that will provide at least, minimum water pressure and flow for the proposed land use and future land uses.

4. Waterlines and fire hydrants serving a subdivision or new development and connecting it to city mains shall be installed at developers' expense. The installation shall take into account provisions for extension beyond the subdivision or development to adequately grid the city system.

5. The City shall encourage water conservation and the development of a water conservation education program.

6. The City shall actively participate in efforts to develop regional or shared water system facilities.

Sewage Disposal System

The extension of sewer services in Monmouth is essential to the City's future development since most of the soil is unsuitable for septic tank drain fields. Therefore, it is the policy of Monmouth that:

1. The City of Monmouth will implement the sewer water facilities plan update adopted in 2007.

2. Extension of sewer service shall be limited to areas within the corporate limits of the city, unless a recognized public health emergency necessitates otherwise.

4. Preference shall be given to development proposals adjacent to existing sewage mains.

5. The City will further investigate alternatives for sewer system improvements needed to accommodate planned future population growth. A Capital Improvements Program will be prepared to guide and schedule needed improvements.

6. New subdivisions and areas of development shall pay for the cost of sanitary sewers installed to serve the subdivision and to connect the subdivision to existing mains.

7. The sizing and location of wastewater lines shall meet requirements of the desired land use arrangements and densities of the service area.

Storm Drainage

1. The City shall develop a stormwater master plan for the Monmouth urban area.

2. All storm drainage is to be channeled into an effective storm drainage system.

3. All new developments shall install engineered and City-approved storm drainage facilities along with other improvements.

4. Drainage facilities shall be provided in subdivisions and developments and shall connect to drainage ways and storm sewers outside the subdivision at developers' expense. The design shall consider the capacity and grade necessary to maintain unrestricted flow from areas draining through the subdivision.

5. Storm drainage improvements through already improved lands will be accomplished as the need arises using resources of bond issues or other funds depending upon the scope and expense of the project.

Schools

Recognizing the need for identifying additional school sites is important to the planning process. It is critical to reserve adequate acreage in a suitable location in order to have the site available when needed. Therefore, the following policies have been formulated as a guide to the future location of schools:

1. The City of Monmouth recognizes the need and the ability of the Central School District to plan all elements of the services they provide. However, the City shall encourage and promote cooperative planning between the city and the district regarding any development or program having a direct bearing on school location or city services.

2. The location of future school sites should be planned to provide locations apart from existing schools and as near the center or residential neighborhoods as possible. Locations should be accessible from collector or arterial streets, however, should be set back far enough to protect the teaching environment from noise and pollution and the student population from dangerous pedestrian-vehicular traffic conflicts.

3. Future school sites should be sufficiently large to provide school facilities that may be expanded as the need arises. Encouragement should be given to multi-uses of school property such as open space and neighborhood parks.

4. Wherever possible, schools should be planned to serve multiple community purposes. In addition to normal school operations, schools can be used for other activities such as meetings of various types of community and civic groups and as a place to hold various community functions such as public meetings, charitable events, theater presentations, etc.

Solid Waste

The amount of solid waste generated in Monmouth warrants management. To achieve the proper disposal of solid wastes and keep environmental hazards to a minimum, it is the policy of the City of Monmouth to:

1. The City shall conserve natural resources and reduce the solid waste requiring disposal by supporting and encouraging recycling of solid waste.

2. The City shall support the regional solid waste program administered by Polk County.

Police, Fire Protection and Ambulance Service

Police, fire protection and ambulance services are crucial factors for the safety and well being of the citizens of Monmouth. Therefore, it is the policy of Monmouth that:

1. Public Safety services shall be maintained at a satisfactory level to protect the citizens of Monmouth; and

2. Mutual aid agreements and other types of cooperative public safety agreement shall be continued at their present level and expanded in the future where feasible; and

3. New developments shall be carefully evaluated to determine the effects the development may have on public safety services. Should the development have more than a minimal effect on public safety services, the development shall not be approved.

Library Services

Library services play an important role in the well-being of the community by affording all citizen access to reading materials and other library related services. Therefore, it is the policy of Monmouth that:

1. The City will encourage use of the library and its facilities; and

2. The City will continue to support the Chemeketa Cooperative Regional Library Service in its efforts to improve library service in the region.

Land Use Element

Introduction

A land use plan indicates the area into which various types of activities are expected to occur. Monmouth designates seven (7) categories of land uses to be described and located on the land use map.

1. Low Density Residential. Areas designated as low density residential shall not exceed a density of six (6) dwelling units per gross acre.

2. Medium Density Residential. Areas designated as medium density residential shall not exceed a density of twelve (12) dwelling units per gross acre.

3. High Density Residential. Areas designated as high density shall not exceed a density of twenty (20) units per gross acre.

4. Mixed Density Residential. New subdivisions in areas designated as mixed density may develop at a density of nine (9) units per gross acre, with a minimum of one third of the units shall be developed as multi-family or attached single-family dwellings.

5. Commercial. Commercial uses include all activities of a commercial nature. There is no distinction between what kinds of commercial activities are allowed; the specific zoning regulates uses.

6. Industrial. Industrial use covers the range of manufacturing, warehousing, and wholesaling activities.

7. Public Services. Public Service uses include all government and semi-public lands and uses.

The land use designations in the Comprehensive Plan are of a general nature and are intended to indicate the expected community growth pattern. Implementation of the plan occurs through more specific actions such as zoning, subdivision control, annexation review, Urban Growth Boundary administration and public facilities planning. Although the plan is designed to be somewhat flexible, it must be understood that it is a significant policy statement and a great deal of responsibility must be exercised in its use and updating.

In 2000, the city conducted a buildable lands inventory. **Table 1** shows the amount of developed acreage for residential, commercial and industrial land in the city.

Land Use Element - Table 1
Developed Land Uses within the Monmouth UGB
By Zone, 2000

Zoning Designation	Acres[2]	Percent of Total Area[1]
Residential	403	90.8
Commercial	35	7.9
Industrial	6	1.4
Total	444	100%

Source: MWVCOG, 2000.
[1]Does not include land zoned for public or agricultural uses
[2]Acreage data is from the Polk County Assessor and does not includes public rights-of-way.

Buildable Lands Inventory

For each land type (residential, commercial, and industrial), the analysis is broken into two parts. First the findings describe the amount of net buildable land, by zoning district, within the existing city limits. The findings then describe the amount of buildable land located between the city limits and UGB. The County zones land in this area until annexed into the city. The city's Comprehensive Plan does designate, in general, the future use (residential, commercial, or industrial) for such properties.

The analysis of residential lands includes totals for land that is completely vacant, partially vacant, and redevelopable. The analysis of commercial and industrial land includes totals for land that is completely vacant and redevelopable.

The following parameters are used to determine whether land is partially vacant and/or redevelopable.

- Vacant land includes all parcels that are at least 5,000 square feet (0.11 acres) in size with improvement values of less than $5,000. The minimum lot size for residential parcels in Monmouth is 5,000 square feet.

- Within the city limits, partially vacant land consists of residential parcels that are at least 0.50 acre in size with an improvement value of at least $5,000. This analysis assumes that 0.25-acre is devoted to the existing house, with the remainder considered vacant. This amount is added to the amount of gross buildable land.

- For land between the city limits and the UGB, partially vacant land consists of residential parcels that are at least 1.0 acre in size with an improvement value of at least $5,000. This analysis assumes that 0.50-acre is devoted to the existing house, with the remainder considered vacant. This amount is added to the amount of gross buildable land. The larger area attributed to the existing residence in this portion of the urban area is intended to account for the presence of larger homes and an adjacent septic system serving the residence.

- Redevelopable land includes parcels in all zones where some limited improvements have been made, but where potential for redevelopment for more intense uses is high. For the purpose of this analysis, redevelopable land is defined as parcels in all zones with improvement values of at least $5,000, where the ratio of land value to improvement value is 1:1 or greater. For residential parcels, this land may instead be classified as partially vacant. The area of redevelopable parcels is added to the amount of gross buildable land.

Polk County Assessor data is used in the analysis. This data provides the information for each tax lot account within the UGB including: (1) property size; (2) land and improvement values; and (3) building type. Zoning information for each tax lot is compiled and mapped by MWVCOG based on the Monmouth Comprehensive Plan and Zoning Map.

The analysis also includes an assessment of land that is not buildable due to physical constraints such as steep slopes, riparian buffers, floodways, and wetlands. These areas have been subtracted from the amount of gross acreage that is considered buildable.

This analysis also assumes that 28 percent of the gross buildable land will be dedicated for use as public facilities (rights-of-way, parks, etc). This percentage has been subtracted from the gross amount of buildable land.

Based on these refinements, the total amount of buildable land shown in each category (residential, commercial, industrial) represents the net amount of buildable land.

Figure 1 shows vacant, partially vacant, and redevelopable land within the Monmouth urban area by zoning designation.

Residential Land

Table 2 shows the amount of buildable land for each residential zoning district within the Monmouth urban area (both city limits and UGB). Approximately 461.7 net buildable acres are available for residential development within the urban area. Of that amount, approximately 158.8 acres are available within the city limits and an additional 303.0 acres are available between the city limits and UGB. Within the city limits, approximately 22.6 acres are available in the medium and high-density residential zones for multi-family development. Within the urban area, approximately 21.3 acres designated for residential use can be considered redevelopable. Approximately 403 acres within the Monmouth UGB are currently developed for residential use.

Land Use Element - Table 2
Buildable Residential Land
Monmouth, 2000

Zone/Plan Designation	Vacant (acres)	Partially Vacant	Redevelopable	Total
Within the City Limits				
Low-Density Residential Zone (RS)	112.4	20.5	3.2	136.2
Medium-Density Residential Zone (RM)	6.5	4.7	5.2	16.3
High-Density Residential Zone (RH)	1.4	3.4	1.6	6.3
Net Buildable Acres Within the City Limits	120.3	28.6	9.9	158.8
Between the City Limits & UGB				
Residential (R)	228.3	63.2	11.4	303.0
Net Buildable Acres Between the City Limits & UGB	228.3	63.2	11.4	303.0
Net Buildable Acres Within the Urban Area	348.7	91.8	21.3	461.7

Source: Polk County Assessor data, MWVCOG, 2000.

Commercial Land

Table 3 shows that approximately 31.1 net buildable acres are available for commercial development within the Monmouth city limits. (No land designated for future commercial use is located between the city limits and urban growth boundary.) Approximately 10.6 acres designated for commercial use can be considered redevelopable. Approximately 35 acres within the Monmouth UGB are currently developed for commercial use.

Land Use Element - Table 3
Buildable Commercial Land
Monmouth, 2000

Zone/Plan Designation	Vacant (acres)	Redevelopable	Total
Within City Limits			
Commercial Office Zone (CO)	3.3	0.6	3.9
Commercial Retail Zone (CR)	12.2	6.2	18.4
Commercial Highway Zone (CH)	5.0	3.8	8.9
Net Buildable Acres Within the City Limits	20.5	10.6	31.1

Source: Polk County Assessor data, MWVCOG, 2000

Industrial Land

Table 4 shows the amount of buildable land for each industrial zoning district within the Monmouth urban area (both city limits and UGB). Approximately 132.2 net buildable acres are available for industrial development within the urban area. Of that amount, approximately 26.5 acres are available within the city limits and an additional 105.7 acres are available between the city limits and UGB. Within the urban area, approximately 104.8 acres designated for industrial use can be considered redevelopable. Approximately six (6) acres within the Monmouth UGB that are designated for industrial use are currently developed.

Land Use Element - Table 4
Buildable Industrial Land
Monmouth, 2000

Zone/Plan Designation	Vacant (acres)	Redevelopable	Total
Within City Limits			
Industrial Park Zone (IP)	26.5	0.00	26.5
Net Buildable Acres Within the City Limits	26.5	0.00	26.5
Between City Limits & UGB			
Industrial (I)	0.9	104.8	105.7
Net Buildable Acres Between the City Limits & UGB	0.9	104.8	105.7
Net Buildable Acres Within the Urban Area	27.4	104.8	132.2

Source: Polk County Assessor data, MWVCOG, 2000

Land Needs Analysis

The buildable lands inventory is used in conjunction with the 2020 population projection to determine if adequate land is available for future residential, commercial, and industrial development.

Future Residential Land Needs

Average Net Density

To determine the amount of land needed for future residential development, it is necessary to calculate the average net density for the various types of housing developments including single-family, multi-family, and manufactured homes within manufactured home parks.

ORS 197.296 requires that jurisdictions review the density of development that has occurred during the period since the last periodic review of comprehensive plans. The last periodic review of the Monmouth Comprehensive Plan was conducted in 1987.

The average net densities used to conduct the analysis of future residential land needs are:

- Single-family residential – 6.1 units/acre
- Multi-family residential – 11.6 units/acre
- Manufactured home parks – 5.5 units/acre.

The origin of these densities is described below.

Single-Family Development

Since 1987, ten (10) subdivisions have been approved and at least partially developed. **Table 5** shows recent subdivision development. A total of 285 dwelling units have been developed on 46.8 acres. The resulting average net density of the development is 6.1 units per acre.

Land Use Element – Table 5
Single-Family Residential Development
Monmouth, 1987-2000

Subdivision Name	Zone District	Single-Family Units	Multi-Family Units	Total Units	Net Acres Developed	Net Density (units/acre)
Oak Grove	RS	9	0	9	1.6	5.8
Fir Oaks Phase II & III	RS	13	0	13	2.4	5.5
Fir Oaks Phase IV	RS	4	0	4	0.7	6.2
Fir Oaks Phase V	RS	10	0	10	2.0	5.1
Fir Oaks Phase VI	RS	12	0	12	2.3	5.2
Henry Estates	RS	35	0	35	6.5	5.4
Park Place Phase I	RS	18	0	18	2.7	6.7
Park Place Phase II	RS	96	0	96	14.1	6.8
Ballard Estates Phase I & II	RS	54	0	54	10.3	5.2
Griffin Estates	R/RS	41	0	41	5.4	7.6
Total		292	0	292	47.8	6.1

Source: MWVCOG, 2000

Multi-Family Development

Multi-family developments have occurred on existing platted lots. **Table 6** shows the location, size and density of multi-family developments constructed since 1990. A total of 213 units have been developed on 18.4 acres. The average net density of these developments is 11.6 units per acre.

Land Use Element – Table 6
Multi-Family Residential Development
Monmouth, 1990-2000

Map & Tax Lot	Zone District	Multi-Family Units	Net Acres Developed	Net Density (units/acre)
8-4-30BD 3702	RM	8	0.4	20.0
8-4-30CB 1600, 1607	RM	11	0.6	17.7
8-4-19CC 5600	RM	18	1.7	10.3
8-5-24DD 100	RM	60	5.0	12.0
8-5-25DA 1900, 1901, 1902	RM	6	0.5	12.0
8-4-30BD 3705	RM	15	1.3	12.0
8-4-30BC 101	RM	35	2.9	12.1
8-5-25AB-700	RM	6	1.0	6.3
8-5-25AD 6500	RM	4	0.3	13.3
8-4-30BC-8503, 8500	RM	6	0.5	12.0
8-5-25AC 1300, 1307	RM	12	0.9	13.0
8-5-30BC 8800	RM	7	0.4	15.9
8-4-30BD 3702	RM	4	0.4	10.0
8-5-25AB 601	RM	20	1.0	20.4
8-4-30BC 2100	RM	3	0.2	15.0
8-4-30BC 8500, 8503	RM	6	0.5	12.5
8-4-30CB-108	RM	10	0.8	12.1
Total		213	18.4	11.6

Source: City of Monmouth Building Permit data, MWVCOG, 2000

Manufactured Housing Parks

Monmouth contains several manufactured home parks established before 1987. A total of 158 manufactured homes are located on approximately 28.5 acres within these parks resulting in an average net density of 5.5 units per acre.

Future Residential Land Needs

The housing needs analysis (see Housing Element - Table 4) identified 2,025 new residential units that will be needed to accommodate the projected 2020 population of 15,117 persons. The needs analysis identified a minimum of 716 multifamily units that will be needed to accommodate future rental housing needs (see the discussion accompanying Table 10).

The current mix of housing in Monmouth includes 56.8 percent single-family residential development, 36.8 percent multifamily development, and 6.4 percent manufactured homes within manufactured home parks. **Table 7** shows the number of new units that will be needed in each housing type if the current mix continues to 2020. The average net density for future development is 7.7 units per acre. If the current housing mix continues, 745 multifamily units will be constructed, meeting the projected need for this type of housing.

