

Office

**CITY OF WILLAMINA**  
**COMPREHENSIVE LAND USE PLAN**



## Water Resources

Good water resources are all-important to the city's present and future well-being. Willamina is fortunate to have abundant water resources due to the major streams that flow through the city. Since Willamina has a lack of permeable geologic formations to allow major groundwater (aquifer) development, future water supply will depend on efficient use of surface water resources.

### Findings

- Surface water resources provide the city with municipal water supply, recreational opportunities and scenic areas.
- Domestic water supply from Willamina Creek can be expected to meet the city's increasing demands in the foreseeable future.
- The South Yamhill River affords recreational opportunities to Willamina residents.
- A sensitive groundwater area underlies the planning area. The City needs to be aware of potential impacts on sensitive groundwater areas from underground storage tanks, storm drainage, chemical spills, residential on-site sewage systems and other similar land uses.
- Minimum stream flows have been set for the South Yamhill River and Willamina Creek as a part of the State Water Resources Board's "Middle Willamette River Basin Program."

### Goal

1. *To preserve the surface water resources of Willamina Creek and to protect Willamina's water quality through compliance with federal, state and regional water quality standards.*

### Policy

- A. The City shall notify private and public landowners, advising parties that Willamina Creek serves as the water resource for the city and that the city will want to ensure its future viability
- B. The city shall proactively work to prevent pollution of Willamina Creek.
  - Action: The city will apply to receive technical assistance to develop a Source Water Protection Plan that follows DEQ and OHD guidelines.

- Action: Establish Significant Natural Resource (Resources Figure 8) and Water Quality Resource Management (Resources Figure 12) Areas under the Restricted Development Overlay Zone and ordinance to reduce the hazard of surface erosion and sediment delivery to Willamina Creek.
- C. Willamina will protect the vital groundwater and surface water resources by identifying potential contamination hazards, incorporating water quality maintenance and/or improvement activities, and applying sound planning practices and standards.
- D. Willamina will educate residents about resource contamination by periodically providing information to residents in their utility bill and displaying pamphlets/literature at city hall. The importance of protecting surface and groundwater will be emphasized.

#### Goal

2. *To plan for additional and conserve existing water supply.*

#### Policy

- A. The city shall develop a long-term strategy for meeting the city's water supply that considers surface and groundwater options.
- B. The city will promote water conservation by periodically providing residents with information about water conservation.

#### Goal

3. *To conserve significant riparian and wetland resources, and to identify local wetland resources.*

#### Policy

- A. Willamina will protect significant riparian areas along the South Yamhill River, Willamina Creek, and the northern and southern unnamed intermittent drainage.
- Action: Establish a Significant Natural Resource (Resources Figure 8) and Water Quality Resource Management (Resources Figure 12) Areas under the Restricted Development Overlay Zone and ordinance.

B. Apply for grants to fund local inventory of wetland resources.

C. Require wetland determinations for all development proposed on Wapato soils (mapping unit Wc), or on wetlands mapped on the National Wetland Inventory (Resources Figure 10), or on surface water drainages shown on Resources Figure 3.

- Action: Establish a Significant Natural Resource (Resources Figure 8) and Water Quality Resource Management (Resources Figure 12) Areas under the Restricted Development Overlay Zone and ordinance which requires development proposals to obtain information about on-site wetlands as a part of the application.

#### Goal

4. *To support regional efforts to improve the water, health, and habitat in the Willamina Creek Watershed.*

#### Policy

A. Willamina will participate in and/or support the Yamhill Basin Council in watershed-based efforts to improve conditions in the Willamina Creek Watershed. Participation may include having a representative on watershed councils and/or water quality improvement planning groups, or coordinating with the small-city representative.

B. Willamina will develop a surface water management plan that addresses water quality concerns; erosion control, fish, waterfowl, and wildlife habitat; and flood mitigation/ drainage improvement from local and watershed perspectives.

C. Willamina will make an effort to stay apprised of regional water quality improvement planning and fish recovery plans, for example the Oregon Plan for Salmon and Watersheds and the Willamette Initiative, undertaken by state and federal agencies by reviewing and responding to proposed policies and plans.

#### Goal

5. *Manage storm water runoff and minimize water quality impacts to the local watershed.*

## Policy

- A. Willamina will develop a surface water management plan that manages storm water runoff and addresses water quality concerns and flood mitigation from local and watershed perspectives.

## **Air Resources**

At present, Willamina's air quality is very good. The City sees a need to maintain clean air in the future, particularly since occasional air inversions occur due to topographic conditions.

### Findings

- Federal and State air quality standards are being met.
- While industrial activity has not historically contributed to air pollution within Willamina's air-shed, industrial activity is a potential source of future air pollution.
- Willamina's geographic location represents a contributing factor to potential air pollution problems.
- Field burning and slash burning are seasonal forms of air pollution.
- Increased automobile traffic will represent an increase in air pollution.

### Goal

1. *To maintain, and when and where feasible, enhance the air quality resources of the community.*

### Policies

- A. The City shall support state and federal agencies' efforts to maintain and improve air quality resources at the community and state level.
- B. The City shall discourage future development that would lower the quality of Willamina's air resources.
- C. The City shall request technical assistance from the Department of Environmental Quality in evaluating development which may adversely impact air resources.
- D. The City shall ensure that new industry be located in areas which minimize impacts upon the air, water and land resource base as well as upon surrounding land uses.

- E. When possible, the City shall encourage alternative forms of transportation to reduce automobile emission pollution.
- F. The City shall minimize noise levels whenever possible.
- G. The City shall protect the Willamina air-shed from excessive pollution levels resulting from urbanization.

#### Implementation

These policies clearly outline the City's action plan to maintain air quality.

## Fish and Wildlife

The major aquatic habitats in Willamina are the South Yamhill River, Willamina Creek, and Willamina Pond. Habitat for small game and birds includes streamside environments and the undeveloped areas in Willamina's Urban Growth Boundary. Large game habitat is adjacent to the city on the forested lands.

The City recognizes the unique character of its rich fish and wildlife habitat by adoption of the following goal and policies.

### Findings

- The South Yamhill River and Willamina Creek serves as migration routes for Coho salmon, winter steelhead trout and cutthroat trout.
- The State Department of Fish and Wildlife plants 25,000 juvenile steelhead annually in Willamina creek upstream from the city.
- Willamina Pond serves as a recreation resource for anglers.
- Riparian vegetation along the South Yamhill River and Willamina Creek provide a prime source of habitat for small wildlife species and birds.
- No rare or endangered species have been identified with in the planning area.

### Goal

1. *To protect and enhance the fisheries potential and associated wildlife habitat of the South Yamhill River, Willamina Creek, and Willamina Pond.*

### Policies

- A. The City shall prohibit or establish as conditional uses, development or land uses that require channelization, excessive removal of streamside vegetation, or filling into the stream channel in order to maintain and enhance fish and wildlife habitat and esthetic values.
  - Action: The City shall establish a Significant Natural Resource (Resources Figure 8) and Water Quality Resource Management (Resources Figure 12) Areas under the Restricted Development Overlay Zone and ordinance.



- B. The City shall ensure that new roads, bridges, and access right-of-way be designed to avoid restriction of channel capacity and to minimize shoreline vegetation removal.
- C. The City shall ensure that land uses and development do not degrade water quality associated with fish and wildlife habitat.
  - Action: The City shall establish Significant Natural Resource (Resources Figure 8) and Water Quality Resource Management (Resources Figure 12) Areas under the Restricted Development Overlay Zone and ordinance. Ordinance includes erosion prevention and sediment control section.
- D. The City shall support the Oregon State Department of Fish and Wildlife's efforts to enhance the fishery potential of the South Yamhill River, Willamina Creek, and Willamina Pond.
- E. The City shall support the Oregon State Department of Fish and Wildlife's and the Division of State Lands' designation of Willamina Creek and the South Yamhill River as "essential indigenous salmonoid habitat" by requiring all development activity in the channel and on the banks below normal high water to consult with the agencies prior to the activity.

#### Implementation

Policies A and B are found in Section 2.115 of the Zoning and Development Ordinance.

Policy C should be examined when reviewing development proposals associated with or adjacent to the streams in the city.

Policy D is a restatement of the current cooperative efforts between the City and the State Department of Fish and Wildlife.

Section 7(4) of Ordinance #299 refers to water pollution.

## **Forest Lands**

Forest lands virtually surround the City of Willamina. Located adjacent to the city limits, several lumber companies provide the major employment source for the city.

Within the Urban Growth Boundary, only 3.5 percent of the lands are forested with Douglas Fir. These lands are envisioned to provide additional recreational areas for city residents and/or to serve as scenic grow at the northern end of Willamina's city limits. The remaining substantial tree growth in a natural state exists along Willamina Creek and the South Yamhill River.

The goals and policies concerning Fish and Wildlife, and Recreation encompass the uses of forest lands within Willamina's Urban Growth Boundary.

## **Open Space**

The city presently boasts scenic views of the Coast Range at both lower and higher elevations around the city. In addition, Willamina Creek, as it flows southward into the city is considered a fine example of unspoiled stream beauty. Preservation of the stream banks of Willamina Creek and the South Yamhill River, as discussed the city with open space in the future. In addition, the farmland vista to the south of Willamina (Polk County) provides quality open space.

Specific policies addressing open space are found in the Recreation Section of this Plan.

## Energy

Electricity, propane, heating oil, wood and natural gas are the fuel types that Willamina residents depend upon. With the exception of wood, major fuels are imported into the city.

Echoing a past spirit of independence and self-sufficiency by the community, the City now recognizes the importance of development of local energy resources. Solar, wind, small hydroelectric processes, conservation of traditional energy sources, and continued development of local wood resources are proposed as the major means to reduce the money flow out of the local economy for energy needs.

The following goal and policies emphasize the possibilities for solar usage and conservation. However, harnessing wind power is a likelihood as well. More research on wind as an energy resource is needed.

### Findings

- For the period 1977 through 1997, total energy consumption in Oregon is expected to increase at an overall annual rate of 2.5 percent per year.
- Approximately 78 percent of the household energy budget goes toward space and water heating.
- All energy fuels, with the exception of wood, are imported into the city.
- The harnessing of solar radiation is a potential energy resource for the city.
- The demand for energy, and the costs to produce energy, are continually rising.

### Goal

1. *To promote the conservation of existing energy resources and the development of alternative sources to ensure that an adequate future supply will be available to Willamina's citizens at a reasonable cost.*

### Policies

- A. The City shall request assistance from appropriate agencies, when necessary, to evaluate energy considerations for planned development. Resource agencies include Yamhill County Energy Office and the Oregon Department of Energy.

- B. The City shall solicit support for and otherwise encourage weatherization of existing structures to minimize health and economic impacts due to rising fuel prices.
- C. The City shall assist, if desired, those individuals interested in minimizing electrical and fossil fuel energy consumed by structures by providing appropriate information and referral to appropriate agencies.
- D. The City shall assist, if desired, those individuals interested in using innovative design and development which will save energy in new residential and commercial structures by providing appropriate information and referral.
- E. The City shall, when feasible and practical, solicit support for establishment of renewable and indigenous energy sources, including but not limited to wood, solar and wind.
- F. The City shall encourage landscaping that provides summer shade to structures and paved areas, protection from winter winds and access to solar radiation.
- G. The City shall promote preservation of solar rights through encouragement of proper development planning. Special consideration shall be paid to ORS Chapter 153-1975.
- H. The City shall encourage developments which contain provision for energy efficiency and/or retain options for future considerations of renewable energy sources.
- I. The City shall encourage new housing developments which provide for natural design opportunities, including but not limited to use of solar energy and natural drainage patterns.
- J. The City shall request assistance to inventory local potential for natural renewable, and unique sources of energy.
- K. The City shall request assistance to inventory current energy uses.
- L. The City shall request assistance to account for changes in energy supply and price when updated housing and employment projections are made.

