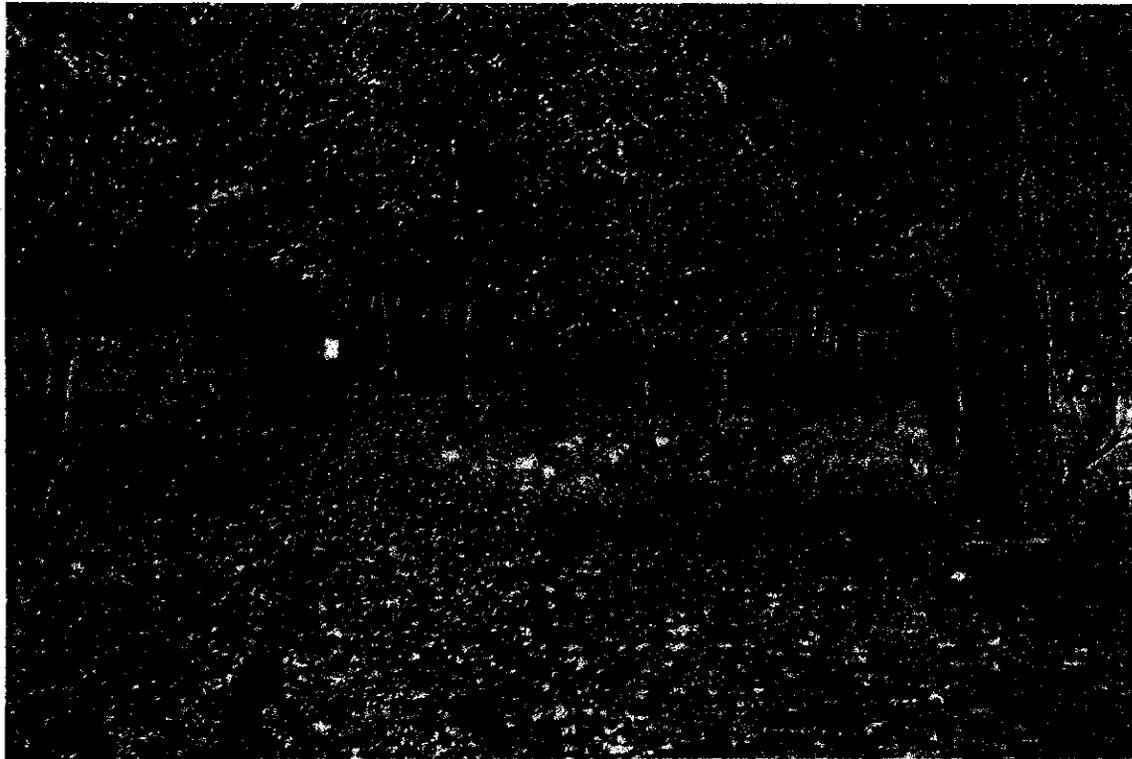


CHAPTER EIGHT

JACKSONVILLE'S ENVIRONMENTAL  
ELEMENT

The following statement was developed by the citizens of Jacksonville during the 1991 Vision Statement process and serves as the basis for this chapter:

*"We value living in a small city that is in harmony with its natural beauty and seek to build for the future with this in mind".*



GOAL

**To preserve and protect the natural environment in and around Jacksonville in order to assure present and future residents a livable community with a high quality of life, to promote healthy and sustainable riparian areas and wetlands, and to minimize natural hazards.**

## **Introduction**

The 1,184 acres bounded by the corporate limits of the city contain a broad variety of environments ranging from almost pristine natural areas with plentiful wildlife to urban concentrations without trees or plant life other than flower boxes or an occasional mullein growing out of the disintegrating mortar between historic bricks. These lands present some very unique opportunities and some very severe limitations. In almost every civic discussion or action, it soon becomes apparent that the community of Jacksonville is extremely sensitive to the wealth and fragility of its environmental resources.

Since Jacksonville's ecosystem is such an important factor to the overall livability and essence of the community, the Element is predicated upon the finding that the natural environment must be considered in every planning decision. In order to accomplish this, the components of Jacksonville's natural setting are individually analyzed in detail in the following sections of this document:

**Location**  
**Topography and Drainage**  
**Climate**  
**Geology, Soils, and Natural Hazards**  
**Streams and Riparian Areas**  
**Wetlands**  
**Vegetation/ Wildlife**  
**Urban Forestry**  
**Energy**  
**Air Quality**  
**Noise Hazards**

Following the analysis are a series of Goals, Policies, and Implementation Measures in each section that address specific concerns

## **Location**

The City of Jacksonville is located in southwest Oregon, absolute location 42 degrees 18 minutes north latitude, 122 degrees 57 minutes west longitude. Jacksonville is approximately 170 miles south of Eugene, 32 miles southeast of Grants Pass and 5 miles west of Medford. The area lies on the western edge of the Bear Creek Valley with the downtown at an elevation of approximately 1,570 feet.

## **Topography and Drainage**

Jacksonville is located on an alluvial fan at the western edge of Bear Creek Valley. Elevations vary from 1,400 to 1,600 feet above sea level. Most of the study area lies along the eastern margin of the Klamath Mountain range. Jacksonville is bordered on the south and west by mountainous terrain and on the north and east by the flat margins of the Bear Creek Valley.

Jacksonville and the immediate surrounding area is transected by numerous small streams and natural drainage ways, most of which are ephemeral and drain in a generally northeasterly direction toward the Rogue River. Major water courses in the area include: Jackson Creek, Walker Creek, Daisy Creek, and the Phoenix Canal, which is part of the Medford Irrigation District (MID).

### Climate

Jacksonville has a moderate climate with distinct seasonal characteristics. ( See Figures 1 and 2) The annual average temperature is 53 degrees Fahrenheit, with an average low of 36.6 degrees Fahrenheit and an average high of 71.7 degrees Fahrenheit. The precipitation measured at the Medford Experimental Station shows an annual average of 21.3 inches per year. This is comparatively low when looking at our coastal neighbors at the same latitude. This is because Jacksonville is in the rain shadow of the Klamath Mountains.

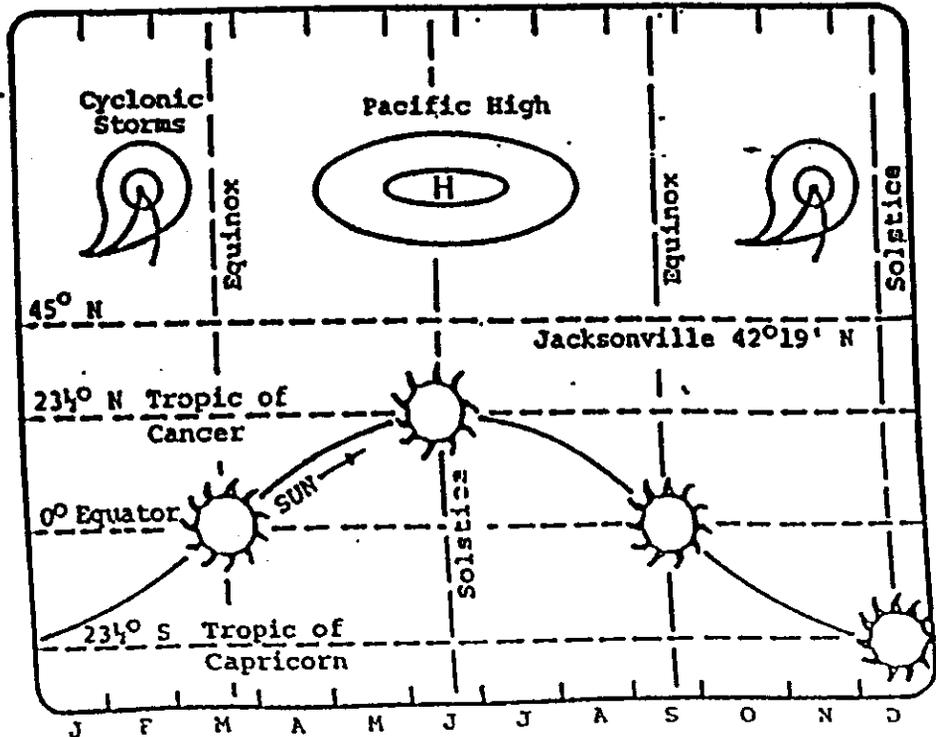
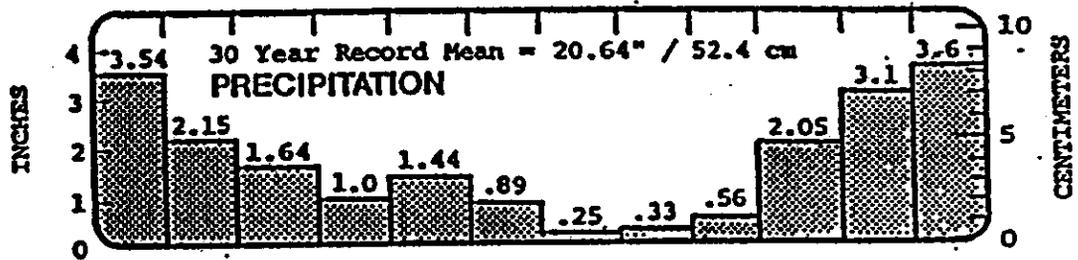
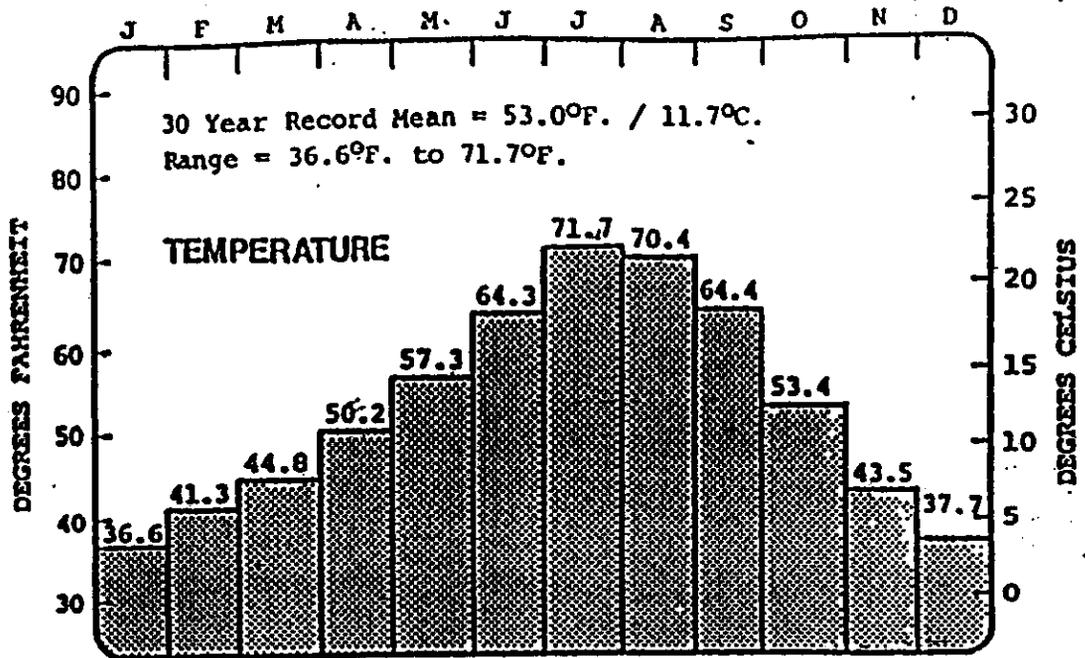
Spring temperatures (April- June) are typically moderate with average daily temperatures in the high 40's and 50's with moderate precipitation.