Land Use Element – Table 7
Projected Housing Mix and Residential Land Needs
Monmouth, 2020

Housing Type	Existing Units	Additional Units Needed 2020	Percent of New Units	Net Density (units/acre)	Acres Needed 2020
Single Family	1,394	1,150	56.8	6.1	188.5
Multifamily	904	745	36.8	11.6	64.4
Manufactured Homes in Parks	158	130	6.4	5.5	23.5
Total	2,456	2,025	100.0	7.7	276.4

Source: MWVCOG, 2000

Looking back at Table 2, adequate vacant, partially vacant, or redevelopable land is available to accommodate future housing needs within the existing urban growth boundary. The buildable lands analysis found that approximately 493 acres are available for residential development within the urban area. An estimated 276 acres will be needed to accommodate future residential growth.

About 64 acres of land designated for multifamily development will be needed by 2020. Table 1 shows that about 52 acres of land zoned RM or RH is currently available for development. Duplexes are also allowed in the RS Zone and some of the need for multifamily land can be met through development of duplexes in this zone.

Monmouth will need more than 23 acres to accommodate future development of manufactured home parks. This use is allowed in the RM and RH zones as a conditional use. Some residential land will need to be redesignated for medium and/or high-density development to meet this future need. Alternately, the city may wish to amend the Zoning Ordinance to allow development of manufactured home parks in the RS Zone.

Overall, the estimated need for land for multifamily development and manufactured home parks exceeds the current available supply. The buildable land inventory and housing needs analysis results show that some land within the UGB currently designated as Residential on the Comprehensive Plan Map should be specifically identified for future medium and/or high-density residential development.

During winter and spring 2000-01, the city held open houses to show the results of the buildable lands inventory and housing needs analysis. The city presented three different development alternatives to citizens of Monmouth. Based on information gathered at the workshops, the Planning Commission and City Council selected a preferred alternative to plan for growth in Monmouth. The preferred alternative involved rezoning some areas within the city limits and redesignating some land designations between the city limits and UGB.

Within the city limits, the preferred alternative rezoned RS-zoned land to RM, RH and Mixed Density Residential (MX) zones. Also, two vacant parcels in the CH zone were rezoned to RH. In addition, the preferred alternative made changes to land zoned for Public Services (PS). In the northeastern corner of the city, a portion of a parcel zoned PS was rezoned to MX and two parcels in the north-central part of the city were rezoned from RS to PS.

Between the UGB and the city limits, the preferred alternative redesignates land from Residential (R) to RM, MX and Light Industrial (IL) Zones. Also, a portion of land zoned Industrial (I) was redesignated IL. Until these parcels of land are annexed into the city, the redesignations will not take effect and the current Polk County zoning designation regulates development of the land.

Table 8 shows the redesignated and rezoned properties. Land rezoned or redesignated to PS or IL from a residential designation represents a loss of net residential buildable acres. These numbers are shown in parenthesis in the Net Buildable Acres column.

Land Use Element - Table 8
Residential Land Re-designations to Meet Projected Need
Monmouth, 2020

Map & Tax Lot Number	Current Plan Designation	Current Zoning	New Plan Designation	New (Proposed) Zoning	Gross Acres (Removed)	Net Buildable Acres (Removed)
Within City Limits						
841900 1100	Single Family Residential	RS	Public Services	PS	(6.4)	(0.3)
841900 1200	Single Family Residential	RS	Public Services	PS	(13.7)	(11.8)
843000 1100	Single Family Residential	RS	Mixed Density Residential	MX	31.5	22.7
843000 1200	Single Family Residential	RS	Mixed Density Residential	MX	56.9	41.0
842000 600	Public Services	PS	Mixed Density Residential	MX	18.5	13.3
8430CB 109	Commercial Highway	CH	High Density Residential	RH	2.1	1.5
843000 600	Single Family Residential	RS	High Density Residential	RH	7.1	4.9
843000 700	Single Family Residential	RS	High Density Residential	RH	3.1	2.2
Between city limits & UGB						
852400 600	Residential	SR	Medium Density Residential	RM	33.0	14.7
841900 1103	Residential	SR	Mixed Density Residential	MX	15.0	2.5
8524A0 1200	Residential	SR	Mixed Density Residential	MX	2.0	1.2
8524A0 1201	Residential	SR	Mixed Density Residential	MX	1.1	0.8
841900 1100	Residential	SR	Light Industrial	IL	(40.5)	(29.2)
Total					176.3	109.1

Source: MWVCOG, 2001.
[1] Areas between the city limits and the urban growth boundary are under the zoning jurisdiction of Polk County until annexed into the city. The proposed zoning designation shown in parentheses would only become effective upon annexation.

Table 9 shows the buildable residential land within the urban area after redesignation or rezoning of properties. The Mixed Density Residential Zone requires new subdivisions to develop at a density of nine (9) units per acre, with at least one third of the units developed as multifamily dwellings or attached single family dwellings, such as rowhouses. The increased acreage designated for RM, RH and MX zones will help the city meet the projected demand for land for multifamily dwellings and manufactured home parks.

Land Use Element - Table 9
Buildable Residential Land after Re-designations
Monmouth, 2001

Zone/Plan Designation	Vacant (acres)	Partially Vacant	Redevelopable	Total
Within the City Limits				
Low-Density Residential Zone (RS)	23.5	13.4	3.2	40.1
Medium-Density Residential Zone (RM)	10.8	4.7	5.1	20.6
High-Density Residential Zone (RH)	3.9	10.5	1.6	15.9
Mixed-Density Residential Zone (MX)	77.0	0.0	0.0	77.0
Net Buildable Acres Within the City Limits	114.2	28.6	9.9	152.7
Between the City Limits & UGB				
Residential (R)	195.9	48.5	10.2	254.6
Medium-Density Residential Zone (RM)	0.0	14.7	0.0	14.7
Mixed-Density Residential Zone (MX)	3.3	0.0	1.2	4.5
Net Buildable Acres Between the City Limits & UGB	199.2	63.2	11.4	273.8
Net Buildable Acres Within the Urban Area	313.4	91.8	21.3	426.5

Source: Polk County Assessor data, MWVCOG, 2001.

Future Commercial and Industrial Land Needs

The Economics Element of the Comprehensive Plan includes a 2020 forecast of local employment (see the Economics Element - Table 9). One purpose for forecasting local employment is to determine whether there is sufficient land currently designated in the Comprehensive Plan to accommodate projected commercial and industrial development.

Table 10 shows the forecasted 2020 employment growth by land use type. Different sectors of the economy will have different land needs. Employment growth was allocated to three land use types as follows:

- Commercial: Retail Trade; Finance, Insurance, Real Estate; Services.
- Industrial: Agriculture, Forestry, Fishing; Construction; Manufacturing; Transportation, Communications, and Utilities; Wholesale Trade.
- Public: Government.

Land Use Element - Table 10
Total Employment Growth by Land Use Type
Monmouth

Sector	1999	2020	New Employment 1999-2020	
			Total	Percent
Commercial	714	1,118	404	64%
Industrial	325	424	99	16%
Public	1,085	1,214	129	20%
Total	2,124	2,756	632	100%

Source: MWVCOG, 2001.

Several assumptions were made to convert the employment growth shown in **Table 10** to vacant acres needed for commercial and industrial uses. These assumptions include:

- **Percent of total employment growth that requires no non-residential built space or land**. Some new employment will not require any non-residential land or building be used. Some workers or business owners may work from their home. The 1990 Census showed that about two (2) percent of all workers in Monmouth worked at home. With the recent development of advanced telecommuting technology, this figure can be expected to increase. This analysis assumes that four (4) percent of new employment through 2020 will consist of employees who work at home.

- **Percent of employment growth on existing developed land**. Some new employment will occur through expansion of existing businesses on non-residential land. Such an expansion involves adding additional employees without increasing physical space. A similar economic opportunities analysis for Albany assumed that 10 percent of future employment growth will occur on land that is already developed. That same figure is used in this analysis.

- **Employees/acre.** In order to determine future commercial and industrial land needs, employment growth must be converted into employees per acre. Employees per acre ratios used in a similar study in Salem were 22 employees/acre for commercial and office development and 11 employees/acre for industrial development. The Albany study used 25 employees/acre for commercial development, 35 employees/acre for offices, and 12 employees/acre for industrial development. This analysis uses 25 employees/acre for commercial development (including offices) and 12 employees/acre for industrial development.

- **Employment on vacant or redevelopable land.** The recently completed buildable lands inventory for Monmouth identified both vacant and redevelopable commercial and industrial land. Redevelopable land is defined as parcels with improvement values of at least $5,000 (based on Polk County Assessor records), where the ratio of land value to improvement value is 1:1 or greater. This analysis does not distinguish between vacant or redevelopable land in determining where new employment will occur. The analysis assumes that 86 percent of employment growth occurs on land that is either vacant or redevelopable. (The remaining 14 percent consists of employees working at home or new employment on existing developed land.)

Table 11 shows the amount of vacant or redevelopable land needed to accommodate new commercial and industrial employment growth through 2020. Approximately 21.0 acres will be needed to accommodate projected employment growth through 2020.

Land Use Element - Table 11
Commercial and Industrial Land Needs
Monmouth, 1999-2020

Sector	Total Employment Growth	Employees/Acre	Requiring no non-residential built space or land	On Existing Developed Land	On Vacant Land	Vacant/Redevelopable Acres Needed
Commercial	404	25	16	40	348	13.9
Industrial	99	12	4	10	85	7.1
Total	503		20	50	433	21.0

Source: MWVCOG, 2001

Table 12 shows a summary of the amount of vacant and redevelopable commercial and industrial land available within the Monmouth urban area. Inventories of vacant and redevelopable commercial and industrial properties are included as appendices B and C. Public facilities are available for all of the vacant or redevelopable commercial and industrial properties. Site constraints, such as steep slopes, wetland, or floodways, have been identified in the inventory and have been subtracted from the gross amount of buildable acreage. As shown in Table 8, approximately 40.5 acres of land between the city limits and the UGB was redesignated from Residential to Light Industrial. The 40.5 acres are included in the total Vacant/Redevelopable Industrial acres listed in Table 12.

Land Use Element - Table 12
Comparison of Supply and Demand for Commercial and Industrial Land
Monmouth, 2000

Land Use Type	Vacant/Redevelopable Acres
Supply	
Commercial	31.1
Industrial	172.7
Total Supply	**194.4**
Demand	
Commercial	13.9
Industrial	7.1
Total Demand	**21.0**
Surplus (Deficit)	
Commercial	17.2
Industrial	187.3
Total	**142.3**

Source: MWVCOG, 2001.

Housing Element

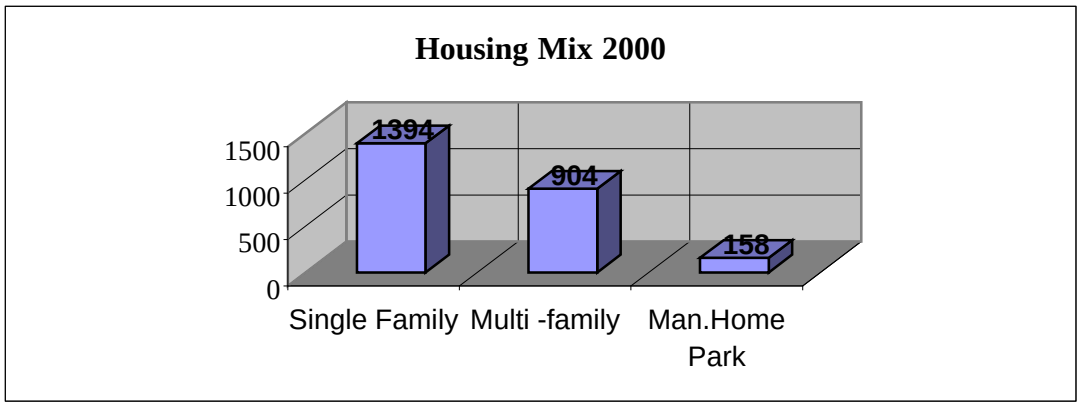
Existing Conditions

Figure 1 shows the existing mix of residential housing units within the city limits as determined through the buildable lands analysis. Of the 2,456 residential units, 1,394 units, or 57 percent are single-family residential units. Approximately 37 percent of the units are multifamily residences and the remaining six (6) percent of the units are manufactured homes within manufactured home parks.

An additional 501 units of student housing is provided on the Western Oregon University campus. University officials estimate that 964 students were housed on campus during the 1999-2000 school year.

Fifty-two (52) units of government-assisted housing are currently provided in Monmouth. This accounts for about 2.1 percent of all residential units. These units are offered at market rates and Housing and Urban Development (HUD) funds are used to subsidize a portion of the rent. All of the subsidized units are multifamily units.

Figure 1



Housing Needs Analysis

This section presents estimates of housing need for various age and income sectors in the city. The needs analysis data in this chapter come from a model created in 2000 by the Oregon Housing and Community Services Department. The data are mostly based on census figures. Other sources of information include *Regional Consumer Expenditure Survey* that is conducted every year by the U.S. Bureau of Labor Statistics as well as income data collected by *Claritas, Inc.* a private company. The model uses age, income, and expenditure information to predict the ability of households to afford housing. The analysis is intended to predict need for both owner-occupied and rental housing units at either end of a 20-year period from 1999 to 2020. A more detailed discussion of the methodology used in the model is included as Appendix B.

The analysis of housing need introduces the following assumptions:

(1) Vacancy Rates. At any given time, a number of homes within the community are vacant. We have assumed a 5.0 percent vacancy rate for 1999 and 2020. This rate is based on an average vacancy rate calculated from the 1980 and 1990 Census data. In 1980, Monmouth's housing

vacancy rate was 6.1 percent and the rate was 4.8 percent in 1990. The two vacancy rates average to 5.45 percent.

(2) Persons per household. We have assumed there are approximately 3.12 persons per household for 1999, and that the household size will remain the same in 2020. While this information is included in the data, analysis conducted by the Oregon Housing and Community Services Department in developing the housing needs model showed that household size is not necessarily a factor affecting need for particular types of housing. Data from the 1980 Census showed 2.76 persons per household, and 1990 Census data showed 2.91 persons per household. The figure we use, 3.12 persons per household, was derived from the estimated 1999 population and the actual number of occupied residential units identified in the buildable lands study.

(3) Group Quarters. The percentage of persons living in 'group quarters' will remain constant in both 1999 and 2020. The U.S. Census Bureau classifies all persons not living in households as living in group quarters. Persons living in group quarters include persons who are institutionalized or living in non-institutional group homes, rooming houses, assisted-living facilities, etc. This definition also includes students living in college dormitories.

(4) The ratio of owner-occupied (owned) units to rental units is the same for vacant units as it is for occupied units.

(5) The analysis cannot predict any major changes in the economy and any associated impacts to local household income. We assume that economic conditions in 2020 are similar to those in 1999. Household income, as well as housing costs, is expressed in 1999 dollars for ease of comprehension.

(6) The analysis assumes that price ranges and rents are commensurate with the financial capabilities of local households. When defining "need" for housing we assume that no more than 30 percent of gross household income is used to pay housing costs. The 30 percent threshold is the same as that used by the Department of Housing and Urban Development to determine housing affordability. A housing affordability rule of thumb says the proportion of a household's income spent on rent or mortgage payments and other housing expenses should not exceed 30 percent; if it is, the household is classified as cost burdened.

Current Housing Needs

The 1999 population estimate for Monmouth is that developed by the Center for Population Research and Census at Portland State University. The Center produces annual estimates for every incorporated city in Oregon. The 2020 population projection used in this report is based on the average annual growth rate for the city, 3.03 percent, between 1956 and 1996. The 2020 population projection has been adopted by Polk County for the City of Monmouth through a coordinated process required under state law (ORS195.036).

Table 1 shows various estimates regarding the local housing market in 1999. The estimated population is 8,310 persons and the total number of occupied dwelling units is 2,333. Estimated household size is 3.12 persons per dwelling. The relatively high number of persons living in group quarters, 1,042, includes an estimated 964 students housed at Western Oregon University.

Housing Element- Table 1
Housing Status (estimated)
Monmouth, 1999

Population (estimated)	Persons in Group Quarters[1]	Persons per Household	Total Dwelling Units[2]	Occupied Dwelling Units[3]	Vacant Units[5]	Owner-Occupied Units	Rental Units	Owner-Occupied Units (percent)	Rental Units (percent)
8,310	1,042	3.12	2,456	2,333[4]	123	1,101	1,230	47.2	52.7

Source: Oregon Housing and Community Services Housing Needs Model, 2000

[1] Persons living in group quarters includes persons who are institutionalized or living in non-institutional group homes, rooming houses, assisted-living facilities, etc. This definition also includes students living in college dormitories.
[2] "Total dwelling units" does not include group quarters dwelling units.
[3] "Occupied dwelling units" does not include group quarters dwelling units.
[4] Based on an assumed vacancy rate of 5 percent.

