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OUTLOOK 2025 - COMPREHENSIVE PLAN PERIODIC REVIEW

Comprehensive Plan of the City of Lake Oswego, Oregon

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Official copies of the Comprehensive Plan can be purchased for \$36.00 plus postage. If you would like to obtain a copy you can contact Barb Dillinger in the Planning Department directly at (503) 635-0296 or Email us

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Lake Oswego Comprehensive Plan Adopted December, 1994

Lake Oswego City Council

Mayor Alice Schlenker Councilor Mike Anderson Councilor Heather Chrisman Councilor William Holstein Councilor Bill Klammer Councilor Mary Puskas

Lake Oswego Comprehensive Plan Review Committee

William Beebe
Joe Dills
Mike Fain
Sherry Finnigan
Henry Germond
Michael Larson
James Miller
Mary Neely
Martin Rohrer
Michael Silvey
Robert Simon
Thomas Simpson

Lake Oswego Boards and Commissions

Committee for Citizen Involvement Natural Resources Advisory Board Historic Review Commission Parks and Recreation Advisory Board

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Lake Oswego Planning Commission

Allan Garten, Chair William Beebe, Vice-Chair Roger Blecher Rosa Colquitt Martin Rohrer Sherry Finnigan Robert Able

Lake Oswego Staff

Douglas Schmitz, City Manager
Tom Coffee, Assistant City Manager
Ron Bunch, AICP, Senior Planner
Jane Heisler, AICP, Project Planner
Catherine Clark, AICP, Associate Planner
Barbara Dillinger, Administrative Assistant
Maps by Roger Shepherd, GIS Technician



Lake Oswego Comprehensive Plan Updates

Adopted After December, 1994

PA 9-94-1104

Map amendment to remove open space designation (for future acquisition) on Tax Lots 500, 501 and 600 of Tax Map 2 1E 9DB.

ZC 1-95-1204 Revised (Resolution 97-11) Amending the Comprehensive Plan text to conform to the new Sensitive Lands Program enacted pursuant to Ordinance 2148. 7/22/97

PA 1-95-1114

Map amendment to remove future park and open space designation on Tax Lots 2800 and 2802 of Tax Map 2 1E 7AD. 7/5/95

PA 2-95-1137

Map amendment to change the designation from Industrial Park (IP) to General Commercial (GC) on Tax Lot 600 of Tax Map 2 1E 18BD.

PA 3-95-1133

Map amendment to change the designation from Industrial Park (IP) to General Commercial (GC) on Tax Lot 2700 of Tax Map 2 1E 18BD. 12/26/95

PA 4-95-1147

Amendment to the Old Town Design District.
Ordinance 2120 and Resolution 96-12 3/19/96

PA 5-95-1139

Map amendment to the Urban Services Boundary and apply a designation of R-15 on Tax Lot 300 of Tax Map 2 1E 20AA. 1/22/96

PA 1-96-1187

Approval of the First Addition Neighborhood Plan and amendment to Goal 10 to authorize the new R-2 and R-6 designations. Ordinance 2143 and Resolution 96-59 12/17/96

PA 2-96 (Denied)

Amendment to Goal 9, Policy 2. Closed without City Council action and redirected to PA 5-97.

PA 3-96-1219

Amend Old Town Design District to encourage the use of Furnace and Leonard Streets as pedestrian and bicycle connections to the existing Greenway trail. Ordinance 2157 9/2/97

PA 4-96

Amendment regarding Willamette River bridge crossing. File closed and folded into PA 7-97 Transportation System Plan.

PA 1-97-1227

Amendment to incorporate the Public Facilities Plan. 9/2/97

PA 2-97-1228

Map amendment to apply Environmental Resource Conservation (RC) and Resource Protection (RP) overlay zones to implement the sensitive lands ordinance. 9/2/97

PA 3-97-1244

Amendment to include Growth Management Policies. 1/6/98. Also LU 99-1337 ading additional Goal 14 Urbanization policies and defintions. 9/21/99

PA 4-97-1239

Amendment to allow changes to map designations prior to adoption of a neighborhood plan. 10/21/97

PA 5-97-1259

Amendment to Goal 9, Policy 2 (Economic Development) to allow Comprehensive Plan and Zone Change application in the absense of adopted neighborhood plans for expansion of existing commercial and industrial zones. 5/5/98

PA 6-97 (Void)

Map amendment to apply Environmental Resource Conservation (RC) and Resource Protection (RP) overlay zones to implement the sensitive lands ordinance. Now PA 8-97.