Summer months, particularly July and August, are hot and dry. During the late summer months maximum daily temperatures average 88 degree Fahrenheit, with occasional readings of 100 degrees or more. July and August both average 15 days per month with maximum temperatures of 90 degree F or more. The slight precipitation that falls in the summer months typically is accompanied by thunderstorm activity.

Fall and winter are characterized by mild temperatures brought by moist marine air masses. The average temperature falls slightly below freezing (32 degrees Fahrenheit). Most of the average annual precipitation arrives in the fall and winter months. Snow fall rarely accumulates on the floor of the Bear Creek Valley and when it does it rarely lasts longer than 24 hours. In the surrounding mountains above 3000 feet precipitation, often in the form of snow, can exceed 70 inches per year. The snow in the surrounding mountains provides recreational activities and water storage for agricultural use in the dry summer months.

**CONCLUSION:** The physical location of Jacksonville is an important attribute. It has allowed the City to develop in a manner not consistent with regional development dominated by the I-5 corridor. In addition, physical location on the western fringe of the Bear Creek Valley has influenced weather and climate, which consists of warm dry summers and lower average rainfall than generally found in the region.

Figure 1

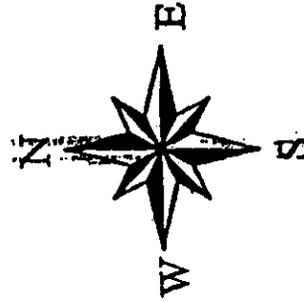


Climograph for Jacksonville, Oregon.

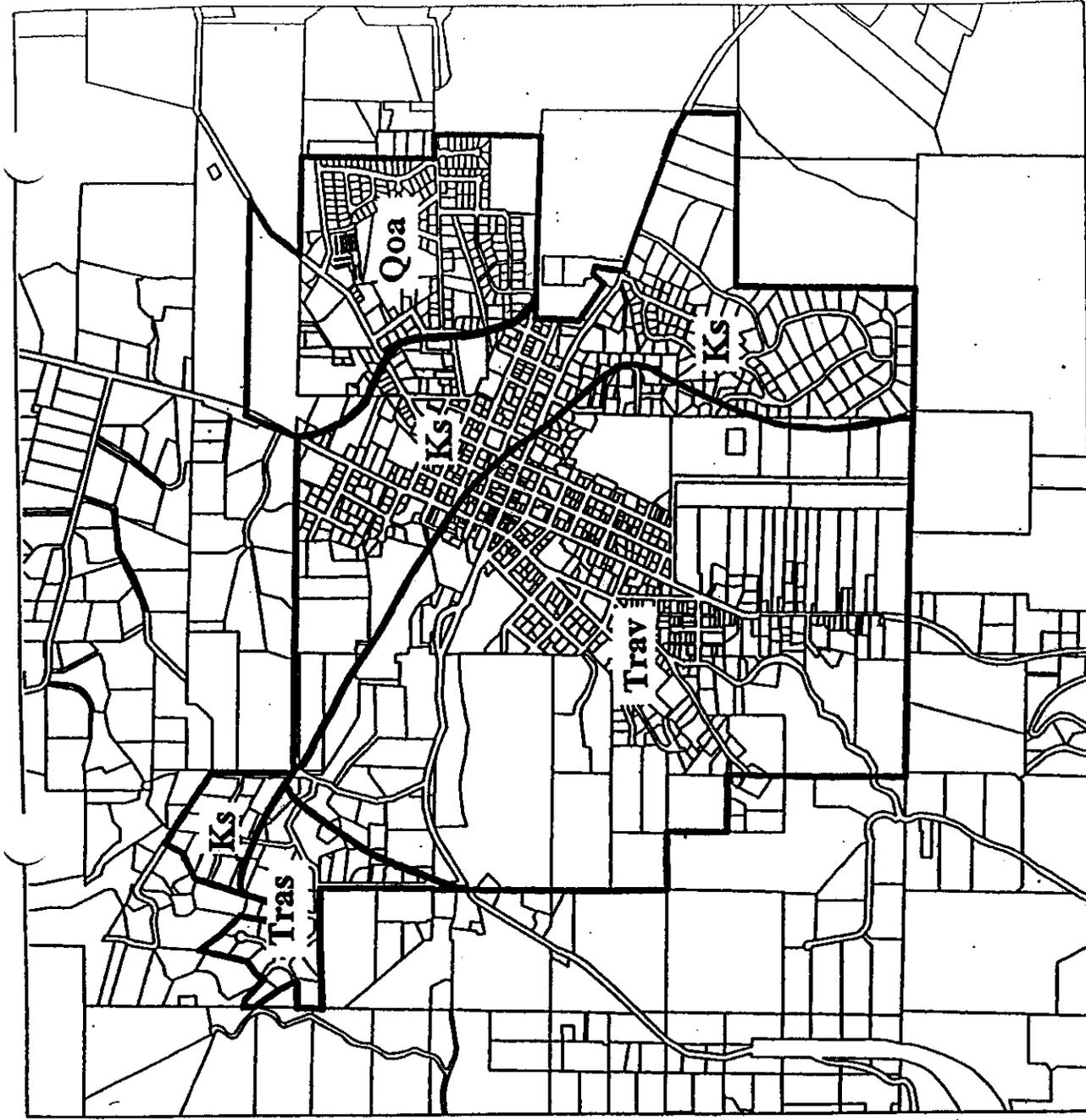
# GEOLOGY

## LEGEND

- Ks** Hornbrook Formation  
(Sandstone)
- Tras** Applegate Group  
(Quartzite, Chert, Limestone, Marble)
- Trav** Applegate Group  
(Gneiss, Feldspar, Silica)
- Qoa** Alluvium  
(Sand, Gravel, Silt)



MAP 1



# City of Jacksonville

## Geology, Soils, and Natural Hazards

### Geology

The Jacksonville study area lies on the eastern side of the Klamath Mountain physiographic division of Oregon on the western fringe of the Bear Creek Valley. The mountains to the west of Jacksonville rise 2,000 to 5,000 feet and consist largely of pre-tertiary strata that have been folded, faulted and in places intruded by granite rocks and serpentine masses.

Since Jacksonville lies on the edge of the Bear Creek Valley, a number of geologic formations occur within the study area. (See Map 1)

**Alluvium (Qoa)** - The Bear Creek Valley to the east of Jacksonville consists of recent alluvium deposits resulting from the meandering of Bear Creek. These alluvial deposits make up a majority of the prime agricultural lands of the area.

**Applegate Group (Tras) and (Trav)** Much of the land to the west of Jacksonville is part of the Applegate group. The formation resulted from folding and metamorphism producing a series of steeply-dipping metavolcanic and metasedimentary layers. The Tras group is prevalent within and directly west of the City. It contains quartzite, chert, limestone and marble. The Trav group occurs further to the west and contains gneiss, feldspar, and silica.

**Hornbrook Formation (Ks)** Portions of Jacksonville lie on or adjacent to (north and south) the Hornbrook formation. The rocks were folded and deformed during the late middle Cretaceous period and lie upon older formations. Gold has been mined from conglomerate at the base of this formation in Jacksonville.

**Intrusive Rock (Kjd)** A small mass of intruded granitic rock lies north of Jacksonville. The most common rock types are diorite, gabbro, basalt and rhyolite.

The geologic hazards of the Jacksonville study area are assessable by means of a document prepared by the State of Oregon Department of Geology and Mineral Industries, titled Land Use Geology of Central Jackson County, Oregon, published in 1977. This inventory and analysis of geological hazards was conducted on a countrywide basis; however, elements of it can be applied to and are related to the study area. In Jackson County, mass land movement, slope erosion, high ground water and ponding, stream flooding, stream erosion and disposition, seismic activity and expansive soils are documented as the major causes or potential causes of natural disasters and hazards. Those hazards applicable to the study area are discussed below.

## Mass Movement

Mass movement comes in several types: deep bedrock slumps and slides, earthflow, steep-slope mass movement (debris flow, debris avalanche), creep and potential mass movement. All of these types of mass movement are caused when gravity exceeds the force that holds the soil in place, called shear resistance. The amount of vegetation in an area contributes to the stability of the soil by holding the soil in place with the vegetative root systems. Occurrences of mass movement have been documented to be confined to areas where there currently exists little human settlement. The Jacksonville area has not been found to have experienced such occurrences, either by natural conditions or those inducted by human activities. The area does, however, have the potential if human activities on hillsides are not controlled to prevent mass movement hazards. In 1999, the Oregon Legislature passed Senate Bill 12, which recognizes the hazards caused by fast moving landslides. The State of Oregon is in the process of preparing statewide maps that define the areas where landslide hazards are present. Based upon these maps, the City may be required to adopt specific requirements relating to landslides.

## Slope Erosion

The soils on most hillsides of 20 percent slope or greater are considered to have a high erosion hazard. In the Jacksonville study area, these consist of Brader, Debenger, Ruch, Manita, Vannoy and Voorhies soil series. (See Map 2) A high erosion factor means that soil movement is expected to accelerate in response to rainfall and runoff. This erosion does not include larger more permanent channels or stream-bank erosion. Dominant factors that control erosion are land use, land cover, slope, soil type and rainfall intensity. Soils composed primarily of silt and fine-grained sand are easily eroded. A shallow depth to bedrock measurement on steep slopes is also known to increase erodibility because of decreased infiltration and increased runoff. The areas contained on Map 2 illustrate areas of greater than 20% slope based on soil types and are therefore determined to be hazard areas. Areas of gentler slopes (1 to 20 percent) generally have a moderate or low erosion hazard.

## Seismic Hazards

The shaking of the earth's surface along with a release of energy along an active fault is called an earthquake. The geographic location above the focus point, within the earth's crust, is the epicenter. The crustal structure and tectonic behavior of Oregon is very complex, and the historic record is short. There is no information available on relative crustal rock strength, and there are no identified active faults exposed at the surface within the study area.