The housing model shows that 1,230 rental units are needed. The rental unit market is comprised of both multi-family residences (apartments, duplexes, etc.) and single-family dwelling units. From the buildable lands analysis we know that 904 multifamily units are located in Monmouth. The Joint Center for Housing Studies at Harvard University has noted that, nationwide, single-family residences account for fully one-third of all rental units.[1] Using this figure, we assume that as many as 406 single-family units are used as rental units. **Table 2** shows that the estimated supply of rental housing units in Monmouth exceeds the amount of rental housing needed.

Housing Element – Table 2
Rental Housing Supply and Need
Monmouth, 1999

Rental Units Needed	Existing Multi-Family Units	Single-Family Units Used as Rentals	Total Number of Existing Rental Units	Difference Between Existing Rental Units and Rental Units Needed
1,230	904	406	1,310	+80

Source: Oregon Housing and Community Services Housing Needs Model and MWVCOG, 2000

Projected Housing Needs

As shown in **Table 3**, the projected population of Monmouth in 2020 is 15,117 persons. A total of 4,461 dwelling units will be needed to accommodate this population. This represents an additional 2,025 housing units that will be needed over the next 20 years (an estimated 20 units will also be removed - see Table 15). An additional 1,069 rental units will be needed. Assuming that 33 percent of these units will be single-family residences, about 716 new multi-family residences will be needed by 2020.

[1] The Joint Center for Housing Studies of Harvard University, *The State of the Nation's Housing: 2000*, June 27, 2000, page 20.

Housing Element - Table 3
Projected Housing Status
Monmouth, 2020

Population (projected)[1]	Persons in Group Quarters[2]	Persons per Household	Total Dwelling Units[3]	Occupied Dwelling Units[4]	Vacant Units[5]	Owner-Occupied Units	Rental Units	Owner-Occupied Units (percent)	Rental Units (percent)
15,117	1,895[2]	3.12	4,461	4,238	223	2,000	2,238	47.2	52.8

Source: Oregon Housing and Community Services Housing Needs Model, 2000

[1] The 2020 population projection has been coordinated with the projections for Polk County as required by Oregon Revised Statutes 195.036. This projection is based on Monmouth's average annual growth rate of 3.03 percent between 1956 and 1996. This figure was adopted as part of the Polk County Transportation Systems Plan, 1997.
[2] Persons living in group quarters includes persons who are institutionalized or living in non-institutional group homes, rooming houses, assisted-living facilities, etc.
[3] Total dwelling units do not include group quarters dwelling units.
[4] Occupied dwelling units do not include group quarters dwelling units.
[5] Based on an assumed vacancy rate of 5 percent.

Table 4 shows the total number of additional dwelling units that will be needed to accommodate the 2020 population. With the estimated removal of 20 units from the housing supply (we assume that one demolition per year will occur), an estimated 2,025 additional dwelling units be needed by 2020.

Housing Element - Table 4
Additional Dwelling Units Needed in Monmouth by 2020

Total Dwelling Units 2020	Total Dwelling Units 1999	Dwelling Units Removed	Additional Dwelling Units Needed	Additional Group Quarters Needed
4,461	2,456	20	2,025	853

Source: Oregon Housing and Community Services Housing Needs Model, 2000

Economy of the City

INTRODUCTION

Statewide Planning Goal 9 (Economic Development) requires cities to provide an adequate supply of suitable sites for a variety of industrial and other employment uses. This section of the Monmouth Comprehensive Plan serves as an Economic Opportunity Analysis (EOA) to fulfill the Goal 9 requirements and ensure an adequate supply of land is available for new and expanding businesses in Monmouth over the 20 year planning horizon. This element of the Comprehensive Plan includes a description of the economic trends combined with an assessment of the community's economic strength and weaknesses to determine the economic development potential of the area. This chapter also includes a description of the amount of land and types of sites needed to fulfill Monmouth's economic needs over the next 20 years. This assessment of future land needs is compared with the supply of vacant and underutilized commercial and industrial lands available to determine whether or not there are any deficiencies in the land supply. The chapter concludes with a discussion of the planning implications and policy recommendations.

ECONOMIC TRENDS

Economic activity within the Monmouth area is influenced by greater economic forces found at the national, state and regional levels. How well the overall economy is performing at the national level will in turn have an impact on which businesses experience prosperity and decline in Monmouth and the Willamette Valley region. Recent economic trends and the economic outlook for these areas are the primary basis for our expectations of future economic development in Monmouth.

Population

Oregon's economic conditions are strongly related to population growth. As shown in Table 1, growth was slow for the State, Polk County and Monmouth due to the recession in the early 1980s. Population increased during the economic expansionary period of the 1990s. Population growth has continued for the State and County through 2006, although at a slower rate than the expansionary period of the 1990s. Unlike the State and County's population growth, Monmouth's growth rate has increased since 2000.

Economics -Table 1
Population - Oregon, Polk County, and Monmouth 1980-2006

					Average Annual Growth Rate		
Location	**1980**	**1990**	**2000**	**2006**	**1980-90**	**1990-00**	**2000-06**
Oregon	2,633,156	2,842,321	3,421,399	3,690,505	0.8%	1.9%	1.3%
Polk County	45,203	49,541	62,380	66,670	0.9%	2.3%	1.1%
Monmouth	5,594	6,288	7,741	9,125	1.2%	2.1%	2.8%

Source: U.S. Census and the Center for Population Research and Census, Portland State University, 2006.

Personal Income

Table 2 shows median household income and the percentage of households below the poverty level in Monmouth, Polk County, and Oregon for 2000. Median household income for Polk County exceeded that for Oregon. In Monmouth, median income was significantly lower than for Polk County and Oregon. This is most likely attributable to the large student population in the community. The percentage of families living below the poverty level was higher in Monmouth than for Polk County, but lower than the statewide rate.

Economics -Table 2
Median Household Income and Percent of Households Living Below Poverty Level
Monmouth, Polk County, and Oregon, 2000 (in 2000 dollars)

Location	Median Household Income	Families Below Poverty Level
Monmouth	$32,256	7.1%
Polk County	$43,311	6.3%
Oregon	$40,916	7.9%

Source: 2000 U.S. Census.

Region Employment

Table 3 shows covered employment data for the Dallas, Monmouth, and Independence for 2003. Combined employment in these communities reached 9,454 in 2003. A large portion of the area's employment is based in government (24 percent of the total). Employment at Western Oregon University contributes to this high percentage. Manufacturing and the transportation and utilities sector also provided 29 percent of the total jobs.

Economics -Table 3
Dallas, Monmouth, and Independence Covered Employment by Industry
2003

Industry	Percent
Government	24%
Manufacturing	17%
Education/Health Services	16%
Trade/Transportation/Utilities	12%
Natural Resources/Mining	9%
Leisure/Hospitality	8%
Construction	4%
Professional/Business Services	3%
Other Services	3%
Financial Activities	3%
Information	1%
Total	100.0%

Source: State of Oregon Employment Department, Employment, An Employment Snapshot: Dallas, Monmouth, and Independence, 2005.

Economic Outlook

Long-range economic forecasts generally predict growth at the national level, despite short-term national trends, which may run counter to the long-term trend. Several national economic trends will continue to impact Oregon and the Willamette Valley. These include continued population increase due to migration of the U.S. population to the western United States and the decline of employment in resource-intensive industries and the increase in employment in service–oriented sectors of the economy.

The State of Oregon is predicted to perform at least as well in the long-term forecast as the nation, due to its economic advantages that include, location, labor force, and diversity. According to the Oregon Employment Department, the three (3) industrial sectors that are expected to account for most of the state's job growth include: professional and business services; education and health services; and trade, transportation and utilities. The State forecasts additional job losses in the resource-based manufacturing sectors, although at a decreasing rate from the previous forecast period. The Willamette Valley, combined with the Portland Metro Area, is expected to add the majority of jobs over the forecast period.

Region Forecast

Table 4 shows projected employment within Marion, Polk, and Yamhill counties for the period from 2004 through 2014. Industry employment in the region is expected to grow from 169,400 in 2004 to 194,900 in 2014. This represents a growth rate of 15.1 percent. Oregon's statewide industry employment is also projected to increase by 15 percent over that time.[1]

Economics -Table 4
Employment Projections by Selected Industry
Marion, Polk, and Yamhill Counties, 2004 and 2014

Industry	2004	2014	Percent Change 2004-2014
Total Non-Farm Payroll Employment	169,400	194,900	15.1%
Manufacturing, Total	20,100	20,000	-0.5%
Durable Goods	10,900	10,800	-0.9%
Non-durable Goods	9,200	9,200	0.0%
Non-Manufacturing, Total	149,300	174,900	17.1%
Construction	8,800	10,700	21.6%
Finance, Insurance, Real Estate	8,300	9,200	10.8%
Wholesale and Retail Trade	28,000	32,300	15.4%
Services	58,100	72,000	23.9%
Government	42,500	46,800	10.1%

Source: State of Oregon, Employment Department. *Regional Profile Industry Employment in Region 3, 2004.*

The Oregon Employment Department indicates that the services and construction industries will experience the most significant job growth within the region through 2014. The region's agricultural and food processors will continue to struggle as they face national and international competition. Government

[1] Oregon Employment Department, *Regional Profile Industry Employment in Region 3,* 2002.

employment is forecast to grow more slowly than the average of all industries over the period through 2014.[2]

Monmouth Economy

Monmouth's economy has historically been based in education and agriculture. What began in 1856 as Monmouth University became Oregon State Normal School in 1883, Oregon College of Education in 1939, and is now known as Western Oregon University (WOU). Early agricultural industries included several fruit dryer firms, a cannery, flour mill, and grain warehouses. These businesses eventually disappeared as transportation improvement allowed these services to be established in larger population centers.[3]

Monmouth provides a number of economic functions to the central and southern portions of Polk County. Western Oregon University serves as a regional education and employment center. WOU is the second-largest employer in Polk County. Monmouth also serves as a commercial-service center of outlying rural and agricultural areas and, most recently, has developed as a "bedroom" community for commuters working in larger cities, such as Corvallis and Salem. Affordable housing costs and relatively short commute times to these larger employment centers has fostered population growth in Monmouth in recent years

Table 5 shows employment data for the Monmouth area based on employer records with a 97361 zip code.[4] The data shows the prevalence of public sector employment in Monmouth as well as the large number of service industry jobs in the community. These two sectors account for about 80 percent of the local employment.

Economics -Table 5
Monmouth Covered Employment
2005

Industry	Covered Employment	Percent of Total
Agriculture, Forestry, Fishing & Hunting (11*)	215	6.3%
Construction (23)	118	3.4%
Manufacturing (31, 32)	56	1.6%
Transportation and Warehousing (42), Communications (48)	19	0.5%
Retail Trade (44)	178	5.2%
Real Estate (53), Services (54, 56, 61, 62, 71, 72, 81, 99)	1,914	55.9%
Public Sector (Local, State and Federal Employment)	920	27.1%
Total	**3,421**	100.0%

Source: State of Oregon Employment Department sorted and summarized by MWVCOG, 2007.
Two-digit North American Industry Classification System (NAICS) code.

Covered employment includes only those workers covered under unemployment insurance. The data tends to underestimate total employment by excluding certain employees, such as business owners and

[2] Oregon Employment Department, *Regional Profile Industry Employment in Region 3*, 2002.

[3] Scott McArthur, *Monmouth, Oregon: The Saga of a Small American Town*, 2004, pg. 173.

[4] Some businesses with main offices located outside of the 97361 zip code may not be included in the employment statistics.

some agricultural workers. Overall, covered employment accounts for only about 81 percent of all employment in Oregon. In Table 4, 2005 covered employment is converted to total employment using statewide conversion ratios. The percentage in each employment sector that is reported as part of covered employment is shown in the column titled "Covered Employment Percentage". Estimated total employment in Monmouth in 2005 was 4,190.

Economics - Table 6
Covered and Total Employment
Monmouth, 2005

Sector	Covered Employment Percentage	2005 Covered Employment	2005 Total Employment
Agriculture, Forestry, Fishing & Hunting	62%	215	347
Manufacturing	94%	118	126
Construction	73%	56	77
Wholesale Trade, Transportation and Warehousing	87%	19	22
Retail Trade	84%	178	212
Real Estate and Services	74%	1,914	2.586
Public Sector (Local, State and Federal Employment)	100%	920	920
Total		**3,421**	**4,190**

Source: State of Oregon Employment Department sorted and summarized by MWVCOG, 2007.

ECONOMIC OPPORTUNITIES AND CONSTRAINTS

This section examines factors that influence economic growth opportunities in Monmouth including a the local and regional strengths and weaknesses that can influence economic development. Through identifying Monmouth's strengths and weaknesses, the city can begin to understand which types of industries have the greatest potential for growth and expansion, and what areas the city should work on to improve economic opportunity within the area.

Physical and Social Attributes

Location and Geography

Monmouth is located in the Mid-Willamette Valley approximately 15 miles southwest of Salem near the foothills of the Coast Range. The terrain in the urban area is generally flat. Outlying areas to the north, west, and south of the city are devoted to agricultural uses.

Monmouth has developed as a college-town and bedroom community for larger communities such as Corvallis and Salem. The local economy is dependent on Western Oregon University as the primary employer. In addition, retail trade and services sectors comprise a significant amount of local employment.

Quality of Life

Quality of life is a subjective standard that is hard to quantify. It includes economic factors, such as income, employment, and housing costs, as well as non-economic factors, such as natural and physical

amenities, quality of local education, and cultural and recreational opportunities. Economic factors are discussed elsewhere in this report.

Quality of life plays a role in economic development because it affects the relative attractiveness of the city to migrants. Net migration is forecast to comprise about 74 percent of Polk County' population growth through 2040.[5] A more attractive quality of life may help Monmouth attract a greater share of in-migrants. These migrants not only bring job skills to various employment sectors, such as construction, services, and retail trade, but some may also start new businesses in the community.
Monmouth possesses a number of characteristics that contribute to quality of life. The community offers urban amenities, such as shopping, health care, parks, and schools within a small town environment. Monmouth residents have access to other nearby cultural and recreation amenities that can easily be reached from the Willamette Valley.

The Monmouth Citizens Advisory Committee (CAC) met during 1997 and 1998 to develop a *Visioning & Action Plan* for the community. The CAC listed the following qualities of Monmouth as creating a feeling of community and strength:

- Safe
- Friendly
- Youth Programs/Concern for Children
- Tea Festival and 4th of July Celebration
- Access to Arts
- Centrally located to many things
- Nice downtown
- Good school district
- Main Street Park and neighborhood parks
- Location of liberal arts university (WOU)
- Climate
- City staff
- Streets
- Pass bonds
- Library

Transportation

Available transportation access is one of the most important factors affecting economic development. Transportation affects the cost of doing business at a location. Firms depend on ready transportation access to ship and receive goods. Ready access allows for reduced production costs and more convenient automobile access for customers and employees.

Monmouth is bisected by Highway 99W which serves Corvallis to the south and McMinnville to the north. Highway 99W connects with State Highway 22, which connects to I-5. I-5 serves as the primary transportation artery in the Willamette Valley and is located approximately 17 miles east of Monmouth. The recently constructed Rickreall Interchange at the intersection of Highway 99W and Highway22 is located approximately five (5) miles north of Monmouth. The interchange was constructed to improve traffic safety and increase capacity on this intersection.
Monmouth does not have rail service.

[5] Oregon Office of Economic Analysis, *Forecasts of Oregon's County Populations and Components of Change, 2000 - 2040.*

Land Cost

The Oregon Prospector.com is the state's official public-private website for site consultants and businesses interested in relocating or expanding a business in Oregon. This site provides an on-line database of available commercial and industrial properties in Oregon. The most recent database listing shows four (4) vacant industrial properties in Polk County with advertised sales prices, two (2) of which are in Dallas. The properties are approximately 41.8 acres and 60.5 acres. Sale prices for the properties are $40,640 and $45,000 per acre.

The Oregon Prospector.com also lists several vacant industrial properties in Salem. These properties range in size from 13.1 acres to 51 acres. Sale prices range from $100,401 to $169,948 per acre.

While none of the properties listed are in Monmouth, Polk County Assessor records show that the real market value of several vacant industrial properties in the community ranges from approximately $32,000 to approximately $76,000 per acre. The real market values used by the Polk County Assessor's office are comparable to the price of available land in Dallas and significantly lower than the cost of available parcels in Salem. While this obviously does not represent a comprehensive market survey, it does indicate that land costs, particularly in relation to the Salem market, are lower in the Monmouth area. Lower land cost is often a consideration for firms to locate in smaller communities.