#### Implementation

Policies A through E are intended to give flexibility to local residents who wish to implement the City's Energy Goal. These policies, along with Policies J, K, and L, give direction to future actions Willamina might undertake.

Policies F, G, H, and I are intended to emphasize the need for future development to be energy efficient.

Ordinance revisions should be investigated to assure implementation of Policy B.

## **Mineral and Aggregate Resources**

At present, no quarrying activities occur in the Willamina planning area. There are no know plans to develop aggregate resources on the South Yamhill River.

## Natural Hazards

Floodplains and lands with unstable soil conditions and excessive slope have been identified on the Building Limitations Map. Willamina has adopted floodplain standards to assure that future development in the city's floodplain does not pose a threat to life or property.

### Goal

1. *Identify specific landslide and seismic hazards in Willamina*

### Policy

- A. Willamina will seek technical assistance to systematically identify lands inside the UGB with high landslide and seismic risk.
  - Action: Apply for a Rural Investment Program grant for a geotechnical on-site investigation to identify hazards in the Severe Development Limitation Area Map and modify the map, if needed. Develop mitigation measures and standards for development on sites in the Severe Development Limitation Area Map; including grading plans, mass wasting prevention, seismic hazard mitigation, and erosion prevention and sediment control.

### Goal

2. *To protect life and property from natural hazards and disasters.*

### Policies

- A. Development proposals in areas with natural hazard restrictions shall use construction and design techniques that will eliminate the hazard potential and assure suitability for the proposed use.
- B. In hazard areas outside the floodplain, proposed development plans shall be reviewed for compatibility with public safety. Applications for such review shall include a geologic investigation prepared by a registered soils engineer or engineering geologist addressing the degree of hazard and potential mitigating measures. Development shall not occur unless the geologic investigation demonstrates that the property can be safely used as proposed. Development plans should, where the possibility of density transfer exists, provide for the



retention of hazard areas as open space, with the clustering of development outside of hazard areas.

#### Goal

### *3. Develop and integrate hazard mitigation plan for natural hazards in Willamina*

#### Policies

- A. Development proposals in areas with severe development limitations (Resources Figure 16) shall use construction and design techniques that will eliminate the hazard potential and assure suitability for the proposed use.
  - Action: Establish a Severe Development Limitations Water Quality Management Areas (Resources Figures 12 and 16) under the Restricted Development Overlay Zone and ordinance to reduce erosion hazards.
- B. Willamina will require additional geotechnical investigations and hazard mitigation measures for development and construction occurring in Severe Development Limitation Area or on slopes in excess of 25% (Resources Figure 16).
- C. In hazard areas outside the floodplain, proposed development plans shall be reviewed for compatibility with public safety.
- D. Applications for such review shall include a geotechnical investigation prepared by a registered soils engineer or engineering geologist addressing the degree of hazard and potential mitigation measures.
- E. Development shall not occur unless the geologic investigation demonstrates that the property can be safely developed as proposed.
- F. Development plans should, where the possibility of density transfer exists, provide for the retention of hazard areas as open space, with the clustering of development outside of hazards areas.

#### Goal

### *4. To reduce earthquake damages in Willamina.*

### Policies

- A. Willamina will promote earthquake hazard awareness and hazard mitigation activities in the community by periodically providing information about the hazard and emergency preparedness to residents in their utility bill and displaying pamphlets/literature at city hall.
- B. Willamina will support earthquake preparedness and hazard mitigation planning led by other governmental agencies.
- C. Willamina will require higher building standards for new schools, fire and police stations, and hospitals.

### Goal

- 5. Manage storm water runoff and minimize water quality impacts to the local watershed.*

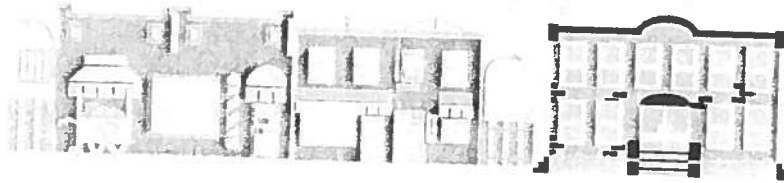
### Policy

- A. Willamina will develop a surface water management plan that manages storm water runoff and addresses water quality concerns and flood mitigation from local and watershed perspectives.

### Implementation

Policy 1A and 1B are implemented through the provisions of Section 2.115 of the Zoning and Development Ordinance, which establishes a Restricted Development Overlay Zone and review process.

## COMMUNITY RESOURCES



## **Introduction**

Public facilities, safety and services are of great importance to the general welfare of a community. Various levels of government or nonprofit 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, water, police and fire protection, whereas others substantially enhance the quality of life, such as schools, libraries, and solid waste disposal. 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 ensuring that the City meets future demands.

## Education

Education is an integral part of any urban community. The provision of educational services aids the community in many ways. In choosing a community in which to reside, the quality of education is often a major determining factor for families who are relocating. When schools are not in use for instructional purposes, educational facilities can be used for civic and organizational activities. Maximum utilization of school buildings is also cost efficient and energy conserving. This is a very important consideration since a large percentage of property tax dollars go toward education.

School District #30J provides educational services for Willamina. The District area encompasses about 259 square miles, and includes the communities of Grand Ronde and Valley Junction.

There are presently three schools in District 30J, two of which are located in the City of Willamina. One is an elementary school servicing grades kindergarten through 8<sup>th</sup>, and the other is a high school that serves grades 9 through 12.

The high school was constructed in 1939 and improvements were made in 1954. It has an approximate capacity of 325 students. With an existing enrollment of 285, the school is operating under capacity.

In January 1979, the old grade school sited on Churchman and Fifth Streets was destroyed by fire. A new grade school was constructed in the northeastern portion of the city on the extension of Oaken Hills Drive. It has an approximate capacity of 600-700 students. With the existing enrollment of approximately 620, the school is operating within its capacity.

The three schools within the school district have a total capacity of approximately 1200 students. With a total 1998 enrollment of 1,092 there are no identified needs for expansion within the near future. Projected enrollment for the year 2015 is 1,520. This projected enrollment will require expansion in the medium to long term.

The accommodation of this enrollment is primarily the responsibility of the school district rather than the City of Willamina. The City does however play some role in working with the school district to ensure that enough land is available for needed expansion, and that infrastructure is provided and sized to provide sufficient level of public services. The goals and policies adopted by Willamina will ensure the City plays a role in providing a quality education to its youth.

Other educational opportunities are available to the residents of the community. There are two private liberal arts colleges in Yamhill County: Linfield College in McMinnville, and George Fox College in Newberg. Chemeketa Community College, which is located in Salem, offers selected courses in Willamina and has a district office in McMinnville.

Good schools are major concern for Willamina residents. The City recognizes the integral part schools play in maintaining a healthy community. Also, the type of future growth that will be attracted to Willamina will be partially dependent upon the quality of schools.

#### Findings

- Willamina's high school and grade/middle school currently operate under capacity.
- Approximately 62 percent of the property tax dollars in the School District area are spent on local education services.

#### Goal

1. *To provide the highest quality of educational services for the community in the most cost-efficient and orderly manner possible.*

#### Policies

- A. The City shall cooperate with the School District in examining and designating future school sites.
- B. The City and School District shall coordinate expansion of school facilities with land use planning in a manner that will best ensure that the educational needs of the community are met.
- C. The City shall coordinate with the School District to continue to allow use of school facilities by community residents when the facilities are not in use by the schools.
- D. The City and School District shall strive to provide energy-efficient designed educational facilities.
- E. The City shall encourage and support the School District's efforts to provide maximum educational services at minimal costs to taxpayers.
- F. The City shall insure subdivision design allows for mid-block access to school grounds.

G. The City shall minimize vehicle and pedestrian traffic conflicts near school facilities.

H. The City shall maintain communication with school district concerning development projects that could impact school operations and functions.

#### Implementation

The policies are statements of the cooperative efforts currently in effect between the City and the School Board.

## **Public Facilities and Services**

To protect the general health, safety and welfare of the community, Willamina residents are serviced by public water, sewer and storm drainage systems. The city has a very complete storm drainage system. In addition, much cost and effort goes toward maintaining and improving the sewer and water systems. Orderly and cost-efficient service for present residents and for future growth is a high priority of the City.

This element of the Comprehensive Plan is intended to be used as a guide for urban development and the provision of capital improvements. Urban growth should be limited to areas where public sewer and water are already provided or can be economically and efficiently provided.

### Findings

- Much of the information provided for the sanitary sewer and the water system comes from the master plans recently developed for each of these two infrastructure facilities. While this document provides a general description of the existing systems, system deficiencies, and the required corrections or expansions, the following documents should be relied upon for complete and accurate information: the Water System Analysis completed in October of 1988 by Westech Engineering, the Water Master Plan update completed in December of 1994 by KPFF Consulting Engineers, and the Willamina Sewer System Master Plan completed in September of 1995 by Century West Engineering Corporation.
- Willamina presently has municipal water storage capacity of 3.5 million gallons.
- Municipal water quality is considered good.
- The existing sewer system is considered to be in good condition.
- The existing Waste Water Treatment Plant has sufficient capacity to treat projected waste water flows up to a design population of at least 2060 residents.
- Storm drainage is provided throughout the city by a piped drainage system and surface drainage swales.
- Requiring storm drainage systems in areas of new development can alleviate detrimental impacts.



### Overall Goal

*To plan and develop and provide a timely, orderly, and efficient arrangement of public facilities and services in a coordinated, efficient and economical manner to serve as a framework for urban development.*

### Overall Objective

- 1. Maintain and enhance the quality of public facilities and services, and provide them in a timely cost-effective manner.*
- 2. Direct new development to locations where facilities and services exist, or to buildable areas adjacent to the existing service area.*

### Overall Policy

- A. 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.
- B. The provision of community facilities and services shall be used as a guide to urban development.
- C. Encourage development of vacant land within the city prior to urbanization of rural land so as to achieve maximum utilization of public investment.
- D. The installation, repair or resizing of municipal service lines should be done prior to, or concurrent with street improvements.

### Implementation

Policies A through D are intended to be implemented in an ongoing way, as need arises.

Ordinance #458 allows special assessment to be levied for street, sewer, sidewalk and storm drain improvements.

## WATER SYSTEM

### **EXISTING WATER SYSTEM**

#### *Water Supply Sources*

Willamina receives all of its water from surface water sources. The City's primary water source is Willamina Creek, from which it has water rights to draw 2.8 cubic feet per second (cfs) or 1.8 million gallons per day (GPD). In 1993 the City completed the relocation of its water intake on Willamina Creek from a location adjacent to Willamina Lumber to an upstream location with much less chance for contamination or damage. The new intake consists of a 10-inch diameter by 38-inch long stainless steel tee fish screen located in the creek and a new water pump station structure 13-feet square and 28-feet deep. The pump station contains two pumps; a rebuilt Byron Jackson pump and a new Floway pump together with their controls and appurtenances. The capacity of the fish screen and new pump was specified as 500 gallons per minute. The rebuilt pump is rated at 400 gallons per minute. The pump station feeds a transmission line to the City's water treatment plant consisting of 3,050 feet of new 12-inch ductile iron pipe and 1,200 feet of 8-inch diameter PVC pipe in series.

The City has additional water rights of 1 cfs or 640,000 GPD to Lady Creek. The transmission line from the creek is in disrepair and the City is not currently taking water from this source. While the water quality from this source is reported to be very good, reliable summer flow in the creek is estimated at only 20,000 gpd.

#### *Water Treatment*

Willamina created its existing water filtration plant in 1958 by converting an old open reservoir into a sedimentation basin and adding chemical feed, flocculation, single media filtration, and the chlorination processes. The resulting water treatment plant has been operated by the City until now with little or no modification.

