



I. INTRODUCTION

On February 27, 1980 the Lane County Board of Commissioners took the following actions:

- A. Adopted the Greenway Comprehensive Plan which includes the following specific elements: (a) Findings, Goals, Policies and Recommendations; (b) the Recreation and Scenic Qualities Section; (c) the Aggregate Resource Section; (d) land use designations and Greenway Boundaries including proposed changes; (e) necessary modifications, corrections and errata; and (f) citing the Greenway Technical Report as supportive background data (Ordinance 783).
- B. Adopted the Greenway Development Permit Ordinance (Ordinance No. 1-80).
- C. Recommended to the LCDC with supportive findings that the boundary of the Willamette Greenway be moved within the following locations: (Ordinance No. 783).
 1. Along Franklin Boulevard between Interstate 5 and the confluence of the Middle and Coast Fork be moved east to 150' from the ordinary low water line to coincide with the boundary for the City of Eugene;
 2. Along the Emerald Valley Golf Course, Tax lot 200, 19-13-13, be moved 150 feet from ordinary low water line; and
 3. Along the State of Oregon property known as tax lot 1500, 19-02-03, be moved to 150 feet from the ordinary low water line.
- D. Recommended to the Land Conservation and Development Commission that consideration be given to supporting a legislative change to the Greenway Law to remove the Coast Fork from the Willamette Greenway (Ordinance No. 783).
- E. Would administratively review, if necessary, the Greenway Plan by August 17, 1980 for purposes of identifying possible problems and applying, if necessary, corrections. (Ordinance No. 783)

In subsequent supportive action, the Board of County Commissioners completed the following:

1. Adopted Findings of Fact in support of recommended boundary changes and exclusion of the Coast Fork from the Willamette River Greenway Plan (Order 80-3-26-17); and
2. Amended Lane Code Chapter 13 (Land Divisions) to add new definition of "Boundaries Greenway" and referenced Greenway Boundaries and Greenway Development Permit requirements as required by Lane Code Chapter 10, Zoning (Ordinance No. 798).

The above identified Ordinance and Orders are available for review in the BOARD OF COUNTY COMMISSIONERS' OFFICE, 125 E. 8th, Eugene, OR 97401; phone 687-4203 or, toll-free, 1-800-542-6379. The Greenway Technical Report, Greenway Development Permit Ordinance, and copies of this Tabloid are available for review in the Lane County Planning Division office. All other adopted Comprehensive Plan Elements are found in this tabloid.

FOR ADDITIONAL INFORMATION, CONTACT THE LANE COUNTY PLANNING DIVISION OFFICE, 125 E. 8th, Eugene, OR 97401; Phone 687-4186 or, toll-free, 1-800-452-6379.

II. CONTENTS

- I. INTRODUCTION
- II. CONTENTS
- III. BACKGROUND
- IV. IMPORTANT GREENWAY PRINCIPLES
- V. FINDINGS, GOALS, POLICIES AND RECOMMENDATIONS
- VI. RECREATION AND SCENIC QUALITIES
- VII. AGGREGATE RESOURCES
- VIII. THE GREENWAY BOUNDARY
- IX. LAND USE DESIGNATIONS
- X. PLAN DIAGRAMS
- XI. GREENWAY DEVELOPMENT PERMIT

III. BACKGROUND

A. WHO ESTABLISHED THE WILLAMETTE GREENWAY PROGRAM.

The 1967 and, specifically, the 1973 Oregon State Legislatures acted to establish the Willamette River Greenway and set policies to guide its implementation through the Willamette River Greenway Law (ORS 390.310 to 390.368).

B. WHAT IS THE WILLAMETTE RIVER GREENWAY PROGRAM.

The Greenway Program is a cooperative state and local government program designed to maintain and enhance the scenic, recreational and historical qualities of the lands within the Greenway, while permitting the continuation of existing uses on private and public lands and providing special protection for agricultural uses. Private lands remain private; public use is not authorized by the Greenway Program.

C. DEFINITION OF THE WILLAMETTE GREENWAY ADVISORY COMMITTEE (WGAC)

In July 1976, the Lane County Board of Commissioners established the Lane County Willamette Greenway Advisory Committee (WGAC, a citizens committee) and directed that committee to assist the County in developing a Comprehensive Plan and Ordinance for lands within the Greenway Boundary. WGAC held 36 meetings that were open to the public and developed the majority of Findings, Goals, Policies and Recommendations adopted by Lane County.

D. DEFINITION OF THE WILLAMETTE RIVER FOR GREENWAY PURPOSES

The Greenway Law, specifically ORS 390.310(3), defines the Willamette River as including:

"The Willamette River means that portion of the Willamette River including all channels of the Willamette River from its confluence with the Columbia River upstream to Dexter Dam and the Coast Fork of the Willamette River upstream to Cottage Grove Dam."

The Greenway Law has yet to be revised by the Legislature, therefore, the area definition of the "Willamette River" and its requirements must be complied with by DOT and local governments.

E. RELATIONSHIP TO CITY GREENWAY PLANS

The three major cities in the county affected by the Willamette River Greenway, Eugene, Springfield and Cottage Grove, have already adopted greenway boundaries which have received final approval from the LCDC. The City of Eugene's Willamette River Greenway Plan has also received acknowledgement of compliance with Goal #15.

The County Willamette River Greenway Plan depicts the boundaries adopted by these cities. However, the County plan does not provide detailed information concerning the Greenway programs for these cities. For more precise information concerning the location of boundaries within cities, information concerning publicly owned areas within cities and other details, people should contact the affected city.

F. CITIZEN INVOLVEMENT

Citizen involvement in developing the overall Greenway Program in Lane County included the following:

1. Public testimony received in 1971 and 1980 at meetings and hearings regarding thirteen Lane County legislative actions supporting, directly or indirectly, the overall Greenway Program.
2. The 36 open meetings held by Willamette Greenway Advisory Committee in developing the Greenway Plan adopted by the Board.
3. WGAC members appearing on television and participating in radio talk shows to explain the Greenway Program to the public.
4. WGAC float trips to educate and acquaint the Lane County Planning Commission and other citizens with the Willamette River.
5. The May 5, 1979 all day informational meeting held by WGAC in Harris Hall to explain the Greenway program.
6. The Planning Commission's six hearings between June and November, 1979. (Half the hearings were open to public testimony; others were closed for LCDC deliberation.)
7. The Board of Commissioners two public hearings held in February, 1980 to consider and adopt the Greenway Comprehensive Plan and Greenway Development Permit Ordinance.

Overall, since approximately 1973, there have been at least 80+ public meetings and hearings held in Lane County regarding development of the Willamette River Greenway program. Since 1976, alone, at least 40 meetings and hearings have been held.

G. BOUNDARY CHANGES

Criterion establishing the Boundary were taken from the following directives: the legislative Greenway Goal (ORS 290.318); the requirements of the LCDC Goal #15; the 1976 State Department of Transportation (DOT), Recreation Division's Guidelines; Lane County's 1976 Guidelines and Lane County's Greenway Plan. In recommending a boundary change, private individuals or public agencies would have to present findings with supportive evidence that the above criteria establishing the Boundary was applied incorrectly or new evidence and facts have been discovered that were not brought forward through previous boundary adjustments. Additionally, part of what goes into identifying sufficient reasons to change the boundary includes addressing the criteria: need for a change; alternatives; long term consequences of the change and compatibility with adjacent uses.

IV. IMPORTANT GREENWAY PRINCIPLES

- A. Public use of private land is not authorized by the Greenway Law, Dot's plan nor Lane County's Greenway Plan.
- B. The right of any person to float a boat on the Willamette river does not include the right to trespass on private property by foot or by vehicle to get to the Willamette River.
- C. The Greenway boundary defines a planning area, it does not authorize public use of private land.
- D. Not all lands within the boundary are to be acquired for park areas.
- E. Existing uses may continue, however Goal #15 and Lane County's plan limit intensification and change of use on these lands in order to preserve primarily the natural, scenic, historical and recreational qualities of lands within the Greenway.
- F. Lane County's boundary has generally been reduced to the minimum of 150' from the ordinary low water line in areas subject to farm use.
- G. The Greenway Law, Goal #15 and Lane County's Greenway Plan recognize the importance of protecting and continuing farm use along the river.
- H. Scenic easements cannot be acquired through condemnation on lands in farm use.
- I. The majority of lands within the boundary are susceptible to inundation by either the 20-year and 100-year floodplains or annual flooding.
- J. The Greenway is not a continuous corridor of public ownership. Due to physical limitations (erosion, flooding, etc.) and maintenance costs involved, a continuous transportation corridor along the river is not practicable nor economically feasible.
- K. The majority of lands within the boundary consist of alluvial bottomlands and riverbed.
- L. A scenic easement does not include public access to private property. The primary purpose of the easement is to protect the natural and scenic values along the river. Lands subject to scenic easement shall be assessed on the basis of the true cash value of the land less any reduction in value caused by the easement.
- M. Intensive development (i.e., construction of roads, subsurface septic disposal fields, dwelling units) is generally restricted within the Greenway due to the following physical limitations: severe soil limitations for development; the majority of lands are susceptible to inundation by 20- and 100-year floodplains and annual flooding; and a significant amount of lands are susceptible to annual changes caused by river meandering.
- N. Although the majority of upper terraced soils have an agricultural capability classification of I through IV, the majority of lands within the boundary have an agricultural capability classification of VIII, indicating they cannot support intensive agricultural activity.

V. FINDINGS, GOALS, POLICIES & RECOMMENDATIONS

I. INTRODUCTION

A. Greenway Introduction

1. Findings

- a. The Willamette River means that portion of the Willamette River including all channels of the Willamette River from its confluence with the Columbia River upstream to Dexter Dam and the Coast Fork of the Willamette River upstream to Cottage Grove Dam.
- b. The 1967 and specifically the 1973 Oregon State Legislatures acted to establish the Willamette River Greenway through the Willamette River Greenway Law (ORS 390.310 to 390.368).
- c. The intent and purpose of the Greenway Law:
To maintain and enhance the natural, scenic, recreational and historical qualities of land within the Greenway, while permitting the continuation of existing uses on private and public lands and providing special protection of agricultural uses.
- d. The intent of Goal #15, the Willamette River Greenway Goal:
To protect, conserve, enhance and maintain the natural, scenic, historical, agricultural, economic and recreational qualities of lands along the Willamette River as the Willamette River Greenway.
- e. The Legislature directed that the Department of Transportation, in cooperation with local governments, prepare a Greenway plan. The Legislature and, more specifically, Goal #15 direct that Lane County incorporate a Greenway Plan into its comprehensive plans and implementation ordinances.
- f. The 1973 Legislature delegated to the Land Conservation and Development Commission (LCDC) the responsibility to review and revise Greenway plans developed by DOT and local governments.
- g. Lane County's commitment to the Greenway program is evidenced by (1) Planning Commission and Board actions.
- h. The Board created the Lane County Willamette Greenway Advisory Committee (WGAC) and directed the committee to: (1) advise the Board and staff in conducting a study for the development and management of the Willamette River Greenway, (2) advise the Board concerning DOT's Greenway Plan, and (3) involve other citizens.
- i. The majority of Findings, Goals, Policies and Recommendations in this technical report represent WGAC's work effort.
- j. Primary reasons for the Greenway Program:
 - (1) Accommodate continued population growth, while preserving, conserving and protecting the River environment,
 - (2) to reorient our conceptual thinking and recognize the unique environmental character of the river,
 - (3) to manage land use activities along the River to sustain and maintain the river environment for future generations.
 - (4) Compliance with the Greenway Law and Goal #15.
- k. The boundary was created by legislative Greenway Law and the line must enclose all lands situated within 150 feet from the ordinary low water line.
- l. The boundary shall also include those lands that DOT and Lane County consider necessary to protect and preserve the natural, scenic and recreational qualities and historic sites along the river.
- m. The Greenway boundary defines a planning area; it does not authorize public use of private land.
- n. Not all lands within the boundary are to be acquired for park areas within the boundaries, and existing residential, commercial and agricultural uses may continue without restriction.
- o. The Greenway boundary has evolved through five major phases and has been reduced substantially during at least three phases.
- p. The Willamette River in Lane County is situated along the Willamette Valley bottomlands and is directly influenced by the following major tributary sub-basins of the upper Willamette River Basin: The Middle, Coast and Main Stem, including the McKenzie Sub-basin.
- q. The Lane County Greenway Planning area contains 26 percent of the entire Willamette River system, which is indicative of more river miles (70+) and river bank miles (140+) than other counties through which the Willamette River flows.
- r. The characteristics of the river directly influenced approximately 3,500 riparian owners, which is comparable to riparian ownership in the Portland Metropolitan Area.
- s. The majority of Lane County's population (250,000) resides adjacent to or within close proximity to the river.
- t. The Willamette River directly impacts on the Eugene-Springfield Metropolitan Area, where the majority of Lane County's population (equal to 70 percent or 182,000 individuals) resides.
- u. The Willamette River provides a vast multiple resource base for utilization by Lane County residents and nonlocal citizens. The resource base includes, in general but not exclusively, the following natural and cultural resource elements: a unique water feature in both the urban and rural landscape; agricultural lands; aggregate resources; fish and wildlife habitats; recreation, historic and archaeological sites; scenic qualities; ecologically fragile areas and the urban landscape character.
- v. The degree of future influences on the Willamette River can be identified in most cases from the growth patterns of population and its related impacts along the Willamette River.

2. Overall Greenway Goal

PROTECT, CONSERVE, ENHANCE AND MAINTAIN THE NATURAL, SCENIC, HISTORICAL, AGRICULTURAL, ECONOMIC AND RECREATIONAL QUALITIES OF LANDS ALONG THE WILLAMETTE RIVER AS THE WILLAMETTE RIVER GREENWAY.

3. Policies

- a. Maintain and support continuation of existing uses within the Greenway Boundary.
- b. Intensification and change of use of lands within the Greenway Boundary shall remain compatible with the protection, conservation and enhancement of the natural, scenic, historic, agricultural, economic and recreational qualities of the Willamette River Greenway Program.
- c. Recognize that the Greenway consists of a multitude of resources and due to continued growth, 100 percent protection to all resources will never be realized.

4. Recommendations

- a. Intensification and change of use shall reflect consideration of the following man-made elements: other affected riparian owners; security; recreation and scenic qualities; historic and archaeological sites; existing and future land use and access.
- b. Intensification and change of use shall be based on consideration of the impacts of the natural environment such as geomorphology and soils; floodplain and hydrologic characteristics.
- c. Intensification and change of use shall reflect consideration of the impacts on the natural resources of the river such as agriculture, sand and gravel, riparian vegetation, fish and wildlife habitat and recreation potential.
- d. Educate the public to the following:
 - (1) Within the boundary, existing uses are allowed to continue.
 - (2) Not all lands are to be acquired for park areas.
 - (3) The boundary defines a planning area; it does not authorize public use of private lands.
 - (4) By legislative law, the boundary must enclose all lands situated 150 feet from ordinary low water line.
 - (5) The boundary has been reduced in width substantially and in the majority of situations, the boundary extends up to one-eighth of a mile from the river.

II. SOCIOECONOMIC ENVIRONMENT

A. Economy and Population

1. Findings

- a. Viable economic uses of the Willamette River and its adjacent lands include: sand and gravel resources, tourism and recreation, fish and wildlife and to a limited extent, agriculture and timber resources and possible other uses yet to be defined.

- b. Although the upper terraced lands along the Willamette River support the agricultural industry, important to the local economy, the majority of lower terraced lands within the Greenway Boundary generally consist of alluvial bottomlands susceptible to flooding.

- c. Recognition of the Willamette River Greenway in Lane County, combined with the recreational demands of future population growth, will broaden the recreational economic base of Lane County.

- d. Although public investment in Lane County's reservoirs is substantial, they retained annually a substantial amount of recreation dollars in Lane County.

- e. Increased recreational use, development demands along the river, excavating and harvesting of resources will encroach upon the economic viable fishing and wildlife habitat resources.

- f. Economic trade-offs and compromise will have to be established because all resources and uses cannot be either preserved or conserved. Some are dissimilar to others while the public need could prioritize use of one resource over the other.

- g. If allocated by the legislature, DOT can make grants (i.e., up to 50 percent of cost) available to assist local governments in acquiring lands or any interest in lands in the Greenway Boundary for public use such as recreational purposes or to assist in preserving and restoring historic sites, structures or facilities.

- h. Historically, the majority of population growth in Lane County has settled along the Willamette Valley bottomlands adjacent to and within close proximity to the Willamette River.

- i. Currently, over 80 percent of Lane County's population (221,600 individuals) resides along the Willamette Valley bottomlands and its smaller tributary basins along and within close proximity to the Willamette River.

- j. The population of the Metropolitan Area substantially impacts on the river because the river bisects the Metropolitan Area where 70 percent of Lane County's population (182,000 individuals) is located.

- k. Lane County population projections indicate an increase of 50 percent, or 127,000 individuals, for the year 2000. It is assumed that the increase in population will generally locate in the same area as the existing, due primarily to:
 - (1) accommodating terrain features; (2) existence of major and minor arterial systems; (3) the County's coordinated growth controls of the river; and (6) the overall livability provided by Lane County and its cultural areas along the river.

2. Goal

MAINTAIN OR SUSTAIN POPULATION AND ECONOMIC GROWTH THAT IS COMPATIBLE WITHIN THE GREENWAY BOUNDARY.

3. Policy

Protect, conserve and preserve important economic uses such as, but not limited to, agriculture, sand and gravel, tourism and recreation, fish and wildlife, urban lands and timber within the Greenway.

4. Recommendations

- a. Development evaluations and other land use decisions shall reflect consideration of economic uses (i.e., existing development and locational factors, agriculture, sand and gravel resources, tourism and recreation and fish and wildlife) of lands within or adjacent to the Greenway Boundary.
- b. Seek funding from DOT to acquire lands or interests in lands within the Greenway Boundary for public recreational purposes without using condemnation procedures or to assist in preserving and restoring historic resources from willing property owners.
- c. Seek federal funding assistance from the Heritage Conservation and Recreation Service.

III. NATURAL ENVIRONMENT

A. Geomorphology and Soils

1. Findings

- a. The majority of lands in the Greenway are dominated by the Horsehoe Geomorphic surface; the lower of the two floodplain levels.
- b. The Horsehoe Unit consists of alluvial bottomlands and riverwash. The unit is susceptible to annual flooding and is considered the major river channel where rapid changes in the river environment occur.
- c. The Lower Ingram Unit, the higher of the two floodplain levels of the river, is susceptible to a two percent or 20-year floodplain, while the Upper Ingram Unit is subject to a one percent or 100-year floodplain.
- d. A major portion of lands in the Boundary have an agricultural capability classification of VIII, indicating that they are not capable of supporting intensive agricultural activity.
- e. The soils along both the Horsehoe and Ingram Units have severe limitations for development (i.e., subsurface sewage disposal field, dwellings and roads) primarily due to high water table, ponding and flooding.
- f. The Ingram Unit, although not a primary land feature in the current Boundary, is dominated by soils with an agricultural capability classification of IIW, indicating they can support intensive agricultural activities.
- g. The Boundary has generally been excluded from the agricultural lands along the Ingram surface.
- h. The major land uses of the alluvial bottomland soils include: limited agricultural activity; gravel extraction, nonintensive recreational activity and wildlife.

2. Goal

RESPECT THE PHYSICAL LIMITATIONS OF LAND WITHIN THE GREENWAY.

3. Policy

Discourage development which jeopardizes human life and causes severe economic dislocation.

4. Recommendations

- a. Discourage intensive development in the following areas: lands susceptible to 100-year floodplain; lands with severe soil limitations for development and lands along the alluvial bottomlands.
- b. Maintain, protect, conserve and preserve the river's resource values (i.e., agriculture, sand and gravel, fish and wildlife, historic and archaeological, scenic, riparian, vegetation and recreation) within the Greenway.
- c. Maintain or sustain the alluvial bottomlands for rural uses such as agriculture, nonintensive recreation, fish and wildlife habitat and natural areas.
- d. Redirect, limit, restrict or not allow nonintensive development (i.e., recreation) along the Lower Ingram and Horsehoe surfaces, especially in areas subject to physical hazards and only after consideration of the impacts on the natural resource base.
- e. Conservation should include protecting and managing fragile river banks, sloughs, wildlife, vegetation and sensitive areas from damage caused by human use, including recreational activity.
- f. Zoning along the alluvial bottomlands should be highly restrictive and discourage intensive development.

Floodplain

1. Findings

- a. Flooding is a common and natural occurrence along lands adjacent to the Willamette River. The Main Stem, Coast Fork and Middle Fork of the Willamette River are all included in the 20- and 100-year floodplains.
- b. Approximately 95 percent of the lands within the current Greenway Boundary are susceptible to flooding.
- c. Generally, the 100-year floodplain in Lane County extends one-half to two miles beyond the Willamette River and the Greenway Boundary. The narrower 20-year floodplain generally extends beyond or coincides with the Greenway Boundary; however, limited exceptions are noted along the Coast and Middle Fork.
- d. The majority of multiple resource activities (i.e., agricultural lands, potential and existing sand and gravel resources, river access points and existing state corridor lands and potential acquisition sites, public lands, scenic areas, riparian vegetation and timber resources and historic and archaeological sites) within the Greenway Boundary are susceptible to the 20-year or 100-year floodplains.

- e. Lane County has the following Willamette River Greenway floodplain concerns:

- (1) A floodplain management program is needed;
- (2) Development in the floodplain should generally be compatible and floodproofed or removed prior to high water;
- (3) The floodplain should be preserved and conserved for various forms of open space.
- (4) The likelihood of flooding is one criterion for establishing the Greenway Program.

- f. The floodplain is a major determinate of man-made activities along the Willamette River, however the floodplain protects and conserves those resource activities important to the river environment and the Greenway Program.

- g. The Middle Fork and Coast Fork Rivers flow in relatively stable channels and their floodplains include less adjacent area than the Main Stem of the Willamette River.

2. Goal

MANAGE, CONSERVE AND PRESERVE THE FLOODPLAIN WITHIN THE GREENWAY FOR OPEN SPACE.

3. Policies

- a. Reduce economic and social costs created by improper use of flood hazard areas, by restricting intensive development in those areas susceptible to annual flooding.
- b. In those areas within the Greenway Boundary susceptible to annual flooding, floodproof landings, buildings or remove structures.

4. Recommendations

- a. Site selection of recreation uses must take into account the degree of flooding anticipated since all low-lying areas will be subject to flooding.
- b. Develop a 100-year floodplain ordinance for flood hazard areas within and along the Greenway Boundary.
- c. Utilize existing County regulations and directives relative to flooding to control development along and within the Greenway Boundary.
- d. Consider the impacts of the 20- and 100-year floodplain when evaluating development requests or land use proposals within or along the Greenway Boundary.
- e. Conserve and preserve annual flooding areas for nonintensive open space uses such as agriculture, recreation, fish and wildlife habitat and natural areas, scenery, riparian vegetation and related timber resources, etc.
- f. Consult the following floodplain maps when evaluating land use proposals or changes within the Greenway: (1) 1977 HUD 100-year Floodplain Maps; (2) Greenway soil maps and overlays (4" = 1 mile); and (3) Greenway floodplain maps (1/2" = 1 mile). The maps are available in the Planning Division.

C. Water Quantity

1. Findings

- a. The major need along the Main Stem is to maintain sufficient flows for anadromous fish passage and for dilution of wastes from the Eugene-Springfield area downstream.
- b. There are limited conflicts between water demands and minimum flow along the Middle Fork.
- c. Present average flows within the Coast Fork sub-basin present problems for satisfying competing demands.
- d. Population growth along the Willamette Valley bottomlands will result in increasing demands to release stored water.

2. Goal

MAINTAIN SUFFICIENT WATER FLOWS TO SUPPORT WATER USES WITHIN THE GREENWAY.

3. Policy

Maintain sufficient water flows to support water uses such as municipal, agricultural, industrial, natural resources (i.e., fish, aquatic life, wildlife) and recreation within the Greenway.

4. Recommendations

- a. Implement a water use program that reviews consumptive uses of water.
- b. Consider the impacts of consumptive uses of water (i.e., domestic, agriculture, industrial) and nonconsumptive uses (i.e., recreation and natural resources) when evaluating land use or development proposals on lands adjacent to the Willamette River.
- c. Coordinate with the Army Corps of Engineers and State Water Resource Department in efforts of maintaining sufficient flows of water to meet consumptive and nonconsumptive demands and related quantity problems, especially along the Coast Fork.
- d. Encourage sufficient flows along the main stem for anadromous fish passage and for dilution of wastes from the metropolitan area.
- e. Maintain adequate flows along the coast fork.
- f. Properly regulate stream flow so as to minimize bank erosion.

D. Water Quality

1. Findings

- a. The Main Stem is degraded in the metropolitan area primarily due to bacterial loading and urban storm runoff.
- b. The major water quality problem along the Middle Fork is turbidity below the reservoirs.
- c. The Coast Fork is the most critical stream in the County regarding poor water quality and it supports the highest density of nonmetropolitan industrial activity in the area.
- d. The Coast Fork exhibits several indicators of poor water quality such as high bacterial loading, turbidity and low DO (dissolved oxygen) levels. The pollution problems are more acute during the summer because of higher temperatures contributed to by sluggish flows.

2. Goal

SUSTAIN AND ENHANCE WATER QUALITY IN THE GREENWAY.

3. Policy

Prioritize water quality management controls along the Coast Fork and the Main Stem, especially in the Metropolitan area.

4. Recommendations

- a. Advise DEQ of water quality problems and sources along the Willamette River, specifically along the Coast Fork.
- b. Support DEQ in increased surveillance and monitoring of discharge permits along the river specifically along the Coast Fork.
- c. Development evaluations for residential, commercial, industrial or recreation shall take into consideration the impacts upon water quality.
- d. Consider land use controls such as: (1) maintaining vegetative buffer strips, (2) maintaining open space, (3) possible increases in setbacks, (4) rezoning for site preservation, (5) encouraging growth where public facilities are available, (6) site drainage plans, for maintaining or improving water quality.
- e. Drainage projects within the Greenway boundary should occur only after consideration of the need to protect, maintain or conserve the natural scenic, historical, agricultural, economic and recreational qualities of lands along the river.

E. Water Pollution

1. Findings

- a. Significant sources of water pollution that occur along the Main Stem include: domestic and industrial wastes; septic tank seepage, including intermittent pollution from landfill sites; and sand and gravel operations. The metropolitan area is the major source of pollution.
- b. Overall, there are few pollution problems within the Middle Fork sub-basin; however, sources of pollution noted included: industrial waste discharges in the vicinity of Jasper; septic tank seepage into tributaries of the Middle Fork near the areas of Jasper and Dexter; and intermittent sand and gravel operations at the confluence of the Main Stem.

V. FINDINGS, GOALS, POLICIES & RECOMMENDATIONS

- c. Of the major streams in Lane County, the Coast Fork is the most adversely influenced by man's activities. Major pollution sources along the Coast Fork include: industrial wastes in areas near Cottage Grove, Saginaw, Creswell and along Row River; agricultural and timber land runoff; septic tank seepage in Saginaw and along Row River. Intermittent sources included the landfill sites in the vicinity of Cottage Grove and Creswell and sand and gravel operations.
2. **Goal**
MANAGE AND CONTROL WATER POLLUTION SOURCES WITHIN THE GREENWAY.
- Policy**
Develop land use techniques for controlling and managing pollution sources.
- Recommendations**
- Advise DEQ of current and potential pollution sources from lands adjacent to the Willamette River.
 - Consider the impacts from the water pollution sources such as domestic and industrial wastes, agricultural and timber land runoff, septic tank seepage, gravel operation and other intermittent pollution sources when making land use decisions or evaluating development proposals for lands in the Greenway Boundary.
 - Place priorities on managing pollution sources in both the metropolitan area and along the Coast Fork.
 - Closely evaluate land use and development proposals for lands along the Coast Fork, specifically in areas adjacent to or within Cottage Grove, Creswell, Goshen, Saginaw and along the Row River in an effort to control pollution.
 - Support the construction of municipal waste treatment facilities to accommodate population growth.
 - Encourage sanitary districts to deal with local pollution control problems beyond established urban growth boundaries.
 - Investigate financial incentives for industry to install needed waste treatment facilities.

- F. **Urban Runoff**
1. **Findings**
- Urban storm runoff poses water quality problems for the Willamette River primarily in the metropolitan area and similar high density areas along rural portions of the river.
 - Commercial, industrial and street uses produce the greatest buildup of contaminants; however residential and open space areas also contribute significant contaminants to the river.
 - Urban runoff from rural lands to the Willamette River is probably minimal due to scattering of development, the overall open space character of rural lands and the existence of vegetative cover.
 - Runoff from rural lands is likely to occur at specific streamside locations on smaller tributaries and in urbanized areas such as Cottage Grove, Glenwood and the River Road-Santa Clara area.
 - Management strategies for controlling urban runoff could include: runoff control criteria; detailed drainage plans; updating site review procedures to reflect various control mechanisms; public awareness programs and zone changes for site preservation.
2. **Goal**
CONTROL AND MANAGE URBAN STORM RUNOFF IN THE GREENWAY.
3. **Policy**
Control urban storm runoff in urban areas and along the Coast Fork.
4. **Recommendations**
- Consider developing and implementing drainage or vegetative control ordinances.
 - Support DEQ in eliminating the discharge of industrial pollutants into the mainstream and especially along the Coast Fork.
 - Support DEQ in requiring drainage and runoff control ordinances for urban areas along the river.
 - Consider management strategies such as requiring detailed drainage plans, vegetative buffers, open space between river and development, zoning for site preservation or catchment areas of high infiltration when evaluating development or land use proposals.

- VI. **NATURAL RESOURCES**
- A. **Agricultural**
1. **Findings**
- The agricultural industry is important in maintaining the economic stability of Lane County; however, a significant amount of lands in the Greenway boundary are not capable of supporting intensive agricultural activity.
 - Both the Greenway law and Goal #15 recognize the importance of protecting and continuing farm use along the Willamette River.
 - Lane County's comprehensive plans and zoning programs recognize and support continuation of agricultural activity along the river.
 - Generally, a significant amount of land within the Greenway Boundary consists of lower terraced lands with an agricultural capability classification of VIII, indicating they cannot support intensive agricultural activity.
 - A significant amount of lands in or adjacent to the Greenway Boundary are not on farm deferral.
 - The river's riparian vegetation assists the farmers by mitigating flooding and erosion problems and discourages trespass.
 - Trespass and vandalism have been identified by farmers as a major Greenway problem.
 - Regardless of public exposure to the State's Greenway Program, increased incidents of vandalism and trespass will be noted along the river, primarily due to our significant increase in population growth, and the public's corresponding need for recreation.
 - The Greenway Program in Lane County offers several mechanisms for controlling trespass and vandalism of private property.
 - Lane County's Greenway Boundary has been reduced substantially to exclude agricultural lands.
2. **Goal**
MAINTAIN FARM USE AS AN ESSENTIAL ACTIVITY WITHIN THE GREENWAY BOUNDARY.
3. **Policies**
- Protect, preserve and conserve farm lands with agricultural capability classifications I, II, III and IV within the Greenway.
 - Protect zoned agricultural land from noncompatible uses.
 - Zoning shall allow recreational uses only if they would not substantially interfere with the long-term capability of the land for farm use.
 - Acquisitions for Greenway purposes must be consistent with non-interference or interruption of farm uses.
 - Recognize that DOT cannot condemn for a scenic or use easements on lands devoted to farm use; however, easements may be given by owners of lands being used for farm purposes.
 - Protect water rights and access to the river for irrigation purposes.
4. **Recommendations**
- Educate the public, through state and local promotional programs, to the following Greenway concepts:
 - The Greenway Program does not allow trespass on private property.
 - The importance of preserving, conserving or protecting agricultural land is recognized in the Greenway law, Goal #15 and in adopted Lane County land use plans along the Willamette River.
 - Although the upper terraced soils along and within the Greenway Boundary are indicative of soils, with an agricultural capability classification of I through IV, the majority of lands within the Boundary have an agricultural capability classification of VIII, indicating they cannot support intensive agricultural activity.

- The Greenway Program at the State and County levels currently provides methods for controlling and managing trespass and vandalism.
 - Scenic easements cannot be acquired through condemnation on lands in farm use.
- B. **Sand and Gravel**
1. **Findings**
- In the metropolitan area, sufficient acres of sand and gravel resources have been designated in various land use plans (1990 Plan, Willamette-Long Tom, Lower Middle Fork and Hohawk-Camp Creek Subarea Plans) and zoned to meet projected demand through the rest of this century.
 - Adopted land use plans (i.e., Willamette-Long Tom, Coast and Middle Fork; and 1990 Plan) recognize sand and gravel as a unique resource of the Willamette River and support preserving or conserving its use subject to considerations of the competing river uses (e.g., recreation, fish and wildlife habitat, scenic qualities, agriculture, etc.).
 - There is a need for sand and gravel resource study in both the metropolitan and rural areas of Lane County.
 - The majority of aggregate resource activity occurs along the Main Stem, followed by the Middle and Coast Forks.
 - Water pollution is an impact of aggregate extraction upon the Willamette River. Other impacts include noise and air pollution.
2. **Goal**
MAINTAIN SAND AND GRAVEL RESOURCE LAND, EXTRACTION AND PROCESSING AS AN ESSENTIAL ACTIVITY WITHIN THE GREENWAY.
3. **Policies**
- Active and zoned sand and gravel extraction and processing sites should be protected from noncompatible land uses.
 - Ensure that areas designated for aggregate extraction and reuse land be planned for interim (prior to extraction) transition and second use utilization as well as extraction.
 - Encourage the use of advanced mining and processing practices that take into account the needs of the public for economic material as well as enhancement of the overall Greenway Program.
 - Encourage reclamation practices that will contribute to a higher residual value for depleted resource lands thereby benefiting the environment of both the community and the river.
 - Protection of the sand and gravel resource should be an important Greenway purpose, however a balance should be achieved between sand and gravel extraction and conflicting uses.
 - Encourage point bar removal by means of temporary access points where feasible.
 - Extraction within and along both the Main Stem and Middle Fork should be based upon a thorough examination of the proposed site due to the importance of spawning beds.
 - Encourage cooperation between local and state officials in efforts to develop a program that will allow extraction of known or potential sand and gravel resources.
4. **Recommendations**
- Conduct a sand and gravel study in conjunction with the industry for the rural portions of Lane County.
 - Insure that resource areas are not committed to uses that would preclude future aggregate extraction.
 - Coordinate and manage sand and gravel extraction for both economic and Greenway benefit. Extraction of gravel should be based upon plans which consider effects on water quality, fish, wildlife, vegetation, bank stabilization, stream flow, visual quality, noise, safety and potential future use of the area.
 - Encourage good rather than poor resource management techniques that benefit economic returns and environmental quality.
 - Emphasize and utilize Lane County's existing regulations, ordinances and Goals and Policies regarding extraction of aggregate resources.

- C. **Vegetative Resource**
1. **Findings**
- A narrow, continuous line of natural, riparian vegetation extends along both banks of the Willamette River.
 - A very small percentage of agriculturally-productive land actually borders the river.
 - Willamette River Greenway boundaries coincide with lower flood terraces and thus vegetation is mostly representative of vegetation found on alluvial bottomland.
 - Natural riparian vegetation provides a habitat for wildlife, food and shade for fish populations and controls trespass on private property.
 - Natural riparian vegetation anchors riverbank soils and protects agricultural land from seasonal and annual erosion.
 - Lane County's current Greenway Conditional Use Permit process requires maintaining riparian vegetation adjacent to the river.
 - The Forest Practices Act does not regulate scenic or aesthetic concerns of vegetative resources in the Greenway Boundary.
2. **Goal**
PROTECT, CONSERVE AND PRESERVE RIPARIAN AND OTHER IMPORTANT VEGETATION AS AN ESSENTIAL RESOURCE WITHIN THE GREENWAY.
3. **Policies**
- Protect vegetative resources which are identified as having unique recreational, aesthetic, scientific or wildlife habitat values. Encourage acquisition of these areas or obtain a protective scenic easement.
 - Encourage the reestablishment of vegetative cover as part of the land development process.
 - Conserve the rural character of the river bank as a primary objective within the Greenway.
4. **Recommendations**
- Maintain or sustain riparian vegetation along the river for the following reasons: to provide habitat, food and shade for wildlife; to maintain scenic qualities; to anchor river bank soils and protect agricultural land from seasonal and annual erosion; controlling trespass on private property and pollution sources to the river.
 - Use riparian vegetation to protect areas sensitive to human use.
 - Riparian vegetation should be used along the river bank in areas with inadequate vegetation.
 - The river channel should be as unregulated as possible using vegetation to protect river banks; however, recognize that certain banks do need additional protection such as riprap.

- D. **Fish and Wildlife**
1. **Findings**
- The meandering course of the river through the productive Willamette Valley has created excellent wildlife habitat. Gravel bars, backwaters, islands, riparian vegetation, streambed woodlands and sloughs are essential components of this unique ecosystem.
 - Waterfowl (i.e., mallards, teal, wood ducks) use occurs along the entire Willamette River system, with the heaviest use noted from November to March.
 - Beaver are the most common fur-bearing species found along the Willamette River; others include nutria, mink, racoon, river otter and muskrat. Except for the Middle Fork, deer population is limited along the river.
 - The majority of Nature Conservancy sites consist primarily of heron rookeries.
 - Most fish and wildlife sites and Nature Conservancy sites along the river are located in the Greenway Boundary.
2. **Goal**
PROTECT, PRESERVE OR CONSERVE IMPORTANT FISH AND WILDLIFE HABITATS AND NATURAL AREAS WITHIN THE GREENWAY.
3. **Policies**
- Identify but do not necessarily publicize and conserve areas of outstanding fish and wildlife value.
 - Consider fish and wildlife habitat and natural areas within the Greenway as a factor in land use decisions and management practices in order to minimize adverse effects.
4. **Recommendations**
- Advise and seek assistance from the Nature Conservancy organization regarding development proposals (i.e., intensive or nonintensive) within or near identified Nature Conservancy sites.
 - Refer to TABLE 7, Nature Conservancy Sites Along the Willamette River in Lane County, within the Greenway Technical Report, when considering and evaluating land use proposals within the Greenway.
 - Advise and seek assistance from the State Fish and Wildlife Department when evaluating land use proposals within the Greenway.
 - Utilize detailed overlay maps, scale 1" = 2 1/2 miles, in the Lane County Planning Division Office to identify important fish and wildlife habitat sites and Nature Conservancy sites within the Greenway in Lane County.
 - Redirect or discourage detrimental actions (i.e., intensive or nonintensive) in areas containing scientific and ecologically significant natural features and fish and wildlife habitat areas.
 - Support construction of new boat access points identified by the State Department of Fish and Wildlife and improve other sites.
 - Recognize and accept the fact that lands within and along the Greenway Boundary represent a continuous corridor capable of supporting wildlife now and in the future.
 - Protect, conserve or preserve streamside riparian vegetation for both food and cover for wildlife.

- f. The river in Lane County supports an abundance and variety of fish life.
- g. There are 15 developed and undeveloped boat access points to the river; however, the state is proposing at least three additional access points.
- h. Lane County has the following concerns about fish and wildlife:
- Wildlife habitat should be considered when developing the Greenway Boundary.
 - Identify (but not necessarily publicize) and conserve areas of outstanding fish and wildlife value.
 - Land use decisions and management programs should consider conservation of fish and wildlife resources.
- i. Lands within and along the Greenway are capable of supporting wildlife habitat now and in the future.
2. **Goal**
PROTECT, PRESERVE OR CONSERVE IMPORTANT FISH AND WILDLIFE HABITATS AND NATURAL AREAS WITHIN THE GREENWAY.
3. **Policies**
- Identify but do not necessarily publicize and conserve areas of outstanding fish and wildlife value.
 - Consider fish and wildlife habitat and natural areas within the Greenway as a factor in land use decisions and management practices in order to minimize adverse effects.
4. **Recommendations**
- Advise and seek assistance from the Nature Conservancy organization regarding development proposals (i.e., intensive or nonintensive) within or near identified Nature Conservancy sites.
 - Refer to TABLE 7, Nature Conservancy Sites Along the Willamette River in Lane County, within the Greenway Technical Report, when considering and evaluating land use proposals within the Greenway.
 - Advise and seek assistance from the State Fish and Wildlife Department when evaluating land use proposals within the Greenway.
 - Utilize detailed overlay maps, scale 1" = 2 1/2 miles, in the Lane County Planning Division Office to identify important fish and wildlife habitat sites and Nature Conservancy sites within the Greenway in Lane County.
 - Redirect or discourage detrimental actions (i.e., intensive or nonintensive) in areas containing scientific and ecologically significant natural features and fish and wildlife habitat areas.
 - Support construction of new boat access points identified by the State Department of Fish and Wildlife and improve other sites.
 - Recognize and accept the fact that lands within and along the Greenway Boundary represent a continuous corridor capable of supporting wildlife now and in the future.
 - Protect, conserve or preserve streamside riparian vegetation for both food and cover for wildlife.

- V. **MAN-MADE ENVIRONMENT**
- A. **Land Use**
1. **Findings**
- Over one-half (54%) of the river bank miles adjacent to the Willamette River are in 20-acre zoning designations such as Exclusive Farm Use (EFU-20 acre minimum) and Farm Forestry-20 (FF-20).
 - Industrial zoning accounts for 5% of the total 138+ river bank miles, commercial, 1/2% and residential, 21%.
 - Almost 70% of the Main Stem is in Exclusive Farm Use zoning, while Farm Forest 20-acre minimum accounts for 56% along the Middle Fork and 41% along the Coast Fork.
 - Currently, approximately 59% of the lands adjacent to the river are in private ownership while 41% are in public ownership.
 - The absence of the Greenway Plan is a conceptual reorientation to the existence of the river and the recognition of its numerous resource capabilities.
 - Development within and along the Boundary will be limited, reduced or restricted due to the existence of physical limitations (i.e., flooding, soil limitations and other natural river constraints); the natural resources within the Boundary; the adopted Comprehensive Land Use Plans along the river; and the County's coordinated growth concept.
 - It is important that development have within its conceptual design a recognition or orientation to the river's unique environment.
 - Lands within the Boundary that are not susceptible to physical constraints are few and are generally located in areas of elevated natural levees, along former channels and man-made fills for roads, railroads, bridges or dwellings.
 - The existence of the following major natural resources within and along the Greenway Boundary will limit, redirect or restrict development: riparian vegetation, wildlife habitat, limited agriculture, sand and gravel, historic and archaeological, recreational and scenic.
 - There are several areas along the river where growth (e.g., residential, commercial, industrial, recreational, etc.) will occur.
 - As Lane County's population grows, it will impact on the Willamette River, because the majority of the population growth areas in the County are located within close proximity or adjacent to the river. The river "cleanses" itself continually; however, population growth and permanent land use activities along the river have a long-term impact upon the river environment.
2. **Goal**
PERMIT THE CONTINUATION OF EXISTING USES; HOWEVER, LIMIT THE INTENSIFICATION AND CHANGE OF SUCH USES TO INSURE COMPATIBILITY WITH THE GREENWAY GOAL.
3. **Policies**
- Maintain and support continuation of existing intensive and non-intensive uses within the Greenway Boundary, such as agriculture, residential, commercial, industrial and recreational.
 - Intensification and change of use of lands within the Greenway Boundary shall remain compatible with the protection, conservation and enhancement of the natural, scenic, historic, agricultural, economic and recreational qualities of the Willamette River Greenway Program.
 - Encourage a river-related mixture of industrial, commercial, residential and public land uses where appropriate in the Greenway.
 - Soil types should indicate that major land uses within the boundary should include: limited agricultural activity, sand and gravel, recreation and wildlife resources.
 - In instances where a public agency has acquired productive farmlands or other resource lands as long range reserve for recreational use, if possible, such property should be leased back for agricultural or other resource use until it is required for public purposes.
4. **Recommendations**
- Development shall occur in the following areas: lands committed to urban use and containing economic development and locational factors that recognize and support development; other lands that are designated for development in adopted comprehensive plans and zoning ordinances, and only after considering the Goals, Policies, Findings and recommendations of the Willamette Greenway Advisory Committee (WGAC).
 - Development within identified growth areas shall have intrinsic within its conceptual design a recognition or orientation to the river's unique environment.
 - Restrict development and recreational use in areas sensitive to human use.
 - Development should be limited, redirected, restricted or not allowed only after considering and evaluating its impact on the natural resources (i.e., riparian vegetation, wildlife habitat, agriculture, sand and gravel, historic and archaeological, recreation, scenic values) within and along the Greenway Boundary.

V. FINDINGS, GOALS, POLICIES & RECOMMENDATIONS

- e. Protect and conserve activities such as agriculture, non-intensive recreation, sand and gravel extraction and wildlife habitat within and along the Greenway Boundary.
- f. Encourage release of public lands of comparable value to offset acquisition of private lands for public use.
- g. Development shall be directed away from the river to the greatest degree possible.
- h. Ensure that the Greenway Rural Urban Boundary coincides with the Urban Service Boundaries for both the Eugene-Springfield metropolitan area and the City of Cottage Grove.
- i. Recognize and support the fact that the Greenway Program is cited to varying degrees within the adopted land use plans along the river.
- j. Encourage urban areas to acquire continuous river frontage for public access and recreation development.
- k. Allow commercial development only if it is specifically river oriented.
1. New zoned industrial development shall be limited for water-dependent uses and should not distract from the natural scenic and environmental quality of the Greenway.
- B. Riparian Rights**
- 1. Findings**
- a. Although the Main Stem is considered navigable, a significant amount of riparian ownership and rights extend to the ordinary low waterline.
- b. If the rule regarding the effects of avulsive river changes upon property ownership is followed, the loss of portions of the bed of the Willamette through avulsive river change is potentially possible. In essence, every time an avulsion occurs and the river cuts a new channel across some private property, the owner of that property becomes the owner of the riverbed.
- c. Although the state may lose ownership of portions of the riverbed through sale, grant or avulsion, the public right-of-way cannot be alienated.
- d. The navigability of both the Coast and Middle Forks has yet to be determined by the state.
- e. Accretion is a process of gradual and imperceptible additions of alluvial materials to lands bordering on body of water.
- f. Reliction is the gradual erosion of riparian land.
- g. Avulsion is the sudden and visible loss or addition to land, or a sudden change in the bed or course of the stream.
- h. The waters of the Willamette are owned by the public; therefore, the public has a right to float the Willamette River in a canoe or power boat, etc., even though the underlying bed might be privately owned.
- i. The right of any person to float a boat on the Willamette does not include the right to trespass on private property by foot or by vehicle to get to the Willamette River.
- 2. Goal**
- RESPECT THE RIGHTS OF RIPARIAN PROPERTY OWNERS WITHIN THE GREENWAY.
- 3. Policy**
- Provide and encourage use of public lands within the Greenway.
- 4. Recommendations**
- a. Educate riparian owners and the overall general public to the following:
- (1) The public has full rights to use the waters of the Willamette River for floating, boating and recreation activities.
 - (2) The right of the public to use the waterways does not include the right to trespass on private property by foot or vehicle to get to the stream.
 - (3) The riparian owner cannot interfere with navigation.
- b. Contact the Division of State Lands for further information regarding riparian ownership and rights, navigability, accretion-reliction and avulsion, ownership of the riverbed and public use of the waterways, especially along the Coast and Middle Forks.
- c. Development evaluations on land adjacent to the Main Stem should understand that the riparian owners have generally the following rights:
- (1) The right of access to the water.
 - (2) The right to build a wharf out to the line of navigation (harbor line) providing the property is within the boundaries of an incorporated city or within a port district, and provided it does not interfere with navigation (i.e., not applicable in Lane County).
 - (3) The right to take lease of state-owned submerged and submersible lands fronting riparian lands.
- C. Greenway Security**
- 1. Findings**
- a. Regardless of the interim impact of the Greenway Program, the major problems of property owners along the river can be attributed to continued population growth.
- b. State and County law enforcement agencies say that trespass and vandalism problems are not unique to the Greenway, because they are occurring at increased rates at all levels of society.
- c. Evidence of mechanisms being used for controlling trespass and vandalism and for providing additional security for lands within and along the river in Lane County include:
- (1) WGAC's preliminary Greenway policy statements:
 - (a) Encourage adequate public access to the river in efforts to reduce trespass on private lands.
 - (b) Consider appropriate levels of police protection in those areas subject to public use.
 - (c) Provide an appropriate level of fire protection in the Greenway.
 - (2) WGAC's requests:
 - (a) For additional police security.
 - (b) Greenway promotional programs emphasize that trespass on private property is against the law.
 - (3) The current security provided on a priority basis by the Sheriff's Office and the County's planning efforts of maintaining large acreage parcels along the river, indirectly controlling access to land from the river.
 - (4) DOT's security programs and methods:
 - (a) Monitoring and recording incidents of trespass and vandalism.
 - (b) Making "no trespassing" signs available to private property owners.
 - (c) Providing recreational guides and signs identifying public property.
 - (d) Designating some acquisition sites for access from the river only.
 - (e) Design criteria that maintain vegetation buffers between public and private property.
 - (5) The County, DOT and LCDC all stress no trespassing on private property.
 - (6) Agency efforts of encouraging use and improvement of existing access points to decrease indiscriminate trespass that results from inability to obtain legal access.
 - (7) Recognition of the concept of maintaining riparian vegetation for controlling trespass.
- 2. Goal**
- DEVISE SECURITY AND MANAGEMENT PROGRAMS PRIMARILY TO CONTROL VANDALISM AND TRESPASS WITHIN THE GREENWAY.
- 3. Policies**
- (a) Encourage adequate public access to the river in efforts to reduce trespass on private lands.
 - (b) Provide appropriate levels of police protection in those areas subject to public use.

- c. Encourage additional police security for private and publicly owned lands within the Greenway.
- 4. Recommendations**
- a. Recognize the following major facts about security relative to private and public property within the Greenway Boundary:
- (1) Major problems of property owners along the river can be attributed to continued population growth regardless of the interim impacts of the Greenway program.
 - (2) Trespass and vandalism problems are not unique to the Greenway program, because they are occurring at an increased rate at all levels of society.
 - (3) Support and emphasize that trespass on private property without the property owner's consent is against the law.
- b. Encourage maintaining riparian vegetation along the river to deter trespass.
- c. Encourage development of existing public access points to control and deter trespass and vandalism of private property.
- d. Encourage and support development design criteria that maintains vegetation buffers between public and private property.
- e. Emphasize through public education programs that trespass on private property without the owner's consent is against the law.
- f. Budget at both the County and state level for additional police security for private and owned lands in the Greenway.
- g. Investigate a user's fee on boats and floating devices to generate funds for additional police security for private and public lands in the Greenway.
- h. Provide an appropriate level of fire protection in the Greenway.
- i. Consider and respect agricultural uses of waterways, such as irrigation and pumping installations.
- j. Reinforce existing local and state fire protection regulations where applicable in the Greenway.
- k. Encourage use of DOT's Willamette River Greenway Vandalism Report for recording and to assist in monitoring incidents of trespass and vandalism (i.e., copies are available from the State Department of Transportation and the Lane County Sheriff's Office).
- Recreation and Scenic Qualities**
- 1. Findings**
- a. There are 44 improved and unimproved public recreation sites within the Greenway Boundary in the unincorporated portions of Lane County. Upland access to the river is provided by 31 sites, while 13 sites are accessible by the river only.
- b. The majority of recreation sites are along the Main Stem (17), followed by the Coast Fork (15) and the Middle Fork (12).
- c. Currently, there are 29^{1/2} river bank miles (equal to 20 percent of the entire 138^{1/2} river bank miles in Lane County) in some form of recreation use. Potential recreation river bank miles could amount to 58, or 42 percent of the entire river bank miles.
- d. Approximately 33 percent of the river bank along the Middle Fork is in current recreation use, followed by the Coast Fork, 27 percent and Main Stem, 16 percent.
- e. There are 15 public boat ramps along the river and the State Department of Fish and Wildlife recommends that three additional boat ramps be developed on public property.
- f. If DOT were to purchase all land identified for acquisition, an additional 2,985 acres, equivalent to 30 river bank miles, would be added to the existing recreation land base in the Greenway.
- g. The Willamette River environment within the Greenway Boundary can be considered as a continuous scenic corridor.
- h. A scenic easement does not allow public access and its basic purpose is to preserve, protect and conserve the values of the land in terms of its natural resource, scenery, cultural or historic significance and recreation potential.
- i. The Lane County Parks and Open Space Division supports development of a landscape control program to assist in evaluating development proposals for land along the river in efforts of maintaining and enhancing the river's unique qualities.
- j. Although Lane County agrees with the intent and purpose of DOT's acquisition program and use classifications, the County reserves the right in the future to review again when DOT implements their acquisition program, totally or by site, the use classifications and lands to be acquired to insure compatibility with other river resources and other County goals and policies.
- 2. Goal**
- MAINTAIN RECREATION AS AN ESSENTIAL ACTIVITY AND RESOURCE WITHIN THE GREENWAY.
- 3. Policies**
- (a) Protect, conserve or preserve the scenic and recreational qualities of the lands within the Greenway Boundary.
 - (b) Public recreation use areas shall be located in or near the more populated urban areas and shall emphasize access to the river.
 - (c) The sensitivity of lands within the Greenway shall determine the level of human activity.
 - (d) Recreation development shall include a variety of river-oriented opportunities in urban areas but shall be limited in rural areas to those river-oriented recreation uses that are compatible with the sensitive character of the river and other important resources.
 - (e) Consider and minimize the possibility that public recreation use might disturb adjacent private property owners.
 - (f) Scenic easements shall not be acquired through the exercise of the power of eminent domain on lands in farm use.
 - (g) Control vehicle access to the river.
 - (h) Zoning provisions shall allow recreational uses on lands to the extent that such uses would not substantially interfere with the long-term capacity of the land for farm use as defined in ORS 215.203.
 - (i) Consider and adopt policies that would not hinder the physically handicapped from using public recreation facilities within the Greenway boundary.
- 4. Recommendations**
- (a) Encourage land owners to apply for Scenic Easement or Open Space Deferral for lands within the Greenway Boundary.
 - (b) Review and evaluate all requests for land use changes, rezonings and proposals for land acquisition, use classifications and development proposals for recreation purposes within the Greenway Boundary to insure compatibility with other river resources (e.g., agriculture, fish and wildlife, natural and ecologically fragile areas, scenic qualities, riparian vegetation, etc.) and other applicable County directives.
 - (c) Support the State Department of Fish and Wildlife in developing three additional boat ramps along the Coast and Middle Forks.
 - (d) Develop educational programs to inform the public about scenic and use easements and special assessment for lands designated Open Space land.
 - (e) Develop and promote recreation guides, brochures or educational programs at the local and state level to encourage use of public recreation facilities along the Willamette River.
 - (f) Impacts of motorized vehicles on the Greenway should be minimized. However, access for vehicles should be provided at designated places where the level of human activity is least destructive to the river environment and private property owners.
 - (g) Scenic areas should be protected from intensive recreation use.
 - (h) Orient urban river banks to the river by providing public access, pathways and intensive or nonintensive recreation areas.
- E. Historic and Archaeologic**
- 1. Findings**
- (a) The Willamette River has historically played a major role in the development of Lane County and has helped to determine transportation and communication systems, as well as settlement patterns.
 - (b) Historically, the majority of population growth has settled along the Willamette River valley bottomlands adjacent to and within close proximity to the Willamette River.