Utilities

The City owns and operates its own wastewater collection treatment and disposal system. The collection system as a whole is considered sound, with no major defects found due to a number of successful rehabilitation projects completed in 1991 and 1997. The City is in the process of updating the 1999 Sewer Master Plan. The updated Plan will be complete in 2007. As part of planned system improvements from the 1999 Master Plan, an effluent reuse project was completed to increase the capacity of the current sewage treatment system. The effluent reuse project reduces the need for summer effluent holding through the irrigation of a popular plantation with the treated effluent from the sewer lagoons. Sewer system capacity can accommodate development of vacant commercial and industrial properties.

The City also owns and operates its own water distribution system. The City is in the process of updating the 2000 Water Master Plan. The updated Plan will be complete in 2007. Planned improvements would be completed in four phases through 2026. Improvements include development of a new wellsite, construction of main transmission lines, water line improvements to increase capacity, and eventually the construction of a 2 million gallon reservoir that would replace an existing reservoir. Water system capacity can accommodate development of vacant commercial and industrial properties.

In 2004, the cities of Monmouth and Independence created an intergovernmental entity, known as MINET (Monmouth-Independence Network), to operate a local network that offers high speed internet, telephone and cable services via fiber optic lines. MINET provides service to the general Monmouth-Independence area. A consortium comprised of the City of Monmouth and the City of Independence guides it cooperatively.

MINET began providing cable TV and high-speed Internet services to both commercial and residential customers in May of 2006. MINET offers these services at competitive rates and a high quality. Residential households have access via a 30-megabit (mb) connection. Commercial services have access to even faster connection services measured in gigabits (gb). MINET also began providing phone service in December of 2006.

Currently approximately 1,350 households or businesses in Monmouth and Independence subscribe to MINET. To date, the entire City of Monmouth and 70 percent of all neighborhoods in Independence are wired. MINET is required to offer provide their services to anyone who requests them inside the city limits. Possible expansion plans include providing these services to the City of Dallas.

Vacant commercial sites located within Monmouth have access to utilities.

An industrial subdivision was approved by the City in 2006. The subdivision is located at the south end of Monmouth one block west of Highway 99W. The subdivision would consist of 24 lots ranging in size from 6,138 to 10,824 square feet in size. The subdivision is aimed at attracting small firms such as building contractors and repair and service shops. Some lots may be combined as needed by potential businesses locating at the site. Development of this subdivision will result in construction of an extension of Ecols Street and the extension of utilities to a vacant 21-acre industrial property (Assessor Map 84W30, Tax Lot 905) located adjacent to the subdivision to the south.

The city's largest vacant industrial parcel, a recently annexed 90.0-acre property located on Hoffman Road at the north edge of the Monmouth urban growth boundary (Assessor Map 84W19, Tax Lot 107) is not currently served with utilities. Water service is located in the Hoffman Road right-of-way east of the property at the western edge of The Meadow Subdivision Phase 2. The property abuts the City's sewage lagoons and sewer service could be extended to serve the property. Improvements to Hoffman Road, which is part of the Polk County Road System, would also be necessary to allow for development of this property.

Labor Force

The cost, availability, and skill-level of the local labor force can affect the comparative advantage of a community. One indication of work availability is an area's unemployment rate. The Mid-Willamette Region (Region 3) tends to have slightly lower unemployment rates when compared with Oregon. In the 2001 recession and the years that followed, unemployment rates in the region reached levels not experienced since the recession of the early 1980s. The region's unemployment rate has since declined significantly as the economy came out of the recession. Seasonally adjusted unemployment for Region in 2005 was 6.1 percent. Although the region's unemployment level may be lower than the state's, the region's jobless rate has generally risen and fallen with the state and national jobless rate, following broader economic and labor market trends. The Oregon Employment Department forecasts Region 3 will continue to have unemployment rates consistently below Oregon's, sometimes by as much as one (1) full percentage point. As a whole, Region 3 will continue to benefit from a more stable labor force than Oregon's rural counties that depend on seasonal employment in agriculture and tourism.

Polk County residents generally enjoy a lower jobless rate for a number of reasons, including higher education levels among its residents and their ability to commute to such communities as Salem, where employment in state government is largely stable. The unemployment rate for Polk County in December 2006 was 5.1 percent. In general, a lower unemployment rate does not provide a comparative advantage in a tight labor market.

The Oregon Employment Department notes that in-migration will continue to be a significant factor in determining long-term growth in Region 3, despite the region's having a natural population increase rate that is higher than the state.[6] From 2005 to 2040, projections from the Oregon Department of Administrative Services indicate the region's growth will be considerable higher than the state's (region

[6] Oregon Employment Department, *Regional Population Profile - Region 3,* 2005.

64 percent) (state 50 percent). Although Polk County is expected to add the fewest new residents of the three counties (70,500), it is forecasted to have the most rapid population growth in the region, growing by nearly 108 percent from 2005 to 2040. Not only do new residents create demand for goods and services, but they also supply additional workers.

Training and Business Opportunities

Chemeketa Community College is located approximately 20 miles east of Monmouth. The Chemeketa Career Center provides educational and vocational rehabilitation assistance. Chemeketa coordinates its program for various companies in the Mid-Willamette Valley Region who need specific educational training for their employees. The Chemeketa Small Business Development Center provides business advising, training, workshops and counseling. The Chemeketa Training & Economic Development (TED) Center offers specialized training programs to assist local business.

The Chemeketa Micro Enterprise Development Center (MERIT) is a program, which helps underserved people increase income and build assets through self-employment. The MERIT program helps entrepreneurs in Marion, Polk, and Yamhill Counties develop their business ideas, learn the basics of running a business, and write a business plan. MERIT supports the "underserved"-low-income, minorities, immigrants, women, the disabled, welfare recipients, the unemployed, and anyone else who has difficulty getting small business training or credit through traditional means.

Western Oregon University in Monmouth can assist industrial firms, if WOU has contacts for experts in the specific area. The Conference and Nonacademic Program Department's activities include customizing training in the business field. Previously, WOU customized training for managers at Teledyne-Wah Chang's Albany office.

The Business Department is the second-largest department at Western Oregon University (the Education Department is the largest department on campus). Business majors pursue internships and specialized projects as they approach graduation. Local businesses can provide internships to these students as a way of providing valuable on-the-job training and experience.

Monmouth Economic Development Commission

The Monmouth Economic Development Commission (EDC) is a 10-person, "action- oriented team" in place to study strategize and plan for commercial development under the direction of the Monmouth City Council. The mission of the EDC is based on the following basic objectives:

• Develop a full and stable downtown commercial core based on the principles of the 1999 Downtown Development Plan.

• Create and maintain a healthy business climate to benefit new and existing business.

• Encourage and promote economic development to provide a positive business climate and a stable economic base for the provision of goods, services and facilities desired by the community.

Dallas-Independence-Monmouth Enterprise Zone

The Dallas-Independence-Monmouth Enterprise Zone includes approximately 316 acres in Monmouth. Areas within the Enterprise Zone include downtown commercial properties, commercial properties along Highway 99W, and all industrial properties located within the Monmouth urban growth boundary. The Enterprise Zone is scheduled to sunset in 2013.

Enterprise Zone benefits include:

- 100 percent waiver for property taxes for three (3) years.
- 100 percent waiver of land use permit fees.
- 50 percent discount for building permit fees.
- 25 percent discount for System Development Charges.

Monmouth Urban Renewal District

In 2005, the City of Monmouth adopted the Monmouth Urban Renewal District. The Urban Renewal District comprises approximately 307.62 acres or about 24.7 percent of the land area in Monmouth. The District is comprised of part of the Downtown Main Street District and some adjacent residential area, a portion of the Commercial Highway District, adjacent Industrial Districts, and the properties adjacent to Highway 51 from Highway 99W east to the 'S' Curves at the eastern City Limits. All parts of the Urban Renewal District are adjacent to one another creating a single, uninterrupted District.

The Urban Renewal District project funding is derived from tax increment financing, which means that the property taxes resulting from the growth in property value within the District can be used to finance development and improvement projects within the District. Urban Renewal also allows for the purchase and sale of property for redevelopment as part of a public / private development partnership.

The goals of the Urban Renewal District are as follows:

- *Promote the development of a unified and cohesive Downtown Main Street Sub Area*
- *Promote the redevelopment and new development of properties located adjacent to Highway 99, the Commercial Highway Sub Area*
- *Promote the development of underutilized or vacant Industrial properties within the Urban Renewal District*
- *Promote and manage the development and redevelopment of properties adjacent to Highway 51 from Highway 99 east to the 'S' Curves at the eastern City Limits.*
- *Increase business activity and employment opportunities in the Downtown Main Street Sub Area, Commercial Highway Sub Area, Industrial Sub Area, and all other commercially designated areas within the Urban Renewal District*

Table 7 shows the project list from the City of Monmouth Urban Renewal District Plan. Urban Renewal Projects authorized by the City of Monmouth Urban Renewal Plan are described in this section. The Plan projects will be implemented over a 20-year period from 2006 through 2026. The projects are organized for planning purposes into four categories based on the four distinct sub-areas within the Urban Renewal District as well as projects that provide benefit district wide.

Economics - Table 7
Monmouth Urban Renewal District Projects List

Downtown Main Street Sub-area	
Façade Improvement Program	**Estimated Cost: 250,000[1]**
Loan and/or Grant Design Standards Professional Design Assistance Residential Improvement Program	
Infrastructure Improvements	**Estimated Cost: 1,000,000**
Streetscape Improvements – implement the recommendations for downtown from the 2000 Downtown Plan Parking Improvements (Plan, District, Physical Improvements) Pedestrian Improvements - implement the recommendations for downtown from the 2000 Downtown Plan	
Code Compliance and Structural Retrofit Program	**Estimated Cost: 250,000**
Loan and/or Grant Professional Assistance (Engineering, etc.)	
Site-Specific Redevelopment Projects	**Estimated Cost: 500,000**
Individual property redevelopment projects to be determined by availability of property, cooperation of property owner(s), and property eligibility for development and redevelopment as qualified as underdeveloped or blighted as defined by State of Oregon Urban Renewal law. Site-specific development or redevelopment projects may include development projects on City-owned property.	
Commercial Highway (Highway 99W) Sub-area	
"Gateway" Development	**Estimated Cost: 100,000**
Monument signage at the north and south ends of the Urban Renewal District as follows: "Welcome to the City of Monmouth, Oregon – Home of Western Oregon University" Signage is to be design-consistent with "gateway" signs on the WOU campus entrances Northern "gateway" sign will be located adjacent to the Ash Creek Trail under development and will serve a double purpose as a trail-head access point.	
Infrastructure Improvements	**Estimated Cost: 250,000**
Streetscape Improvements - designed to soften the transition between the Downtown commercial area and the Highway 99 commercial area Pedestrian and Bicycle Improvements – designed to increase bike and pedestrian safety on and near Highway 99 and to reduce the impact of the "barrier" between east and west Monmouth Sewer, storm-water, power, and MI-NET	
Commercial Property Improvement Program	**Estimated Cost: 250,000**
Loan and/or grant Design standards specific to commercial highway property development Professional design assistance Improve business access on/off Highway 99	
Site-Specific Development and Redevelopment Projects	**Estimated Cost: 500,000**
Individual property redevelopment projects to be determined by availability of property, cooperation of property owner(s), and property eligibility for development and redevelopment as qualified as underdeveloped or blighted as defined by State of Oregon Urban Renewal law. Site-specific development or redevelopment projects may include development projects on City-owned property.	

Industrial Sub-area	
Industrial Site Certification Assistance	**Estimated Cost: 200,000**
Develop programming to provide financial assistance to property owners for necessary site studies Provide technical and financial assistance to property owners, and access to state and regional resources for the promotion and completion of site certification.	
Infrastructure Improvements (to support Industrial Development)	**Estimated Cost: 4,000,000**
Streets, curbs, sidewalks Sewer, storm, water, power, and MI-NET Pedestrian / Bicycle Improvements	
Highway 51 from Highway 99 east to the 'S' Curves Sub-area	
Public Infrastructure Improvements	**Estimated Cost: 400,000**
Streetscape Improvements Pedestrian / Bicycle pathway and safety improvements Sewer, storm, water, power, and MI-NET improvements as determined necessary by City Public Works and Engineering	
"Gateway" Development	**Estimated Cost: 50,000**
Monument signage at the east end of the Urban Renewal District as follows: "Welcome to the City of Monmouth, Oregon – Home of Western Oregon University" Signage is to be design-consistent with "gateway" signs on the WOU campus entrances Residential Improvement Program Development	
Public Park / Recreation Property Acquisition and Development	**Estimated Cost: 2,000,000**
Sports complex adjacent to Ash Creek Middle School Ash Creek Trail development adjacent to sports complex	
Projects that benefit the entire Urban Renewal District	
Investment Incentives (Financial)	**Estimated Cost: 90,000**
Loans and or grants Public / Private Partnership Development and Redevelopment Opportunities	
Business Assistance	**Estimated Cost: 20,000**
Technical Assistance Business Planning and Education Opportunities Connections to available resources	
Planning Documents Review and Revision (if necessary)	**Estimated Cost: 500,000**
Contingency	**Estimated Cost: 1,000,000**
Total Expenditures	**$11,360,000**

Source: City of Monmouth Urban Renewal District Plan, 2005.
[1] Estimated costs in 2005 dollars.

Since the District was formed, the administering Urban Renewal Agency has established a Facade Improvement Grant Program and a General Grant Assistance Program. The Façade Improvement Grant Program was formed to provide business owners in the Main Street District with financial assistance for exterior improvements. The General Grant Assistance Program is intended to fund redevelopment projects and major improvements in the Urban Renewal District. Program grants can be used to fund a wide array of projects.

Marion, Polk, and Yamhill Counties Regional Economic Profile and Assessment

In March 2007, E.D. Hovee & Company, LLC produced the Marion, Polk, and Yamhill Counties Regional Economic Profile and Assessment. The document is intended as a "first step in a regional strategic planning process for the Marion-Polk-Yamhill County region".[7] The report includes a strategic assessment of the region that includes strengths, weaknesses, opportunities, and challenges as shown in **Table 8**.

Economics - Table 8
Mario, Polk, and Yamhill Counties Strategic Assessment

Strengths	Weaknesses
• Natural Resources with metro proximity	• Low-skilled, low-wage labor force
• Population center with industrial land	• Air, rail, and Highway 99W transportation issues
• Small business innovation	• Education link to economic development?
• State capital with traded sector businesses	• Slow state job growth & no urban sizzle
• Distinctive, livable communities	• Long intra-regional work commutes
Opportunities	**Challenges**
• 21st century focus on the Pacific Rim	• Job outsourcing
• Pacific Northwest economic and cultural icons (Microsoft, Starbucks, etc.)	• Icon maturation – what's next?
• Livability plus active lifestyle	• Declining regional affordability
• Ethic of green by design and "just do it"	• Geographic isolation from U. S. markets
• U.S. manufacturing resurgence	• Industrial sustainability

Source: Marion, Polk, and Yamhill Counties Regional Economic Profile and Assessment, 2007, page iii.

The Regional Economic Profile and Assessment includes a competitive advantage analysis using IMPLAN. IMPLAN is an input-output model intended, which is an input-output model that can assess the total economic impacts of specific local economic sectors and interrelationships between various local economy sectors and the state.[8]

The IMPLAN model was used to analyze 506 industry sectors of the three-county regional economy. The analysis was intended to identify sectors that are better suited to the region. The analysis found five business clusters that rate highly for comparative advantage within the three county region. These five clusters account for about 56 percent of the region's 2003 employment based on the IMPLAN county data.[9] These clusters include:

- Agriculture, Food and Beverage Products – including a number of agri-business activities ranging from farming to manufacturing of both commodity and specialized food and beverage products.

- Metals, Machinery and Equipment (including Electrical) – including specialties with a high concentration currently within the region, such as iron and steel mills, secondary nonferrous metals

[7] *Marion, Polk, and Yamhill Counties Regional Economic Profile and Strategic Assessment*, March 2007, page 1.
[8] *Marion, Polk, and Yamhill Counties Regional Economic Profile and Assessment*, 2007, page 39.
[10] *Marion, Polk, and Yamhill Counties Regional Economic Profile and Assessment*, 2007, page 42.

processing, ball and roller bearing manufacturing, enameled iron and metal sanitary ware, textile packaging machinery, computer terminals, electric lamp bulbs and parts, and dental equipment.

- Forest Products (including Logging) – including sectors with a high concentrations currently within the region, such as prefabricated building manufacturing.

- Specialty Materials Manufacturing – ranging from fabrics to aggregate materials to petro-chemical products.