The largest earthquakes in the study area were Mercalli intensity IV (Richter equivalent 4.3), and occurred prior to accurate records being kept. It can be expected that earthquakes of this magnitude will occur in the future. Earthquakes are of particular concern in the downtown core area, where many of the buildings are constructed of unreinforced masonry and are, therefore, more susceptible to seismic events. In 1996, an

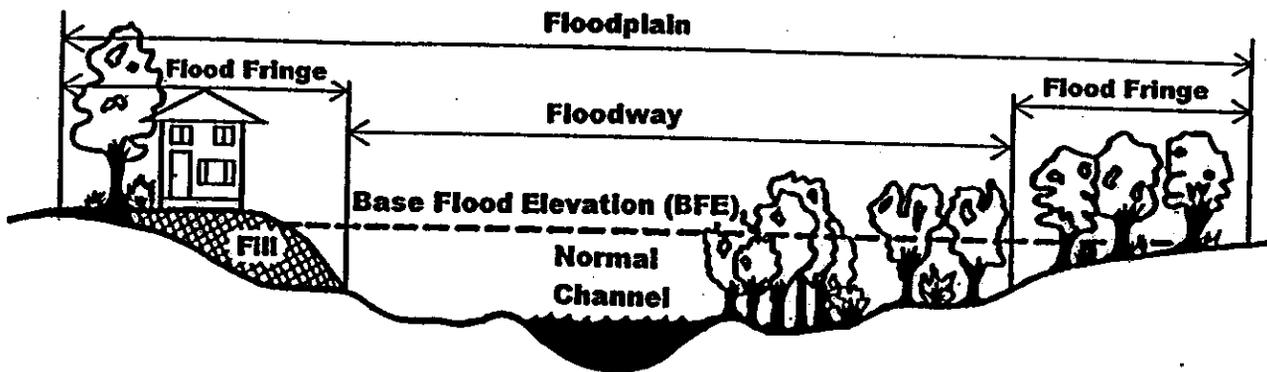
earthquake occurred on the eastern side of the Cascades, centered around Klamath Falls. The effects of that seismic event were felt in the study area, most noticeable was the affect on wells in the surrounding rural area as the bedrock shifted.

**Stream Flooding**

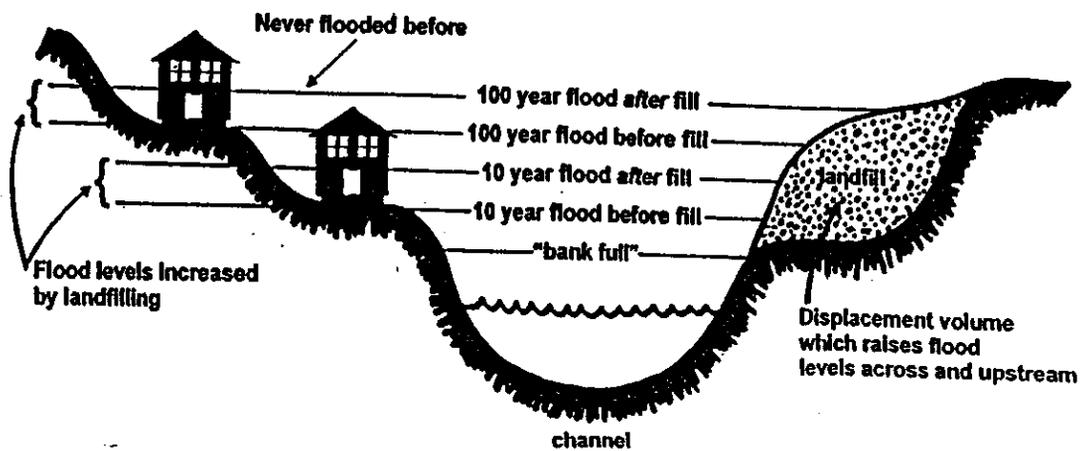
The two identified sources of flooding in Jacksonville are Jackson Creek and Daisy Creek. Major floods in the area are typically a result of heavy snowfall combined with a sudden warm rain. One area of specific concern along Jackson Creek is the intersection with the MID canal.

Stream flooding information for Jacksonville is assessable by means of the Flood Insurance Study, City of Jacksonville, Oregon, completed in 1979 by the U.S. Department of Housing and Urban Development, Federal Insurance Administration. Figure 2 illustrates the mechanics of and terms associated with stream flooding. See Map 3 for the approximate location of the 100-year and 500-year floodplains.

Figure 2



Too much fill causes the river to rise higher...

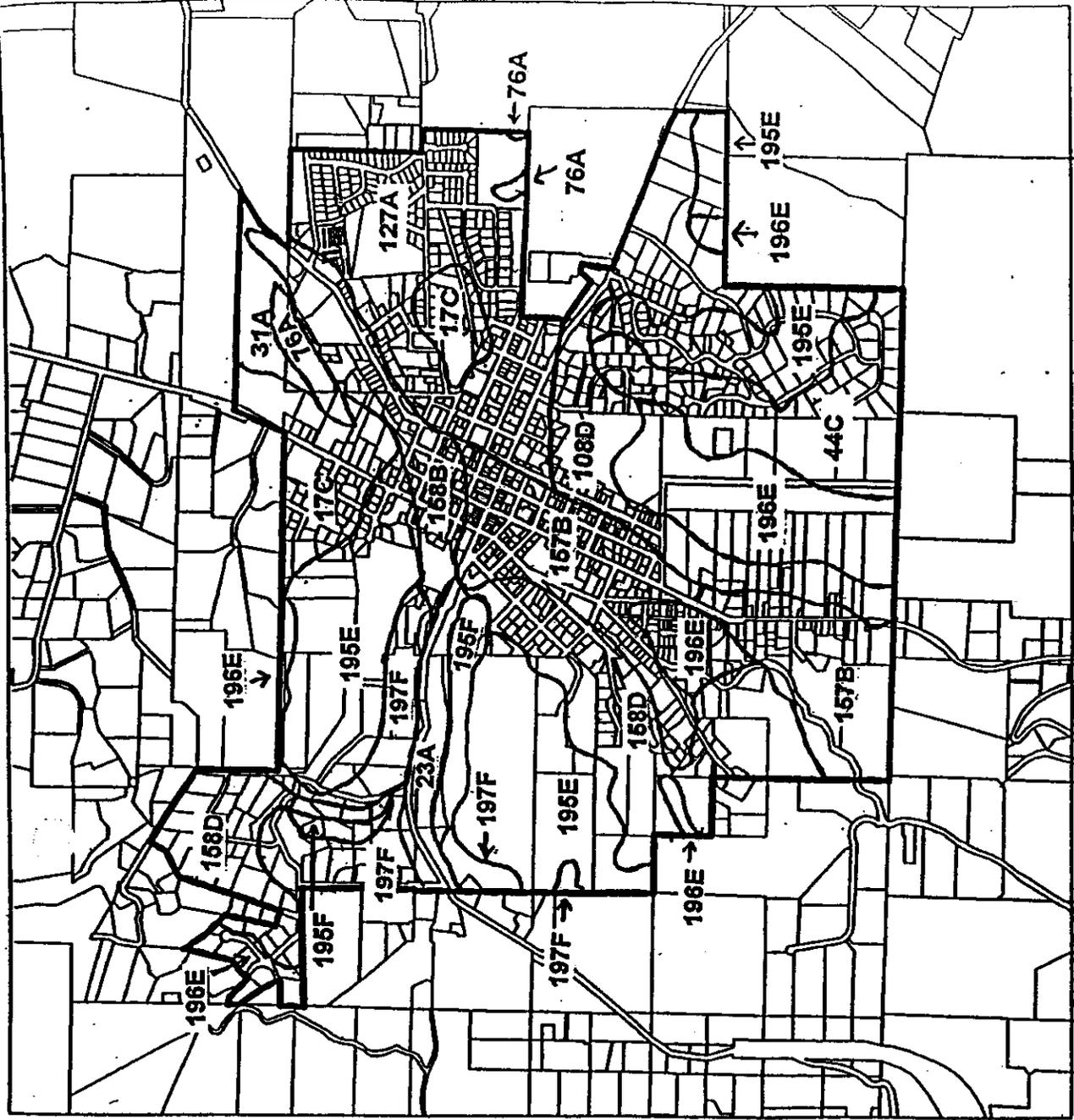


# SOILS

	percent slope	erosion hazards
17C	1-15	X
23A	0-3	
31A	0-3	
34B	0-7	
44C	1-15	X
76A	0-3	
108D	7-20	X
127A	0-3	
157B	2-7	
158B	2-7	
158D	7-20	X
195E	12-35	-X
195F	35-55	X
196E	12-35	X
197F	35-55	X



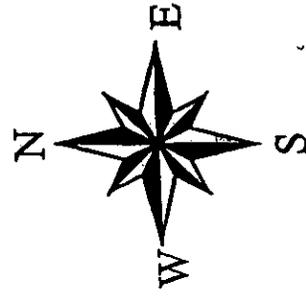
MAP 2



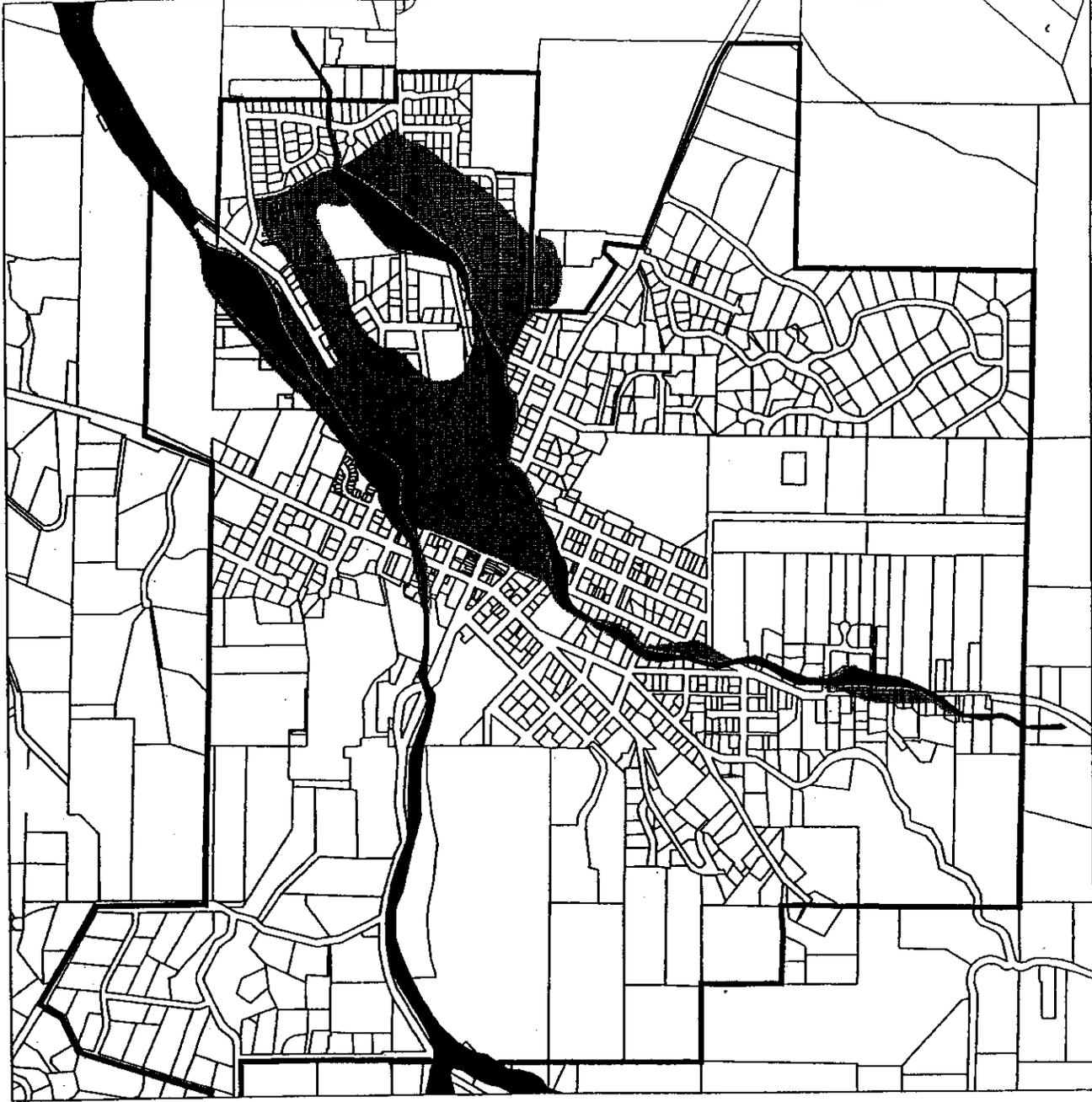
# City of Jacksonville

**FEMA Flood Hazard Areas**

-  **City Limits**
-  **Tax Lots**
- Flood Plains**
-  **100-Year**
-  **500-Year**