- c. There are 19 known archaeological sites along the banks of the Willamette River. The majority are within the Greenway Boundary.
- d. Historic and archaeological sites should not be exposed to the public for the following reasons:
- (1) Degradation by the public and particularly those in public agencies, knowing where the sites are located.
 - (2) The legal implications involved in identifying sites on private property.
- 2. Goal**
- PROTECT SIGNIFICANT HISTORIC RESOURCES WITHIN THE GREENWAY.
- 3. Policy**
- Evaluate and further substantiate the historic significance of historic sites within the Greenway boundary.
- 4. Recommendations**
- (a) Preserve, restore and make accessible where possible historic and archaeological sites within the Greenway Boundary, when consistent with preserving other river resources, the rights of that property owners and the sites themselves. However, sites identified could be purchased and preserved by the public for the public but not by condemnation proceedings and the County will discourage the acquisition by DOT for scenic purposes.
 - (b) Seek funding sources from DOT and other agencies to assist in preserving and restoring historic sites, structures or facilities.
 - (c) Encourage and support compatible economic use of historic sites or structures within the Greenway.
 - (d) Advise and seek assistance from the Lane County Museum Director and the State Historic Preservation Office concerning disposition of identified historic resources within the Greenway.
- F. Access**
- 1. Findings**
- (a) It is probable that additional bridge crossings will be required in the Greenway in the future.
 - (b) Bikeway systems providing in certain locations river access are encouraged and emphasized in the Metropolitan Area.
 - (c) Due to physical constraints and maintenance costs, a continuous transportation corridor along the Willamette River, especially in rural areas, is not currently contemplated.
- 2. Goal**
- CONTROL THE EXTENT AND LOCATION OF ACCESS TO THE RIVER AND ITS BANKS.
- 3. Policies**
- (a) Control and clearly designate public access points to the river.
 - (b) Achieve an integrated system of safe river landings, hiking trails, bicycle paths and public roads extending in and out of the Greenway at strategic locations.
 - (c) Develop a Greenway access plan that emphasizes a limited number of access points each with improved facilities, good roads and high visibility connectors.
 - (d) Emphasize public access to the river in the metropolitan area and other urban areas while discouraging upland access in rural areas.
 - (e) Measures should be taken to minimize disturbance to private property.
 - (f) Implement programs to ensure and eliminate trespass and vandalism on private lands and destruction of ecological fragile areas.
- 4. Recommendations**
- (a) Public lands shall serve as primary access to the river if land sensitivity permits.
 - (b) New major highway and railroad routes should be located outside the Greenway Boundary, except for necessary bridge crossings.
 - (c) Evaluate all bridge crossings through Lane County's Greenway permit process.
 - (d) Access to the river, especially in the rural area, should be predicated on protecting sensitive land from high levels of human activity.
 - (e) Consider and minimize to the greatest degree possible that public access might disturb adjacent property owners.
 - (f) Encourage river access in rural areas in opposition to upland access.
 - (g) Encourage public restroom facilities at each access point.

NOTES

VI. RECREATION & SCENIC QUALITIES

This section includes the following items: (1) Recreation Sites Inventory; (2) State Greenway Corridor Lands; (3) Scenic Easements Guidelines and (4) Acquisition Areas.

RECREATION SITES INVENTORY

Table I lists and provides other related characteristics of public recreation sites along the Willamette River in Lane County. Overall, there are 44 sites and all sites are within the Greenway Boundary; however, a portion of the Short Mountain site along the Coast Fork extends to the west beyond the boundary. The amount of recreation sites by public ownership include: State Greenway Corridor Sites, 21; Lane County, 17; and other public, 6 (i.e., Willamalane Park and Recreation District, Corps of Engineers and other state). Map I identifies recreation sites listed in Table I.

Sites providing upland access through either improved or unimproved trails or roads, 31, while those with access by boat only, 13. Total recreation site acreage amounts to approximately 5,564.76+ acres; however, only 28+ riverbank miles are in some form of recreational use.

Additional public parcels (e.g., Lane County State Division of State Lands, Corps of Engineers, etc.) have been identified along the Willamette River; however, additional study will be required to determine whether they can be used for recreation sites or if they can provide adequate public access from the river or uplands.

STATE GREENWAY CORRIDOR LANDS

The boundaries of current improved or unimproved State Greenway Corridor Lands are shown on Map I, Recreation Resources, and the classification numbers for each site are listed under comments in Table I. The majority of Corridor lands are either developed or proposed for development. Use definitions for DOT's classification number include:

1. Land with legal access from the river and/or trails which offers opportunities for public day use such as picnicking, fishing and hunting and convenience facilities (sanitation, potable water, etc.).
2. Land with legal access from the river and/or trails offering the above and, in addition, opportunities for limited overnight use such as primitive camping.
3. Land which could provide legal and physical access from the uplands to riverbank areas offering opportunities for public use as in (1) above.
4. Land which could provide legal and physical access from the uplands to the riverbank for boat launching facilities and/or trail heads.
5. Land suitable for trail corridors between upland access points and/or other land in public ownership.
6. Land which should be acquired in fee to assure adequate protection of natural, scenic, historic, archaeological and scientific (biologic, geologic, etc.) values.

The above use classifications have been applied, where appropriate, to the DOT's Acquisition Areas discussed below.

SCENIC EASEMENT GUIDELINES

The following is a list of guidelines identifying either areas or circumstances under which a scenic easement should be sought or applied:

1. Areas of natural, recreational, cultural, scenic, historic or other appropriate places considered beneficial to the public;
2. Areas designated for acquisition or lands adjacent to acquisition areas;
3. Areas that provide a protective buffer of vegetation between public property being developed for recreation purposes and adjacent properties;
4. Areas where public access is not desirable and in efforts of controlling or deterring trespass and vandalism;
5. River sensitive areas to human use;
6. Areas that are extremely narrow, minimum of 150 feet from ordinary low water or where development would be difficult;
7. Erosion protection;
8. Enhance the value of abutting recreation sites, wildlife habitat and natural areas;
9. Enhance private property;
10. Protection of sloughs, swales, small tributaries, wetlands, etc.;
11. Protection of riparian and other unique vegetation; and
12. To control, redirect, reduce or not allow scatteration of intense development (i.e., residential, commercial, industrial).

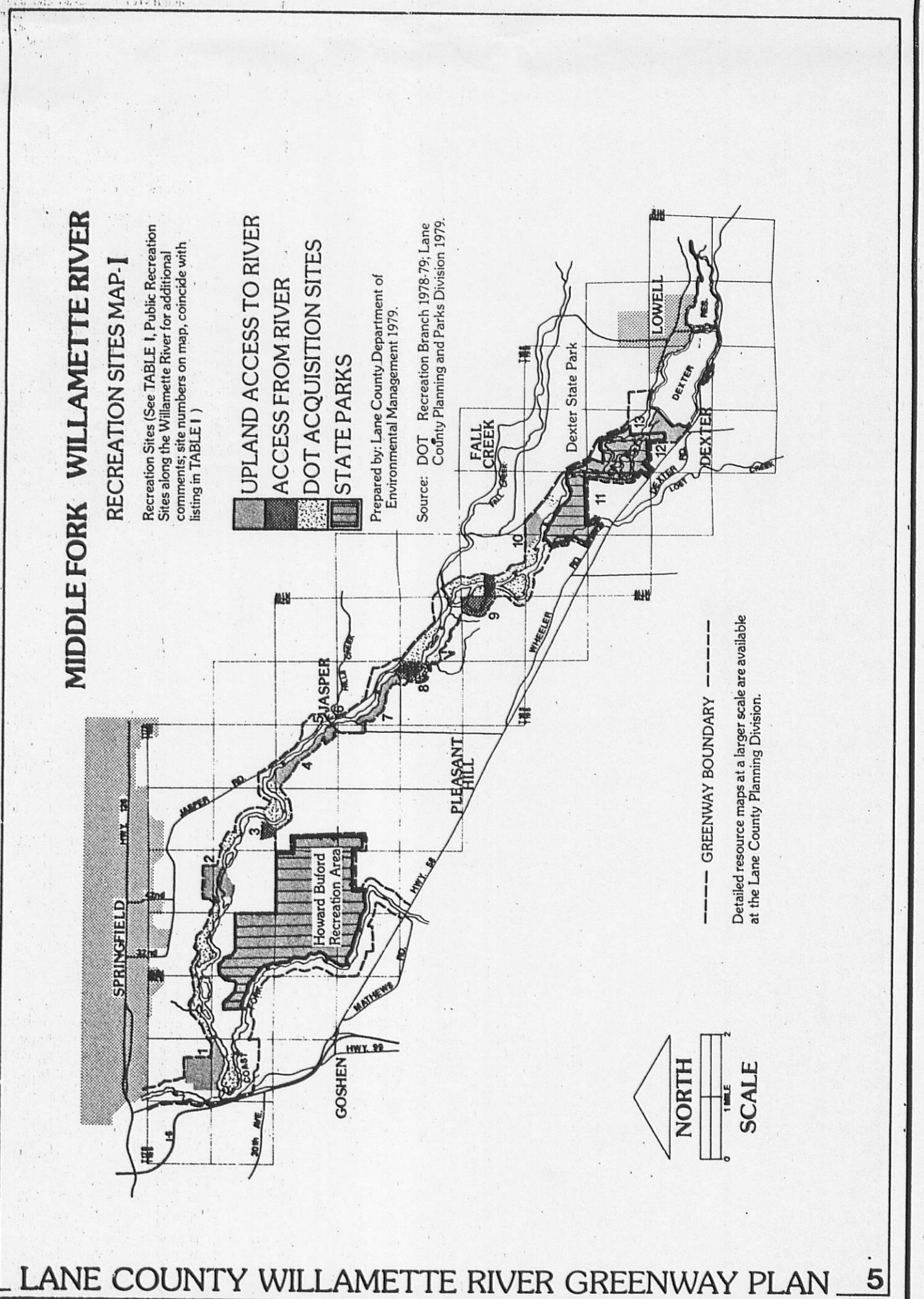
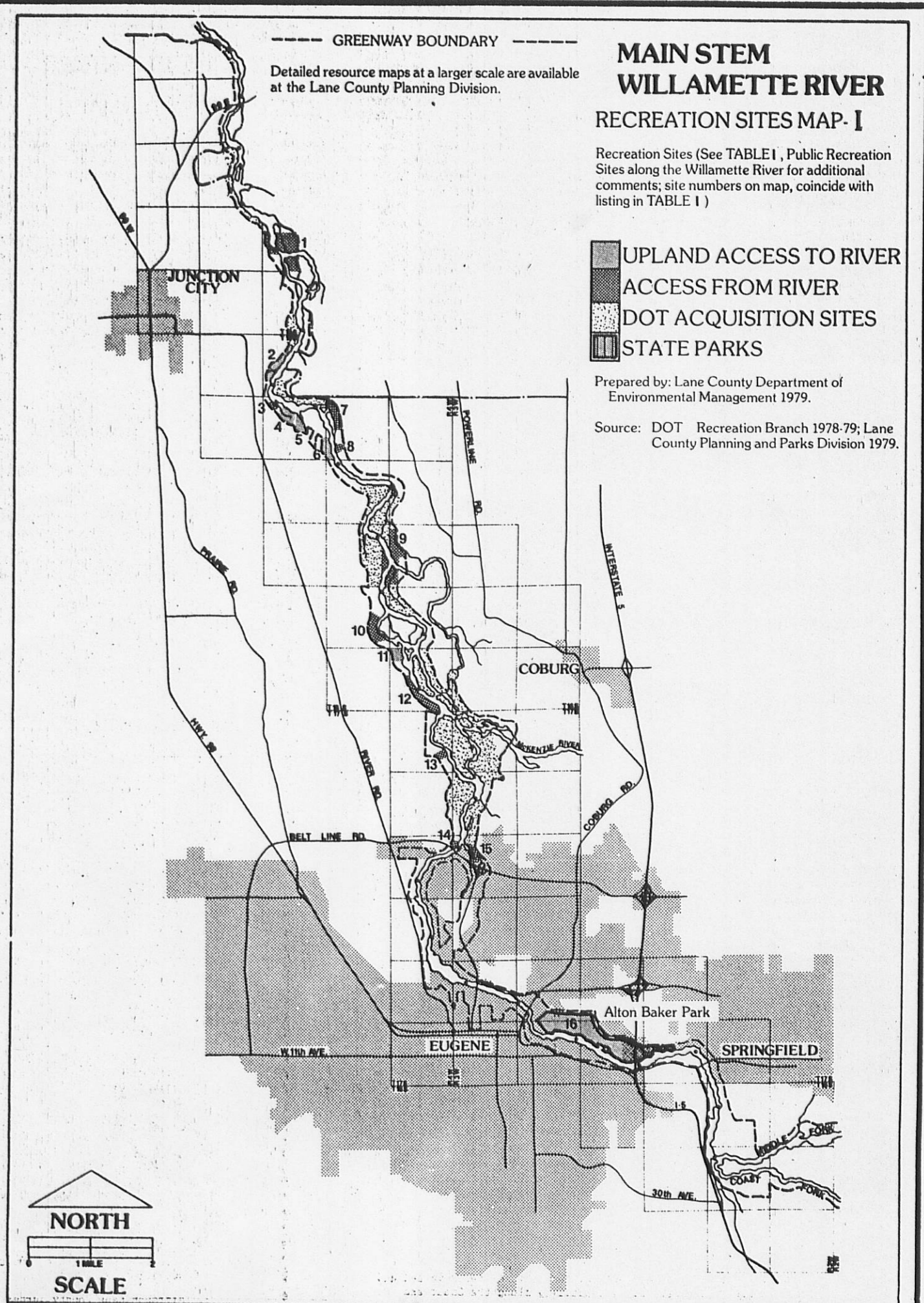
Areas where scenic easements might not be sought:

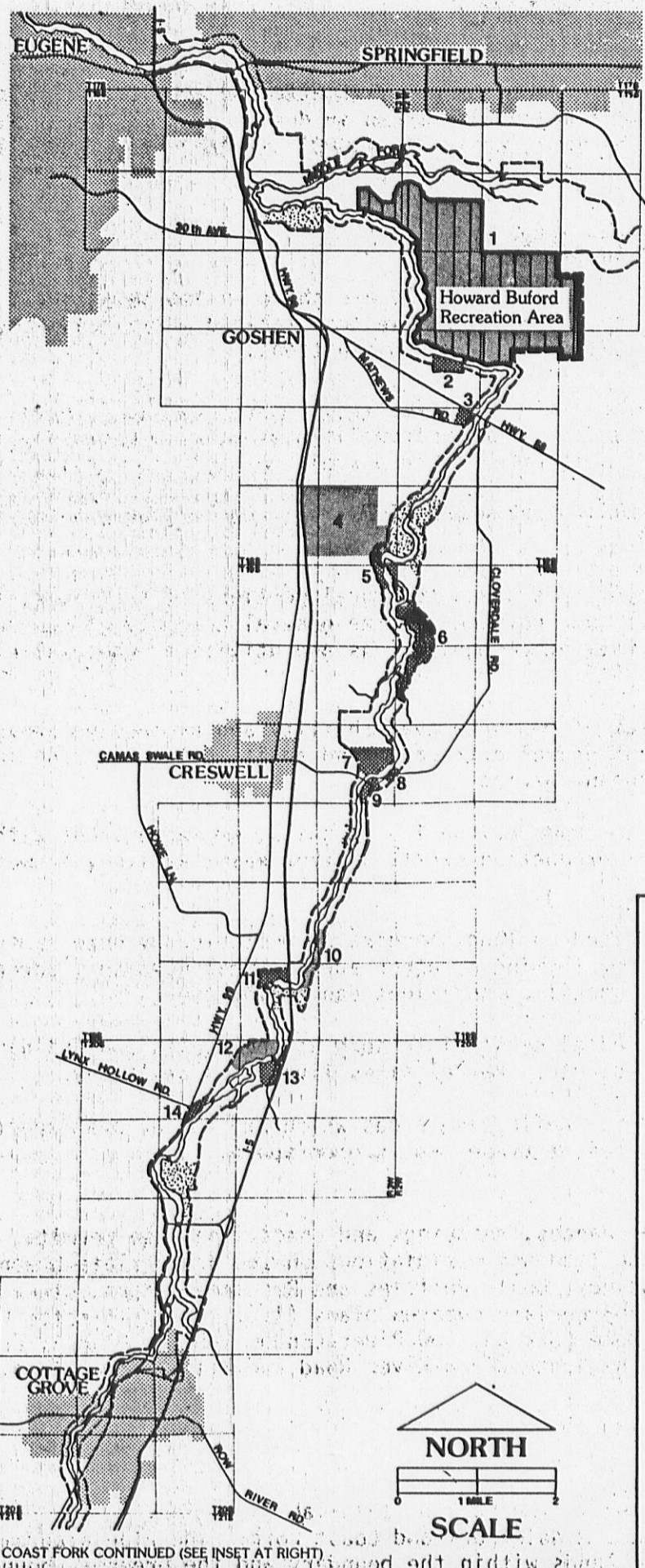
1. Sites that encourage access, either river access or upland access;
2. Large development proposals such as Planned Unit Development where access to the river is encouraged;
3. Areas where vegetation or other natural resources amenities do not exist;
4. Areas of farm use; and
5. Areas already protected due to flooding.

ACQUISITION AREAS

The state has coordinated with Lane County Parks and Open Space Division and vice versa for several years to identify areas for acquisition and to determine their potential uses. Acquisition areas are identified on Map I while use classification numbers are defined above in the State Greenway Corridor Lands section. The criteria, in general, taken into consideration by DOT for acquiring lands are: scenic, recreational and natural qualities afforded by the sites. For specific locations of DOT's acquisition areas, proposed uses and DOT classification numbers, see Acquisition Overlay Map, scale 2 3/4" = 1 mile, located in Lane County Planning Division.

The acquisition areas must be considered potential. Whether any one of these areas is purchased will depend on whether the owner is willing to sell and if the state has funds available for the purchase. Also, the areas designated are those that the state is interested in purchasing, given today's land use patterns and mixes of uses. As these conditions change, so may the desirability of acquiring the listed site. DOT emphasized isolating and buffering acquisition areas from adjacent private property. Acquisition areas have not been identified by ownership or legal descriptions; instead, the natural features sought to be acquired have been identified and described first.





COAST FORK WILLAMETTE RIVER

RECREATION SITES MAP-I

Recreation Sites (See TABLE I, Public Recreation Sites along the Willamette River for additional comments; site numbers on map, coincide with listing in TABLE I)

**UPLAND ACCESS TO RIVER
ACCESS FROM RIVER
DOT ACQUISITION SITES
STATE PARKS**

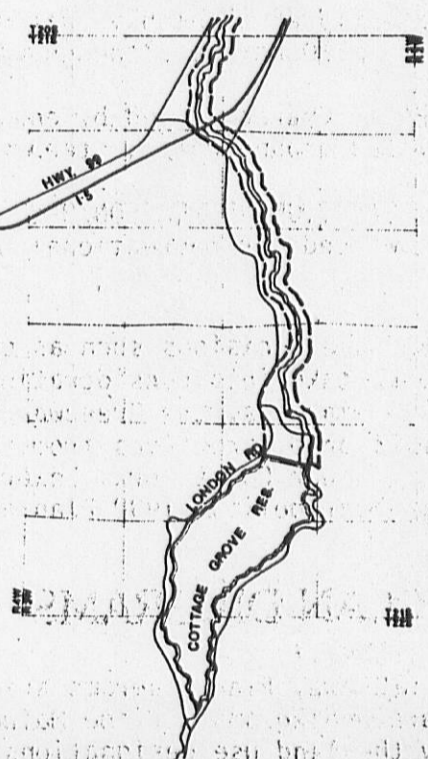
Prepared by: Lane County Department of Environmental Management 1979.

Source: DOT Recreation Branch 1978-79; Lane County Planning and Parks Division 1979.

----- GREENWAY BOUNDARY -----

Detailed resource maps at a larger scale are available at the Lane County Planning Division.

COAST FORK CONTINUED (BELOW)



12. Dexter County Park	Lane County	X	203.5-204.0	137.00 ac.	Boat ramp
13. Hatchery Hand Launch	Corps of Engineers	X	203.5	160.00 ac.	Hand launch, boat ramp
TOTAL: 13				1598.00 ac.	5 Boat ramps
COAST FORK					
1. Buford Recreation Area	Lane County	X	1.5-5.2	2248.27 ac.	Public State Park established by section 8 of Chapter 558, 1973 Oregon Laws, Boat ramp
2. Seavy Landing	State Greenway Corridor Land	X	5.0	57.00 ac.	DOT Classification #3
3. Highway 58 Hand Launch	State	X	6.5	Hwy. R/W	Unimproved boat ramp
4. Short Mountain Site	Lane County	X	9.0	579.61 ac.	Only a portion of the site is in the boundary.
5. Camas Swale Landing	State Greenway Corridor Land	X	9.2	55.00 ac.	DOT Classification #2
6. Bristow Landing	State Greenway Corridor Land	X	9.8-11.5	148.00 ac.	DOT Classification #3
7. Cinderella Park	Lane County	X	12.5	55.51 ac.	No park facilities, currently used as a sanitary land fill site
8. Cloverdale Bridge State Hand Launch	State	X	12.5	Hwy R/W	Unimproved boat launch site.
9. Cloverdale Access	State Greenway Corridor Land	X	12.6	7.93 ac.	DOT Classification #3
10. Cougar Mountain Access	State Greenway Corridor Land	X	15.5	37.85 ac.	
11. Petree Landing	State Greenway Corridor Land	X	16.0	16.79 ac.	DOT Classification #3
12. Lynx Hollow Access	State Greenway Corridor Land	X	17.0	17.30 ac.	DOT Classification #2
13. Gettings Creek Landing	State Greenway Corridor Land	X	17.0	12.00 ac.	DOT Classification #3
14. Hand Launch	Lane County	X	18.5	7.50 ac.	Unimproved boat launch site
TOTAL: 14				3242.76 ac.	4 Boat ramps
GRAND TOTAL: 44				5564.76 ac.	15 Boat ramps

Source: Lane County Planning Division and Parks and Open Space Division, 1977-78.

VII. AGGREGATE RESOURCES

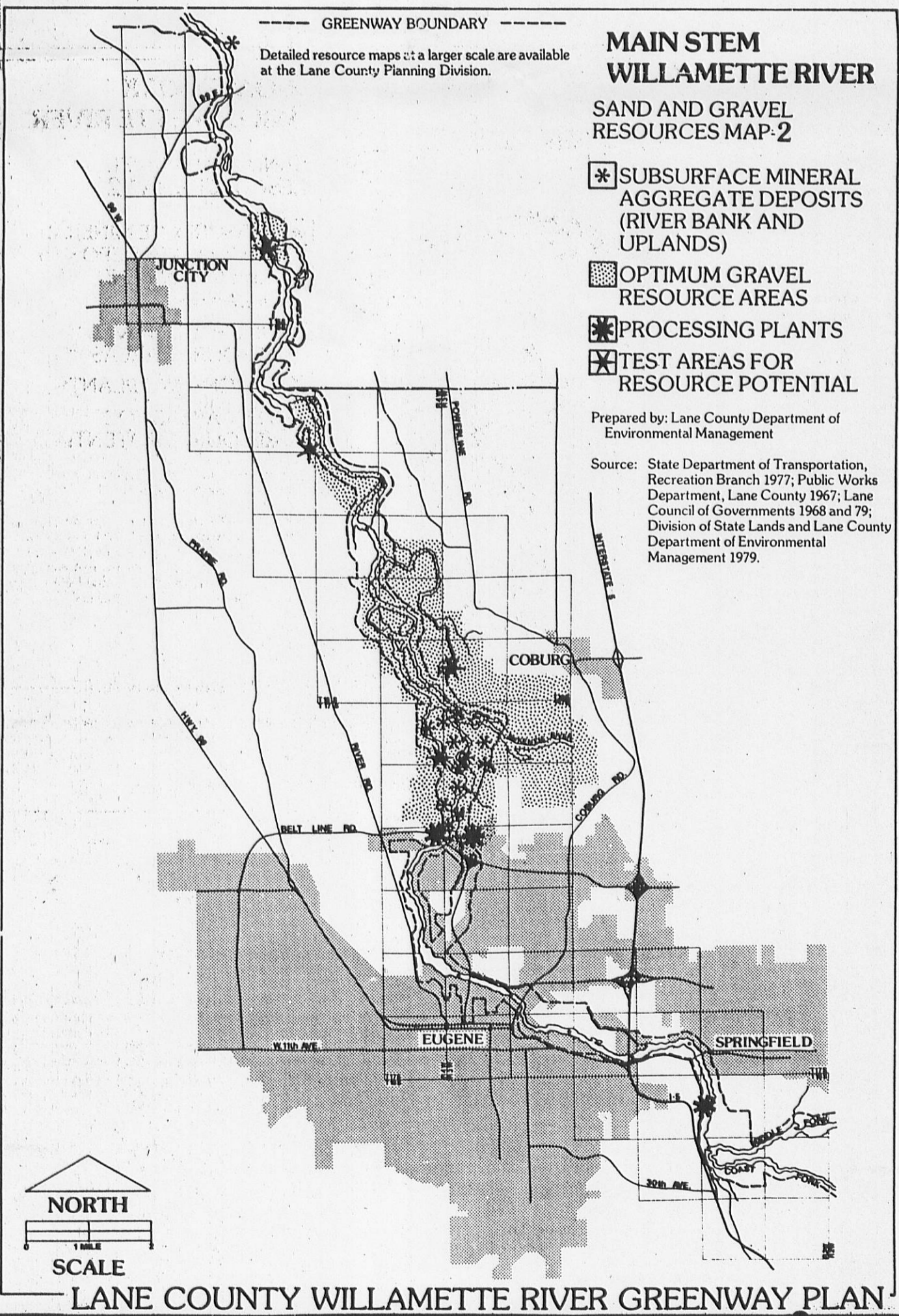
The inventory of aggregate resource on Map 2 shows the following information: (1) Known Subsurface Mineral Aggregate Deposits; (2) Optimum Gravel Resource Areas; (3) Processing Plants and (4) Test Areas for Resource Potential.

For additional background information and specific County directives, see the Findings, Goals, Policies and Recommendations regarding Sand and Gravel Resource found in the first section of this tabloid.

TABLE II
PUBLIC RECREATION SITES ALONG THE WILLAMETTE RIVER - LANE COUNTY

Recreation Sites	Ownership	Access to the River	Access by Boat only	Approximate River Mile	Acres	Comments
1. Blue Ruin Landing	State Greenway Corridor Land	X	X	164.0	56.00 ac.	DOT Classification #2
2. Scandia Landing	State Greenway Corridor Land	X	X	166.5	20.00 ac.	DOT Classification #3
3. Brown's Boat Skid	Lane County	X		167.2	1.37 ac.	Boat skid
4.	State Greenway Corridor Land	X		167.5	12.87 ac.	DOT Classification #3, unimproved
5. Marshall Island Park	Lane County	X		167.9	11.00 ac.	
6. Marshall Island Access	State Greenway Corridor Land	X		168.8	39.35 ac.	DOT Classification #3, boat ramp
7. Deterring Landing	Lane County	X	X	168.8	.90 ac.	
8. Christensen's Landing	Lane County	X		168.8	2.97 ac.	Boat ramp
9.	State Greenway Corridor Land		X	171.0	70.00 ac.	DOT Classifications #1 & #2, unimproved
10. Beacon Landing	State Greenway Corridor Land		X	173.0	70.00 ac.	DOT Classification #2
11. Hileman Boat Ramp	Lane County	X		173.5	43.18 ac.	
12.	State Greenway Corridor Land		X	174.0	6.63 ac.	DOT Classification #1, unimproved
13. Whitley Boat Ramp	Lane County	X		175.5	3.10 ac.	Boat ramp (on a slough not the main channel)
14. Beltline West Boat Ramp	Lane County	X		178.2		County R/W Boat ramp
15. Beltline Park	Lane County	X		178.2	12.50 ac.	
16. Alton Baker Park	Lane County	X		182-185.0	375.00 ac.	
TOTAL: 17		11	6		724.05 ac.	6 Boat ramps

Recreation Sites	Ownership	Access to the River	Access by Boat only	Approximate River Mile	Acres	Comments
1. Dorris Park	Willamalene Park & Recreation District	X		187.0	250.00 ac.	
2. Clearwater Boat Ramp	Lane County	X		191.0	77.79 ac.	Boat ramp
3.	State Greenway Corridor Land		X	192.5	20.64 ac.	DOT Classification #3, unimproved
4. Log Jam Access	State Greenway Corridor Land	X		194-195	79.90 ac.	DOT Classification #3
5. Jasper Bridge	State	X		195.0	13.84 ac.	Boat ramp
6.	State Greenway Corridor Land	X		195.1		DOT Classification #3, unimproved
7. Jasper Park	Lane County	X		195.1-196.5	71.23 ac.	
8.	State Greenway	X		197.0	7.20 ac.	DOT Classification #2 unimproved
9.	State Greenway Corridor Land	X	X	199.0	52.00 ac.	DOT Classification #2, unimproved
10. Pengra Access	State Greenway Corridor Land	X		200.5	94.09 ac.	DOT Classification #3, Boat ramp
11. Dexter State Park	State	X		200.5-203.0	797.31 ac.	Public State Park established by section 8 of Chapter 558, 1973 Oregon



MAIN STEM WILLAMETTE RIVER

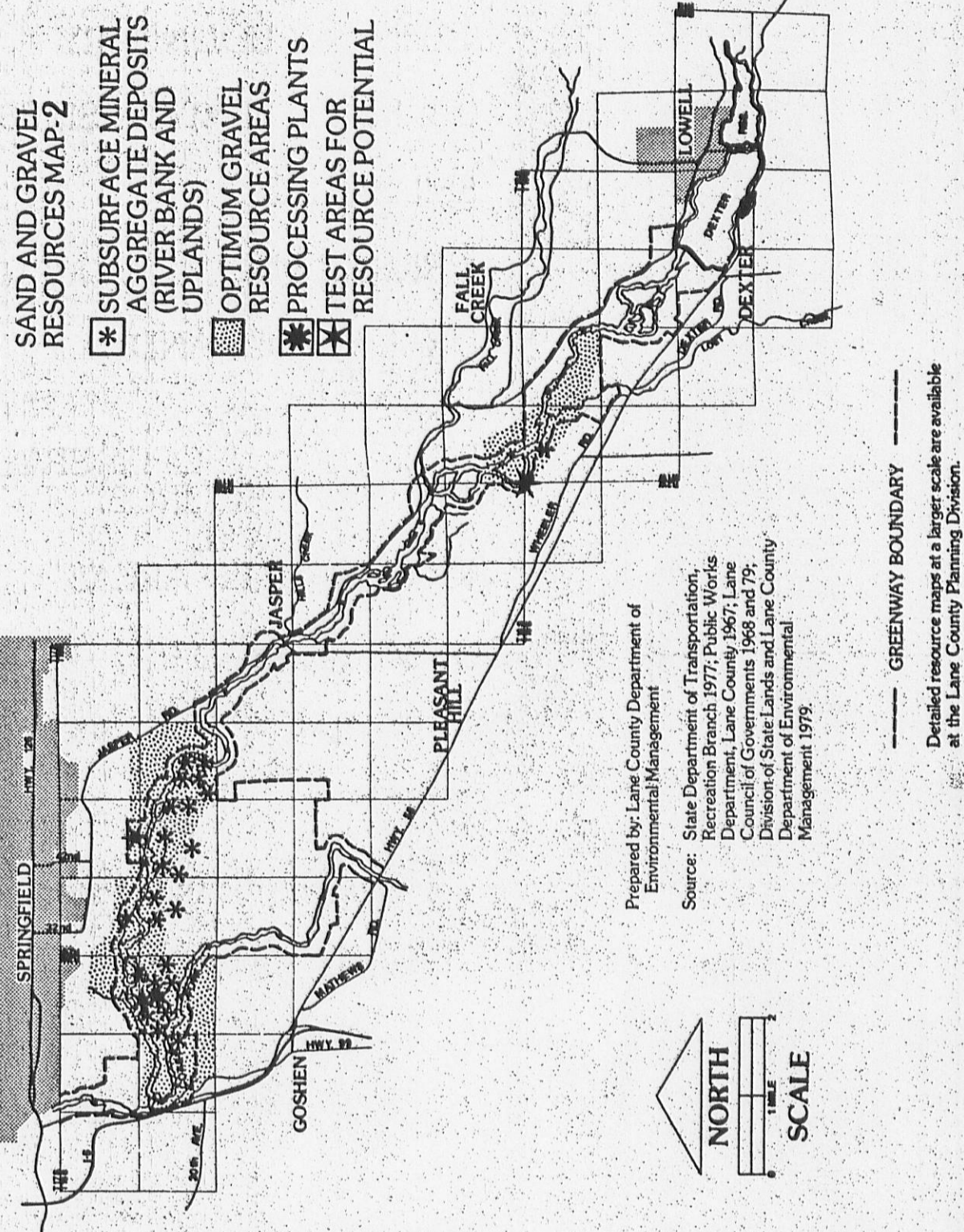
SAND AND GRAVEL RESOURCES MAP-2

- * SUBSURFACE MINERAL AGGREGATE DEPOSITS (RIVER BANK AND UPLANDS)
- OPTIMUM GRAVEL RESOURCE AREAS
- ⊠ PROCESSING PLANTS
- ⊠ TEST AREAS FOR RESOURCE POTENTIAL

Prepared by: Lane County Department of Environmental Management

Source: State Department of Transportation, Recreation Branch 1977; Public Works Department, Lane County 1967; Lane Council of Governments 1968 and 79; Division of State Lands and Lane County Department of Environmental Management 1979.

MIDDLE FORK WILLAMETTE RIVER



Prepared by: Lane County Department of Environmental Management
 Source: State Department of Transportation, Recreation Branch 1977; Public Works Department, Lane County 1967; Lane Council of Governments 1968 and 79; Division of State Lands and Lane County Department of Environmental Management 1979.

GREENWAY BOUNDARY
 Detailed resource maps at a larger scale are available at the Lane County Planning Division.

VIII. THE GREENWAY BOUNDARY

The Greenway Boundaries adopted by Lane County are shown on the Plan-Diagrams for the Main Stem, Middle Fork and Coast Fork of the Willamette and are located in the back of this tabloid. The Boundaries are also shown in detail on 1973 aerial photographs, scale 1" = 400', and zoning maps, scale 1" = 1,000' available for review in the Lane County Planning Division Office.

IX. LAND USE DESIGNATIONS

Land use designations within the Greenway Boundary are shown on the Main Stem, Middle Fork and Coast Fork Plan Diagram maps within this tabloid. The following is a list of the land use designations and their definitions:

RESIDENTIAL: A residential category with densities varying from one to 20 dwelling units per acre depending upon location in the metropolitan area, or a minimum parcel size of 5 acres with infilling of smaller existing parcels possible in rural areas.

COMMERCIAL: Activities larger than neighborhood commercial and smaller than retail centers.

INDUSTRIAL: Major industrial activities along the rural portions of the river, and secondary processing of materials into components, the general assembly of components into finished products, transportation, communications and utilities, wholesaling and warehousing.

SAND AND GRAVEL: Identifies areas of resource availability and processing areas, lands currently zoned for sand and gravel extraction and additional areas containing resources needed through the planning period.

AGRICULTURE: Primarily applied to lands having I - IV soils, or where lands with a good potential for agricultural production exist, whether being actively farmed at present or not.

RURAL, WOODLAND AND GRAZING: Applied to lands marginally suitable for development and yet are not highly suitable for farming or other agricultural purposes, parcel size of 20 acres, although under specific conditions can be 10 acres.

RURAL: Characterized by environmental constraints such as poor soils and drainage, limited ground water, steep slopes, etc. Parcel sizes five acres or larger.

CONSERVATION/RECREATION/OPEN SPACE: Reflecting areas which are now or are expected to be used for recreational purposes or preserved as open space.

Land use decisions such as plan changes, rezonings and conditional use permits, etc. shall take into consideration the land use designations on the appropriate Greenway Plan Diagrams, the Greenway Findings, Goals Policies and Recommendations, other applicable directives from the appropriate subarea plans (i.e., the Willamette Long Tom; Lower Coast Fork, Lower Middle Fork and Row River-London Subarea Plans); and the Metropolitan 1990 Plan and the Santa Clara-River Road and Willakenzie Plans.

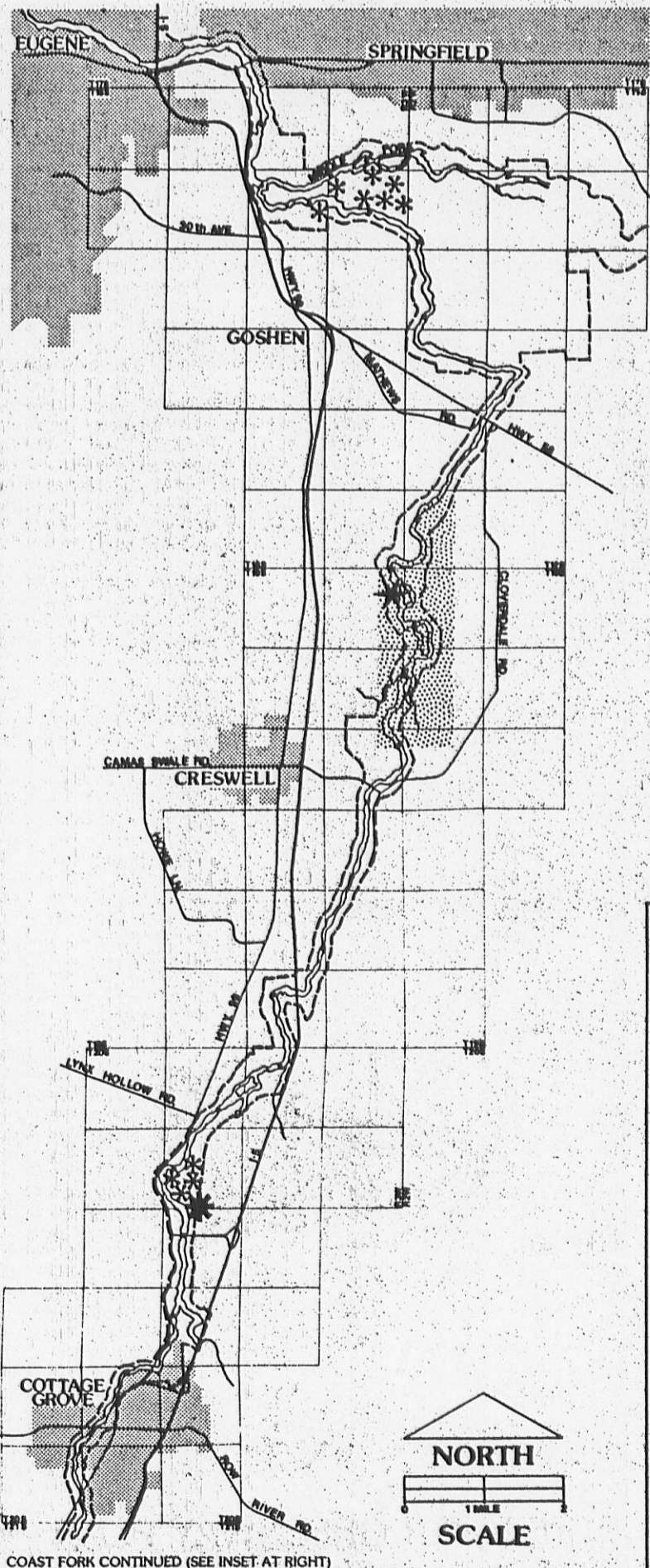
X. PLAN DIAGRAMS

The Greenway Plan Diagrams are found in the back of this Tabloid. They include separate diagrams for the Main Stem, Middle Fork and Coast Fork. The Plan Diagrams show the land use designations for lands within the boundary and the Greenway boundary. The Plan Diagrams also provide a graphic illustration of future land uses within the boundary, based upon the Findings, Goals, Policies and Recommendations within the Greenway Plan. The Diagram can be modified over time if conditions have changed or if new information becomes available. Both the Plan Diagram and Greenway Plan function as a combined county policy statement about future growth and development within the Greenway Boundary.

XI. GREENWAY DEVELOPMENT PERMIT

To protect, conserve, preserve, enhance and maintain the natural scenic, historical, agricultural, economic and recreational qualities within the Greenway Boundary, all intensification, change of use or development must adhere to applicable provisions of Lane County's Greenway Development Permit Ordinance. The Ordinance was adopted by Lane County on February 27, 1980 (see Ordinance No. 1-80) and is part of the Lane County Zoning Ordinance. Copies are available for review at the Lane County Planning Division Office.

NOTES

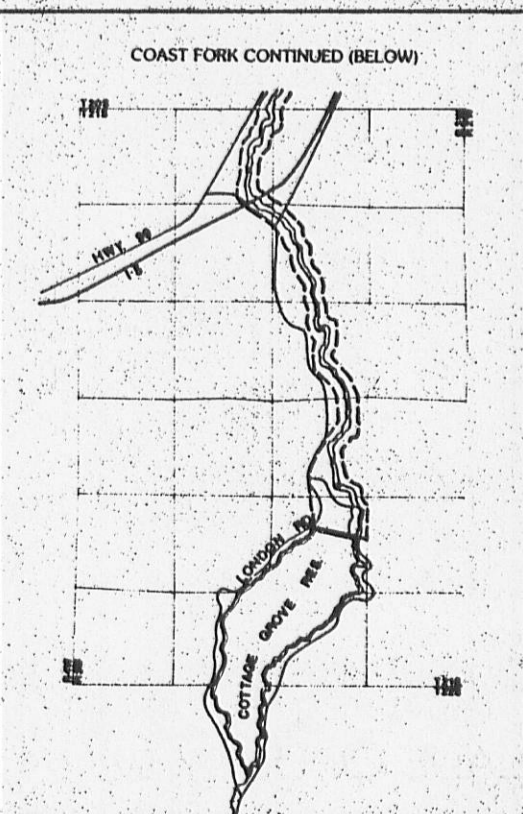


COAST FORK WILLAMETTE RIVER

SAND AND GRAVEL RESOURCES MAP-2
 * SUBSURFACE MINERAL AGGREGATE DEPOSITS (RIVER BANK AND UPLANDS)
 OPTIMUM GRAVEL RESOURCE AREAS
 * PROCESSING PLANTS
 * TEST AREAS FOR RESOURCE POTENTIAL


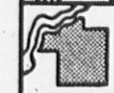
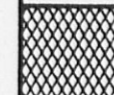


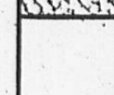




Prepared by: Lane County Department of Environmental Management
 Source: State Department of Transportation, Recreation Branch 1977; Public Works Department, Lane County 1967; Lane Council of Governments 1968 and 79; Division of State Lands and Lane County Department of Environmental Management 1979.

GREENWAY BOUNDARY
 Detailed resource maps at a larger scale are available at the Lane County Planning Division.

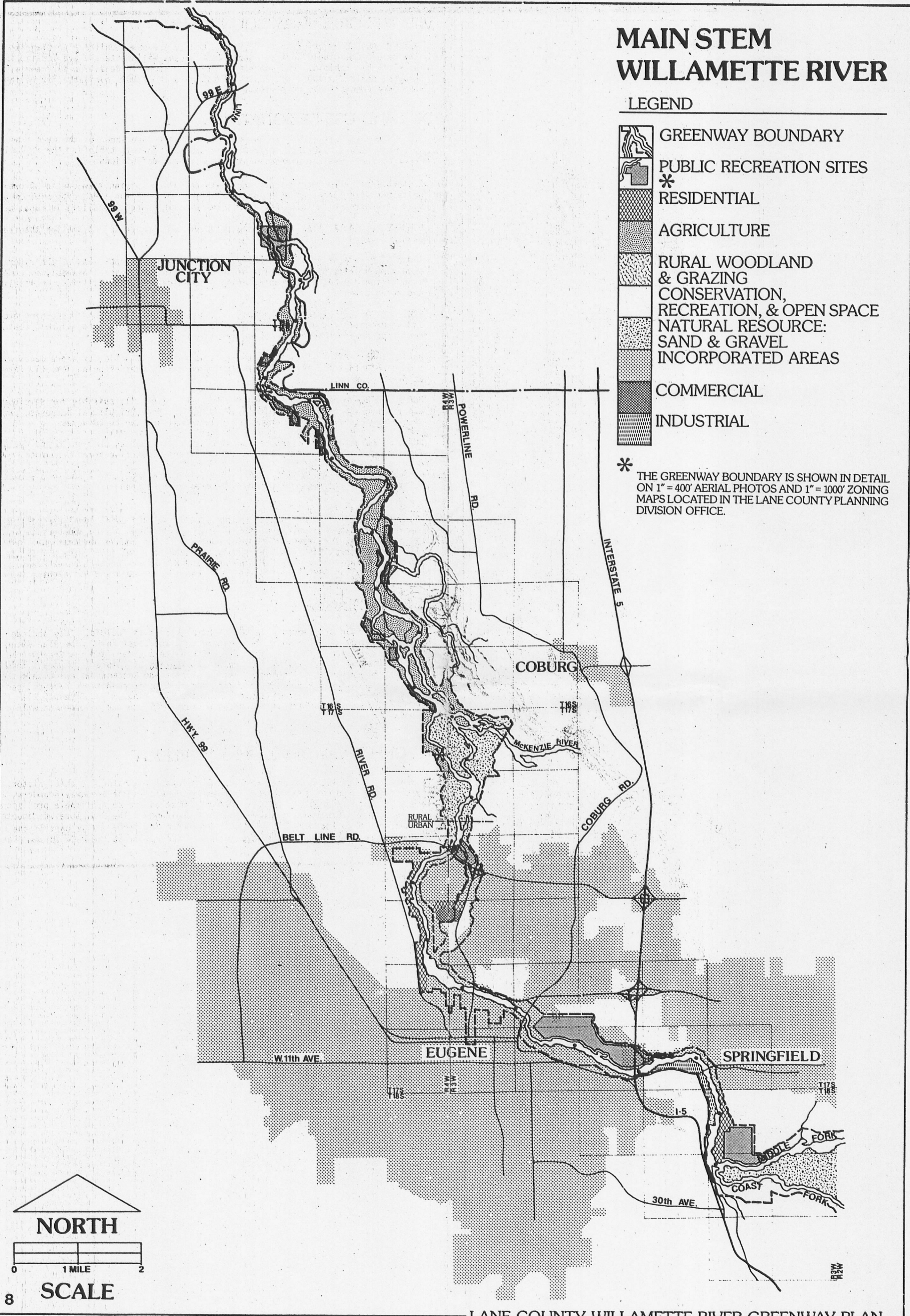


MAIN STEM WILLAMETTE RIVER

LEGEND






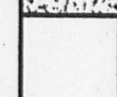


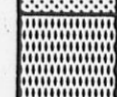
-  GREENWAY BOUNDARY
-  PUBLIC RECREATION SITES
-  RESIDENTIAL
-  AGRICULTURE
-  RURAL WOODLAND & GRAZING
-  CONSERVATION, RECREATION, & OPEN SPACE
-  NATURAL RESOURCE: SAND & GRAVEL
-  INCORPORATED AREAS
-  COMMERCIAL
-  INDUSTRIAL

* THE GREENWAY BOUNDARY IS SHOWN IN DETAIL ON 1" = 400' AERIAL PHOTOS AND 1" = 1000' ZONING MAPS LOCATED IN THE LANE COUNTY PLANNING DIVISION OFFICE.

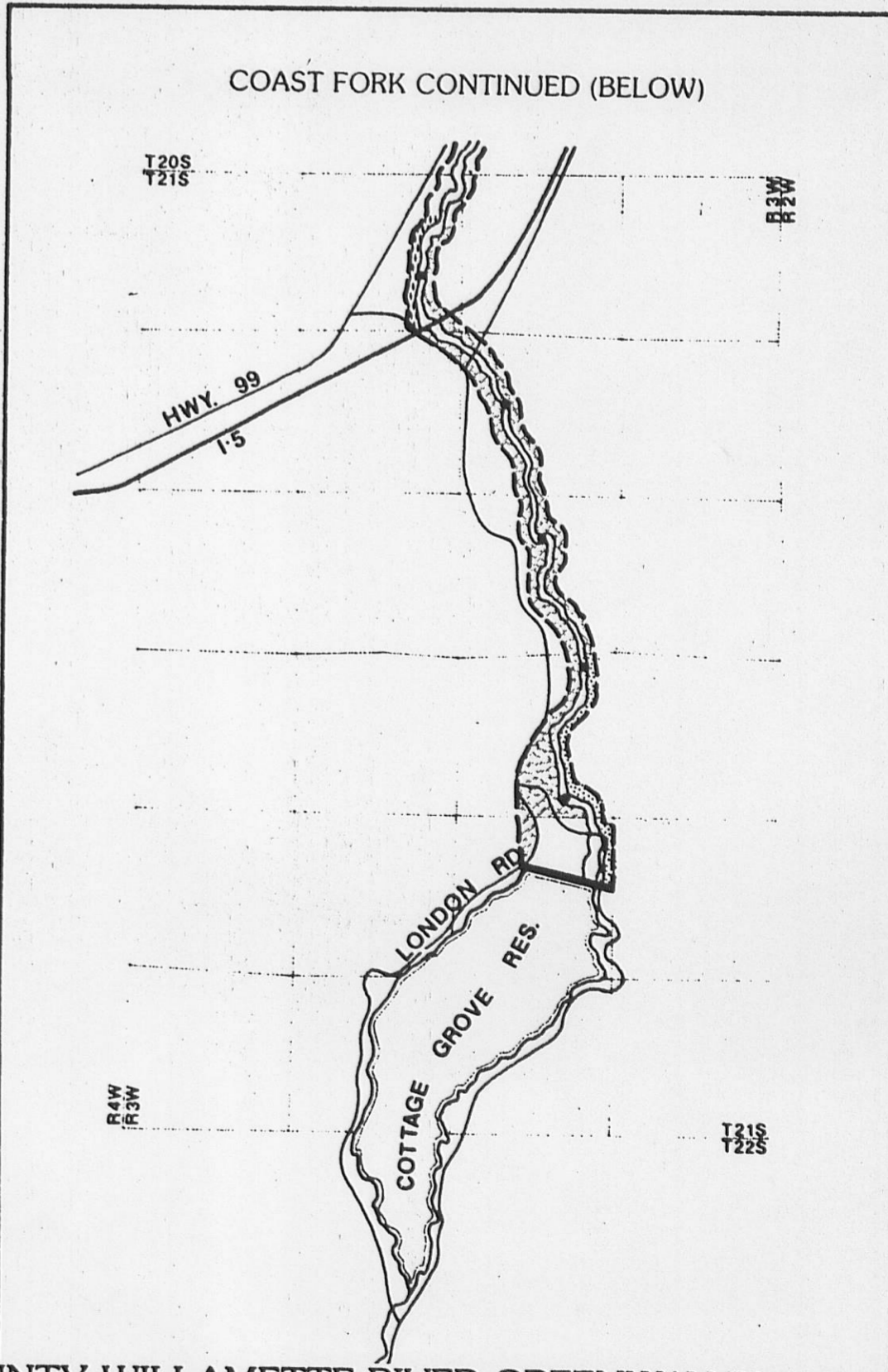
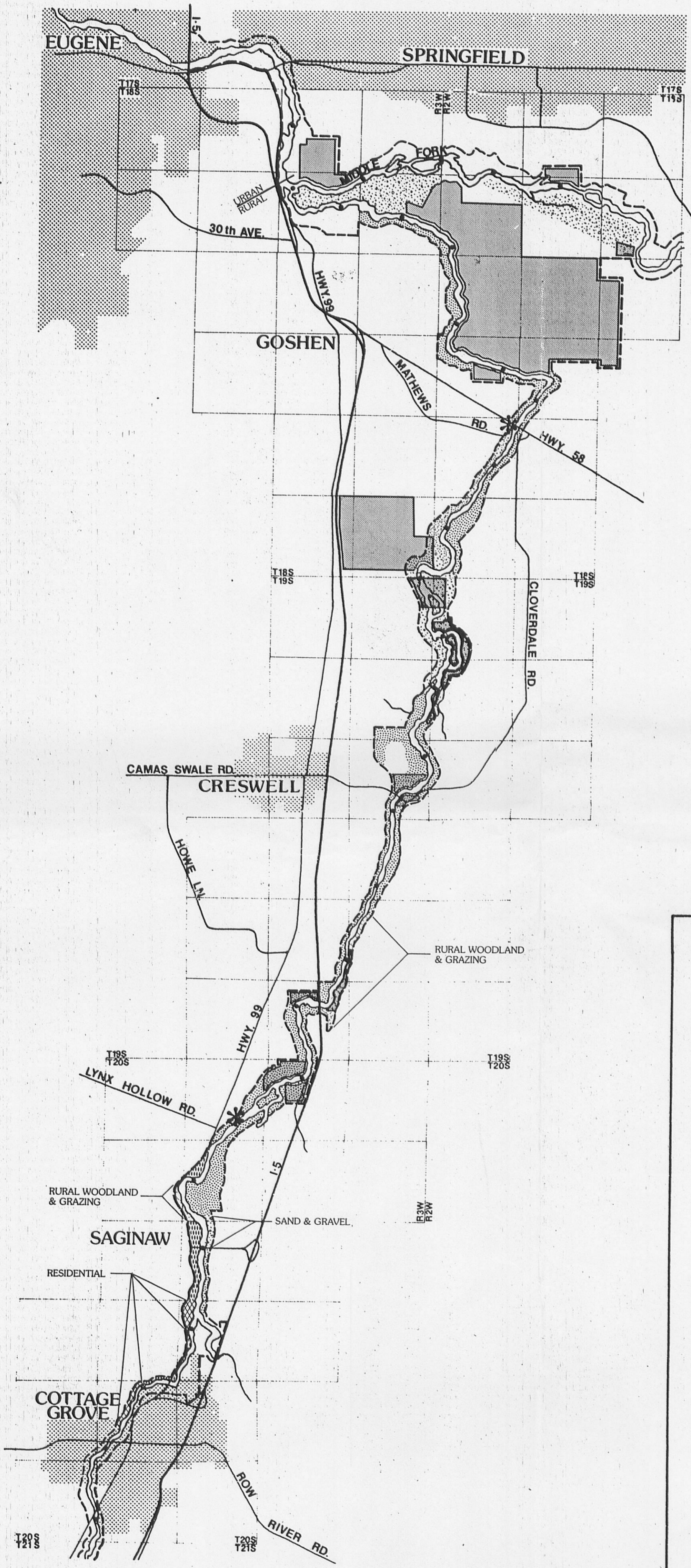


COAST FORK WILLAMETTE RIVER

LEGEND

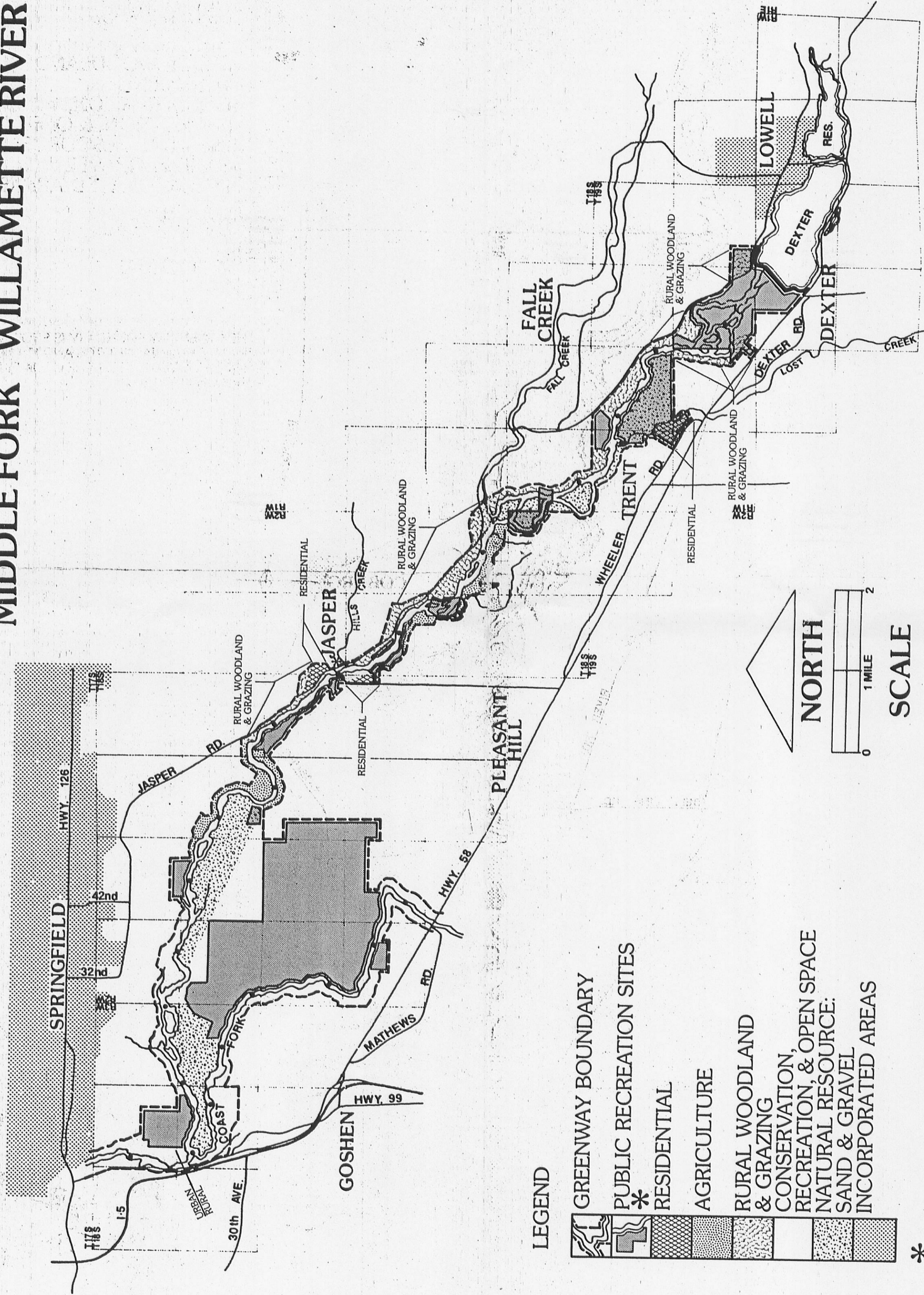
-  GREENWAY BOUNDARY
-  PUBLIC RECREATION SITES
-  RESIDENTIAL
-  AGRICULTURE
-  RURAL WOODLAND & GRAZING
-  CONSERVATION, RECREATION, & OPEN SPACE
-  NATURAL RESOURCE: SAND & GRAVEL INCORPORATED AREAS
-  INDUSTRIAL
-  RURAL

* THE GREENWAY BOUNDARY IS SHOWN IN DETAIL ON 1" = 400' AERIAL PHOTOS AND 1" = 1000' ZONING MAPS LOCATED IN THE LANE COUNTY PLANNING DIVISION OFFICE.