- Traded sector services- including sectors with a high concentrations currently within the region, such as office administrative services, higher education, and state and local non-education.[10]

Business Clustering

The Oregon Department of Economic and Community Development (OECDD) has adopted a "cluster-based strategy" as a means of promoting economic development throughout the state. Industry clusters refer to groups of similar or interrelated firms that share common markets and technologies and which draw on similar work skills.

The strategy has two primary aims:

1. To understand traded industry clusters that are important sources of innovation, entrepreneurship and employment growth in the state; and

2. Develop policy initiatives to promote collaboration among businesses, facilitate the development of public-private partnerships and create effective incentives to support the growth of traded industry clusters.[11]

Based on a 2003 study of Oregon's industries, the cluster initiative focuses on eleven broad industry groups with significant concentrations of employment in Oregon relative to the US economy as follows:

- High technology/software
- Forest products/wood/paper
- Food processing and agriculture
- Apparel and sporting goods
- Transportation equipment
- Creative services
- Recreation-related
- Metals/machinery
- Nursery products
- Professional services
- Biomedical

[10] *Marion, Polk, and Yamhill Counties Regional Economic Profile and Assessment,* 2007, pages 40-42.
[11] From the website: http://www.oregon4biz.com/inn.htm

Under the clustering concept, businesses thrive in particular locations because their network of local connections to a specially skilled local workforce and the availability of local suppliers in proximity to one another generates business advantages that can not easily be imitated or competed away by low cost competitors. [12]

Oregon Site Certification

Industrial Site Certification documents and assembles information needed by a business considering acquisition and use of a site. A certified site meets specific, market-driven criteria based on the standards of real estate professionals and of the industries that would develop and operate at these locations. Each site receives a consistent level of analysis for development issues.[13]

In order to be considered for certification, an industrial site will need to contain at least 10 net contiguous developable acres, and preferably, the site should be 25 or more acres in size, as well as vacant. Project-ready sites have had necessary environmental and other investigations performed, but they may necessitate that additional capital investment or mitigation work is undertaken during an up to 180-day period.

Each site will be certified for one or more of eight industry profiles. The use of industry development profiles allows the State to identify needed facilities or site improvements and develop capital investment or mitigation plans prior to certification or an actual recruitment.[14]

The industry profiles used for the first round of certification are:

- Heavy Industrial Manufacturing
- General Manufacturing
- Food Processing
- High Technology manufacturing/processing
- Campus Industrial/Electronics and Computer Assembly
- Warehouse and Distribution
- Call Center/Business Services
- Rural Industrial

[12] From the website: http://www.oregonclusters.org/faq.html
[13] From the website: http://www.econ.state.or.us/IC.htm
[14] From the website http://www.econ.state.or.us/ICfacts.

EMPLOYMENT GROWTH AND LAND NEEDS

Local Industrial Employment Growth

A primary function of an Economic Opportunities Analysis is to identify the industrial land needs, both for the short-term and beyond. One way of estimating future employment growth is to identify the ration of jobs per capita in the community and to then apply that ratio to a future population projection.

In 2005, Monmouth had 193 industrial jobs. **Table 9** shows that this results in a ration of 0.02194 industrial jobs per capita.

Economics - Table 9
Industrial Employment Per Capita
Monmouth, 2005

Industrial Category	Jobs
Construction	118
Manufacturing	56
Transportation and Warehousing, Communications	19
Total	**193**
Population (2005)	8,785
Industrial jobs per capita	0.0219

Source: Oregon Employment Department, U.S. Census and the Center for Population Research and Census, Portland State University, MWVCOG, 2007.

In 2005, there were 59, 679 industrial jobs in the Marion, Polk, and Yamhill counties region. As shown in **Table 10**, the regional population was 458,115. The resulting ratio was 0.1303 industrial jobs per capita. This is much higher than the ratio for Monmouth, indicating that Monmouth has not created industrial jobs at the same rate as the rest of the region.

Economics - Table 10
Industrial Employment Per Capita
Marion, Polk, and Yamhill Counties, 2005

Industrial Category	Jobs
Construction	9,847
Manufacturing	20,782
Transportation and Warehousing, Communications	29,050
Total	**59,679**
Population (2005)	458,115
Industrial jobs per capita	0.1303

Source: Oregon Employment Department, U.S. Census and the Center for Population Research and Census, Portland State University, MWVCOG, 2007.

Table 11 shows the 2027 projection for industrial employment in Monmouth using the 2005 industrial jobs per capita ratio. The projection shows that 117 new industrial jobs would be created. Although

Monmouth's industrial employment per capita currently lags behind the ratio for the three-county region, Monmouth is committed to improving the ratio of industrial jobs per capita. The City has adopted an Urban Renewal District Plan that includes a number of projects, such as infrastructure improvements and business assistance, intended to foster additional industrial growth in the community.

Economics - Table 11
Industrial Employment Growth in Monmouth
2005 - 2027

Calculation	Result
Monmouth population, 2027[1]	14,304
Monmouth industrial jobs per capita ratio	0.0219
Monmouth industrial jobs 2027	313
2005 Monmouth industrial jobs	193
Net new industrial jobs 2027	117

Source: MWVCOG, 2007.

[1] Monmouth had adopted a 2020 population projection that has been coordinated with Polk County pursuant to Oregon Revised Statutes 195.025. The projection uses an average annual growth rate of 2.3 percent. That percentage was used to estimate the 2027 population.

Industrial Land Needs

Table 12 shows all of the industrial properties within the Monmouth urban area. Excluding estimated areas that are constrained, approximately 167 acres are available for industrial development. Constrained land includes land in an around Ash Creek in the north portion of the Monmouth urban area, that includes some wetlands as identified by the National Wetlands Inventory. Currently, no mitigation plans have been developed for wetland areas that cross several parcels at the north end of Monmouth. Without a full mitigation plan, the full extent of constraints on these properties can only be estimated.

Economics - Table 12
Industrial Land Monmouth Urban Area

Assessor Map/Tax Lot	Acres	Developable Acres (estimate)	Notes
Within City Limits			
84W19 / 100	8.6	7.6	Existing residence and accessory structures
84W19 / 102	0.9	0.4	Existing residence
84W19 / 105	0.9	0.4	Existing residence and accessory structure
84W19 / 106	2.38	2.0	Existing residence and accessory structure
84W19 / 107	91.4	60.0	Existing residence, possible wetlands, and Ash Creek floodplain
84W30 / 903	5.3	5.3	Approved for 24-lot industrial subdivision
84W30 / 905	21.0	21.0	Development of industrial subdivision on adjacent property will extend utilities and access
84W30 / 901 & 904	6.5	0.0	Existing mini-storage facility
Total Within City Limits		**96.7**	
Between City Limits and UGB			
84W19 / 300	31.2	31.2	Existing residence, possible wetlands, and Ash Creek floodplain
84W19 / 600	3.6	0.0	Existing mini-storage facility
84W19 /1100	45.8	39.0	Portion in the Ash Creek floodplain
84W30/1000	10.5	0.0	Portion of a 26.3-acre property zoned Light Industrial by Polk County and used as a landscape supply business
Total Within UGB Area		**70.2**	
Total		**166.9**	

Source: Polk County GIS, MWVCOG, 2007.

Presently, only seven (7) industrial parcels are available for development in the Monmouth urban area. A number of additional industrial parcels are located within the outside of the city limits, but within the urban growth boundary. These parcels are currently zoned for industrial development by Polk County and are identified for future industrial use on the Monmouth Comprehensive Plan.

The approved 24-lot industrial subdivision will add a number of smaller sites of less than 0.5 acre for development. Creation of additional sites of between 2.0 and 5.0 acres is also important. Smaller cities often attract small manufacturing firm, which require sites of less than five (5) acres.

Creation of additional industrial sites that are at least 10 acres in size could provide for Site Certification by the State. Several large sites, larger than 20 acres, are available for development. Given the lack of industrial development in Monmouth to date, these parcels are probably larger than needed for any one firm. Future partitions of these properties could provide additional market opportunities for smaller firms to locate in Monmouth. Combined with wetland mitigation plans and infrastructure improvements State-certified sites could be made available. Monmouth will encourage creation of smaller parcels that could accommodate the types of firms likely to locate in the community.

Commercial Land Needs

Monmouth provides a variety of commercial services in the downtown area. The downtown extends along Main Street (State Highway 51) and several parallel streets from Highway 99E west to Clay Street. This area is zoned Main Street District. The Main Street District: "is intended to provide a vibrant mix of commercial uses in a pedestrian-friendly environment". The Purpose statement of the Main Street District further reads: "A City goal is to strengthen the Main Street District as the "heart" of the community and as the logical place for people to gather and create a business center. The District is intended to support this goal through elements of design and appropriate mixed-use development".

Another major commercial area is Monmouth is located on Highway 99E. The area contains a mixture of commercial uses, with an emphasis on uses catering to the traveling public.

A third, commercial area is located along Highway 51, east of Highway 99E. These are smaller primarily small service businesses located in an area with residential uses.

Table 13 shows that approximately 14.9 acres are available for commercial development within Monmouth.

Economics Element - Table 13
Commercial Buildable Lands Inventory Summary
Monmouth, 2007

Zone/Plan Designation	Vacant (acres)	Redevelopable	Total Acres
Within City Limits			
Commercial Office Zone (CO)	0.2	0.0	0.2
Commercial Retail Zone (CR)	14.7	0.0	14.7
Commercial Highway Zone (CH)	0.0	0.0	0.0
Total	**14.9**	**0.0**	**14.9**

Source: Polk County GIS data, MWVCOG, 2007

Nearly all of the vacant commercial land in Monmouth consists of a group of parcels zoned Commercial Retail (CR) located at the "S-curve" on Highway 51 at he eastern city limits, near Independence. The largest of these parcels is approximately 8.8 acres in size and has previously been approved for development. Determination from the Oregon Department of Transportation (ODOT) regarding required street improvements and lack of an anchor tenant have kept the property from being developed to date. With development of this property pending, the City will work to identify new commercial areas to serve future needs. One option will include identifying properties near the downtown commercial core that could be redeveloped for commercial uses.

Short-Term (5 Year) Land Needs

Short-term land needs are characterized by those lands that will be needed for employment growth within the next five (5) years. Ideally, land available for short-term employment growth is not constrained by the lack of infrastructure or those lands considered unavailable due to land speculation. The five-year demand is approximated as one quarter of the projected 20-year demand.

Regarding industrial land needs, the development of a new industrial subdivision between Ecols Street and Highway 99W will provide a number of sites for small industrial businesses. The development of the subdivision will extend utilities to an adjacent 21-acre industrial parcel. A larger 90.0-acre industrial site located at the north end of the urban area on Hoffman Road has services available. This site could be partitioned to provide smaller sites of between five (5) acres and 10 acres. Future development of this property will require wetland determinations and a mitigation plan to identify the full extent of development on the property.

Several larger commercial parcels located at the "S-curve" on Highway 51 near Independence can provide for short-term commercial needs. However, the city must identify future commercial sites, ideally located within the downtown area.

Based upon a review of the buildable lands inventory, the city has adequate commercial and industrial land to meet its short-term land needs.

Long-Term Land Needs

With nearly 170 acres of industrial land available within the urban area, Monmouth has enough land available to meet the projected need for industrial employment land through 2027. With more than half of the available industrial acreage is currently located outside the city limits, the City will encourage annexation of industrial parcels located within the UGB to help ensure choices in the market place.

Wetland determinations and mitigation plans must be developed for larger parcels located at the north end of Monmouth along Hoffman Road. Industrial site certification for properties in Monmouth is included as part of the Monmouth Urban Renewal District Plan. Development of mitigation plans and construction of infrastructure improvements to serve these potential development areas will be important to obtaining Site Certification for industrial properties. Encouraging creation of smaller parcels will also help ensure choices in the market and provide sites that best meet the needs of smaller firms most likely to locate in Monmouth.

Future commercial areas need to be identified to meet long-term needs. Redevelopment within the existing downtown core provides the most viable option for long-term commercial needs. The city is committed to revitalizing the downtown area. Creation of additional commercial development opportunities in the downtown will help realize this goal. Expansion of the urban growth boundary to the north or south to provide for further commercial development along Highway 99W has the potential to adversely impact business development within the downtown core.

City Policies Affecting Economic Development

Monmouth has adopted a number of economic development goals and policies as part of the Comprehensive Plan, which are stated as follows. In general, Monmouth supports economic development that adds to the quality of life of the community and that provides local employment opportunities.

Economic Development Goals

1. *To maintain existing businesses and encourage a variety of new business activities to locate in the city.*

2. *To increase the short- and long-term stability of the local economy.*

3. *To foster commercial and/or industrial activities to meet the expressed needs of the residents.*

4. *To encourage development of a sound economic base through diversified industries.*

5. *To increase and broaden employment opportunities for area residents and stimulate growth of retail and service-related activities.*

6. *To utilize Western Oregon University's training opportunities for existing firms in the community and to utilize Western Oregon University as a source of new employees who meet the needs of local employers.*

7. *To promote the development of a unified and cohesive downtown Main Street.*

8. *To implement the Monmouth Urban Renewal District Plan.*

Economic Development Policies

1. *The City shall promote the retention and expansion of existing business activity while promoting the recruitment of new commercial small business activity, including the development of the business license process.*

2. *The City shall utilize public and private capital improvements funding to stimulate business development in downtown.*

3 *The City shall create a favorable climate to attract new commercial uses that will benefit the community.*

4. *Commercial development in areas outside of downtown and Highway 99W shall be oriented to serve neighborhood needs.*

5. *The City will develop neighborhood commercial standards.*

6. *The City shall reduce the community tax burden by fostering diversification and broadening the tax base.*

7. *The City shall seek to attract and expand industries to provide employment opportunities for City residents.*

8. *Industries shall be required to adhere to applicable Federal and State air, land and water quality standards.*

9. *The City shall designate additional industrial land after the majority of the existing supply is developed.*

10. *The City shall require industries to provide landscaping to buffer the visual effect of expansive buildings or paved areas, to improve the streetscape along collector and arterial streets, and to screen adjoining non-industrial areas.*

11. *Using Western Oregon University's assistance, the City will recruit technological-based industries by encouraging a link between research industries and Western Oregon University.*

12. *The City shall establish reciprocal liaisons with Western Oregon University.*

13. *The City supports opportunities for Western Oregon University faculty and their spouses to live and work in the community.*

14. *The City will continue to support the development of the Monmouth-Independence Network (MInet) as a means of fostering economic development.*

15. *The City will work to place one or more industrial properties on the list of Oregon Certified Industrial Sites.*

16. *The City will structure the standards and criteria of the Zoning Ordinance to assist commercial and industrial developers in determining the feasibility of a potential project. The City will emphasize the importance of a rapid review process, avoiding unnecessary delays in processing applications for developments.*

PUBLIC FACILITIES & SERVICES

INTRODUCTION

Public facilities and services are of great importance to the general welfare of a community. Various levels of government or private institutions either own or operate these facilities for the benefit of the community. Some of the services provided are necessities of life, such as sewer, storm sewer and water, whereas others substantially enhance the quality of life, such as schools, park and recreation facilities. Considering the continued population growth, rising living standards, increased leisure time and educational expectations, the City anticipates an increased demand for various types of public services within the planning period. Advance and systematic planning of these public facilities is essential to assuring that the City meets future demands.

WATER SYSTEM

SYSTEM PLANNING

The 2000 City of Monmouth Water System Master Plan guides the governing body in the development of the water system. The Water System Master Plan for the City of Monmouth outlines the water system improvements and expansions necessary to accommodate anticipated growth and current deficiencies. The plan outlines the projected needs of the water system from Year 2000 through 2020. The city is currently in the process of completing an update to the 2000 Water System Master Plan and anticipates completion of the update in June 2007.

The 2007 Public Facilities Element, Water System Section, includes excerpts and summary information from the 2000 Water System Master Plan, prepared by Steller Company, and information collected from City Public Works staff and the consultant assisting the city with the 2007 Water Master Plan update.

WATER SUPPLY SOURCES

The city currently derives all source water from groundwater sources. Although surface water rights for the Willamette River are available, future planning has been performed using additional groundwater sources exclusively. This will avoid the high cost and complexity associated with treatment of surface water supplies. The city's future water supplies will be derived primarily from Marion County Well #1 and a second well in Marion County (Marion County #2) that would serve as a supplementary and backup source to Marion County Well #1. The City of Monmouth is also pursuing the development of a shallow wellfield on the west side of the Willamette River. This project is a joint developmental project with the City of Independence referred to as the Willamette River Wellfield.