PA 7-97-1294

Amend Goal 12 to provide the policy basis and transportation modal maps for compliance with the Transportation Planning Rule. 11/17/98

PA 8-97

Map amendment to apply Environmental Resource Conservation (RC) and Resource Protection (RP) overlay zones to implement the sensitive lands ordinance to Tax Lot 8300 of Tax Map 2 1E 10CC; Tax Lot 4400 of Tax Map 2 1E 9CC; and Tax Lots 100 and 200 of Tax Map 2 1E 9CD.

PA 1-98-1274

Map amendment to change the designation from Industrial Park (IP) to General Commercial (GC) on Tax Lot 2700 fo Tax Map 2 1E 19BD). 6/16/98

PA 2-98-1285

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PA 3-98-1287

Map amendment to change the designation from R-7.5 to R-0 on Tax Lot 1300 of Tax Map 2 1E 7BC). 8/18/98
PA 4-98-1310

Amendments to add the West Lake Grove Design District. Ordinance No. 2187 3/16/99

PA 5-98-1297

Amendment to include the Lake Grove Neighborhood Plan. 8/12/98

LU 99-0001-1312

Map amendment to designate a resource conservation district overlay zone on Tax Lot 400 and 401 of Tax Map 2 1E 16CB. Ordinance No. 2179 5/20/99

LU 99-0001-1313

Map amendment to designate a resource conservation district overlay zone on Tax Lot 900 of Tax Map 2 1E 9CA. Ordinance No. 2180 5/20/99

LU 99-0001-1314

Map amendment to designate a resource conservation district overlay zone on Tax Lots 5000 and 5090 of Tax Map 2 1E 08BB. Ordinance No. 2181 5/20/99

Lake Oswego Comprehensive Plan Updates Adopted After December, 1994

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Preface

This is the first update of the original Comprehensive Plan which was developed over a four year period from 1974-78. Development of the original plan involved substantial citizen commitment and involvement, extensive research and thorough review and public hearings by Lake Oswego's public officials. Lake Oswego's neighborhood association program arose from this process and today there are 16 recognized neighborhood associations.

After adoption by the City in 1978, various portions of the Plan continued to be worked on for another six years until the plan was acknowledged in 1984 by the Oregon Department of Land Conservation and Development as being in conformance with the Oregon Statewide Planning Goals.

The original planning process began with the development of 14 Community Planning Goals and supporting objectives which were produced by 14 separate citizen committees. This effort involved more than 250 people. The goals and objectives were adopted by the City Council in 1974. They encompassed the following categories; 1) Community Area and Regional Relationship; 2) Natural Resources and Environment; 3) Population Density and Growth; 4) Community and Neighborhood Identity; 5) Aesthetic Quality - Community Design; 6) Land Use - Open Space; 7) Land Use - Residential; 8) Land Use - Industrial; 9) Land Use -Commercial; 10) Transportation; 11) Recreation and Culture; 12) Community Services and Facilities; 13) Implementation; 14) Citizen Participation.

It has been nearly twenty years since the original Comprehensive Plan community goals and objectives were adopted and fifteen years since the Plan policies were approved by the City Council. Since then there have been many changes which now require revisions to the Comprehensive Plan. Foremost are the changes in the community and its character. Lake Oswego, the metropolitan area and the state have grown. There have also been changes in the social, economic and political structure of the state and region. Oregon's statewide land use program was in its infancy when Lake Oswego's Plan was first formulated. Since then, the program has matured and there have been numerous changes in state law which must be reflected in communities' comprehensive land use plans.

In December, 1992 the City Council appointed the Lake Oswego Comprehensive Plan Review Committee (LOCPRC) and directed it to review and update the text of the Comprehensive Plan and forward recommendations to the Planning Commission and City Council. The direction given to the Committee was to take into account the many changes which have occurred in Oregon and Lake Oswego since the Plan was first adopted. The Council also desired that the Plan address changes in state land use laws and administrative rules. Another goal was to make the plan more clear and "user friendly" for all those who refer to it—citizens, city staff and officials, developers and other agencies and jurisdictions.