A 1989 analysis found the plant to be capable of consistently producing water meeting the 1989 water quality criteria established by the Oregon Health Division. However, deficiencies were noted in that report in several systems including: the filter system, flocculation basin, settling basin, and chemical feeders.

The Willamina Water treatment Plant was given a "Comprehensive Performance Evaluation" by the Oregon Health Division in 1992. Their recommendation was the installation of a filter to waste line to eliminate high turbidity water from entering the finished water. The report recommended either converting the filter to a mixed media filter, or replacing the existing plant with a more efficient one.

The potable water currently produced by the water treatment plant meets the latest drinking water standards most of the time in spite of the uncorrected deficiencies due to higher than normal operator attention to the process. Even so, the 0.5 net turbidity unit (NTU) level has not been met 5 of the last 17 months, and the major deficiency in filtration capacity remains a problem in the summer months.

A new treatment plant is currently under construction, and when completed will provide the city with safe drinking water to meet its projected needs for the planning period.

### *Storage Facilities*

The City water system currently uses two reservoirs in the distribution system. It has a .25 million gallon steel reservoir built in 1958, and a 1.0 million gallon steel reservoir built in the 1970's. Both tanks are located at a high point in the City and play a key role in the distribution system. Being at a high point, they provide the pressure gradient for the distribution system. A third reservoir, near Hill Drive, is currently under construction as part of the overall water system improvement project. This reservoir, scheduled to be on line in spring of 1999, will contribute an additional .4 million gallons of storage, as well as providing additional water pressure for the Hill Drive area. The three combined reservoirs will give the city a total of 1.65 million gallons of water storage capacity.

### *Distribution System*

The purpose of a distribution system is to provide reliable flow rates at a consistent pressure to meet both domestic and fire fighting needs. Typically, residences require a minimum pressure of 35 psi delivered to the meter. Fire fighting needs typically require a pressure of 60 psi.

The distribution system utilizes a variety of pipe sizes and types: polyvinyl chloride (PVC); ductile iron (DI); asbestos cement (AC); steel (Stl).

From discussions with the Public Works director, the following deficiencies in the water System are reported to exist:

1. Inadequate flow through fire hydrants in some areas of town. Particularly important are low hydrant flows around the high school. In this area the main sizes and fire hydrant sizes are reported to be inadequate.
2. Inadequate pressure at some of the areas at higher elevations particularly when reservoir levels are low.

In addition to the above operational problems, line pressures on Hill Drive above the pump station often exceed 100 psi. Thus, the City must install and maintain pressure reducing valves at each service connection.

Of the deficiencies noted above, a majority of the operational problems occur in the southwestern portion of town between Hill Drive and Lamson Street, and the westerly Urban Growth Boundary and Main Street (see Figure 4.1). It is common for main line pressures on Pioneer Avenue, Barber Avenue and Lamson Street to drop below 30 psi. As explained previously, the placement of the .4 million gallon reservoir above Hill Drive will eliminate pressure and fire flow problems in the southwest area.

These capital and operational problems will be remedied with the completion of the water system improvement project currently under way.

### *Fire Flows*

Evaluation to establish fire protection ratings are based on a limited level of potential fire problems. Any building with a required fire flow of 2,500 GPM or greater, as well as fully sprinkled buildings are not considered when establishing a community's protection class, except for response distance. Therefore, any building needing more than 2,500 GPM for fire protection will require responsibility by the individual owner to provide that flow.

It is apparent that most of the hydrants tested can provide adequate flow. Three areas have been noted as points of possible deficiencies. At Main St. and B Street, and at Lamson and Washington Streets, flows are unable to meet the standards, which may result in lower fire insurance ratings. In addition, the areas of Oaken Hills, Lamson Street and Willamina Drive also experience low pressures. This appears to be due at least in part, to an operational problem that occurs whenever the reservoirs are low. Consequently these areas could be left without adequate fire protection. Future expansion of businesses, or any other substantial structures constructed within the city by other parties, may require individual consideration for fire flow.

## **WATER REQUIREMENTS**

### *Current Water Requirements*

The City's current average daily demand of water is approximately 220,000 gallons per day which is equal to 125 gallons per capita per day, including water lost through line leakage. The gallons per capita usage is normal for a city the size of Willamina. The current maximum day demand (usually occurring in the summer months) is approximately 660,000 gallons per day, an increase of 3 times the

average day demand. The City should emphasize water conservation and implement a program to reduce the per capita consumption by at least 10%.

### *Future Water Requirements*

Average daily water demand is projected to rise to 350,000 (332,500) gallons per day with a maximum day water demand of 1,050,000 (997,500) gallons per day by year 2015. These figures are based on the population projection of 2,800 (2,660) for the year 2015 that has been approved by the City Council. Based on these projected water demands, the current total combined capacity will meet the Average Day Demand and Maximum Daily Demand until the year 2015. No future water sources are projected to be needed.

### **WATER STORAGE**

Water storage is provided in the water system for several reasons:

- To equalize supply and demand for daily flow fluctuations, maximum day and peak hour requirements.
- To provide emergency reserve supply during pipeline breaks, well failures and power outages.
- To provide for fire protection.

### *Required Storage Volume*

In order to meet required storage requirements, reservoir capacity must contain a volume of water equivalent to one day of peak flow plus three hours of maximum fire flow. Although the exact peak flow is subject to interpretation, our review of the records indicates flows between 580,000 to 620,000 gpd have occurred on several occasions.

In 1994, the recorded peak demand was 612,000 gallons per day. The maximum fire flow was 3,500 gallons per minute for 180 minutes equal to 630,000 gallons. Therefore, the total required storage capacity is 1,242,000 gallons. The City's current reservoir capacity is 1,250,000 gallons, thus the City has the capacity to meet its present needs. With the addition of the Hill Drive Reservoir the City's storage capacity will be expanded to 1,650,000 gallons.

For the year 2015, the estimated peak demand is 1,050,000 (997,500) gallons per day. With fire flow requirements remaining constant, the City will need 1,680,000 (1,627,500) gallons of storage capacity, leaving the City with a 430,000 (377,500)

gallon storage deficit. This deficit will soon be cut to 30,000 gallons (become a 22,500 surplus) with the current construction of the new Hill Drive reservoir.

#### **PROPOSED IMPROVEMENTS**

As mentioned previously, construction is now under way on a system wide upgrade of Willamina's water system that will address the deficiencies identified in the two Water System reports and discussed briefly in this document. These improvements include: a .4 million gallon reservoir increasing water storage capacity and located to provide increased pressures in deficient areas of the city; improvements to the distribution and transmission system; improvements to the water intake equipment at Willamina Creek; a new pump station on Hill Drive; and, added treatment capacity of 1.0 million gpd through the installation of a new treatment unit and appurtenances. With these improvements, and based on the projected population increases, the City of Willamina water system should be adequate to meet the water needs of the city for the planning period.

#### **WATER SYSTEM GOALS AND POLICIES:**

##### **Goals**

- 1. To maintain and enhance the quality of water service to all customers.*
- 2. To conserve water and encourage its wise use.*

##### **Policies:**

- A. 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.
- B. To maintain adequate water flow and pressure, the City continually strives to loop the system and require a standard pipe size based upon the level of development.
- C. The City will continue to update its water facilities master plan approximately every 10 years, and implement the document as funding allows.
- D. To maintain adequate water supply for the future, the City will maintain its legal water rights for, and work to protect the quality and availability of both Willamina and Lady Creeks.

Insert Water System Map, Page 15

## WASTEWATER/ SANITARY SEWER SYSTEM

### **BACKGROUND AND SYSTEM OVERVIEW**

#### **Existing Wastewater System**

- **Service area** - The sewage service area encompasses the city of Willamina and its Urban Growth Boundary.
- **Conveyance Lines** - The city has approximately 9 miles of piping ranging from four to 15-inches in diameter. The majority of the conveyance lines are eight-inch in diameter. The system contains a variety of pipe material including concrete, asbestos cement, and PVC.
- **Pump Stations** - The city has two pump stations: Main Pump Station and an Emergency Bypass Pump Station. The Main Pump Station conveys all of the sewage generated within the city to the WWTP via a six-inch diameter force main (300 feet in length). This station is a below ground packaged wet well and duplex dry well system with two 7.5 hp pumps. The Bypass Pump Station, which operates only if the eight-inch siphon beneath Willamina Creek plugs, is located in a manhole and consists of one 10 hp pump. Sewage from this station is pumped via a six-inch force main (800 feet in length) directly into Cell No. 1 at the WWTP.
- **Wastewater Treatment Plant (WWTP)** - The WWTP consists of a three cell stabilization pond system. The first two cells (4.7 and 5.1 acres) are operated as aerobic ponds receiving primary treatment. Secondary treatment and holding to attenuate flows through the WWTP is accomplished in the 6.0 acre secondary cell. Disinfection of the pond effluent is accomplished via injection of chlorine gas and flow through a chlorine contact chamber.
- **Effluent Disposal** - During the wet season months (November through April), effluent is discharged into the South Yamhill River that is located adjacent to the WWTP. During the remainder of the year (May through October), the WWTP effluent is stored in the three cells.

### ***CURRENT SEWER SYSTEM***

#### **Wastewater Conveyance System**

The City of Willamina's existing conveyance system was first installed in 1966 and consists of two collection basins located within the service area. The present conveyance system for both basins consists of piping from 4-inch diameter service laterals to 15-inch diameter trunk lines (Figure 4.1.1). Two pump stations are



located within the city: the Main Pump Station and the Bypass Pump Station. The main pump station, also constructed in 1966, consists of a wetwell and package drywell system. The bypass pump station, installed in 1979, transports excess flows directly to the wastewater treatment plant in the event of plugging in the 8-inch siphon beneath Willamina Creek. The main pump station pumps were rebuilt during mid-1994. A Doppler Flowmeter was installed on the 6-inch force main from the Main Pump Station in November 1994, to document flows.

Gravity/Pressure Sewers: The existing wastewater conveyance system consists of approximately nine miles of sewer mainline divided into a North and South basin with the following sizes and lengths of pipe:

CITY OF WILLAMINA		
WASTEWATER CONVEYANCE SYSTEM INVENTORY		
Pipe Diameter (inches)	Length (feet)	Percent (%)
6 - gravity	2,200	4.6
6 - force main	1,100	2.3
8	42,120	88.6
10	1,900	4.0
15	180	0.5
Total	47,500	100.0

The original system was constructed using concrete pipe with rubber ring joints. Since then, extensions have been constructed with a variety of materials including asbestos cement and PVC.

These lines follow local topographic features that generally flow towards both sides of Willamina Creek from either north or south to the main pump station. Wastewater from the combined basins is transported via the main pump station through a 6-inch pressure main to the wastewater treatment facility located on city-owned land east of the Willamina-Grand Ronde Railroad and west of the South Yamhill River. An 8-inch siphon beneath Willamina Creek transports wastewater from the South Basin to the North Basin where it is pumped to the wastewater treatment plant. Each basin has one overflow bypass pipe emptying into Willamina Creek that can be used when flows exceed transport pipe capacity.

I/I Program: Efforts to rehabilitate the collection system have gained support over the last seven years with a yearly budget item specifically identified and funded for this purpose. Prior to 1991, minimal efforts were made to identify, or even begin, the process of reducing the impact of groundwater in the system. There are

currently no known sources of cross connections between the sanitary sewer and storm drainage systems within the city.

**Main Pump Station:** Construction of the original collection system improvements in 1966 included installation of the city's underground duplex Main Pump Station located south of the intersection of Yamhill Street and "E" Street on the north side of Willamina Creek.

Wastewater collected from both basins is conveyed to the wastewater treatment plant through a 300 foot, 6-inch pipe beneath Willamina Creek. The pump station does not have on-site stand-by generation capabilities during power outages. In the event of a power failure, city staff deliver a 25 kw diesel powered trailer mounted generator from city shops to the site to provide power. A quick-disconnect plug, located adjacent to the pump station is used to connect power. All bypasses during the winter of 1994-1995 can be attributed to flows above the capacity of the pumps.