Groundwater Sources

The city currently has access to three (3) wells from two (2) wellfields: the Marion County Well, located at the approach ramp at the east end of the Willamette River (Independence) Bridge, and the Independence Fourth Street well field. The Marion County well is a 1100-1200 GPM production source. The Independence Fourth Street Wellfield consists of two (2) separate wells with a combined capacity of approximately 350-400 GPM. Total current maximum production from all sources is 1500 GPM (2.16 MGD).

Water Rights

The City of Monmouth currently (2000) has approved and active permits or certificates for the following groundwater sources with the Oregon Water Resources Department.

Public Facilities Element - Table 1
Water Rights

Application Number	Permit Number	Certificate Number	Well Number	Priority Date	Permitted Flow
G-8926	G-8579	NA	Well #1 (Marion County Well)	August 14, 1978	5 CFS (2 Wells)
G-5106	G-4818	62436	Well #4 (Fourth Street Well)	February 17, 1970	. 55 CFS
G-5106	G-4818	62436	Well #5 (Fourth Street Well)	February 17, 1970	. 33 CFS
G-13521	G-12976	NA	Wells #6 and #7 (Buena Vista Wells)	October 1, 1993	6 CFS
Total Permitted Flow (with new well field): 11.88 CFS (5,328 GPM)					

WATER DISTRIBUTION SYSTEM

The city's distribution system consists of primarily older asbestos-cement (AC) pipe and newer Polyvinyl Chloride (PVC) pipe with a minor amount of steel and cast iron. Most of the distribution system was installed during the period between 1950-1975. The city currently utilizes PVC (American Water Works Association (AWWA) class C-900) pipe as the standard pipe of choice. The approximate distribution of pipe sizes is shown in Table 2.

Public Facilities Element - Table 2
Distribution System

Size	Total Length and Type	Total
14”	4,480’ (AC)	4,480’
12”	15,590’ (AC) + 2,963’ (PVC)	18,553’
10”	393’ (CI) +1,482’ (AC)	1,875’
8”	21,649’ (AC) + 16,039’ (PVC)	37,688’
6”	1,423’ (CI) + 21,056’ (PVC) + 53,918’ (AC)	76,397’
4”	4,703’ (AC) + 1,783’ (CI) + 705’ (DI) + 575’ (STL) + 520’ (PVC)	8,286’
2”	6,965’ (PVC) + 2,879’ (Galvanized Steel)	9,844’
Total length: 157,123’ – Miles: 29.75		

The system has adequate isolation valving and good fire hydrant distribution throughout the system. Most of the fire hydrants in the city were manufactured by Waterous, which is the city's primary brand. Hydrants manufactured by Kennedy or Clow are also present. New services are exclusively made from 200 pounds per square inch (psi) polyethylene tubing installed from the main to service meter. Most of the distribution system is looped and intertied, where possible, to improve delivery and lessen water quality impacts to customers.

TREATMENT FACILITIES

All of the current treatment facilities are located at the Marion County Well #1. The city operates an air stripping facility (installed in 1994-1995) at the Marion County Well site for removal of Carbon Dioxide gas. This stripper consists of a 7' diameter structural grade aluminum tower. The tower has an overall height of 23' and is equipped with an 8' layer of 3.5" Lanpac packing material. The system utilizes a 1.5 horsepower blower capable of 3,200 cubic feet per minute of air to assist in the stripping process. Water is introduced from the well to the top of the tower where it is forced to trickle down through the packing. This action, combined with an upward draft of air from the blower, removes approximately 95% of the Carbon Dioxide present in the raw water. The water pH is elevated from a level of 5.5-6 to 7.0-7.5 following this procedure. Additional control for pipeline corrosion is obtained through the injection of zinc orthophosphate ($ZnPO_4$). Chlorination is performed using gaseous chlorine at the Marion County well. Sodium Fluoride is also introduced into the water at Well #1.

BOOSTER PUMP STATIONS

Because the city operates only one pressure zone, there are no booster pump stations within the system. A booster pump is used at the Marion County Well to transfer water from the air stripper. This pump is a Cornell model 5YBCC-100-2, 100 HP close coupled end-suction centrifugal pump. The pump's design flow rate is 1300 Gallons Per Minute (GPM). Due to the differential in reservoir levels at Cupids Knoll, two 10 horsepower booster pumps, each capable of 400 GPM, are used to transfer water from the lower one million gallon buried reservoir to the two upper reservoirs. These pumps are capable of either manual or automatic operation.

STORAGE FACILITIES

The city operates three ground-level reservoirs, all located on Cupids Knoll. Two reservoirs are located at grade while one is partially buried. The present available water storage of 5,000,000 gallons represents a surplus over current water demands and population by 1,400,000 gallons.

Public Facilities Element - Table 3
Existing Storage Facilities

Water Storage Reservoir Number and Year Constructed	Diameter	Rates Water Storage (Gallons)	Material of Construction	Reservoir Floor Elevation (Ft-MSL)	Maximum Water Surface Elevation (Ft-MSL)	Maximum Water Depth (Ft.)
1) 1980	104 ft.	3,000,000	Concrete	314 ft.	361.25 ft.	47.25 ft.
2) 1949	82 ft.	1,000,000	Reinforced Concrete	295 ft.	320'±	25 ft.
3) 1969	60ft.	1,000,000	Steel	314 ft.	361.25 ft.	47.25 ft.

The reservoirs are mostly in good condition, however, reservoir number two is in need of inspection and may possibly need pressure grouting of several cracks.

CURRENT WATER REQUIREMENTS

The City's current average daily demand of water is approximately 985,000 gallons per day which equates to a per person usage of 119 gallons per day and includes all water lost through system leakage. This value of water consumption is typical for a city of this size and population distribution. Current maximum day water demand is approximately 2,341,000 gallons, an increase of 2.4 times the average day. The maximum day typically occurs in July or August. System leakage and non-revenue water is currently averaging between 10 percent to 12 percent. The distribution of water usage within the city is comprised of 82 percent for residential (all types) usage, 11 to 15 percent for institutional uses (Western Oregon University), and 4 to 5 percent of commercial/industrial use. The currently available water sources can provide water for all current daily uses within 24 hour pumping but as the city continues to grow, additional wells will be required to accommodate the increased demands.

FUTURE WATER REQUIREMENTS

Average daily water demand is projected to rise to 1,950,000 gallons per day (GPD) with maximum day demands as high as 4,950,000 gallons, by the year 2020, an increase of 50 percent over 2000 values. This value reflects total volume of unaccounted for water (water lost to system leakage) to 10 percent and limiting well operation to 20 hours per day. **Table 4** shows projected water demands through 2020.

Public Facilities Element - Table 4
Projected Water Demands: 2000-2020

	2000	2005[1]	2010[1]	2015[1]	2020[1]
Design Population	8,376	9,710	11,256	13,049	15,128
Average Daily Demand[2]	1,047,000 GPD	1,253,750 GPD	1,457,000 GPD	1,691,125 GPD	1,954,000 GPD
Average Summer Demand	1,570,500 GPD	1,900,625 GPD	2,300,500 GPD	2,644,688 GPD	3,039,500 GPD
Maximum Daily Demand[3]	2,621,688 GPD	3,116,730 GPD	3,713,128 GPD	4,282,337 GPD	4,938,064 GPD
Peak Hour[4]	4,500 GPM	5,413 GPM	6,450 GPM	7,400 GPM	8,600 GPM

[1] Years 2005-2020 reflect increased daily demand to accommodate projected Western Oregon University (WOU) and city growth
[2] Average Daily Demand is based on 125 gallons per capita/day
[3] Maximum Daily Demand is based on 313 gallons per capita/day plus the WOU growth factor
[4] Peak Hour Demand is assumed to be 2.5 x Maximum Day Demands

WATER STORAGE REQUIREMENTS

Water storage is provided for several reasons including: to equalize supply and demand for daily flow variations, maximum day and peak hour requirements; to provide emergency reserve supply during pipeline breaks, mechanical failures and power outages; and to provide water for fire protection.

Table 5 shows the estimated future average day, maximum day and peak hour demands for the period through 2020.

Public Facilities Element - Table 5
Water System Demand

Year	Population	Average Day (GPD)	Maximum Day (GPD)	Peak Hour (GPM)
2000	8,376	1,047,000	2,621,688	4,500
2005	9,710	1,253,750	3,116,730	5,413
2010	11,256	1,457,000	3,713,128	6,450
2015	13,049	1,691,125	4,282,337	7,400
2020	15,128	1,954,000	4,938,064	8,600

Table 6 shows the city's water storage requirements through 2020.

Public Facilities Element - Table 6
Storage Requirements
Years 2000, 2005, 2010, 2015, 2020

Storage	2000	2005	2010	2015	2020[2]
Operational Storage (25% of Max. Day)	655,500 Gal	780,000 Gal	930,000 Gal	1,070,600 Gal	1,235,000 Gal
Fire Reserve Storage[1]	840,000 Gal	840,000 Gal	1,000,000 Gal	1,000,000 Gal	1,000,000 Gal
Reserve Emergency Storage (2 days x average day)	2,094,000 Gal	2,507,000 Gal	2,914,000 Gal	3,382,250 Gal	3,908,000 Gal
Total Required Storage	3,589,500 Gal	4,127,500 Gal	4,844,000 Gal	5,452,850 Gal	6,143,000 Gal
Less Available Storage[3]	5,000,000 Gal	5,000,000 Gal	5,000,000 Gal	6,000,000 Gal	6,000,000 Gal
Total (Deficit), Surplus (+)	+1,410,500 Gal	+872,500 Gal	+156,000 Gal	+547,000 Gal	(143,000 Gal)

[1] Fire Storage Requirement: 2000: 3,500 GPM x 60 mins/hr x 4 hrs duration = 840,000 gallons
[2] 2020 Fire Flow: 4,000 GPM x 240 mins = 1,000,000 gallons
[3] After addition of proposed additional storage at incremental year of study period.

Table 7 shows the city's planned schedule for improvements to the city's water storage capacity.

Public Facilities Element - Table 7
Proposed Water Storage Addition Schedule

Site	2000 (existing)	2005	2010	2015	2020
Cupids Knoll 3MG (1980) Res. #1	3,000,000 Gal	3,000,000 Gal	3,000,000 Gal	3,000,000 Gal	3,000,000 Gal
Cupids Knoll 1MG (1949) Res. #2	1,000,000 Gal	1,000,000 Gal	1,000,000 Gal	Abandoned	Abandoned
New Cupids Knoll 2 MG (Replace Res. #2)	---	---	---	2,000,000 Gal	2,000,000 Gal
Cupids Knoll 1MG (1969) Res. #3	1,000,000 Gal	1,000,000 Gal	1,000,000 Gal	1,000,000 Gal	1,000,000 Gal
Total	5,000,000 Gal	5,000,000 Gal	5,000,000 Gal	6,000,000 Gal	6,000,000 Gal

Source: City of Monmouth Water System Master Plan Update, 2007.

The proposed water storage addition schedule includes a new 2,000,000-gallon reservoir to be placed at the existing Cupids Knoll Reservoir site. This reservoir will replace the existing partially buried reservoir during 2010-2015. The existing buried reservoir is approaching the end of its service life (66 years) around 2010 and is slated for abandonment during this period. The new reservoir will be placed in the corner of the existing reservoir site.

HYDRAULIC ANALYSIS SUMMARY

Computer modeling indicates that the water distribution system can accommodate current average and maximum day demands. Fire flow for specific locations such as Western Oregon University, however, is severally limited due to present pipeline and hydraulic limitations. The 2000 Water System Master Plan identifies improvements recommended to alleviate this situation. The city recently completed water system improvements identified in Phase I of the 2000 Water System Plan. These improvements have greatly increased the delivery capacity of water to and from the city's service reservoirs on Cupids Knoll, particularly fire flow to the area around Western Oregon State University.

Year 2000 Hydraulic Analysis Summary

The following conclusions are drawn in the 2000 Water Master Plan regarding the Year 2000 Hydraulic Analysis:

1. The existing distribution system can accommodate current average and maximum day demands with minimal pressure loss within the city. All residual pressures were above the minimum desired pressure level of 50 psi.

2. A maximum day demand combined with a high intensity (3,500 GPM) fire flow results in significant and severe pressure drops throughout the city. Residual pressures at several locations drop into negative values, a potentially dangerous and hazardous condition.

3. The distribution system is not currently capable of accepting more than 1,600 GPM of total source capacity due to pressure increases seen in the grid.

4. Distribution system improvements (Phase 1- Priority 1) greatly improve water delivery throughout the city under all flow conditions.

5. After Phase 1, Priority 1 improvements are complete, the distribution system is capable of accommodating Year 2000 average day, maximum day, maximum day with coincidental fire flow (3,500 GPM) and peak hour demands.

Year 2020 Hydraulic Analysis Summary

The following conclusions are drawn in the 2000 Water Master Plan regarding the Year 2020 Hydraulic Analysis:

1. The distribution system, after completion of all proposed improvements, can accommodate all projected average day, maximum day and peak hour demands for the Year 2020. System-wide residual pressures are acceptable and pipeline velocities are within normal limits.

2. Fire flow availability throughout the city is greatly enhanced following the incorporation of the phased improvements. Fire flows as high as 4,000 GPM are available in most locations within the city. Fire flows up to 2,000 GPM are available in the extreme northeastern area of the city.

3. A substantial increase in system-wide pressure may be developed during simultaneous operation of all wells at flows less than maximum day demands. Eventual extension of the transmission main to the 12-inch reservoir connection at Falls City Highway, before activation of all Year 2020 sources, is recommended to prevent this occurrence.

4. Investment in a dedicated north-south transmission main is not warranted or recommended. Extension and inter-connection of existing 12-inch mains on Main Street and Pacific Avenue are recommended, however, to optimize water delivery to all major quadrants within the city.

5. An additional Highway 99W crossing is recommended at the northern end of the distribution system. This crossing will provide needed redundancy, looping, and reinforcement for the northern end of the city on both sides of the highway.

CAPITAL IMPROVEMENT PROGRAM

The 2000 Water Master Plan established future system improvements and estimated costs through the year 2020. Since the adoption of the Water Master Plan in 2000, the City completed an updated review of future water system improvements through the year 2026 in conjunction with the 2007 Water Master Plan update. The updated future water system improvements would be completed in four phases described as follows.

Phase I: 2006-2010

Table 8 shows Phase I improvements and preliminary cost estimates. Major improvements included in Phase I include construction of a groundwater treatment facility for nitrate removal and construction of a new well.

Public Facilities Element - Table 8
Phase I Water System Improvements
2006-2010

Priority #	Projected Fiscal Year	Description	Estimated Cost
1	2006/07	Breyman Test Well Construction/Testing	$ 36,000.00
2	2006/07	Ranney Collector Pilot Testing/Drilling (I/M Joint Project-50% of Total)	$ 32,000.00
3	2006/07	Nitrate Plant Pilot Testing	$ 18,600.00
4	2006/07	Breyman Production Well Construction/Testing/Site Development	$ 146,000.00
5	2007/08	Breyman Pump Station Construction/Transmission Line	$ 315,000.00
6	2007/08	Groundwater Treatment Facility (Nitrate Removal) with provisions to add Breyman Well and future surface water treatment	$ 1,425,000.00
7	2008/09	Construction of Ranney Collector Well (I/M Joint Project--50% of Total)	$ 1,110,000.00
8	2009/10	Install a radio based Scada system at City Shops (Master Unit), New Treatment Plant, Cupids Knoll Reservoir, and 3 Remote well sites	$ 106,000.00
		Sub-Total Phase I	*$ 3,188,600.00*
		(+) 20% Engineering, Legal, Administration, and Inspection	$637,720.00
		(+) 20% Contingency/Inflation Factor	$637,720.00
		Total Phase I	**$ 4,464,040.00**

Source: City of Monmouth Water System Master Plan Update, 2007.

Table 9 shows Phase II improvements and preliminary cost estimates. Phase II includes the construction of a 10 million gallons per day (MGD) surface water treatment plant and the installation of a transmission pipeline from Corvallis Road to the city distribution system.

Public Facilities Element - Table 9
Phase II Water System Improvements
2010-2015

Priority #	Projected Fiscal Year	Description	Estimated Cost
1	2012/13	Construct 10 MGD (5MGD to Monmouth) Surface Water Treatment Plant (I/M Joint Project-50% of Total)	$ 3,860,000.00
2	2012/13	Perform a hydrogeologic study on the Marion County well fields for proper operation of existing wells, selection of new well sites, and Nitrate control recommendations.	$52,000.00
3	2012/13	Purchase land for future Cupids Knoll 2 MG Reservoir	$80,000.00
4	2013/14	Clean and inspect Reservoirs	$25,000.00
5	2014/15	Install 14,700'± 16" and 12" AWWA C-905, class 165 psi Transmission pipeline from Corvallis Road to the city distribution system and intertie to water system (South Transmission Waterline)-Phase II-Priority 5	$ 1,116,000.00
		Sub-Total Phase II	$ 5,133,000.00
		(+) 20% Engineering, Legal, Administration, and Inspection	$ 1,026,600.00
		(+) 20% Contingency/Inflation Factor	$ 1,026,600.00
		Total Phase II	**$ 7,186,200.00**

Source: City of Monmouth Water System Master Plan Update, 2007.