**MAP 3**



0.8 Miles

0.4

0

0.4



## **Wildland Fires**

A desire for a rural living environment on the fringes of urban areas has created an increased risk of wildland fires in what is called the Urban/Wildland Interface. In the City of Jacksonville, the Urban/Wildland interface is an overlay district that is contained in Chapter 17.40 of the Unified Development Code and includes the the fringe areas of the city. Typically, the interface is an area where residential development comes into contact with natural vegetation that can contribute to rapid fire spread and additional fuel loading. Some of the fire-related issues addressed by the Urban/Wildland district include the provision of two street accesses, the use of low combustion construction materials, the creation of fuel breaks pursuant to OAR 660-06-035, driveway length, grade, and design, and filing of fire safety plans.

## **CONCLUSIONS:**

Geology and soil types contribute to relatively stable areas for development within the City, however, issues of slope and erosion are considered important issues. Seismic events (earthquakes) are a cause for concern, especially in the downtown area. Stream flooding is a natural hazard that can be affected by the built environment, and needs to be examined. Wildland Fire hazards are a recognized part of the urban/rural interface area.

## **GOALS, POLICIES AND IMPLEMENTATION MEASURES**

**GOAL:** To prevent to the greatest extent possible injury and property loss in areas defined as hazard areas, including areas subject to slope erosion, flooding , and wildfire.

### **POLICIES:**

1. The City shall identify areas characterized by steep slopes with the potential for slope erosion.
2. The City of Jacksonville shall review areas prone to slope erosion and develop comprehensive site design, grading, and erosion control measures.
3. The City recognizes the potential of earthquake activity and seeks to minimize the damage to our built environment.
4. The City will identify areas of potential stream flooding using data from the Federal Emergency Management Agency (FEMA) as well as local knowledge.

5. The City shall encourage the Medford Irrigation District to install a siphon at the intersection of the MID ditch and Jackson Creek in order to reduce stream flooding
6. The City recognizes the importance of a City-wide Emergency Plan.
7. The City shall update its Emergency Plan to take into account natural hazards
8. The City will continue to develop standards and ordinances that regulate development in areas prone to slope erosion and stream flooding.
9. The City shall endeavor to minimize the potential loss of life and property due to wildland fires.
10. The City shall comply with the requirements of Senate Bill 12 at such time as a determination of applicability can be made and the required regulations implemented.

#### IMPLEMENTATION MEASURES:

1. The City shall review and update Section 15.12, Flood Damage Protection, of the Municipal Code according to the most recent FEMA guidelines in order to insure that stream flooding hazards are minimized.
  2. The City Fire Chief shall establish a program to educate the public about wildland fire safety and develop an inspection program to assure the performance standards contained in Chapter 17.40 are being met.
- The City shall pursue the development of a Historic Preservation Fund which would be used, in part, to encourage and assist local building owners to take earthquake mitigation measures including seismic retrofit of historic buildings.

**Resources:** *Geologic Hazards map, Land Use Geology of Central Jackson County.*  
*Flood Insurance Study, City of Jacksonville, Oregon. 1979.*  
*Flood Insurance Rate Map, City of Jacksonville, Oregon.*

## Streams and Riparian Areas

The Oregon Administrative Rules requires communities to protect riparian areas as a Goal 5 resource. A riparian area is classified as the area adjacent to a river, lake, or stream, consisting of the area of transition from an aquatic ecosystem to a terrestrial ecosystem. The City of Jacksonville contains one Class I stream, Jackson Creek, and one Class II stream, Daisy Creek, both of which are intermittent streams (see Map 4). Both are considered to be significant riparian corridors. There are also a number of ephemeral and intermittent water courses within the City that serve as natural drainage ways and are not classified as Class I or II streams.

Riparian areas serve several important functions, including the enhancement of water quality, flood management, thermal regulation, and wildlife habitat.

### Flood Management

Riparian areas reduce the force and volume of floodwaters. Woody vegetation is especially effective resisting floodwaters and reducing its velocity. Drainage modifications, increased impervious surfaces, vegetation removal, and the filling of floodplains and wetlands without careful engineering impair the ability of the system to accommodate floods.

### Planning For Riparian Wildlife Needs

The main objective of riparian wildlife management is to provide for overall biodiversity within riparian zones, create and maintain viable habitat areas, and cool water as it flows downstream. Wildlife maintenance within the riparian zone is accomplished either by 1) landscape planning, or 2) the establishment of uniform riparian buffers that meet all life history needs of the species.

“The maintenance of resident and anadromous fish populations depends largely upon the quality of the aquatic habitat in which they reside. Research indicates that salmonids require freshwater habitat with cool water temperatures, adequate pool habitat for rearing and overwinter survival, clean substrate for spawning and incubation, cover from predators, abundant large woody debris, an adequate invertebrate food source and stable stream banks. The combination of these parameters within an aquatic area determines the capability of the habitat to maintain fish populations. The relative abundance or lack of these necessary parameters is largely a function of the health of the riparian area (Riparian Classification and Protection Goals.....10).” The Riparian Classification and Protection Goals recommends steps to create healthy riparian habitat.

JACKSONVILLE

**LEGEND**

- Wetlands \*
- Streams
- Drainage
- Taxlots
- City Boundary

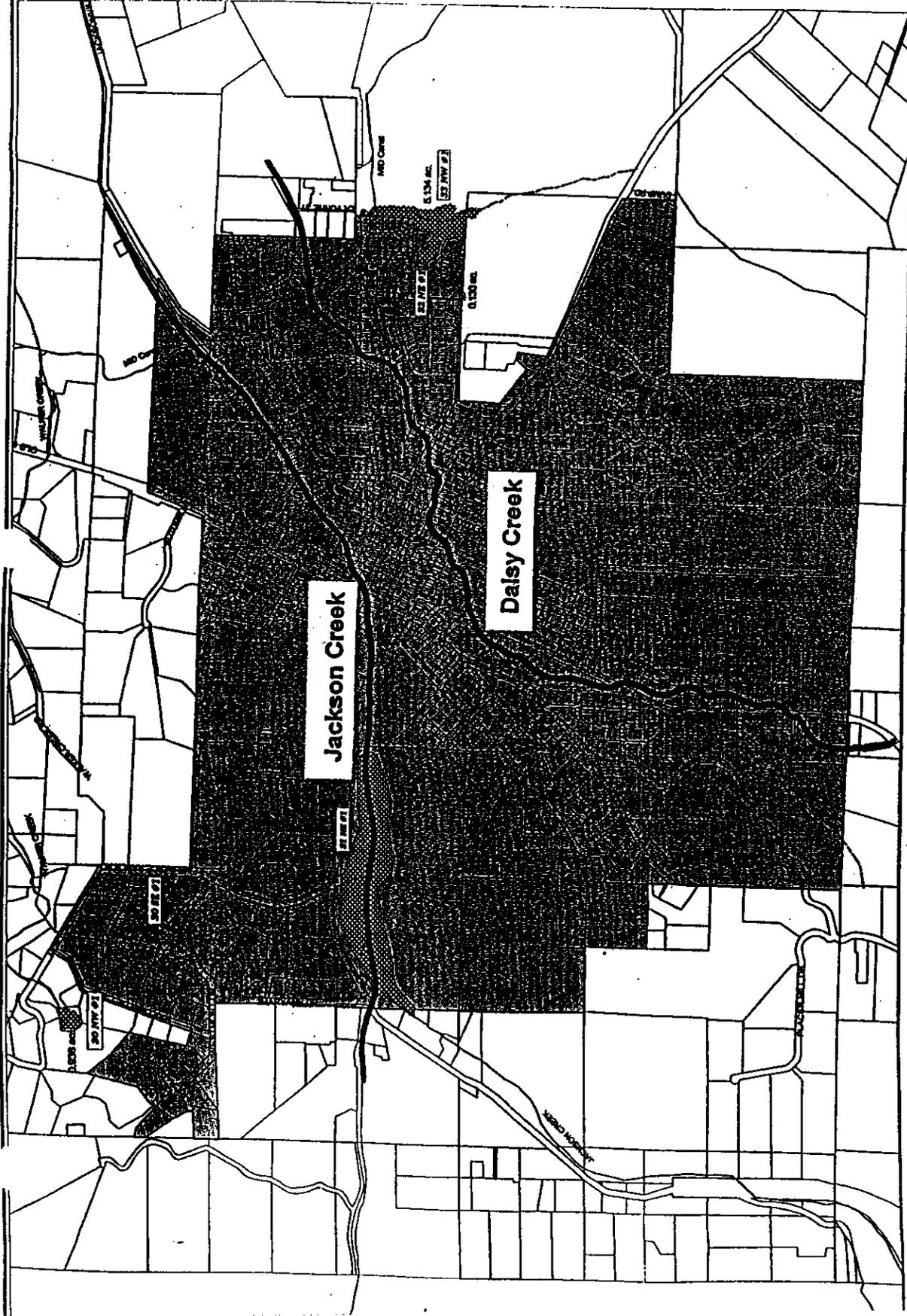
\*From Local Wetlands Inventory



500 0 500 Feet



Last Revision: May 19, 1999  
TWW



MAP 4

To reduce sediment the report suggests that the following measures should be taken:

1. Maintain large woody debris in all stream channels to facilitate the trapping of suspended sediments and to reduce the rate of downstream transport to critical fish habitats.
2. Maintain riparian zone vegetation along first and second order streams to reduce sediment input from streamside erosion, and to filter and trap sediments from upland and suspended sources.
3. Apply Best Management Practices to road construction and maintenance, and timber harvest activities to reduce the delivery of sediment from upland sources. Monitor and evaluate these Best Management Practices on a regional basis and modify existing rules as necessary.