10 COAST FORK CONTINUED (SEE INSET AT RIGHT)

MIDDLE FORK WILLAMETTE RIVER



- LEGEND**
- GREENWAY BOUNDARY
 - PUBLIC RECREATION SITES *
 - RESIDENTIAL
 - AGRICULTURE
 - RURAL WOODLAND & GRAZING
 - CONSERVATION, & OPEN SPACE
 - NATURAL RESOURCE.
 - SAND & GRAVEL
 - INCORPORATED AREAS

* THE GREENWAY BOUNDARY IS SHOWN IN DETAIL ON 1" = 400' AERIAL PHOTOS AND 1" = 1000' ZONING MAPS LOCATED IN THE LANE COUNTY PLANNING DIVISION OFFICE.

BEFORE THE BOARD OF COUNTY COMMISSIONERS OF LANE COUNTY, OREGON

FILED

ORDINANCE NUMBER 783

-) IN THE MATTER OF ADOPTING THE WILLAMETTE RIVER GREENWAY PLAN AS A COMPONENT OF THE COUNTY GENERAL PLAN, AN ELEMENT OF THE COMPREHENSIVE PLAN FOR LANE COUNTY
-) AT WILLAMETTE O'CLOCK FEB 9 1980

THE HONORABLE, Director of
General Services of Lane County
BY *[Signature]*
DEPUTY

WHEREAS, the Board of County Commissioners has received from the Lane County Planning Commission a resolution dated January 22, 1980, of record herein, recommending approval of the plan known as the Willamette River Greenway Plan; and

WHEREAS, the Board of County Commissioners has received and considered the Willamette River Greenway Plan, dated November 6, 1979, consisting of Appendices A, B, C, D, E, F and G as forwarded to the Board of County Commissioners and public testimony and correspondence relating thereto; and

WHEREAS, the Board of County Commissioners has performed its public hearing and other duties in accordance with applicable law, now therefore

THE BOARD OF COUNTY COMMISSIONERS OF LANE COUNTY ORDAINS AS FOLLOWS: The Willamette River Greenway Plan dated November 6, 1979 and Appendices A, B, C, D, E, F and G, copies attached hereto, and as modified by the Board of County Commissioners (copy attached hereto and indicated as Appendix H), is adopted.

INTENDED that the Willamette River Greenway Technical Report be recognized as supportive technical information used in preparation of the Plan.

ENACTED this 27th day of February, 1980.

APPROVED AS TO FORM
DATE 1-16-80 lane county
[Signature]
OFFICE OF LEGAL COUNSEL

[Signature]
Chairman, Lane County Board of Commissioners

Recording Secretary for this Meeting of the Board

After public hearing this 6th day of November, 1979, the Willamette River Greenway Plan cited in the hereinabove Ordinance was approved by the Lane County Planning Commission is recommended for enactment.

[Signature]
Secretary, Lane County Planning Commission

In the Matter of Adopting the Willamette River Greenway Plan as a component of the County General Plan, an element of the Comprehensive Plan for Lane County

AT COUNCIL CHAMBERS
APR 1 1980
D.M. HAROLD, Director of
General Services of Lane County
Deputy

100 874

IN THE BOARD OF COUNTY COMMISSIONERS OF LANE COUNTY, OREGON

ORDER NO. 80-3-26-17) ADOPTING FINDINGS IN SUPPORT OF
) RECOMMENDED BOUNDARY CHANGES IN THE WILLAMETTE
) GREENWAY PLAN, ORDINANCE NO. 783
)

WHEREAS, at a regularly scheduled meeting of the Board of County Commissioners on January 23, 1980, first reading was had on Ordinance No. 783 regarding adoption of the Willamette Greenway Plan, and

WHEREAS, the Board of County Commissioners held public hearings on February 7 and 20, 1980 regarding said Plan, and

WHEREAS, the Board of County Commissioners enacted Ordinance No. 783 on February 27, 1980, and

WHEREAS, in the course of adopting said Plan, the Board concluded certain changes were necessary in the boundaries of the Willamette Greenway, now, therefore, it is hereby

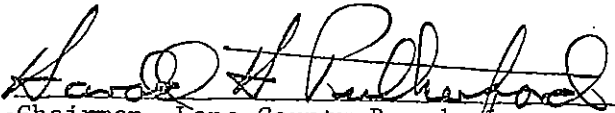
ORDERED:

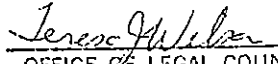
1. That the Board of County Commissioners recommends to the Land Conservation and Development Commission that the boundary of the Willamette Greenway as located along Franklin Boulevard between Interstate 5 and the confluence of the Middle and Coast Fork be moved east to 150 feet from ordinary low waterline to coincide with the boundary for the City of Eugene, and adopts in support thereof the findings of the Lane County Planning Commission (Appendix "F" to Ordinance No. 783). See Exhibit "B" attached hereto and incorporated herein.
2. That the Board of County Commissioners recommends to the Land Conservation and Development Commission that the boundary of the Willamette Greenway as located along the Emerald Valley Golf Course, Tax Lot 200, 19-3-13, be moved to 150 feet from the ordinary low waterline, and adopts in support thereof the Revised Findings of Fact attached hereto as Exhibit "A" and incorporated herein. See Exhibit "C" attached hereto and incorporated herein.
3. That the Board of County Commissioners recommends to the Land Conservation and Development Commission that the boundary of the Willamette Greenway as located along the State of Oregon property known as Tax Lot 1500, 19-02-30, be moved to 150 feet from the ordinary low waterline, and adopts in support thereof the Findings of the Lane County Planning Commission (Appendix "F" to Ordinance No. 783). See Exhibit "D" attached hereto and incorporated herein.
4. That the Board of County Commissioners recommends to the Land Conservation and Development Commission that serious consideration and effort be given to supporting a legislative change to ORS Ch 390 to remove the Coast

Fork from the Willamette Greenway, based upon the testimony and evidence submitted to the Board of County Commissioners that the Coast Fork is, as a practical matter, not appropriate for inclusion in the Willamette Greenway.

5. That upon approval by the Land Conservation and Development Commission, the recommended changes to the Willamette Greenway boundaries shall become effective.

Dated this 26th day of March , 1980.


Vice Chairman, Lane County Board of Commissioners

APPROVED AS TO FORM
DATE 3-17-80

OFFICE OF LEGAL COUNSEL

REVISED FINDINGS OF FACT

Pursuant to ORS 390.318, the Lane County Board of Commissioners makes the following findings of fact regarding the Willamette River Greenway Boundary in the vicinity of the Emerald Valley Golf Course, at Creswell, Oregon:

Legislative Background

1. ORS 390.318 states as follows:

"There shall be included within the boundaries of the Willamette River Greenway all lands situated within 150 feet from the ordinary low water line . . . and such other lands along the Willamette River as the [Department of Transportation] and units of local government consider necessary for the development of such greenway." (emphasis added)

This statute creates a requirement that the Board of Commissioners of Lane County affirmatively find that lands are "necessary for the development of [the] greenway" before the Board can recommend inclusion of those lands within the greenway.

2. ORS 390.318(1) further provides that "all state parks and recreation areas situated along the Willamette River shall be included within the greenway. To effectuate ORS 390.318(1), subparagraph (2)(b) requires an inventory of all "lands acquired or to be acquired as state parks and recreation areas." And, ORS 390.338 provides condemnation ("eminent domain") powers to the Department of Transportation so that it may acquire "state parks or recreation areas" within the greenway.

Each time the words "state parks and recreation areas" appear in the Greenway legislation, reference is being made to state-owned parks, state-owned recreation areas, or lands to be acquired by the state. No reference is being made to privately owned recreation facilities.

LCDC Goal #15

1. Goal #15 states, as its objective: "To protect, conserve, enhance and maintain the natural, scenic, historical, agricultural and recreational qualities of lands along the Willamette River." The goal does not replace the legislation found in ORS Chapter 390, but seeks to "implement" that legislation.

2. Goal #15 requires an inventory of "public parks" and "public recreation sites" along the river. It does not mandate the inclusion of private recreational facilities within the Greenway.

3. The Greenway goal and the legislation found at ORS Chapter 390 constitute the controlling legal authority relating to the Greenway. Rules for formulation of a Greenway Plan and for inclusion of property within the Greenway are, therefore, found in the statute or goal.

The goal also contains a directive that cities and counties prepare the necessary ordinances to implement the Greenway Plan--when it is fully formulated and adopted. These local ordinances are not relevant to the initial formulation of Greenway boundaries.

4. Goal #15 directs the Department of Transportation (DOT) to "prepare and keep current . . . a Greenway Plan setting forth the state interests in the Greenway." (emphasis added). The DOT was also assigned the task of preparing the initial Greenway Plan--to be reviewed by local authorities and the LCDC. Section C of the goal, entitled "Considerations and Requirements," delineates the factors which were to be weighed by the DOT in formulating their initial Greenway Plan proposal. Subparagraph 2 of Section C reads as follows:

"2. Boundary Considerations and Requirements. The temporary and preliminary Greenway boundaries shall be reviewed as to their appropriateness and refined as needed based on the information contained in the inventories. The refined boundaries shall include such lands along the Willamette River as are necessary to carry out the purpose and intent of the Willamette River Greenway through a coordinated management and acquisition program." (emphasis added).

(A footnote to the subparagraph cites ORS 390.318(1) which has been previously discussed in these findings.)

At no point in these "Boundary Considerations and Requirements" written by the LCDC is there a rule requiring or even authorizing the inclusion of privately owned recreational property in the Greenway unless that property is necessary to protect and preserve the Willamette River.

5. The fact that a portion of the Emerald Valley Golf Course has "open space tax deferral" status is irrelevant to any consideration expressed in ORS 390.318 or LCDC Goal #15.

The tax deferral status is recommended by ORS 308.745 and is available to all golf courses, no matter where they are situated. In sum, tax status is not a part of the legal criteria for inclusion of property within the Greenway.

Description of Emerald Valley Golf Course

1. The Emerald Valley Golf Course is located on the west bank of the Coast Fork of the Willamette River. The Greenway boundary currently encompasses the entire 18-hole golf course which reaches, at one point, about 3,000 feet from the ordinary low water line of the river. The golf course property is used generally for golf course purposes, although there has recently been built on the golf course grounds a club house, health spa, and restaurant facility. There exist no river-oriented recreational facilities on the golf course grounds.

2. The Emerald Valley Golf Course is privately owned, but currently open to the public on a fee basis. Plans have been formulated for changing the golf course to a private facility which will not be open to the public, but to members of the club and health spa only. Ideas for development of the property include a plan for construction of condominiums on a portion of the site. There are no intentions of building any river-oriented recreational facilities on the site.

3. The City of Creswell has proposed an urban growth boundary which extends to the west bank of the Coast Fork of the Willamette River in the area of the golf course. Thus, the entire golf course would be within the urban growth boundary of Creswell.

4. The Emerald Valley Golf Course has submitted as an exhibit an aerial photograph of the entire golf course site. A viewing of the aerial photograph reveals the extent to which the greenway boundary deviates from the course of the river at the golf course site. The aerial photograph also confirms that there are no river or water-oriented recreational facilities on the golf course grounds.

Technical Data

1. At page 67C of the technical report in support of the preliminary comprehensive plan for the Willamette River Greenway, the text indicates that there are no fish and wildlife sites, or nature conservancy sites located on the Emerald Valley golf course grounds outside of the mandatory greenway boundary (150 feet from the ordinary low water line of the river). The same

document indicates, at page 93C, that there are no river-oriented recreation or access sites on the golf course property.

2. The Emerald Valley Golf Course is entirely within the flood plain of the Coast Fork of the Willamette River. However, this is not a relevant consideration to the establishment of a Greenway in the vicinity of the golf course since the flood plain stretches as far as two (2) miles from the river and includes nearly the entire City of Creswell. If all flood plain lands were included in the Greenway, the Greenway would exceed, in size, the statutory limit imposed by ORS 390.318(1).

3. No historical sites are located on the Emerald Valley Golf Course.

4. The legislative intent in creating the Willamette River Greenway is found in ORS 390.314(1). The legislative intent was to "protect and preserve the natural, scenic and recreational qualities of lands along the Willamette River . . . for public education and enjoyment . . ." There is no intent embodied in this statute to include properties within the Greenway which are distant from the river and are unnecessary to preserve and protect the natural, scenic and recreational qualities of the river. The Emerald Valley Golf Course, beyond 150 feet from the ordinary low water line of the river, is not needed for the preservation and protection of the river. Virtually none of the golf course is visible from the river and, likewise, the river cannot generally be viewed from the golf course. The lands situated within 150 feet of the ordinary low water line of the river, on its west bank and within the golf course property, will amply serve to preserve and protect the recreational, scenic and natural qualities of the river. There is no data to suggest the entire golf course need be acquired for scenic easement purposes.

5. The Emerald Valley Golf Course is not a "state park and recreation area" required to be placed within the Greenway pursuant to ORS 390.318(2)(b).

Lane County Greenway Ordinance

1. Pursuant to the mandate of LCDC Goal #15, an ordinance has been proposed to regulate any change or intensification of the use of lands within the Greenway boundary.

2. The Greenway ordinance as currently proposed contains recommendations and policies which would severely restrict ordinary development of the golf course property by its owners.

Section V(A)(4)(c) recommends restriction of development of recreational uses in all Greenway areas sensitive to human use. Since use of any land as a golf course could be deemed to be destructive to the natural environment thereon, further development of the existing golf course would be forbidden by the ordinance. For example, addition of a sand trap or a restroom facility could be disallowed. The construction of tennis courts on the property would certainly be restricted. Such consequences deriving from inclusion of the golf course property within the Greenway are unjustifiable unless the golf course can now be declared a river-oriented recreational use essential to the preservation and protection of the natural environment along the Coast Fork of the Willamette River. Since this declaration cannot be made, the restrictions on development noted above should not attach to the golf course property.

3. Section V(D)(3)(d) of the proposed ordinance states "recreational development . . . shall be limited in rural areas to those river-oriented recreational uses that are compatible with the sensitive character of the river and other important resources." This section would severely limit future development of the golf course property because that property is not a "river-oriented recreation use." The inclusion of this restriction in the proposed Greenway ordinance indicates that the golf course should not now be included within the Greenway. It is not the intent of the Greenway statute to arbitrarily include properties within the Greenway and then subject them to extreme limitations on development.

Miscellaneous Considerations

1. Not all golf course properties adjacent to or nearby the Willamette River have been included within the DOT preliminary Greenway boundary. The Eugene Golf and Country Club is an example of exclusion of golf course property from the greenway.

2. Golf courses which are state owned or publicly owned are properly included within the Greenway by virtue of ORS 390.318(1) and 390.318(2)(c). These statutes do not apply to privately owned golf courses. Because of this statutory structure, each golf course must be evaluated on an individual basis. The applicable criteria concern (1) whether the course is publicly or privately owned, and (2) whether the course must be included within the Greenway to preserve and protect the quality of the Willamette River.

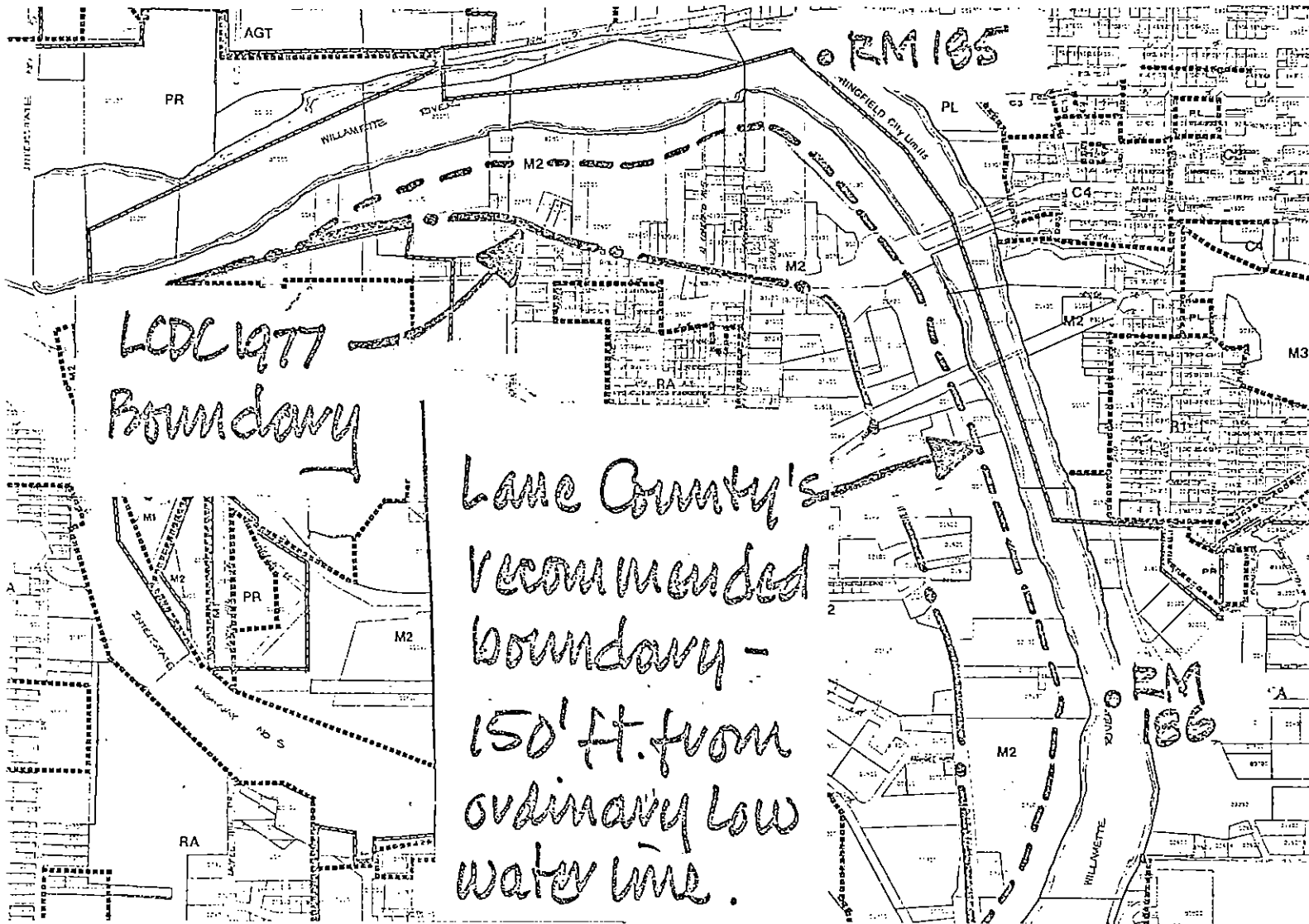
Conclusions

1. Neither the statutes contained in ORS Chapter 390 nor the guidelines contained in Land Conservation and Development Commission (LCDC) Goal #15 require that the Emerald Valley Golf Course be included within the Willamette River Greenway.
2. It is not necessary for development of the Greenway that the Emerald Valley Golf Course be included within the Greenway.
3. Beyond 150 feet from the ordinary low water line of the river, it is not necessary to regulate intensification and change on the Emerald Valley Golf Course in order to preserve the natural, scenic, historic and recreational qualities of the river.
4. The Lane County Board of Commissioners hereby recommends that the Greenway boundary be moved to a line 150 feet from the ordinary low water line of the Coast Fork of the Willamette River on the property of the Emerald Valley Golf Course.

EXHIBIT "B"

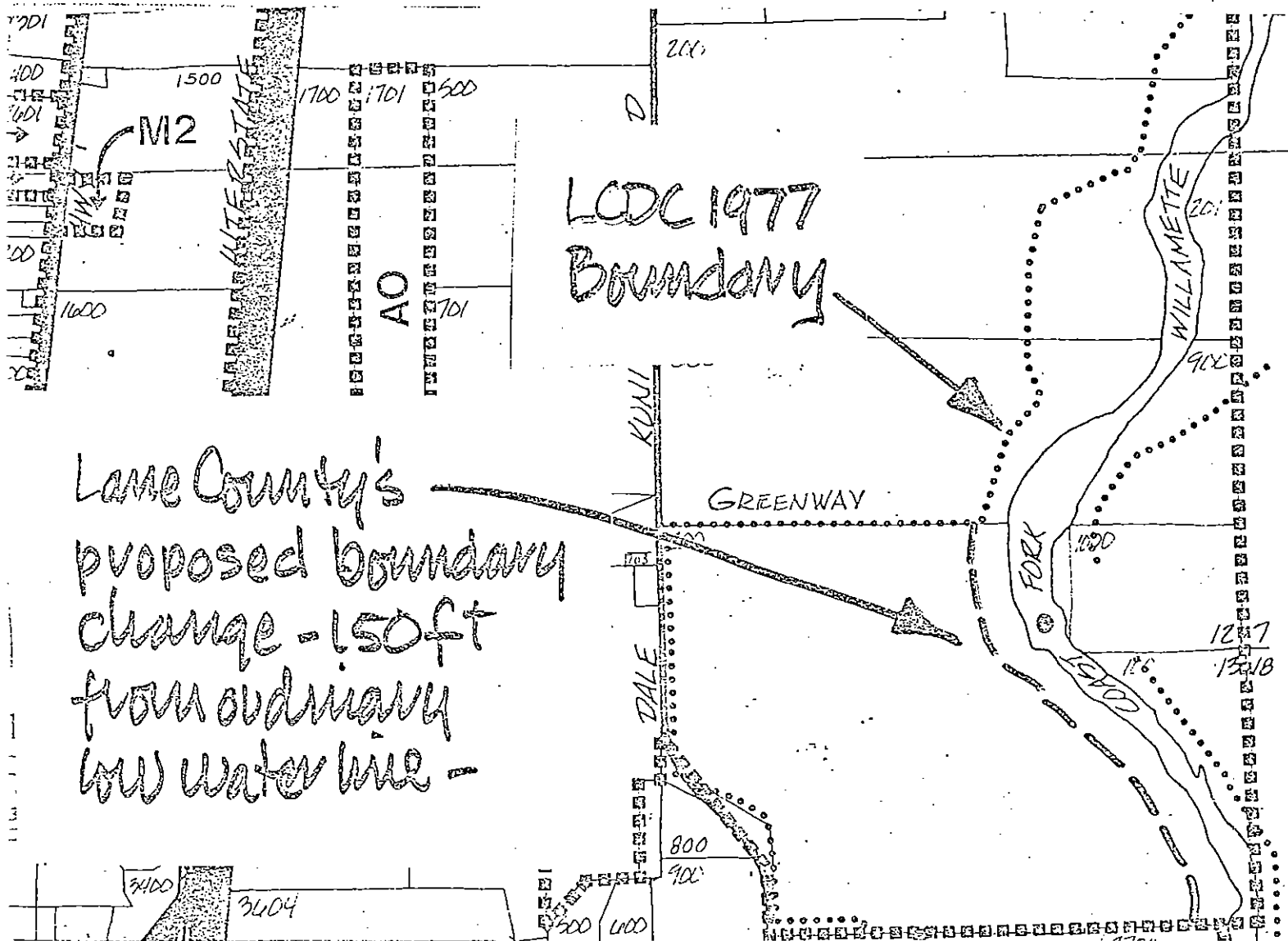
FRANKLIN BOULEVARD - Mainstem, sheet 99 of 107, river miles 184-186.

(Proposed Boundary shown on Lane County zoning map below; detailed Boundary location shown on 1973, 1" = 400' aerials located in the Lane County Planning Division Office.)



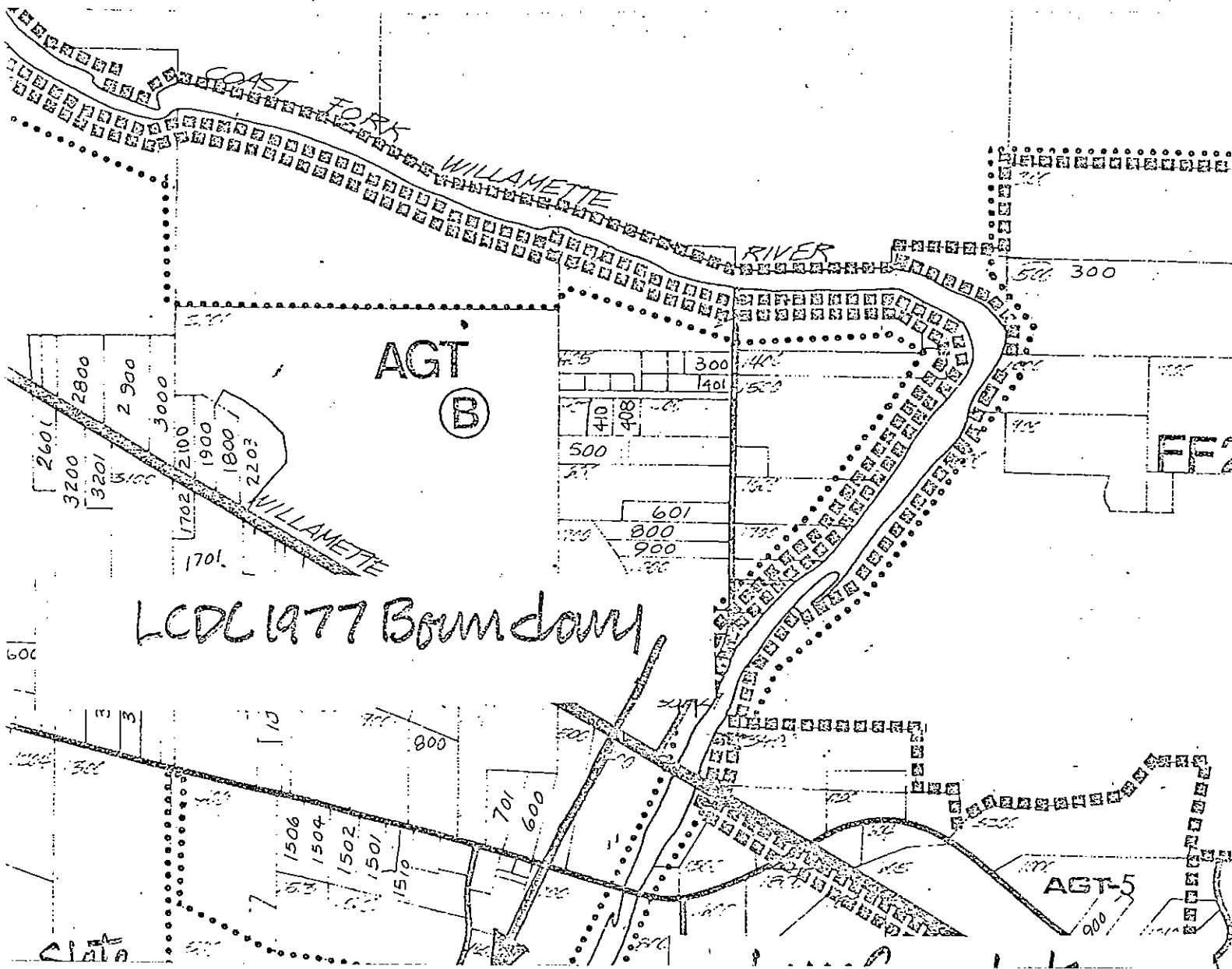
EMERALD VALLEY GOLF COURSE, Coast Fork: river mile 12, sheet 6 of 14; tax lot 200, 19-3-13.

(Proposed Boundary change shown on Lane County zoning map below; detailed Boundary location shown on 1973, 1" = 400' aerials located in Lane County Planning Division Office.)



STATE PROPERTY - Coast Fork, Sheet 4 of 14, river mile 7, tax lot 1500, 19-02-30.

(Proposed Boundary change shown on Lane County zoning map below; detailed Boundary location shown on 1973, 1" = 400' aerials, located in the Lane County Planning Division Office.)



Statewide Regional Planning

lane county



A PRELIMINARY, COMPREHENSIVE
PLAN FOR THE WILLAMETTE
RIVER GREENWAY

- TECHNICAL REPORT -

MAY 1979

PREFACE

In July 1976, the Lane County Board of Commissioners established the Lane County Willamette Greenway Advisory Committee (WGAC) and directed that committee to assist the County in developing a comprehensive plan for lands within the Willamette River Greenway. This document represents WGAC's response to the Board's directives. The Plan was developed also to comply with the directives in LCDC's interim order and Goal #15. In preparation of the Plan, WGAC reviewed and responded to the Board concerning the Department of Transportation's (DOT) Greenway Plan and involved other citizens and interest groups in the planning process. Since its formulation, WGAC conscientiously met with few exceptions on a monthly basis and developed with staff assistance the majority of findings, goals, policies and recommendations that appear in the Plan.

The Plan is considered preliminary and subject to review by the general public; review and recommendations by the Lane County Planning Commission and final consideration by the Lane County Board of Commissioners.

The following is a list of active WGAC members who participated in developing the preliminary plan. It is strongly emphasized that some members were extremely dedicated and attended the majority of meetings while others were less attentive: Jim Rear, Chairman; Paul Beistel, Vice Chairman; Dorene Splawn, Gerald Edwards, Rob Robertson, Bill Loy, Mel Jackson, Vernon Neet, Virginia Sly, Clara Weathers, Gary Sandgathe, Wayne Endicott, Tom Harper, Joseph Strub and Robert Johnson, members.

The Lane County Environmental Management Department assisted WGAC in preparation of this report; Rich Owings, Director; Lee Miller, Director, Planning Division; Mike Copely, Senior Planner, Regional Planning and Michael Nagler, Project Planner.

LANE COUNTY GREENWAY PLAN

TABLE OF CONTENTS

I.	INTRODUCTION	
	Background	1
	Responsibilities	7
	Lane County's Greenway Plan	9
II.	THE SOCIO ECONOMIC ENVIRONMENT	
	Population	15
	Economic	20
III.	THE NATURAL ENVIRONMENT	
	Physiography	28
	Geomorphology and Soils	30
	Floodplain	33
	Water Quantity	37
	Water Quality	38
	Water Pollution	40
	Urban Storm Runoff	44
IV.	THE NATURAL RESOURCE BASE	
	Agriculture	48
	Aggregate	54
	Riparian Vegetation and Timber	60
	Fish and Wildlife and Natural Areas	63
V.	THE MAN MADE ENVIRONMENT	
	Land Use Considerations	71
	Riparian Ownership	79
	Greenway Security	83
	Recreation and Scenic Quality	87
	Historic and Archaeological Sites	102
	Access	105
VI.	THE GREENWAY BOUNDARY	
	Growth Management	109
	Boundary Criteria	112
VII.	THE PLAN DIAGRAM	
	Land Use Designations	116
	Implementation	121
	APPENDIX A - DEFINITIONS	122
	APPENDIX B - RESOURCE MAPS AND OVERLAYS	125

I. INTRODUCTION

BACKGROUND

What is the Willamette River Greenway?

In Lane County it is the Willamette River and lands immediately adjacent to the River, beginning at Dexter Dam along the Middle Fork and Cottage Grove Reservoir along the Coast Fork, extending north to the Linn-Benton County Lines. The Greenway extends north beyond Lane County to the Columbia River.

The Greenway Law, specifically ORS 390.310(3), defines the Willamette River Greenway as:

"The Willamette River means that portion of the Willamette River including all channels of the Willamette River from its confluence with the Columbia River upstream to Dexter Dam and the Coast Fork of the Willamette River upstream to Cottage Grove Dam."

The Greenway Law has yet to be revised by the Legislature, therefore, the area definition of the "Willamette River" and its requirements must be complied with by DOT and local governments.

Why do We Need the Willamette Greenway?

The Willamette River is the most significant natural feature of the Willamette Valley in Lane County. The natural values of the river, its banks and related lands and the quality of life these offer, which drew settlers to Lane County are still ours today in large measures. To these now added the need for an evergrowing population.

Planning sensitive at once to existing uses, orderly growth and development--and to the needs of humans--offers the best way to assure continuing protection of the scenic, recreational and historical qualities of the river, its banks and related lands now and in the future.

Primary reasons supporting the need for the Greenway Program:

- (1) Existing and Potential Population Growth: Historically population growth has settled along the Willamette Valley bottomlands adjacent to and within close proximity to the Willamette River. Approximately 80 percent of the County's current population (220,000 individuals) resides near the river. The population of the metropolitan area alone, substantially impacts on the river because 70 percent of the County's population (182,300 individuals) resides in the metropolitan area.

Although the current population already has a substantial impact on the Willamette River, the magnitude of the projected population should be recognized. For example, projections indicate an increase of 50 percent, or an additional 127,000 individuals for the entire County by

the year 2000. It is assumed that the increased population will generally locate near the river.

Unless management plans such as the Greenway program are implemented to re-orient perceptions to recognize and protect the Willamette River's multiple resource capabilities, continued population growth could impact substantially on the Willamette River.

- (2) Re-orientation to the River: The Willamette River environment is affected by both land use activities occurring along the river and use of the water itself. Fortunately, the river "cleanses" itself continually; however, population growth and land use activities along the river have a long-term impact upon the river's environment.

Traditionally, we have turned our backs on the river, however, the essence of the Greenway Plan is a conceptual re-orientation to the environmental character of the river, and the recognition that it is unique to our quality of lifestyle. Through an adopted Greenway Plan, we can manage land use activities along the river and begin attempts at formulating coordinated efforts at managing uses within the river.

Who Established the Willamette Greenway Program?

The 1967 and, specifically, the 1973 Oregon State Legislatures acted to establish the Willamette River Greenway and set policies to guide its implementation through the Willamette River Greenway Law (ORS 390.310 to 390.368). In creating the Greenway, there was only one dissenting legislative vote.

What is the Willamette River Greenway Program?

The Greenway Program is a cooperative state and local government program designed to maintain and enhance the scenic, recreational and historical qualities of the lands within the Greenway, while permitting the continuation of existing uses on private and public lands and providing special protection for agricultural uses. Private lands remain private; public use is not authorized by the Greenway Program.

What is the LCDC Greenway Order?

While DOT and local governments were continuing their planning of the Greenway, there was a need for preventing further incompatible developments on private lands along the river. Therefore, LCDC adopted an Interim Greenway Order in December 1975. The Order provided further direction for DOT and local governments in preparing their Greenway Plans. LCDC has accepted DOT's plan for Lane County; however, it is considered preliminary until Lane County's plan is completed. Thereafter, LCDC will review both plans to ensure compliance with the Order and more specifically, Goal #15.

Purpose of the Willamette River Greenway

The intent and purpose of the Greenway Law:

To maintain and enhance the natural, scenic, recreational and historical qualities of lands within the Greenway, while permitting the continuation of existing uses on private and public lands and providing special protection of agricultural uses.

LCDC Goal #15, The Willamette River Greenway Goal

Goal #15 established by the Land Conservation and Development Commission is more specific and defines the state's interest in the Greenway. It provides standards for state and local land use plans within the Greenway. When a local comprehensive plan is adopted that is compatible with the goal, the interim order expires, and the provisions of the local comprehensive plan govern development of private lands in the Greenway.

The purpose of the Goal:

To protect, conserve, enhance and maintain the natural, scenic, historical, agricultural, economic and recreational qualities of lands along the Willamette River as the Willamette River Greenway.

The Goal recognizes, more so, the unique multi-resources characteristics along the river in Lane County.

What is the Greenway Boundary?

According to the Greenway law (ORS 390.318), the following specific land areas are included in the Greenway boundaries, "There shall be included within the boundaries of the Willamette River Greenway all lands situated within 150 feet from the ordinary low water line on each side of each channel of the Willamette River and such other lands along the Willamette River as the department and units of local government consider necessary for the development of such Greenway shall not exceed, on the average, 320 acres per river mile along the Willamette River. The Willamette River Greenway shall also include all islands and all state parks and recreation areas shall be excluded." (from ORS 390.318; emphasis added). The law specifies that the Willamette River for Greenway purposes shall " . . . extend to Dexter Dam on the Middle Fork and Cottage Grove Reservoir along the Coast Fork."

In Lane County, the boundary does not extend except for some areas in public ownership (i.e., Mt. Pisgah and Dexter Park) greater than one mile from the river. Generally, in areas of farm use the boundary has been reduced to the minimum legislative requirement of 150 feet. This is significant because the majority of lands along the river are in some form of land use. Overall, excluding the public ownership, the boundary varies from up to one-quarter mile, but in the majority of cases the boundary is less than one-eighth of a mile from the river.

The Greenway boundary defines a planning area; it does not authorize public use of private land. The boundary serves three functions:

1. It defines the Greenway planning area to which the LCDC Greenway Goal and Greenway Order apply;
2. It defines the area in which local governments may receive state grants for park acquisition;
3. It defines the area within which the state may seek to acquire lands and scenic easements only under the following conditions:
 - a. Within the five new state parks boundaries established by the Greenway law, the state may acquire land by condemnation, where the court sets fair payment for the land;
 - b. Outside of these new state parks, the state may acquire land only from a willing seller;
 - c. On any nonfarm land the state may acquire a "scenic easement" by condemnation. On farm land, a scenic easement may not be acquired by condemnation so long as the land continues in farm use. Scenic easements can be acquired from a willing seller or by gift anywhere within the Greenway.

Public use of private land within the boundary is not authorized by the Greenway Program. Not all lands within the boundary are to be acquired for Greenway park areas. Within the boundaries of the Greenway, existing residential, commercial and agricultural uses may continue without restriction (ORS 390.314). On private lands, however, the LCDC Greenway Goal and local planning offices limit intensifications and changes of use on these lands in order to preserve the natural, scenic and historical qualities of such lands.

The Greenway boundary has evolved through five major phases and has been reduced substantially during at least three phases. The Greenway boundary development phases include:

- (1) Greenway Law ORS 390.318 described above, identified specific land areas to be included in the Greenway boundary.
- (2) DOT's Preliminary Willamette River Greenway Study - 1974. (DOT retained consultants to develop preliminary Greenway Study). Preliminary study corridor boundaries established; considered extremely wide (for study purposes) and subject to further revision.
- (3) LCDC Interim Order and Goal #15 - 1975. LCDC revised the DOT Preliminary Study and established an Interim Order identifying temporary and preliminary boundaries to be administered by both DOT and local governments until development of more refined long-range management plans by DOT and Lane County commensurate with the directives of Goal #15.

In further response to LCDC order, but prior to DOT's Greenway Plan, Lane County in April 1976 recommended that the DOT boundaries should start with about 150 feet from the ordinary Law and be expanded based on the following criteria: (1) inclusion of river sensitivity areas and

lands important to the stability of the river; (2) riparian lands; (3) appropriate floodplain; (4) appropriate vegetation and wildlife; (5) all public lands with access to the river; (6) historic and archaeological sites; (7) aggregate resource sites, and (8) consideration for property lines.

As per the Board's actions in April 1976, the above criteria has been incorporated into the County's Greenway Plan.

- (4) DOT's Greenway Plan - 1976. In compliance with LCDC directives in Goal #15, DOT prepared their segment of the Greenway Plan. In 1977, LCDC adopted the DOT Plan and boundaries after inclusion of the majority of Lane County's suggested boundary changes. The boundaries adopted by LCDC are considered to be revised, temporary and preliminary boundaries that currently are being administered by Lane County until the County completes their Greenway Plan.

There were 70 boundary reduction requests in Lane County regarding LCDC's boundary. DOT's 1976 boundary complied with 50 percent of those requests, while 33 percent were either reduced almost to coincide with the request or substantially, but still did not, comply with the request due to DOT's boundary criteria. Seventeen percent were not complied with due to DOT's criteria.

- (5) Lane County's Final Greenway Boundaries - 1979. The LCDC 1977 Interim Boundaries and Plan are considered "Revised Temporary and Preliminary" and will be administered until the County's Greenway Plan is completed and submitted to LCDC for final consideration. At that time, both the LCDC interim order and County-proposed boundaries will be reviewed together by LCDC and upon adoption a Final Greenway Boundary will be established for Lane County.

RESPONSIBILITIES

Department of Transportation

The 1973 Greenway statute directed the Department of Transportation, Recreation Branch, in cooperation with local governments to prepare a development and management plan for the Greenway. The coordination of the development and maintenance of the Greenway Program rests with DOT.

Lane County

Develop a Greenway Plan in cooperation with DOT and incorporate the plan in its comprehensive plans and implementation ordinances, and establish provisions by ordinance for review of intensification, change of use or development to insure their compatibility with the Greenway Goal. The Greenway Goal and other directives require Lane County include the following elements in its comprehensive plans and ordinances:

1. The Greenway portion of the Comprehensive Plan:

- (a) Incorporate the DOT Greenway Plan; * (6 elements)
- (b) The boundaries of the Greenway; (Goal #15, Par. E1)
- (c) Designation of uses permitted in the Greenway (Goal, Par. C3):
 Preservation of agricultural lands; provisions for recreation needs; adequate public access; protection of fish and wildlife habitats; preservation of scenic qualities and views; maintenance of public safety and protection of public and private property; protection and enhancement of the vegetative fringe; provision for the partial harvesting of timber; nature and extent of aggregate extractions; direction of development away from the river; and, establishment of a setback line;
- (d) Identification of acquisition areas identified in the DOT Plan, and local acquisition areas. (Goal Par. E3, D2 and D3).

2. Implementation Measures:

- (a) Boundaries of the Greenway shown on the zoning map and referenced in the zoning ordinance and subdivision ordinance (Goal, Par. F1).
- (b) Measures for managing uses in the Greenway: EFU zoning; Floodplain zoning; Open Space zoning; Provisions for requirements of Par. C3 (1-11 above);
- (c) Greenway Compatibility Review or a Design Plan procedure to assure that new or changed uses are compatible with the Greenway (Goal, Par. F3); and
- (d) Provisions for giving notice to DOT pending intensifications in the Greenway (Goal, Par. G).

Responsibilities of LCDC

The 1973 legislature delegated to the Land Conservation and Development Commission (LCDC) the responsibility to review and revise if necessary, Greenway plans developed by DOT and local units of government.

LCDC is responsible for coordinating land use planning throughout the state. As the issuer of the Greenway Goal and order, LCDC has the responsibility to review, approve, modify or reject the DOT or County Greenway Plan [ORS 390.222(1)], and to respond to violation of the Greenway Law and Goal through appropriate LCDC appeal procedures [ORS 197.300(1)].

* DOT's six elements include: (1) The boundaries of the Willamette Greenway; (2) Lands or interests in lands to be acquired by local governments or the state, their general public purpose and the use intensity classifications for these lands to be acquired by the state; (3) The boundaries of publicly owned Greenway lands and interests in lands and the proposed uses for state owned Greenway lands; (4) Lands for which acquisition of scenic easement is sufficient for Greenway purposes; (5) The location and nature of public access to and along the river; and (6) All known mineral aggregate deposits.

LANE COUNTY'S GREENWAY PLAN

County Commitment to the Greenway

Lane County's commitment to the Greenway is evidenced by the following actions:

1. Adoption of the "Central Lane Regional Parks" plan in 1971, which makes provisions for an urban riverfront park chain, various rural riverfront parks, and other park sites, all in conformity with the Greenway.
2. Adoption of the "Eugene-Springfield Area 1990 General Plan" in 1972, which incorporates the Greenway principle in many facets of the Plan.
3. Adoption of the "Lower Middle Fork (Willamette) Subarea Plan" in 1974, incorporating the Greenway concept from Mt. Pisgah to Dexter Reservoir Dam.
4. Acceptance of the "Preliminary Willamette River Greenway Plan" in principle in January 1975, for incorporation into Lane County's comprehensive planning program.
5. Adoption of the "Lower Coast Fork (Willamette) Subarea Plan" in 1976 incorporating the Greenway concept from the metropolitan area to approximately Cottage Grove Reservoir Dam.
6. Additional support of the Greenway Concept in October 1975 in report to LCDC entitled "Position of Lane County Concerning the Willamette River Greenway."
7. Board and Planning Commission Action in 1976 concerning LCDC preliminary Greenway Plan (criteria for inclusion in preliminary boundaries and Greenway Conditional use and Extraordinary Exception procedures).
8. Board creation in 1976 of the "Lane County Willamette River Greenway Advisory Committee (WGAC) to advise the Board and staff in developing the Lane County Greenway Plan.
9. Adoption of the "Willamette-Long Tom Subarea Plan" in 1976, incorporating the Greenway concept from the metropolitan area north to the Lane-Benton County Line.
10. Board's position, adopted September 1976, concerning the DOT's Greenway Plan for Lane County.
11. Adoption of the "Row River-London Subarea Plan" in 1977 incorporating the Greenway concept within the vicinity of Cottage Grove Reservoir.

The above comments should be identified as the initial stages in the process of creating the Lane County Willamette River Greenway Plan. The past commitments have been oriented to establishing a planning process between DOT, LCDC, Lane County and WGAC.

Each commitment involved either general public meetings or public hearings by both the Lane County Planning Commission and the Board of County Commissioners. Meetings and hearings were advertised and notices made available to the media.

Willamette River Greenway Advisory Committee

As indicated above, the Board created WGAC to assist the County in preparing the County Greenway Plan. The Board advertised for interested citizens and selected, in July 1976, 21 citizens to serve on the Lane County Willamette River Greenway Advisory Committee (WGAC). The majority of Committee members reside near the river and were representative of the Mainstem, Coast and Middle Forks. The composition of the Committee included representatives from at least the following interests: agriculture, sand and gravel, industrial, education, retired, secretarial, recreation, design, law, housewife and bookkeeper.

Board directives to WGAC included the following:

- (1) The Citizen's Advisory Committee will advise the Board of County Commissioners and County planning staff in conducting a study for the development and management of the Willamette River Greenway;
- (2) Will advise the Commissioners in responding to the State Department of Transportation Greenway Plan; and
- (3) Involve other citizens and interested groups in the planning process.

WGAC met with few exceptions, on a monthly basis, ^{and} after reviewing the Board's directives, Goal #15, and the Greenway Law, developed with staff assistance, a work program outline; analyzed inventory data and produced the technical information, findings, Goals, policies and recommendations in this document for consideration by the Planning Commission and final action by the Board.

WGAC concentrated primarily on the inventory requirements of Goal #15, and included other important sections such as: Economics and Greenway Security.

Public Review

The preliminary Greenway Plan will be publicly reviewed, through an all day general public meeting scheduled for early spring 1979. The meeting will be conducted by WGAC and Planning Division Staff. After the public meeting, the Lane County Planning Commission will review and hold a public hearing regarding the Plan. The Planning Commission will formulate a recommendation that will be forwarded to the Board for consideration. The Board will hold public hearings regarding the Plan. Thereafter they will modify or revise and eventually adopt a Greenway Plan for Lane County.

The Willamette River in Lane County

The Willamette River in Lane County is located along the Willamette Valley bottomlands which lie between the Cascade Range to the east and the Coast Range to the west. The valley generally extends south to the City of Cottage Grove where mountain and foothill extensions from both ranges converge.

In Lane County, the Willamette River is directly influenced by the following sub-basins: the Mainstem, Middle Fork and Coast Fork of the Willamette River. Although the McKenzie River basin directly influences the Willamette River, it

was not identified by the Greenway Law as being part of the Greenway system. (See Figure 1 for location of the Willamette River in Lane County.) The above sub-basins comprise the major tributary streams of the Upper McKenzie basin.

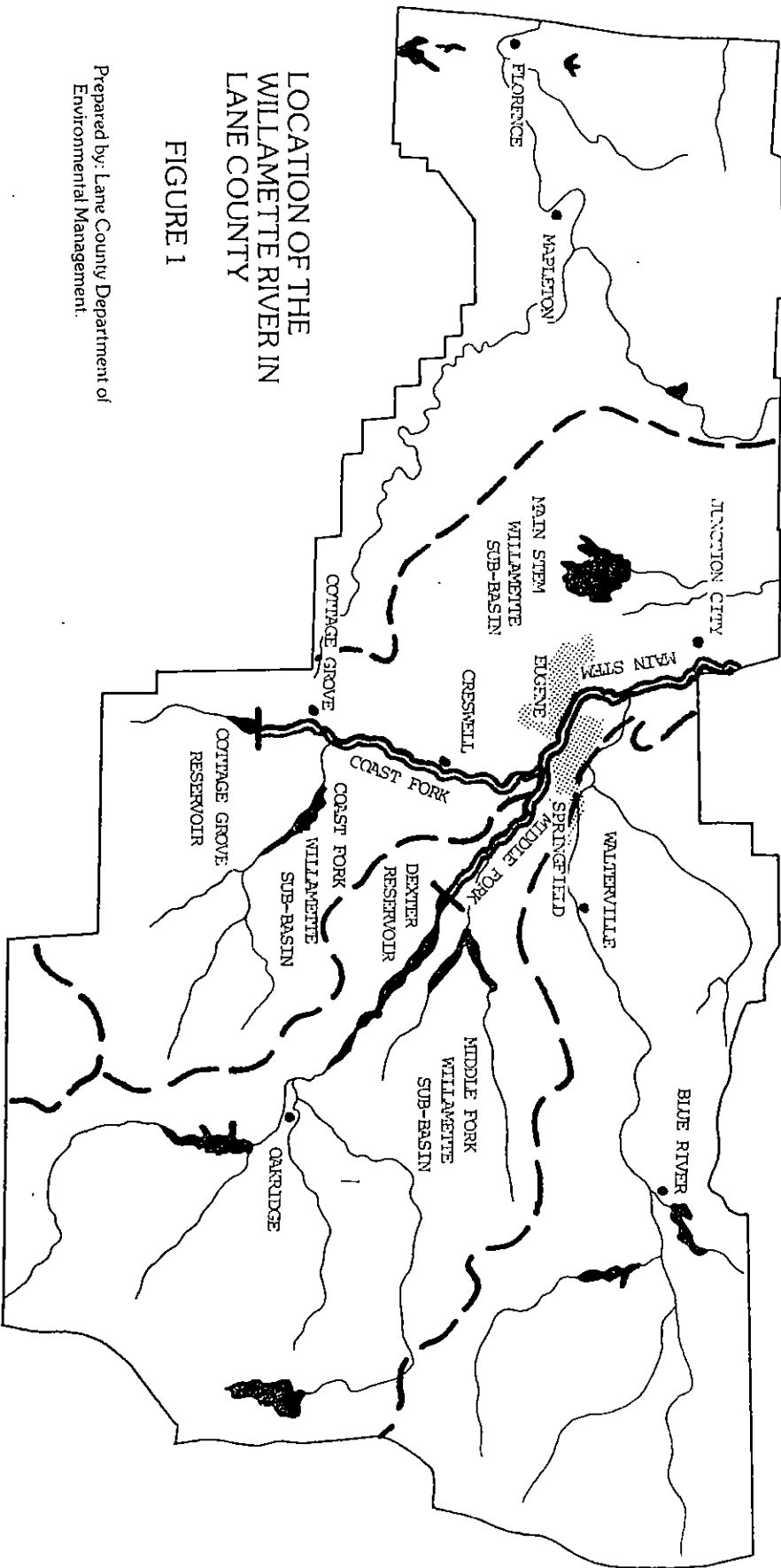
As identified in the Greenway Law (ORS 390.310 to 390.368), the Willamette River Greenway system begins in Lane County and extends 70+ river miles, generally flowing north, almost bisecting the County, from Dexter Dam along the Middle Fork, and Cottage Grove Dam on the Coast Fork to the confluence of the Mainstem in the vicinity of the Eugene-Springfield metropolitan area, then to the Lane-Benton County line where approximately six river miles are jointly shared by Lane and Linn Counties.