Table 10 shows Phase III improvements and preliminary cost estimates. Phase III consists of replacements to existing waterlines located throughout the city. The proposed replacements will help lower lost water, reinforce existing undersized piping, and increase the distribution system capacity.

Public Facilities Element - Table 10
Phase III Water System Improvements
2015-2020

Priority #	Projected Fiscal Year	Description	Estimated Cost
1	2015/16	Phase III, Priority 1-Waterline improvements	$355,000.00
		Sub-Total Phase III	*$355,000.00*
		(+) 20% Engineering, Legal, Administration, and Inspection	$71,000.00
		(+) 20% Contingency/Inflation Factor	$71,000.00
		Total Phase III	**$497,000.00**

Source: City of Monmouth Water System Master Plan Update, 2007.

Table 11 shows Phase IV improvements and preliminary cost estimates. Major improvements included in Phase IV consist of constructing a two million gallon reservoir at Cupids Knoll to replace Reservoir #2 and installing a transmission pipeline in the northern region of the city.

Public Facilities Element - Table 11
Phase IV Water System Improvements
2020-2026

Priority #	Projected Fiscal Year	Description	Estimated Cost
1	2020/21	Construct 2 MG Reservoir at Cupids Knoll (To replace Reservoir #2)	$725,000.00
2	2022/23	Phase IV, Priority 1-waterline replacement—See Table 1	$600,000.00
3	2022/23	Phase IV, Priority 2-Waterline improvements-See Table 1	$450,000.00
4	2025/26	Install 15,000' of 16"/12" AWWA C-905 PVC Transmission Pipeline in Northern region (North Transmission Waterline)-Phase IV-Priority 4	$ 1,325,000.00
		Sub-Total Phase IV	$ 3,100,000.00
		(+) 20% Engineering, Legal, Administration, and Inspection	$620,000.00
		(+) 20% Contingency/Inflation Factor	$620,000.00
		Total Phase IV	**$ 4,340,000.00**

Source: City of Monmouth Water System Master Plan Update, 2007.

WATER QUALITY CONSIDERATIONS

The 2000 Water System Master Plan notes that since the City of Monmouth uses groundwater exclusively, modifactions to the Safe Water Drinking Act (SWDA) that affect surface water supplies have little or no impact to Monmouth. Recent water quality regulations enacted since 2000 that pertain to the City of Monmouth's water supply include new regulations for ground water and arsenic. Since Monmouth routinely chlorinates water delivered to customers, these new regulations do not represent a substantial concern to the city. The greatest water quality concerns for Monmouth include control of nitrates at the Marion County well, and monitoring of synthetic organics at the Fourth Street field. Future water quality concerns affecting the City of Monmouth include continued monitoring of synthetic and volatile organic contaminants at all wells, nitrate monitoring at the Marion County wells, coliform bacteria monitoring at all wells, and possible surface water influence at the Willamette River Wellfield and/or Marion County #2.

WELLHEAD PROTECTION PROGRAM

The City of Monmouth, in conjunction with the City of Independence, has adopted a Joint Wellhead Protection Program. This is believed to be a very important venture and the City is encouraged to proceed to completion of this project. Many of the proposed monitoring and regulatory components of the 1996 SDWA are tied to implementation of a Wellhead Protection Program.

A properly prepared Wellhead Protection Program includes many elements such as, delineation of the aquifer recharge zone, control and protection agreements with local sources of possible contaminants, and specific wellhead protection criteria.

TOTAL MAXIMUM DAILY LOADS (TMDL) IMPLEMENTATION PLAN

The Department of Environmental Quality (DEQ) recently signed the Willamette Basin TMDL Order, which requires pollution sources to implement actions to improve water quality. Total Maximum Daily Loads (TMDLs) describe the amount of each pollutant a waterway can receive and still not violate water quality standards. The parameters addressed in the TMDL's include temperature, bacteria and mercury.

DEQ has named certain federal, state and local governments and agencies, including cities, counties, and special districts, as Designated Management Agencies (DMAs) because these agencies and governments

have authority to manage and regulate sources of pollutants that are listed in the Willamette TMDL. DMAs are required to develop and submit TMDL implementation plans that address the TMDL pollutants and additional requirements to DEQ within 18 months following issuance of the TMDL order (by May 2008). The City of Monmouth is listed as one of the DMAs in the Willamette Basin required to submit a TMDL implementation plan. A TMDL implementation plan identifies plans or strategies the DMA is completing to improve water quality and help meet the pollutant reduction goals of the TMDL.

SEWER SYSTEM

SYSTEM PLANNING

The 1999 City of Monmouth Sewer Master Plan guides the governing body in the development of the sewer system. This plan continues to be the design plan for Monmouth. The Sewer Master Plan is supplemented by a report titled, "Evaluation of Hydraulic Capacity at the Monmouth Wastewater Treatment Facility," prepared by Whitaker Engineering with CH2M Hill in 1998. The purpose of the 1998 report was to evaluate alternatives to improve the dry weather storage capacity of the existing facultative lagoons at the City of Monmouth wastewater treatment facility. The 1998 report included a comprehensive treatment plant analysis. Copies of these plans are available for review through City Hall or for purchase based upon the cost of reproduction. The city is currently in the process of completing a Sewer System Facility Plan and anticipates completion of the plan in Fall 2007.

The 2007 update to the Public Facilities Element, Sewer System, includes excerpts and summary information from the Sewer Master Plan prepared by HBH Consulting Engineers and information collected from City Public Works staff.

EXISTING SYSTEM

The City of Monmouth owns and operates its own wastewater collection and treatment system. The collection system transports sanitary sewage to the wastewater treatment plant located in the northeast part of the city. After treatment, the wastewater effluent is discharged to the Willamette River via gravity pipeline shared with the City of Independence.

WASTEWATER COLLECTION SYSTEM

The original Monmouth sanitary sewer system was constructed in 1925, in the city's central and western parts of town and around the Western Oregon University campus. The system was constructed with clay pipe in two-foot sections. In 1962, a 12-inch concrete interceptor was constructed down Edwards Road to serve the eastern and southern sections of Monmouth. Over the years, the system has been expanded to serve the entire city limits. In general, wastewater flows north and east through 12-inch through 24-inch interceptors to the city's wastewater treatment plant. Trunk and lateral sewers 6-inches through 10-inches in diameter transport wastewater from individual services to the interceptors. The existing collection system is shown in Table 12 below.

Monmouth's collection system consists of approximately 105,000 feet, or nearly 20 miles, of public sanitary sewer lines. Pipe sizes range from six inches up to 30 inches just upstream of the treatment plan headworks. **Table 12** summarizes the total lengths of the various pipe diameters within the primary basins of the collection system.

Public Facilities Element - Table 12
Collection System Inventory

Sewer Basin	Pipe Diameter								Total
	6-inch	8-inch	10-inch	12-inch	15-inch	18-inch	21-inch	24-inch	
Basin I	--	7,400 ft.	440 ft.	1,230 ft.	1,400 ft.	660 ft.	--	2,580 ft.	13,710 ft.
Basin II	2,290 ft.	18,980 ft.	440 ft.	6,200 ft.	80 ft.	400 ft.	--	--	28,390 ft.
Basin III	2,090 ft.	30,760 ft.	1,810 ft.	870 ft.	1,930 ft.	--	640 ft.	--	38,100 ft.
Basin IV	--	1,790 ft.	850 ft.	--	--	--	--	--	2,640 ft.
Basin V	790 ft.	17,800 ft.	570 ft.	2,750 ft.	220 ft.	--	--	--	22,210 ft.
Total	5,170 ft.	76,810 ft.	4,100 ft.	11,050 ft.	3,630 ft.	1,060 ft.	640 ft.	2,580 ft.	105,050 ft.

Source: City of Monmouth Sewer System Master Plan, 1999.

Condition of Collection System

The collection system as a whole is considered sound, with no major defects found due to a number of successful rehabilitation projects completed in 1991 and 1997. Inflow and infiltration in the system is still a problem in some areas of town, with leaks apparent in some manholes. Concrete sewer pipe, even if grouted, can be a significant source of inflow and infiltration. In addition, private service laterals are likely a major contributor to inflow and infiltration. However, efforts to fix service laterals must involve the private property owner.

PUMP STATIONS

Two wastewater pump stations are currently owned and operated by the City of Monmouth. The first, referred to as the SE Pump Station, serves the farthest southeast parts of the city limits. The pump station is located at the intersection of Teton Drive and Yellowstone Drive. It was constructed in 1996 and currently serves approximately 20 acres of single-family land in Basin II. Peak capacity of the pump station is 1.25 MGD, and is designed to serve a total of 200 acres of land zoned for single-family residential use. A 15-inch gravity line conveys wastewater into an 8-foot wet well. The pump station uses two submersible pumps to pump wastewater via an 8-inch force main, 1,000 feet long, into the 12-inch interceptor of Edwards Road and Ballard Drive. The pump station also has a diesel generator for backup electrical power.

The second pump station, referred to as the SW Pump Station, was constructed in 1998, at the intersection of Helmick Road and Ash Creek Drive, near the southern edge of the urban growth boundary. The pump station was constructed to initially serve an 18-acre residential development to the north. Total build-out capacity of the pump station is 2.72 MGD, with a design service area of 315 residentially and industrially zoned acres. There are currently two 20-hp, 475-gpm submersible pumps, with a current peak capacity of 1.5 MGD. The pump station has an 18-inch influent line, 12-foot wet well, and was designed for a maximum of four pumps. Wastewater is pumped into MH III-44 in Basin III/IV through two 8-inch force mains approximately 1,100 feet long. A diesel generator is provided for backup power.

WASTEWATER TREATMENT

The City of Monmouth owns and operates a facultative lagoon-type wastewater treatment facility that was originally constructed in 1963. The original treatment plant consisted of two cells. A third lagoon was added in 1980. The facility is located in the northeast corner of the city. The lagoons have areas of 17.6, 21.6, and 15.2 acres. **Table 13** summarizes the original design criteria for the treatment facilities.

Public Facilities Element - Table 13
Wastewater Treatment Plan Design Criteria

Design Parameter	Design Value
Hydraulic Design	
Average Dry-Weather Flow	0.55 MGD
Average Wet-Weather Flow	1.25 MGD
Peak Wet-Weather Flow	3.5 MGD
Outfall Pipe Capacity	3.53 MGD
Chlorine Contact Time (as Average Wet-Weather Flow)	91 min
Areas and Volumes	
Pond 1 Area	17.66 acres
Pond 1 Storage Volume	85.3 acre-feet - 27.7 MG
Pond 2 Area	21.6 acres
Pond 2 Storage Volume	104.4 acre-feet - 34.0 MG
Pond 3 Area	15.2 acres
Pond 3 Storage Volume	100.6 acre-feet - 32.8 MG
Total Area	54.4 acres
Total Storage Volume	290.3 acre-feet - 94.5 MG
Organic Loading	
Influent BOD_5	1,646 lb/day
Primary Ponds Unit Loading of BOD_5	42 lb/acre day
Overall Unit Loading of BOD_5	30 lb/acre day

Source: City of Monmouth Sewer System Master Plan, 1999.

The City of Monmouth discharges treated effluent into the Willamette River during the wet season and stored in the lagoons during the dry season. The city's National Pollutant Discharge Elimination System (NPDES) Permit only allows effluent discharge from November 1 to May 31. During the dry-weather months, the City holds effluent in the treatment lagoons. Evaporation provides for some effluent disposal during summer months.

Treatment Plant Capacity

Capacity of a wastewater treatment lagoon system is measured based on hydraulic and organic capacity. Hydraulic capacity is the ability of the treatment system to hold both influent during the No-Discharge Period and to handle high flows without washing out. Organic capacity is the ability of the system to treat biochemical oxygen demand, 5-day (BOD_5) and total suspended solids (TSS) loadings without exceeding the NPDES limits for discharge.

The 1999 Sewer Master Plan identifies improvements needed to expand the capacity of the treatment system for both hydraulic and organic capacity within the 20-year planning period. In the summer of 1997, the lagoon levels reached unacceptable levels due to a wetter than average season. This indicates that the hydraulic capacity of the lagoons is reaching a critical point. The organic treatment capacity is also reaching a critical point as the 1999 Sewer Master Plan indicates that the treatment capacity of the primary lagoons would be exceed by the year 2006.

SEWER SYSTEM IMPROVEMENTS

The 1999 Sewer Master Plan recommended completion of an Effluent Reuse Project to increase the capacity of the current sewage treatment system. The Effluent Reuse Project would reduce the need for summer effluent holding through the irrigation of a poplar plantation with the treated effluent from the

sewer lagoons. To increase treatment capacity within the system, mechanical aerators would be added to speed the processing of organic waste.

The Effluent Reuse Project includes two phases. **Table 14** lists the recommended improvements for each phase. Since completion of the 1999 Sewer Master Plan, the first phase of the Effluent Reuse Project has been completed.

Public Facilities Element - Table 14
Effluent Reuse Project Costs
(from the *Evaluation of Hydraulic Capacity*)

Description	Unit	Unit Price	Quantity	Cost
Phase I Improvements				
Poplar Plantation	LS	$1,627,899	1	$1,627,899
Influent Screen	EA	$65,000	1	$65,000
Mechanical Aerators	EA	$12,000	6	$72,000
Aerator Anchors	EA	$5,000	12	$60,000
Building	SF	$200	240	$48,000
Sitework Allowance		5%		$12,250
Instrumentation, Controls and Electrical Allowance		8%		$19,600
Mechanical Allowance		10%		$24,500
Subtotal				$1,929,249
Contingency @ 30%				$402,589
Engineering @ 10%				$174,455
Division 1 Requirements, Overhead and Profit @ 20%				$348,910
Phase I Construction Costs				**$2,855,203**
Phase II Improvements				
Influent Screen	EA	$65,000	1	$65,000
Mechanical Aerators	EA	$12,000	7	$84,000
Aerator Anchors	EA	$5,000	14	$70,000
Sitework Allowance		5%		$10,950
Instrumentation, Controls and Electrical Allowance		8%		$17,520
Mechanical Allowance		10%		$21,900
Subtotal				$269,370
Contingency @ 30%				$80,811
Engineering @ 10%				$35,018
Division 1 Requirements, Overhead and Profit @ 20%				$70,036
Phase II Construction Costs				**$455,235**

Source: City of Monmouth Sewer System Master Plan, 1999.

CAPITAL IMPROVEMENTS PLAN

The 1999 Sewer Master Plan identified and prioritized improvement projects through the year 2020. **Table 15** lists the recommended sewer system improvement projects by implementation date.

Public Facilities Element - Table 15
Sewer System Projects

Implementation Date	Project	Project Cost
	WWTP Phase 1 - Improvements - Poplar Plantation and Mechanical Aerators	$2,855,203
2000	Edwards Interceptor Phase 1 - Replace Existing Sewer Line in Edwards Street (21", 24" and 27" pipes)	$699,400
	Edwards Interceptor Phase 1 - Extend Interceptor to Southwest Pump Station (18" pipes)	$390,000
	Basin V Phase 1 - Improvements to Meet Existing Needs	$165,200
	Basin V Phase 2 - Improvements to Meet UBO Needs	$88,500
2005	North Pump Station	$684,531
	WWTP Phase 2 Improvements - Mechanical Aerators and Influent Screen	$455,235
2010	Middle Fork Interceptor	$735,143
2015-2020	Northern Interceptor	$567,412

Source: City of Monmouth Sewer System Master Plan, 1999.

STORM DRAINAGE SYSTEM

The City of Monmouth is generally divided into two drainage basins. The first is located to the extreme west and flows north and northeast to and through the university grounds to the swale that eventually empties into the North and Middle Forks of Ash Creek. The North and Middle Forks of Ash Creek above Gun Club Road in Independence drain some 13,400 acres, or about 21 square miles. The second drainage course runs through the south and southeast quarter of the city generally flowing due east to the city limits and eventually discharging into the South Fork of Ash Creek as it enters the City of Independence. The South Fork carries smaller flows with a drainage area of 4,300 acres (6.7 square miles) above Helmick Road.