The two identified riparian corridors in Jacksonville are heavily urbanized, and there are limited opportunities for preservation of existing riparian vegetation. The City is currently undertaking a riparian revegetation plan on sections of Jackson and Daisy Creeks.

#### Water Quality

Undisturbed, densely vegetated riparian areas trap sediments, inhibit erosion, and filter runoff from impervious surfaces, lawns, etc. Jackson Creek is included on the final 1998 Water Quality Limited Streams – 303(d) List maintained by the Department of Environmental Quality. The listing reflects fecal coliform levels in excess of standards and summer water temperatures exceeding 64 degrees F.

In order to assist in addressing this problem, the City is a Designated Management Agency (DMA) in the Bear Creek Watershed Nonpoint Source Total Maximum Daily Load (TMDL) compliance program. The program was implemented in 1989 to address ongoing water quality problems in Bear Creek, and is administered by the City's Public Works Department in Jackson Creek. TMDLs were established for ambient levels for total phosphate, five-day biological oxygen demand, ammonia, and chlorine. In July of 1998, the DMAs were recognized by the Environmental Quality Commission for their excellent progress to reduce the above-mentioned pollutants. While Bear Creek is still water quality limited in a number of other parameters, the City will continue to actively participate in the Nonpoint Source TMDL compliance program as a new compliance schedule is developed.

**CONCLUSION:** The viability of the existing riparian areas and stream health of Jackson and Daisy Creeks provide an important public benefit to the citizens of Jacksonville and the region. The importance arises from natural resource value, historic significance, open space and pedestrian connections, and impact on the Bear Creek watershed. Steps need

to be taken to enhance the functionality and aesthetic components of Jackson and Daisy Creeks.

## **GOALS, POLICIES AND IMPLEMENTATION MEASURES**

**GOAL:** The City shall protect, restore, and maintain stream corridors to maintain water quality and to provide open space and wildlife habitat.

### **POLICIES:**

1. Protect, maintain, enhance and restore the functions and values of stream corridors, including maintenance of water quality, storm and flood water conveyance, fish and wildlife habitat, open space, and aesthetic values.
2. Identify stream corridors within the UGB on the Comprehensive Plan Map.
3. The City shall emphasize protection rather than mitigation of stream corridor functions and values.
4. Enact and enforce standards and ordinances which regulate development, including filling and grading, within delineated stream corridors, stream corridor buffer areas, and buffer edges. These regulations shall require:
  - a. Preservation of the functions and values of stream corridors;
  - b. No net loss of the total inventoried area of stream corridors within Jacksonville;
  - c. Preservation of stream corridors, stream corridor buffer areas and buffer edges through dedication, deed restrictions, covenants and other means as a condition of development approval for properties containing such features.
5. Require activities which use stream corridors to be compatible with the preservation of stream corridor functions and values. These activities include uses such as private development, public and private recreation, surface water management and flood control.
6. Require the review of any development proposal that could impact stream corridors with the appropriate local, state, and federal agencies.
7. Require all development proposed within or adjacent to stream corridors to:
  - a. Incorporate and maintain stream corridor features, functions and values in the project design such as stream banks, riparian vegetation, and fish and wildlife habitat, and;

- b. Dedicate land or easements to preserve stream corridors and adjacent riparian areas.
8. Allow innovative site and building design, including the clustering of buildings to preserve stream corridors.
9. Prohibit diversion or impoundment of streams from their natural channels, except where:
  - a. Diversion would return a stream to its original location; or
  - b. A stream channel occupies all or most of a legally created lot; or
  - c. An impoundment is designed to reduce flooding or improve water quality.
10. Restore and enhance the environmental quality of streams, including continued participation in the Bear Creek TMDL program.
11. Design and construct public works projects to preserve existing stream banks and adjacent riparian vegetation.

#### IMPLEMENTATION MEASURES

1. Use streams to enhance water quality and control.
2. The following activities shall be regulated by the City of Jacksonville, the US Army Corps of Engineers, Division of State Lands, and the Oregon Department of Fish and Wildlife as required by state and federal law:
  - Excavation or dredging of material
  - Placement of fill material
  - Alteration of stream banks or a stream course, including installing rip rap for erosion protection
  - Ditching and draining
  - In-water construction (Some examples include driving piles, utility line crossing under streams, road crossing, etc.)
  - Riparian enhancement
4. The City shall adopt a Safe Harbor approach as required by OAR660-23-90 to protect and enhance the riparian corridors. The resulting ordinance shall become a part of Title 18 of the Jacksonville Municipal Code.
5. The City shall encourage the placement of habitat-enhancing features such as large rocks and large woody debris in streams in order to enhance in-stream riparian habitat.

### **State and Federal Regulations**

The following regulations apply to any party that intends to dredge, excavate, fill, drain, alter or conduct construction activities in waters of the state.

**Federal Clean Water Act. Sections 401-404.** Federal law requiring permits of licenses to comply with state water quality standards.

**33 CFR 320-330.** Federal regulation requiring permits for the discharge of dredged or fill material into waters of the United States. Administered by the U.S. Army Corps of Engineers.

**OAR 340-48-005 through 040.** State regulation requiring certification for alteration or construction in natural waterways under Section 401 of the Clean Water Act. Administered by DEQ.

**OAR 141-85-005 through 090.** State regulation requiring permits prior to removal or fill of material in waters of the state. Administered by Oregon Division of State Lands.

## Wetlands

Wetlands in urban areas serve a variety of roles in achieving community needs and objectives, including recreational and educational opportunities, preservation and diversification of plant and animal species, improvement of water quality, and hydrologic control such as stormwater management. In order to comply with Goal 5 requirements for wetland protection, specific regulations must be adopted in Title 18 of the Jacksonville Municipal Code. These would serve to regulate activities in and around locally significant wetlands.

Through the Local Wetlands Inventory (LWI) process set up by the Division of State Lands (DSL), the City has identified four wetland areas. (The Jacksonville LWI and accompanying map, individual wetland identification sheets and wetland characterization answer sheets which describe the functions and characteristics of the identified wetlands are contained in Appendix A).

**CONCLUSION:** Wetlands serve important functions throughout the community and should be protected according to state and federal regulations.

### **GOALS, POLICIES, AND IMPLEMENTATION MEASURES**

**GOAL:** To protect, maintain, enhance and restore wetlands.

**POLICIES:**

1. Protect, maintain, enhance, and restore the natural functions and values of wetlands including enhancement of water quality, flood protection, fish and wildlife habitat, open space, and natural areas.
2. Enact and enforce standards and ordinances which regulate development, including filling and grading, within delineated wetlands, wetland buffer areas, and buffer edges. These regulations shall require:
  - a. Preservation of the natural functions and values of wetlands;
  - b. No net loss of the total inventoried area of wetlands within Jacksonville;
  - c. That wetlands which are designated as "distinctive natural areas," are forested or which contain rare or endangered plant or animal species shall have the highest level of protection, and;
  - d. Preservation of wetlands, wetland buffer areas and buffer edges through dedication, deed restrictions, covenants and other means as a condition of development on properties containing such features.

3. Require activities which use wetlands to be compatible with the preservation of wetland functions and values. These activities include uses such as public and private recreation, surface water management and flood control.
4. Require the review of any development proposal that could impact a wetland with the appropriate local, state, and federal agencies.
5. Require all public and private development, including fill, removal and grading, proposed within or adjacent to wetlands to:
  - a. Incorporate and maintain wetland features, functions and values in the project design such as ponds, streams, marshes, wetland vegetation, and fish and wildlife habitat.
  - b. Preserve non-invasive vegetation and provide and maintain buffer areas around wetlands, and;
  - c. Prevent the placement of contaminants or discharge of water pollutants into wetlands or buffer areas.
6. Allow development density on parcels containing wetlands to be transferred to other portions of the development site when wetlands and the required buffer areas are permanently dedicated as open space.
7. Allow innovative site and building design, including the clustering of buildings to preserve wetlands.
8. The City shall emphasize protection rather than mitigation of the functions and values of wetlands.
9. The City shall work with local and state agencies and private landowners to develop educational and recreational uses in and around wetlands in conjunction with the Jacksonville trail system.

#### **IMPLEMENTATION MEASURES:**

1. The City shall adopt wetland regulations which shall be incorporated into Title 18 of the Jacksonville Municipal Code.
2. Utilize wetlands to enhance water quality, recharge groundwater and retain surface runoff.
3. Develop and maintain an inventory of wetlands and their respective natural resource functions and values within Jacksonville's Urban Growth Boundary.

4. Support community efforts to restore and maintain wetlands.
5. Discourage activities and uses within the Urban Growth Boundary which could harm wetlands, such as those whose effects could result in:
  - a. Interruption or diversion of water flows.
  - b. Discharge of water pollutants or contaminants, including sediment, into wetlands or buffer areas, and;
  - c. Negative impacts on adjacent natural systems such as forested areas, wildlife habitat and stream corridors.

## Vegetation/ Wildlife

As noted in the Historic Context Statement, Jacksonville's setting, nestled in among the forested hills at the edge of the Valley, creates a strong impression and forms the backdrop for the entire experience of the city. The existing, intact native plant communities such as the white oak forests reinforce this impression, along with many other factors down to the appearance of individual yards.

Much of the Jacksonville study area is in a "semi-natural" vegetative condition, because most of the area has been subjected to human activities such as logging, clearing, grazing, burning, or a combination of these.

Agriculture— Portions of Jacksonville lie on the edge of Bear Creek Valley. Much of the eastern area of the Bear Creek Valley is under agricultural use, with orchards being the dominant use. Vegetation in the Valley is a mosaic of irrigated pasture, alfalfa, pear orchards, truck crops and riparian habitat. Uncultivated edges of agricultural lands are typified by annual grasses such as wheat grass, bent grass, brome and wild rye. There are also weed and forb species, such as yellowstar thistle, yarrow, wild carrot and American vetch.

Riparian—Vegetation along waterways in the study area are characterized by Oregon Ash, black cottonwood, bigleaf maple, red and white alder, willows and blackberry.

Oak woodland and Shrub Communities—The hills to the north, west and south of Jacksonville are deciduous oak woodland; California black oak, Oregon white oak, deer brush, white-leaved manzanita, poison oak and birch leaf mountain mahogany and scattered ponderosa pine and cedar.

The more xeric areas and disturbed sites are characterized by open grasslands with scattered oak stands and sclerophyllous shrubs such as narrow leaf buckbrush and tanoak.

Mixed Conifer/ Pine Forests—Much of the land on the foothills bordering Jacksonville is vegetated with a diversity of plant species, while Douglas fir is a dominant species; ponderosa pine is present in some areas, along with deerbrush, poison oak and manzanita.