The impacts of the Willamette River on Lane County and vice versa are supported by the following general characteristics:

1. Lane County contains 25 percent of the entire Willamette River system, which is indicative of more river miles (70+) and riverbank miles (140+) than other counties through which the Willamette River flows;
2. The characteristics of the river directly influence approximately 3,500 riparian owners, which is comparable to riparian ownership in the Portland metropolitan area;
3. The majority of Lane County's total population (*250,000) resides adjacent to or within close proximity to the river;
4. The Willamette River directly impacts on the Eugene-Springfield metropolitan area where the majority of Lane County's population (equal to 70 percent or 180,000 individuals) resides; and
5. The Willamette River provides a vast multiple resource base for utilization by Lane County residents and nonlocal citizens. The resource base includes, in general but not exclusively, the following natural and cultural resource elements: a unique water feature in the urban and rural landscape; agricultural lands; aggregate resources; fish and wildlife habitat; recreation, historic and archaeological sites; scenic qualities; ecologically fragile areas and the urban landscape character.

The existence and degree of current and future influences on the Willamette River in Lane County can be identified and predicted in most cases from the growth pattern of population and its related impacts of growth along the Willamette River.

* L-COG Updated Population Projections Report, July 1977



LOCATION OF THE
WILLAMETTE RIVER IN
LANE COUNTY

FIGURE 1

Prepared by: Lane County Department of
Environmental Management.

FINDINGS

1. "The Willamette River means that portion of the Willamette River including all channels of the Willamette River from its confluence with the Columbia River upstream to Dexter Dam and the Coast Fork of the Willamette River upstream to Cottage Grove Dam."
2. The 1967 and specifically the 1973 Oregon State Legislatures acted to establish the Willamette River Greenway through the Willamette River Greenway Law (ORS 390.310 to 390.368).
3. The intent and purpose of the Greenway Law:

To maintain and enhance the natural, scenic, recreational and historical qualities of land within the Greenway, while permitting the continuation of existing uses on private and public lands and providing special protection of agricultural uses.
4. The intent of Goal #15, the Willamette River Greenway Goal:

To protect, conserve, enhance and maintain the natural, scenic, historical, agricultural, economic and recreational qualities of lands along the Willamette River as the Willamette River Greenway.
5. The legislature directed that the Department of Transportation, in cooperation with local governments, prepare a Greenway Plan. The legislation and, more specifically, Goal #15 direct that Lane County incorporate a Greenway Plan into its comprehensive plans and implementation ordinances.
6. The 1973 legislature delegated to the Land Conservation and Development Commission (LCDC) the responsibility to review and revise the Greenway plans developed by DOT and local governments.
7. Lane County's commitment to the Greenway program is evidenced by (1) Planning Commission and Board actions.
8. The Board created the Lane County Willamette Greenway Advisory Committee (WGAC) and directed to the Committee to: (1) Advise the Board and staff in conducting a study for the development and management of the Willamette River Greenway, (2) advise the Board concerning DOT's Greenway Plan, and (3) involve other citizens.
9. The majority of Findings, Goals, Policies, and recommendations in this technical report represent WGAC's work effort.

10. Primary reasons for the Greenway Program:
 - (a) Accommodate continued population growth, while preserving, conserving and protecting the River environment,
 - (b) to reorient our conceptual thinking and recognize the unique environmental character of the river, and
 - (c) to manage land use activities along the river to sustain and maintain the river environment for future generations.
 - (d) Compliance with the Greenway Law and Goal #15.
11. The boundary was created by legislative Greenway Law and the line must enclose all lands situated within 150 feet from the ordinary low water line.
12. The boundary shall also include those lands that DOT and Lane County consider necessary to protect and preserve the natural, scenic and recreational qualities and historic sites along the river.
13. The Greenway boundary defines a planning area, it does not authorize public use of private land.
14. Not all lands within the boundary are to be acquired for park areas within the boundaries, and existing residential, commercial and agricultural uses may continue without restriction.
15. The Greenway boundary has evolved through five major phases and has been reduced substantially during at least three phases.
16. The Willamette River in Lane County is situated along the Willamette Valley bottomlands and is directly influenced by the following major tributary sub-basins of the upper Willamette River Basin: the Middle Coast and Mainstem, including the McKenzie Sub-basin.
17. The Lane County Greenway Planning area contains 25 percent of the entire Willamette River system, which is indicative of more river miles (72+) and riverbank miles (140+) than other counties through which the Willamette River flows.
18. The characteristics of the river directly influence approximately 3,500 riparian owners, which is comparable to riparian ownership in the Portland metropolitan area.
19. The majority of Lane County's population (*250,000) resides adjacent to or within close proximity to the river.
20. The Willamette River directly impacts on the Eugene-Springfield metropolitan area, where the majority of Lane County's population (equal to 70 percent or 180,000 individuals) resides.
21. The Willamette River provides a vast multiple resource base for utilization by Lane County residents and nonlocal citizens. The resource base includes, in general but not exclusively, the following natural and cultural resource elements: a unique water feature in both the urban and rural landscape; agricultural lands; aggregate resources; fish and wildlife habitat;

recreation, historic and archaeological sites; scenic qualities; ecologically fragile areas and the urban landscape character.

22. The degree of future influences on the Willamette River can be identified in most cases from the growth patterns of population and its related impacts along the Willamette River.

OVERALL GREENWAY GOAL

PROTECT, CONSERVE, ENHANCE, MAINTAIN THE NATURAL, SCENIC, HISTORICAL, AGRICULTURAL, ECONOMIC AND RECREATIONAL QUALITIES OF LANDS ALONG THE WILLAMETTE RIVER AS THE WILLAMETTE RIVER GREENWAY.

POLICIES

1. Maintain and support continuation of existing uses within the Greenway Boundary.
2. Intensification and change of use of lands within the Greenway Boundary shall remain compatible with the protection, conservation and enhancement of the natural, scenic, historic, agricultural, economic and recreational qualities of the Willamette River Greenway Program.
3. Land use decisions within the Greenway shall reflect consideration of the socioeconomic, natural and man-made environments along the Greenway.
4. Recognize that the Greenway consists of a multitude of resources and due to growth, 100 percent of all resources will never be realized. The Greenway Program provides a process for achieving a compromise.
5. Coordinate planning efforts with the DOT in developing and implementing a Greenway Plan.

RECOMMENDATIONS

1. Intensification and change of use shall reflect consideration of the following man-made elements: other affected riparian ownerships; security; recreation and scenic qualities; historic and archaeological sites; existing and future land use and access.
2. Intensification and change of use shall be based on consideration of the impacts on the natural environment, at least the following elements: geomorphology and soils; floodplain and hydrologic characteristics.
3. Intensification and change of use shall reflect consideration of the impacts on the natural resources of the river such as agriculture, sand and gravel, riparian vegetation, fish and wildlife habitat and recreation potential.
4. Intensification and change of use shall reflect consideration of population and economic growth.

5. Educate the public to the following:
 - a. Within the boundary, existing uses are allowed to continue.
 - b. Not all lands are to be acquired for park areas.
 - c. The boundary defines a planning area; it does not authorize public use of private lands.
 - d. By legislative law, the boundary must enclose all lands situated 150 feet from ordinary low water line.
 - e. The boundary has been reduced in width substantially

II. THE SOCIAL AND ECONOMIC ENVIRONMENT

POPULATION

Historically, population growth has settled along established river systems in Lane County, with the majority of growth settling along the Willamette Valley bottomlands adjacent to and within close proximity to the Willamette River.

It is anticipated that the majority of future population growth in Lane County will follow past trends and occur along the valley bottomlands of both the Willamette Valley and its smaller tributary basins in areas generally near the Willamette River and its' tributaries. Reasoning supporting future growth patterns of development along the river system include:

1. Flatness of terrain, where development generally desires to locate because it is economically more feasible, in opposition to construction on the steeper hillsides;
2. Ease of access and egress from established transportation systems, and the stimulus to growth provided by the transportation systems along the valley bottomlands;
3. The existence of urban developed areas such as the Eugene-Springfield metropolitan area and other established rural communities along the Willamette River which act as focal points and encourage additional growth due to the existence of services, (i.e., sewer and water, police and fire protection, schools, cultural interest, etc.);
4. The existence of the Countywide policy which encourages concentration of growth in established nodes of development (i.e., the Eugene-Springfield metropolitan area, and the cities of Junction City, Coburg, Creswell, Cottage Grove and Lowell) in opposition to scatteration throughout the metropolitan and rural areas of Lane County;
5. The existence of Lane County's Energy Resource Policy which encourages growth patterns such as concentration of development in order to promote low energy consumption;
6. The influence of man-made structures such as dams and other river control projects that control the river flow and annual flooding, thus making more lands available for intensive development; and
7. The overall livability provided by the natural and cultural resource base of rural Lane County and the metropolitan area.

It appears advantageous now for Lane County and other local governments to develop a management plan that conceptually recognizes the Willamette River and orients decision-making processes to protecting and preserving its multiple resource capabilities.

The following analysis of projected population trends will provide an estimate of the extent of population growth and its impacts on the Willamette River on Lane County.

Lane County and the Metropolitan Growth Trends

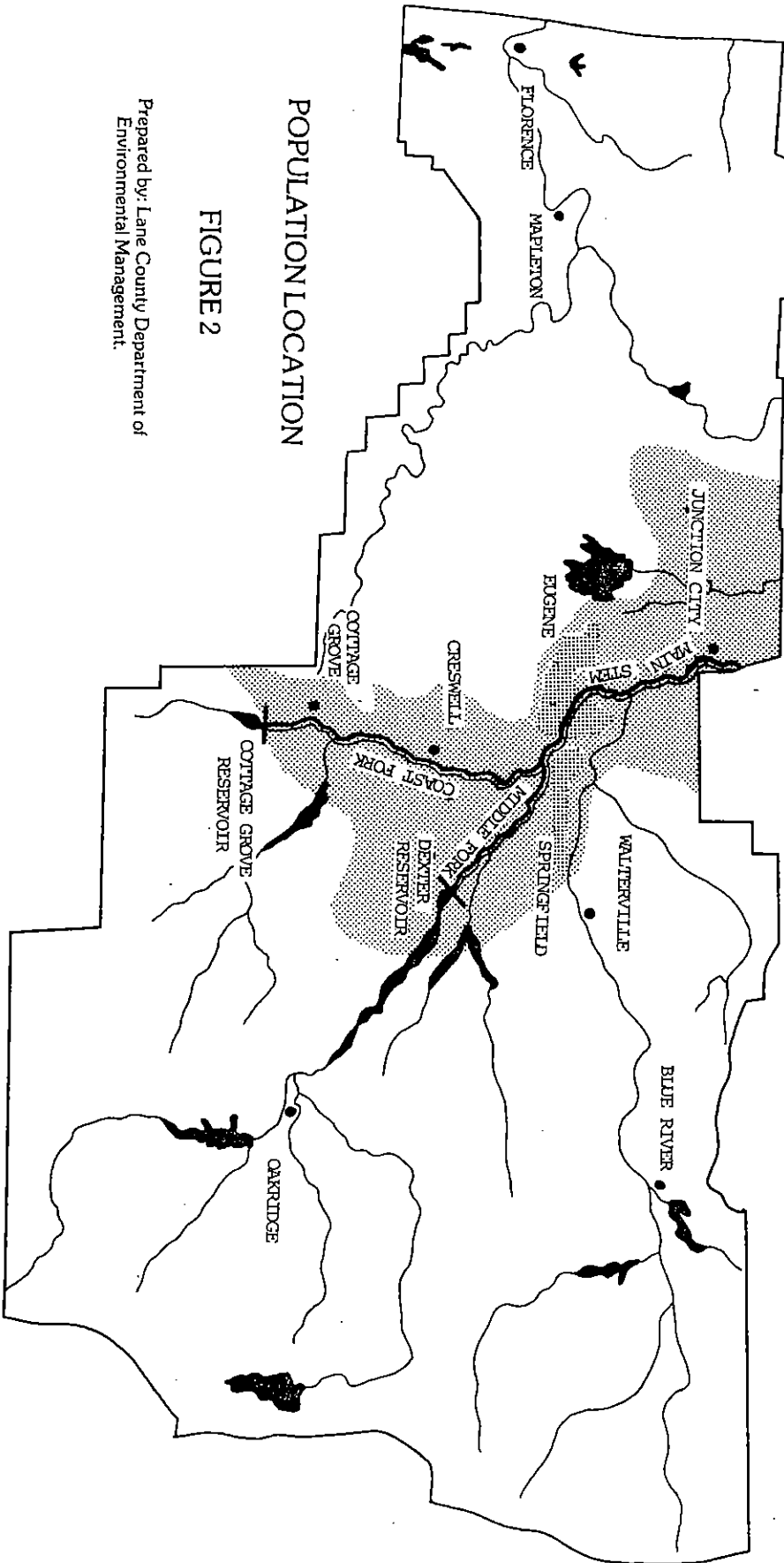
The current population for the entire County is approximately 252,500 individuals, while projections to the year 2000 indicate a potential population growth to 379,500, which is equivalent to a 50 percent increase, or 127,000 individuals. Currently, there are approximately 182,800 individuals in the Eugene-Springfield metropolitan area, while projections to the year 2000 indicate a total population of 293,700, which is equivalent to a 61 percent increase or about 110,900 individuals.

The above population figures are significant in regard to the Willamette River because approximately 80 to 90 percent of Lane County's current population (252,500 individual) resides along the Willamette Valley and tributary bottomlands within close proximity to the Willamette River. The population of the metropolitan area alone substantially impacts on the river because over 70 percent of Lane County's population (182,800 individuals) resides in the Eugene-Springfield area. Figure 2 identifies the area where the majority of Lane County's current population exists.

Although the current population already has a substantial impact on the Willamette River, the magnitude of the projected population should be recognized. For example, the population projection generally indicates an increase of 50 percent, or an additional 127,000 individuals for the entire County by the year 2000. It is assumed that the increased population will generally locate in the same area as the existing. However, expansion will also be noted along the intermediate slopes of the smaller tributary valleys east and west of the Willamette Valley.

A more detailed breakout of the above population figures by subareas and incorporated and unincorporated communities is presented below in Tables 1 and 2. The additional information will give further insight into the current and projected growth trends along the Mainstem, and the Coast and Middle Forks of the Willamette River.*

*NOTE: Metro study area for 1990 Plan update includes portions of the subareas (i.e., Goshen, Alvaradore and all of Census Tract 10). So there is some duplication of areas.



POPULATION LOCATION

FIGURE 2

Prepared by: Lane County Department of Environmental Management.

Subarea Population

Population figures for subareas, outside the metropolitan area but directly influencing the Willamette, are provided in Table 1 below:

TABLE 1

Subarea population figures - Willamette River

<u>Subarea</u>	<u>1975 population</u>	<u>Year projected to reach this population level</u>
Willamette Long Tom (Mainstem)	9,179	1975-1980
Lower Middle Fork (Middle Fork)	5,689	1985-1990
Lower Coast Fork (Coast Fork)	<u>10,695</u>	<u>1980-1985</u>
Total	25,563	

Source: Lane Council of Governments and Lane County Planning Division, 1977-78.

The above figures do not include population figures for incorporated cities (i.e., Coburg, Lowell, Creswell). As noted in Table 1, significant growth has occurred in the above areas because current population figures have already reached projection estimates for the years 1980 and 1990. Within the above areas the majority of past and current growth has occurred along the lower valley bottomlands within close proximity to and along the Willamette River. The majority of growth has occurred along the Middle Fork, followed by the Coast Fork, while growth along the Mainstem has been limited outside the metropolitan area, primarily due to the existing floodplain and agricultural resource lands. The land area of the Row River-London Subarea affecting the Willamette River Greenway is not significant enough to warrant inclusion of the subarea's entire population.

Incorporated Cities

Outside the Eugene-Springfield metropolitan area there are five incorporated cities that directly or indirectly influence the Willamette River environment. Table 2 identifies the location of these cities and provides current and projected population figures and growth percentages.

TABLE 2

Population Figures - Incorporated Cities

<u>City</u>	<u>*1977</u>	<u>**1995</u>	<u>% of Increase 1977 - 1995</u>
Junction City	2,940	4,430	50%
Coburg	840	1,040	20%
Creswell	1,650	2,650	60%
Cottage Grove	7,200	12,800	77%
Lowell	630	960	50%
Total	13,260	21,880	65%

Source: Lane County Planning Division and Lane Council of Governments, 1977-78.

Only the city limits of Cottage Grove are within the current Greenway boundaries. Except for Coburg, all cities are projected to increase from 50 to 77 percent in population by 1995. It is assumed that the City of Cottage Grove will impact to a greater extent on the Willamette River, due primarily to its large population, physical size and because the river bisects the city.

The cities of Junction City and Coburg are located along the Mainstem, with Junction City situated approximately two miles west of the Willamette River while Coburg is situated two and one-half miles east. The cities of Creswell and Cottage Grove are located along the Coast Fork, with the former located one mile west of the river, while the latter sits astride the river. Along the Middle Fork are located the city of Lowell and the unincorporated community of Dexter. The former is situated adjacent to Dexter Dam along the north bank, while the latter is located one-half mile south of the river.

The population of Dexter is projected to increase from 525 to between 595 and 750 by 1995. Other small communities indirectly influencing the Willamette River include Pleasant Hill and Jasper along the Middle Fork, and Goshen within the metropolitan area.

Conclusions

Figure 2 identifies the area where the majority of Lane County's population resides and through which the Willamette River flows. It is anticipated that,

*Source: Center for Population Research and Census, Portland State University.

**Source: Lane County Planning Division and the Lane Council of Governments. 1977-78.

generally, the majority of future growth and development will occur within the above subareas, cities and communities, and the metropolitan area within the identified area. Table 3 below provides a total population figure indicating that over 80 percent of Lane County's population is adjacent to or within close proximity to the Willamette River.

TABLE 3

Lane County - Population Affecting Willamette River

	<u>Current Population</u>
Subareas (i.e., Willamette-Long Tom, Lower Middle Fork, Coast Fork)	25,563 (1975 estimate)
Cities (i.e., Junction City, Coburg, Creswell, Cottage Grove and Lowell)	13,260 (1977 estimate)
Metropolitan area (Eugene and Springfield)	<u>182,800</u> (1977 estimate)
<hr/>	
Total population	221,623

*Source: Lane County Planning Division and L-COG, 1978.

Unless management plans such as the current Greenway program are implemented to reorient perceptions to recognize and to protect the Willamette River's multiple resource capabilities, continued population growth could impact substantially on the Willamette River.

ECONOMICS

Introduction

The economic concerns presented below were identified by the Lane County Willamette Greenway Advisory Committee (WGAC) as warranting consideration in development of the County's Greenway Plan. The comments presented should not be construed as an indepth economic input/output analysis because such a study should be developed on a regional scale and consider more than just the Greenway in order to provide maximum benefit to the public.

Economic considerations were given to the following uses that directly or indirectly influence the Willamette River: agriculture, sand and gravel resources, tourism and recreation, fish and wildlife, timber, reservoir projects and Greenway expenditures.

Agriculture

The fertile Willamette Valley soils, generally located along the upland terraces but paralleling the Willamette River, support a variety of agricultural crops, varying from fruits and vegetables to field crops such as corn, wheat and grass seed. Livestock also provides a significant income to many farmers along the river. The agricultural industry is a tremendous asset to the economy of Lane County and to the livability of the area. The flow of dollars generated from the industry into the community is substantial.

The majority of lands within the current adopted, but preliminary, Department of Transportation's Greenway boundary consists of the lower terraced, alluvial bottomlands which are susceptible to flooding and generally do not consist of prime agricultural lands. Prime agricultural lands are generally located on the upper terraced soils from the Willamette River.

High property taxes of farmlands along the Willamette River have been controlled through zoning of lands for Exclusive Farm Use and other large acreage zoning designations. The zoning is based primarily on the resource capability of the land and not values such as "development" potential which inflates land values. However, as the encroachment of urban communities presses more and more towards prime agricultural lands, there will be a need to protect and preserve, more so, this prime resource.

The Lane County Assessment and Taxation Office indicates that those lands abutting the Willamette River currently on farm deferral have the following general values:

TABLE 4

*Farm Deferred Values - Willamette River

<u>River Location</u>	<u>Deferred Value</u>
Mainstem	\$407/acre
Middle Fork	\$246/acre
Coast Fork	\$205/acre

Source: Lane County Assessment and Taxation Office and Planning Division, 1975-76 A&T data.

Overall, the average farm deferred valuation per acre along the Willamette River equals approximately \$286 per acre. Current "market value" generally equals three to four times the above deferred valuation. In general, assessment practices have placed farm deferred values on portions of lands contiguous to the river, even though the lands are nonproductive because they are considered to be alluvial bottomlands. Generally, this practice is common where the lower lands adjacent to the river are part of a much larger upland parcel considered to have prime agricultural soils.

*All assessment practices currently administered by Lane County result from state legislative directives.

Sand and Gravel

The Willamette River and its primary tributaries (i.e., Coast and Middle Forks) are the main source of sand and gravel resources in Lane County. The location of the resource makes it readily accessible to the metropolitan area which forms a principal economic market for the resource. WGAC recognizes that an adequate and economic supply of sand and gravel is essential to support the construction activity that is part of the normal economy.

The sand and gravel industry contributes jobs and payrolls to the economic base of Lane County. Although it is not a large industry, it is local and most of the dollar income is locally retained. The primary consumer of sand and gravel products is generally the construction industry, while ready-mix concrete is the single most important consumer product.

Exporting local supplies of sand and gravel to distant areas could expand the industry's existing economic base, however, transportation costs could make expansion prohibitively expensive to ship materials great distances. One good export possibility exists--specialized products, such as prestressed concrete beams and cement slabs, precision-cast to meet specific demands, are high-value products capable of bearing high transportation costs. It is assumed that marketing of such items will gain importance in the future. It has been estimated that the private sector owns twice the amount of aggregate producing lands necessary to meet demands up to the year 2000. This has been indicated in both the 1968 Central Land Planning Council's Sand and Gravel Report and the 1975 Lane County Planning Division's Aggregate Resource Study for the Middle Fork-Willamette River.

Tourism and Recreation

The physical existence of 25 percent of the entire Willamette River Greenway system within Lane County (equal to 70+ river miles and 140+ river bank miles) will significantly add to the growth of the tourist and recreation industry in Lane County. The additional tourist and recreational attraction offered by the Willamette Greenway, combined with the recreational demands of future population growth in Lane County (50 percent increase by 2000, or 127,500 individuals) will justify investment in both tourist and recreation facilities, which will attract additional profitable businesses.

As an industry, tourism and recreation offers some unique economic advantages for Lane County: (1) broadens the overall economic base by supporting such businesses as motels, hotels, restaurants, service stations, food stores, transportation services and entertainment enterprises; (2) has the potential for providing summer employment for the County, in addition to the number of permanent jobs it creates, and (3) generally helps to support our State Highway System's roads and recreational facilities. The Lane County Policy and Goals document identifies that the development of environmentally compatible tourist and recreational facilities which enhance the economic prospects of rural areas while serving the recreational needs of tourists and County residents. However, the Willamette River Greenway program alone will develop only a segment of Lane County's tourist recreational potential.

Fish and Wildlife

Fish and wildlife resources are an economic asset of the Willamette River and its tributaries within Lane County. Recreationists seek the annual runs of chinook, coho and steelhead, and the resident trout that exist throughout the river's systems. Also, a limited number of jobs are associated with the resource.

The riparian vegetation and associated upland vegetation provide habitat for not only water-related species and other game, but for species associated with agricultural lands. The vicinity of Dexter Reservoir is considered a popular feeding ground for osprey and bald eagles. Osprey are also found along the Coast and Middle Forks.

The recreationist spends dollars to support the above activities and the mere existence of fish and wildlife resources brings outside income into the County and broadens the rural economy.

However, compatibility problems do exist and trade-offs will have to be established because increased recreation activity (e.g., animal trapping, photography, scientific study, fishing, hiking, boating, etc.) and sand and gravel removal will have tendencies to encroach on sensitive areas of fish and wildlife habitat.

Timber

The majority of the lands within the current adopted Greenway boundary consist of lower terraced floodplain soils, generally not capable of supporting high quality marketable timber. Dominant timber species supported by the lower terraced soils include: cottonwood, willow and alder. Currently, cottonwood does have limited commercial value for plywood purposes. Marketable douglas fir is almost nonexistent along the lower terraced areas, however, it is found in limited quantities in the well-drained soils along the upper terraces. The upper terraced soils are used primarily for some form of agricultural use.

Reservoir Projects

Between 1947 and 1969, the Corps of Engineers constructed eight control reservoirs in Lane County (i.e., Cottage Grove, Dorena, Lookout Point-Dexter, Hills Creek, Cougar, Fall Creek and Blue River) along the upper reaches of the Willamette River*. Approximate cost for the projects, \$250,000,000, indicating a substantial public investment in control of the Willamette River. The reservoirs control and maintain river flow, provide flood control, recreation and limited power. Because of the reservoirs' flood control capabilities, more lands have become available for development purposes. Basically, below the above reservoirs the river is a man-made controlled river rather than a natural flowing system. During the development of the above reservoirs a substantial amount of income was retained in Lane County. Also, a short-term employment "boom" was noted, and it is anticipated that an additional "boom" will occur

*EWEB has three reservoirs located in the Upper McKenzie Basin, that are used primarily for power generation; cost figures are not provided.

when the Strube re-regulating reservoir is built below Cougar Reservoir on the McKenzie.

Reservoir recreation activities include: fishing, sightseeing, picnicking, boating (including water skiing), swimming and camping. The 1974 total annual attendance figures for the above reservoirs amounted to 1,990,500 with the majority of visits originating in Lane and Linn Counties. The amount of recreational dollars retained in Lane County is substantial. For example, the recreational visitor spends daily on the local economy, \$7.00 per individual. This is significant because approximately \$13,933,500 recreation dollars are retained annually in Lane County due to the existence of the above reservoirs. The above should be considered only a general economic indicator.

Greenway Expenditures

Table 5 below provides a general comparative listing of County, state and federal expenditures on Greenway-related projects generally in the unincorporated portions of Lane County. The listing resulted from analyzing the following expenditure areas: (1) County Greenway Land Acquisition; (2) consolidated County, state and federal funding programs for acquisition, design, development, maintenance and administration of the following County and State Parks: Jasper, Mt. Buford, Alton Baker and Dexter; (3) maintenance and development of State Greenway corridor lands and (4) County planning (FY 1976-77 and 77-78).

TABLE 5

Expenditure Comparisons: Lane County with State and Federal (1968-78)

<u>Agency</u>	<u>Expenditures</u> (approximate)
Lane County	\$1,170,000
State	1,360,000
<u>Federal</u>	<u>2,032,000</u>
Total	\$4,562,000

Source: Lane County Parks and Open Space Division and the State Department of Transportation, 1978.

In summary, for every Lane County dollar invested in the Greenway program, state and federal governments invested 2.89 or almost three dollars. State and federal governments individually have invested more dollars than Lane County in the Greenway program.

There are many economic uses of the Willamette River and its adjacent lands. Economic activities directly or indirectly influencing the Greenway include: sand and gravel, tourism and recreation, fish and wildlife habitat, timber, agricultural resources, reservoir projects and overall government expenditures. Naturally, economic trade-offs will have to be sought and compromises reached, because not all resources and uses will be preserved nor conserved because some

are dissimilar to others, and public need could prioritize use of one resource over another. For example, sand and gravel extraction, while a necessary segment of our local economy, does impact on recreational fish habitat which is also considered a viable economic asset of the river. Furthermore, the existence of 25 percent of the entire Willamette River Greenway in the County will add significantly to the growth of tourism and recreation in Lane County. However, increased recreational activity along the river will have a tendency to encroach on sensitive areas of fish and wildlife habitat, and prime agricultural lands generally adjacent to the Greenway boundary.

It should be recognized that projected population growth along the Willamette River will, by itself, impact significantly on the Willamette River's economic resource base because more demands will be placed on the river's resources. For example, more sand and gravel resources will be needed for housing; additional demands for recreational activities will be noted and, conversely, more demands for preserving adjacent agricultural land from development. Lane County's Greenway Plan does not recommend cessation of economic uses but does recommend a management program to identify areas of concern, so that regulations can be established to either preserve, conserve or protect the river's numerous economic resource capabilities.

Grants

The Department of Transportation may enter into agreements with units of local governments and make grants of money to assist units of local government in acquiring lands or interest in lands situated within the Greenway boundaries for public use for scenic and recreational purposes and to assist local governments in preserving and restoring historical sites, structures, facilities and objects on lands along the river. The grants of money by DOT shall not exceed 50 percent of the cost. All remaining costs, including future operation and maintenance, shall be borne by units of local government. Currently, the legislature only gave DOT funds for maintenance and development of State properties within the Greenway. Funds are not available for acquisition of sites. Funding assistance on a matching basis should also be sought from the Heritage Conservation and Recreation Service.

FINDINGS

1. Viable economic uses of the Willamette River and its adjacent lands include: sand and gravel resources, tourism and recreation, fish and wildlife, and to a limited extent, agriculture and timber resources.
2. Although the upper terraced lands along the Willamette River support the agricultural industry, important to the local economy, the majority of lower terraced lands within the Greenway Boundary generally consist of alluvial bottomlands susceptible to flooding.
3. Recognition of the Willamette River Greenway in Lane County combined with the recreational demands of future population growth, will broaden the recreational economic base of Lane County.
4. Although public investment in Lane County's reservoirs is substantial, they retained annually a substantial amount of recreation dollars in Lane County.

5. State and federal government has invested \$3.00 in the County Greenway Program for every Lane County dollar invested.
6. Increased recreational use, development demands along the river, excavating and harvesting of resources will encroach upon the economic viable fishing and wildlife habitat resources.
7. Economic trade-offs and compromise will have to be established because all resources and uses cannot be either preserved or conserved. Some are dissimilar to others while the public need could prioritize use of one resource over the other.
8. If allocated by the legislature, DOT can make grants (i.e., up to 50 percent of cost) available to assist local governments in acquiring lands or any interest in lands in the Greenway Boundary for public use such as recreational purposes or to assist in preserving and restoring historic sites, structures or facilities.
9. Historically, the majority of population growth in Lane County has settled along the Willamette Valley bottomlands adjacent to and within close proximity to the Willamette River.
10. Currently, over 80 percent of Lane County's population (221,600 individuals) resides along the Willamette Valley bottomlands and its smaller tributary basins along and within close proximity to the Willamette River.
11. The population of the metropolitan area substantially impacts on the river because the river bisects the metropolitan area where 70 percent of Lane County's population (182,800 individuals) is located.
12. Lane County population projections indicate an increase of 50 percent, or 127,000 individuals, for the year 2000. It is assumed that the increase in population will generally locate in the same area as the existing, due primarily to: (1) accommodating terrain features; (2) existence of major and minor arterial systems; (3) the County's coordinated growth concept; (4) the existence of urban services; (5) man-made controls of the river; and (6) the overall livability provided by Lane County and its cultural areas along the river.

GOAL

MAINTAIN OR SUSTAIN POPULATION AND ECONOMIC GROWTH THAT IS COMPATIBLE WITH THE GREENWAY GOAL.

POLICIES

1. Ensure that future growth will protect, conserve and maintain the natural, scenic, historical, agricultural, economic and recreational qualities of the lands within the Greenway.
2. Protect, conserve and preserve important economic uses such as agriculture, sand and gravel, tourism and recreation, fish and wildlife, urban lands and timber within the Greenway.

RECOMMENDATIONS

1. Development evaluations and other land use decisions shall reflect consideration of economic uses (i.e., existing development and locational factors, agriculture, sand and gravel resources, tourism and recreation and fish and wildlife) of lands within or adjacent to the Greenway Boundary.
2. Seek funding from DOT to acquire lands or interests in lands within the Greenway Boundary for public recreational purpose, or to assist in preserving and restoring historic resources.
3. Seek federal funding assistance from the Heritage Conservation and Recreation Service.
4. Develop public educational awareness programs to reorient public perceptions to recognize and protect the Willamette River's resource capabilities.
5. Development in the Greenway Boundary shall have intrinsic within its conceptual design a recognition or orientation to the river's unique environment.
6. Development within the Boundary shall be limited, redirected, restricted, not allowed or allowed in efforts of protecting the river's multiple resource base.

III. THE NATURAL ENVIRONMENT

Introduction

The following natural environmental elements were analyzed to provide an understanding of the physical capabilities and limitations of land and water within and along the Greenway Boundary: Physiographic characteristics, Geomorphology and Soils, Floodplain, Water quality, Quantity and Pollution and Urban runoff.

The analysis identified both physical features and systems that protect the river's resources, while in turn they control, redirect and limit expansion of existing or proposed development within and along the boundary. For example, natural elements posing physical limitations such as the floodplain or soils with a development suitability rating of 4, both restrict development from the majority of lands within the boundary, however, the same physical inherent characteristics protect, conserve and preserve the river's many natural resources such as agriculture, sand and gravel, fish and wildlife and natural areas, scenic and aesthetic qualities, etc.

Compilation of the geomorphic, soils, vegetation, biologic, hydrologic, floodplains data reveals that the bed, banks and lower and portions of the upper terrace are extremely sensitive to human use. Frequent flooding and shifting of the river's course are natural occurrences which are too easily affected by human activity. Acknowledging these problems, while recognizing the importance of both the existing urban and other growth areas, and agricultural uses along the river, results in the need for conservation and management practices to protect the quality of the river and its environment.

PHYSIOGRAPHIC CHARACTERISTICS*

The Willamette River in Lane County and its tributaries are largely located in the Willamette Valley. The valley lies between the Cascade Range on the east and the Coast Range to the west. With few exceptions, it is an area of low relief, lying between elevations of about 750 to 300 feet above mean sea level. In width, the valley floor varies from 13 miles along the Lane-Benton County line, to one-half mile along the Coast Fork at Cottage Grove Reservoir and to one mile at Dexter Reservoir along the Middle Fork.

The Willamette River flows generally north with elevations varying from approximately 790 feet at Cottage Grove Reservoir and 700 feet at Dexter Reservoir to 300 feet on the valley floor along the Mainstem.

* Physiography: A description of nature or natural phenomenon in general, such as physical geography of an area, i.e., the valleys, water features, steep slopes, or valley bottomlands.

Sub-Basins

The sub-basins (i.e., Mainstem, Coast and Middle Forks and McKenzie) are descriptions of topographic boundaries of land areas that shed rainfall and runoff into creeks and streams and eventually into the Willamette River waterway. Although large areas of these watersheds are not included in the Greenway boundaries, it is important to recognize they do not influence the entire water system, along with the reservoirs on the rivers.

The Mainstem of the Willamette River forms near Goshen where the Middle Fork and Coast Fork converge, it then passes through the heart of the Eugene-Springfield metropolitan area and leaves the County at Harrisburg. The main tributaries of the Mainstem include the McKenzie River and the Middle and Coast Forks of the Willamette River. It is the smallest of the major sub-basins, but includes the majority of population, industry and development.

The Willamette River's Middle Fork originates in the Cascades and is joined by the North Fork of the Middle Fork, northwest of Oakridge. The region of the Middle Fork that the Greenway is directly concerned with flows generally in a northwesterly direction from Dexter Reservoir to its confluence with the Coast Fork. The tributaries include: Rattlesnake Creek, Lost Creek, Fall Creek and Little Fall Creek. Much of the headwaters of the basin lie within the Willamette National Forest.

The Coast Fork of the Willamette River, which originates in the Calapooya Mountains, flows north through the valley to its confluence with the Middle Fork of the Willamette River. The sub-basin boundaries extend southward from Goshen into neighboring Douglas County. Major and minor tributaries include: Camas Swale, Lynx Hollow, Silk Creek, Gettings Creek and Row River.

Although affecting the Willamette River substantially, the McKenzie River, except for its confluence with the Willamette River, is not part of the Greenway.

FINDINGS

1. The physiographic diversity of the Willamette Valley confines the Willamette River generally to the valley bottomlands between the Cascade Range to the east and Coast Range on the west. The majority of intensive land use activities (i.e., residential, commercial and industrial) are located along the valley bottomlands in close proximity to the Willamette River.
2. The Willamette River will continue to influence the majority of intensive land use activities in Lane County.

RECOMMENDATION

Accept the fact that due primarily to the physiographic characteristics of the Willamette Valley and the County's coordinated growth concept, that the majority of development will occur along the Willamette Valley bottomlands within close proximity to the river.

GEOMORPHOLOGY AND SOILS

The Board in 1976 directed both staff and WGAC, when developing the Greenway Plan, specifically the boundary, to start with a point of 150 feet from low ordinary water line and extend the boundary based on the following criteria: lands subject to natural processes, such as directional changes, shifting and erosion; lands important to the overall stability of the river; and other sensitive areas such as fragile riverbanks, sloughs, vegetation and areas important for maintaining watershed potentials and capabilities. The Board's concerns relate to landscape surfaces within and adjacent to the Willamette River known as the Horseshoe and Ingram Geomorphic surfaces* or units.

Geomorphology**

All lands within the preliminary boundary are part of either the Horseshoe or Ingram Geomorphic Units. Although portions of the Ingram Unit are within the boundary, this Unit extends, in some areas, several miles from the river.

Horseshoe Unit: The Horseshoe Unit is the lower of the two floodplain levels of the Willamette River. The majority of lands within the current boundary along the Mainstem consists of the Horseshoe Unit, consisting of alluvial bottomlands and riverwash of the river bed. This Unit also extends up both the Middle and Coast Forks, however, its coverage is less extensive due to the physical narrowness that confines both Forks. Characteristics of this surface include: (1) an area of environmental sensitivity, (2) an area identified as the major river channel, containing old channels, meander scars, oxbows, sloughs, point bar deposits, gravel bars, etc., (3) an area of annual flooding, (4) either not vegetated, or will support young dense stands of willows or cottonwoods, and (5) an area where rapid changes in the landscape occur. Map 1 identifies the Alluvial Bottomlands.

An important characteristic of this Unit is that the annual flooding of the Willamette River inundates the majority of the Horseshoe Unit surface, resulting in relatively rapid changes of the landscape. However, construction of reservoirs along the upper reaches of the Willamette have controlled to a certain extent the flooding along the Horseshoe Unit. Cutting of new channels and lateral migration of meanders annually adds areas of the river bank to the surface of this Unit. Slopes of the Horseshoe Unit vary from 0 to 3%.

The majority of the river's multiple resources are directly and indirectly influenced by the Horseshoe Unit.

Ingram Unit: The remaining lands within the boundary consist of the Ingram Unit, considered to be the higher of the two floodplain levels of the Willamette River. The topography of the Ingram surface along the Willamette River is typically undulating with a maximum of about eight feet of relief. The relief

* Geomorphic Surface: A land form or group of land forms that represent an episode of landscape development.

**Geomorphology: A science that deals with the land and submarine relief features of the earth's surface and seeks interpretation of them.

is a result of corrugation developed by riverbank channeling. The river often floods the lower parts of the Ingram surface but seldom floods the higher ridges. Overall, the flooding of the Ingram Unit is generally inconsistent, however, much of the Unit is included in the 1% or 100-year floodplain and much of the lower Ingram Unit lying in close proximity to the Willamette River is subject to the 2% or 20-year floodplain. The 100-year floodplain is identified on Map 1 and can also be identified by soils types. Slopes of the Ingram Unit vary from 0 to 3%.

Soils

Soils overlaying the Horseshoe Unit consist primarily of recent alluvial bottomlands and riverwash and bars. Specifically, soils types include: riverwash (75A), and alluvial bottomlands (76A). These alluvial soils consist of gravelly substrata, sandy gravel and silt loam and are generally known as current floodplain soils.

The Lower Ingram Unit is overlain with soils consisting of silty clay loam, with silty clay subsoils intermixed with gravelly substrata. These soils are subject to a 2% or 20-year floodplain. The Upper Ingram Unit is also overlain with soils identified in the 1% or 100-year floodplain and consists primarily of silty clay loam over silty loam and gravelly subsoils. Specific soil types along the Ingram Unit generally include: Camas (1A), Cloquato (4A), Newberg Fine Sandy Loam (10A), Newberg Loam (11A), Chehalis (30A) and Chapman (31A).

Soils Interpretation

The alluvial soils situated along the Horseshoe Unit have an agricultural capability classification of VIII, indicating they generally are not suitable for intensive agricultural purposes. Also, they have a development suitability rating of 4 indicating they have severe limitations for nonagricultural uses such as development (i.e., construction of roads, subsurface sewage disposal and dwelling units). The major land uses of the alluvial bottomland soils include: limited agricultural activity, gravel extraction, nonintensive recreational activity and wildlife.

Overall, soils situated on both Ingram Units have an agricultural capability classification rating varying between I and IV indicating they are capable of supporting intensive agricultural activity. Class II soils dominate this land form. Due to flooding, ponding and high water table, these soils have a development suitability of 4 indicating they have severe limitations for development. Generally, these soils will support the following land uses: grass seed production, row crops, pasture, wildlife and nonintensive recreation.

In efforts of conserving and preserving agricultural lands, the boundary in Lane County has been generally excluded from agricultural lands except for the legislative 150-foot minimum requirements, public ownership, potential acquisition sites and other Greenway considerations.

FINDINGS

1. The Board directed that the boundary be expanded after consideration of Geomorphic surfaces in efforts to conserve and maintain natural sensitive areas of the river environment.

2. The majority of lands in the Greenway are dominated by the Horseshoe Geomorphic surface, the lower of the two floodplain levels.
3. The Horseshoe Unit consists of alluvial bottomlands and riverwash. The Unit is susceptible to annual flooding and is considered the major river channel where rapid changes in the river environment occur.
4. The Lower Ingram Unit, the higher of the two floodplain levels of the river, is susceptible to a 2% or 20-year floodplain, while the Upper is subject to a 1% or 100-year floodplain.
5. A major portion of lands in the boundary have an agricultural capability classification of VIII, indicating that they are not capable of supporting intensive agricultural activity.
6. The soils along both the Horseshoe and Ingram Units have severe limitations for development (i.e., subsurface sewage disposal fields, dwellings and roads) primarily due to high water table, ponding and flooding.
7. The Ingram Unit, although not a primary land feature in the current boundary, is dominated by soils with an agricultural capability classification of IIw, indicating they can support intensive agricultural activities.
8. The boundary has generally been excluded from the agricultural lands along the Ingram surface.
9. The major land uses of the alluvial bottomland soils include: limited agricultural activity, gravel extraction, nonintensive recreational activity and wildlife.

GOAL

RESPECT THE PHYSICAL LIMITATIONS OF LANDS WITHIN THE GREENWAY.

POLICIES



1. Discourage development which jeopardizes human life and causes severe economic dislocation.
2. Conserve, protect and preserve the natural resource values within the Greenway.

RECOMMENDATIONS

1. Discourage intensive development in the following areas: lands susceptible to 100-year floodplain; lands with severe soil limitations and lands along the alluvial bottomlands.
2. Maintain, protect, conserve and preserve the river's resource values (i.e., agriculture, sand and gravel, fish and wildlife, historic and archeologic, scenic, riparian, vegetation and recreation) within the Greenway.

MAIN STEM WILLAMETTE RIVER

FLOODPLAIN AND ALLUVIAL BOTTOMLANDS MAP-1

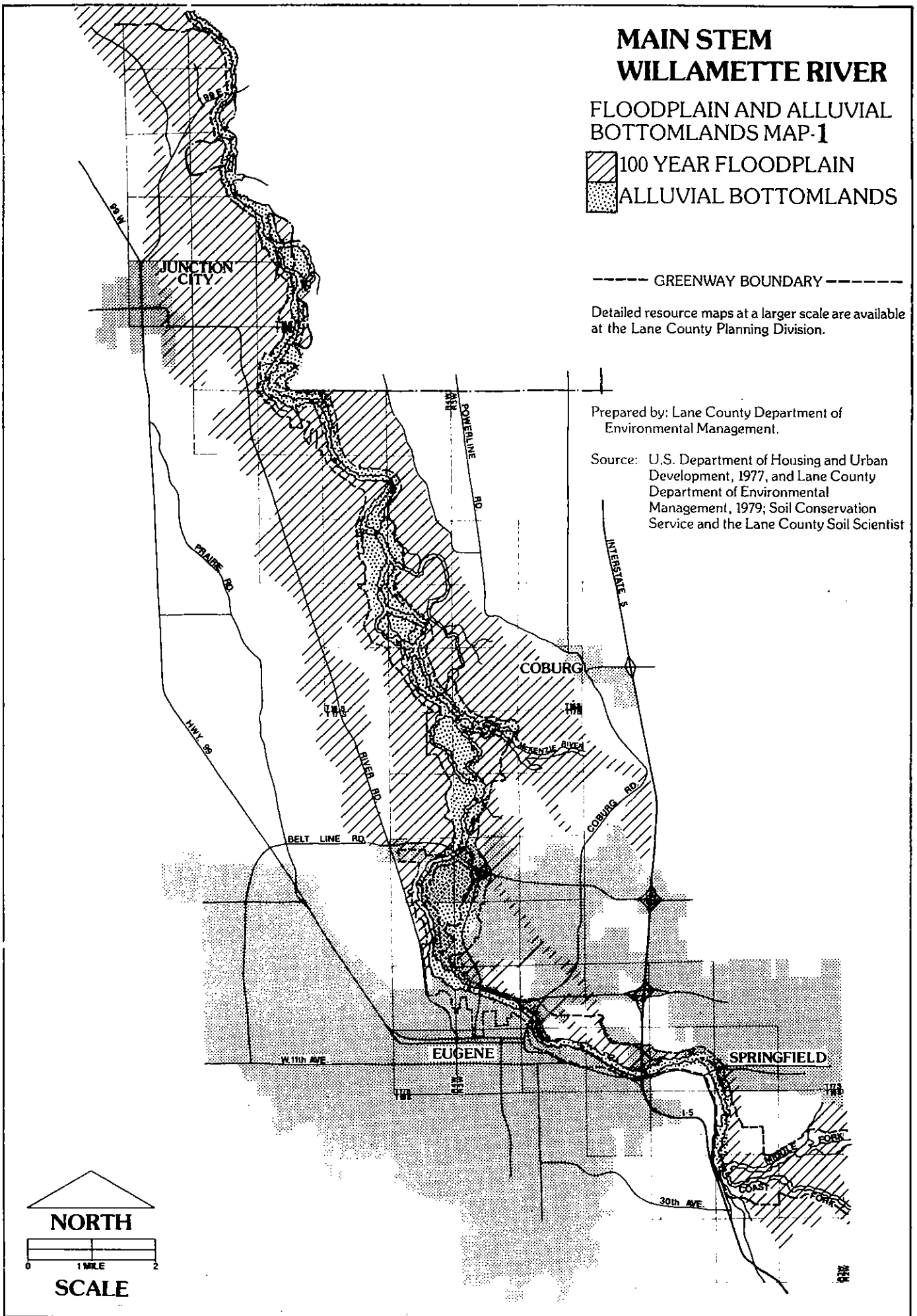
 100 YEAR FLOODPLAIN
 ALLUVIAL BOTTOMLANDS

----- GREENWAY BOUNDARY -----

Detailed resource maps at a larger scale are available
at the Lane County Planning Division.

Prepared by: Lane County Department of
Environmental Management.

Source: U.S. Department of Housing and Urban
Development, 1977, and Lane County
Department of Environmental
Management, 1979; Soil Conservation
Service and the Lane County Soil Scientist

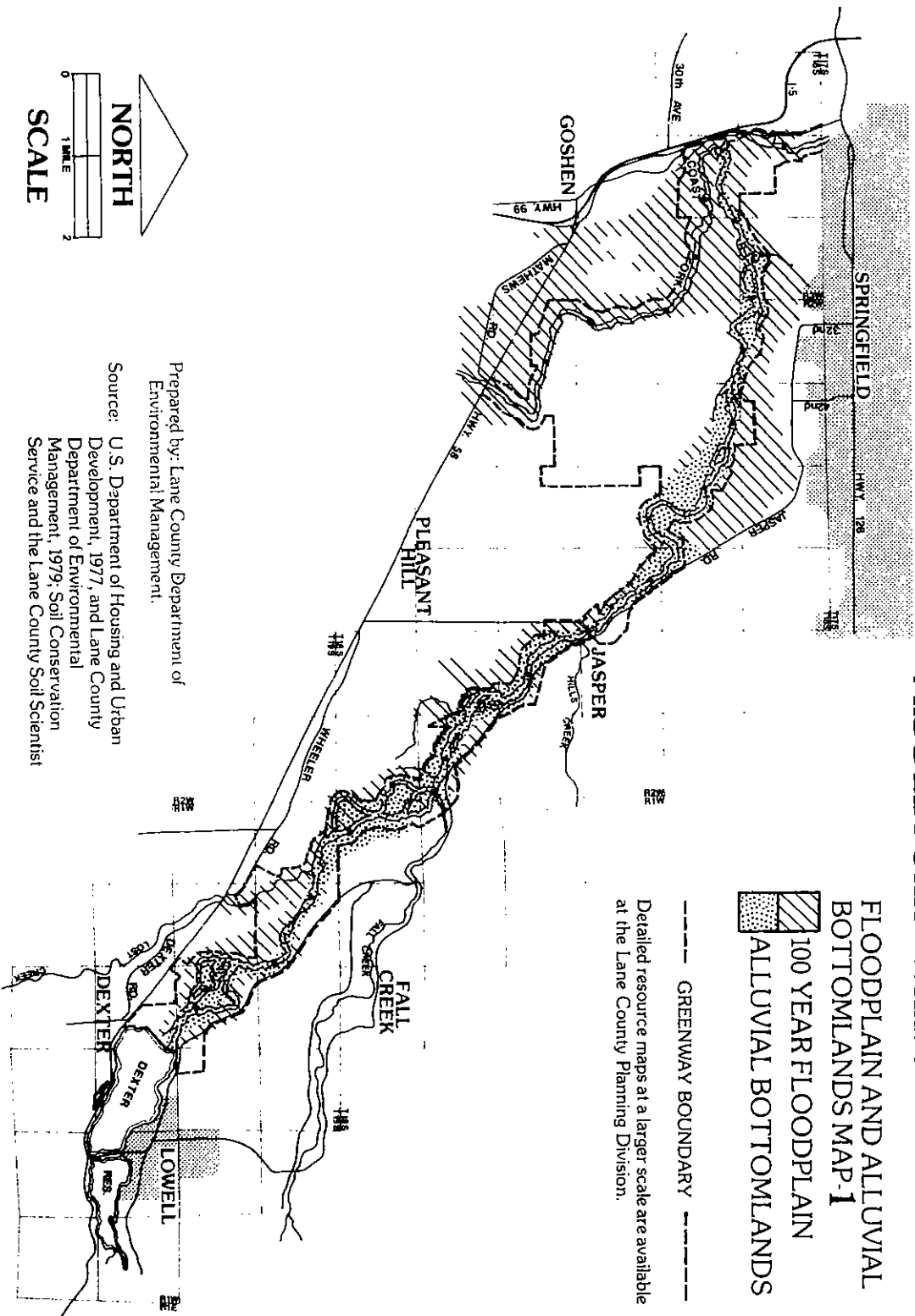


MIDDLE FORK WILLAMETTE RIVER

FLOODPLAIN AND ALLUVIAL
BOTTOMLANDS MAP-1

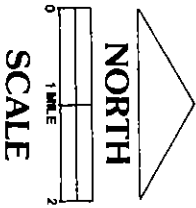
100 YEAR FLOODPLAIN
ALLUVIAL BOTTOMLANDS

GREENWAY BOUNDARY
Detailed resource maps at a larger scale are available
at the Lane County Planning Division.





Prepared by: Lane County Department of
Environmental Management.

Source: U.S. Department of Housing and Urban
Development, 1977, and Lane County
Department of Environmental
Management, 1979; Soil Conservation
Service and the Lane County Soil Scientist



COAST FORK WILLAMETTE RIVER

FLOODPLAIN AND ALLUVIAL BOTTOMLANDS MAP-1

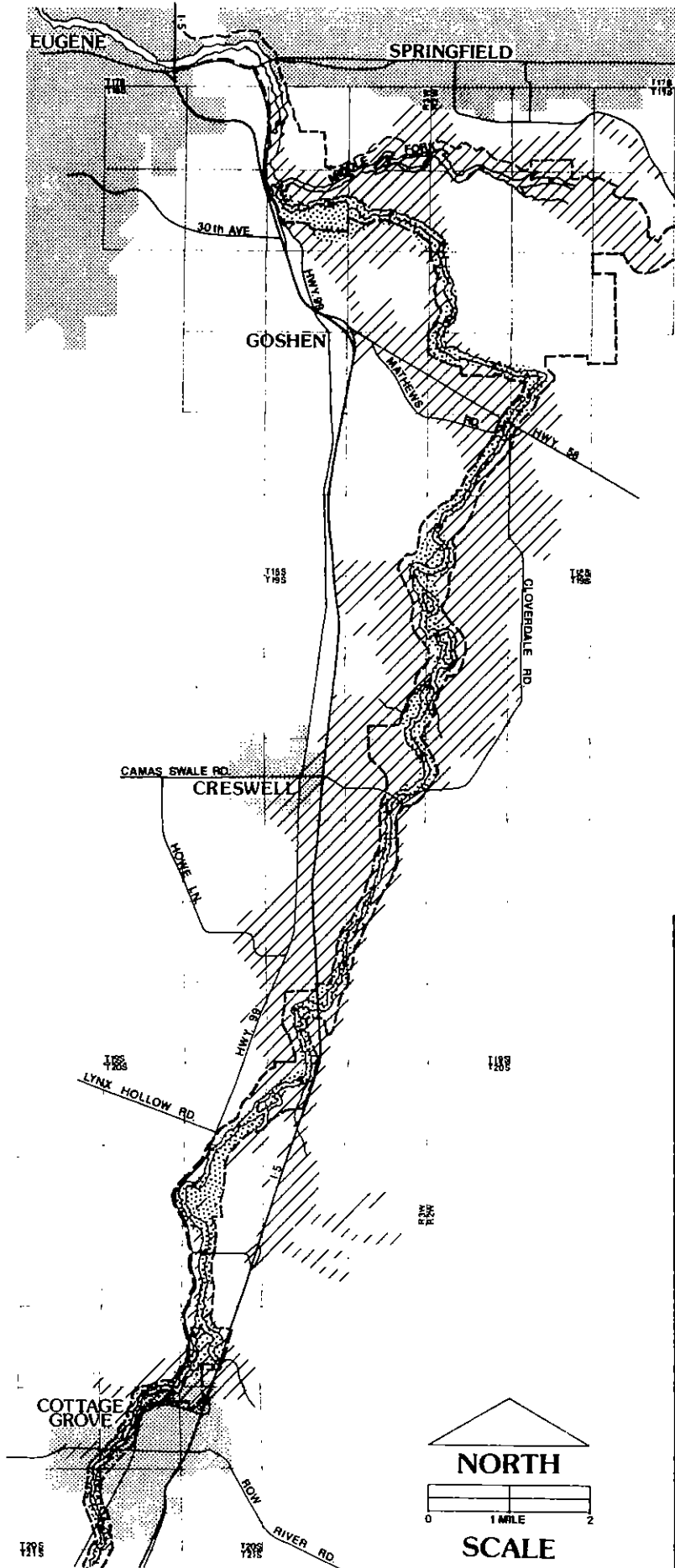
 100 YEAR FLOODPLAIN
 ALLUVIAL BOTTOMLANDS

 GREENWAY BOUNDARY

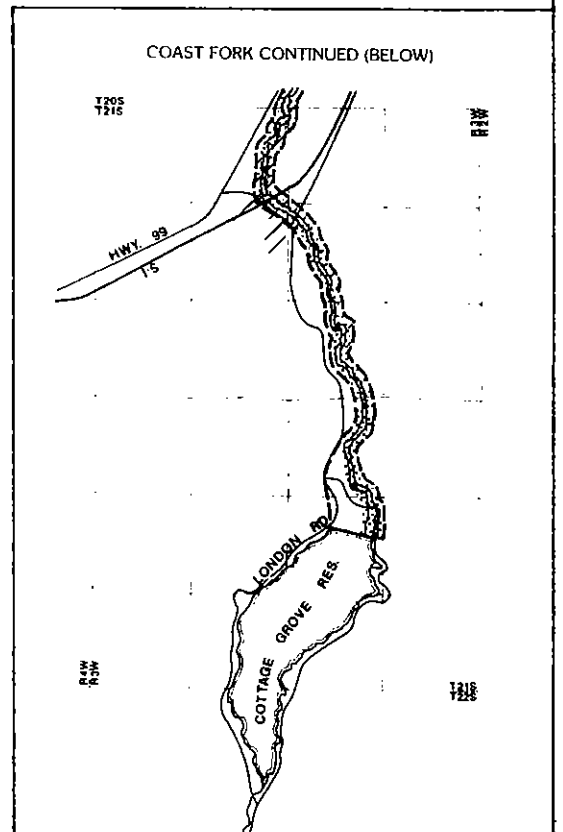
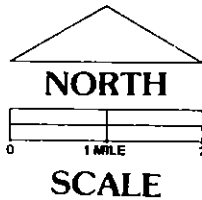
Detailed resource maps at a larger scale are available at the Lane County Planning Division.