**Status of System:** In general, the existing conveyance system is considered to be in good condition. While repairs to the conveyance system are typically infrequent and non-persistent in nature, there are few available records indicating the extent of corrective repairs that have been made in the past.

The pump station does not have sufficient capacity to transport all wastewater received from the conveyance system to the wastewater treatment plant. Peak flows above 800,000 gpd exhibited during winter months require continual operation of both pumps. Under these conditions, wastewater is bypassed directly into Willamina Creek.

### **Wastewater Treatment Plant**

The city of Willamina operates its wastewater treatment plant (WWTP) under the authority of National Pollutant Discharge Elimination System (NPDES) Permit, No. 101070. The Willamina WWTP is located on the eastern limits of the city between Willamina Creek and the South Yamhill River. An overview of the WWTP facilities and site is given in Figure 4.2.1 and the Hydraulic Profile is shown in Figure 4.2.2. A copy of the existing NPDES permit is included in the Appendix.

**Plant History:** The original contact stabilization lagoon system consisting of two primary cells was constructed in 1967. Surface areas of Primary Cells No. 1 and No. 2 are approximately 5.15 and 4.75 acres respectively with an operating depth of 7 feet. Population growth between 1967 and 1976 exceeded existing treatment plant capacity to the point where an additional lagoon acreage was necessary to provide summer holding of the treated wastewater. The new secondary lagoon is approximately 6.0 acres in size, was constructed in 1977 and brought the total volume of the treatment facility to 4,585,500 cubic feet, or 34,300,000 gallons.

The lagoons are supplied with wastewater from an underground duplex pump station located on the north side of Willamina Creek.

The latest National Pollutant Discharge Elimination System (NPDES) Waste Discharge Permit dated April 12, 1993 for the facility has reduced the yearly discharge period for flows into the South Yamhill River from seven months to six months. This one month reduction increases the total amount of effluent to be held in the cells by approximately 14 percent.

Additionally, in accordance with Section C of the NPDES Permit, a leakage test was conducted for all three cells to determine if the seepage rate is greater than or equal to  $\frac{1}{4}$ -inch per day. Results from this investigation during a five (5) week period on September 13, 1993, to October 18, 1993, indicated that Primary Cell No. 1 and No. 2 were leaking an average of  $\frac{1}{16}$ -inch per day, while Secondary Cell No. 1 was leaking just below the allowable  $\frac{1}{4}$ -inch per day. The tests clearly indicated that Secondary Cell No. 1 was more susceptible to leakage than the other cells.

The existing WWTP has sufficient capacity to treat projected wastewater flows up to a design population of at least 2060 residents.

### **Wastewater Volume**

Dry Weather Flow: The average dry weather flow (ADWF) as determined from analysis of treatment facility flow records for the months of May through October. While the city does not have any industrial flows, there are many small commercial businesses that contribute wastewater to the city's system. These commercial contributions have been included within the total flows for this analysis.

Wet Weather Flow: The maximum wet weather flow (MMWWF) was determined in a manner similar to that employed for the determination of the MMDWF. The average monthly plant flow versus monthly rainfall data was utilized to find the MMWWF. The highest five-year January rainfall total (13.30 inches) was used for the representative monthly rainfall. The MMWWF found from the wet weather months (November through April) is 0.42 MGD.

Summary of Existing Flows: The various per capita flows and total existing are summarized below. The per capita flow factors are based on a sewered population of 1,750 people.

#### UNIT VALUES - WASTEWATER FLOWS

<u>Flow</u>	<u>Total (MGD)</u>	<u>Per Capita (gpcd)</u>
Dry Weather		
Base Sewage	0.12	68
ADWF	0.12	68
MMDWF	0.16	91
Wet Weather		
MMWWF	0.42	240
Peak Monthly	0.53	303
Peak Weekly	0.65	371
Peak Daily	0.85	486
PIF	1.20	686

#### *RECOMMENDED IMPROVEMENTS*

The City's Sewer System Master Plan presents a number of system deficiencies that inhibit the City's ability to comply with the existing and projected future wastewater discharge permit requirements. The facilities plan shows a conceptual layout of the preferred treatment alternative and summarizes the design criteria. Based on the Master Plan's recommended improvements, and further refinement through the pre-design and final design processes the following improvements are expected to be completed over the next five years in a two phased process.

PHASE 1: The final design of Phase I of the sewer system improvement project has been completed, with construction expected to begin in 1999. The components of Phase 1 are as follows.

Conveyance System: Based on the evaluation presented in the master plan, with further refinements being recommended as a result of final design of the project, the planned improvements to the conveyance system include a new influent Pump Station for the South Basin and modifications to the existing Main Pump Station. The new Influent Pump Station will be sized for the peak daily flow, and include features such as high water alarms and a telemetry system.

WWTP Facilities: Based on the evaluation presented in the master plan, with further refinements being recommended as a result of final design of the project, the planned improvements to the waste water treatment plant facilities include improvements to the inlet structures and metering, sampling equipment, flash mixer and electrical upgrades.

PHASE 2: Phase 2 design is not yet completed, with a funding request for final design expected to be submitted in early 1999. The components of Phase 2 are as follows.

Conveyance System: Based on the evaluation presented in the master plan, with further refinements recommended by the city engineer, the planned improvements to the conveyance system are installation of a new main pump station and wet well, and replacement of a pressure line.

WWTP Facilities: Based on the evaluation presented in the master plan, with further refinements recommended by the city engineer, the planned improvements to the waste water treatment plant facilities include expansion of lagoon cells #1, #2 and #3, installation of a new 5 acre #4 cell, a new chlorine contact tank, and a new irrigation pump station.

### **SEWER SYSTEM GOALS AND POLICIES:**

#### **Goal**

1. *To continue a program for sanitary sewer service that represents the most cost-effective approach for providing service to existing and future residents.*

#### **Objective**

1. *Strive for the most cost-effective approach to provide sewage treatment capacity that accommodates the projected year 2015 sewerage flows, and that meets the objectives of DEQ's state water quality management plan.*
2. *Urban development should be confined to the limits of the gravity flow sewer system.*
3. *Consider an increase of both connection fees and monthly charges to help finance maintenance of sewer systems.*

#### **Policies**

- A. Encourage development of land within the gravity flow areas when expanding or connecting to the City's waste water facilities
- B. Review all development proposals with regard to its impact on the treatment system.
- C. The sizing and location of wastewater line is to reflect the requirements of the desired land use arrangements and densities of the service area

D. Review all development proposals with regard to their impact on the waste water treatment system.

Insert Wastewater system improvement map, page 22

## STORM DRAINAGE SYSTEM

The City of Willamina is divided by Willamina Creek and bordered on the east by the South Yamhill River. The direction of surface drainage in the Willamina area is generally to these rivers. Surface drainage, is for the most part, discharged into Willamina Creek and South Yamhill River. Storm drainage in the city is handled by both a piped drainage system and surface draining.

Some soils of the area have a high water table within one foot of the surface in some places, and are also rated by the Soil Conservation Service as having a high water runoff potential. Such conditions necessitate the need of a storm drainage system.

Storm drainage is handled by both a pipe system and surface draining. The developed sections of the city are provided with a piped system that discharges storm water into both river drainages. Development policies of the Comprehensive Plan for infilling within the original town site will require an improved storm drainage system. Available federal or state funds should be targeted for improvement of this system.

The City has recently received a grant from the Economic Development Administration to help fund a storm water drainage system master plan. The grant has been awarded and the City is hiring an engineering consulting firm to complete the plan. Work on the plan should be completed in summer of 1999. Following completion and adoption, the City plans to summarize the information to update the storm water drainage in this Plan document.

**SEPARATION OF WASTE WATER AND STORM WATER.** The Department of Environmental Quality requires cities to separate their storm drainage from their sanitary sewage. The design of sanitary sewer systems allows for the collection and treatment of sanitary sewage only. The introduction of ground water into the system reduces the capacity of the collection system pipes to carry the flow. The unwelcome water also impacts the size of the treatment plant and the cost of operating the sewerage system. The term infiltration and inflow (I & I) refers to this introduction of unwanted surface or groundwater into the sewage system.

**INFLOW.** The definition of inflow is rain water entering the collection system through direct connections with storm water facilities. Facilities include such things as catch basins, roof drains, area drains, storm drainage pipes, perforated drainage, etc. The City considers these connections illegal and in violation of the City Code but they do continue to exist. Some are unknown to the City while others continue because no other economic solution exists to remove the storm water.

**INFILTRATION.** Infiltration is the term for groundwater that enters the sanitary system through leaky pipe joints, cracked or broken pipe, leaking manholes, etc.



Trunk sewers, collectors, and house lateral sewers are the source of flow. The soils in Willamina vary considerably from one location to another. The relatively flat areas on the existing or ancient flood plains of the South Yamhill River and Willamina Creek are generally gravelly silty soils that are well drained and quickly transmit groundwater to the pipeline. The clay soils found in Willamina are less porous but the gravel backfill in the sewer trenches act as a French drain collecting ground water and conveying it to any pipe or manhole opening.

**CORRECTING INFLOW.** Inflow can be relatively inexpensive to correct if simple disconnection corrects the problem. The City should make corrections as the City discovers inflow.

**CORRECTING INFILTRATION.** Infiltration correction can be highly cost effective if isolated leaks can be identified and when repaired will actually and significantly reduce flows. Continued correction tends to reach a point of diminishing returns where the corrections cost much more than transporting and treating storm water. To cure the leakage problem, it may in some cases require replacing the street lateral, the manholes, and service lateral. The City may find replacement cost effective in small areas, however, the City cannot consider repair of larger system segments cost-effective.

Infiltration correction can be a never ending process but is necessary maintenance procedure of any municipal sewer system. Any sewer system will continue to deteriorate over time. An ongoing I & I correction program allows the storm groundwater to become stabilized, otherwise these flows will steadily increase. An on-going program or rehabilitation also maintains the system's structural integrity for an indefinite period--beyond the original design life of the pipe system.

## **STORM DRAINAGE SYSTEM:**

### **Goal**

- 1. That existing and future development areas be provided with an adequate storm drainage system.*

### **Objective**

- 1. Adopt and implement a storm drainage plan.*
- 2. Upgrade the storm drainage system in the original town site concurrent with street improvements.*

## Policy

- A. All storm drainage is to be channeled into an effective storm drainage system.
- B. All new developments shall install engineered and City approved storm drainage facilities.

## Public Safety and Services

Willamina's commitment to public safety and the City's desire to continue to support public services necessary for its residents' well-being are the focus of the following goals and policies.

### Findings

- There are medical and dental services available in the city.
- Additional health services are available through Yamhill and Polk County Health Departments.
- Willamina's city government is composed of a mayor and city council.
- Willamina has an adequate communications network.
- In 1993 the City decided to eliminate the local police force. Police protection is now contracted for through the Yamhill County Sheriff's Department. There are 3.3 deputies who provide the city with 24 hour police protection. This works out to a ratio of one officer for every 570 residents or 1.75 officers per 1,000 residents.
- Willamina's fire protection is provided by a volunteer fire department. The department consists of 38 firefighters including the chief and assistant chief. Equipment consists of nine firefighting vehicles.
- The Willamina Fire District covers an area of approximately 60 square miles. The city's fire rating is 7, while the rating in the surrounding rural area is 8 and, in some places, 9. Ratings are based on a 1 to 10 scale, 1 representing the best public protection and 10 indicating no recognized protection. 50% of a community's rating is based on its fire department, and 40% on its water supply. It is anticipated that the planned new fire station, along improvements currently being made in water storage facilities within the city's water system, will improve the fire rating for the city. There are no special problems experienced by the department at this time, and fire protection appears to be adequate.
- The Fire District recently had a levy approved to build a new Fire Station, and has had a two acre piece of land donated for the siting of the new station. The Department is working to develop a five year strategic plan, and also a disaster response vehicle.