### Endangered species

Gentner's Fritillary—*Fritillaria gentneri* is an endangered species. Gentner's Fritillary has been found on the two westerly ridgetops containing the Britt woods upslope of the Britt Festival grounds, the northerly BLM property and the Jacksonville cemetery. This plant species has been mapped and identified by the SOU Biology department.

*Fritillaria gentneri*



**Endangered Species** : Gentner's Fritillary (*Fritillaria Gentneri*) was listed as a Federal Endangered Species by the US Fish and Wildlife Service in 1999. The largest populations of this plant have been found in the Jacksonville area. Threats to the plant include: logging, human disruption, predation by wildlife, loss of habitat, road building, and trampling by hikers and mountain bikers.

The faunal resources of the Jacksonville area consist of two categories—freshwater and terrestrial.

Freshwater Fauna—A majority of the streams in the study area originate in the eastern Siskiyou Mountains and flow in a northeasterly direction to Bear Creek and then to the Rogue River.

The streams in the study area are Jackson, Walker, Griffin, Horn, Bear and Daisy Creeks. Both Coho salmon and Steelhead trout are anadromous fish in the study area.

Terrestrial Fauna – A wide variety of terrestrial wildlife species are associated with the agricultural, riparian, and oak woodland and shrub communities of the Jacksonville area. Common birds, reptiles, amphibians and mammals are identified in a detailed listing contained in the appendix of the E.I.S.

The black-tailed deer (*Odocoileus hemionis columbianus*) is the most common of the big game mammals in the Jacksonville area. The deer is commonly seen wandering the streets of Jacksonville and grazing in the yards of the city's residents.

The black bear (*Ursus americanus*) and mountain lion (*Felis concolor*) occur in the more remote portions of Jackson and nearby Josephine Counties.

Band-tailed pigeon (*Columbia fasciata*), mountain quail (*Oreortyx picta*), California quail (*Lophortyx californicus*), mourning dove (*Zenaidura macroura*) and ring-necked pheasant (*Phasianus colchicus*) are found in varying numbers throughout the region. The ring-necked pheasant, California quail and mourning dove occur in the greatest numbers in the agricultural areas to the east of the city of Jacksonville.

Racoons and wild turkey are also known to live in Jacksonville, and are frequently found in the hillier areas of the City. The Jacksonville area also contains insect life which is common to the rest of the Rogue Valley.

#### Threatened and Endangered Wildlife

The following species may, at certain times, be found in the vicinity of Jacksonville: Peregrine Falcon, *Falco peregrinus tundrius*. Federal Register—endangered. State—endangered.

Northern Bald Eagle, *Haliaeetus Leucocephalus alascanus*. State—threatened.

Northern Spotted Owl, *Strix occidentalis Caurina*. State—threatened.

### Wildlife and Commercial Logging

Commercial operations will avoid wildlife and not adversely affect habitat that the wildlife is known to use; City officials will be notified if threatened, endangered or sensitive species of wildlife are seen in an operation area. Prior to the approval of a plan of operations, contractors or landowners may be required to conduct surveys for the presence of such species. The construction plans for roads, trails and buildings will avoid known wildlife and habitat. If projects are in the vicinity of known sites, the plans for such sites will be reviewed by City officials and the Oregon Department of Fish and Wildlife. This plan would help insure that Jacksonville remains a wildlife friendly community and it would also help assure Goal 5 compliance.

### Urban Forestry

A Community Forestry Plan is being developed in conjunction with the Environmental Element of the Jacksonville Comprehensive Plan. It will establish policies for the management of trees in public streets, parks, and open spaces; the protection of trees on private property; and all commercial logging activities on land within the City of Jacksonville.

There are many benefits from good management of trees within the City. The more obvious may be those that enhance the natural beauty of the landscape, and protection and enhancement of the historic status of the City. But, there are also economic and practical values, such as enhancement of property values, energy saving realized by shading and cooling buildings, providing cleaner air by absorbing noxious gases, and reducing noise levels.

The City of Jacksonville has a high percentage of tree cover (64%) citywide, a characteristic which it has had for many years. This is partly due to its undeveloped forest tracts, its rural character, and its minimalist attitude toward public improvements. The forested hillsides and open spaces are visible from almost any location in the City. These areas are an integral part of the City's viewshed and historic character, and as such, should be protected.

Population growth and development has the potential of decreasing the tree canopy, but good land management policies can minimize that possibility. It is, therefore, in the interest of the City to establish regulations concerning the protection of its tree canopy.

The City shall have the authority to manage its trees for the general welfare. Property owners, public works agencies, builders and developers are required to preserve living trees of a defined size wherever it is feasible. New construction projects are required to submit plans for the preservation of existing trees, and planting of new trees. When tree removal is approved, replacement will be required. If preservation is in question, the matter shall be referred to the City Forester or other tree care professional for advice.

Questions relevant to conflicts with other City regulations may be referred to the Historical and Architectural Review Commission for interpretation and possible modification.

## **Street Trees**

1. Shade trees shall be required along all City streets, except in the downtown Historic Core Commercial Concentration area unless replacing an existing tree or specified in the Downtown Core Redevelopment Plan. An Approved Street Tree List shall govern tree selection and replacement. Trees chosen for street-side planting should be consistent with the space limitations of the local environment and the function of the street. Large groupings of the same species should be avoided.
2. If utility lines, overhead or underground, exist on one side of the street, trees no larger than 35 feet in mature height shall be planted on that side. It is recommended that trees on the side free of utility lines may be used for planting trees of larger mature size, consistent with lateral space limitations.
3. At street intersections, no tree shall be planted which branches below 8 feet to ensure vision clearance.
4. Appropriate pruning, watering, nutrient feeding, and protection shall be required until the tree is well established. Tree protection devices shall remain in place for as long as required in the opinion of the City Forester.
5. The City's Public Works Department shall conduct regular evaluations of trees in the City right-of-way and on City property. This evaluation shall be documented and shall include a list of hazard trees, trees that need arborist attention, removal and replacement schedules, and all related information.
6. In the case of contract planting, a secured agreement shall be required that ensures replacement planting if the tree does not survive for at least two years.

## **Trees For Parks And Public Open Spaces**

In general, trees approved for planting along City streets are also suitable for parks and other public spaces, such as parking areas. Positive and negative characteristics considered for street tree lists would also apply to parks. However, although trees that grow to a large mature size require extra careful consideration for siting on city streets, this constraint is not as important for trees in parks and other open spaces. While trees over 35 feet in height would not be appropriate under power lines, they could be fine for parks. However, in some instances, - such as small parks close to a street, - the roots of large trees may damage nearby sidewalks, walkways, curbs, and buried or overhead utilities. Therefore, in some park sites large trees may not be appropriate.

Many native Oregon trees do not generally make good street trees. However, they should be considered, and may be approved, for parks and other public landscaping use. Natives and other large conifers should be considered in this category.

Some examples are:

<i>Abies procera</i>	Noble Fir
<i>Acer circinatum</i>	Vine Maple
<i>Acer macrophyllum</i>	Big Leaf Maple.
<i>Cedrus atlantica</i>	Atlas Cedar
<i>Cedrus deodara</i>	Deodar Cedar
<i>Libocedrus decurrens</i>	Incense Cedar
<i>Pinus ponderosa</i>	Ponderosa Pine
<i>Pinus sylvestris</i>	Scotch Pine
<i>Pseudotsuga menzeisii</i>	Douglas Fir
<i>Quercus garryana</i>	Oregon White Oak
<i>Quercus kelloggii</i>	California Black Oak
<i>Sequoia sempervirens</i>	California Redwood

### **Trees Not Appropriate for Street Planting**

#### **Ashes (Fraxinus)**

White Ashes (*fraxinus americana*) They are sensitive to drought conditions, and subject to "Ash decline" or drawback. Other diseases not usually severe, but they are susceptible to borers, sawfly, scale insects, leaf rusts, leaf spots, and cankers. Not a good shade tree.

Green Ashes (*fraxinus pennsylvanica*) are prone to storm damage, requiring frequent pruning, - in additions to the disadvantages of White Ashes.

Cherries (Prunus) Cherries in general are not dependable as street trees, being susceptible to aphids, borers, scales, defoliating insects, and virus diseases. Many are also sensitive to pollution and stresses in general. Flowering Cherries are usually short-lived.

#### **Conifers**

Most Conifers are not considered appropriate for street tree planting because of their large mature size and their branching structure, which begins close to the ground in young trees. More suitable for parks and open spaces.

#### **Crabapple (Malus)**

There are many cultivated varieties of Crabapple, with a wide range of characteristics. Only those considered to be attractive and dependable as street trees are included.

#### **Dogwoods (Cornus)**

Difficult to develop sturdy, straight trunk desired for street trees.

Elms (*Ulmus*)

Although some Elm hybrids can resist Dutch Elm Disease, they are susceptible to elm leaf beetle. They also tend to disrupt sidewalks, curbs, and sewer lines. Most hybrids have not been widely tested.

Hawthorns (*Crataegus*)

Dense branches make pruning difficult where clearance is needed. Unpleasant flower odor. Subject to apple rust, leaf miner, and other diseases.

Honeylocust (*Gleditsia*) Although Honeylocusts tolerate urban conditions, they provide only thin shade, and are subject to many diseases and insects, - such as webworm, borer, spider mites, leaf spot, cankers, and powdery mildew. Also, they are thorny.

Magnolias (*Magnolia*)

Difficult to form into a desirable street tree. Subject to *Verticillium* wilt and scale.

Maples (*Acer*)

Some Maples, especially Sugar and Norway Maples, are sensitive to road salt, heat, compaction, drought, and other urban stresses. Dense shade and surface roots can interfere with lawns, and roots can disrupt paving. Many host sucking insects that excrete sticky fluid. Often susceptible to *Verticillium* wilt and leaf scorch. Two improved cultivated varieties of Norway Maple are included in the approved list.

Mountain-ash (*Sorbus*)

Not long-lived. Some cultivars have weak limb crotches. Susceptible to cankers, leaf rusts, crown gall, scab, leafhopper, scales, and other insects.

Pagodatree / Scholartree (*Sophora*)

All varieties difficult to form into upright street trees. Much shedding of leaves, flowers, and fruits causes litter problems. Susceptible to twig blight, canker, mildew, leaf hoppers, and scale insects.

Serviceberry (*Amelanchier*)

Sensitive to drought, soil compaction, and air pollutants. Subject to infestation by leaf diseases, fireblight, leaf insects, lacebug, sawfly, and borers.

Sweetgums (*Liquidambar*)

Fruits are a nuisance. Susceptible to bleeding, necrosis of bark, leaf spots, webworm, caterpillars, and scale. Large branches often drop off.

Zelkova (*Zelkova*)

Sometimes substituted for Elms, but tend to split at limb crotches because of the narrow angle, and are susceptible to elm leaf beetle.

## **Street Tree Planting Standards**

Street trees are those planted in the strip between the curb or street pavement and the border of the right-of-way.