Prepared by: Lane County Department of Environmental Management.

Source: U.S. Department of Housing and Urban Development, 1977, and Lane County Department of Environmental Management, 1979; Soil Conservation Service and the Lane County Soil Scientist



COAST FORK CONTINUED (SEE INSET AT RIGHT)



3. Redirect, restrict, limit or not allow intensive development along the Horseshoe and Lower Ingram geomorphic surfaces.
4. Maintain or sustain the alluvial bottomlands for rural uses such as agriculture, nonintensive recreation, fish and wildlife habitat and natural areas.
5. Redirect, limit, or not allow nonintensive development (i.e., recreation) along the Lower Ingram and Horseshoe surfaces, especially in areas subject to physical hazards and only after consideration of the impacts on the natural resource base.
6. Conservation should include protecting and managing fragile riverbanks, sloughs, wildlife, vegetation and sensitive areas from damage caused by human use.
7. Zoning along the alluvial bottomlands should be highly restricted and discourage intensive development.

FLOODPLAIN

The possibility of flooding acts as a major influence in determining activities along the Willamette River. It is recognized that there is a need to identify and protect areas in the Greenway that are prone to regular flooding. Also, areas susceptible to flooding frequently change as the river alters its course.

Floodplain Characteristics

A floodplain is defined by its chance of being flooded in any given year. The 100-year floodplain, therefore, is the area that will be flooded once a century or has a 1% chance of being flooded in any year. The 20-year floodplain has a 5% chance of being flooded each year.

Floodplain information indicates that the majority of land areas paralleling the Willamette River are included in the 100-year floodplain; however, actual distance from the river varies. For example, the floodplain along the Mainstem extends up to three miles from the river, while along portions of both the Middle and Coast Forks up to one mile. The 20-year floodplain, which is much narrower than the 100-year floodplain, has been identified by soil types. The 100-year floodplain is identified on Map 1, Floodplain and Alluvial Bottomlands.

The 100- and 20-year floodplains can be related to river stages in TABLE 6 below, which gives approximate flood stages at the major gauging stations along the Willamette:

TABLE 6

Flood stages--Willamette River

<u>Station</u>	<u>*Normal height</u>	<u>20-year flood</u>	<u>100-year flood</u>
Harrisburg	10.5	16.1	19.5
Ferry St. Bridge	20.2	21.7	26.7
Jasper Bridge	3.0	3.4	4.1

Source: Corps of Engineers, Portland Office, April 1978. Figures based on regulated flow conditions.

In October 1977, the State Attorney General concluded that the term, "ordinary low water" as used in the Greenway Law [ORS 390.310(4) and 390.318(1)] means the line to which the Willamette River ordinarily recedes annually in season even though the elevation of that line may be higher as a result of the Corps of Engineers' flood control structures than would otherwise be the case without such structures.

Almost all, approximately 95%, of the lands within the current Greenway Boundary adopted on an interim basis in 1977 by the Land Conservation and Development Commission (LCDC), are susceptible to inundation by both the 20-year and the 100-year floods; some are subject to annual floodwaters. Land areas within the Greenway Boundary that are not identified as being in the floodplain are few; principally elevated natural levees found along former channels and man-made fills for roads, railroads and bridges.

The majority of multiple resource activities within the Greenway Boundary that are directly or indirectly influenced by being in the 20-year floodplain include: agricultural lands; potential and existing sand and gravel resources; river access points and recreation sites; fish and wildlife habitats and nature conservancy sites; existing state corridor lands and future acquisition sites; lands in public ownership; scenic areas and riparian vegetation and timber resources and historic and archaeological sites.

The likelihood of flooding will be a major determinate of both man-made and natural resource activities along the Willamette River, specifically within the current Greenway Boundary. The floodplain identifies a major area, extremely sensitive to man's use, however, the possibility of flooding in turn, protects and conserves those resource activities important to maintenance of the Willamette River environment and the development of the Greenway Program in Lane County.

*Normal flow is comparable to a two-year flood.

Considerations

The following reservoirs were constructed in Lane County by the Corps of Engineers along the upper tributaries of the Willamette River: Cottage Grove, Dorena, Lookout Point, Dexter, Hills Creek, Cougar, Fall Creek and Blue River. The Eugene Water and Electric Board constructed Carmen-Smith and Trail Reservoirs along the upper reaches of the McKenzie River in Linn County. The Corps' reservoirs are primarily used to provide flood control, maintain river flow, recreation activities and limited power. EWEB's reservoirs are primarily used for power generation. Generally, the Willamette River below the above reservoirs becomes a man-made controlled river rather than a flowing stream. However, even with the addition of man-made flood control capabilities, the river is capable of periodic flooding by the 100-year and 20-year flood cycle and annual flooding of the river channel.

In 1976, both the Board and the Lane County Planning Commission directed staff to include appropriate portions of the floodplain when developing Greenway boundaries for Lane County. A consensus of comprehensive land use plans influenced by the Willamette River indicate that a floodplain management program is needed and that the floodplain should be preserved and conserved for open space of nonintensive development. The Greenway Advisory Committee (WGAC) strongly recommends that any building in the Greenway should be nonintensive and be floodproof or removed prior to annual flooding. The Willamette River floodplain area has been designated by Lane County as a "Special Permit Area," because a structure cannot be built unless a permit is obtained. Currently, Lane County does not have floodplain zoning, however, the majority of lands adjacent to the river are zoned for preservation of the natural resource base. Furthermore, the Department of Housing and Urban Development has prepared, on an emergency basis, interim flood hazard boundary maps identifying the 100-year floodplain for all of Lane County. The above County "Special Permit" process and HUD maps are both evaluated prior to issuance of development permits.

FINDINGS

1. Flooding is a common and natural occurrence along lands adjacent to the Willamette River. The Mainstem, Coast Fork and Middle Fork of the Willamette River are all included in the 20- and 100-year floodplains.
2. Approximately 95% of the lands within the current Greenway Boundary are susceptible to flooding.
3. Generally, the 100-year floodplain in Lane County extends one-half to two miles beyond the Willamette River and the Greenway Boundary. The narrower 20-year floodplain generally extends beyond or coincides with the Greenway Boundary, however, limited exceptions are noted along the Coast and Middle Fork.
4. The majority of multiple resource activities (i.e., agricultural lands; potential and existing sand and gravel resources; river access points and existing state corridor lands and potential acquisition sites; public lands; scenic areas; riparian vegetation and timber resources and historic and archeological sites) within the Greenway Boundary are susceptible to the 20-year or 100-year floodplains.

5. Lane County has the following Willamette River Greenway floodplain concerns:
 - (a) A floodplain management program is needed;
 - (b) Development in the floodplain should generally be compatible and floodproofed or removed prior to high water;
 - (c) The floodplain should be preserved and conserved for various forms of open space;
 - (d) The likelihood of flooding is one criterion for establishing the Greenway Boundary.
6. The floodplain is a major determinate to man-made activities along the Willamette River, however, the floodplain protects and conserves those resource activities important to the river environment and the Greenway Program.
7. The Middle Fork and Coast Fork rivers flow in relatively stable channels and their floodplains include less adjacent area than the Mainstem of the Willamette River.

GOAL

MANAGE, CONSERVE AND PRESERVE THE FLOODPLAIN WITHIN THE GREENWAY FOR OPEN SPACE.

POLICIES

1. Reduce economic and social costs created by improper use of flood hazard areas by restricting intensive development in those areas susceptible to annual flooding.
2. Floodproof landings, buildings and other structures within the Greenway Boundary or remove them before annual flooding.

RECOMMENDATIONS

1. Site selection of recreation uses must take into account the degree of flooding anticipated since all low-lying areas will be subject to flooding.
2. Restrict development in areas susceptible to annual flooding.
3. Develop a 100-year floodplain ordinance for flood hazard areas within and along the Greenway Boundary.
4. Utilize existing County regulations and directives relative to flooding to control development along and within the Greenway Boundary.
5. Consider the impacts of the 20- and 100-year floodplain when evaluating development requests or land use proposals within or along the Greenway Boundary.
6. Conserve and preserve the 20-year floodplain and annual flooding areas for nonintensive open space uses such as agriculture, recreation, fish and wildlife habitat and natural areas, scenery, riparian vegetation and related timber resources, etc.

7. Consult the following floodplain maps when evaluating land use proposals or changes within the Greenway: (1) 1977 HUD 100-Year Floodplain Maps; (2) Greenway soil maps and overlays (4 inches = 1 mile); and (3) Greenway Floodplain maps (2-1/2 inches = 1 mile). The maps are available in the Planning Division Office.

WATER QUANTITIES

It is important to maintain sufficient water flow in the Willamette River to support water uses such as domestic, industrial, agriculture, natural resources (i.e., fish, aquatic life, wildlife) and recreation. The Army Corps of Engineers in cooperation with the State Water Resource Department regulates the release of water from reservoirs affecting the Willamette River. Each May, when most reservoirs approach maximum pool levels, an assessment of storage and projected inflows for the low season is compiled. A plan for operation of flow in the Willamette River is compiled after examining anticipated power, navigation and irrigation needs, water quality control, fish life enhancement and recreation needs. Releases for low flow augmentation usually begin in July.

The majority of Lane County's population growth will occur within close proximity to the Willamette River, consequently, increasing demands to release stored water may result in decreasing flexibility in system operation.

Subarea Quantities

Mainstem Willamette: Flows are generally plentiful for all uses. The major need is to maintain sufficient flows for anadromous fish passage and for dilution of wastes from the Eugene-Springfield area downstream. Normal low flows are near 4,000 cfs. (i.e., cubic feet per second) at Harrisburg. Allocation from Eugene to Harrisburg total 254.4 cfs. with 208.5 cfs. being consumptive. Irrigation uses the largest share: 190.7 cfs.

Middle Fork: Since the reservoirs have been completed, there has been no conflict between water demands and minimum flows. The minimum recorded flow on the Middle Fork at Jasper was 366 cfs. with the completion of Lookout Point Reservoir. Normal low flows are in the 1,000 to 1,500 cfs. range. Water rights total 213 cfs., of which 58% is for irrigation, domestic, municipal and industrial withdrawals. Fishery protection accounts for 92 cfs. Desirable flow is 640 cfs. at natural flow, plus 1,475 cfs. from storage release (a total of 2,115 cfs.).

Coast Fork: Below Cottage Grove Reservoir to confluence with the Row River, the flow is regulated. Recorded minimum flow is near 0 cfs., with normal low flow around 40 cfs. There is an established minimum of 15 cfs., plus 100 cfs. storage release. Total water rights amount to nearly 120 cfs., with consumptive allocations totaling 250 cfs. storage release flow. Minimum recorded flow is 36 cfs., with normal lows near 250 cfs. Total allocations are 155.8 cfs., with 84.2 cfs. for irrigation purposes. The present average flow in some parts of the Coast Fork presents problems for satisfying competing demands. Industrial allocations are not all consumptive, although they may add to a degradation problem.

FINDINGS

1. The major need along the Mainstem is to maintain sufficient flows for anadromous fish passage and for dilution of wastes from the Eugene-Springfield area downstream.
2. There are limited conflicts between water demands and minimum flow along the Middle Fork.
3. Present average flows within the Coast Fork sub-basin present problems for satisfying competing demands.
4. Population growth along the Willamette Valley bottomlands will result in increasing demands to release stored water.

GOAL

MAINTAIN SUFFICIENT WATER FLOWS TO SUPPORT WATER USES WITHIN THE GREENWAY.

POLICIES

1. Maintain sufficient water flows to support water uses such as domestic, industrial, agriculture, natural resources (i.e., fish, aquatic life, wildlife) and recreation in the Greenway.
2. Prioritize maintaining adequate flows along the Coast Fork.
3. Properly regulate stream flow so as to minimize bank erosion.

RECOMMENDATIONS

1. Maintain sufficient flows along the Mainstem for anadromous fish passage and for dilution of wastes from the metropolitan area.
2. Implement a water management plan that reviews consumptive uses of water.
3. Consider the impacts of consumptive uses of water (i.e., domestic, agriculture, industrial) and nonconsumptive uses (i.e., recreation and natural resources) when evaluating land use or development proposals on lands adjacent to the Willamette River.
4. Coordinate with the Army Corps of Engineers and State Water Resource Department in efforts of maintaining sufficient flows of water to meet consumptive and nonconsumptive demands and related quantity problems, especially along the Coast Fork.

WATER QUALITY

The majority of land use growth in Lane County will occur within close proximity to the Willamette River, consequently, the water quality of the river will be continually influenced in a negative manner unless development recognizes or incorporates the river's qualities into its design. Through proper site

orientation, the river can actually enhance development. Maintaining water quality is a primary responsibility of the Department of Environmental Quality (DEQ). However, Lane County has primary control over land use activities on lands adjacent to the river. The County, through land use controls, can assist DEQ in controlling the quality of the water. Land use controls for maintaining water quality could include: (1) maintaining vegetative buffers, especially riparian vegetation; (2) maintaining open space between development and the river; (3) increase in setbacks for structures and dwelling units along the river; (4) rezoning for site preservation; (5) encouraging growth where facilities are available; and (6) adoption of runoff, erosion or vegetative control ordinances.

General Level of Water Quality

Mainstem: From the metropolitan area to the confluence with the McKenzie, the Willamette is quite turbid. It is influenced by stream-side gravel operations and urban runoffs. Bacterial loadings increase dramatically on passage through the urban area. Acute enrichment occurs from mill effluents, various sewage plants and urban storm runoffs. Also, the river is degraded primarily in terms of aesthetic and bacteriological quality. A self-rectification process occurs further downstream aided by the rapid flow and dilution factor of the McKenzie River.

Middle Fork: The major water quality problem is turbidity below the reservoirs and occasional high bacterial loads and bacterial enrichments within tributaries of the Willamette River.

Coast Fork: The Coast Fork exhibits several indications of poor quality water which are attributed to high bacterial loadings, turbidity problems, and occasional undesirable low D.O. (dissolved oxygen) levels. These problems are acute in the summer when high temperatures combine with very sluggish flows to make enrichment and degradation problems more offensive in character and more noticeable. Overall significant water quality characteristics include: (1) D.O. levels below Cottage Grove, sometimes drop below the 95% saturation level necessary for spawning salmonids; (2) Summer temperatures over 68⁰F on much of the basin would tend to provide thermal barriers to migration of salmonids; (3) Turbid waters are usually aesthetically unsatisfactory; (4) Heavy runoff and leaching, and high agricultural and timber land sediment runoff; and (5) Recreational and fishery values are severely limited on the lower and middle portions of this sub-basin due to the enrichment and pollution factors, as well as low flow and high temperature problems in the summer. The Coast Fork is the most critical stream in the County with regard to poor water quality and it supports the highest density of nonmetropolitan industrial activity in the area.

FINDINGS

1. The Mainstem is degraded in the metropolitan area primarily due to bacterial loading and urban storm runoff.
2. A major water quality problem along the Middle Fork is turbidity below the reservoirs.

3. The Coast Fork is the most critical stream in the County regarding poor water quality and it supports the highest density of nonmetropolitan industrial activity in the area.
4. The Coast Fork exhibits several indicators of poor water quality such as high bacterial loading, turbidity and low D.O. (dissolved oxygen) levels. The pollution problems are more acute during the summer because of higher temperatures contributed to by sluggish flows.

GOAL

SUSTAIN AND ENHANCE WATER QUALITY IN THE GREENWAY.

POLICY

Prioritize water quality management controls along the Coast Fork and the Mainstem, especially in the metropolitan area.

RECOMMENDATIONS

1. Advise DEQ of water quality problems and sources along the Willamette River, specifically along the Coast Fork.
2. Support DEQ in increased surveillance and monitoring of discharge permits along the river, specifically along the Coast Fork.
3. Development evaluations for residential, commercial, industrial or recreation shall take into consideration the impacts upon water quality.
4. Consider land use controls such as: (1) maintaining vegetative buffer strips, (2) maintaining open space, (3) possible increases in setbacks, (4) rezoning for site preservation, (5) encouraging growth where public facilities are available, (6) site drainage plans, and (7) adoption of runoff, erosion or vegetative ordinances, for maintaining or improving water quality.
5. Drainage projects should occur only after considerations of the need to maintain wildlife habitat, recreational facilities and the quality of the river experienced as stated in Goal #15.

WATER POLLUTION

As indicated in the Social and Economics Chapter, the majority of population growth will occur along the Willamette River. Consequently, unless land use decisions reflect consideration of the river's unique qualities, increases in pollution will be noted.

By identifying pollution sources along the Willamette River, management measures can be applied to not only protect the public's health, safety and welfare but to assist in conserving or preserving the resource qualities of the river such as: water quality, fish and wildlife habitat, vegetative resources, recreation, aesthetic and scenic zones, ecologically fragile areas, etc.

Sources of Water Pollution

Mainstem: Significant sources of water pollution occurring along the Mainstem include:

1. Domestic Waste: The major discharges into the Willamette come from the metropolitan area, specifically, sewage treatment plants.
2. Industrial Wastes: Several industrial operations, including those along major tributaries, contribute wastes to the Willamette River.
3. Agricultural: Throughout the sub-basin agricultural runoffs result in enrichment and turbidity. Existing poultry and dairy livestock operations have pollution potential.
4. Septic Tank Seepage: Soils in this sub-basin are frequently considered unsuited for septic tank use, and even where they are suitable, development has sometimes taken place at such a high density level that pollution problems have arisen. In the River Road-Santa Clara area, many small water courses receive effluent from septic tanks.
5. Other: Pollution from other sources includes intermittent pollution from landfill sites.

Middle Fork: There are few significant pollution discharges in this sub-basin.

1. Domestic: Both Oakridge and Lowell provide secondary treatment for their domestic wastes. In the recent past, both systems have experienced occasional problems in providing adequate treatment.
2. Industrial: Industrial waste discharges are confined to Oakridge and Jasper. In both locations, mills use water in their processes and also for log ponds.
3. Agricultural: Runoff from agricultural uses does not have significant impact on water quality.
4. Septic Tank Seepage: Substantial numbers of septic tanks located near water courses are not functioning properly. Investigations have shown that of all septic tanks located within 100 feet of water bodies, 23.4% were not functioning properly in the Dexter area and 54.4% were deficient in the Jasper area.
5. Other Sources: Gravel operations near the mouth of the Middle Fork may add to the turbidity problems of the Mainstem in the metropolitan area.

Coast Fork: Of all the major streams in Lane County, the Coast Fork is generally the most adversely influenced by man's activities.

1. Domestic: Major controlled waste discharges consist of domestic sewage. Cottage Grove provides secondary treatment of its waste before discharging it into the Coast Fork. Creswell and Lane Community College both operate

sewage lagoons which discharge into tributaries of the Coast Fork. Minor sewage discharges are made by an elementary school in Goshen, a sanitation district and a commercial complex west of I-5 and north of 30th Avenue.

2. Industrial: Industrial operations contribute significantly to the pollution levels in the sub-basin. Major concentrations are noted in Cottage Grove, Saginaw and Creswell areas and along Row River.
3. Agricultural: Agricultural runoff contributes to pollution problems along the Coast Fork.
4. Septic Tank Seepage: Investigations along the Row River and Coast Fork in the Saginaw area revealed that more than half the septic tanks are not operating satisfactorily; most are located within 100 feet of a body of water.
5. Other: The two County sanitary landfill sites along the Coast Fork contribute periodic pollution problems, and sand and gravel operations sometimes add turbidity problems.

The State Department of Environmental Quality (DEQ) has primary control of pollution sources along the Willamette River, while the County has control of land use activities that occur on lands adjacent to the river. The County, through review of development and land use requests, can identify potential pollution problems and inform DEQ. Through cooperative efforts between property owners, Lane County and the DEQ, preventive management measures can be applied to assist in controlling sources of pollution. Management techniques could include: (1) establishing set-backs from the high waterline; (2) maintaining riparian vegetation; (3) maintaining open space between land use activities and the River; (4) encouraging growth where public services and facilities are available; and (5) land use controls, such as riparian erosion control ordinances.

FINDINGS

1. Significant sources of water pollution that occur along the Mainstem include: domestic and industrial wastes; septic tank seepage, including intermittent pollution from landfill sites; and sand and gravel operations. The metropolitan area is the major source of pollution.
2. Overall, there are few pollution problems within the Middle Fork sub-basin, however, sources of pollution noted included: industrial waste discharges in the vicinity of Jasper; septic tank seepage into tributaries of the Middle Fork near the areas of Jasper and Dexter; and intermittent sand and gravel operations at the confluence of the Mainstem.
3. Of the major streams in Lane County, the Coast Fork is the most adversely influenced by man's activities. Major pollution sources along the Coast Fork include: industrial wastes in areas near Cottage Grove, Saginaw, Creswell and along Row River; agricultural and timberland runoffs; septic tank seepage in Saginaw and along Row River. Intermittent sources included the landfill sites in the vicinity of Cottage Grove and Creswell and sand and gravel operations.

GOAL

MANAGE AND CONTROL WATER POLLUTION SOURCES WITHIN THE GREENWAY.

POLICIES

1. Review development proposals to assist in controlling water pollution sources.
2. Advise DEQ of water pollution sources and related problems.
3. Develop land use management techniques for controlling and managing pollution sources.
4. Prioritize, identifying and controlling pollution sources along the Coast Fork.

RECOMMENDATIONS

1. Advise DEQ of current and potential pollution sources from lands adjacent to the Willamette River.
2. Consider the impacts from water pollution sources such as: domestic and industrial wastes, agricultural and timberland runoff, septic tank seepage, gravel operation and other intermittent pollution sources when making land use decisions or evaluating development proposals for lands in the Greenway Boundary.
3. Place priorities on managing pollution sources in both the metropolitan area and along the Coast Fork.
4. Closely evaluate land use and development proposals for lands along the Coast Fork, specifically in areas adjacent to or within Cottage Grove, Creswell, Goshen, Saginaw and along the Row River in an effort to control pollution.
5. Restrict, redirect, or not allow land use activities which generate additional pollution to the Coast Fork.
6. Support the construction of municipal waste treatment facilities to accommodate population growth.
7. Encourage and support sanitary districts to deal with local pollution control problems beyond municipal limits.
8. Investigate financial incentives for industry to install needed waste treatment facilities.
9. Consider land use controls such as: (1) maintaining vegetative buffer strips, (2) maintaining open space, (3) possible increases in setbacks, (4) rezoning for site preservation, (5) encourage growth where public facilities are available, (6) site drainage plans, and (7) adoption of runoff, erosion or vegetative ordinances, for maintaining or improving water quality.

URBAN STORM RUNOFF

Urban storm runoff is directly related to rainfall duration and intensity and land use build-up rates; however, primary runoff problems are closely related to the growth and increased density of urban uses. Runoff poses water quality problems for the Willamette River primarily in the Eugene-Springfield metropolitan areas and other similar high density areas along the river. Runoff can contain high coliform nutrients, toxics, metals, sediments, trash, pesticides, bacterial organisms, oils and greases as well as decomposing plant material and dissolved wood waste products. Runoff can have a negative impact on the water quality of the Willamette River. The DEQ is responsible for controlling pollution of the waters of the Willamette River. The County can assist DEQ by informing them of pollution sources along the river and by managing land use activities on lands adjacent to the river in such a manner to reduce or control pollution.

High Density Areas

Storm runoff is a significant problem in the metropolitan area and other similar urban areas along the river, representing the single greatest unmanaged pollutant discharge to the Willamette River. Commercial, industrial and street uses produce the greatest buildup of contaminants, but residential areas and even urban open spaces can contribute significant loadings.

Rural Areas

Urban runoff in rural areas has not been studied extensively. Furthermore, due to scatteration of development, rural open space character and vegetative factors, storm runoff from rural lands into the Willamette River is probably of minimal concern. However, exceptions do exist. For example, urban storm runoff will occur in specific locations on smaller waterways and in more urbanized locations such as Cottage Grove, Glenwood, River Road-Santa Clara, the metropolitan area and other potential high density areas. Also, with continued population growth, increases in urban runoff will be noted.

Preventative controls and management strategies for controlling urban runoff along the Willamette River could include:

1. Control measures such as runoff control ordinances and guidelines, zoning changes for site preservation, and public commercial and industrial awareness and clean up programs.
2. Drainage plans to control large increases in runoff volume and velocity that is associated with additional impervious areas of large developments.
3. Provisions for vegetated buffer strips and high infiltration capacity areas to reduce runoffs. This could be accomplished by developing a multi-purpose vegetation ordinance relating also to aesthetics, shade, fire hazards, etc. The ordinance could be written to apply to specific runoff situations such as: parking lots, roof areas, or bordering stream and rivers. It is important to recognize that some plants reduce bacterial loading, absorb metals, toxics and other bacteria, and are capable of breaking down oils and

greases and other compounds. Provisions could include time restraints on removal and replacement of vegetation to cut down base soil exposure and erosion in drainage channels during construction.

4. Ordinances to protect natural drainage areas or watersheds. Ordinances assist in preserving open collection channels as barriers and natural buffer strips.
5. Control measures for industrial runoff such as: detailed drainage plans, encouraging berms, dikes, buffer strips and areas of high infiltration capacity; site-specific management plans for yards, debris and spill control for vehicle operation areas, and storage of hazardous wastes and raw materials.

FINDINGS

1. Urban storm runoff poses water quality problems for the Willamette River primarily in the metropolitan area and similar high density areas along rural portions of the river.
2. Commercial, industrial and street uses produce the greatest buildup of contaminants, however, residential and open space areas also contribute significant contaminants to the river.
3. Urban runoff from rural lands to the Willamette River is probably minimal due to scatteration of development, the overall open space character of rural lands and the existence of vegetative cover.
4. Runoff from rural lands is likely to occur at specific stream side locations on smaller tributaries and in urbanized areas such as Cottage Grove, Glenwood and River Road-Santa Clara.
5. Management strategies for controlling urban runoff could include: runoff control criteria; detailed drainage plans; updating site review procedures to reflect various control mechanisms; public awareness programs and zone changes for site preservation.

GOAL

CONTROL AND MANAGE URBAN STORM RUNOFF IN THE GREENWAY.

POLICY

Prioritize control of urban storm runoff in urban areas and along the Coast Fork.

RECOMMENDATIONS

1. Consider developing and implementing drainage or vegetative control ordinances.
2. Support DEQ in requiring drainage and runoff control ordinances for urban areas along the river.

3. Support DEQ in eliminating the discharge of industrial pollutants into the Willamette River, especially along the Coast Fork.
4. Use management control strategies such as requiring or maintaining detailed drainage plans; vegetative buffers; open space between river and development; rezoning for site preservation and catchment areas of high infiltration should be considered when evaluating development or land use proposals.
5. Prioritize control of urban storm runoff in the Eugene-Springfield metropolitan areas along the Coast Fork and other development areas identified in adopted comprehensive plans and zoning ordinances.

IV. THE NATURAL RESOURCE BASE

By conserving, maintaining and sustaining the river-related natural resources such as agriculture, riparian vegetation and wildlife habitat and natural areas within the Greenway boundary, the river environment can be protected. Protection of resource lands also assists in conserving lands for aggregate use, also an important natural resource for sustaining our lifestyle. The majority of natural resource lands, including aggregate, within the boundary are subject to annual, and 20- and 100-year floodplains, or are located along the alluvial bottomlands where rapid changes in the river environment occur. Fortunately, the existence of physical constraints restricts intensive development (i.e., septic tank drainfields, roads and structures) within the Greenway. By restricting intensive development from hazard areas, the public's welfare is protected; consequently, emphasis should be placed on maintaining the majority of resource lands within the boundary in some form of open space. This section discusses the following resources within the boundary: agriculture, aggregate, timber and other vegetation and fish and wildlife including natural areas.

(go on to next page)

AGRICULTURE

The directives of the legislative Greenway law and the Greenway Goal #15, established by the Land Conservation and Development Commission, both strongly indicate that farm use is compatible with the purposes of the Greenway, and further direct that Greenway planning efforts at the local level take into consideration the preservation and conservation of this valuable resource.

Importance of Agriculture

The fertile Willamette Valley soils, generally located along the upland terraces but paralleling the Willamette River, support a variety of agricultural crops, including livestock, which produce a significant income to many farmers along the river, and provide substantial food and fiber for our growing population. Less than 20% of the land area of Lane County is suitable for agricultural use and the majority of that resource land lies in an irregular parcel pattern that extends up the tributaries of the Willamette River. The high productivity of existing farmland, along with the limited potential in the County for farmland, emphasizes the importance of the fertile land paralleling the Willamette River.

The agricultural industry is a significant asset to the economy of Lane County and has an integral part in maintaining the natural quality of the river environment.

State and Lane County Efforts to Preserve Agricultural Lands Along the Willamette River

The Willamette River Greenway law (ORS 390.310 to 390.360) recognizes and supports the continuation of farm use. References include:

1. (ORS 390.314, Item 2c)--Recognizing that the use of lands for farm use is compatible with the purposes of the Willamette River Greenway, finds that the use of lands for farm use should be continued within the Greenway without restriction.
2. (ORS 390.332, Item 4)--Department of Transportation may not acquire, through the exercise of the power of eminent domain, scenic easements on any lands that are devoted to farm use, or are a portion of a larger tract of land under single ownership that is devoted to such use. Nothing in this subsection is intended to limit the power of the department to acquire, by any means other than the exercise of the power of eminent domain, a scenic easement on lands described in this subsection while such lands are devoted to such farm use.
3. (ORS 390.338, Item 2)--If any land acquired by the Department of Transportation is a part of a larger tract of land devoted to farm use on the date of the acquisition of such portion of the tract and such acquisition would render uneconomic an otherwise economic farming unit on the whole tract of land, upon the request of the owner of such tract of land, the department shall purchase the entire tract of land. The department shall, whenever practicable, acquire the remainder of any such tract of land with state funds so that the subsequent disposition of any such land will not be subject to restrictions imposed under agreements made

for the receipt of nonstate funds otherwise available for the acquisition of such lands.

The Land Conservation and Development Commission's Statewide Planning Goal 15 recognizes agriculture as an integral part of the Greenway program, and further directs that local comprehensive planning and implementation efforts take into consideration the importance of conserving agricultural lands. References include:

1. (Page 12, Overall Goal Statement)--To protect, conserve, enhance and maintain the natural, scenic, historical, agricultural, economic and recreational qualities of lands along the Willamette River as the Willamette River Greenway.
2. (Page 13, Item B, Inventories and Data)--Inventory all agricultural lands as provided in Goal 3. This includes all land currently in farm use as defined in ORS Chapter 215.203(2).
3. (Page 13, Considerations and Requirements)--Within farm areas consideration shall be given to the ability of agricultural land adjacent to the Willamette River Greenway to enhance and protect the Greenway.
4. (Page 13F, Considerations and Requirements, Item 3a)--The agricultural lands identified in the inventory shall be preserved and maintained as provided in Goal 3 as an effective means to carry out the purposes of the Greenway including those agricultural lands near the Greenway. Lands devoted to farm use which are not located in an exclusive farm use zone shall be allowed to continue in such farm use without restriction as provided in the Greenway law ORS 390.314(2)(c); ORS 390.332(4) and ORS 390.334(2).
5. (Page 13F, Considerations and Requirements, Item 6)--Zoning provisions shall allow recreational uses on lands to the extent that such use would not substantially interfere with the long-term capacity of the land for farm use.
6. (Page 13F, Considerations and Requirements, Item 4b)--To the maximum extent practicable--areas to be acquired must--be consistent with noninterference or noninterruption of farm uses as defined in ORS Chapter 215.203(2).
7. (Page 14F, Implementation Measures, Item 2a)--Exclusive Farm Use zoning of all agricultural land within and adjacent to the Greenway.

The Comprehensive Land Use Plans (i.e., Willamette-Long Tom, Lower Middle Fork, Lower Coast Fork and Row River-London) for 1995 support continuation of agricultural activities. The majority of the lands adjacent to the river have been designated Agricultural or Rural, Woodland and Grazing. In support of the Comprehensive Plans, a substantial portion of the land has been zoned in 20-acre designations, such as Exclusive Farm Use or Farm Forestry to further protect and conserve agricultural lands. For example, the majority of the lands along the Mainstem alone are zoned Exclusive Farm Use.

The Greenway law, LCDC's Goal 15 and Lane County's Comprehensive Land Use Planning and Zoning Programs all recognize not only the importance of farm use

along or near the Willamette River, but indicate farm use should be allowed to continue as a major resource along the river.

Agricultural Potential in the Greenway

Although agricultural lands are generally located near the Willamette River, a closer examination of these lands indicates there are generally two types: (1) those situated along the upland terraces which consist primarily of prime agricultural soils with an agricultural capability classification of I through IV indicating they can support intensive agricultural activities; and (2) the lower terraced lands immediately adjacent to the Willamette River consisting of alluvial bottomland soils with an agricultural capability classification of VIII, indicating they are generally not suitable for intensive agricultural purposes. Soil maps and aerial photographs identify that the majority of lands in the Greenway Boundary consist of the lower terraced lands adjacent to the river that generally cannot support intensive agricultural production. See Map 2, Natural Resources.

General characteristics of the lower terrace include: (1) overall an area of environmental sensitivity; (2) defined as the major river channel, containing old river channels, meander scars, oxbows, sloughs, point bar deposit sites, gravel bars, etc.; (3) susceptible to annual flooding; (4) no vegetation, or young dense stands of willows or cottonwoods; and (5) rapid changes in the lands near the river (i.e., erosion, avulsion, accretion, flooding, etc.).

However, exceptions do exist because portions of some agricultural lands are in the current Greenway Boundary. For example, the Greenway Boundary must comply with the Greenway law's minimum setback requirement of 150' from ordinary low water line. Therefore, where banks are steep, the 150' setback does encroach on some agricultural lands. Due to concerned agricultural interests, and in recognition of the spirit and intent of both the Greenway law and Goal 15, the Department of Transportation reduced the width of the Greenway boundaries in Lane County and excludes substantially portions of agricultural lands from inside the boundary.

Lands on Farm Deferral

The Lane County Assessment and Taxation Office provides for special assessments of farm use lands. (See ORS 308.370 and 308.396.) Special assessment applies to qualifying farmlands only and not to building or to the land under the buildings. (Land under farm buildings is included, but not the buildings themselves.) The special assessment is based upon the value of the land for farm use rather than its market value for highest and best use.

There are approximately 15,400 acres of farm deferral land close to the Willamette River in Lane County. However, the majority of these lands are not adjacent to the river, furthermore, the majority of lands in the current Greenway Boundary are not on farm deferral. Farm deferral lands dominate the Mainstem while they are less extensive along both the Coast and Middle Forks. Total farm deferral land values amount to \$4,427,400.00. Farm deferral values per acre are higher along the Mainstem, averaging \$407.00 per acre, followed by the Middle Fork, \$246.00, and the Coast Fork, \$205.00 per acre.

Farm deferral programs, along with open space deferral and utilization of conservation and scenic easements, not only provide tax incentives for individual property owners but are considered effective methods for preserving the Willamette River's environment. Recognizing that substantial portions of lands in the Greenway Boundary are not under farm deferral, efforts must be directed toward encouraging the public to use deferral programs.

Importance of Riparian Vegetation

One of the most important characteristics of the Greenway is the line of vegetation that extends almost continuously along each side of the river. This vegetation does many things: it forms a scenic corridor; provides a habitat for wildlife; mitigates flooding and erosion problems; provides food and shade for fish and, if dense enough, discourages trespassers. Therefore, although farming should endure, farm practice should continue to respect the importance of the vegetative edge of the river.

Agricultural Considerations

Many farmers with river frontage have reported unfortunate experiences with trespassers who commit acts of theft, vandalism or negligence which cause damage or loss of property. Trespass experience has made the riverfront property owners feel exposed and vulnerable to Greenway users who may pass by or through private property on their way to and from the river. The majority of incidents are attributed to upland use and access to the river. The major problems of many farmers along the Greenway can be attributed to people. Population growth is a natural process and the County does have a coordinated growth concept and not a "no" growth concept, consequently growth must be planned for and the Greenway Program provides a mechanism for managing growth and land use activities and problems along the river. To say that the Greenway Program has created more use of the river is true to a limited extent because state Greenway promotional programs and development of Greenway Corridor lands has, in fact, encouraged more use of the river and its environment.

However, due to the attractive livability provided by Lane County, population projections indicate a substantial growth rate will occur. The majority of growth will reside along the valley bottomlands adjacent to the Willamette River and its tributaries. Consequently, through continued population growth, the attractiveness of the Willamette River, especially its recreational capabilities, the amount of river (i.e., Willamette River) in Lane County, and the continuous need of a growing population in and outside Lane County for recreation, more use of the river will occur, regardless of the Greenway Program. Naturally, with more people there are more problems. Ignoring problems is not a solution. The Greenway Program provides a management tool for addressing and, hopefully, solving increased incidents of trespass and vandalism.

There are many mechanisms offered by the Greenway Program and other related planning activities at the state and local level to assist in managing and controlling trespass and vandalism of farmlands and other lands along the Willamette River. For other detailed information see the Greenway Security section of this report.

The importance of conserving and preserving the agricultural capability of land along the Greenway will have to be evaluated along with other important resources of the Willamette River, through the decision-making process. Due to continued population growth, compromises will have to be made and will be periodically revised. It should be realized that decisions based on preserving 100% of everything within or along the river will never be realized.

FINDINGS

1. The agricultural industry is important in maintaining the economic stability of Lane County, however, a significant amount of lands in the Greenway Boundary are not capable of supporting intensive agricultural activity.
2. Both the Greenway law and Goal #15 recognize the importance of protecting and continuing farm use along the Willamette River.
3. Lane County's comprehensive plans and zoning programs recognize and support continuation of agricultural activity along the river.
4. Generally, a significant amount of land within the Greenway Boundary consists of lower terraced lands with an agricultural capability classification of VIII, indicating they cannot support intensive agricultural activity.
5. A significant amount of lands in or adjacent to the Greenway Boundary are not on farm deferral.
6. The river's riparian vegetation assists the farmers by mitigating flooding and erosion problems and discourages trespass.
7. Trespass and vandalism have been identified by farmers as a major Greenway problem.
8. Regardless of public exposure in the state's Greenway program, increased incidents of vandalism and trespass will be noted along the river, primarily due to our significant increase in population growth, and the public's corresponding need for recreation.
9. The Greenway Program in Lane County offers several mechanisms for controlling trespass and vandalism of private property.
10. Lane County's Greenway Boundary has been reduced substantially to exclude agricultural lands.

GOAL

MAINTAIN FARM USE AS AN ESSENTIAL ACTIVITY WITHIN THE GREENWAY BOUNDARY.

POLICIES

1. Protect, preserve and conserve farm lands with agricultural capability classifications I, II, III and IV within the Greenway.

2. Protect zoned agricultural land from noncompatible uses.
3. Productive agricultural land overlaying valuable subsurface sand and gravel deposits should not be removed to allow extraction unless the need for sand and gravel exceeds the need for continued agricultural production.
4. Zoning shall allow recreational uses only if they would not substantially interfere with the long-term capability of the land for farm use.
5. Acquisitions for Greenway purposes must be consistent with noninterference or interruption of farm uses.
6. Recognize that the use of lands for farm use as defined in ORS 215.203 is compatible with the purposes of the Greenway.
7. Recognize that DOT cannot condemn for a scenic or use easement or lands devoted to farm use, defined in ORS 215.203, however, easements may be given by owners of lands being used for farm purposes.
8. Protect water rights and access to the river for irrigation purposes.

RECOMMENDATIONS

1. Educate the public, through state and local promotional programs, to the following Greenway concepts:
 - a. The Greenway Program does not allow trespass on private property.
 - b. The importance of preserving, conserving or protecting agricultural land is recognized in the Greenway law, Goal 15 and in adopted Lane County land use plans along the Willamette River.
 - c. Although the upper terraced soils along and within the Greenway Boundary are indicative of soils with an agricultural capability classification of I through IV, the majority of lands within the Boundary have an agricultural capability classification of VIII, indicating they cannot support intensive agricultural activity.
 - d. The Greenway Program at the state and County level currently provides methods for controlling and managing trespass and vandalism through condemnation.
 - e. Scenic easements cannot be acquired through condemnation on lands in farm use.
2. Encourage private property owners to apply for farm deferral, open space deferral, or to give scenic easements.
3. Encourage maintaining riparian vegetation along the river to assist, where appropriate, in protecting agricultural land and to deter incidents of trespass and vandalism.
4. Zone farm lands with agricultural capability classifications I, II, III and IV Exclusive Farm Use.

AGGREGATE RESOURCES

The importance of aggregate resources along the Willamette River within the Greenway Boundary is recognized and addressed by the following state directives and local planning efforts: Greenway law; LCDC Goals #5 and #15; the 1990 Plan and adopted subarea plans along the Willamette River (i.e., Willamette-Long Tom, Lower Middle Fork and Lower Coast Fork).

While maintenance of the resource land, and extraction and processing is an essential activity within the Greenway, other river competing resources (e.g., fish and wildlife habitat, recreation, agriculture, etc.) must be considered when designating lands for extraction.

The following subjects are discussed relative to the importance of aggregate resources in the rural portions of Lane County: Inventory, Supply and Demand, Impacts on the River and Sand and Gravel Goal and Policies.

Inventory

The inventory of aggregated resources shown on Map 2 consists of the following: subsurface mineral aggregate deposits, optimum gravel resource areas, upland aggregate resource sites, processing plants and test areas for resource potential. Table 7 identifies the existing and potential aggregate resource base along the Willamette River. It must be realized that the Potential Gravel Resource Areas extend substantially beyond the Greenway Boundary.

TABLE 7

Aggregate Inventory--within Greenway Boundary

	*Subsurface Mineral Aggregate Deposits	Optimum Gravel Resource Areas	River Miles of Optimum Resource Areas	Processing Sites	**Test Area
Mainstem	26	6,250 ac	10	3	3
Middle Fork	53	2,880 ac	6	0	4
Coast Fork	10	2,215 ac	4.5	1	1
TOTAL	89	11,345 ac	20.5 rm	4	8

Source: Lane County Planning Division 1967-68 and 1978-79.

* Sites within the Greenway Boundary.

** Total Test Area Sites, 9; one exists along the McKenzie River.





Overall, the majority of sand and gravel activity occurs along the Mainstem, followed by the Middle and Coast Forks. The inventory is subject to being updated and revised upon completion of a sand and gravel study for Lane County. Consequently, the information provided must be considered as an indicator only.

--- GREENWAY BOUNDARY ---

Detailed resource maps at a larger scale are available at the Lane County Planning Division.

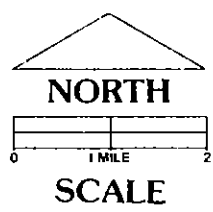
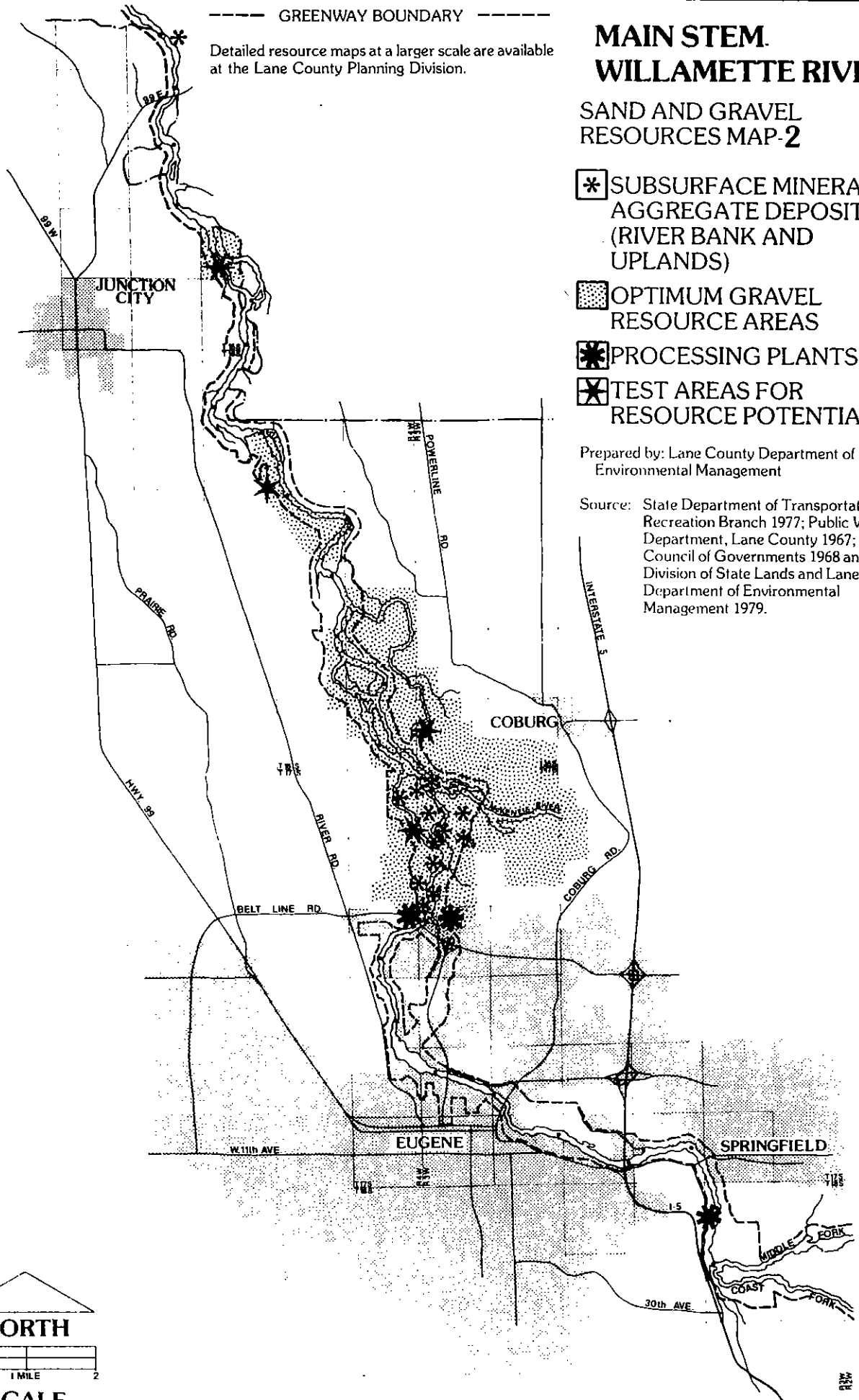
MAIN STEM WILLAMETTE RIVER

SAND AND GRAVEL RESOURCES MAP-2

-  SUBSURFACE MINERAL AGGREGATE DEPOSITS (RIVER BANK AND UPLANDS)
-  OPTIMUM GRAVEL RESOURCE AREAS
-  PROCESSING PLANTS
-  TEST AREAS FOR RESOURCE POTENTIAL

Prepared by: Lane County Department of Environmental Management

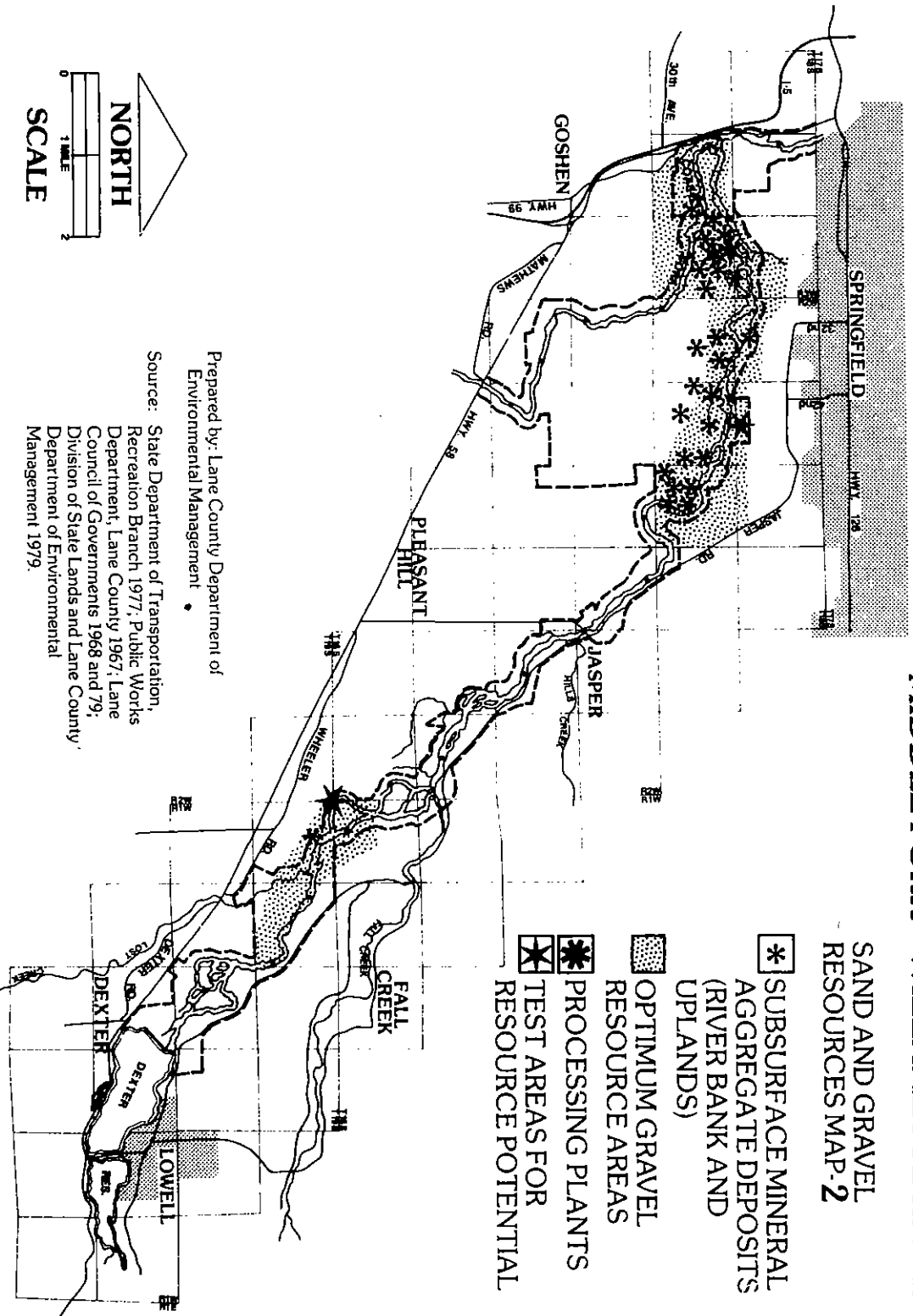
Source: State Department of Transportation, Recreation Branch 1977; Public Works Department, Lane County 1967; Lane Council of Governments 1968 and 79; Division of State Lands and Lane County Department of Environmental Management 1979.



MIDDLE FORK WILLAMETTE RIVER

SAND AND GRAVEL
RESOURCES MAP-2

- * SUBSURFACE MINERAL AGGREGATE DEPOSITS (RIVER BANK AND UPLANDS)
- OPTIMUM GRAVEL RESOURCE AREAS
- PROCESSING PLANTS
- ✱ TEST AREAS FOR RESOURCE POTENTIAL

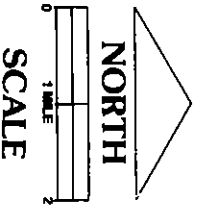


Prepared by: Lane County Department of Environmental Management

Source: State Department of Transportation, Recreation Branch 1977; Public Works Department, Lane County 1967; Lane Council of Governments 1968 and 79; Division of State Lands and Lane County Department of State Lands and Lane County Department of Environmental Management 1979.





----- GREENWAY BOUNDARY -----

Detailed resource maps at a larger scale are available at the Lane County Planning Division.