- Because the nearest hospital facilities are located in McMinnville, the provision of ambulance services is a vital community service. These services are provided by a volunteer ambulance service operated under the auspices of the Willamina Fire District. A 7 member board oversees the operation of this service. At the present time, 32 volunteers provide 24-hour service to the community. Three ambulances are stationed in Willamina with an additional older ambulance that is being converted into the above mentioned disaster response vehicle. Nearly all of the ambulance service's revenue is obtained from user fees.
- The City is administered by a mayor-council form of government. The council is an elected 6-member body. A seven-member planning commission is appointed by the council.
- Municipal services are provided through the following positions: one city recorder, one city clerk, one librarian, and four public works employees. Part-time positions include: one library aide and one clerk/secretary. The City contracts with other public agencies and private sources for its legal, engineering, police and planning services.
- There is one library in Willamina, located centrally in downtown. It is funded through the general fund of the City and other sources.
- Youth services are currently provided through the Tina Miller Youth Center, which is supported through funding from the United Way. The Youth Center is currently in fair to poor condition and was recently shut down due to building and fire code violations. The community has responded to this with a grass roots effort to do the necessary work to bring the building up to code. Maintenance and continued operation of the Center, and provision of youth services and opportunities have been identified as a high priority of the City.
- Willamina has had a post office since 1855. A new post office was completed in 1995 and provides multiple services to the community, including mail delivery service and post office boxes.
- City Sanitary Service of McMinnville provides the solid waste disposal service for the city and the immediate area. The service is provided through a ten year renewable contract. Service rates are submitted to the City Council for approval.

#### Goal

1. *To plan and support a timely, orderly and efficient arrangement of public safety and public services to meet the needs of the community.*

## Policies

- A. The City shall continue its efforts to maintain adequate fire and police protection to the community.
- B. The City shall review its police services and the method for providing them on a 3-5 year schedule to determine the best means for providing an adequate level of protection for its residents.
- C. The City shall encourage the continued provision of medical and dental services located within the city.
- D. The City shall encourage the efforts of the County Health Departments and other medical services to ensure adequate health services for the community.
- E. The City shall pursue funding for maintenance and staffing of the Tina Miller Center to ensure its continued operations and provision of youth services and opportunities.
- F. The City shall review its franchise garbage services at 2-3 year intervals to determine that it meets the needs of the citizens and businesses at a fair price.
- G. The City shall pursue the funding and construction of a new library/community center building, and maintain current library staffing levels
- H. The City shall encourage the coordination of organizing and permitting for holiday events and public celebrations.
- I. The City shall pursue funding and planning options to implement City Hall renovations within a 5-10 year period.

## Implementation

Policies A and F are supported in part through budgetary means.

Policies A B, E and F provide guidance to decision makers concerning public safety and public services.

Policies C and D provide guidance to decision-makers concerning public health services.

Policies C and F should be pursued with assistance from other local and regional agencies.

## Recreation Element

The purpose of this element is to include a summary of existing park and recreational facilities and identify future park and recreational facility needs and improvements needed through the year 2015.

### I. Activity Classifications

#### *Resource and Activity-Based Recreational Facilities*

Recreational facilities are frequently classified as resource-based or activity-based. Resource-based facilities are centered around particular natural resources which may provide opportunities for picnicking, hiking, hunting, water sports, fishing or simply enjoying nature. Activity-based facilities are developed for the enjoyment of particular activities such as basketball, baseball/softball, or football, recreational programs such as aerobics and painting, senior citizen activities, and spectator sports. The distinction between these two types is not clear-cut since many resource-based sites often contain activity-based facilities.

#### *Passive and Active Recreation*

Recreation encompasses a range of activities that can be categorized as either active or passive. Active recreational opportunities involve the user as an active participant, such as baseball, golf, and aerobics. On the other hand, passive recreational opportunities are pursued in a more leisurely manner or primarily as a spectator, which include nature walks, fishing, and picnicking. Activities such as hiking and bicycling can be either active or passive depending upon the amount of effort expended.

### II. Park Classification System

Parks and recreational areas can be classified according to various systems. The National Recreation and Park Association (NRPA) set their own guidelines regarding park classification, whereas local governments may set their own classifications and standards. The following is a general description of park classifications based, in part, on the NRPA guidelines.

#### *Mini-Park*

A mini-park is usually less than one acre in size and serves the population of a sub-neighborhood and generally serves a radius of less than 1/4 mile. Access is usually by walking or bicycling. Mini-parks generally contain

landscaping, playground equipment, and monuments and are often used to create small "pockets" or "infills" for low impact recreational activities.

### *Neighborhood Park*

A park containing from less than 1 acre and up to 15 acres which serves the population of an entire neighborhood. Access is by walking or bicycling and serves a maximum radius of 1/4 mile. Neighborhood parks generally contain more facilities than mini-parks and may include a mixture of various facilities, both resource and activity based.

### *Community Park*

A park that serves the population of an entire city and may be reached by walking, bicycling or driving. Community parks contain a wide variety of resource and activity based facilities which offer the opportunity to participate in a wide array of activities within a particular area. The service radius is about 1/2 to three miles.

### *Regional Park*

Regional parks are very large parks of several hundred to several thousand acres. They usually have regionally significant natural resource areas for hiking, camping, boating, wildlife observation, horseback riding, and other resource-based activities. Regional parks generally serve an area within a one hour drive.

### *Linear Parks*

Linear parks are special parks developed along natural or manmade corridors for recreational modes of travel such as horseback riding trails, bicycle trails, hiking trails, and canoe trails. They have no standard size or service area. Some may be intended for local users while others may offer unique scenic or cultural features that attract users from a wide area.

### *Special Use Facilities*

Include facilities that are specialized for a particular use and do not fit the typical definition of a park. Examples are boat ramps, golf courses, target ranges, and historic or archeological sites. They have no standard size or service area.



### *Conservation Area*

Conservation areas are protected areas that are intended to preserve unique natural or cultural amenities. Conservation is the primary objective but limited recreational use may also be incorporated.

### III. Inventory of Existing Park Facilities

The Willamina park system consists of 4 city parks which consist of approximately 40 acres. The community also has access to one county park within 5 miles of the city limits, the Elementary School grounds and the High School grounds. The playgrounds and recreation equipment of the Willamina Elementary School are currently available to the public and provide additional play areas and open space, but are not included in the recreational facilities inventory. The school also provides space for community meeting and sporting events. Refer to Table 1 for a summary of the features of city-owned/maintained parks.

#### *VERN HUDDLESTON MEMORIAL PARK RECREATION AREA (City of Willamina)*

Vern Huddleston Memorial Park recreation area contains approximately 29.80 acres. This site is adjacent to sewage lagoons to the north, the High School to the west, and the South Yamhill River to the east. It is accessible by vehicle, bikes and pedestrians. The park is quite large and consists of two different areas. A gravel parking lot and dirt road separate the two. The smaller of the two areas has flush bathroom facilities and a number of picnic tables, two of which are covered. There are a total of four grills near each of the picnic tables. The larger portion of the park is composed of a pond that has a dirt path that surrounds it. There is pedestrian access to Black Water Park via a dirt path from this park.

Many visitors come to enjoy fishing in the pond. There are two docks located on opposite ends of the pond. The two docks are connected to the shore and float on tires, however both docks are in great need of repair. The one furthest from the parking lot is not securely connected to the shore and sinks to below water level when weight is applied. The dock closest to the parking lot sinks if any weight is applied at all.

A number of stone picnic tables surround the pond and seem to be in good shape. The dirt trail that passes around the pond is full of large "sink" holes that impair walking and bicycling safety. Garbage litters the entire recreation area and is even seen in the pond itself. There is a wide variety of vegetation that grows in this area and is well represented. In general, the

Vern Huddleston Memorial Recreation Area needs increased maintenance and attention.

Table 1  
1997 Inventory of Existing Parks

Name/Location/Facilities	Park Type/ Designation	Approximate Acres
Huddleston Park, Lincoln Street <ul style="list-style-type: none"> <li>Fishing Pond with 2 floating docks</li> <li>Picnic Shelter with fireplace</li> <li>Nature trail leading to Willamina Creek and Yamhill River</li> <li>Open space area</li> <li>Gravel parking</li> </ul>	Community Park/ Activity-based	29.80
Oaken Hills Park, Third Street <ul style="list-style-type: none"> <li>Paved parking facilities</li> <li>Swings</li> <li></li> </ul>	Neighborhood Park/ Activity-based	4.25
Tina Miller Memorial Park, First Street <ul style="list-style-type: none"> <li>Restrooms</li> <li>Swings</li> <li>Slide</li> <li>Monkey Bars</li> <li>Covered Picnic Table</li> <li>Perimeter is fenced</li> </ul>	Neighborhood Park/ Activity-based	0.22
The Garden Spot, West Main Street <ul style="list-style-type: none"> <li>Fire Pit</li> <li>Bench</li> </ul>	Mini-Park/ Activity-based	0.22
Black Water Park	Linear/Natural	(estimate) 5.0
<b>TOTAL</b>		<b>39.27</b>

Source: Inventory conducted by the MWVCOG, April 1997.

***TINA MILLER MEMORIAL PARK***  
*(City of Willamina)*

Tina Miller Memorial Park is a park for play. The entire site is filled with a variety of equipment geared to make any young person happy to be outside. Two slides, a metal arch to climb on, one wooden merry-go-round, and a large swing set that includes 5 regular plastic swings, 1 "baby" swing, 1 hanging bar, 2 rings, and 2 wooden teeter totters are provided here. The

park also has two picnic tables one of which is covered. A concrete side walk cuts the park in half and leads to the bathrooms that are barrier free and accessible to all. A bike rack with 4 spaces is located near the gate. One security light exists at the back of the park. Overall, the park is well maintained and it is obvious that time and money are spent toward the upkeep. The park is located next to the City Hall on NE First Street.

*OAKEN HILLS PARK*  
*(City of Willamina)*

Oaken Hills Park is nestled below a hill in a residential area in northeast Willamina. The park contains 4.25 acres. The back portion of the site is an open field of tall grass, the center contains a full concrete basketball court with two baskets, one net is missing, and the front of the site is devoted to a large wooden swing set which has seen brighter days: one swing of three is not useable, and three torn apart tires line the front of the wooden platforms. The entire park is encircled by the remains of a silt trail which is at present overgrown. A stone picnic table near the parking lot is full of black graffiti. Another stone picnic table is found toward the back of the park in the overgrown field. Many small trails lead from the surrounding houses down the slopes toward the park which would infer that the park is being used by many residents of the neighborhood. The park is not accessible to those who are physically challenged. Oaken Hills Park does not appear to be consistently maintained.

*"THE GARDEN SPOT"*  
*(City of Willamina)*

The "garden spot" is located at the intersection of State Highway 18B and West Main Street in downtown Willamina. This park consists of approximately 0.50 acres and is adjacent to Willamina Creek, but does not provide views or access to the creek. Access and views of the creek are prevented by the vegetation that exists along the creek bank. The site is filled with a variety of flowering trees and plants. Within the trees and cultivated plants are three stone picnic tables and one bench. The park has many remnants of times gone by. An old brick fire pit stands dormant at the back property line near a row of trimmed hedges. Along the trimmed hedges that designate the property, a horse shoe pit remains. A large circular brick planter or unused fountain greets visitors from Main Street and is currently it is filled with dirt. Next to this is a wooden structure that looks as though it may be used in part as a bench and perhaps some sort of trellis. The park is centrally located in the downtown and does not have on-site parking. Street side parking along West Main and Highway 18B is not permitted. It is not an easily accessible park; train tracks line one side and small dirt paths among shrubbery lead to the interior. The park is not marked with a sign that

designates its existence however a memorial sign near a large birch tree honors Willamina Veterans. It looks as though the "garden spot" was at one time more precisely maintained, however the park remains clean and charming.