1. In shoulder strips between 3 to 5 feet, only trees which attain mature heights of less than 35 feet may be planted.
2. In shoulder strips between 5 to 8 feet width, trees with mature heights of up to 50 feet may be planted.
3. Trees which grow to greater than 50 feet shall be planted in shoulder strips of greater than 8 feet width.
4. Trees of over 35 feet height at maturity may not be planted under utility lines.
5. On streets with public sidewalks, only trees without branches below 6 feet may be planted.
6. Minimum size at planting shall be 2 inches DBH, and 8 feet in height.

The following further minimum standards for the placing of street trees are required:

1. Centered between curb and sidewalk, at least 2 feet from curb.
2. At least 10 feet from driveways, handicap ramps, utility connections and fire hydrants.
3. At least 15 feet from streetlights, - farther for large trees.
4. At least 15 feet, from storm sewer Inlets.
5. At least 30 feet from intersections.

## **New Development and Construction**

### **Planning Requirements Concerning Trees**

1. Prior to any site alterations, a thorough inventory and mapping of the location, species, and condition of trees on the property shall be prepared. The map shall be the same scale as the site plan for the project proposal. If the property contains larger wooded tracts, the inventory may be in terms of tree groupings.
2. Retention of resource trees shall be strongly encouraged. This inventory is the basis for determining the trees to be retained. If necessary, trees requiring special consideration for resource protection shall be so identified.
3. Creation of buffers using natural vegetation between sensitive areas and transportation systems is encouraged.

## Special Tree Protection Standards

1. A tree designated for preservation in the conditions for construction approval shall not be damaged or removed during construction.
2. If construction encroaches within the drip-line area of a protected tree, the original ground surface within four feet of the base of the tree shall not be disturbed. No more than 12 inches of fill or cut shall be done within the remainder of the drip-line area. Special approval may be granted for a tree well under some circumstances.
3. Excavation adjacent to a protected tree is prohibited if it will damage the root system. In questionable situations, the advice of the City Forester or other tree care professional shall be sought.

**CONCLUSION:** The plant and wildlife communities in Jacksonville need to be preserved for the aesthetic and recreational needs of the community and the incoming tourists, as well as maintaining a balanced ecosystem.

## GOALS, POLICIES, AND IMPLEMENTATION COMMITTEE

**GOAL:** To preserve and enhance the plant and wildlife communities in Jacksonville.

### POLICIES:

1. The City of Jacksonville will encourage the conservation of plant and wildlife communities through the appropriate management of parks, open space, and new development.
2. The City shall cooperate with other interested agencies in the identification and protection of *Fritillaria gentneri* and any other threatened or endangered species located in the City.
3. The City of Jacksonville shall strive to protect fish and wildlife habitat in accordance with the Department of Fish and Wildlife management plans.
4. The City of Jacksonville shall encourage the health, maintenance and, if necessary, replacement of trees on City-owned and private property.
5. The establishment and maintenance of the Natural Park and Trail System is the key to preserving most plant and wildlife communities within the City of Jacksonville.

**IMPLEMENTATION MEASURES:**

1. The City will develop and implement a Community Forestry Plan that includes current tree inventories, requirements for replanting, regulations for commercial logging within the City, and maintaining existing tree canopy in order to benefit the public. This Plan shall be developed in conjunction with the requirements of Title 18.
2. Rare and endangered species will be identified, catalogued, and protected in accordance with State and Federal requirements.
3. The City shall assure implementation of the measures relating to environmental issues contained in the Open Space Element.

State and Federal Regulations pertaining specifically to wildlife:

**The Endangered Species Act**

**ORS 527.710** The department of Forestry has authority for protecting fish and wildlife resources on state and private forest land. Also the overall maintenance of the following resources: Air quality, water resources, soil productivity and fish and wildlife.

**ORS 496.012.** Wildlife policy. It is the policy of the State of Oregon that wildlife shall be managed to provide the optimum recreational and aesthetic benefits for present and future generations of the citizens of this state.

## **Energy**

Jacksonville is currently an energy consumer rather than an energy producer which utilizes primarily non-renewable, imported energy sources including petroleum, natural gas and electricity. The greatest share of the energy used is for transportation and residential purposes. Among these, the private automobile is the largest consumer of energy. As supplies of petroleum become more scarce, the automobile will be forced to adapt to different fuel sources such as solar and electricity.

As traditional sources of energy become scarce and expensive, renewable resources and conservation become important.

The following are potential renewable energy resources.

### **Solar**

From Grants Pass to the California border, Southern Oregon has been identified as having the best solar energy attributes of any area in the Pacific Northwest. Although solar radiation cannot completely replace other fuels for space and water heating, both passive and active solar application can economically provide 25-75% of those needs for homes in the area.

### **Biomass**

Jackson County, like the Pacific Northwest, is gifted with ample quantities of convertible wastes from several sources, ie. Forest, agriculture, municipal sewage and solid waste. The use of wood by the industrial sector for space and process heat has historically been a factor in reducing Jackson County's industrial electricity consumption as compared to the state average. More recently the increased use of wood for residential space heating has been a direct reaction to the availability and relatively low cost of wood as an alternative energy source. However, the embodied energy consumed in the use of forest waste, specifically transportation fuels, is in the form of non-renewable conventional sources, which over time will cause the cost of wood to increase. Another, and possibly more important factor limiting the increase use of wood as an alternative energy source is the impact of wood burning on the air shed.

### **Conservation**

Conservation may be the most readily available alternative to an increasing dependency on non-renewable energy. The Uniform Building Code specifies certain insulation minimums in new construction, thereby reducing the amount of energy consumed for heating. Other areas to which conservation methods could be employed include electric and water consumption. Residents of Jacksonville could, through implementation of a conservation program, recognize substantial cost savings while conserving non-renewable resources.

**CONCLUSION:** The City of Jacksonville is an energy consumer rather than an energy producer, utilizing primarily non-renewable energy sources. The potential for utilizing renewable sources of energy and energy conservation may reduce energy consumption.

### **GOALS, POLICIES, AND IMPLEMENTATION MEASURES**

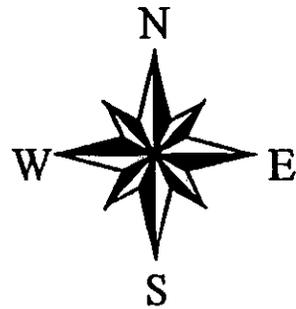
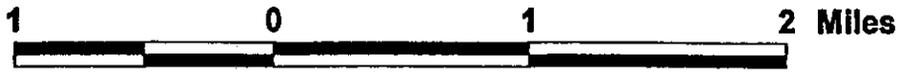
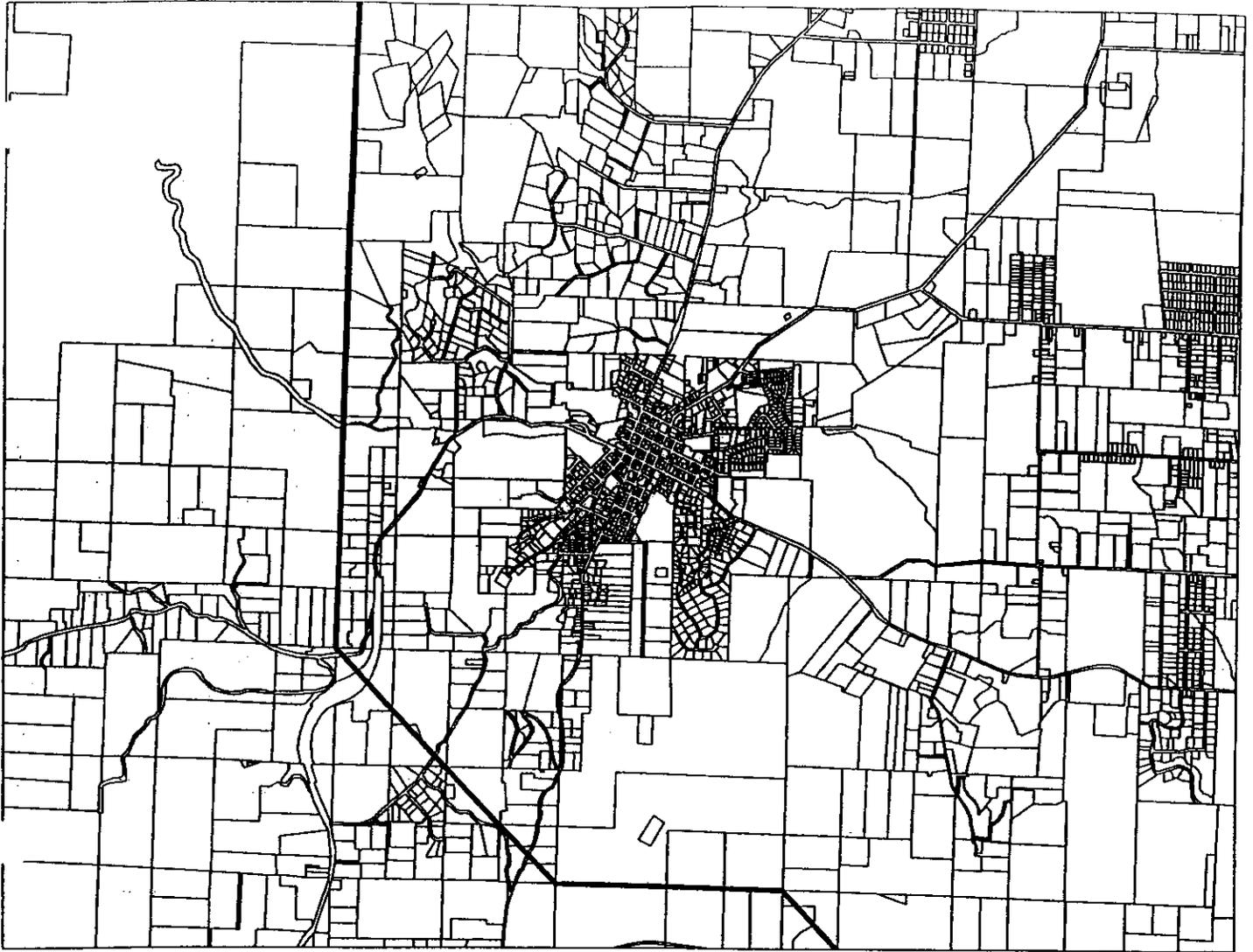
**GOAL:** To assure that new development maximizes energy efficient practices while encouraging both new and existing development to employ both renewable energy sources and conservation measures.

#### **POLICIES:**

1. The City shall encourage energy conservation and energy efficient patterns of development.
2. The City shall encourage the use of alternate modes of transportation to reduce consumption of petroleum.
3. The City shall encourage solar energy, recognizing it as a viable alternative to traditional, non-renewable energy sources.
4. The City shall encourage the use of energy-efficient heating and lighting methods in housing construction.