COAST FORK WILLAMETTE RIVER

SAND AND GRAVEL RESOURCES MAP-2

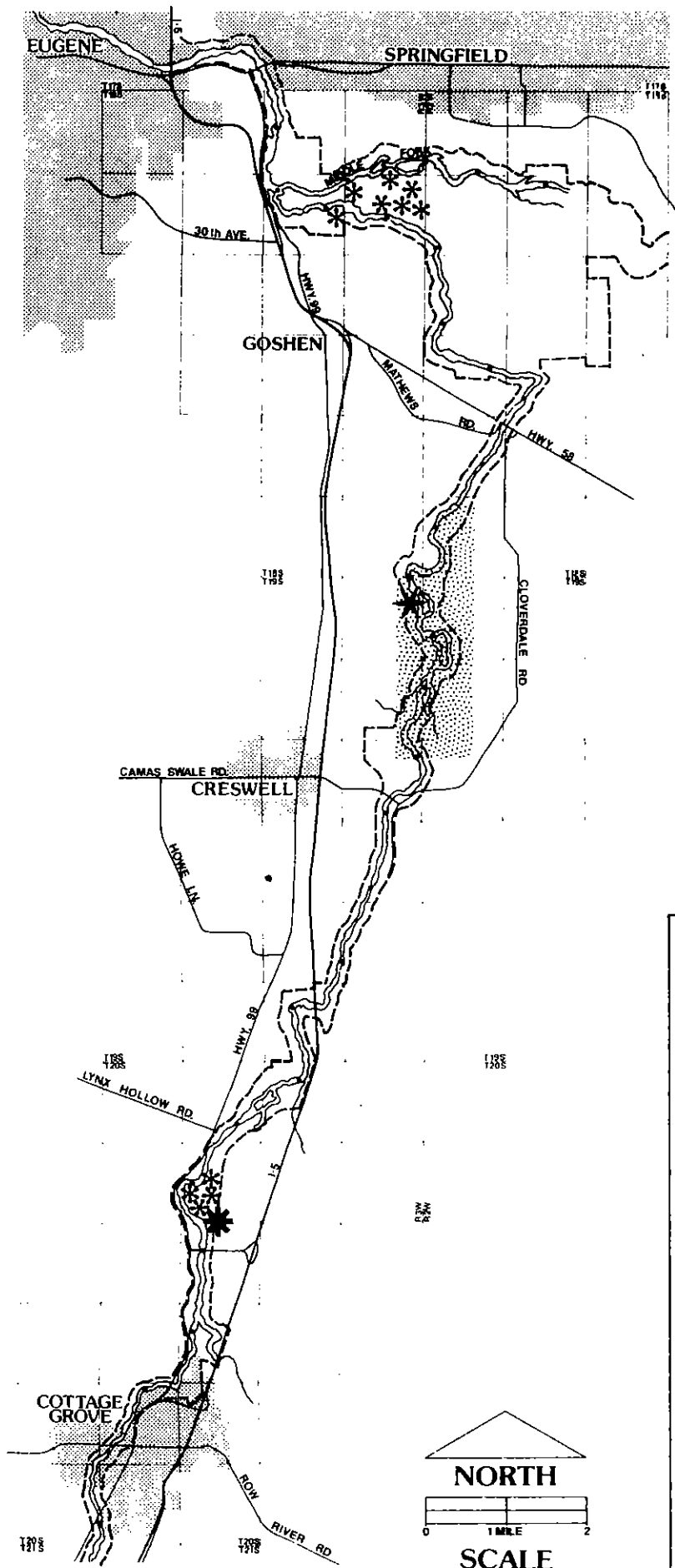
-  SUBSURFACE MINERAL AGGREGATE DEPOSITS (RIVER BANK AND UPLANDS)
-  OPTIMUM GRAVEL RESOURCE AREAS
-  PROCESSING PLANTS
-  TEST AREAS FOR RESOURCE POTENTIAL

Prepared by: Lane County Department of Environmental Management

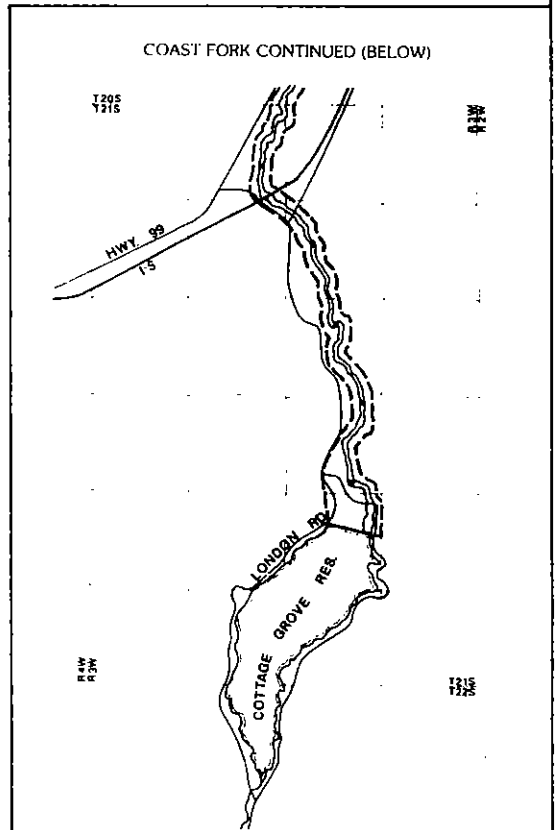
Source: State Department of Transportation, Recreation Branch 1977; Public Works Department, Lane County 1967; Lane Council of Governments 1968 and 79; Division of State Lands and Lane County Department of Environmental Management 1979.

----- GREENWAY BOUNDARY -----

Detailed resource maps at a larger scale are available at the Lane County Planning Division.



COAST FORK CONTINUED (SEE INSET AT RIGHT)



Although core samples from test holes drilled in 1967-68 indicate good quality aggregate resource material per site, averaging 98 percent sand and gravel for the top 20-foot stratum, the total extent of aggregate resources (quantity and quality) in rural Lane County, especially as it affects the Greenway, has yet to be determined. Currently, the best source of data for rural Lane County includes the 1967 study conducted by the Lane County Public Works Department. However, recent data from the 1990 Plan Update provides more insight into rural needs. The consolidated data from both studies provides insight into the existing supply and identifies potential needs. The information must be considered as an indicator of supply and demand until a more indepth study is completed for both the metropolitan and rural areas.

The Public Works 1967 study did not attempt to make choices between the appropriateness of an area for aggregate resource management as opposed to use of such areas for agriculture, open space, recreation, etc. Consequently, the resource areas are quite large and not all are designated as resource areas in related land use plans. As each land use plan (i.e., Willamette-Long Tom, Lower Middle Fork, Lower Coast Fork, 1990 Plan) along the river was adopted, smaller aggregate resource areas were designated and zoned. This was done as a result of trying to balance the need to identify and protect aggregate resources with other needs such as protecting important agriculture areas, scenic open space, wildlife habitat and recreational opportunities.

Due primarily to agricultural potential and water quality problems of the Coast Fork, aggregate resource land use designations do not appear in both the Mainstem and Coast Fork Comprehensive Land Use Plans. The Middle Fork Comprehensive Plan designates a substantial amount of lands as aggregate resource near the metropolitan area, however, the designation will be somewhat modified by the 1990 Plan Update. For further detailed information relative to areas identified and zoned sand and gravel, and aggregate demand by acres, see 1990 Eugene-Springfield Area Metropolitan General Plan Update available at the Lane Council of Governments.

From supply and demand estimates in the 1990 Plan Update, it appears that sufficient land has been identified, designated and zoned to meet the metro area's needs to the end of the century. However, the actual amount of land necessary to meet both the metropolitan area and rural sand and gravel needs between 1980-2000 cannot be determined without a detailed sand and gravel analysis of each of the identified resource areas. Such a study would have to determine (among other things) the resources available at certain depth and the potential for extraction and the amount of usable material remaining in sites already mined but perhaps prematurely abandoned.

The most important tasks are: (1) to insure that resource areas are not committed to uses that would preclude future aggregate extraction and (2) protect environmental quality.

Impacts on the River

Probably the most significant possible impact is in terms of water pollution. The potential for increased turbidity is high, both for dry and wet operations, especially adjacent to the Mainstem. The technique of lowering groundwater by pumping may also cause turbidity problems in surface waters unless the large

quantity of water can somehow be "treated." This problem has recently occurred in the metro area, however, it must be realized that most wet and dry excavation operations are usually done away from the active flow of the Willamette River. Another water pollution impact is that of an increase in the temperature of the river. As infiltration and flow back occur, the river can become warmer. Increases in temperature are harmful to certain fish, especially trout. Generally, an increase would affect the aquatic ecosystem by changing the plant and animal life in the river. The final water pollution impact is that of erosion. If a large area is stripped of vegetation prior to extraction, severe erosion can result, causing increased turbidity and sediment deposits in quiet water areas, degrading fish habitat.

Other impacts include air and noise problems. Sand and gravel extraction can, and often does cause air and noise pollution. Air pollution (dust) results primarily from the operation of trucks on private nonpaved haul roads running between the extraction operation and the processing plant. Attempts are made at controlling the dust, but short of paving all roads, it is difficult to completely avoid this adverse impact. Some dust also occurs during the extraction process.

Noise pollution is also an unavoidable impact, but the degree or extent of it can be controlled somewhat. The major source is equipment noise both from haul trucks and from the extraction operation itself. Truck traffic inherently causes noise; however, better or new mufflers would help the situation measurably. In addition, operation hour limitations and speed controls can reduce the impact and creation of noise. Noise pollution problems are compounded by two factors: (1) the naturally quiet environment of the river--any noise sounds loud when surrounded by near silence; and (2) the fact that many recreational activities will occur near the source of the noise, thereby increasing a person's awareness of it.

Of the above water pollution impacts, all are avoidable to a large extent, by proper management. For example, the industry emphasizes watering nonpaved haul roads to eliminate dust. In Lane County, extraction within zoned lands is controlled by provisions in two existing zoning districts: (1) the Sand and Gravel and Rock Products District and (2) the Sand, Gravel and Rock Products--Controlled Processing District (SG/CP). Generally, the ordinance contains criteria for site improvement, operation standards and performance bonding. Currently, requests for expansion of resource areas and extraction and Greenway considerations are both evaluated under one permit process.

Sand and Gravel Goal and Policies

In recognition of the aggregate resource capabilities within the Greenway, the following Goal and Policies were developed by WGAC:

GOAL

MAINTAIN SAND AND GRAVEL RESOURCE LAND, EXTRACTION AND PROCESSING AS AN ESSENTIAL ACTIVITY WITHIN THE GREENWAY.

POLICIES

1. Active and zoned sand and gravel extraction and processing sites should be protected from noncompatible land uses.
2. Ensure that areas designated for aggregate extraction and reuse land be planned for interim (prior to extraction) transition and second use utilization as well as extraction.
3. Encourage the use of advanced mining and processing practices that take into account the needs of the public for economic material as well as enhancement of the overall Greenway program.
4. Encourage reclamation practices that will contribute to a higher residual value for depleted resource lands thereby benefiting the environment of both the community and the river.
5. Productive agricultural lands overlaying valuable subsurface sand and gravel deposits should not be removed to allow extraction unless the need for sand and gravel exceeds the need for continued agriculture production.
6. Protection of the sand and gravel resource should be an important Greenway purpose, however, a balance should be achieved between sand and gravel extraction and conflicting uses.
7. Encourage point bar removal by means of temporary access points where feasible.
8. Extraction within and along both the Mainstem and Middle Fork should be based upon a thorough examination of the proposed site due to the importance of spawning beds.
9. Encourage cooperation between local and state officials in efforts to develop a program that will allow extraction of known or potential sand and gravel resources.

The above Goal and Policies represent a consolidation of directives from the various land use plans affecting the river and are more specific; consequently, they should be used when evaluating land use decisions within and along the Greenway. The Goal and Policies should be incorporated into the Countywide policy document.

FINDINGS

1. In the metropolitan area, sufficient acres of sand and gravel resources have been designated in various land use plans (1990 Plan, Willamette-Long Tom, Lower Middle Fork and Mohawk-Camp Creek Subarea Plans) and zoned to meet projected demand through the rest of this century.
2. Adopted land use plans (i.e., Willamette-Long Tom, Coast and Middle Fork, and 1990 Plans) recognize sand and gravel as a unique resource of the Willamette River and support preserving or conserving its use subject to considerations of the competing river uses (e.g., recreation, fish and wildlife habitat, scenic qualities, agriculture, etc.).

3. There is a need for sand and gravel resource study in both the metropolitan and rural areas of Lane County.
4. The majority of aggregate resource activity occurs along the Mainstem, followed by the Middle and Coast Forks.
5. Water pollution is the major impact of aggregate extraction upon the Willamette River. Other impacts include noise and air pollution.
6. WGAC developed more specific Goal and Policies reflecting Greenway concerns to be utilized when evaluating land use decisions or excavation permits relative to sand and gravel resources.

GOAL

MAINTAIN SAND AND GRAVEL RESOURCE LAND, EXTRACTION AND PROCESSING AS AN ESSENTIAL ACTIVITY WITHIN THE GREENWAY.

POLICIES

1. Active and zoned sand and gravel extraction and processing sites should be protected from noncompatible land uses.
2. Ensure that areas designated for aggregate extraction and reuse land be planned for interim (prior to extraction) transition and second use utilization as well as extraction.
3. Encourage the use of advanced mining and processing practices that take into account the needs of the public for economic material as well as enhancement of the overall Greenway program.
4. Encourage reclamation practices that will contribute to a higher residual value for depleted resource lands thereby benefiting the environment of both the community and the river.
5. Productive agricultural lands overlaying valuable subsurface sand and gravel deposits should not be removed to allow extraction unless the need for sand and gravel exceeds the need for continued agriculture production.
6. Protection of the sand and gravel resource should be an important Greenway purpose, however, a balance should be achieved between sand and gravel extraction and conflicting uses.
7. Encourage point bar removal by means of temporary access points where feasible.
8. Extraction within and along both the Mainstem and Middle Fork should be based upon a thorough examination of the proposed site due to the importance of spawning beds.
9. Encourage cooperation between local and state officials in efforts to develop a program that will allow extraction of known or potential sand and gravel resources.

RECOMMENDATIONS

1. Conduct a sand and gravel study in conjunction with the industry for the rural portions of Lane County.
2. Insure that resource areas are not committed to uses that would preclude future aggregate extraction.
3. Utilize WGAC's more specific sand and gravel Goal and Policies when evaluating land use decisions and requests relative to sand and gravel extraction within or adjacent to the Greenway Boundary.
4. Incorporate WGAC's sand and gravel Goal and Policies into the Countywide policy document.
5. Coordinate and manage sand and gravel extraction for both economic and Greenway benefit. Extraction of gravel should be based upon plans which consider effects on water quality, fish, wildlife, vegetation, bank stabilization, stream flow, visual quality, noise, safety and potential future use of the area.
6. Encourage good rather than poor resource management techniques that benefit economic returns and environmental quality.
7. Emphasize and utilize Lane County's existing regulations, ordinances and goals and policies regarding extraction of aggregate resources.

TIMBER RESOURCES AND OTHER VEGETATION

In compliance with the Inventory Directives of Goal #15, the following section was developed relative to timber resources and other riparian vegetation. (See Economic Section for additional information pertaining to timber values.)

Background

Types of vegetation within the Willamette River Greenway boundaries are nearly all representative of the natural riparian* vegetation to be found along alluvial bottomlands. The majority of land within the Greenway boundaries consists of the lower marine terraces formed by annual 20-year and 100-year flooding. This consists of the major river channels, natural levees, meander scars, sloughs, point bars, oxbows and gravel bars. Since this is an area of annual flooding, it is subject to rapid and constant change and the vegetation cover reflects these cycles.

The lower terrace land immediately adjacent to the river cannot support agricultural production. The percentage of agricultural land along the higher

* Riparian: Relating to or living or located on the bank of a natural water course (as a stream or river) or sometimes of a lake or tidewater.

terrace actually bordering the river is very small. An almost continuous line of riparian vegetation extends along both banks of the Willamette River. This vegetation strip immediately adjacent to the river serves as a protective buffer between the river and the higher terrace agricultural land. It provides a habitat for wildlife, food and shade for fish populations, mitigates flooding and erosional problems by maintaining the natural levees and assists in alleviating incidents of trespass and vandalism. Removal of this buffer strip of vegetation would expose agricultural land on the higher terraces to more active seasonal and annual erosion problems and could also encourage trespass on private property.

Vegetation Types

There are two major categories of vegetation cover to be found in the vegetation strip immediately adjacent to the river. The first, interspersed with gravel banks and located on the natural levee, can be termed small brush. It consists of blackberry vines, wild roses, grasses, cattails, rushes, willow shoots, etc. This area is subjected to high water during seasonal runoff and during periods of water release from the upstream dams. It offers good cover for river wildlife population and acts as a riverbank soil anchor.

The second category of vegetation occurs on slightly higher terraces and is termed mixed hardwoods. It consists of willows, oaks, cottonwoods and alder. In a few areas on the Middle Fork, higher terrace land bordering the river may contain some Douglas fir. Most of the original growth of this forest type, particularly near Mt. Pisgah, has been logged.

Directly behind this vegetation buffer can be found agricultural land either cleared and in production or used as Rural Woodland and Grazing with a scattering of hardwoods and Douglas fir.

Expected Vegetation Changes

Upstream dams have removed some of the sedimentation load from the Willamette River in Lane County. Removal of this sedimentation load should decrease alluvial deposits along the riverbanks and increase the sedimentation carrying capacity of the river. Increased velocity would accompany this increased capacity, thus allowing the possibility of more rapid riverbank erosion. Removal of small brush and mixed hardwood vegetation strip would expose agricultural land to more rapid erosion.

Management Considerations for Timber Resources

A main criteria in both the Lane County Greenway Conditional Use and Extraordinary Permit process, when evaluating development, is to maintain to the greatest possible extent the existing riparian vegetation (vegetative fringe) along the Willamette River. Furthermore, Section C, 3(h) (Considerations and Requirements, Timber Resource) of Goal #15 states:

"The partial harvest of timber shall be permitted beyond the vegetative fringes in areas not covered by a scenic easement when the harvest is consistent with an approval plan under the Forest Practices Act, or, if not covered by the Forest Practices Act, then with an approved plan under the Greenway Compatibility Review Provisions. Such plan shall insure that the

natural scenic qualities of the Greenway will be maintained to the greatest extent practicable or restored within a brief period of time."

Due to the directives in Goal #15, Lane County will have to consider, when developing a Greenway Compatibility Review Ordinance or incorporate within a Greenway Design Plan, management of timber harvesting beyond the vegetative fringe.

Currently, when the State Forestry Department is aware of harvesting activities on timberlands within the Greenway Boundary, they notify DOT, who have approximately 15 days to review and respond. However, DOT is not a regulatory agency; its function is advisory only. Furthermore, the Forest Practices Act has no provisions for control of aesthetic or scenic qualities.

FINDINGS

1. A narrow, continuous line of natural, riparian vegetation extends along both banks of the Willamette River.
2. A very small percentage of agriculturally productive land actually borders the river.
3. Willamette River Greenway boundaries coincide with lower flood terraces and thus vegetation is mostly representative of vegetation found on alluvial bottomland.
4. Natural riparian vegetation provides a habitat for wildlife, food and shade for fish populations and controls trespass on private property.
5. Natural riparian vegetation anchors riverbank soils and protects agricultural land from seasonal and annual erosion.
6. Lane County's current Greenway Conditional Use Permit process requires maintaining riparian vegetation adjacent to the river.
7. The Forest Practices Act does not regulate scenic or aesthetic concerns of vegetative resources in the Greenway Boundary.

GOAL

PROTECT, CONSERVE AND PRESERVE RIPARIAN AND OTHER IMPORTANT VEGETATION AS AN ESSENTIAL RESOURCE WITHIN THE GREENWAY.

POLICIES

1. Protect vegetation resources which are identified as having unique recreational, aesthetic, scientific or wildlife habitat. Encourage acquisition of these areas or obtain a protective scenic easement.
2. Encourage the reestablishment of vegetative cover in order to reduce the erosion of the riverbank and enhance scenic values.
3. Encourage the reestablishment of vegetative cover as part of the land development process.

4. Preserve and improve the existing character of the riverbanks by requiring that bank protection and future developments be harmonious and scenic as possible.

RECOMMENDATIONS

1. Maintain and sustain natural riparian vegetation along both terraces of the river to protect habitat for wildlife, food and shade for fish populations, control trespass on private property and manage urban storm runoff.
2. Maintain and sustain riparian vegetation in efforts of anchoring riverbank soils and protecting agricultural land from seasonal and annual erosion.
3. Maintain natural riparian vegetation for its scenic qualities as a buffer between the river and agriculturally productive land.
4. Consider when developing either a Greenway Compatibility Review or Greenway Design Plan management of timber harvesting beyond the riparian vegetative fringe.
5. Use riparian vegetation to protect areas sensitive to human use.
6. Conserve the rural character of the riverbank as a primary objective within the Greenway.
7. Riparian vegetation should be used along the riverbank in areas with inadequate vegetation.
8. Discourage arbitrarily planting vegetation in areas which do not naturally support vegetation.
9. The river channel should be unregulated as possible using vegetation to protect riverbanks.

FISH AND WILDLIFE RESOURCES AND NATURAL AREAS

The following information was provided by the Oregon State Fish and Wildlife Department through its 1973 study of the Willamette River in Lane County, the Oregon Natural Heritage Program, 1977, and a study entitled Wildlife Resources of the Willamette River Greenway in Lane County, conducted for WGAC, 1978.

The Willamette River environment supports several resources, however, a major concept emphasized is that the majority of lands within and along the Greenway are capable of supporting wildlife habitat now or in the future. Therefore, caution is stressed when identifying habitat on a site-by-site basis, because the entire river environment has a potential for supporting habitat.

The specific sites identified in the above studies and on Map 3 indicate current habitat locations, however, these sites are not static, therefore, future review and updating will be necessary. For example, certain wildlife species occupy the same sites yearly, however, other species change habitats periodically because of natural migration, depletion of habitat by natural erosion or due to

encroachment by man. In some locations wildlife habitat areas, although currently depleted, can be renewed for future habitat use. For example, some lands in the Greenway are being used on an interim basis for more intensive activities such as sand and gravel extraction, while long-term use could be, after reclamation, for wildlife habitat areas or other open space uses.

The majority of sites identified in the above studies or on Map 3 are either all or partially in public ownership, or are part of DOT's future acquisition program.

The meandering course of the Willamette River through the rich and productive Willamette Valley and Western Cascades has created areas of excellent wildlife habitat. The Middle Fork flows through some marginal agricultural land that is intermingled with large woodlands. By doing so, this part of the river has created some of the most valuable and productive wildlife habitat around. Large tracts of streambank woodlands still exist for the protection and production of wildlife species. The Coast Fork and Mainstem are diversified in their types of land use, and population centers are found along their banks, but even with these situations there are areas relatively undisturbed by human activity. However, in past years with man's success in taming the Willamette River, many of these wild areas on the Coast and Mainstems are being incorporated into urban areas and developed into agricultural land leaving less land suitable for wildlife habitat each year.

Wildlife

Waterfowl use occurs along the entire Willamette River system surveyed. Several hundred local mallards, teal and wood ducks can be found using the river for nesting, feeding and resting. However, the heaviest use is noted from November to March when the migrants move in from the north. During this time, several thousand birds may be found using this river at one time or another. Several very important waterfowl areas have been identified as nature conservancy sites on all three river systems. At the present time, the hunting pressure is moderate due to the need for a drift boat to successfully hunt the area.

Furbearing animals are found along the entire portion of the Willamette River that was surveyed, and could be classified from medium to abundant. Fewer animals were observed in areas close to the Eugene-Springfield metropolitan area or within seven miles of Cottage Grove. Beaver were found to be the most common species present. Other species found were nutria, mink, raccoon, river otter and muskrat. Moderate to heavy trapping occurs along portions of the river with good road and boat access.

The blacktail deer is found along all sections of the river system where wooded areas occur. The larger islands are excellent habitat and support large numbers of deer. The availability of large blocks of suitable habitat for deer is limited. Mt. Pisgah is one exception, however, with a large wooded area designated as an animal refuge and regional park. Hunting for deer is best on the Middle Fork since there are several large tracts of land available to the hunter. Public access along the river for hunting is a problem, but in some areas permission can be obtained by private owners. Deer depredation to agricultural crops along the river system is common.

Songbirds are found to be abundant throughout the Willamette River system. Excellent habitat was found available along all of the riverbanks, even in the areas of intensified farming. Great Blue Heron colonies are found scattered along the river in the larger wooded areas. Osprey are common along the river system, with several nest snags occurring between Dexter Dam and Eugene. At least one pair of eagles is known to use the Mt. Pisgah area for nesting.

Fisheries

The Willamette River is a travel route for upstream and downstream migration of summer steelhead, winter steelhead, spring chinook salmon, fall chinook salmon, coho salmon and sturgeon. Cutthroat trout move from the Willamette River into the smaller tributaries each fall and winter and spawn. Increased runs of anadromous fish are expected as a result of active planned habitat management and fish cultural activities now underway. Juvenile anadromous fish utilize the rivers for rearing and downstream passage during most of the year. ,

The river has historically supported an abundance and variety of fish life. Topping the list in importance is the spring chinook salmon. The 23-year average for these fish show a run of 51,000 above Willamette Falls, and a harvest of 12,400. Heavy angling pressure is directed at adult salmon, steelhead, warm water game fish, and trout from spring to early fall. The sloughs, oxbow lakes and backwater areas of the Willamette River are the "lifeline" of the river for fishes, and it is in these areas that angling is most abundant.

The Fish and Wildlife Department has identified several fish and wildlife areas that should be preserved along the Willamette River in Lane County. Approximately 18 sites were identified along the Mainstem, 12 along the Coast Fork, with 9 along the Middle Fork. See Map 3 for general location of fish and wildlife habitat sites.

River Access

Access into the Willamette River system is confined primarily to boat drifting, by obtaining permission to cross over private lands and through public lands. The exception to this is where the river passes through Eugene and Cottage Grove. Presently, there are five boat ramps along the Middle Fork, four ramps on the Coast Fork, and six ramps along the Mainstem. All boat ramps identified are in public ownership. Other private ramps do exist.

For actual location of river access points, see the Recreation and Scenic Qualities Section.

The Fish and Game Department recommends that three additional boat launching sites be constructed along the Willamette River in Lane County. Locations include: The Coast Fork at river mile 1 (south bank), and 21 (property of the City of Cottage Grove) and the Middle Fork at river mile 201.5 along the south bank. All the above proposed sites are on public lands.

Nature Conservancy Sites

The Nature Conservancy, a private conservation organization, has contracted with the Land Conservation and Development Commission (LCDC) to inventory on a

statewide basis, the locations of scientifically and ecologically significant natural features, commonly referred to as natural areas. By incorporation of sites identified in Lane County, into the County's Greenway Plan, it is assumed that portions of the requirements of LCDC Goal #5 will be satisfied.

Nature Conservancy sites include habitats for endangered plant and animal species, the best representation of native plant communities and outstanding biologic or geologic features. The sites constitute a basic resource for land use planning decisions at the local level. By being identified, local government agencies and officials are alerted to natural areas within their jurisdiction warranting protection or preservation, and to provide a working list of areas for consideration. Nature Conservancy sites along the Willamette River are identified on Map 3.



(go on to next page)

----- GREENWAY BOUNDARY -----

Detailed resource maps at a larger scale are available at the Lane County Planning Division.

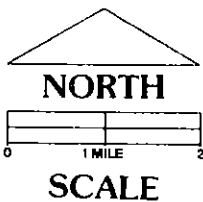
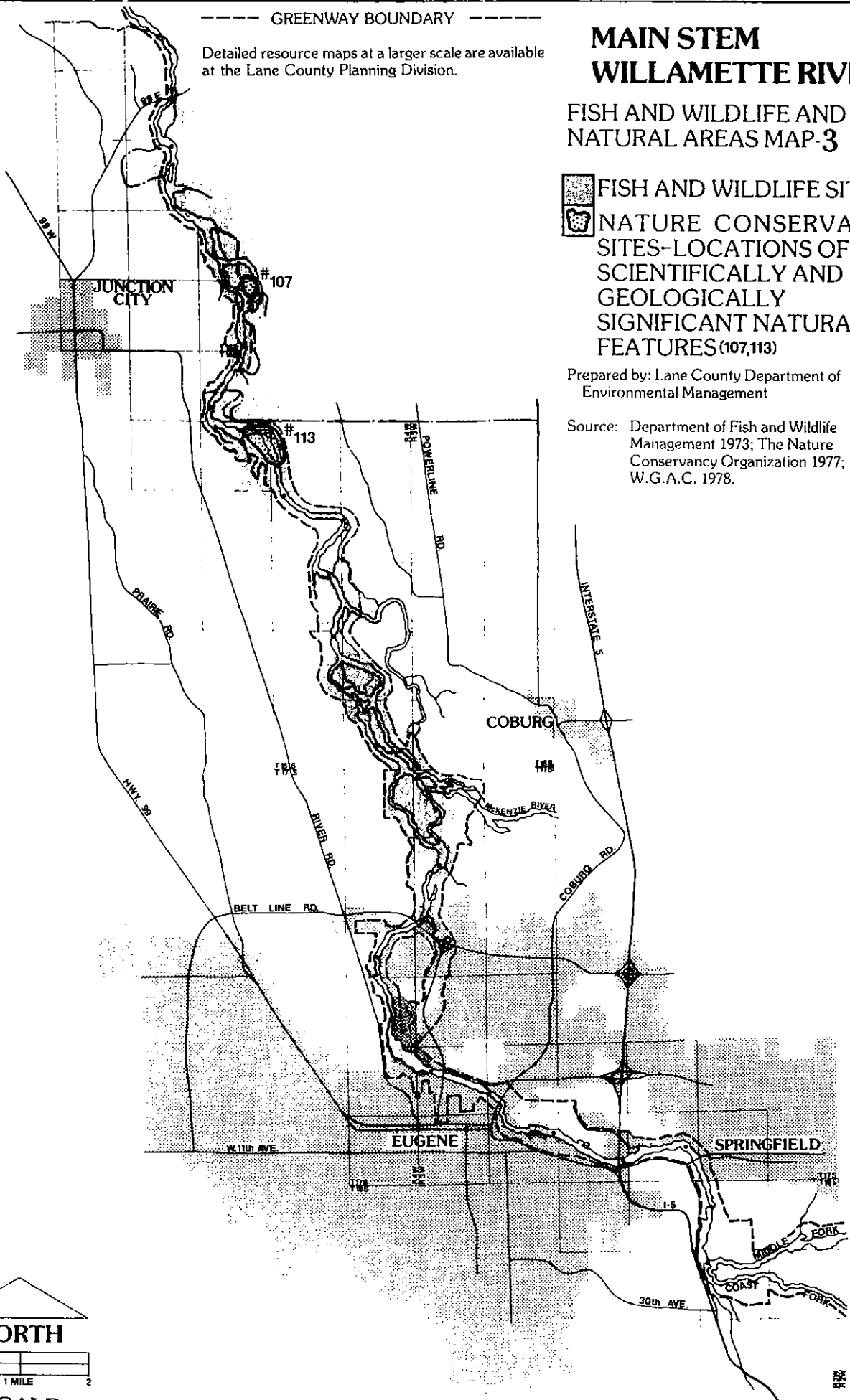
MAIN STEM WILLAMETTE RIVER

FISH AND WILDLIFE AND NATURAL AREAS MAP-3

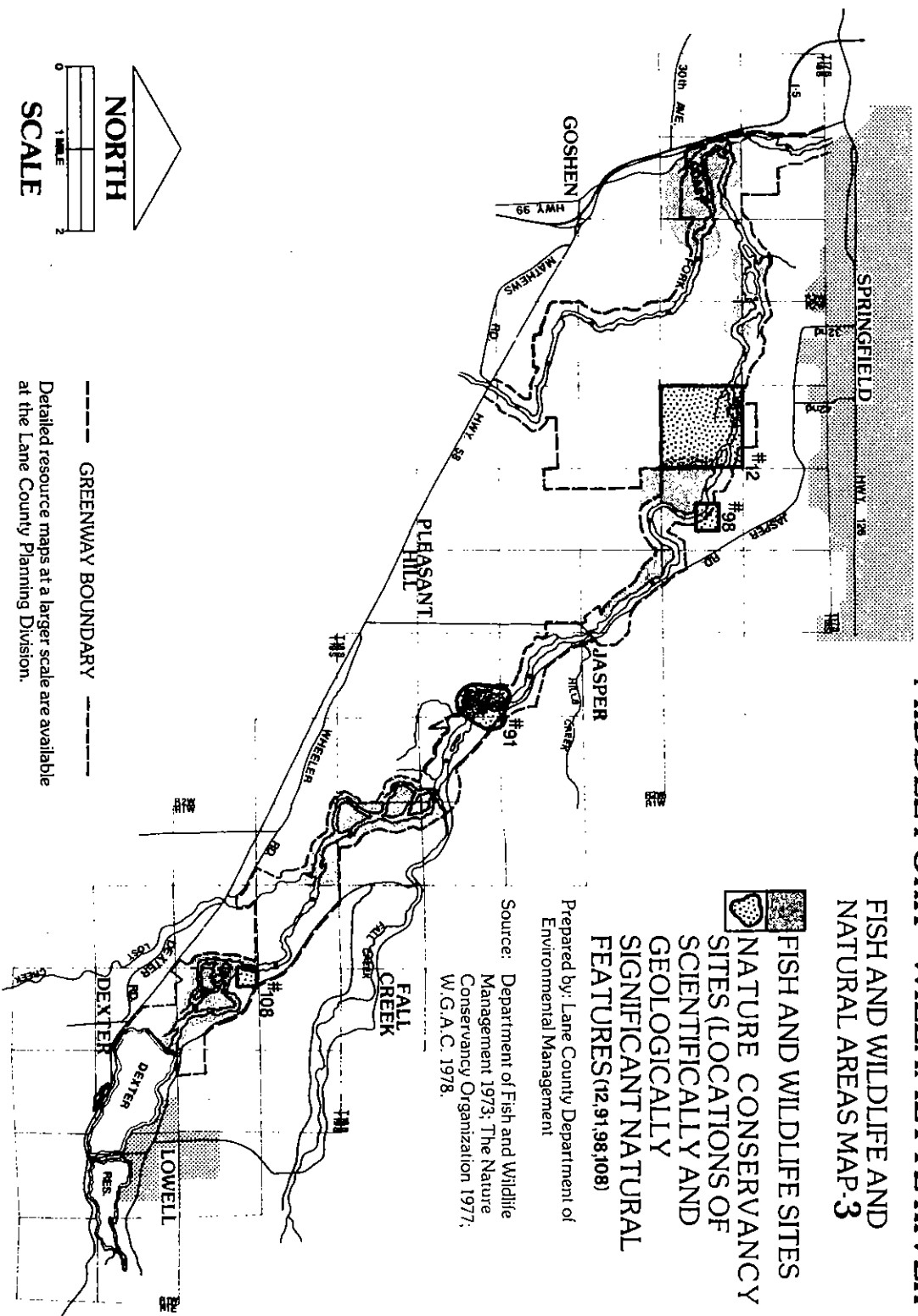
 FISH AND WILDLIFE SITES
 NATURE CONSERVANCY SITES-LOCATIONS OF SCIENTIFICALLY AND GEOLOGICALLY SIGNIFICANT NATURAL FEATURES (107,113)

Prepared by: Lane County Department of Environmental Management

Source: Department of Fish and Wildlife Management 1973; The Nature Conservancy Organization 1977; W.G.A.C. 1978.



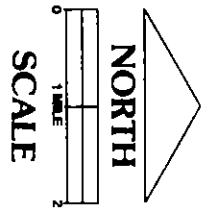
MIDDLE FORK WILLAMETTE RIVER FISH AND WILDLIFE AND NATURAL AREAS MAP-3



FISH AND WILDLIFE SITES
NATURE CONSERVANCY
SITES (LOCATIONS OF
SCIENTIFICALLY AND
GEOLOGICALLY
SIGNIFICANT NATURAL
FEATURES) (12, 91, 98, 108)

Prepared by: Lane County Department of Environmental Management



Source: Department of Fish and Wildlife Management 1973; The Nature Conservancy Organization 1977; W.G.A.C. 1978.



----- GREENWAY BOUNDARY -----
 Detailed resource maps at a larger scale are available at the Lane County Planning Division.

COAST FORK WILLAMETTE RIVER

FISH AND WILDLIFE AND NATURAL AREAS MAP-3

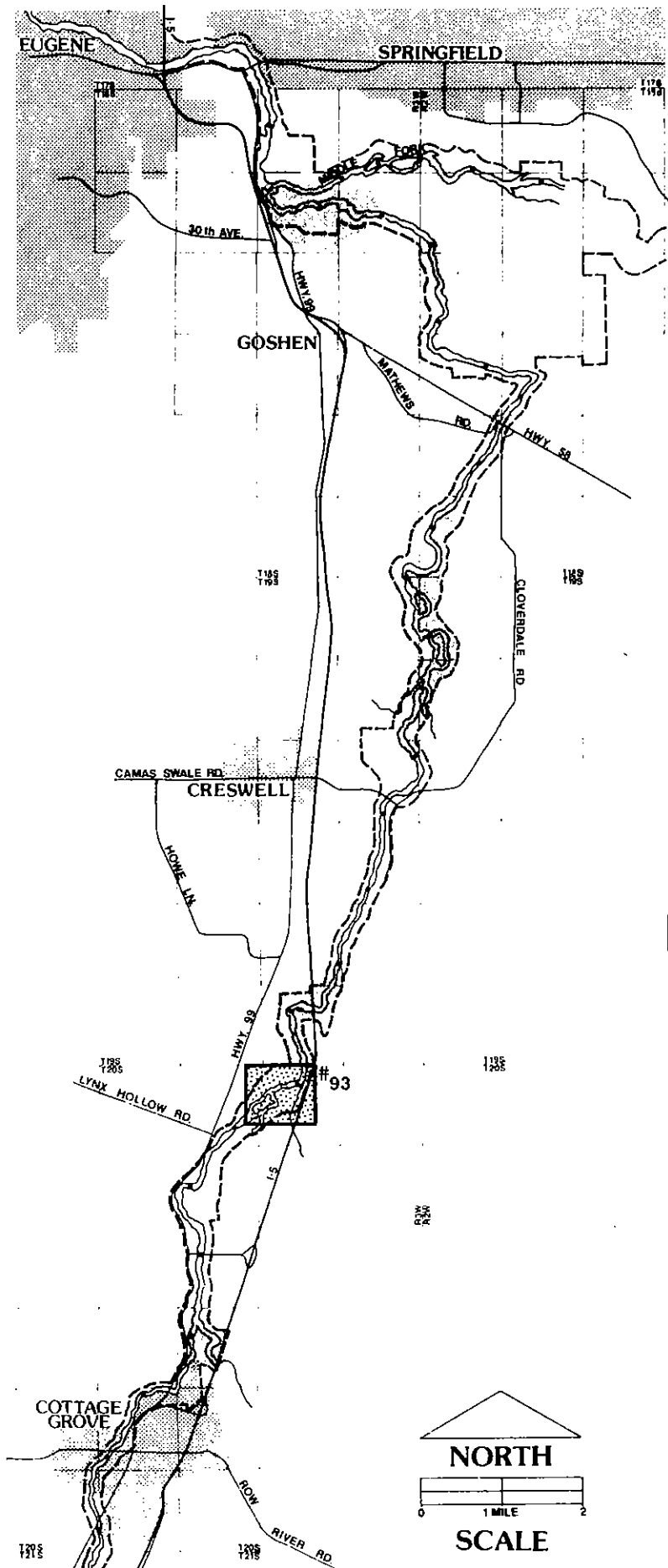
-  FISH AND WILDLIFE SITES
-  NATURE CONSERVANCY SITES (LOCATIONS OF SCIENTIFICALLY AND GEOLOGICALLY SIGNIFICANT NATURAL FEATURES (93))

Prepared by: Lane County Department of Environmental Management

Source: Department of Fish and Wildlife Management 1973; The Nature Conservancy Organization 1977; W.G.A.C. 1978.

----- GREENWAY BOUNDARY -----

Detailed resource maps at a larger scale are available at the Lane County Planning Division.



COAST FORK CONTINUED (SEE INSET AT RIGHT)

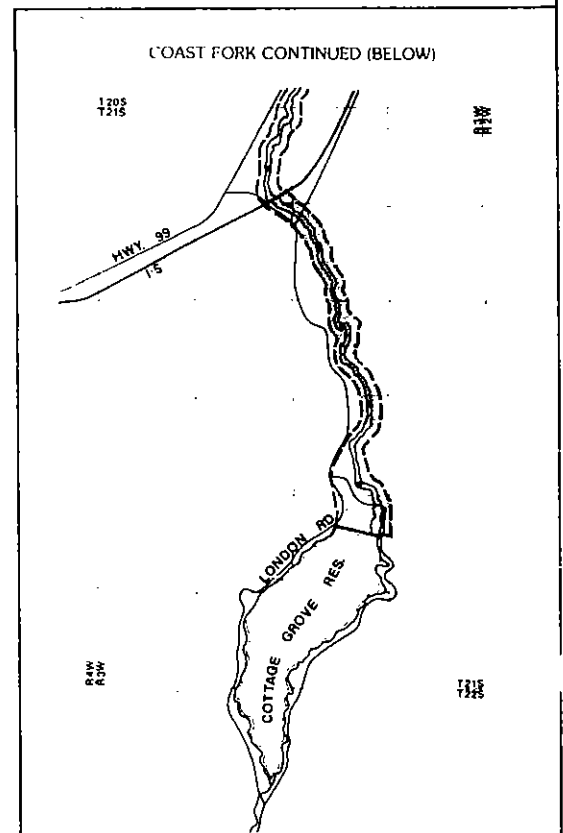
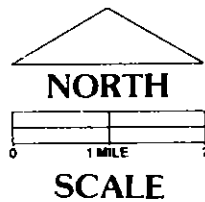


TABLE 8

NATURE CONSERVANCY SITES IN LANE COUNTY--WILLAMETTE RIVER

River Location	Nature Conservancy Site Number	Site Description	River Mile	Township Range and Section	
Mainstem	107	Harpers Bend Heronry 24 active Great Blue Heron nests in old growth cottonwoods.	R.M. 164.8	T15S R4W S34	
	113	Marshall Island Heronry Great Blue Heron nests in old growth cottonwoods; many wetland areas; pristine slough; good riverline vegetation.	R.M. 168	T16S R4W S16	
Middle Fork	12	Nesting waterfowl habitat.	R.M. 191	T18S R2W S8	
	91	Sizable riparian vegetation strip in old meander line.	R.M. 197	T18S R2W S25, 26	T18S R1W S30, 31
	98	Mt. Pisgah Area Rookery Largest Great Blue Heron Rookery	R.M. 192.2	T18S R2W SNE1/4, SW1/4	
	108	Dexter Island and Dam State Park; 30 active Great Blue Heron nests; birds of prey; old growth cottonwoods.	R.M. 205.2	T19S R1W S5,8,9	
Coast Fork	93	Deciduous riverline forest with small grasslands.	R.M. 17.5	T20S R3W S2	

Source: Nature Conservancy Sites
March 1977
Oregon Natural Heritage Program

Considerations

The Greenway law specifically states that it is within the public's interest to protect, conserve and preserve the "natural" qualities of lands along or within the Willamette River. A general definition of natural areas includes: land and water important as habitat for plant and animal life, or for the study of its natural scientific features--or for just the appreciation of its natural features.

In 1976, both the Board and Planning Commission directed staff to include natural resource lands, such as units of vegetation along the river identified as wildlife habitat, when developing the Greenway Boundary. The Fish and Wildlife Goal from the County Goals and Policies document indicates that, "land use decisions and land management practices should consider conservation of fish and wildlife resources." The Greenway Advisory Committee established the following preliminary policy concerning Fish and Wildlife resources: identify (but do not necessarily publicize) and conserve areas of outstanding fish and wildlife value.

FINDINGS

1. The meandering course of the river through the productive Willamette Valley has created excellent wildlife habitat. Gravel bars, backwaters, islands, riparian vegetation, streambed woodlands and sloughs are essential components of this unique ecosystem.
2. Waterfowl (i.e., mallards, teal, wood ducks) use occurs along the entire Willamette River system, with the heaviest use noted from November to March.
3. Beaver are the most common furbearing species found along the Willamette River; other include nutria, mink, raccoon, river otter and muskrat. Except for the Middle Fork, deer population is limited along the river.
4. The majority of Nature Conservancy sites consist primarily of heron rookeries.
5. Approximately all fish and wildlife sites and Nature Conservancy sites are located in the Greenway Boundary.
6. The river in Lane County supports an abundance and variety of fish life.
7. There are 17 developed and undeveloped boat access points to the river, however, the state is proposing at least three additional access points.
8. Lane County has the following concerns about fish and wildlife.
 - a. Wildlife habitat should be considered when developing the Greenway Boundary.
 - b. Identify (but not necessarily publicize) and conserve areas of outstanding fish and wildlife value.
 - c. Land use decisions and management programs should consider conservation of fish and wildlife resources.

9. Lands within and along the Greenway are capable of supporting wildlife habitat now and in the future.

GOAL

PROTECT, PRESERVE OR CONSERVE IMPORTANT FISH AND WILDLIFE HABITATS AND NATURAL AREAS WITHIN THE GREENWAY.

POLICIES

1. Identify but do not necessarily publicize and conserve areas of outstanding fish and wildlife value.
2. Land use decisions and management practices shall consider fish and wildlife habitat and natural areas within the Greenway.

RECOMMENDATIONS

1. Advise and seek assistance from the Nature Conservancy organization regarding development proposals (i.e., intensive or nonintensive) within or near identified nature conservancy sites.
2. Refer to TABLE 8, Nature Conservancy Sites Along the Willamette River in Lane County, within the Greenway Technical Report, when considering and evaluating land use proposals within the Greenway.
3. Advise and seek assistance from the State Fish and Wildlife Department when evaluating land use proposals within the Greenway.
4. Utilize detailed overlay maps, scale 2 1/2 inches=1 miles, in the Lane County Planning Division Office to identify important Fish and Wildlife habitat sites and Nature Conservancy sites within the Greenway in Lane County.
5. Restrict, redirect, discourage or not allow development (i.e., intensive or nonintensive) in areas containing scientific and ecologically significant natural features and fish and wildlife habitat areas.
6. Support construction of new boat access points identified by the State Department of Fish and Wildlife and improve other sites.
7. Recognize and accept the fact that lands within and along the Greenway Boundary represent a continuous corridor capable of supporting wildlife now and in the future.
8. Protect, conserve or preserve streamside riparian vegetation for both food and cover for wildlife.

V. THE MAN-MADE ENVIRONMENT

Over 80 percent of Lane County's population (220,000 individuals) lives within the Willamette Valley, the majority resides along or within five miles of the Willamette River. Population trends in Lane County show an increase of 50 percent or 127,000 individuals by the year 2000.

More than 60 percent of the population of Oregon lives in the valley, and 90 percent of these people live within 10 miles of the river. Furthermore, Oregon's population increases annually by 50,000 people, and the majority reside in the valley.

It is anticipated that the majority of future growth in the County will follow past trends and occur along or within close proximity to the river. Due to established growth nodes, the automobile and a good highway system, a pattern is emerging which indicates increased urbanization along the river. Such an urban corridor would be highly undesirable from an energy standpoint and would not be considered compatible with the Greenway Concept. The Greenway program offers an opportunity to sustain or maintain through property management, a conservation corridor for all times.

The river is affected by both land use activities occurring along the river and use of the water itself. Fortunately, the river "cleanses" itself continually; however, population growth and land use activities along the river have a long-term impact upon the river's environment.

Traditionally, we have turned our backs on the river, however, the essence of the Greenway Plan is a conceptual reorientation to the environmental character of the river, and the recognition that it is unique to our quality of lifestyle. Through an adopted Greenway Plan, we can manage land use activities along the river and begin attempts at formulating coordinated efforts at managing uses within the river.

This chapter discusses: Land Use Considerations; Riparian Ownership; Greenway Security; Recreation and Scenic Qualities; Historic and Archaeological sites and Access.

LAND USE CONSIDERATIONS

This section discusses land currently committed to industrial, commercial and residential uses including other uses along the river; private versus public ownership growth management along the river, urban lands, and the Greenway rural-urban line.

Total River Overview

The adopted zoning indicates in general the current land use activities along the river. TABLE 9 below provides a listing of zoning districts along the river, riverbank miles and percentages of zoning per riverbank mile for each sub-basin and overall figures and percentages for the entire river.

For further detailed zoning district percentages for each of the sub-basins or the total river system, see TABLE 9. Also, zoning maps identifying the location of existing zoning along the river are available in the Lane County Planning Division for review.

The following summary was taken from the far right hand column of TABLE 8. Approximately 5% of the 138+ Willamette River bank miles in Lane County are designated either light or heavy industrial zoning. The majority of industrial zoning is concentrated on the Coast Fork followed by the Mainstem and Middle Fork. Only 1/2% of the riverbank miles are in commercial zoning with 1/4% located along both the Mainstem and Coast Fork. Residential zoning indicative of urban densities (i.e., 3000 sq. ft. to one acre per dwelling unit) amounts to 6% with dominate use noted in the metropolitan area. The Agricultural, Grazing, Timber Raising 5-Acre District, indicative of rural residential, single-family densities, amounts to 17%, with the dominate use noted along the Coast Fork.

Over one-half (54-1/2%) of the riverbank miles, adjacent to the Willamette River are in 20-acre zoning categories such as Exclusive Farm Use (25%) or Farm Forestry (29-1/2%). The zoning generally reflects Lane County's rural open space character and usually permits land use activities varying from nonintensive to intensive agricultural uses.

Sand and gravel zoning amounts to 7% and is located primarily within the metropolitan area with major concentrations noted along the Middle Fork followed by the Coast Fork and Mainstem.

Sub-basin Overview

Significant zoning districts occurring along the sub-basins include:

1. Almost 70% of the Mainstem is zoned Exclusive Farm Use (EFU-20 acre minimum).
2. Over 50% of the riverbank miles along the Middle Fork are zoned Farm Forestry - 20 acre.
3. At least 40% of the Coast Fork riverbank miles are zoned Farm Forestry - 20 acre.
4. Although the Mainstem is dominated by EFU zoning, it also contains the greatest mixture of high density zoning districts. For example, within the metropolitan area, residential zoning (i.e., RA, RA/MH, RG, R-1) accounts for 12-1/2% of the riverbank miles followed by Industrial and Sand and Gravel Zoning both at 5%.
5. Both high density residential and sand and gravel districts are concentrated within the metropolitan area.

For further detailed zoning district percentages for each of the sub-basins or the total river system, see TABLE 9. Also, zoning maps identifying the location of existing zoning along the river are available in the Lane County Planning Division Office for review.

TABLE 9

CURRENT ZONING ALONG THE WILLAMETTE RIVER - LANE COUNTY 1978

Zoning Districts	Mainstem		Middle Fork		Coast Fork		Total River Average	
	River Bank Miles	% of Total River Bank Miles	River Bank Miles	%	River Bank Miles	%	River Bank Miles	%
Exclusive Farm Use (EFU-20 acre)	34.00	68			1.25	2½	35.23	25
Farm Forestry (FF-20 acre)			18.50	56	22.25	40	41.25	29½
General Rural (GR-10 acre)			.75	2	3.75	7	4.50	3
Agricultural Grazing and Timber (AGT-5 acre)	2.00	3½	4.00	12	17.25	31½	23.25	17
Suburban Residential (RA)	4.25	9	1.00	3			5.25	4
Suburban Residential/Mobile Home Park (RA/MH)	1.00	1½	.25	1			1.25	1
Garden Apartment Residential (RG)	.50	1					.50	½
Single Family Residential (R-1)	.50	1					.50	½
Neighborhood Commercial (C-2)	.25	1					.25	¼
Commercial (C-3)					.25	½	1.25	¼
Light Industrial (M-2)	2.50	5					2.50	2
Heavy Industrial (M-3)			.25	1	3.50	6½	3.75	3
Sand, Gravel and Rock Products (SG)	1.0	2			2.75	5	3.75	3
Sand, Gravel and Rock Products--Controlled Processing (SG/CP)	1.50	3	4.50	14			6.0	4
Public Reserve (PR)	2.50	5	2.25	7	3.75	6	8.50	6
Unzoned			1.50	4			1.50	1
Grand Total	50.00	100%	33.0	100%	55.25	100%	138.25	100%

Sources: Lane County Planning and Parks and Open Space Divisions, 1978

Private and Public Ownership

The following presents a brief overview of private and public ownership along the Willamette River in Lane County. TABLE 10 provides an overall breakout of private and public ownership along the unincorporated riverbanks in Lane County.

TABLE 10

EXISTING PRIVATE AND PUBLIC OWNERSHIP
ALONG THE WILLAMETTE RIVER IN LANE COUNTY

	Mainstem		Middle Fork		Coast Fork		Total River	
	River- bank Miles	% of River- bank Miles	River- bank Miles	%	River- bank Miles	%	River- bank Miles	%
PRIVATE	26.50	53%	17	52%	37.75	68%	81.25	59%
PUBLIC	23.50	47%	16	48%	17.50	32%	57.00	41%
TOTAL	50	100	33	100	55.25	100	138.25	100

Source: State Department of Transportation 1976; Lane County Assessment and Taxation Office 1975-76 and the Lane County Planning and Parks and Space Divisions, 1978.

Currently, almost 60% of the riverbank is in private ownership, while over 40% is in public ownership. Public ownership consists of State Greenway Corridor Lands, other state ownership, local (i.e., school districts, grange halls, lodges, other special districts, etc.), County and federal. The majority of private ownership (68%) is located along the Coast Fork followed by the Mainstem (53%) and Middle Fork (52%).

Public ownership is greatest along the Middle Fork (48%) followed by the Mainstem (47%) and Coast Fork (32%). Currently, the major concentration of public ownership along the Middle Fork is in the Dexter State Park area, however, in the future it is anticipated that the Mt. Buford area will exceed the Dexter area. Public ownership along the Coast Fork is concentrated near Mt. Buford followed by the State Greenway Corridor Lands which are dispersed along the river, but north of Cottage Grove. Although 47% of the Mainstem riverbanks are in public ownership, the majority is concentrated within the metropolitan area. Furthermore, the Mainstem has the greatest mixture of public ownership.

Although a significant amount of lands along the river is in public ownership, not all are capable of supporting intensive recreation activity. For further discussion relative to existing and potential recreational capabilities of lands along the river, including DOT's acquisition program, see Chapter V, the Man-Made Environment, Section D, Recreation.

Growth Areas

Anticipated development (e.g., residential commercial, industrial, recreation, etc.) areas along the Willamette River in Lane County include:

1. Mainstem
 - a. The cities of Junction City and Coburg.
 - b. The Eugene-Springfield Metropolitan area, specifically in the River Road, Santa Clara and Glenwood areas.
2. Middle Fork
 - a. Jasper and Trent.
 - b. The City of Lowell and rural service center of Dexter.
 - c. The metropolitan area at the confluence of the Middle and Coast Forks with the Mainstem.
3. Coast Fork
 - a. The metropolitan area.
 - b. The City of Creswell.
 - c. Saginaw and Cloverdale.
 - d. City of Cottage Grove.

4. Other

Additional recreational development will be noted within State Greenway Corridor Lands and other Lane County recreation sites.

For additional growth information relative to the above cities, see Chapter II, The Social and Economic Environment, the Population Consideration section.

Growth Management

Although the majority of population growth in Lane County will occur along the valley bottomlands adjacent and within close proximity to the river, development within the Greenway Boundary will be limited, redirected or restricted due to the existence of physical limitations (i.e., flooding, soil limitations and other natural river constraints); the natural resources of the river; the adopted Comprehensive Land Use Plans along the Willamette River and the County's coordinated growth concept. For additional growth management details, see the Plan Diagram Section.

Urban Lands

The Greenway Law and Goal #15 also recognizes that lands committed to urban uses within the Greenway Boundary shall be permitted to continue as urban uses.

Urban lands include those lands upon which the economic, developmental and locational factors have made the use of the property for other than urban purposes inappropriate. Economic, developmental and locational factors include such matters as: industrial, commercial, residential, recreational, ports and uses pertaining to navigational requirements, water and land access needs and related activities, or the effects these existing uses have on properties in their vicinity and previous public decision regarding the lands in question as contained in adopted land use plans and ordinances. The Greenway Program attempts to direct development away from the river, however lands committed to urban uses shall be permitted to continue. Intensification of uses, changes in use or developments may be permitted if they are consistent with the Greenway Law, Goal #15, other statewide planning goals and local directives.

The Greenway Rural-Urban Line

The Rural-Urban Boundary is an area within the Greenway Boundary that is still in Lane County but located between a designated line displayed on DOT's Greenway Plan adopted by LCDC in 1977 and the city limits boundary of the Cities of Eugene-Springfield and Cottage Grove. The Greenway Urban-Rural line generally coincides with the Urban Growth Boundaries of the respective cities. Eventually, lands within the Rural-Urban Boundary will be annexed or be developed at urban densities, however, it is important to recognize that all these lands are considered transitional between rural and urban use.

Eventually, these transitional areas will be in some form of urban use, but not all are currently in urban use.

FINDINGS

1. Over one-half (54%) of the riverbank miles adjacent to the Willamette River are in 20-acre zoning designations such as Exclusive Farm Use (EFU-20 acre minimum) and Farm Forestry (FF-20).
2. Industrial zoning accounts for 5% of the total 138+ riverbank miles, commercial, 1/2% and residential, 21%.
3. Almost 70% of the Mainstem is in Exclusive Farm Use zoning, while Farm Forest 20-acre minimum accounts for 56% along the Middle Fork and 41% along the Coast Fork.
4. Currently, 59% of the lands adjacent to the river are in private ownership while 41% are in public ownership.
5. The essence of the Greenway Plan is a conceptual reorientation to the existence of the river and the recognition of its numerous resource capabilities.
6. Development within and along the Boundary will be limited, reduced or restricted due to the existence of physical limitations (i.e., flooding, soil limitations and other natural river constraints); the natural resources within the Boundary; the adopted comprehensive land use plans along the river; and the County's coordinated growth concept.