***BLACK WATER PARK***  
*(City of Willamina)*

Black Water Park is located along the south side of the Yamhill River and is accessible from the Vern Huddleston Recreation area by a dirt path. This is an unimproved park to remain in its natural setting. The park is estimated to be approximately 5 acres in size.

***BLACKWELL PARK***  
*(Yamhill County)*

Blackwell Park is located five miles east of Willamina in Yamhill County. It is located on the banks of Willamina Creek among rolling hills. This county park is well marked and can easily be found off of Willamina Creek Road. The creek meanders its way along the length of the park and is the focal point of the park. One wood picnic table and an old wooden merry-go-round sit among the mossy trees. The majority of the park is mowed grass with the exception of the two gravel parking lots; one is located at the opening of the park while the other is across the small bridge along a private drive, one light fixture stands near the drive. At one time there were two separate pit toilets, but only one remains. The remnant of an old water fountain exists however it is not useable. The perimeter of the park is not fenced in its entirety, but has the beginnings of a wire to post fence next to a gate. The park is easily accessible to bicycles, vehicles, and pedestrians. However, the park is not barrier free and has no facilities to accommodate wheel chairs. This small county park is clean and seems to be mowed on a regular basis.

***THE ELEMENTARY SCHOOL***  
*(School District 30J)*

Willamina's Elementary School has a variety of park facilities. Which include: one competition size football field with a paved track on outside, five picnic tables scattered throughout the grounds, six benches, six basketball hoops (two of which are covered), four baseball diamonds, twelve swings, a large plastic jungle gym, and one metal jungle gym, and a set of monkey bars. The school is surrounded by open rolling hills. The grounds are wheel chair accessible, a cement sidewalk provides access to the playground and one playing field. All the equipment is well managed and utilized by the community. There is ample paved parking at the Elementary School.

**HIGH SCHOOL**  
(School District 30J)

The High School has very specific facilities geared toward the high schools sports program. The school has two baseball fields with stands and scoreboard, and a separate football field that has built in stands and scoreboard. There is also a batting cage. All the grounds are surrounded by a chain link fence. The high school grounds are well maintained and obviously supported by the school and the community. Paved off-street parking is provided.

**IV. Inventory of Indoor Recreation Facilities**

- A. Willamina Senior Citizen Center
- B. Tina Miller Community Center

**V. Projected Park and Recreational Needs**

Willamina's 20 year park and recreational facility needs are based on the comprehensive plan's projected population of 2,660 by the year 2015. A park land needs assessment is presented in the following table:

**Table 2**  
**Park Lands Needs Assessment**

Type of Park	Park Facility Development Standards	Recommended Standard Ac./1,000 Pop.	Existing Supply (1997)	Park Facility Needs Based on Projected Population	
				2,182 by 2005 (10 Years)	2,660 by 2015 (20 Years)
<b>Community Parks</b>	5-8 acres/1,000 population	6.5 acres/1,000 population	1 parks 29.80 acres Huddleston Park	14.18 acres	17.29 acres
<b>Neighborhood &amp; Mini Parks</b>	1-2 acres/1,000 population within ¼ - ½ mile radius	1.5 acres/1,000 population within a ¼ - ½ mile radius	3 park 0.22 acres Tina Miller Park Oaken Hills Park Main Street Park	3.27 acres	3.99 acres
<b>Natural Areas</b>	-----	5 acres/1,000 population *	1 park approx. 5 acres Black Water Park	10.91 acres	13.30 acres

Source: MWVCOG, April 1997.

## Goal

1. *To conserve and protect the community's natural and scenic resources, and to provide for a variety of recreational needs of Willamina's residents and visitors.*

## Policies

- A. Discourage dedication of park land of less than one-half acre unless it is positioned on the edge of a subdivision and can be combined with adjoining vacant land as it develops or meets identified recreational needs.
- B. Revenue produced for park purposes should be targeted for new park land acquisition and further development of existing parks.
- C. Encourage tree preservation and landscaping to buffer incompatible and conflicting uses and to provide scenic and recreational opportunities.
- D. Flood hazard areas, wetlands and significant habitats should be used as often as feasible to provide natural open space.
- E. Encourage the use of innovative and flexible site design, such as planned unit developments and clustering, to protect natural functions of floodplains, wetlands, stream corridors and significant habitats and to provide park land and open space opportunities.
- F. The City may permit new subdivisions to pay money (in lieu of dedicating park land) for the further development of parks.
- G. The city shall develop park and recreation Systems Development Charges (SDCs) to apply to new development in the city. The SDC's should be reviewed on a yearly basis to ensure they are adequate to keep up with inflation and providing for the recreational needs of city residents.
- H. Provide appropriate signage clearly indicating the location of existing parks and recreational sites.

## Implementation

[ASK JUDITH ABOUT THIS]

## Transportation

Like most small cities, Willamina is dependent on private automobiles as the chief source of transportation. In addition, the city's employment sector relies on heavy transport. The historic street and highway network of Willamina creates problems when determining good traffic circulation patterns for a growing city population. The health of the city's commercial core may be most affected by increased traffic flow.

Transportation improvements are costly. Limited fiscal resources mandate that the City direct its expenditures in a prudent way.

The City's objectives are to provide local access and circulation; to move traffic quickly and safely; to preserve the esthetic quality and character of the community; to ensure pedestrian, bicycle and overall safety; and to ensure good layout and design for both on-street and off-street parking.

### Findings

- Automobile use is the chief mode of travel in Willamina.
- Highway 18 and Main Street are the most heavily traveled roads.
- Traffic volumes have increased steadily on the city's major streets since 1971.
- There are no designated bike paths in Willamina.
- Major traffic problems which have been identified are: need for off-street parking to accommodate anticipated future commercial growth; narrow and crooked design of Lamson Street; potential for traffic congestion with increased growth; and hazards created by the heavy flow of chip and log trucks through the city.

### Goal

1. *To provide a safe, convenient, esthetic and economic transportation system through a variety of transportation mean.*

### General Policies

- A. Transportation facilities shall be sited, designed and constructed so as to minimize visual and environmental impacts on the natural and social features of the area.

- B. Transportation facilities shall respect adjacent land uses and shall be designed to be an asset to an area rather than a disruptive feature.
- C. Transportation improvements shall be used to guide urban development and shall be designed to serve anticipated needs.
- D. While automobiles will continue as the primary means of transportation, Willamina shall encourage use of alternate modes, including small mass transit systems, bicycle and pedestrian pathways.
- E. The City of Willamina recognizes that its comprehensive plan and implementing ordinances must be amended to 1) provide more certainty regarding the allowance of street, road and highway maintenance and improvements; and 2) to coordinate the local planning review of highway projects with the Oregon Action Plan for Transportation. The City will make appropriate amendments as soon as possible after the Oregon Department of Transportation develops model plan policies and model ordinances to guide the City in correcting the problem.

#### Automobile Policies

- F. Hazardous and inferior road sections and intersections shall be identified and recommendations shall be made for improvement through a systematic capital improvement program.
- G. Automobile routes between residential areas and major activity centers shall be examined and recommendations shall be made for improvements.
- H. A study for the possible re-routing of truck traffic shall be undertaken.

#### Bicycle and Pedestrian Policies

- I. New sidewalk and sidewalk replacement needs shall be identified and systematically constructed through a capital improvement program.
- J. Walking and biking shall be encouraged, wherever possible, especially along major routes between residential areas and major activity centers.
- K. Pedestrian and bicycle traffic shall be separated wherever possible, particularly where public safety warrants such separation.



- L. Willamina should develop a bikeway plan and route which can be coordinated with Yamhill County's Bikeway Plan.

#### Public Transit Policy

- M. Willamina shall encourage future operation of County public transit system(s).

#### Railroad Policies

- N. The continuing availability of rail transportation routes shall be encouraged.
- O. Public safety shall continue to receive top priority where rail lines cross other transportation paths.

#### Implementation

Intended as guides for future actions by the City, these policies emphasize the continued need to carefully evaluate feasible improvements to the city's transportation network. Whenever possible, such improvements should be implemented through a yearly capital improvement program.

In addition, these policies can be used to evaluate the adequacy of transportation layout and design in future subdivisions and in other residential and commercial proposals.

Special assessments for street improvement are provided for in Ordinance #458.

Street specifications are provided for through Ordinance #419.

## Community Development



## Housing

It is the intent of Willamina to retain the residential characteristics that form the city's small-town quality. At the same time, it is important to have flexibilities in housing types and densities so that Willamina residents can choose housing that suits their needs.

"Residential" is the single largest use of land in Willamina. The goals and policies that follow are designed to strengthen the land use element upon which much of the citizen's quality of life depends.

### Findings

- In October of 1996, the Willamina Planning Commission conducted a survey of existing housing units. The purpose of the survey was to determine location, type and condition of the existing housing stock in Willamina. The survey indicated that the predominant type of residential housing units were conventional single-family dwelling units, as it is in most of Oregon's cities. Also, the use of the manufactured home continues to serve as an important alternative to conventional frame construction. The following table lists the city's current housing inventory by number and type of dwelling units. It should be noted that duplex units were not categorized until 1996. Consequently, in previous years that type of unit was categorized as either a single or multiple-family unit.

**Table 1**  
**Willamina Existing Housing Supply**

Year	Total Housing Units	Number of Single-Family Units (inc. mobile homes)	Number of Two-Family Units	Number of Multiple-Family Units
1978	578	509	NA	69
1987	619	543	NA	76
1996	656	568	12	76

Source: 1978 Windshield survey by Yamhill County Planning Commission;  
1987 Windshield survey by Givens/Talbot Assoc., Inc.;  
1996 Windshield survey by MWVCOG staff.

- The record of new housing construction for Willamina reveals that single-family homes are preferred in this area. The record of permits shows that during the period of time from January 1988 through December 1995 there were 33 permits issued for single-family or manufactured homes. During this same period, there was 1 permit issued for the construction of a duplex.

The following table shows the number of permits issued by category of home for each year.

**Table 2**  
**Willamina Issued Construction Permits**

Year (Jan. 1 - Dec. 31)	Total Issued Permits	Number for Single-Family Dwellings (inc. mobile homes)	Number for Two- Family Dwellings	Number for Multiple-Family Dwellings
1988	8	8	0	0
1989	1	1	0	0
1990	4	4	0	0
1991	3	3	0	0
1992	1	1	0	0
1993	5	5	0	0
1994	3	3	0	0
1995	9	8	1	0
Totals	34	33	1	0

Source: 1996 City of Willamina

- In recent years, a significant amount of development has taken place in the region creating an influx of jobs and a resulting need for affordable housing in the area. Construction of the Spirit Mountain Casino in Grand Ronde and the Federal Prison in Sheridan are prime examples of such development. Willamina, along with other communities in the region, will need to develop additional affordable housing units in order to accommodate this growing need.
- Currently the overall quality of housing in Willamina appears to be in fair condition.
- As its population continues to grow, Willamina will continue to face an increasing need for available housing. The following table shows the total projected housing needs by category through the year 2015. The needs were determined by synthesizing the population projections adopted by the Council in 1995 with the number of actual housing units currently existing in the city. Calculations for total needed housing units were based on the assumptions of a 3.0% vacancy rate and a constant ratio of 2.98 persons per housing unit as established for Willamina in the 1990 U.S. Census. A 3% vacancy rate was incorporated into the housing projections in the 1987 Comprehensive Plan.
- The percentages of single-family, duplex and multiple-family housing units per total available housing units for 1996 are 86.59%, 1.83% and 11.58%

respectively. The Department of Land Conservation and Development has encouraged the City to plan for a higher percentage of multi-family housing units to be consistent with similar projections in the region. The recommended mix of housing units is 75% single-family units, 5% two-family dwelling units, and 20% multiple-family dwelling units. The calculations for needed housing units presented in Table 3 are based upon the recommended percentages.