#### **IMPLEMENTATION MEASURES:**

1. The City will develop a conservation handbook for distribution to the public.
2. The City will encourage new development to reduce reliance on the automobile by using such strategies as: Transit Oriented Development, a jobs/housing balance, mixed use, improved telecommunications networks, and other land use tools.
3. The City will continue to require new construction to meet state energy efficient standards contained in the building code.
4. The City will investigate the potential of City-owned vehicles to convert to natural gas as a fuel source.



-  AQMA BOUNDARY
-  Tax Lots

MAP 5

# City of Jacksonville

## Air Quality

Air Quality in the Rogue Valley is regulated by the Department of Environmental Quality (DEQ) via the Medford-Ashland Air Quality Maintenance Area, of which Jacksonville is a part. The area encompassed by the AQMA is shown on Map 5. Designated in 1974 due to poor air quality and violations of the Federal Clean Air Act, the purpose of the Medford-Ashland AQMA is to assure that all facets of air quality are monitored, including vehicle emissions, Particulate Matter (PM) levels, and open burning. In cases where established limits are being exceeded, yellow or red days may be imposed in the AQMA prohibiting burning. According to the 1997/98 Air Quality annual report, there was one yellow day in which a woodburning advisory was issued in 1998, and further, that there have been no red days for seven years.

- Jacksonville is in the Medford-Ashland Air Quality Maintenance Area (AQMA), which covers most of the Rogue Valley and centers around Medford and White City.
- The Rogue Valley was designated an AQMA in 1974 because the area has a high potential for air stagnation and accumulation of air pollutants. This high potential is caused by the topography, low wind speed, and frequent air inversion. (See Figure 3).
- The AQMA has met compliance schedules because of the team effort of all the local communities and the good weather.
- A mandatory vehicle inspection and maintenance program was created in 1985. This program requires compliance with DEQ emissions levels for automobiles.
- The cities in the AQMA are working on traffic flow and parking in the central business districts in order to create allow for more efficient traffic flow and less vehicle idling, a contributor to high CO2 levels.

## Woodheating Ordinance

The City of Jacksonville enacted a Woodheating Ordinance in July, 1998, upon the recommendations of the Oregon Department of Environmental Quality and Jackson County. Ordinance 477, codified in Section 8.10 of the Municipal Code, places restrictions on woodburning during high pollution periods. In order to reduce the level of particulate matter resulting from woodburning, all new woodstoves are required to meet the DEQ Particulate Emission standards for certified woodstoves. This will be accomplished through the Building Department of the City, which issues permits for installation of solid fuel burning devices. In particulate matter (PM 10) nonattainment areas that fail to meet their attainment date as outlined in the federal Clean Air Act, non-certified stoves will have to be removed prior to sale of a house.

## Open Burning

Recognizing the potential for increased air quality problems, the City of Jacksonville has enacted an ordinance prohibiting any open burning within city limits.

**CONCLUSION:** The City of Jacksonville recognizes the importance of Air Quality, and, as part of the AQMA, and has endeavored to assist in compliance with all federal and state air quality requirements.

## **GOALS, POLICIES, AND IMPLEMENTATION MEASURES**

**GOAL:** To enhance the livability of the citizens of Jacksonville by meeting and exceeding all state and federal air quality requirements.

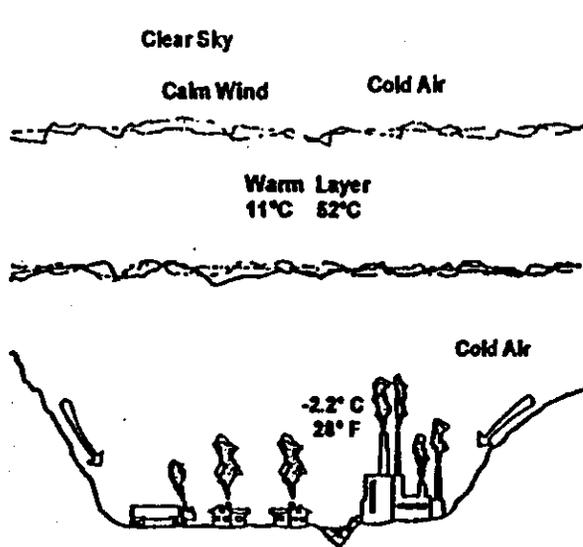
### **POLICIES:**

1. To reduce automobile reliance by encouraging alternative modes of transportation, thereby reducing vehicle emissions.
2. To expeditiously seek the construction of the Northwest Arterial Connector in order to relieve truck traffic through the downtown core of the city.
3. To support the policies of the Ashland-Medford AQMA.

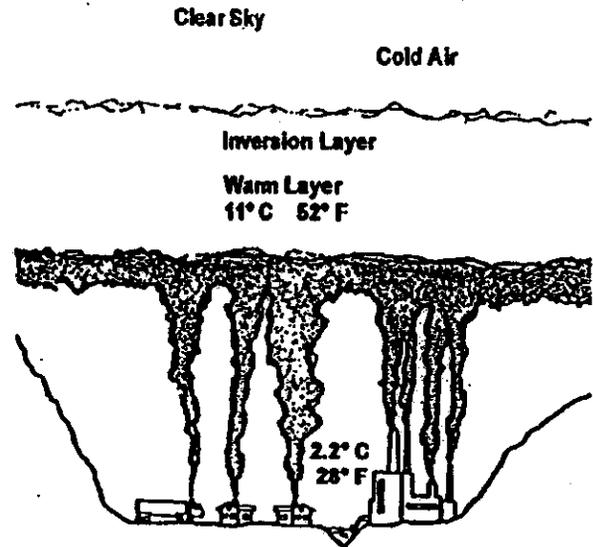
### **IMPLEMENTATION MEASURES:**

1. The City should investigate implementing strategies from the Oregon Transportation Rule and other sources that reduce emissions and improve air quality, such as increasing alternative modes of transportation, retention of natural vegetation, and increased bicycle and pedestrian connectivity.

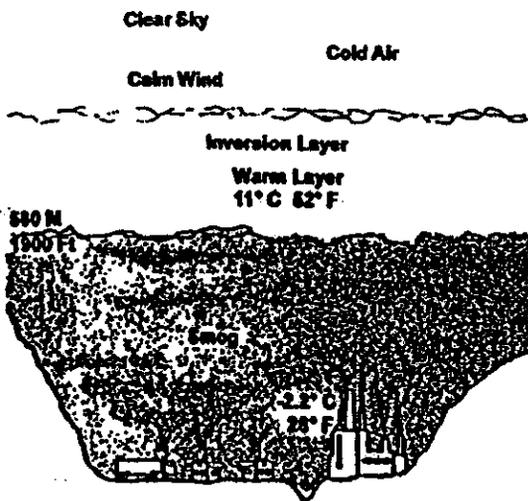
**FIGURE 3**  
**Temperature Inversion**



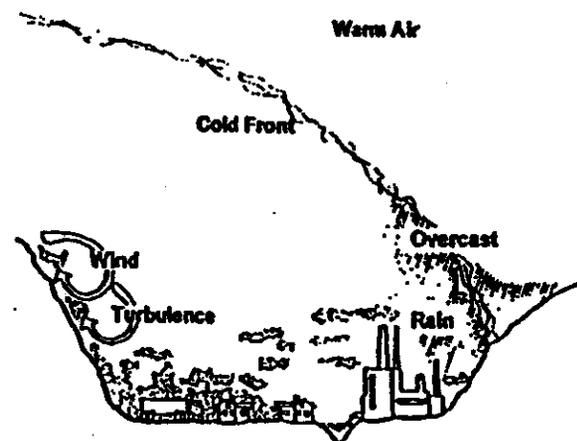
As nighttime comes, the surface air cools and moves down into the valley.



During the day, emissions rise, but become trapped by the warm air layer above.



Since there is no wind to carry the emissions away, the pollution remains under the "lid" of warmer air, accumulating until the inversion layer is broken up.



Breakup of the inversion layer may come from increased temperatures during the day, which increases the depth of the mixing layer, or from the arrival of a new air mass accompanied by stronger wind and precipitation.

## Noise Hazards

Noise or unwanted sound is a subtle pollutant that often leaves no visible evidence. It does however, threaten the health and well being of millions of people who often are exposed to dangerous levels of noise. Sound can be measured in terms of its loudness and pitch. The loudness or magnitude of sound is commonly measured in decibels (dB). The pitch, or frequency, of sound is normally expressed in hertz (Hz) or cycles per second. The city's current ordinance does not cover the aspect of pitch which is the irritant.

Noise is more than a nuisance, it cannot only harm someone health through stress and hearing loss, but it can degrade the livability of a community. OAR Chapter 340, Division 35 regulates several types of noise, including (See Figure 4)

- motor vehicles
- industry and commerce
- motor sports vehicles and facilities
- airports
- Outdoor events

Figure 4

**Loudness Range of Common Sounds  
Measured at Source or Indicated Distance**

Sound Source	dB	Typical Response
Sonic Boom	140	Painfully Loud
Jet Takeoff (200 feet)	120	Limits of Amplified Speech
Auto Horn (3 feet)	110	Maximum Vocal Effort
Shout (0.5 feet)	100	Very Annoying
Heavy Truck (50 feet)	90	Annoying
Pneumatic Drill (50 feet)	80	Telephone Use Difficult
Freeway Traffic (50 feet)	70	
Air-conditioning Unit (20 feet)	60	
Living Room	50	Quiet
Library	40	
Soft Whisper	30	Very Quiet
Leaves Rustling	10	Just Audible
	5	Threshold of Hearing

SOURCE: *Environmental Quality, the First Annual Report* (Washington, D.C.: CEQ, August 1970)  
 NOTES: dB=decibel

## Noise Ordinance

Jacksonville's Noise Ordinance, Section 8.04.150 of the Municipal Code, defines and regulates noise-generating activities.

Since Jacksonville lacks big industries that are major contributors to noise, the city has a lower comparative everyday level of ordinary sounds. However, three noise-related issues are of increasing concern to the citizens of Jacksonville:

- 1) The increasing number of aggregate trucks on California and 5<sup>th</sup> Streets, and
- 2) Noise generated by the Britt Festival during the concert season (mid-June through September)
- 3) Large outdoor events that are amplified, such as football games, etc.

**CONCLUSION:** The most common noise-generators in Jacksonville are transportation and event related. Unwanted sound often impacts areas sensitive to noise exposure, such as residential areas, and these impacts will most likely increase as vehicular use increases.

## **GOALS, POLICIES, AND IMPLEMENTATION MEASURES**

**GOAL:** To assure that activities that occur within the City are planned, located and conducted in a manner which minimizes the potential adverse impacts of noise.

### **POLICIES:**

1. The City of Jacksonville shall continue to enforce noise ordinance violations.
2. The City shall investigate methods to develop a comprehensive noise attenuation strategy.

### **IMPLEMENTATION MEASURES:**

1. The City, Jackson County, and the Britt Festival shall work cooperatively to ensure that noise levels generated by Britt events are within state law parameters and have minimal impact on surrounding properties.
2. The City should investigate alternate truck routes, including the Bypass, in order to reduce the high level of noise that accompanies large aggregate trucks.