7. Even though growth will be concentrated and controlled, it will occur along the river; consequently, it is important that development have intrinsic within its conceptual design a recognition or orientation to the river's unique environment.
8. Soil types generally indicate that major land uses within the Boundary should include: limited agricultural activity, sand and gravel, recreation and wildlife resources.
9. Lands within the Boundary that are not susceptible to physical constraints are few and are generally located in areas of elevated natural levees, along former channels and man-made fills for roads, railroads, bridges or dwellings.
10. The existence of the following major natural resources within and along the Greenway Boundary will limit, redirect or restrict development: riparian vegetation, wildlife habitat, limited agriculture, sand and gravel, historic and archaeological, recreational and scenic.
11. There are several areas along the river where growth (e.g., residential, commercial, industrial, recreational, etc.) will occur.
12. As Lane County's population grows, it will impact on the Willamette River, because the majority of the population growth areas in the County are located within close proximity or adjacent to the river. The river "cleanses" itself continually, however, population growth and permanent land use activities along the river have a long-term impact upon the river environment.

GOAL

PERMIT THE CONTINUATION OF EXISTING USES, HOWEVER, LIMIT THE INTENSIFICATION AND CHANGE OF SUCH USES TO INSURE COMPATIBILITY WITH THE GREENWAY GOAL.

POLICIES

1. Maintain and support continuation of existing intensive and nonintensive uses within the Greenway Boundary, such as agriculture, residential, commercial, industrial and recreational.
2. Intensification and change of use of lands within the Greenway Boundary shall remain compatible with the protection, conservation and enhancement of the natural, scenic, historic, agricultural, economic and recreational qualities of the Willamette River Greenway Program.
3. Encourage a river-related mixture of industrial, commercial, residential and public land uses where appropriate in the Greenway.
4. Restrict development on lands sensitive to human use.
5. Maintain the natural resource base along the rural Greenway by encouraging development in the urban areas.

RECOMMENDATIONS

1. Development shall occur in the following areas: lands committed to urban use and containing economic developmental and locational factors that recognize and support development; other lands that are designated for development in adopted comprehensive plans and zoning ordinances, and only after considering the Goals, Policies, Findings and Recommendations of the Willamette Greenway Advisory Committee (WGAC).
2. Development within identified growth areas shall have intrinsic within its conceptual design a recognition or orientation to the river's unique environment.
3. Restrict development in areas sensitive to human use.
4. Development should be limited, redirected, restricted or not allowed only after considering and evaluating its impact on the natural resources (i.e., riparian vegetation, wildlife habitat, agriculture, sand and gravel, historic and archaeological, recreation, scenic values) within and along the Greenway Boundary.
5. Protect and conserve activities such as agriculture, nonintensive recreation, sand and gravel extraction and wildlife habitat within and along the Greenway Boundary.
6. Public acquisition for recreational purposes should occur only after consideration is given to other river and adjacent land resource capabilities and only after coordination with Lane County.
7. Development shall be directed away from the river to the greatest degree possible.
8. Ensure that the Greenway Rural Urban Boundary coincides with the Urban Service Boundaries for both the Eugene Springfield metropolitan area and the City of Cottage Grove.
9. Recognize and support the fact that the Greenway Program is cited to varying degrees within the adopted land use plans along the river.
10. Encourage urban areas to acquire continuous river frontage for public access and recreation development.
11. Zoning within the Greenway should be highly restrictive; permitting continuation of existing uses and ensuring continued agricultural use, prohibiting urban intrusion and protecting floodplains.
12. Allow commercial development only if it is specifically river-oriented.
13. New industrial development that locates along the river shall be limited to water-dependent uses and should not distract from the natural, scenic and environmental quality of the Greenway.

RIPARIAN RIGHTS

Introduction

This section discusses the following subjects relative to riparian rights or ownership: Definitions of Riparian Owner and Rights, and Ordinary Low and High Water; Navigability Issue; Accretion-Reliction and Avulsion; Ownership of the Riverbed; and Public Use of Waterways.

Definitions

The Division of State Lands provides the following definitions for RIPARIAN OWNERSHIP and RIPARIAN RIGHTS, and ORDINARY LOW AND HIGH WATERLINE.

Riparian Owner: One who owns land bordered generally by a waterway.

Riparian Rights: The rights of the owners of lands on the banks of water courses related to access to the water, certain privileges regarding its uses, the benefits of accretions and relictions. If navigable, the banks and bed are public property. If not navigable, the bed and banks are usually privately owned. It is to be noted that rights are governed by statutes and related court decisions. In Oregon, a riparian owner on a navigable waterway has the right of access to the water, including the right to build a wharf out to the line of navigation (harbor line) providing the property is within the boundaries of an incorporated city or within a port district, and it does not interfere with navigation. The riparian owner in this case has preference right also to take a lease of state-owned submerged and submersible lands fronting the riparian lands. However, due to the Oregon Legislature's actions in the 1870s, exceptions to the above exist, and are presented below in the Navigability Section.

The riparian owner has considerably more rights on non-navigable streams where the bed and banks are privately owned because he owns to the ordinary low waterline or the centerline of the river. The riparian owner, however, cannot interfere with navigation or commit any unlawful act. Beyond those constraints, he can exercise the same degree of control over any private uplands.

Ordinary Low and High Waterline: The high water level is defined as that to which the stream rises with sufficient frequency and sustains for sufficient time to mark the constraining banks and discourage encroaching vegetation along a distinct upper line. The low water mark of a river is that point to which the waters normally recede when the volume of water is at its low level, not determined by the extraordinary year. Submersible lands are also considered that land or bank area between the ordinary low and high waterline.

Navigability Issue

On Oregon's admission to the Union in 1859, the state "became vested with the title to all of the navigable waters within the State" (United States v. Oregon, 1934). This title in the state extends to navigable streams from bank to bank within the limits of ordinary high water. (This means that riparian properties extend to the water's edge as determined at times of high water.) The question

of whether a particular river is navigable is determined by the Oregon State Land Board through the Division of State Lands in conjunction with the federal government, or ultimately by the courts if the question enters into litigation.

Where the actual boundary line of riparian property lies depends on whether the stream is considered navigable. If a river is considered navigable, property boundaries for riparian properties stop at the water's edge and the bed and water belong to the state. Whereas the state owns the beds of navigable rivers, the boundaries of riparian properties along non-navigable rivers extend to ordinary low waterline or to the center of the river. Exceptions are presented below.

The Mainstem of the Willamette River is considered to be navigable by both the Corps of Engineers (for navigation control) and the State Land Board (for ownership of the bed). The head of navigation has been set at the Ferry Street Bridge in Eugene. Although the river above Harrisburg has not had river traffic since the turn of the century and has not been maintained by the Corps of Engineers for navigation by river boats, the head of navigability is still officially considered to be at Eugene. Because the Mainstem is navigable, it is capable of being used for transportation and commerce.

Usually along navigable rivers, riparian property extends to the water's edge (i.e., ordinary high waterline), with the state owning the riverbed; however, along the Willamette River, primarily the Mainstem, the location of the water's edge is complicated by the Oregon Legislature's action between 1874 and 1878. During this period, the Legislature relinquished its rights to the area between the high and low water mark. Consequently, a significant amount of riparian owners along the Mainstem own to the ordinary low waterline. After 1878, however, the Legislature revised its state statutes concerning riparian ownership, indicating that if a stream was determined navigable, the state did, in fact, own to the high waterline, excluding prior ownership claims and properties under litigation.

Currently, the navigability of both the Coast and Middle Forks has yet to be determined by the state. For further information regarding the navigability or riparian rights along both forks, contact the Division of State Lands.

Accretion-Reliction and Avulsion

The effect of river changes on boundaries of riparian properties can depend on the type of change the river has undergone. Current Oregon law recognizes only two basic types of river changes: accretion-reliction and avulsion.

The accretion-reliction process is the gradual process of deposition of sediments on or along the river bank (i.e., accretion), while gradually uncovering riparian lands along the opposite shore and replacement with water (i.e., reliction). The process is often accompanied by the erosion of the opposite bank, while the other is extended.

The process of avulsion involves the relatively sudden shifting of a river into a new channel. Determining whether a particular channel change occurred as a result of accretion-reliction or an avulsion is often difficult. The courts have adopted a rule for differentiating the two. For example, when the change occurs at such a rate that it is perceptible to an observer while he is present,

it is considered an avulsion. If the change is so gradual as to be imperceptible* to the observer, it is a case of accretion-reliction.

When the river shifts gradually through the process of accretion-reliction, riparian property boundaries, including state ownership of the bed, move with the river. Thus, the property owner on the one side of the river will gain new land through accretion-reliction, while the owner on the opposite bank will be losing part of his property through erosion by the river. If the river changes through an avulsion, the property boundaries formerly determined by the river's location remain where they were at the time of the avulsion; they do not move with the river. Although there are rules for determining what happens to property boundaries when a river change occurs, factual problems arise upon trying to determine when the change occurred, where the river was located prior to and following the change, and whether it was a result of accretion-reliction or avulsion.

Ownership of the Riverbed

Along with ownership of the bed, the state becomes responsible for preserving the public's right to use the river for transportation, commerce, recreation, boating, etc. Although the state may lose ownership of portions of the riverbed through sale, grant or avulsion, the public right-of-way cannot be alienated. Since the public right-of-way along the river is not lost when the state loses ownership of the riverbed, the main value to the state in retaining ownership of the bed is in the revenue received as royalties on sand and gravel removed. Currently, the State Land Board receives royalties per yard of gravel removed from the beds of navigable streams.

If the rule regarding the effects of avulsive river changes upon property ownership is followed, the loss of portions of the bed of the Willamette through avulsive river change is potentially possible. In essence, every time an avulsion occurs and the river cuts a new channel across some private property, the owner of that property becomes the owner of the new riverbed.

Public Use of Waterways

The Mainstem is navigable; therefore, the water, beds and banks of the river in some cases belong to the state. However, who owns the bed is not the only criteria for determining whether or not the "public" can use a stream. For instance, if it is possible to float down a stream in a canoe or raft or even an innertube, the "public" can therefore use the water for transportation, floating, etc. Naturally, the public has full rights to use the large navigable streams for floating and boating.

* Definition of Imperceptible: Not perceptible; extremely scant, gradual or subtle. The general test is "though the witness may see from time to time that progress has been made, they could not perceive it while the process was going on. It must be such that 'no man can fix the period when it began, no testimony can mark the exact origin of the channel on any given day or year.'" (State Land Board v. Sause, 217 OR 52.86 (1959)."

However, one of the most controversial aspects of the "public's" rights to use the waterway is the problem of access to the water. The right of any person to float or boat on any stream--public or privately owned--does not include the right to trespass on private property by foot or by vehicle to get to the stream. Anyone who wishes to cross privately owned lands for any purpose must have the consent of the owner first or risk possible trespass charges.

FINDINGS

1. Although the Mainstem is considered navigable, a significant amount of riparian ownership and rights extend to the ordinary low waterline.
2. If the rule regarding the effects of avulsive river changes upon property ownership is followed, the loss of portions of the bed of the Willamette through avulsive river change is potentially possible. In essence, every time an avulsion occurs and the river cuts a new channel across some private property, the owner of that property becomes the owner of the riverbed.
3. Although the state may lose ownership of portions of the riverbed through sale, grant or avulsion, the public right-of-way cannot be alienated.
4. The navigability of both the Coast and Middle Forks has yet to be determined by the state.
5. Accretion is a process of gradual and imperceptible additions of alluvial materials to lands bordering on a body of water.
6. Reliction is the gradual uncovering of riparian land by a subsidence (settling) of waters.
7. Avulsion is the sudden and visible loss or addition to land, or a sudden change in the bed or course of the stream.
8. The waters of the Willamette are owned by the public; therefore, the public has a right to float down the Willamette River in a canoe or power boat, etc., even though the underlying bank might be privately owned.
9. The right of any person to float a boat on the Willamette does not include the right to trespass on private property by foot or by vehicle to get to the Willamette River.

GOAL

ENSURE THAT LAND USE PROPOSALS AND DECISIONS FOR RIPARIAN PROPERTIES ARE COMPATIBLE WITH THE GREENWAY.

POLICIES

1. Emphasize and recognize that the public has full rights to use the waters of the Willamette River for floating, boating and recreation activities.
2. Emphasize and recognize that the right of the public to use the waterways does not include the right to trespass on private property by foot or vehicle to get to the stream.

RECOMMENDATIONS

1. Provide adequate public access to the Willamette River.
2. Educate riparian owners and the overall general public to the following:
 - a. The waters of the Willamette River belong to the public.
 - b. Trespassing on private property to gain access to the water is against the law.
 - c. The riparian owner cannot interfere with navigation.
3. Development proposals for all riparian properties require review and evaluation by Lane County.
4. Encourage use of public lands along the river.
5. Contact the Division of State Lands for further information regarding riparian ownership and rights, navigability, accretion-reliction and avulsion, ownership of the riverbed and public use of the waterways, especially along the Coast and Middle Forks.
6. Development evaluations on land adjacent to the Mainstem should understand that the riparian owners have generally the following rights:
 - a. The right of access to the water.
 - b. The right to build a wharf out to the line of navigation (harbor line) providing the property is within the boundaries of an incorporated city or within a port district, and provided it does not interfere with navigation (i.e., not applicable in Lane County).
 - c. The right to take lease of state-owned submerged and submersible lands fronting riparian lands.

GREENWAY SECURITY

The existence of the Greenway Program has created to a certain extent more use of the river and adjacent riparian lands. This can be attributed to the state's Greenway promotional programs, development of state corridor lands and because of local Greenway planning efforts. However, the major problems of property owners along the river can be attributed to population growth. Population growth projections for the year 2000 indicate that an additional 127,000 people will be in Lane County. The majority of the population growth in Lane County will occur in the metropolitan area, through which the Willamette River flows; consequently, more use of the river and its adjacent lands will be noted. To ignore population growth problems related to the river is not a solution. State and local governments must recognize the problem and devise management and security programs to control vandalism and trespass along the river in Lane County. Trespass and vandalism problems are not unique to the Greenway in that

law enforcement agencies say that increased incidence rates have been noted affecting all levels of society.

The following sections discuss local and state methods providing security for lands in or adjacent to the Greenway:

Local Control Mechanisms

WGAC, in recognition of the increased incidence of trespass and vandalism and in efforts of providing additional security for adjacent lands along the Willamette River, have developed the following preliminary Greenway policies:

1. Encourage adequate public access to the river in efforts to reduce trespass on private lands.
2. Consider and respect agricultural uses of waterways, such as irrigation and pumping installations.
3. Consider appropriate levels of police protection in those areas subject to public use.
4. Provide an appropriate level of fire protection in the Greenway.

In recognition of the need for additional police security and to deter further incidents of trespass on private property, WGAC made the following requests of the Board:

1. Requested that the Board provide additional police security for private and County-owned lands along the river. The Board, in turn, has requested that the state provide additional security for its Greenway Corridor lands.
2. WGAC, with the Board's support, requested the State Parks Director to revise Greenway promotional programs within the media to emphasize that the majority of lands along the river are in private ownership and that trespass of private property is against the law.

Other WGAC comments relative to security management include: (1) the majority of trespass and vandalism problems come from upland areas via automobiles; (2) after individuals are cited for acts of trespass and vandalism, they return to cause further problems; and (3) due to the increased numbers of fire rings along the river, a management program will have to be developed to control the public's depletion of vegetation within the vicinity of the fire rings.

WGAC strongly recommends that the Board budget one full-time certified sheriff to patrol the Willamette River and that he be provided the necessary equipment (i.e., patrol car, boat and other necessary accessory equipment) to patrol the river. WGAC emphasizes that, by providing additional police security along the river, added credibility and acceptance will be created for the Greenway Program, not only for Lane County but for other local jurisdictions affected by the river.

The Lane County Sheriff's Office has a part-time person (32 hours a week) who responds to calls along the river. Period of duty: Friday through Monday, and he is on call the rest of the week. However, he is not a certified police

officer. Two certified officers are on call to assist this part-time person. They can make arrests and issue citations. Also, they are equipped with a jet boat and canoes for river operations, but they do not provide regular patrolling. The Sheriff's budgets for 1977-78 and 78-79 made no provisions for extra people to respond to calls along the river. Trespassing and vandalism calls from river property owners will have to be answered by routine officers on a priority basis. The Sheriff's Department strongly indicates that trespassing on private property, whether within the Greenway Boundary or not, is against the law and, depending on the severity of the violation, can be considered either a misdemeanor or felony.

Lane County's comprehensive planning and zoning programs designate a significant amount of lands along the rural portions of the Willamette River in large acreage designations. This controls to a certain extent access to and from the river.

State Mechanisms

DOT's Greenway Plan stresses the importance of not trespassing on private property. For example, a separate page of DOT's plan indicates:

NOTICE TO THE PUBLIC

THE WILLAMETTE RIVER GREENWAY PROGRAM DOES NOT GIVE TO ANY PERSON ANY RIGHT TO TRESPASS UPON THE PROPERTY OF ANOTHER, OR IN ANY WAY ALTER THE RIGHTS OF PRIVATE LAND HOLDERS IN REGARD TO TRESPASS. THE DEPARTMENT OF TRANSPORTATION ADMONISHES ALL PERSONS TO RESPECT THE RIGHTS AND SENSIBILITIES OF THOSE WHO MAKE THEIR HOMES AND LIVELIHOODS WITHIN THE WILLAMETTE RIVER GREENWAY.

DOT has created a trespass and vandalism program for monitoring areas where incidents occur. The program has been presented to various grange halls and other interested groups along the river. It is anticipated that the data gathered will assist in developing a future security program. Greenway trespass and vandalism report forms are available upon request from DOT.

DOT's current maintenance and improvement program encourages, through signing and recreation river guide brochures, use of public property. Notices of no trespassing on private property also appear on signs posted on State Greenway Corridor lands. The recreational design of Greenway Corridor lands incorporate natural buffers to deter trespass from public to private property. The majority of DOT's future acquisition sites along the Mainstem are designated to have access from the river only; this will indirectly control upland access problems.

The state indicates that the most prevalent vandalism problems along the river have to do with irrigation equipment, followed by sand and gravel equipment. Sand and gravel operational areas also have a high incident rate of trespass. The state has observed that, generally, arrests for trespass never occur unless law officers actually see the incident.

The Willamette River Greenway Goal #15 states:

Trespass by Public: Nothing in this Goal is intended to authorize public use of private property. Public use of private property is a trespass

unless appropriate easements and access have been acquired in allowance with law to authorize use.

Other indirect references of Goal #15, for controlling and managing the public, especially near lands in farm use, include:

" . . . zoning provisions shall allow recreational uses on lands to the extent that such use would not interfere with the long-term capacity of land for farm use . . . and to the maximum extent practicable, areas to be acquired must be consistent with noninterference of farm uses."

All agencies urge improvement and use of existing access points, in efforts of decreasing indiscriminate trespass that results from the inability to obtain access. Maintenance of river vegetation will also control trespass.

Concerns

Law enforcement along the Willamette River Greenway can be divided into three areas of concern: safety, violations against property and violations against persons. All of these concerns can be managed by application of remedies such as education. A system of law enforcement prsonnel being on-site from water, land or even by helicopter should be used to insure that activity on the river conforms to the law. Increase in user and user interest in the Greenway will also assist in reporting and curbing illegal acts. Enforcement along the river will have a unique role because it will have to react to specific differences such as water orientation, elongated corridor of use, spaces without road access, numerous jurisdictions and conflicting uses.

FINDINGS

1. Regardless of the interim impact of the Greenway Program, the major problems of property owners along the river can be attributed to continued population growth.
2. State and County law enforcement agencies say that trespass and vandalism problems are not unique to the Greenway, because they are occurring at increased rates at all levels of society.
3. Evidence of mechanisms being used for controlling trespass and vandalism and for providing additional security for lands within and along the river in Lane County include:
 - a. WGAC's preliminary Greenway policy statements:
 - (1) Encourage adequate public access to the river in efforts to reduce trespass on private lands.
 - (2) Consider appropriate levels of police protection in those areas subject to public use.
 - (3) Provide an appropriate level of fire protection in the Greenway.

- b. WGAC's requests:
 - (1) For additional police security.
 - (2) Greenway promotional programs emphasize that trespass on private property is against the law.
- c. The current security provided on a priority basis by the Sheriff's Office and the County's planning efforts of maintaining large acreage parcels along the river, indirectly controlling access to land from the river.
- d. DOT's security programs and methods:
 - (1) Monitoring and recording incidents of trespass and vandalism.
 - (2) Making "no trespassing" signs available to private property owners.
 - (3) Providing recreational guides and signing identifying public property.
 - (4) Designating some acquisition sites for access from the river only.
 - (5) Design criteria that maintain vegetation buffers between public and private property.
- e. The County, DOT and LCDC all stress no trespassing on private property.
- f. Agency efforts of encouraging use and improvement of existing access points to decrease indiscriminate trespass that results from inability to obtain legal access.
- g. Recognition of the concept of maintaining riparian vegetation for controlling trespass.

GOAL

DEVISE SECURITY AND MANAGEMENT PROGRAMS PRIMARILY TO CONTROL VANDALISM AND TRESPASS WITHIN THE GREENWAY.

POLICIES

1. Encourage adequate public access to the river in efforts to reduce trespass on private lands.
2. Consider appropriate levels of police protection in those areas subject to public use.
3. Provide an appropriate level of fire protection in the Greenway.
4. Consider and respect agricultural uses of waterways, such as irrigation and pumping installations.

5. Budget both at County and state levels for additional police security for private and publicly owned lands within the Greenway.
6. Recognize, support and emphasize that trespass on private property without the property owner's consent is against the law.
7. Reinforce existing local and state fire protection regulations where applicable in the Greenway.

RECOMMENDATIONS

1. Recognize the following major facts about security relative to private and public property within the Greenway Boundary:
 - a. Major problems of property owners along the river can be attributed to continued population growth regardless of the interim impacts of the Greenway Program.
 - b. Trespass and vandalism problems are not unique to the Greenway Program, because they are occurring at an increased rate at all levels of society.
2. Provide adequate public access to the river in efforts of reducing incidents of trespass and vandalism.
3. Encourage maintaining riparian vegetation along the river to deter trespass.
4. Encourage development of existing public access points to control and deter trespass and vandalism of private property.
5. Encourage and support development design criteria that maintain vegetation buffers between public and private property.
6. Emphasize through public education programs that trespass on private property without the owner's consent is against the law.
7. Encourage use of DOT's Willamette River Greenway Vandalism Report for recording and to assist in monitoring incidents of trespass and vandalism (i.e., copies are available from the State Department of Transportation and the Lane County Sheriff's Office).
8. Incorporate WGAC's security policy statements into the Lane County Goals and Policy document, under Waterways.

RECREATION AND SCENIC QUALITIES

Introduction

The following subjects are discussed relative to Recreation and Scenic Qualities within the Greenway Boundary in the unincorporated portion of Lane County: Recreation Site Inventory; State Greenway Corridor Lands; Acquisition Areas;

Scenic Qualities; Scenic Easements, Open Space Deferral and a Landscape Control Program.

Most of the lands in the Greenway Boundary contain natural resources reflective of an "open space character" (e.g., natural vegetation, lack of structural development, natural wildlife habitat sites, etc.). Consequently, a substantial amount of lands within the boundary have a potential for, primarily, some form of recreation activity now or in the future. However, recreational development should be allowed only if it reflects consideration of other natural resources in or near the river environment.

Lane County has yet to complete a Comprehensive Recreation and Scenic Resource Plan for the unincorporated portions of Lane County. Consequently, the following information is general in nature and must be updated in the future to reflect more specific long-range recreation and scenic goals and policies.

Inventory

Table 11 lists and provides other related characteristics of public recreation sites along the Willamette River in Lane County. Overall, there are 44 sites, and all sites are within the Greenway Boundary; however, a portion of the Short Mountain site along the Coast Fork extends to the west beyond the boundary. The amount of recreation sites by public ownership include: State Greenway Corridor Sites, 21; Lane County, 17; and other public, 6 (i.e., Willamalane Park and Recreation District, Corps of Engineers and other state). Map 4 identifies recreation sites listed in Table 11.

Sites providing upland access through either improved or unimproved trails or roads, 31, while those with access by boat only, 13. Total recreation site acreage amounts to approximately 5,564.76+ acres; however, only 28+ riverbank miles are in some form of recreational use. Table 12 identifies existing and potential riverbank miles in recreation use along the river.

Overall, there are 15 unimproved and improved public boat ramps providing access to the river. Undoubtedly others exist. The State Department of Fish and Wildlife recommended that three additional boat launching sites be constructed along the river. Locations include: the Coast Fork at river mile 1 (south bank) and 21 (property City of Cottage Grove), and the Middle Fork at river mile 201.5 (south bank). All proposed sites are on public lands.

Important points identified in Table 11 and on Map 4:

1. The majority of sites are located along the Mainstem (17), followed by the Coast (15) and Middle Fork (12).
2. The Mainstem has six boat ramps, while the Middle Fork has five and the Coast Fork, four.
3. The majority of State Greenway corridor lands are located along the Coast Fork (eight), followed by the Mainstem (seven) and Middle Fork (six).
4. Dexter State Park and Buford Recreation Area in both public parks established by section 8a of Chapter 558, 1973 Oregon laws, and referenced

TABLE 11
PUBLIC RECREATION SITES ALONG THE WILLAMETTE RIVER - LAKE COUNTY

<u>MAINSTEM</u>						
Recreation Sites	Ownership	Access to the River	Access by Boat only	Approximate River Mile	Acreage	Comments
1. Blue Ruin Landing	State Greenway Corridor Land		X	164.0	56.00 ac.	DOT Classification #2
2. Scandia Landing	State Greenway Corridor Land		X	166.5	20.00 ac.	DOT Classification #3
3. Brown's Boat Skid	Lane County	X		167.2	.37 ac.	Boat skid
4.	State Greenway Corridor Land	X		167.5	12.87 ac.	DOT Classification #3, unimproved
5. Marshall Island Park	Lane County	X		167.9	11.00 ac.	
6. Marshall Island Access	State Greenway Corridor Land	X		168.8	39.35 ac.	DOT Classification #3, boat ramp
7. Detering Landing	Lane County		X	168.8	.90 ac.	
8. Christensen's Landing	Lane County	X		168.8	2.97 ac.	Boat ramp
9.	State Greenway Corridor Land		X	171.0	70.00 ac.	DOT Classifications #1 & #2, unimproved
10. Beacon Landing	State Greenway Corridor Land		X	173.0	70.00 ac.	DOT Classification #2
11. Hileman Boat Ramp	Lane County	X		173.5	43.18 ac.	
12.	State Greenway Corridor Land		X	174.0	6.63 ac.	DOT Classification #1, unimproved
13. Whitley Boat Ramp	Lane County	X		175.5	3.10 ac.	Boat ramp (on a slough not the main channel)
14. Beltline West Boat Ramp	Lane County	X		178.2	County R/W	Boat ramp
15. Beltline Park	Lane County	X		178.2	12.50 ac.	
16. Alton Baker Park	Lane County	X		182-185.0	375.00 ac.	
TOTAL: 17		11	6		724.05 ac.	6 Boat ramps
<u>MIDDLE FORK</u>						
1. Dorris Park	Willamalane Park & Recreation District	X		187.0	250.00 ac.	
2. Clearwater Boat Ramp	Lane County	X		191.0	77.79 ac.	Boat ramp
3.	State Greenway Corridor Lane		X	192.5	20.64 ac.	DOT Classification #3, unimproved
4. Log Jam Access	State Greenway Corridor Land	X		194-195	79.90 ac.	DOT Classification #3
5. Jasper Bridge	State	X		195.0	13.84 ac.	Boat ramp
6.	State Greenway Corridor Land	X		195.1		DOT Classification #3, unimproved
7. Jasper Park	Lane County	X		195.1-196.5	71.23 ac.	
8.	State Greenway		X	197.0	7.20 ac.	DOT Classification #2 unimproved

Recreation Sites	Ownership	Access to the River	Access by Boat Only	Approximate River Mile	Acreage	Comments
9.	State Greenway Corridor Land		X	199.0	52.00 ac.	DOT Classification #2, unimproved
10. Pengra Access	State Greenway Corridor Land	X		200.5	94.09 ac.	DOT Classification #3, Boat ramp
11. Dexter State Park	State	X		200.5-203.0	797.31 ac.	Public State Park established by section 8 of Chapter 558, 1973 Oregon Laws
12. Dexter County Park	Lane County	X		203.5-204.0	137.00 ac.	Boat ramp
13. Hatchery Hand Launch	Corps of Engineers	X		203.5	160.00 ac.	Hand launch, boat ramp
TOTAL: 13		10	3		1598.00 ac.	5 Boat ramps
<u>COAST FORK</u>						
1. Buford Recreation Area	Lane County	X		1.5-5.2	2248.27 ac.	Public State Park established by section 8 of Chapter 558, 1973 Oregon Laws, Boat ramp
2. Seavy Landing	State Greenway Corridor Land		X	5.0	57.00 ac.	DOT Classification #3
3. Highway 58 Hand Launch	State	X		6.5	Hwy. R/W	Unimproved boat ramp
4. Short Mountain Site	Lane County	X		9.0	579.61 ac.	Only a portion of the site is in the boundary.
5. Camas Swale Landing	State Greenway Corridor Land		X	9.2	55.00 ac.	DOT Classification #2
6. Bristow Landing	State Greenway Corridor Land		X	9.8-11.5	148.00 ac.	DOT Classification #3
7. Cinderella Park	Lane County	X		12.5	55.51 ac.	No park facilities, currently used as a sanitary land fill site
8. Cloverdale Bridge Hand Launch	State	X		12.5	Hwy R/W	Unimproved boat launch site.
9. Cloverdale Access	State Greenway Corridor Land	X		12.6	7.93 ac.	DOT Classification #3
10. Cougar Mountain Access	State Greenway Corridor Land	X		15.5	37.85 ac.	
11. Petree Landing	State Greenway Corridor Land	X		16.0	16.79 ac.	DOT Classification #3
12. Lynx Hollow Access	State Greenway Corridor Land	X		17.0	17.30 ac.	DOT Classification #2
13. Gettings Creek Landing	State Greenway Corridor Land		X	17.0	12.00 ac.	DOT Classification #3
14. Hand Launch	Lane County	X		18.5	7.50 ac.	Unimproved boat launch site
TOTAL: 14		10	4		3242.76 ac.	4 Boat ramps
GRAND TOTAL: 44		31	13		5564.76 ac.	15 Boat ramps

Source: Lane County Planning Division and Parks and Open Space Division, 1977-78.

in the Greenway Law, are located along the Middle Fork and Coast Fork. Alton Baker Park is located along the Mainstem.

- Upland access to the river is provided by 31 sites, while 13 sites are accessible by boat only.

Additional public parcels (e.g., Lane County State Division of State Lands, Corps of Engineers, etc.) have been identified along the Willamette River; however, additional study will be required to determine whether they can be used for recreation sites or if they can provide adequate public access from the river or uplands.

TABLE 12
EXISTING AND POTENTIAL RIVERBANK MILES*
IN RECREATION OR SCENIC USE

	Mainstem		Middle Fork		Coast Fork		Total River	
	RBM	% of Total RBM	RBM	% of Total RBM	RBM	% of Total RBM	RBM	%
Existing River Bank Miles (RBM) in Recreation Use	8	16%	11	33%	9.25	17%	28.25	20%
Potential, Total River Bank Miles in Recreation Use if Designated DOT Lands Acquired	21.25	42%	23.25	70%	13.25	24%	57.75	42%

* Figures for RBM based on Mainstem, 50; Middle Fork, 53 and Coast Fork, 55.25 or a total of 138.25 river bank miles and they are approximate.

Source: Lane County Planning and Parks & Open Space Division and DOT 1976-78.

For further information relative to recreation activities offered per site, location; type of access, periods of nonuse, etc., contact the appropriate recreation agency.

State Greenway Corridor Lands

The boundaries of current improved or unimproved State Greenway Corridor Lands are shown on Map 4, Recreation Resources, and the classification numbers for each site are listed under comments in Table 11. The majority of Corridor Lands are either developed or proposed for development. Use definitions for DOT's classification numbers include:

1. Land with legal access from the river and/or trails which offers opportunities for public day use such as picnicking, fishing and hunting and convenience facilities (sanitation, potable water, etc.).
2. Land with legal access from the river and/or trails offering the above and, in addition, opportunities for limited overnight use such as primitive camping.
3. Land which could provide legal and physical access from the uplands to riverbank areas offering opportunities for public use as in (1) above.
4. Land which could provide legal and physical access from the uplands to the riverbank for boat launching facilities and/or trail heads.
5. Land suitable for trail corridors between upland access points and/or other land in public ownership.
6. Land which should be acquired in fee to assure adequate protection of natural, scenic, historic, archaeological and scientific (biologic, geologic, etc.) values.

There are seven State Greenway Corridor Lands along the Mainstem. Upland access is provided by two sites, while access by river only is provided by five sites. Along the Middle Fork, upland access is provided by three sites,





----- GREENWAY BOUNDARY -----

Detailed resource maps at a larger scale are available at the Lane County Planning Division.

MAIN STEM WILLAMETTE RIVER

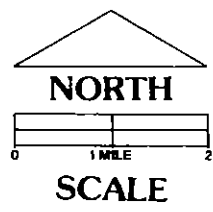
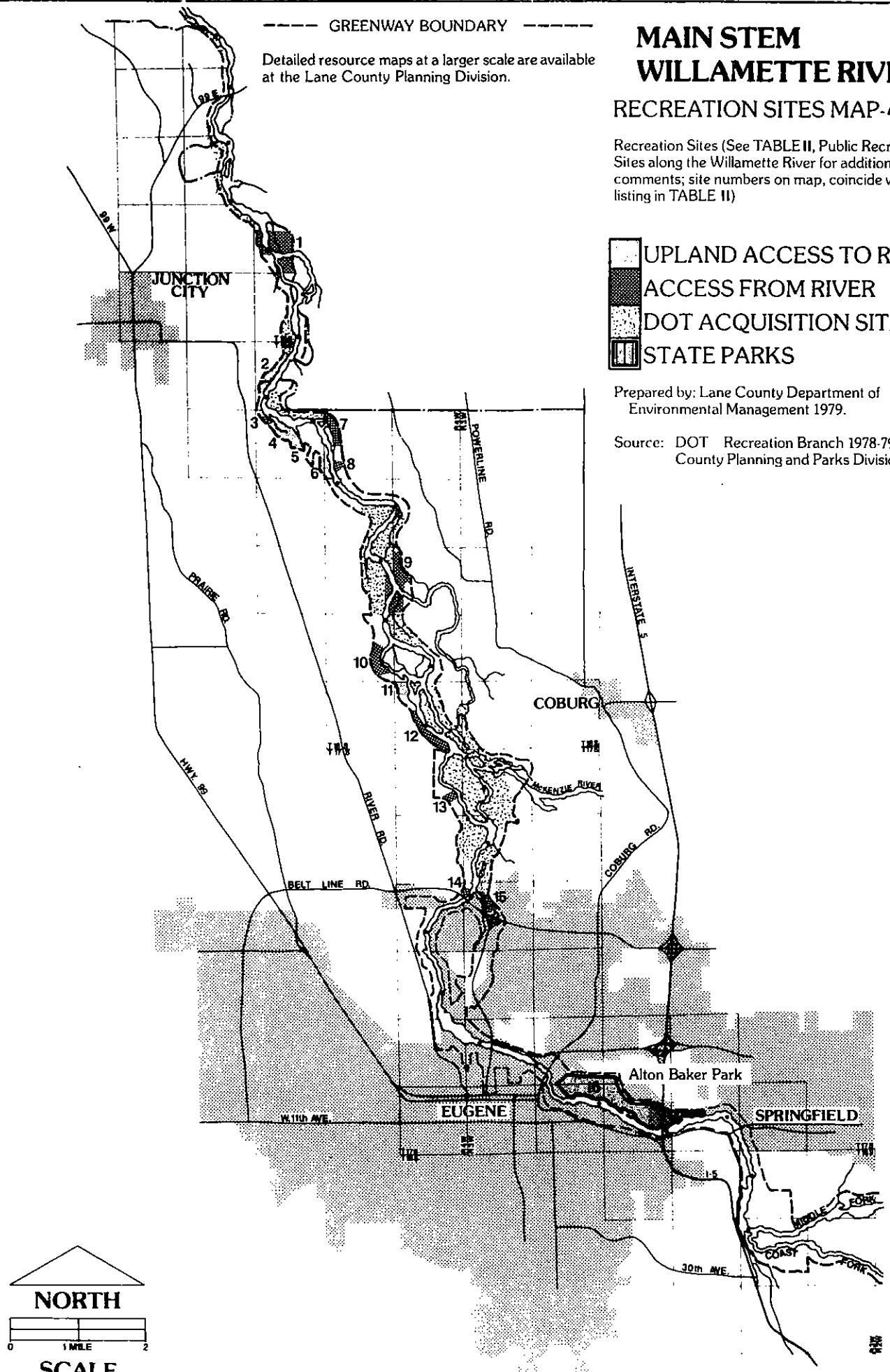
RECREATION SITES MAP-4

Recreation Sites (See TABLE II, Public Recreation Sites along the Willamette River for additional comments; site numbers on map, coincide with listing in TABLE II)

-  UPLAND ACCESS TO RIVER
-  ACCESS FROM RIVER
-  DOT ACQUISITION SITES
-  STATE PARKS

Prepared by: Lane County Department of Environmental Management 1979.


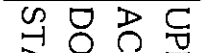

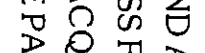
Source: DOT Recreation Branch 1978-79; Lane County Planning and Parks Division 1979.



MIDDLE FORK WILLAMETTE RIVER

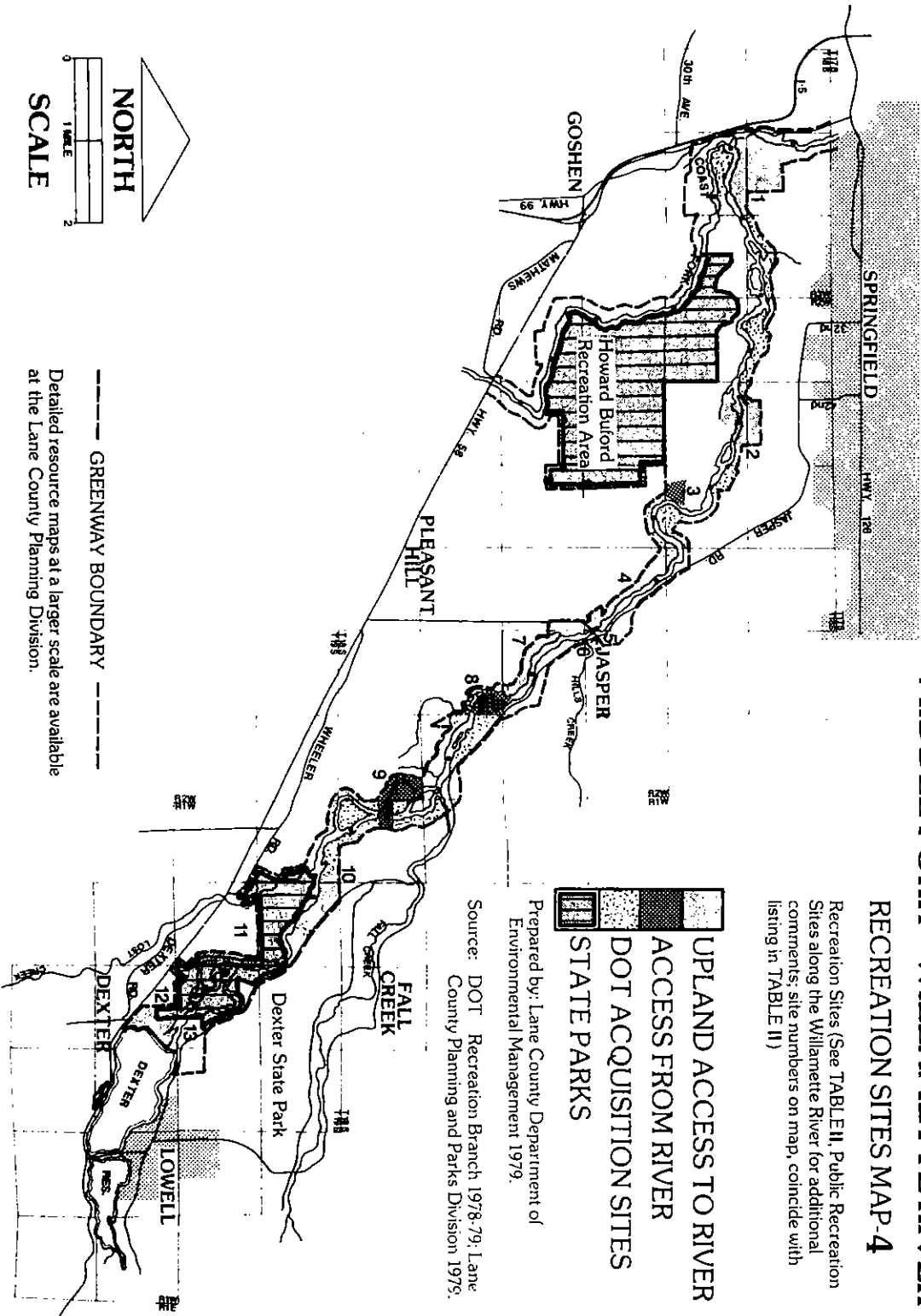
RECREATION SITES MAP-4

Recreation Sites (See TABLE II, Public Recreation Sites along the Willamette River for additional comments; site numbers on map, coincide with listing in TABLE II)

-  UPLAND ACCESS TO RIVER
-  ACCESS FROM RIVER
-  DOT ACQUISITION SITES
-  STATE PARKS

Prepared by: Lane County Department of Environmental Management 1979.

Source: DOT Recreation Branch 1978-79; Lane County Planning and Parks Division 1979.







----- GREENWAY BOUNDARY -----
 Detailed resource maps at a larger scale are available at the Lane County Planning Division.

COAST FORK WILLAMETTE RIVER

RECREATION SITES MAP-4

Recreation Sites (See TABLE II, Public Recreation Sites along the Willamette River for additional comments; site numbers on map, coincide with listing in TABLE II)

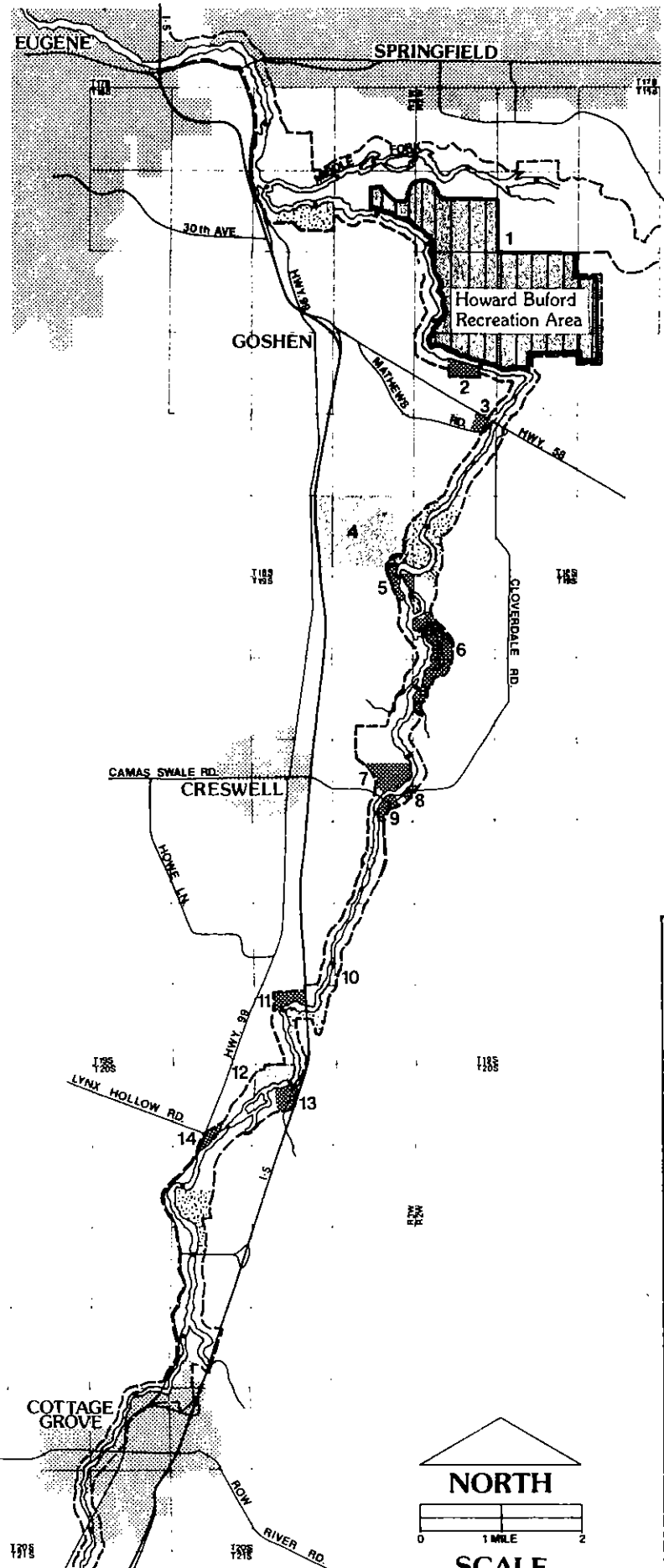
-  UPLAND ACCESS TO RIVER
-  ACCESS FROM RIVER
-  DOT ACQUISITION SITES
-  STATE PARKS

Prepared by: Lane County Department of Environmental Management 1979.

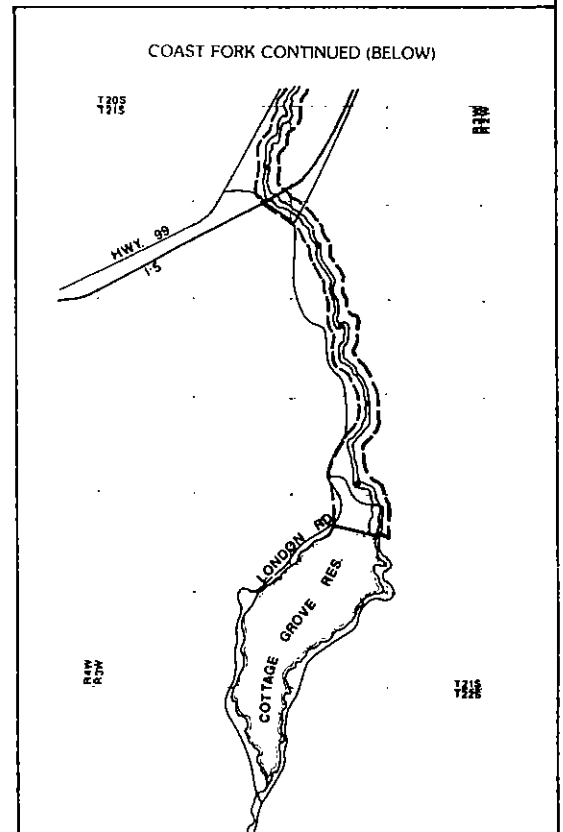
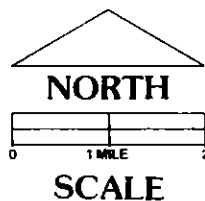
Source: DOT Recreation Branch 1978-79; Lane County Planning and Parks Division 1979.

----- GREENWAY BOUNDARY -----

Detailed resource maps at a larger scale are available at the Lane County Planning Division.



COAST FORK CONTINUED (SEE INSET AT RIGHT)



while three sites are accessible from the river only. The Coast Fork provides four upland access and four river access sites. It is anticipated that increased recreation demands will be noted along the Mainstem, especially in the metropolitan area, while a recreation corridor will be noted along the Middle Fork. Limited increases in facilities will be noted along the Coast Fork.

Acquisition Areas

Except for additions to Alton Baker Park, Lane County currently does not have an intensive acquisition program in rural Lane County. The state has coordinated with the Lane County Parks and Open Space Division and vice versa for several years to identify areas for acquisition and to determine their potential uses. Acquisition areas are identified on Map 4, while use classification numbers are defined above in the State Greenway Corridor Lands section. The criteria, in general, taken into consideration by DOT for acquiring lands are: scenic, recreational and natural qualities afforded by the sites. Table 13 identifies potential DOT acquisitions in riverbank miles and percentages.

TABLE 13

*POTENTIAL DOT ACQUISITIONS ALONG THE WILLAMETTE RIVER

	Main Stem		Middle Fork		Coast Fork		Total River	
	River Bank Miles	% of River Bank Miles	River Bank Miles	%	River Bank Miles	%	River Bank Miles	%
Potential Public (DOT) Recreation Acquisitions	13.25	26%	12.25	37%	4.50	8%	30	27%

Source: State Department of Transportation (DOT), 1976; Lane County Assessment and Taxation Office, 1975-76; and the Lane County Parks and Planning Divisions, 1978.

If DOT were to purchase all lands identified for acquisition, an additional 2,985 acres or 30 riverbank miles would be added to the existing recreation land base in the Greenway. Consideration should be given to the impacts of exempting such a large land base from the tax rolls. Table 12 provides a comparison of existing and potential riverbank miles in recreation or scenic use. For specific locations of DOT's acquisition areas and classification numbers, see Acquisition Overlay Lane County Planning Division.

* This total includes acquisition in incorporated cities (i.e., Eugene, Springfield, Cottage Grove); however, the majority of acquisitions will occur in the unincorporated portions of Lane County.

Over one-half of the areas to be acquired provide river access only, while the remaining provide upland access to the river. Along the Mainstem, upland access is emphasized in the metropolitan area; upland access and a trail system to the Cascades are emphasized along the Middle Fork; however, limited acquisition areas for upland and river access use have been identified along the Coast Fork.

The acquisition areas must be considered potential. Whether any one of these areas is purchased will depend on whether the owner is willing to sell and if the state has funds available for the purchase. Also, the areas designated are those that the state is interested in purchasing, given today's land use patterns and mixes of uses. As these conditions change, so may the desirability of acquiring the listed site. DOT emphasizes isolating and buffering acquisition areas from adjacent private property. Acquisition areas have not been identified by ownership or legal descriptions; instead, the natural features sought to be acquired have been identified and described first.

For additional information concerning DOT's acquisitions, contact the State Parks Branch in Salem, (503) 378-6500.

Scenic Qualities

The existing natural resource base (i.e., riparian vegetation, limited timber and agricultural resources, distant mountains and hills seen from the river, wildlife habitat, recreation features, the open space character or the river environment and the urban landscape) all constitute the scenic qualities of the Willamette River. The majority of DOT's potential acquisition sites contain scenic features identified in previous Greenway planning and recreation studies. Development should respect and incorporate the unique scenic quality of the river within its design.

The entire Willamette River environment within the Greenway Boundary can be considered a scenic corridor. The river has been designated as a scenic waterway in the 1970 Central Lane Regional Parks Plan and is considered as a major recreation activity area within the Metropolitan 1990 Plan Update and applicable subarea plans.

Scenic values relative to the river identified in the Metro Area 1990 Plan Update include: the riparian vegetation along the river; natural sites of visual prominence providing vistas, such as Mt. Pisgah and park lands such as Alton Baker, Dorris, etc. The majority of these scenic values are included in the current Greenway Boundary.

Scenic values were primary considerations in developing DOT's Greenway Plan and in developing State Greenway Corridor Lands and Lane County recreation sites along the river. A primary qualification for the state's acquisition program within the Greenway Boundary was scenic qualities.

Scenic Easements (ORS 390.332)

Scenic and use easements are intended to protect the value of the land in terms of its natural resources, scenery, cultural or historical significance and recreation potential. Easements have been recognized as an effective means of keeping some lands along the Willamette River in a natural state without

purchasing the land in fee simple. Definitions of Scenic Easements, Use Easements and a legal definition of Easements include:

Scenic Easements: A scenic easement does not include public access to property. The basic purpose of the restrictions is to protect the present visual or aesthetic value of the land for the public.

Use Easements: A use easement (or easement of access) permits public access to a portion of a landowner's property for a specific purpose. The particular use allowed is defined in the agreement between the parties involved. Fishing rights allowing the public to use the banks along a stream or a bicycle path running through the landowner's property are two common examples of use easements. The primary objective of a use easement is significantly different from that of a scenic easement. While the scenic easement is designed to preserve the natural setting and provide only "visual access" to the land, the use easement is mainly intended to provide recreational opportunities for the public with scenery being of secondary importance. The cost of acquiring a use easement is typically higher than the scenic easement, largely because the public is permitted on the property.

Legal Definition: The definition of these easements, according to Oregon law, states that ". . . conservation or scenic easements" means an aggregation of easements, covenants or conditions running with the land, designed to preserve or maintain all or part of the natural or existing state of recreational, cultural, scenic, historic or other appropriate places of public significance. (ORS 271.710)

The adoption of the temporary greenway boundaries by the LCDC gives the Department of Transportation (DOT) the authority to acquire scenic easements in any lands described within those Greenway boundaries except for lands devoted to farm use. These easements may be acquired by any method including condemnation. A scenic easement within the Greenway boundary generally requires preservation of existing vegetation, natural and scenic qualities of the land. Such a scenic easement carries no right to public access and permits continuation of present use by the owner. However, the Department of Transportation has authority to purchase (other than by condemnation) any interest in any land for Greenway purposes, including access easements, by agreement with the landowner.

The Department may not use the power of eminent domain to acquire scenic easements on any lands situated within the Greenway boundaries devoted to farm use. The "farm use" exception exempts a substantial part of the river and riverbank in Lane County from DOT's authority to condemn scenic easements. Even where the Department has already acquired an easement on nonfarm land, any restrictions on the use of land under such easements are suspended if the land is changed to farm use. However, once the use of the land changes, the Department of Transportation acquires authority to condemn a scenic easement for preservation of existing vegetation and the natural and scenic qualities of the land.

Lands subject to a scenic easement or a public use easement shall be assessed on the basis of the true cash value of the land less any reduction in value caused by the easement. The easement shall be exempt from assessment and taxation as any land owned by the state is so exempt.

Although Lane County has not conducted an indepth scenic quality study along the river, scenic qualities were a major consideration by both Lane County and DOT in developing DOT's acquisition program.

Scenic easements should be sought in areas of natural, recreational, cultural, scenic, historic or other appropriate places considered beneficial to the public. Scenic easements should be sought on lands designated for acquisition or lands adjacent to acquisition areas. A secondary purpose of scenic easements would be to provide a protection buffer of vegetation between public property being developed for intensive or nonintensive recreation purposes and private property. In this situation, the easements act as a public control mechanism because it will not allow public access. Emphasis should be placed in areas where DOT proposes intensive recreational development facilities such as road systems, parking lots, boat ramps, toilets, picnic facilities. Also, not all lands designated for acquisition should be purchased in fee simple; consideration should be given to scenic easements. Additional areas where scenic easements should be sought: those areas in the Greenway Boundary that are extremely narrow (e.g., minimum of 150 feet), containing small parcels questionable for development between the river and a road.