**Table 3**  
**Willamina Housing Needs Projections**

Year	Additional Needed Housing Units	Single-Family Units	Two-Family Units	Multiple-Family Units
2000	27	21	1	5
2005	98	73	5	20
2010	176	132	9	35
2015	263	197	13	53

Source: 1987 Willamina Comprehensive Plan;  
1990 U.S. Census;  
1995 Population projections adopted by Council;  
1996 Windshield survey by MWVCOG staff

- Table 3 clearly shows a projected increase in the total number of available housing units needed to meet Willamina's projected population growth. The following table shows the balance of additional housing needed by 2015 to meet the projected housing demand shown above.

**Table 4**  
**Additional Needed Housing by 2015**

	Additional Needed Housing	Single-Family Units (75%)	Two-Family Units (5%)	Multiple-Family Units (20%)
Existing (1996)	656	568	12	76
Needed (2015)	919	765	25	129
Balance	263	197	13	53

Source: 1987 Willamina Comprehensive Plan;  
1990 U.S. Census;  
1995 Population projections adopted by Council;  
1996 Windshield survey by MWVCOG staff

- As shown in Table 4, Willamina will need to develop 263 total housing units by 2015 to meet the housing demand created by the projected population growth. These figures are based upon the assumptions of a 3.0% vacancy rate and that the 1990 average of 2.98 persons per housing unit for Willamina remains constant over the planning period.

### Goal

1. *To take steps to ensure that Willamina residents are provided with safe and sanitary housing.*

### Policy

- A. The City should investigate funding opportunities for street lighting improvements in existing residential areas. The cost of providing street lighting in newly developed areas shall be borne by the developer.

### Goal

2. *Through the Plan and implementing ordinances, to encourage the development of a range of housing types and cost levels to adequately meet the needs of its citizens.*

### Policies

- A. The City should incorporate residential land into the urban growth boundary that will permit development of housing for families of all income levels.
- B. Where feasible, residential developments should provide for recreational opportunities.
- C. The City shall investigate programs which promote the integration of low income housing with housing targeted toward other income groups.

### Goal

3. *To encourage the upgrading of the existing housing stock.*

### Policies

- A. The City should solicit the aid of federal, state, and local agencies in obtaining funding for the rehabilitation of dilapidated housing in the city.
- B. The City shall solicit support for and otherwise encourage the weatherization of the existing housing stock to minimize health and economic impacts due to rising fuel cost.

### Goal

4. *To ensure that all future housing developments take into consideration soil stability, topography and natural hazards in the design and density of the developments.*

### Policies

- A. Housing densities should be consistent with the suitability of the land to support development and should avoid natural hazards such as unstable soils, steep topography, flood/slide hazard areas and soils with poor drainage.
- B. Through the Plan and implementing regulations, the City should encourage retainage of any existing natural vegetation and should establish requirements for planting in all new residential developments.
- C. The City should require that all utilities be placed underground to improve the visual amenities of new development.
- D. The City shall encourage developers to make all new residential developments as energy-efficient as possible, including consideration of renewable fuel sources.

### Goal

5. *To ensure that all new housing developments be provided with services (streets, sewer, water, ambulance, police and fire) and that future developments will not overburden the City's ability to provide such services. Further, to ensure that the cost of extending such services will be borne by the developer.*

### Policies:

- A. Residential development should be located in areas that can be served by public facilities and services. The extension of public facilities and services shall be paid by the developer.
- B. Residential development should be directed into areas currently platted and close to the city center before utilizing large blocks of vacant land and land presently devoted to agriculture.
- C. Residential development shall be consistent with the city's transportation plan in effect, or as amended, at the time development is proposed.

- D. Multiple family dwellings should be located near commercial activities to offer more people non-motorized access to commercial services.

### Goal

- 6. *To cooperate with all federal, state, regional, and local agencies in developing and implementing housing programs to meet the needs of Willamina residents.*

### Policies:

- A. The City should encourage programs for increasing the city's housing supply.
- B. The City should provide for the collection and dissemination of housing information from federal, state, regional, and local sources.
- C. The City should cooperate and coordinate with federal, state, and local agencies in assisting programs for the improvement of housing stock and housing conditions.

### Implementation

The total package of policies found here sets the framework for decisions regarding housing.

Policy 2B is implemented by Section 2.208 of the Zoning and Development Ordinance.

Policy 4A is implemented through the provisions of Section 2.115.

Policies 4B through 4D should be investigated for possible inclusion of specifics in the City's ordinances; meanwhile, they serve as guides for decision-making.



## Population

Willamina has experienced erratic growth over the years since 1940. The Center for Population Research and Census, Portland State University has estimated that the 1994 population of Willamina is 1,755. Previous projection of populations made from a 1987 Mid-Willamette Valley Council of Governments Study and the City's 1976 Comprehensive Plan both indicate a much higher estimated figure of 1,875 and 2,165 respectively.

The significant disruption of the timber supply in the early 1990's and the economic recession during the early 1980's resulted in a slight decline in the city's population through 1990. More recently, the city's population has dropped from 1,870 people in 1989 to 1,700 people in 1990 and has since stabilized.

Historical population trends for the city are as follows:

Table 1  
City of Willamina  
**HISTORICAL POPULATION**

Year	Population	Percent Change
1940	667	---
1950	1082	6.2
1960	954	-1.2
1970	1193	2.5
1980	1749	4.7
1990	1700	-2.8
1994	1750	2.9

Source: 1990 Census Data and 1995 Sewer Master Plan

Age composition data from the 1990 Census is depicted in Table 2. Age distribution is an important factor to consider when planning the future of a community. The needs of a community can be more easily determined if the age composition is known. For example, a large proportion of young adults could point to the need for increasing job opportunities; or a substantial number of elderly people would mean that emphasis should be placed on meeting the needs of senior citizens.

Table 2  
City of Willamina  
**AGE DISTRIBUTION**

Age Group	1990 Population	1990 Percent of Population
0-4	189	11.1
5-17	399	23.5
18-64	898	52.8
65+	213	12.5

Source: 1990 Census Data

The Center for Population Research and Census at Portland State University projects population growth on a County wide basis and does not differentiate between individual cities. The Center has estimated the annual population growth of Yamhill County to be 2.0 percent.

Based on current development activities within the city, the construction of the Federal Corrections Facility in nearby Sheridan, and the Gambling Casino under construction in nearby Grand Ronde it is reasonable to utilize the estimated Yamhill County annual population growth of 2.0 percent up to the year 2015 as a guide.

The following table shows the projected twenty year population at a 2.0 percent growth rate using the 1994 population estimate prepared by Portland State University as the base population:

Table 3  
City of Willamina  
**POPULATION PROJECTIONS**

Year	Population (2% Growth Rate)
1994	1,755
1995	1,790
2000	1,976
2005	2,182
2010	2,409
2015	2,660

## Economy

Willamina recognizes the importance of varied and healthy commercial activities within the city. As the major retail center for the westernmost part of Yamhill County and part of Polk County, Willamina can anticipate growth of its commercial sector as the city's population increases.

Historically, the wood products industry has dominated the economy of Willamina. Recently, the timber industry has lessened in economic strength and employment stability, but continues to dominate Willamina's economy.

### Findings

- As of 1997, three (3) mills remained operational within the Urban Growth Boundary (UGB). Local, state, and regional trends suggest that environmental regulations coupled with more efficient automated milling practices, will continue to deplete employment opportunities within the timber industry.
- However, increased diversification and employment opportunities in the surrounding area will continue to buffer Willamina from the decline of the timber industry.
- In the late 1980s a federal prison was built approximately 5 miles east of Willamina in the City of Sheridan. The prison brings employment opportunities to the residents of Willamina.
- In 1996, the Confederated Tribes of Grand Ronde opted to generate revenue and employment in the area by building a gambling casino. The casino currently employs 1,100 full and part time employees (RPS, 1996). Many of these employees, including those from Willamina, commute from outside the community of Grande Ronde. Willamina, being the closest incorporated city to Grande Ronde, is in an ideal position to capitalize on employment and commercial opportunities available from the Casino.
- The forest products industry continues to maintain a strong presence in Willamina economically and culturally.
- Willamina's location close to on Highway 18 between the Willamette Valley and the Oregon Coast provides an opportunity to capitalize on commuter and tourism traffic.

- Willamina is one of the few communities within commuting distance of Salem and Portland that has not experienced significant new development and still offers a rural quality of life.
- Numerous commercially successful artists reside and work in the Willamina area.
- Residential and commercial property is available at a relatively low cost compared to other locations in the mid-Willamette Valley.
- Willamina schools have been innovative responding to changing community and student needs.
- The business community has organized to promote economic development in Willamina and has recently implemented a program to provide low interest business loans for store front improvements.

#### Goal

1. *To diversify and improve the City's economy.*

#### Policies

- A. Promote diversification and expansion of its economy by providing sufficient land for industrial uses.
- B. Give priority approval to industries that are non-polluting, energy efficient, utilize local labor and raw materials, and do not significantly conflict with the City's natural resource goals and policies.
- C. Cooperate with appropriate, regional, state, and federal agencies which assist rural communities in the area of economic development.

#### Goal

2. *To encourage desired economic growth, develop a stable, community based economy, promote greater employment opportunities for Willamina citizens, and provide efficient, orderly and convenient industrial development.*

#### Policies

- A. Encourage industry that will provide employment to, and balance between, a broad range of workers, including professional, skilled and unskilled labor.

- B. Encourage industrial activities that will not deplete the energy resources of the area. Energy conservation and efficient utilization of energy resources shall be a primary consideration in allowing new industrial development in the City.
- C. Promote and encourage small-scale "cottage" industries as a viable alternative to large, conventional business enterprises.

#### Goal

- 3. *To achieve, to the extent possible, a self-sustaining local economy.*

#### Policies

- A. Evaluate industrial facility proposals by considering both the short and long-term social, environmental and economic impacts to the City and the surrounding area before being approved.
- B. Future industrial growth shall be directed away from existing or proposed areas of residential development.

#### Implementation

The total package of policies found here sets the framework for decisions regarding economic development.

The build of the commercial and industrial policies require more effort by the City.

As part of its ongoing plan effort, Willamina should continue refinement of these policies.

## Land Use and Urbanization

Willamina's desire for orderly growth is linked to available and buildable lands. The historical placement of the city at the confluence of streams has led to expansion on adjacent hills. For the future, overcoming or building around physical obstacles will often be necessary. At the same time, the City will want to provide services and facilities in a cost-efficient manner.

The City is concerned that orderly growth patterns be maintained so that a loss of Willamina's small town character does not occur with a gain of population and economic growth. Since the City is responsible for public services and facilities that require fiscal obligations, Willamina has adopted the following goals and policies to more accurately link City responsibilities to growth actions.

The buildable lands inventory and analysis for Willamina determines if there are sufficient buildable lands within the existing Urban Growth Boundary to accommodate estimated housing needs for 20 years. According to State statute, **buildable lands** are "lands in urban and urbanizable areas that are suitable, available and necessary for residential uses. Buildable lands include both vacant land and developed land likely to be redeveloped."

Land within the Willamina UGB is broken into eight (8) classifications including: Low Density Residential, Moderate Density Residential, Medium Density Residential, Residential-Commercial, Commercial, Industrial, Public Open Space, and Public Assembly/Institutional. Definitions for each classification can be found in the City's Development Code. Classifications are implemented through the Comprehensive Plan zoning designations.