In 2001, Whitaker Engineering prepared a preliminary stormwater master plan for the cities of Independence and Monmouth. The focus of the plan is on areas of potential new development of those portions of existing systems that may be affected by future development. The preliminary master plan describes the hydrologic and hydraulic analyses of portions of the stormwater management systems of both Monmouth and Independence, identifies pipe segments that may be inadequate for conveyance of estimated stormwater flows, and provides guidance for establishing policies related to stormwater detention strategies and development of stormwater systems.

The City of Monmouth is currently in the process of completing a storm water master plan. The estimated completion date is in the summer of 2007. The storm water master plan will identify needed improvements to the city's storm water system.

Within the City, the storm drain collection system is generally made up of small (less than 36-inch diameter) pipelines, catch basins and open drainage ditches. Present drainage problems include minor flooding during very heavy rainfall due to undersized piping and lack of storm improvements. The northwest part of town receives heavy sheet flow from the adjacent hillside. A formal storm system is needed to mitigate the minor flooding that occurs below the hill. New developments are required to provide storm drainage system compatible with the city system by detaining the storm water and releasing it at pre-development rates.

The Ash Creek Water Control District, which includes Monmouth, is responsible for improvement of the Ash Creek channel to prevent damage to property located near or adjacent to the Creek. Planned improvements to Ash Creek include:

- Channel clearing;
- Erosion control;
- Channel widening; and
- Channel alignment.

The District also conducts vegetation control and debris removal along Ash Creek. The City of Monmouth participates with the District in areas of mutual concern.

POLICE SERVICES

The Monmouth Police Department includes a Police Chief, three sergeants, one uniform detective, eight officers, two administrative assistants and five reserve officers.

Emergency services are provided by Salem 911 through the Willamette Valley Communication Center.

Police Department equipment includes: nine marked patrol cars, two unmarked cars, four automatic electronic defibulators, one speed reader board trailer, and two patrol bicycles. Communications equipment includes: 19 two-way radios, and 15 cellular/mobile phones.

FIRE SERVICES

The Polk County Fire Protection District No. 1 provides fire protection for the City of Monmouth. The mission of the Polk County Fire Protection District No. 1 is to "Serve, Train, Educate and Protect our Community." Its service area is approximately 185 square miles and service population is approximately 20,500 people. The rural district has a staff of 80-90 volunteers and 14 paid positions. Emergency communications services are provided by the Willamette Valley Communications Center. The District has mutual aid agreements with the surrounding fire service districts in case additional fire service is needed.

The Insurance Service Office (ISO) review fire districts/departments and applies a fire suppression-rating schedule. Before assigning the rate, the ISO evaluates fire protection services based upon the available water supply, ability to transport water, the number and type of trained personnel, type of available equipment, and handling emergency alarms. Rating ranges from one to ten with number one being the best and number 10 being the worst. In 1998, the city's fire ISO rating was three.

The Fire Protection District has 15,000 gallons of water in storage, plus the capacity of the pumpers and tankers. The pumpers have the ability to draft from streams or ponds for additional water.

Apparatus available to the district in 2006 includes the following:

- Two 1993 and one 1992 International H&W Pumpers.
- One 1970 Ford Western States Engine.
- One 1987 Ford Pierce Mini-Pumper.
- One 2002 Sutphen Telescopic Aerial Ladder truck.
- One 1983 Ford 1800 Gallon Tanker.
- One 1988 Kenworth 3000 Gallon Tanker.

- Two 1997 Peterbuilt 3000 Gallon Tankers.
- One 1977 Chevrolet Brush Truck.
- One 1989 Ford Brush/Rescue Truck.
- One 1998 Freightliner Rescue Engine.
- One 2002 and One 1996 Medtech Ambulances.
- One 1992 Road Rescue Ambulance.
- One 1996 Stillenger Rescue Boat.
- One 1991 Kawasaki Water Rescue Jet Ski.
- One 1996 Nash 22-foot Rehab Trailer.
- One 1984 Ford Pick-up for Staff use.

The Fire District is scheduled to purchase a new medic unit and fire engine within the budget year ending in August 2007.

The Fire District indicated the need to update the City of Monmouth Emergency Management Plan completed in 1995.

SCHOOL SYSTEM

PUBLIC SCHOOLS

The City of Monmouth is served by the Central School District 13J. In addition to Monmouth, the Central School District also includes Independence and Rickreall. For the 2005-06 school year, there were approximately 2,757 students in the Central School District 13J. **Table 16** shows the greatest increase in student enrollment occurred between the 2005-2006 school years. The School District's Master Plan projects 80 new students will be added per year based upon moderate growth forecasts. The School District exceeded this projection by 29 students in 2006. The School District anticipates enrollment numbers will continue to increase significantly over the next several years and eventually slow down over the long term.

In September 2002, the Ash Creek Intermediate School opened adjacent to Central High School. The new school is intended to initially serve 450 students in grades 5 and 6. The school building is designed to ultimately serve 500 students in a K-5 grade configuration by offering two shifts per classroom per kindergarten.

Public Facilities Element - Table 16
Central School District Enrollment
1994 - 2006

Year	Enrollment	Percent Change
1994	2,585	n/a
1995	2,606	0.8%
1996	2,667	2.3%
1997	2,634	-1.2%
1998	2,674	1.5%
1999	2,645	-1.1%
2000	2,668	0.9%
2001	2,628	-1.5%
2002	2,588	-1.5%
2003	2,588	0.0%
2004	2,649	2.4%
2005	2,648	0.0%
2006	2,757	4.1%

Source: Oregon Department of Education, 2006

Table 17 shows the October 2006 enrollment figures for schools within the Central School District. For the most part, schools within the Central School District are considered to be at or over capacity. To address capacity issues, the School District is adding portable classrooms, completing grade realignments and considering bonds requiring voter approval to expand the High School in 2008 and build a new elementary school in 2010.

Public Facilities Element - Table 17
Central School District 13J Enrollment by School
October 2006

School	Grades	2006 Enrollment
Central High School	9-12	858
Ash Creek Intermediate School	5-6	400
Talmadge Middle School	7-8	404
Henry Hill Elementary School	K-4	297
Independence Elementary School	K-4	308
Monmouth Elementary School	K-4	473
Poyama Day Treatment	2-7	17

Source: Oregon Department of Education, 2006

WESTERN OREGON UNIVERSITY

Monmouth is home to Western Oregon University, which offers both undergraduate and graduate degrees in a variety of liberal arts programs. The university's current student body consists of about 4,500 undergraduates and 400 graduate students. Established in 1856, the University has had several names throughout the years and although it used to be a private school, it is currently the oldest public university in Oregon and on the West Coast. The university grew to become a nationally recognized leader in teacher preparation in its early years. In the seventies, the university expanded its offerings with broad-based liberal education programs. Since then, the university has continued to emerge as a leading comprehensive public liberal arts institution, with approximately two-thirds of its students in the College of Liberal Arts and Sciences and the rest in the College of Education.

Western Oregon University is home to the nationally renowned Teaching Research Institute, the Regional Resource Center on Deafness and the Rainbow Dance Theatre. In addition to teaching, WOU's faculty members are engaged in wide-ranging scholarship as well as community-based projects, including many faculty-student collaborations. The award-winning campus includes many multimedia classrooms, extensive wireless web access and a state-of-the-art library.

LIBRARY SERVICES

The Monmouth City Library is located at 168 S Ecols Street. The building was constructed in 195 and is 14,400 square feet in size. The library has a present circulation of approximately 170,000 volumes and has 62,000 volumes at present. The library is part of the Chemeketa Cooperative Regional Library Service, which provides improved services to the 16 member libraries located in Marion and Polk Counties, parts of Yamhill and Linn Counties, and Chemeketa Community College.

Special services offered by the library includes: children story hours, a limited selection of Spanish books, records and reading materials, summer children's reading program, after school program, movies in the summer, community meeting room and an adult book club. The library also has an active Friends of the Library Association whose mission statement is to support library activities in the interests of the community through fund-raising and volunteer efforts.

PARKS AND RECREATION

The City of Monmouth completed a Park and Recreation Master Plan in 1998. The plan identifies existing park and recreation areas and makes recommendations for future park and recreation facilities. The plan also includes an implementation strategy that prioritizes projects, identifies funding sources, and provides a capital facilities plan.

Table 18 includes a summary of parks and recreation facilities located within the City of Monmouth's Urban Growth Boundary (UGB). Total city parks and recreation facilities within the city's UGB include 17 sites for a total 39.3 acres.

Public Facilities Element - Table 18
Monmouth Parks and Recreation Facilities

Park Recreation Areas	Planning Area Total Park/Open Space Lands (Acres)	Total Number of Sites
City of Monmouth Parks and Facilities		
Mini-Parks	2.37	5
Neighborhood Parks	9.95	3
Special Use Areas	1.76	1
Natural Open Space/Greenways	0.00	0
Undeveloped Park Land	10.93	3
Other City Facilities	14.31	5
Total City Areas	**39.32**	**17**
Other		
State of Oregon (ODOT) Areas	4.11	2
Monmouth School District Areas	76.00	3
Western Oregon University	125.00	1
Private Parks and Recreation Areas	NA	1
Total Other Areas	**205.11**	**7**
Total	**244.43**	**24**

Source: Monmouth Parks and Recreation Master Plan, 1998.

The City of Monmouth park system consists of ten developed parks with a variety of recreation facilities as shown in **Table 19** below.

Public Facilities Element - Table 19
Summary of Monmouth Parks Facilities

	Restrooms	Playground Equipment	Picnic Tables	Shelter	Baseball	Basketball	Horseshoe	Skate Park	Grass Area	Tennis Court	Walking Path	Dog Friendly	Rental Availability
Cherry Lane Cherry Lane & W. Ackerman		•	•						•		•		
Gentle Woods Olive Way & N. High	•	•	•	•			•		•		•		•
La Mesa Between Josephine & Heffley		•	•			•			•				
Madrona E. Madrona & Edwards		•	•	•		•			•		•	•	
Main Street E. Main & N. Warren	•	•	•						•				•
Marr Marr Ct & W. Jackson		•	•						•				
Monmouth Recreational "S" Curves on E. Main	•	•	•		•			•	•	•			
Southgate Southgate Dr. & S. High		•	•			•			•				
Whitesell Catherine Ct.		•	•			•			•				
Winegar N. Ecols & Suzana		•	•						•				

Source: City of Monmouth, 2007.

The 1998 Parks and Recreation Master Plan include a Park Layout Plan, which is a physical description of a park concept for the City of Monmouth. The plan identifies future park sites, open space areas and trails. The proposed park system centers around the concept that a multi-use park (neighborhood park) should be located within convenient walking distance of most residents. This is accomplished by upgrading and/or expanding existing parks, converting or expanding several existing mini-parks and acquiring additional land within areas designated for residential development. This core system of parks will provide the basic passive and recreational opportunities within the neighborhoods. Supplementing these parks will be specialized recreation areas, natural open space and trail systems that serve the entire community. Main Street Park will continue to be the central focus of the park system.

A major addition that does not now exist is a linear open space system formed by the various forks of Ash Creek. It is proposed that the riparian areas of these creek areas be preserved in their natural condition. Access to and within these areas will be provided by a series of paved and unpaved trails.

Ash Creek Trail

Ash Creek Trail is an example of a recent trail project that upon completion, would link the cities of Monmouth and Independence along a four-mile trail adjacent to Ash Creek. The trail would extend from the Willamette River in Riverview Park (Independence) to the western edge of Monmouth at Western Oregon University. A Master Plan for the Ash Creek Trail was completed in April 2005. The vision for

the Ash Creek Trail Master Plan is two-fold: (1) to create open space and restoration opportunities and create a trail that (2) offers all community residents and visitors a non-motorized travel alternative between Independence and Monmouth. The proposed Ash Creek Trail will travel roughly parallel to Ash Creek and provide spur trails to locations outside the greenway, protecting and enhancing the biological, cultural, and historic resources of the corridor. The Ash Creek Trail will provide a convenient, non-automotive transportation alternative to Oregon 51 and Hoffman Road for local trips within the communities of Independence and Monmouth. As the communities continue to grow, the Ash Creek Trail will serve as a major transportation connection between the cities, linking neighborhoods, schools, and parks along the corridor. The trail will also provide access to areas outside the corridor, such as commercial retail areas and neighborhoods south of OR Highway 51, as well as provide additional recreational and open space preservation opportunities.

Future Parks and Recreation Needs

The 1998 Parks and Recreation Master Plan included a summary of park and recreational facility needs through the year 2018 as shown in Table 21. The plan identifies four prevailing features lacking in the park and recreation system in Monmouth. These include a shortage of larger "neighborhood" parks; an overall lack of sports fields; a shortage of indoor facilities, such as a pool or recreation center; and a lack of off-street trails.

Public Facilities Element - Table 21
Monmouth Park and Recreation Facility Needs (2018)

Area or Facility	Existing Inventory	Year 2018 Demand	Additional Need
Areas			
Mini-Parks	2.37 Acres	0.80 Acres	(1.57) Acres
Neighborhood Parks	9.95 Acres	47.61 Acres	37.66 Acres
Special Use Areas	1.76 Acres	22.54 Acres	20.78 Acres
Natural Open Space	None	47.96 Acres	47.96 Acres
Undeveloped Land	10.93 Acres	None	--
Facilities			
Baseball Fields	5 Fields	9 Fields	4 Fields
Softball Fields	2 Fields	6 Fields	4 Fields
Soccer Fields	4 Fields	9 Fields	5 Fields
Tennis Courts	6 Courts	10 Courts	4 Courts
Swimming Pools	3,150 Sq. Ft.	5,589 St. Ft	1,439 St. Ft
Gymnasiums	3 Courts	6 Courts	3 Courts
Pathways and Trails	0.86 Miles	6.42 Miles	5.56 Miles

Source: Monmouth Parks and Recreation Master Plan, 1998.

SOLID WASTE

The City of Monmouth does not have a solid waste disposal facility. Local collection is handled by contract with Brandt's Sanitary or by individuals hauling their own waste. Curbside recycling is available to citizens in the community. The company disposes waste at the Coffin Butte landfill near Corvallis.

Citizens are able to participate in a curbside recycling program similar to larger communities in the area. If the City chooses to expand the program, additional opportunities are available but do require an increase in fees.

The City's regional contact is through the Polk County Community Development Department, which administers a solid waste collection franchise ordinance. The Community Development Department also coordinates recycling, and household hazardous waste collection programs.

It is important that the City participate in a regional solid waste management program. A regional solid waste management program strives to maximize the use of existing sites, endorse energy conservation and recycling of wastes, and coordinates solid waste activities of counties in the region. The City of Monmouth supports a regional solid waste management program that includes recycling opportunities.

POWER AND LIGHT SERVICE

The City of Monmouth owns and operates its own power and light service company since 1940. The Monmouth Electric Department serves over 4,100 accounts, which includes all of Monmouth and the outlining areas to the north and west of the city limits. Approximately 3,965 of the accounts are for residential use and 135 for commercial use. Monmouth residents enjoy power service at a cost moderately less as compared to the cost of power provided by most power companies.

The City receives all of its power through the Bonneville Power Administration and has 20 mega-watts (MW) currently allocated to it under existing contracts. The City's peak power demand is approximately 16.25 MW. The City's currently has sufficient power supply to meet its current needs.

The City's power system is generally in good condition, with the exception of some local distribution taps, which need upgrading. New development is required to install power service utility lines underground. The City's power system utilizes loop feeds to provide back-up services in case of power outages. Presently, the City's power outage services are considered to be marginally adequate. Planned improvements to the City's power service system include adding a new substation within the next year to meet additional power service needs and provide increased system reliability.

The City anticipates that power needs will increase by approximately five percent each year and that the current power supply will be able to meet this projected demand. The new substation planned for construction in 2007, will help ensure adequate power service is available in the future.

TELECOMMUNICATION SERVICES

In 2004, the City of Monmouth and Independence created an intergovernmental entity, known as MINET (Monmouth-Independence Network), to operate a local network that offers high speed internet, telephone and cable services via fiber optic lines. MINET provides service to the general Monmouth-Independence area. A consortium comprised of the City of Monmouth and the City of Independence guides it cooperatively.

MINET began providing cable TV and high-speed internet services to both commercial and residential customers in May of 2006. MINET offers these services at competitive rates and a high quality. Residential households have access via a 30-megabit (mb) connection. Commercial services have access to even faster connection services measured in gigabits (gb). MINET also began providing phone service in December of 2006.

Currently approximately 1,350 households or businesses in Monmouth and Independence subscribe to MINET. MINET's office is located at 405 N Hogan in Monmouth and employs eight (8) full-time employees.

To date, the entire city of Monmouth and 70 percent of all neighborhoods in Independence are wired. MINET is required to offer provide their services to anyone who requests them inside the city limits. Possible expansion plans include providing these services to the City of Dallas.