Areas where scenic easements would not be acquired: those areas under current interim uses such as sand and gravel extraction unless part of the reclamation plan; sites that encourage public access; sites that encourage public access such as large developments incorporating upland access to the river, areas where the vegetation or other natural resource amenities do not exist and areas dominated by farm lands and within the floodplain.

Other possible advantages resulting from protection of scenic qualities along the river:

1. Protection of riparian vegetation along the riverbanks, which in turn protects banks from excessive water runoff and erosion;
2. Assistance in protecting and preserving in some locations, agricultural lands along the riverbank by maintaining riverbank vegetation;
3. To assist in preserving, protecting or conserving important river resources, such as fish and wildlife habitat, recreation, natural and ecological areas, natural conservancy sites, etc.;
4. Used as a mechanism to control, redirect, reduce or not allow scatteration of intensive development (i.e., residential, commercial, industrial) on lands adjacent to the river;
5. Assist in controlling and deterring public access to private property by maintaining existing vegetation. The vegetation could act as a deterrent to acts of trespass and vandalism on private property;
6. Enhancing the value of abutting recreation sites, wildlife and natural areas or other open space;
7. Enhancing private property;

8. Maintaining riparian vegetative buffers as pervious areas to absorb urban storm runoff, thereby controlling pollution from intensive land use along the river;
9. Protection and maintenance of natural drainage ways, such as sloughs, swales, smaller tributaries, wetlands, etc.

Agencies or individuals to contact relative to scenic easements:

Coordinator
 Scenic Waterways System
 State Parks and Recreation Branch
 Department of Transportation
 525 Trade Street Southeast
 Salem, OR 97310
 Phone: (503) 378-6500

Armitage State Park
 90064 Coburg Road
 Eugene, OR 97401
 Phone: (503) 343-7812

Director
 Lane County Parks and Open Space
 125 East 8th Avenue
 Eugene, OR 97401
 Phone: (503) 687-4231

Director
 State Parks and
 Recreation Branch
 Dept. of Transportation
 274 High Street SE
 Salem, OR 97310
 Phone: (503) 378-6305

The Nature Conservancy
 1234 NW 25th
 Portland, OR 97210

Open Space Deferral (ORS 308.745-.790)

Individual property owners can also apply for special assessment of property as Open Space Land, whether in the Greenway Boundary or not. The primary emphasis is that the property is beneficial to the public as open space land. The owner desiring special assessment shall apply to the County Assessor. The application is reviewed by the Planning Commission, with final action by the Board of County Commissioners. If accepted, the land is designated Open Space Land and a portion of the assessed valuation shall be deferred. Requests for withdrawal from Open Space Land classification carry a penalty payback provision. The special assessment request is usually granted if it can be shown that preservation of the land as Open Space Land will:

- a. Conserve or enhance natural or scenic resources;
- b. Protect air or streams or water supplies;
- c. Promote conservation of soils, wetlands, beaches or tidal marshes;
- d. Conserve landscaped areas, such as public or private golf courses, which enhance the value of abutting or neighboring property;
- e. Enhance the value to the public of abutting or neighboring parks, forests, wildlife preserves, nature reservations, sanctuaries or other open spaces;

- f. Enhance recreation opportunities;
- g. Preserve historic sites; or
- h. Promote orderly urban or suburban development.

Scenic Easements and Open Space Deferral cannot be applied simultaneously to the same site. For further details concerning special assessment for Open Space Land, contact the Lane County Assessment and Taxation Office, (503) 687-4301.

Landscape Control Program

The Lane County Parks and Open Space Division supports development of a landscape control program, especially for areas along the river prone to intensive development to maintain and enhance the river's scenic qualities. The program involves reviewing development proposals and taking into consideration existing vegetation, bank stability, erosion control, scenic qualities, the long-range impacts of landscape control such as the ultimate size of vegetation, physical impacts on adjoining properties, overall visual impacts, etc.

Considerations

Lane County currently evaluates requests for recreation use and other uses (e.g., sand and gravel extraction, intensive development, etc.) through either a Greenway conditional use or extraordinary permit process. Reasons requiring special consideration include: the area required for full development of such uses, nature of traffic problems incidental to operation of uses and effects such as uses have on adjoining land uses. Consideration is also given to the impacts and tradeoffs involved with other unique river resources such as agriculture, fish and wildlife, ecologically fragile and natural areas, sand and gravel, riparian vegetation, etc.

Although the County agrees with the intent and purpose of DOT's acquisition program and use classifications, Lane County reserves the right to review again in the future or when DOT implements their acquisition program, totally or by site, the classification and lands to be acquired to insure compatibility with other river resources and County policy and goals.

Few scenic and use easements have been acquired by DOT, Lane County and the Nature Conservancy along the Willamette River in Lane County. The lack of acquiring scenic easements is attributed to the following: lack of active acquisition programs at the local level; lack of public knowledge about conservation easements and the Willamette River Greenway Plan; general public animosity against government; and because economically*, land costs are beyond the acquisition capabilities of DOT and local governments. Similar reasons are attributed to the few applications received for Open Space Land assessment. Currently, lands under Open Space Deferral are valued the same as lands on

* For example, the public is asking "fee simple" prices for scenic easements, which entails buying the land in "fee simple" as opposed to only the scenic value of the land.

Agricultural Deferral. Educational programs will have to be developed at the state and local level to educate the public concerning both scenic easements and Open Space Deferral.

There are 44 existing recreational sites, totaling 5,724+ acres or 28+ riverbank miles within the Greenway Boundary in Lane county offering extensive to nonintensive recreational activities. Public educational programs at the local and state level should be developed to direct the public to use public recreation facilities because public use of private property without consent of the owner is considered trespassing.

FINDINGS

1. There are 44 improved and unimproved public recreation sites within the Greenway Boundary in the unincorporated portions of Lane County. Upland access to the river is provided by 31 sites, while 13 sites are accessible by the river only.
2. The majority of recreation sites are along the Mainstem (17), followed by the Coast Fork (15) and the Middle Fork (12).
3. Currently, there are 29+ riverbank miles (equal to 20 percent of the entire 138+ riverbank miles in Lane County) in some form of recreation use. Potential recreation riverbank miles could amount to 58, or 42 percent of the entire riverbank miles.
4. Approximately 33 percent of the riverbank miles along the Middle Fork are in current recreation use, followed by the Coast Fork, 17 percent and Mainstem, 16 percent.
5. There are 15 public boat ramps along the river, and the State Department of Fish and Wildlife recommends that three additional boat ramps be developed on public property.
6. If DOT were to purchase all lands identified for acquisition, an additional 2,985 acres, equivalent to 30 riverbank miles, would be added to the existing recreation land base in the Greenway.
7. The Willamette River Environment within the Greenway Boundary can be considered as a continuous scenic corridor.
8. A scenic easement does not allow public access, and its basic purpose is to preserve, protect or conserve the values of the land in terms of its natural resource, scenery, cultural or historic significance and recreation potential.
9. The Lane County Parks and Open Space Division supports development of a landscape control program to assist in evaluating development proposals for lands along the river in efforts of maintaining and enhancing the river's unique qualities.
10. Although Lane County agrees with the intent and purpose of DOT's acquisition program and use classifications, the County reserves the right in the future to review again when DOT implements their acquisition program, totally or by

site, the use classifications and lands to be acquired to insure compatibility with other river resources and other County goals and policies.

GOAL

MAINTAIN RECREATION AS AN ESSENTIAL ACTIVITY AND RESOURCE WITHIN THE GREENWAY.

POLICIES

1. Recreational development shall be compatible with the Greenway Law, Goal #15 and Lane County's Greenway Plan.
2. Protect, conserve or preserve the scenic and recreational qualities of the lands within the Greenway Boundary.
3. Public recreation use areas shall be located in or near the more populated urban areas and shall emphasize access to the river.
4. Priority should be given to river-related recreation activities and facilities.
5. Scenic easements shall be designed to preserve the vegetative, natural and scenic qualities along the river.
6. The sensitivity of lands within the Greenway shall determine the level of human activity.
7. Recreation development shall include a variety of river-oriented opportunities in urban areas but shall be limited in rural areas to those river-oriented recreation uses that are compatible with the sensitive character of the river and other important resources.
8. Consider and minimize the possibility that public recreation use might disturb adjacent private property owners.
9. Scenic easements shall not be acquired through the exercise of the power of eminent domain on lands in farm use.
10. Control vehicle access to the river.
11. Zoning provisions shall allow recreational uses on lands to the extent that such uses would not substantially interfere with the long-term capacity of the land for farm use as defined in ORS 215.203.

RECOMMENDATIONS

1. Develop a landscape control program to assist in evaluating development to maintain and enhance the scenic qualities of lands within the Greenway Boundary.
2. Encourage landowners to apply for Scenic Easements or Open Space Deferral for lands within the Greenway Boundary.

3. Review and evaluate all requests for land use changes, rezonings and proposals for land acquisition, use classifications and development proposals for recreation purposes within the Greenway Boundary to insure compatibility with other river resources (e.g., agriculture, fish and wildlife, natural and ecologically fragile areas, scenic qualities, riparian vegetation, etc.) and other applicable County directives.
4. Support the State Department of Fish and Wildlife in developing three additional boat ramps along the Coast and Middle Forks.
5. Support development of a Comprehensive Recreation and Scenic Quality Plan for the rural portions of Lane County.
6. Develop educational programs to inform the public about scenic and use easements and special assessment for lands designated Open Space Land.
7. Develop and promote recreation guides, brochures or educational programs at the local and state level to encourage use of public recreation facilities along the Willamette River.
8. Identify public parks established by Section 8a of Chapter 558, 1973 Oregon Laws in the Greenway Comprehensive Plan and consider zoning that will permit their development, use and maintenance.
9. Emphasize public access to the river in urban and other development areas identified in adopted comprehensive plans and ordinances.
10. Impacts of motorized vehicles on the Greenway should be minimized. However, access for vehicles should be provided at designated places where the level of human activity is least destructive to the river environment and private property owners.
11. Scenic areas should be protected from intensive recreation use.
12. Orient urban riverbanks to the river by providing public access, pathways and intensive or nonintensive recreation areas.
13. Recreational development shall be based upon the sensitivity of lands (i.e., geomorphology and soils, floodplain, natural vegetation, historic resources, slope, etc.) to accommodate human activity.

HISTORICAL AND ARCHAEOLOGICAL CONCERNS

The Greenway Law is specific, indicating that it is in the best interests of the public to protect, preserve and restore historical sites, structures, facilities and objects on lands along the Willamette River. The following is a brief discussion concerning both the historic and archaeological significance of the Willamette River in Lane County.

Historic

The Willamette River played many important roles to the early inhabitants of the Lane County region and to its development. The Indians of the valley were often referred to by the white man as "Canoe Indians" because of the dugout canoes they built. These Indians depended on the river for much of their food source, as well as for transportation whenever possible, since boating was less difficult than walking on the valley trails.

The first white men in the area were trappers. In 1812, Donald McKenzie, for whom the McKenzie River was named, led a group of trappers of the Pacific Fur Company down the Willamette River. They explored the Willamette Valley into the region that is now Lane County. The trappers used canoes and flat-bottom boats to hunt the furbearing animals that followed the Willamette and its tributaries. At river mile 171.5 is an area that is believed to be the location of a trading post which served early trappers and settlers. The Oregon Department of Transportation's Greenway Plan indicates this site should be acquired to assure adequate protection of its historic value. The site is also in the Greenway Boundary.

Other settlements grew up on the banks, the forks and the tributaries of the Willamette River. The river was a vital waterway for marketing flour, grain and other farm produce in the young Oregon cities. Beginning in the 1850s the Willamette helped power early sawmills, grist mills, foundries and woolen mills. Along the Middle Fork at river mile 195 is located an historic grist mill site. The site is under state ownership and is within the Greenway Boundary. In 1852 a millrace was dug in Eugene for a flour and woolen mill. Although it is now being used for recreation purposes only, the canal still exists in the City of Eugene.

The river also played an important role in filling the need for better transportation. Early settlers used dugout canoes or homemade river boats, as did the Indians and trappers who preceded them. In 1856, steamers began running the meandering course between Eugene and Portland, linking Lane County's central valley land with the Columbia River, the Pacific Ocean and, ultimately, with foreign markets. This transportation link was augmented in the 1870s by the building of the Oregon-California Railroad.

Although the Willamette River was a great resource and asset to the early development of Lane County, it could also be an obstacle to other transportation routes. In the 1840s and 50s, settlers depended on their own boats or ferries to cross the river. In 1853, Elias Briggs gave bond and received a license to operate a ferry crossing on the Middle Fork of the Willamette. It was located where the east end of the North Springfield Bridge is now located, on river mile 184.6. Not until 1884 did a bridge replace this time-worn ferry. Many other historic ferry sites exist along the Willamette; however, additional research would have to be conducted prior to identifying them.

The Willamette River was uncontrolled in the 1800s and there are many accounts of established roads, mills, and even houses being washed away by floods. In 1861, there was a devastating flood over the Willamette Valley. At the Ferry Street Bridge on river mile 181.8, the water was recorded at 23 feet above the normal flow.

Archaeological Sites

The majority of the following information was provided by the Museum of Natural History and the Department of Anthropology at the University of Oregon.

Archaeology provides our only link with past civilizations which predate written history. Remains from these sites and the study of the situation in which they are found can tell trained observers much about a vanished civilization. Although all lands within one-half mile of the Willamette River in Lane County have not been surveyed for archaeological sites, there are approximately 19 known archaeological sites along the river and its tributaries. The sites vary from as little as 165 feet up to 2,600 feet from the river, indicating the majority of the sites are in the current Greenway Boundary. Most of the sites are located along the Coast Fork, followed by the Middle Fork and the Mainstem. All but four of the sites are located on private lands, in that the sites located in Dexter Park are on lands owned by the federal government. Generally, the archaeological sites are small but numerous and provide information concerning the Willamette Valley's aboriginal culture.

Policy indicates that the release of information concerning the exact location and description of sites must have approval of property owners. Furthermore, the question as to whether all historic and specifically archaeological sites should be exposed to the public has yet to be answered. Two negative aspects of identification include: (1) degradation by the public and those in public agencies knowing where the sites are located, and (2) the legal implication involved in identifying sites on private property. A positive aspect includes: by identification, the sites could be purchased and preserved by the public for the public.

FINDINGS

1. Currently, there are only two known historic sites along the Willamette River in the unincorporated portion of Lane County. They include: the trading post site along the Mainstem at river mile 171.5, and the old grist mill site along the Middle Fork at river mile 195.
2. The Willamette River has historically played a major role in the development of Lane County and has helped to determine transportation and communication systems, as well as settlement patterns.
3. Historically, the majority of population growth has settled along the Willamette Valley bottomlands adjacent to and within close proximity to the Willamette River.
4. There are 19 known archaeological sites along the banks of the Willamette River. The majority are within the Greenway Boundary.
5. Historic and archaeological sites should not be exposed to the public for the following reasons:
 - a. Degradation by the public and particularly those in public agencies, knowing where the sites are located.

- b. The legal implications involved in identifying sites on private property. However, if sites are identified, they could be purchased and preserved by the public for the public.

GOAL

PROTECT SIGNIFICANT HISTORIC RESOURCES WITHIN THE GREENWAY.

POLICY

Protect, preserve, rehabilitate, reconstruct and restore historic and archaeological sites, structures, facilities and objects within the Greenway.

RECOMMENDATIONS

1. Evaluate and further substantiate the historic significance of historic sites within the Greenway Boundary.
2. Provide further support for development of a Lane County historic preservation program.
3. Preserve, restore and make accessible where possible historic and archaeological sites within the Greenway Boundary, when consistent with preserving other river resources, the rights of property owners and the sites themselves.
4. Seek funding sources from DOT to assist in preserving and restoring historic sites, structure or facilities.
5. Conduct further indepth historic and primarily archaeological studies within the Greenway Boundary.
6. Encourage and support compatible economic use of historic sites or structures within the Greenway.
7. Advise and seek assistance from the Lane County Museum Director and the State Historic Preservation Office concerning disposition of identified historic resources within the Greenway.
8. Consider historic resources when evaluating land use proposals and changes within the Greenway.

ACCESS

The level of human activity within the Greenway mainly is determined by the extent and location of access to the river and its banks. However, the intensity of development, and density of population cause pressures for access to the river for both Greenway-related and non-Greenway uses. Since access is critical, it becomes a major factor in planning for the Greenway. This section discusses new streets and highways and bikeway and trail systems.

New Streets and Highways

McVay Highway Corridor (30-30th connector): (This project is located in the southern portion of the metropolitan area extending east from 30th Avenue across I-5, the Coast and Middle Fork into Springfield.) If constructed, the connector will require bridging the Coast and Middle Forks. The facility would be a limited access facility except for access points which would complement the Mt. Pisgah Park Plan. The connector is to be confirmed pending further study in 1979.

River Road Corridor; North Delta Extension from Delta Highway to Wilkes: (located north of Beltline off of Delta Highway). Further study will be conducted to determine whether this is a proper river crossing. Other alternatives are being investigated. However, if the project is constructed, an additional bridge will span the Willamette River.

Bikeway Systems

Bike systems are emphasized along the river in the metropolitan area where the need exists. In cooperation with the City of Eugene, eventually a bikeway system will extend along the river from Beltline through Glenwood to the 30-30th connector and will eventually extend into Springfield. This project is anticipated to meet future growth needs of the late 1980s. Also in the late 1980s, additional bike paths will be constructed outside Springfield extending partially along the Middle Fork. An integrated bikeway system along and away from the river is proposed from the Good Pasture to Springfield primarily along the left bank (i.e., looking downstream).

A Bikeway Comprehensive Plan has not been developed for the rural areas along the river. It is unrealistic to even speculate that a continuous bicycle or trail system could even be built along the river in rural areas due to the physical limitations of the river environment (i.e., floodplain, severe soil constraints for development, erosion, etc.).

Trails

Trail systems providing river access exist or are proposed for the majority of state Greenway Corridor lands and County, state and federal parks. An integrated trail system consisting of public lands in the Greenway and use of roads outside the boundary is proposed along the Middle Fork to extend into the Cascades. Currently, a continuous trail system along the river is not contemplated due to physical constraints. Possibly 30 to 50 years from now, growth will warrant paving the banks of the river, and continuous trails or other systems could become a reality. However, currently, it is not economically or physically possible.

Overall Access

River-oriented public recreation developed along the Willamette River should include a wide variety of river-oriented opportunities in urban areas but should be limited to those river-oriented public recreation uses which are compatible with the sensitive character of the river and related lands in rural areas and undeveloped portions of urban areas.

Providing public access will control incidents of trespass and vandalism to both public and private lands. Also, it must be recognized that currently the majority of incidents of trespass and vandalism are attributed to users of wheeled vehicles from upland areas and not necessarily hikers or boaters.

Extension of other facilities across the river (i.e., bike and jogging bridges, or other utilities) is possible in the future, however, they should be evaluated to insure compatibility with the Greenway.

For additional information concerning the above information, see the following documents: (1) the Eugene-Springfield Area 2000 Transportation Plan and (2) the Metropolitan Bikeway Master Plan or contact either the Lane County Public Works Department or Parks and Recreation Division.

FINDINGS

1. It is possible that three additional bridges will be built in the Greenway in the unincorporated portions of the metropolitan area.
2. Bikeway systems providing river access in certain locations are encouraged and emphasized in the metropolitan area.
3. Due to physical constraints and maintenance costs, a continuous transportation corridor along the Willamette River is not currently contemplated.
4. Providing public access acts as a deterrent to incidents of trespass and vandalism on private property.

GOAL

CONTROL THE EXTENT AND LOCATION OF ACCESS TO THE RIVER AND ITS BANKS.

POLICIES

1. Control and clearly designate access points to the river.
2. Achieve an integrated system of safe river landings, hiking trails, bicycle paths and public roads extending in and out of the Greenway at strategic locations.
3. Encourage public access in the Metropolitan Area and other urban areas.
4. Develop a Greenway access plan that emphasizes a limited number of access points, each with improved facilities, good roads and high visibility connectors.
5. Emphasize public access to the river in the metropolitan area and other urban areas while discouraging upland access in rural areas.
6. Measures should be taken to minimize disturbance to private property.

RECOMMENDATIONS

1. Public lands shall serve as primary access to the river if land sensitivity permits.
2. New major highway and railroad routes should be located outside the Greenway Boundary, except for necessary bridge crossways.
3. Evaluate all bridge crossings through Lane County's Greenway permit process.
4. Encourage access in and close to urban areas.
5. Access to the river, especially in the rural area, should be predicated on protecting sensitive land from high levels of human activity.
6. Consider and minimize to the greatest degree possible that public access might disturb adjacent property owners.
7. Encourage river access in rural areas in opposition to upland access.

VI. THE GREENWAY BOUNDARY

This section discusses Growth Management within the Greenway and Boundary Criteria.

Growth Management Within the Greenway

This element discusses natural physical limitations discouraging development (i.e., intensive or nonintensive) within the Greenway; identifies unique resources within the boundary that should be protected as directed by the Greenway Law; and identifies that the County's existing adopted land use plans along the river and other County policies reflect the Greenway Concept.

1. Physical Limitations: Intensive development (i.e., construction of roads, subsurface septic disposal, dwelling units) is generally restricted from within the Greenway Boundary for the following reasons:
 - (a) Most of the soils have severe limitations for development;
 - (b) Soil types indicate that the primary land use activities that should occur within the boundary include: wildlife and nonintensive recreation activity and sand gravel extraction; limited agricultural activity;
 - (c) The majority of lands are susceptible to inundation by 100-year floodplain and contain 20-year floodplains and portions are also subject to annual flood waters.
 - (d) A significant amount of the lands are located in areas where rapid changes in the landscape character of the river occur (e.g., erosion, flooding, etc.).

Lands within the boundary that are not identified as being either in the floodplain, having soils limitations or influenced by rapid changes of the river can be found in areas of elevated natural levees, along former channels and man-made fills for roads, railroads, bridges, dwellings, etc.

2. The Resource Base: The Greenway Law is specific regarding protection of the river's unique resource base by indicating that it is within the public's best interest to develop and maintain a natural scenic, historic and recreational Greenway open lands along the Willamette River. The overall goal statement of Goal #15 goes beyond the purpose and intent of the Greenway Law by indicating:

"To protect, conserve, enhance and maintain the natural, scenic, historical, agricultural, economic and recreational qualities of lands along the Willamette River . . ."

Resources within and along the Greenway in Lane County that should be protected, conserved or preserved include the following:

- (a) Riparian Vegetation: Almost a continuous line of riparian vegetation extends along the banks of the Willamette River. This natural vegetative strip serves as a protective buffer between the river and the higher agricultural land. It also provides habitat for wildlife and food and shade for the fish population; mitigates flooding and erosional problems by maintaining the natural levees, and assists in alleviating incidents of trespass and vandalism. Removal of this buffer strip of vegetation would expose lands on the higher terrace to more active seasonal and annual erosion problems and could also encourage trespass of private property.
- (b) Wildlife Habitat: Wildlife habitat and natural areas are a major resource within and along the Greenway Boundary. The majority of land within the boundary is capable of supporting wildlife resources now and for future generations. This unique resource will gradually be depleted if permanent development (e.g., residential, commercial, industrial, etc.) is allowed to continue within the boundary.
- (c) Agriculture: Although the majority of the lands in the Greenway Boundary are not considered good agricultural land, the higher terrace lands bordering the boundary are capable of supporting, in some locations, intensive agricultural activity. Continued strip development along the river will have to take into consideration not only the natural resources within and along the river, but consider the agriculture resource base upon the higher terraces.
- (d) Sand and Gravel Resources: The Willamette River floodplain is a main source of sand and gravel resources in Lane County. The location of the resource makes it rapidly accessible to the metropolitan area, where the majority of Lane County's population exists. Continual growth (e.g., residential, commercial, industrial, recreation, etc.) along the river will have to take into consideration the impacts upon this unique resource and vice-versa. Sand and gravel production must be maintained.
- (e) Historic and Archeological Resources: The archeological resources along the bank of the Willamette River provide Lane County citizens with a major link with past aboriginal civilizations which predate written history. There are 19 known archeological sites along the river, the majority are within the Greenway Boundary. Historic sites (e.g., ferry crossings, pioneer buildings, grist mills, etc.) and archeological concerns must be considered when evaluating development within or along the Greenway Boundary.
- (f) Scenic Values: The existing natural resource base (i.e., riparian vegetation, limited timber and agricultural resources, distant mountains and hills seen from the river, wildlife habitat, recreation features, the open space character or the river environment and the urban landscape) all constitute the scenic qualities of the Willamette River. The majority of DOT's potential acquisition sites contain scenic features identified in previous

Greenway planning and recreation studies. Development should respect and incorporate the unique scenic qualities of the river within its design.

- (g) Recreation: Most of the lands in the Greenway Boundary contain natural resources reflective of an "open space" character (e.g., natural vegetation, lack of structural development, natural wildlife habitat sites, etc.). Consequently, a substantial amount of lands within the boundary have a potential for some form of recreation activity now or in the future. However, recreational development should be allowed only if it reflects conservation of other natural resources in or near the river environment.
3. Comprehensive Plan Designations: The adoption of Comprehensive Land Use Plans (i.e., Willamette-Long Tom, Lower Coast Fork, Upper Middle Fork and Row River-London) indicate that development will be somewhat controlled along the river.

Overall, the majority of lands have future designations reflecting an "open space" character. For example, except for the metropolitan area, the majority of lands adjacent to the Main Stem have been designated Agriculture, reflecting the existence of the agricultural resource base upon the upper terraces. The majority of lands along the Middle Fork have been designated either Conservation/Recreation/and Open Space, Agriculture or Rural Woodland and Grazing, while the majority of lands along the Coast Fork have been designated either Agriculture or Rural, Woodland and Grazing.

The adopted subarea plans reflect the following concerns for the Willamette River Greenway Program:

Willamette-Long Tom: The Willamette Greenway Study Boundary (i.e., the Consultant's 1974 Study) is identified on the Plan Diagram and is cited in the Plan Report in the Recreation Section recommendations.

Lower Middle Fork: In recognition of the Greenway Program and other natural resource concerns and environmental limitations, the majority of lands within the current Greenway Boundary have been designated Conservation/Recreation/and Open Space, Agriculture and Rural Woodland and Grazing. The Greenway is cited in the text under the recreation section.

Lower Coast Fork: The 1975 LCDC Greenway Boundary is shown on the Lower Coast Fork Subarea Plan Diagram. The Greenway Program is cited in the text under the Recreation Section of the Plan Report.

Row River-London: The Greenway is cited under the land use definition section, under Conservation/Recreation/Open Space indicating the Greenway Program is identified as a corridor system along the Coast Fork and will be considered as a refinement to the subarea plans along the river.

1990 Plan: The adopted 1990 Plan generally refers to the Willamette River as River Corridor System and designates the majority of lands adjacent to the river as Regional Parks and Trails and Open Space. This designation covers the majority of lands within the current Greenway Boundary. Like the rural areas, the Greenway Boundary in the metropolitan area is considered an overlay to the existing land use. Other primary land use designations include: Sand and Gravel, Industrial and Low-Density Residential.

The 1990 Plan update discusses and identifies the Greenway, and designates the majority of lands within the existing boundary, Parks and Open Space. Other use designations that influence or are within the boundary include: Sand and Gravel (extraction, processing and quarry areas), Industrial and Commercial.

4. Coordinated Growth Concept: Lane County's coordinated growth concept envisions that growth along the Willamette River will be concentrated in and around existing incorporated cities, and other designated areas identified in adopted land use plans. The coordinated growth concept is definitely applicable to the physical character of the river because it attempts to control scatteration and sprawl, which is a growth characteristic peculiar to the Willamette River. Although development within the Greenway Boundary will be controlled, the question of how to manage the unique natural resources within the boundary and limited growth that will occur along the boundary needs to be recognized, assessed and managed if the river's environment is to be preserved or conserved. Under Lane County's Coordinated Growth Concept, it is anticipated that intensive development (i.e., industrial, commercial and residential) will occur and expand in areas currently zoned for intensive development.

Naturally, as our population grows, it will impact on the Willamette River, because the majority of the population growth areas (e.g., the Eugene-Springfield Metropolitan area) in Lane County are located within close proximity or adjacent to the Willamette River. The river is affected by both land use activities occurring along the river and use of the water itself. Fortunately, the river "cleanses" itself continually; however, population growth and land use activities along the river have a long-term impact upon the river's environment.

Traditionally, we have turned our backs on the river; however, the essence of the Greenway Plan is a conceptual reorientation to the environmental character of the river, and the recognition that it is unique to our quality of lifestyle. Through an adopted Greenway Plan, we can manage land use activities along the river and begin attempts at formulating coordinated efforts at managing uses along the river.

The Greenway Boundary Criteria

This section discusses the directives of the Greenway Law, and DOT's and Lane County's criteria establishing the boundary. The directives of the Law:

"There shall be included within the boundaries of the Willamette River Greenway all lands situated within 150 feet from the ordinary low water line on each side of each channel of the Willamette River and such other lands along the Willamette River as the department (DOT) and units of local government consider necessary for the development of such greenway; however, the total area included within the boundaries of such greenway shall not exceed, on the average, 320 acres per river mile along the Willamette River. The Willamette River Greenway shall also include all islands and all state parks and recreation areas situated along the Willamette River; however, for the purposes of computing the maximum acreage of lands within such greenway, the acreage of lands situated on such islands and within such state parks and recreation areas shall be excluded." (from ORS 390.318; emphasis added)

Of critical importance in terms of Greenway values is that the "150 feet from the ordinary low water line" along much of the river's length does not reach the river banks. A "minimum" boundary based on that measurement would in some areas include only the bed of the stream, under water much of the time.

The directives of the Law are clear; lands within the boundary shall possess natural, scenic, recreational and historical qualities and lands necessary to their protection. The Law also identifies other recreation needs and activities to be provided for. LCDC Goal #15 lists others, such as the Greenway boundaries shall be reviewed and refined as needed based on information contained in the local inventories (Goal #15, paragraph C, item 2).

Application of the directives resulted in the following DOT working guidelines for establishing the boundary:

- (1) Areas of brush land, timber and riverine vegetation bordering the river's channels, sloughs, tributaries and backwaters. (Qualification: Scenic; in some cases Natural, and in some also Recreational)*
- (2) Areas in the proximity of the river having direct influence on the river scene; and, areas having a direct influence on scenic views of the river environment (as from a public road). (Qualification: Scenic)
- (3) Areas of historical and archeological significance. (Qualification: Historical)
- (4) Significant natural areas, including fish and wildlife habitat. (Qualification: Natural; in some cases Scenic, and in some also Recreational)

* Natural, scenic and recreational values along the river are inter-related and often inseparable. A single land feature such as, say, a wooded lowland area, might in many cases be suitable for inclusion under any of these criteria, or by all three.

- (5) Areas with the potential for public recreational use. (Qualification: Recreational)
- (6) Areas already in Greenway-related public ownership. (Qualification: ORS 390.318)
- (7) Areas acquired or to be acquired as state parks or recreation areas (described in Section 8a, Chapter 558, Oregon Laws 1973). (Qualification: ORS 390.318)
- (8) Those areas along which a boundary 150 feet from the line of ordinary low water would not be far enough from the river to assure adequate scenic protection. (Qualification: Scenic; and, those areas in which unplanned development or change of land use might be detrimental to the Natural, Scenic, Recreational and Historical qualities of the Greenway)

In 1976 Lane County requested DOT to reestablish the Greenway Boundary starting from a point 150 feet from ordinary low water line and extend the boundary based on the following criteria:

- (1) In an area where the river is subject to major shifting, directional changes, or bank erosion, through natural forces, the boundaries should attempt to allow for such natural occurrences by including foreseeable riparian lands.
- (2) The boundaries should include appropriate floodplains of the Willamette River.
- (3) The boundaries should be adjusted to include lands of immediate importance to the stability of the River or the potential of natural resources adjacent to the river. These include: (1) protecting fragile riverbanks, sloughs, vegetation and sensitive areas, and consideration of appropriate areas identified as watershed contributing to the river; and (2) natural units of vegetation along the river advised as wildlife habitat.
- (4) The boundaries should be adjusted to include public lands within the Greenway system in that such public lands are anticipated as the primary access to the river.
- (5) The boundaries should be adjusted to include historic sites and significant archeological deposits.
- (6) The boundaries should make specific adjustments for sand and gravel or aggregate areas and shall include those areas inventoried and recommended as desirable aggregate resource recovery sites.
- (7) The boundaries should be adjusted to allow for property lines such that wherever reasonable the boundary will not "divide" a parcel of property under single ownership.

The current Greenway Boundary was developed through assessment of the above directives, guidelines and criteria. The majority of requests for boundary

reduction in Lane County were complied with by DOT. Lane County's Technical Report substantiates that the majority of lands within the boundary contain physical constraints hazardous to intensive development, and further identifies that lands within the boundary contain important river related resources that should be preserved, conserved or protected.

Due to erosion, accretion-reliction and avulsion, the river and banks change yearly. Usually, most river changes occur within the existing boundary, however it is possible that substantial changes occur, eroding completely away lands within the boundary. This action is probable in areas where lands are sensitive to erosion and the boundary is only 150 feet from ordinary low water line. The boundary would have to be reestablished. This would involve review and evaluation by Lane County through a hearings process and recommendations to LCDC who would make the final determination as to where the boundary would be located.

VII. PLAN DIAGRAM

Introduction

The Greenway Plan is a refinement of other land use plans covering lands in the Greenway boundary. The Greenway Plan is considered a refinement of the following land use plans along the Willamette River in Lane County:

Mainstem: The Willamette-Long Tom Subarea Plan; the current Metropolitan 1990 Plan and the Santa Clara, River Road and Willakenzie Plans.

Middle Fork: The Metropolitan 1990 Plan and the Lower Middle Fork Subarea Plan.

Coast Fork: The Metropolitan 1990 Plan; the Lower Coast Fork Plan and the Row River-London Subarea Plan.

The land use designations from the above land use plans were incorporated into the Greenway refinement plan and applied to lands within the Greenway boundary. Land use decisions such as plan changes, rezonings and conditional use permits, etc. shall take into consideration the adopted land use designations, TABLES 1 and 2 from appropriate subarea plans, the Findings, Goals, Policies and Recommendations in the text of the Lane County Greenway Plan and provisions of the statewide Greenway Goal. The above plans should be consulted when necessary to identify in greater detail existing land use designations and acreage designations. An approximate boundary has been placed on the Plan Diagram to differentiate subareas from the Metropolitan Study Area. The comprehensive time frame for the Plan is 1995, however it is subject to revisions by the Board.

Land use plans conceptually identifying the Greenway either on their respective plan diagrams or within the text include: The Metropolitan Plan, both existing and proposed; the Willamette-Long Tom, Lower Middle Fork and Lower Coast Fork; and Row River-London Subarea Plans and indirectly the Willakenzie Plan.

Land use designations extend to the river, however it should be recognized that the majority of lands within the Greenway, especially within the rural and portions of the urban areas, are lower terraces adjacent to the river containing physical constraints for development such as floodplain, alluvial bottomlands or soils containing severe limitations for development. Major land uses noted along the lower terraces include: limited agriculture, recreation, fish and wildlife and natural areas, riparian vegetation, scenery and sand and gravel.

Land use designations affecting the subareas are discussed first followed by those in the Metropolitan Plan. Land use designations for the unincorporated lands surrounding Cottage Grove are also discussed.

Land Use Designations

The following general land use designations are noted along the Willamette River in the unincorporated portions of Lane County.

RESIDENTIAL:

This designation includes the following categories: RURAL RESIDENTIAL for the subareas and LOW DENSITY TO MEDIUM DENSITY RESIDENTIAL within the metropolitan area.

Rural Residential: A residential category applied to the areas of Jasper, Trent and Saginaw where parcel sizes must be a minimum of five acres. Infilling of smaller existing parcels is possible if not detrimental to the natural environment, the provisions of the Greenway Plan or does not place significant burden on other community facilities.

Low-Medium Density Residential: These designations apply only to lands in the metropolitan area. Low equals up to and including 10 units per gross acre. This designation is applied to lands along the river in the River Road area and areas south of Springfield at the confluence of the Coast and Middle Forks. Medium equals over 10 and up to and including 20 units per gross acre. This designation is applied to lands in the Goodpasture Island area. The ranges do not prescribe particular structure types such as single family detached, duplex, mobile home or multiple family, or in some cases, densities. For assistance in distinguishing types or densities, see the Santa Clara, River Road, Willakenzie and 1990 Land Use Plans.

COMMERCIAL:

This designation is applied only to the Metropolitan area.

This category contains all commercial activities larger than neighborhood commercial and smaller than major retail centers. Such areas usually develop around a small department store and supermarket. The development occupies at least five acres. This category contains such general activities as retail stores, personal services, financial, insurance and real estate offices, private recreational facilities such as movie theaters and tourist related facilities, such as motels.

This designation is applied in the Goodpasture Island area.

INDUSTRIAL:

This designation includes the following categories: INDUSTRIAL for the subareas and LIGHT-MEDIUM INDUSTRIAL for the metropolitan area.

Industrial: The industrial category is applied to existing major industrial activities along the river such as the lumber mills located at Saginaw and Walker along the Coast Fork and near Jasper along the Middle Fork. The plans recommend these major activities be recognized and, if appropriate, expansion can be provided. While several individual industrial sites exist (wrecking yards, truck terminals and warehouses, etc.), the Greenway Plan recommends that they not be encouraged to expand along the rural portions of the river.

Light Industrial: Light and medium industrial are generally involved in the secondary processing of materials into components, the assembly of components

into finished products, transportation, communication and utilities, wholesaling and warehousing. The external impact from these uses is usually minimal. The need for transportation is usually met by truck, although rail and air transportation may be necessary. The labor force varies from small to large. Activities are generally located indoors, although there may be some outdoor storage.

This designation is applied to lands in the Glenwood area along Franklin Blvd.

SAND AND GRAVEL:

This designation includes the following categories: NATURAL RESOURCE; SAND AND GRAVEL in the Subareas and SAND AND GRAVEL (extraction, processing and quarry areas) in the metropolitan area.

Natural Resource, Sand and Gravel: The sand and gravel resource areas indicated on the Plan Diagrams are intended to identify areas of resource availability. More detailed study of specific sites to determine extraction priorities will be necessary. Therefore, the designation of sand and gravel resources areas should not be construed as a plan recommendation.

The Sand and Gravel designation is applied to the following rural areas along the river: Coast Fork; the vicinity of Saginaw along the east bank and areas northeast of Creswell and the Middle Fork; the vicinity of Mt. Pisgah and the general area of Trent.

Sand and Gravel (extraction, processing and quarry areas): This category includes processing areas, land currently zoned for sand and gravel extraction and additional areas containing this resource which will be needed through the planning period.

This designation is applied to lands north of Beltline, in the Glenwood area and along the Middle Fork in the vicinity of the confluence with the Coast Fork along the north bank but south of Springfield and in the general area of Mt. Pisgah.

AGRICULTURE:

This designation is synonymous for subareas and the metropolitan area.

The subarea plans including the existing 1990 Plan, designate the majority of unincorporated lands adjacent to the river Agriculture. The designation discourages development of lands for non-farming or related purposes. In these areas where some development has occurred, the use of the designation is intended to preempt further development of a non-farm nature.

An agriculture designation signifies more than anything else the existence of a vital and irreplaceable natural resource. In some cases, it is made on tracts of land too small to constitute "economically viable farming units", but large enough to support part-time farming, gardening, etc. The designation has the intention of preserving the land resource for the years to come, when it may well be needed for food production.

The single most important use along the Mainstem is Agriculture. Due to the floodplain, most of this land is still in an open condition and much of this is being actively farmed at present. This designation extends from the metropolitan area north to the Benton-Lane and Linn County lines. Along the Coast Fork, this category is applied to the bottomlands and terrace land lying between Interstate 5 and the Coast Fork which are predominantly soils with an agricultural land capability classification of II. Currently, most of this land is presently in agricultural productivity and the Plan recommends maintaining this use.

The Row River-London Plan designates only a small portion of lands adjacent to the river below Cottage Grove Reservoir, Agriculture. Agriculture in the metropolitan area is applied to areas having Class I - IV soils. This designation is applied to lands north of Beltline and along the Coast and Middle Forks in the vicinity of Mt. Pisgah.

RURAL, WOODLAND and GRAZING:

This designation is applied only in the subareas. Rural, Woodland and Grazing is applied to those lands which are only marginally suitable for development and yet are not highly suitable for farming or other agricultural purposes.

Parcel sizes of 20 acres are recommended, although under conditions specified in Table 1 of respective subarea plans, 10 acre parcels can be permitted. It is intended to preserve the rural character of lands along the river as well as to reflect the substantial natural limitation of the land where it is applied.

This designation is applied to the majority of lands along the right bank (i.e., the right bank looking down stream) of the Middle Fork, along the right bank in areas southeast of Creswell and south of Cottage Grove along both banks. This designation is not applied to lands along the Mainstem.

RURAL:

This designation is applied to lands within the metropolitan area only.

These areas are characterized by environmental constraints such as poor soils and drainage, limited ground water, steep slopes, etc. Therefore, they are of marginal suitability for rural development. They are also characterized by a general lack of significantly productive agricultural soils due to clay properties, poor drainage, and limited potential for irrigation. Areas in this designation should be maintained in large parcels (five acres or larger) in order to provide opportunities for rural living and lifestyles as well as limited agricultural production.

This designation is applied to areas only along the Coast Fork south of Highway 58.

CONSERVATION/RECREATION/OPEN SPACE:

This designation includes the following categories: Conservation/Recreation/Open Space within the subarea plans and PARKS AND OPEN SPACE within the Metropolitan Plan.

Conservation/Recreation/Open Space: The Conservation/Recreation/Open Space designation is intended to be applied to those areas having a high value for public use or preservation with very limited use. Lands so designated can include public parks, recreational sites, scenic preserves, open space corridors, wildlife preserves and existing known wildlife habitat areas and other similar land uses. The Conservation/Recreation/Open Space designation implies that, like the Agricultural designation, no development beyond that normally associated with resource based activities will occur. All recreation sites have been designated Conservation/Recreation/Open Space.

The adopted subarea plan diagrams for the Willamette-Long Tom, Coast and Middle Forks identify the Greenway and boundary and reference the program in both the Plan and Technical Reports. The Row River-London Plan Diagram does not show the boundary but discusses the Greenway in the text under the definition of Conservation/Recreation/Open Space.

Clarification is warranted concerning the designation of Conservation/Recreation/Open Space along the Middle Fork. The Greenway Plan is a refinement plan to the Middle Fork Plan; specifically to lands within the Greenway boundaries. The designation of Conservation/Recreation/Open Space indicates in general the limits of the Greenway boundary. Adjoining land use designations to the boundary would actually extend to the river as noted in the subarea plan diagrams of the Coast Fork and the Willamette-Long Tom, except for public ownership. For example, the Rural Residential and use designation at Jasper actually extends to the river. However, the State ownership at Jasper bridge as well as the two state parks, Mt. Pisgah (Buford) and Dexter and other public ownerships are considered to be designated Conservation/Recreation/Open Space.

Parks and Open Space: The Parks and Open Space designation in the metropolitan area may reflect a sensitive natural use such as the floodway fringe, which is protected from development. Furthermore, Open Space can be a park, a golf course, a cemetery, a body of water such as the Greenway Corridor, or an area left undeveloped within a private commercial or residential development. Agricultural and forested land on the fringe of the urban area, in addition to their primary use, provide secondary scenic and open space values. The majority of lands within the metropolitan Greenway boundary are in either public ownership or consist of lower terraced alluvial bottomlands. A more detailed plan for the Greenway is currently being developed by L-COG and will be made available in the future.

The Cottage Grove and Lower Coast Fork Plan: The Lower Coast Fork Plan was revised to recognize land use designations on unincorporated lands surrounding Cottage Grove.

Cottage Grove is the only major development center outside the metropolitan area along the river. Lands within Cottage Grove's Urban Growth Boundary between Stages I and II along the river, are designated Conservation/Recreation/Open Space, north of the city and Industrial and Rural Woodland and Grazing to the south. The County's land use definitions apply to uses in these areas.

Lands extending between Stage I and the Cottage Grove city limits, although in the County have city designations of Heavy Industrial, Controlled Industrial and Suburban Residential applied to lands along the river. For uses allowed in these categories, contact the City of Cottage Grove Planning and Development Department.

Implementation

The Greenway Plan for Lane County may be implemented through one or more of the following measures:

- (1) Extension of the current interim Lane County Greenway Ordinance (i.e., Greenway Conditional Use and Rural Area Extraordinary Exception Permit Procedures) as a Greenway Compatibility Review Procedure for review of intensification change of use or developments to insure their compatibility with the Willamette River Greenway.
- (2) Zoning and rezoning of land within Greenway boundaries on zoning maps, and updating the zoning regulations and if necessary the subdivision regulations of the Lane Code to reflect the Greenway Plan.
- (3) A Greenway Design Plan as provided in Goal 15.

Measures for managing uses within the Greenway such as Exclusive Farm Use Zoning have already been complied with. Other provisions for use management considerations and requirements set forth in C3 of Goal #15 will be assessed and if considered appropriate will be included in Lane County's updated ordinance.

The review and adoption process for any Ordinance adoptions or revisions will require public hearings by the Lane County Planning Commission and Board of County Commissioners.

APPENDIX A
DEFINITIONS

DEFINITIONS OF TERMS USED IN THIS STUDY

To aid the reader in understanding some of the terminology used in this planning study, the following definitions have been prepared. It should be remembered that these terms are defined for this report only, and do not necessarily parallel those used in County ordinances, etc.

CHANGE OF USE: Means making a different use of the land or water than that which existed on December 6, 1975. It includes a change which requires construction, alterations of the land, water or other areas outside of the existing buildings or structures and which substantially alters or affects the land or water. It does not include a change of use of a building or other structure which does not substantially alter or affect the land or water upon which it is situated. The sale of property is not in itself considered to be a change of use. An existing open storage area shall be considered to be the same building.

Landscaping, construction of driveways, modifications of existing structures, or the construction or placement of such subsidiary structures or facilities as are usual and necessary to the use and enjoyment of existing improvements shall not be considered a change of use.

CONSERVE: To manage in a manner which avoids wasteful or destructive uses and provides for future availability.

EASEMENTS; SCENIC: A scenic easement does not include public access to property. The basic purpose of the restrictions is to protect the present visual or aesthetic value of the land for the public.

EASEMENTS; USE: A use easement (or easement of access) permits public access to a portion of a landowner's property for a specific purpose.

FINDINGS: A projected impact of a condition or circumstance on other conditions. Refers to the conclusions drawn from evaluation of a set of data.

GOAL: A desired condition or circumstance toward which the planning effort is directed; a "destination" which is by nature generalized; used to give direction and indicate intention.

INTENSIFICATION: Means any additions which increase or expand the area or amount of an existing use, or the level of activity. Removal of the exterior of a structure not excluded below is an intensification when it will substantially alter the appearance of the structure. Intensification shall not include the following: (1) completion of a structure for which a permit was issued as of December 6, 1975 and under which substantial construction has been undertaken by July 1, 1976, this applies to change of use also; (2) maintenance and repair usual and necessary for continuance of existing use; (3) reasonable emergency procedures necessary for the safety or protection of property; (4) landscaping,

construction of driveways, modification of existing structures or construction or replacement of such subsidiary structures or facilities adjacent to a residence as are usual and necessary and (5) seasonal increases in gravel operations. Residential use of lands within the Greenway includes the practices and activities customarily related to the use and enjoyment of one's home.

ORDINARY LOW WATER AND HIGH WATERLINE: The high water level is defined as that to which the stream rises with sufficient frequency and sustains for sufficient time to mark the constraining banks and discourage encroaching vegetation along a distinct upper line. The low water mark of a river is that point to which the waters normally recede when the volume of water is at its low level, not determined by the extraordinary year. Submersible lands are also considered that land or bank area between the ordinary low and high waterline.

The State Attorney General concluded that the term, "ordinary low water" as used in the Greenway Law [ORS 390.310(4) and 390.318(1)] means the line to which the Willamette River ordinarily recedes annually in season even though the elevation of that line may be higher as a result of the Corps of Engineers' flood control structures than would otherwise be the case without such structures.

POLICY: A means of moving toward a goal without limiting the method or approach to a single course of action.

PRESERVE: To save from change or loss and reserve for a special purpose.

PROTECT: Save or shield from loss, destruction, or injury or for future intended use.

RECREATION; HIGH INTENSITY: Uses specially built facilities, or occurs in such density or form that it requires or results in a modification of the area or resource. Campgrounds, golf courses, public beaches, and marinas are examples of high intensity recreation.

RECREATION; LOW INTENSITY: Does not require developed facilities and can be accommodated without change to the area or resource. For example, boating, hunting, hiking, wildlife photography, and beach or shore activities can be low intensity recreation.

RIPARIAN OWNERS: One who owns land bordered generally by a waterway.

URBAN LANDS: Means those lands upon which the economic, developmental and locational factors have, when considered together, made the use of the property for other than urban purposes inappropriate. Economic, developmental and locational factors include such matters as industrial, commercial, residential or recreational uses of property; the effect the existing uses have on properties in their vicinity and previous decisions regarding lands in question as contained in comprehensive plans and other public actions.

WATER DEPENDENT: A use or activity which can be carried out only on, in, or adjacent to water areas because the use requires access to the water body for water-borne transportation, recreation, energy production, or source of water.

WILLAMETTE GREENWAY ADVISORY COMMITTEE (WGAC): The Board created WGAC to assist the County in preparing the County Greenway Plan. The Board advertised for interested citizens and selected, in July 1976, 21 citizens to serve on the Lane County Willamette River Greenway Advisory Committee (WGAC).

APPENDIX B

GREENWAY RESOURCE MAPS

Resource maps used to assist in development of Lane County's Greenway Plan are listed below. Scales vary, however the majority of maps are in scales of $2\frac{1}{2}'' = 1$ mile; $4'' = 1$ mile and $1'' = 400'$.

Greenway Resource Maps include the following:

1. Public Ownership
2. State Greenway Lands
3. DOT Acquisition including classification numbers and definitions
4. Recreation Sites
5. Plan Diagrams (Plan Diagrams for the Willamette-Long Tom, Lower Coast Fork, Lower Middle Fork, the Row River-London Subareas and 1990 Metro Plan).
6. Zoning
7. Floodplain
8. Fish and Wildlife Habitat and Natural Areas
9. Aggregate Resources
10. Subdivision Activity
11. Lands on Farm Deferral
12. Alluvial Bottomlands
13. Soils
14. Forest Cover Map, Department of Revenue, State of Oregon Assessment and Appraisal Division
15. DOT's $1'' = 400'$ Aerials

The majority of maps were developed between 1975-76, consequently information presented may warrant updating. The maps are located in the Lane County Planning Division Office.

CORRECTION OF ERRATA AND OTHER MODIFICATIONS

1. Deletions. When words or figures are deleted, they are left in the text, but lined through, e.g., "~~---deleted---~~".
2. Additions. Additions are underlined in the text, e.g., "~~---~~additions~~--~~".
3. Modifications. Modifications and changes are presented in full text below.

CORRECTION OF ERRATA

- Page 1, Why Do We Need a Greenway?, paragraph (1), second sentence, "~~200,000~~", add "221,600".
- Page 3, LCDC Goal #15, The Willamette River Greenway Goal, last paragraph, "~~multi-resources~~", "multi-resource".
- Page 3, What is the Greenway Boundary?, first paragraph, seventh line; after the word Greenway, add "and"; second sentence, "~~shall be excluded~~". Second paragraph, third sentence, "~~and~~", "farm".
- Page 4, third paragraph, subparagraph (3), second paragraph, first sentence "~~Law~~", "low water line".
- Page 8, Willamette River Greenway Advisory Committee, third paragraph, first sentence, ", and" after the word "basis".
- Page 9, third paragraph, number 4, "~~180,000~~", "182,800".
- Page 12, Finding 10(b), "and" at end of sentence; (c) delete period, add ", and" after the word "generations".
- Page 12, Finding 17, "~~72~~", "70".
- Page 12, Finding 19, delete asterisk.
- Page 12, Finding 20, "~~180,000~~", "182,800".
- Page 25, Grants, first sentence delete "s" in "governments".
- Page 27, Recommendation 2, add "s" to "purpose".
- Page 35, Considerations, second paragraph, second to last sentence, "t" in "Department".
- Page 35, Considerations, second paragraph, second to last sentence, "t" in "Department".
- Page 37, Water Quantities, second paragraph, "~~wated~~", "water".
- Page 39, General Water Quality, first paragraph, second sentence, "~~influenced~~", "influenced".
- Page 47, The Natural Resource Base, last sentence, "~~agrievulture~~", "agriculture".

- Page 50, Agricultural Potential in the Greenway, first paragraph, last sentence "~~See Map 2, Natural Resources~~".
- Page 62, third paragraph, last sentence, "~~Først~~", "Forest".
- Page 66, second paragraph, last sentence after "Map 3", "and listed on Table 8".
- Page 69, Finding 7, "~~17~~", "15".
- Page 71, Land Use Considerations, first paragraph, "comma" after "public ownership"
- Page 72, delete first paragraph; second paragraph first sentence, "~~Table 8~~", "Table 9".
- Page 74, last paragraph, first sentence "~~is~~", "are".
- Page 78, Recommendation 12, "~~develøpmet~~", "development".
- Page 83, Recommendation 3, after "proposals", "plan changes and rezonings".
- Page 88, Inventory, fourth paragraph, 4., "~~in both public parks~~".
- Page 99, Considerations, third paragraph, first sentence, "~~capabilittes~~", "capabilities".
- Page 100, second paragraph, "~~5,724+~~", "5,564.76".
- Page 122, Intensification, second sentence, "~~Removal~~", "Remodeling"; "~~not-excluded below~~".

SUMMARY TABLOID, Reasons for the Greenway, paragraph (1), "~~220,000~~", "221,600".

MODIFICATIONS

- Page 3, What Is the Greenway Boundary, first paragraph, second sentence, rewritten as follows:
 "The Willamette River Greenway shall also include all islands and all State parks and recreation areas situated along the Willamette River, however for the purpose of computing the maximum acreage of lands within such greenway, the acreage of lands situated on such islands and within such State parks and recreation areas shall be excluded."
- Page 28, The Natural Environment, third paragraph, second sentence rewritten as follows:
 "Frequent flooding and shifting of the river's course are natural occurrences which easily impact on human activity."
- Page 50, Agricultural Potential in the Greenway, second paragraph, (5) rewritten:
 "(5) areas where rapid changes in the river landscape occur due to erosion flooding, etc."
- Page 50, Lands on Farm Deferral, first paragraph, second sentence changed as follows:
 "Special assessment applies to qualifying farm lands only. Lands under farm buildings are included, but not the buildings. Lands under residential units are not included."

Page 116, Introduction, second paragraph, delete entire fourth sentence. Under Land Use Designations, add second sentence;

"The Plan Diagram is found in the Tabloid located in the insert flap in the back of this report."

PLAN DIAGRAM, Coast Fork:

The Rural Urban Line north and south of Cottage Grove is not shown on the Coast Fork Plan Diagram, however it is shown on the Department of Transportation's 1" = 400' aerials (1973) available in the Lane County Planning Division Office.