### Findings

- The predominant land use within Willamina's city limits is residential use.
- Together, agricultural and wooded lands, open space and residential lands comprise 61 percent of the land area within the city limits.
- Willamina has an adopted Urban Growth Boundary.
- Residential: Approximately 334.4 acres are currently designated residential (LDR, MDR, MR) within the Urban Growth Boundary (UGB). It is estimated that 172.3 acres are vacant, and 162.1 acres are developed. Of the 542.5 total acres within the Willamina UGB, 61.5 percent is designated residential. Ninety-three percent (93%) of the 185.64 vacant acres available are designated residential.

- Commercial: Approximately 29.9 acres are currently designated commercial (C, RC) within the UGB. The total includes 10.6 acres of residential-commercial designation which allows for conversion of residential use to commercial use. Of the 542.5 acres within the Willamina UGB, 5.7 percent is designated commercial. Approximately two percent of the vacant land available for development is designated commercial.
- Industrial: Approximately 117.9 acres are currently designated industrial (I) within the UGB. Slightly under 22 percent (21.7%) of the 542.5 total acres within the UGB are designated industrial. Approximately five percent of the vacant land available for development is designated industrial.
- Public Open Space: Approximately 17.9 acres are currently designated public open space (P) within the UGB. Public open space land was not considered vacant or developable. Just over three percent (3.3%) of the 542.5 total acres in the UGB are designated public open space.
- Public Assembly/Institutional: Approximately 41.9 acres are currently designated Public Assembly/Institutional (PAI) within the UGB. PAI land was not considered as vacant or developable. Of the 542.5 total acres in the UGB, 7.7 percent is designated Public Assembly/Institutional.
- The City of Willamina has a sufficient supply overall of residential lands, with a surplus of two-family and Multi-family land, and a deficit of single-family land. It has identified changes to its Public Assembly/Institutional and Public Open Spaces land, which increase the amount of these land designations. This leaves an overall surplus of land within the UGB of approximately 46 acres. Based on this information, there is little reason for the City to consider an UGB expansion at this time. The land designations do need to be adjusted, however, and these are discussed in Section III of the Urbanization Element.

## General Policies

A. Change of the Urban Growth Boundary shall be based upon consideration of the following factors:

- Demonstrated need to accommodate long range urban growth requirements;
- Need for housing, employment opportunities and livability;
- Maximum efficiency of land uses within and on the fringe of the existing urban area;
- Retention of agricultural land until needed for development;

- Environmental, energy, economic and social consequences; and
  - Compatibility between the proposed urban uses and nearby agricultural activities.
- B. The City and Counties shall mutually adopt an Urban Growth Boundary Management Agreement for the purpose of guiding urbanization for those County lands located inside the boundary.
- C. Annexation of urbanizable land shall be based on consideration of orderly, economic provision for public facilities and services; availability of sufficient land for various uses to ensure choices in the market place; Willamina Comprehensive Land Use Plan goals and policies; and encouragement of development within urban areas before conversion of urbanizable areas.
- D. All development and use of land within the Planning Area of Willamina shall comply with applicable state and federal air, water, solid waste, hazardous waste, and noise regulations.

## **Residential Land Use**

### **Goals**

1. *To provide adequate long term supply of land to service the needs of the projected population to the year 2015, and to insure the conversion of these lands to urban uses in an orderly, timely manner.*
2. *To establish a land use planning framework for application of the goals, policies, and proposals of the Willamina's Comprehensive Plan.*
3. *To ensure that all new residential developments be provided with services, and that future developments will not overburden the City's ability to provide such services. Further, to ensure that the costs of extending such services will be born by the developer.*

### **Policies**

- A. Designate sufficient residential land of all types to meet the need of present and future residents
- B. Rezone higher density residential lands as identified over time to provide needed low density lands.



- C. Higher density development should be located near commercial activities to offer more people pedestrian and bicycle access to commercial services.
- D. Encourage all new residential construction to be an energy-efficient as possible, including consideration of renewable energy sources.

### Commercial Land Use

#### Goals

1. *To allow for commercial types and amounts of activities to adequately meet the needs of the City and its immediate surrounding area.*
2. *To encourage the development of an attractive and competitive commercial core that provides a variety of services.*

#### Policies

- A. Designate sufficient area on the Plan map for commercial uses.
- B. Provide for expansion of the commercial corridor as the currently designated area is utilized over time.
- C. Encourage all commercial activities to locate in the commercial core
- D. Encourage new commercial outlets to upgrade the appearance of the commercial core.
- E. Ensure that adequate public services be provided.
- F. Provide a design review process for all new construction or substantial renovation of existing commercial buildings.
- G. Provide for off-street parking, pedestrian safety, shopping convenience and smooth traffic circulation when reviewing future commercial developments.
- H. Take necessary steps to ensure that traffic on Hwy. 18 (Main Street) will not be impaired by commercial development.
- I. Study the possibility of establishing a downtown redevelopment committee and plan.

- J. Protect and ensure the permanence of the downtown commercial core as a vital economic base and maximize customer access and exposure.
- K. Keep the character of the commercial core by encouraging all new retail and commercial businesses having compatible character to locate there.
- L. Discourage "strip development" along Main Street.
- M. Encourage landscaping and other forms of city beautification in the commercial core area, with an emphasis on landscaping that promotes energy conservation.
- N. Maintain existing alleyways as pedestrian walkways and as rear entrance delivery points.
- O. Recognize small neighborhood stores which provide a limited number of products and service to immediate residential areas.
- P. Encourage multiple uses of commercial and public buildings in order to be as energy-efficient as possible.
- Q. Encourage all new commercial buildings to be as energy-efficient as possible, including consideration of renewable energy sources.
- R. Encourage the rehabilitation of existing commercial stock.

## **Industrial Land Use**

### **Goals**

- 1. To diversify and improve the City's economy.*
- 2. To encourage desired economic growth, develop a stable, community based economy, promote greater employment opportunities for Willamina citizens, and provide efficient, orderly and convenient industrial development.*
- 3. To achieve, to the extent possible, a self-sustaining local economy.*

### **Policies**

- A. Promote diversification and expansion of its economy by designating sufficient land for industrial uses.

- B. Encourage industry that will provide employment to, and balance between, a broad range of workers, including professional, skilled and unskilled labor.
- C. Give priority approval to industries that are non-polluting, energy efficient, utilize local labor and raw materials, and do not significantly conflict with the City's natural resource goals and policies.
- D. Evaluate industrial facility proposals by considering both the short and long-term social, environmental and economic impacts to the City and the surrounding area before being approved.
- E. Encourage industrial activities that will not deplete the energy resources of the area. Energy conservation and efficient utilization of energy resources shall be a primary consideration in allowing new industrial development in the City.
- F. Future industrial growth shall be directed away from existing or proposed areas of residential development.
- G. Promote and encourage small-scale "cottage" industries as a viable alternative to large, conventional business enterprises.
- H. Cooperate with appropriate, regional, state, and federal agencies which assist rural communities in the area of economic development.

## Plan Implementation



## Citizen Involvement

Willamina has made citizen involvement opportunities an important element in the development of this Plan.

In 1976, the Willamina Planning Commission was designated as the Committee for Citizen Involvement (CCI) in accordance with the requirements of the Statewide Citizen Involvement Goal.

The City began work on preliminary housing and commercial goals in 1977, but the majority of work actually happened beginning in May, 1978. At this time the Planning Commission appointed a citizen Advisory Committee (CAC) composed of seven residents, adopted working by-laws, and began meeting once a month specifically to work on the remaining goals and policies needed for the Plan. All meetings were open to the general public.

Upon completion of preliminary goals and policies, a tabloid of these was printed and circulated as a supplement to the Sheridan Sun, the local newspaper with a circulation of 2300 people. In addition, a summary of the draft goals and policies was printed in the McMinnville News-Register, and all residents with a post office box were mailed a copy of the tabloid.

The Planning Commission held a public hearing on the draft. All written material, comments from public agencies and oral testimony at the hearing were reviewed by the Planning Commission and CAC prior to making revisions of the Plan goals and policies. The same process occurred with the revised zoning map. Similar review was accomplished regarding the Urban Growth Boundary and the Urban Growth Boundary Management Agreement.

A joint City Council-Planning Commission public hearing on the entire Plan package was held on April 19, 1979. Adoption by the City Council took place on April 26, 1979, after several more concerns were resolved.

During its year-long effort, the Planning Commission and CAC reviewed the City's adopted Citizen Involvement Program. These groups reaffirmed the importance of the program for maintaining clear and effective communication between governing officials and the citizens of Willamina.

### Findings

- The Willamina Planning Commission and its appointed Citizens Advisory committee met regularly and together provided the direction for plan development;

- All meetings were announced, posted in local newspapers and open to the general public;
- Copies of the draft Plan were distributed throughout the city and opportunity was provided for public input;
- Technical reports were available for public review;
- Newspaper reports were published regularly on the progress on the Plan;
- A community survey was conducted to obtain input and determine needs, desires and opinions; and
- The City has an adopted Citizen Involvement Program.

#### Policy

- A. The City shall continue to implement the Citizen Involvement Program to ensure that the opportunity for all citizens to be involved in all phases of the planning process is maintained.

Citizen Involvement Program  
for the City of Willamina

The City of Willamina has designated its Planning Commission as the CCI with the approval of LCDC.

The City of Willamina encourages the involvement of all citizens in phases of the planning process. The Citizen Involvement Program will include the following:

I. Communication

Effective two-way communication between citizens and elected and appointed officials will be facilitated by one or more of the following methods:

- A. Mail-back questionnaires or door-to-door surveys conducted by the Planning Commission will be distributed to each household, as applicable.
- B. News releases and meeting notices in local newspapers.
- C. Word-of-mouth.
- D. Other media if available and feasible.
- E. Meeting notices included in utility billings if possible and appropriate.

II. Citizen Influence

All citizens will be provided the opportunity to be involved in:

- A. Data gathering.
- B. Plan preparation.
- C. Recommending changes in the Comprehensive Plan and ordinances.
- D. Participating in development, and adoption of minor and major revisions of the Comprehensive Plan and implementation measures.
- E. The evaluation of the Comprehensive Plan.
- F. The evaluation of the Citizen Involvement Program.

### III. Technical Information

Maps and other technical information will be made available at the City Hall in a simplified and understandable form.

### IV. Feedback Techniques

The following techniques will be utilized as appropriate to provide for communication between policy makers and citizens:

- A. Minutes will be kept of all Planning Commission and City Council meetings and the rationale used to reach land use decisions will be contained therein.
- B. Results of city questionnaires will be posted in City Hall for public inspection and review.
- C. Information concerning recent or current land use issues in the city will be posted or filed at the City Hall.

### V. Program Support

The City of Willamina will allocate an adequate and appropriate portion of its planning budget to the Citizen Involvement Program. Support may include:

- A. County staff assistance, where possible.
- B. Informational resources provided by the County.

### VI. Agency Involvement

Local, State and Federal Agencies, School Districts and Special Districts shall be asked to participate when appropriate.

### VII. Evaluation

Evaluation of the Citizen Involvement Program will include:

- A. Annual Planning Commission review of citizen involvement in the planning process, including a report to the City Council.
- B. As a part of its evaluation, the Planning Commission will provide an opportunity for the general citizenry to be involved and to make comments on the adequacy of the Citizen Involvement Program.



## Land Use Planning

During the development of this Plan, data inventories were prepared on natural resources, manmade structures and utilities, developable lands, population and economic characteristics and other items of interest to the City. This material is included in Willamina's Planning Atlas.

The City recognizes that regular review of the Plan is necessary, both to evaluate the City's goal accomplishments and to revise the Plan where necessary. The Atlas provides the base information to explain why certain decisions were made and to guide why certain changes need to be made in the future.

### Policy

- A. The City shall review the Comprehensive Land Use Plan and all supporting documents in accordance with the schedule for periodic review established by LCDC to ensure that a factual basis for planning decisions is maintained. All Plan reviews shall be consistent with the Statewide Citizen Involvement Goal and with the City's Citizen Involvement Program.

Insert Maps here