Update of the transportation element of the Comprehensive Plan was completed by a separate adhoc Transportation Committee. Revised transportation goals and policies, street classifications and a public facility plan for street improvements were adopted by Council in December, 1992.

The LOCPRC, with the assistance of others, including city boards and commissions and neighborhood associations, reviewed and updated the Comprehensive Plan with the purpose of meeting the above objectives. This built upon the direction established by the Plan's original authors and the vi-

Preface

sion they had of the community. Every policy statement in the original plan was carefully reviewed and a conscious decision was made for each as to whether it should be amended, deleted or retained. Also, new goals, policies and recommended action measures were individually considered to ensure Lake Oswego's unique character and needs were addressed. A careful record has been kept of this process and is available upon request from the Lake Oswego Department of Planning and Development.

ABOUT THE COMPREHENSIVE PLAN

Land use planning involves the consideration and balancing of many different factors and issues to make the best decisions for the community both for the short and long term. The goals and policies of Lake Oswego's Comprehensive Plan are intended to guide the community in making these decisions. The Plan is intended for use by all those who have concerns with the City's land use planning process including; local officials, persons with development interests, state, regional and federal agencies, neighborhood and community groups, and citizens of all interests.

The Plan is mandated by the state to be in conformance with 15 Oregon Statewide Planning Goals. Once acknowledged by the state's Land Conservation and Development Commission as meeting this test, it is the controlling document for land use within the City. Land development and related activities, including the City's development ordinances, must be consistent with Plan goals and policies.

There are two parts to the Comprehensive Plan*the text, which includes goals and policies and the
Comprehensive Plan Maps. The goals, policies and
maps are regulatory and intended to guide land use
decisions. The Comprehensive Plan Land Use
Map, shows the distribution of existing and future
land uses. Other Plan Maps include the Comprehensive Plan Transportation Map, Urban Services
Boundary Map, Public Facilities Plan, etc. In addition to the Comprehensive Plan Maps, other maps
are included in the Plan for informational purposes
only.

Change is an inherent part of any community and it is necessary for the Plan to be responsive to changing conditions. Thus, it needs to be updated periodically. In fact, state law requires jurisdictions to periodically review plans. It is anticipated that the Plan will be periodically updated every five to seven years to comply with State requirements, deal with changed circumstances and address changing community values and needs.

It is essential to recognize that the Plan is "comprehensive." There are no parts which can be considered separately from other parts. Plan goals and policies are intended to be supportive of one another. However, when using the plan to make decisions if conflicts arise between goals and policies, the City has an obligation to make findings which indicate why the goal or policy being supported takes precedence over other goals found to be in conflict. This involves a decision-making process on the part of the City which balances and weighs the applicability and merits of the Plan's many goals and policies against one another.

The Comprehensive Plan occupies the center stage for directing Lake Oswego's future, but other planning activities and documents are also important. Other plans such as the Park and Recreation Master Plan, Pathway Plan, the various public facility plans, and the Capital Improvement Plan are important to consider when making land use decisions. However, any portion of these plans and any related action dealing with land use must be consistent with the policy direction of the Comprehensive Plan. Therefore, it is the obligation of the City to coordinate other public actions with the Comprehensive Plan.

Introduction

The Comprehensive Plan and the Zoning and Development Code are intended to mutually support one another. The Plan does not contain specific standards for development. Instead it provides the policy basis for specific standards and procedures of the Zoning and Development Code which are used to review new development and modifications to existing development.

The Comprehensive Plan has been prepared to reflect the organization of the Statewide Planning Goals which apply to Lake Oswego. There are thirteen chapters in the plan as follows:

Goal 1: Citizen Involvement Goal 2: Land Use Planning

Goal 5: Open Spaces, Scenic and Historic Re-

sources, and Natural Areas

Goal 6: Air, Water, and Land Resources Qual-

ity

Goal 7: Areas Subject to Natural Disasters and

Hazards

Goal 8: Recreational Needs
Goal 9: Economic Development

Goal 10: Housing

Goal 11: Public Facilities and Services

Goal 12: Transportation

Goal 13: Energy Conservation

Goal 14: Urbanization

Goal 15: Willamette River Greenway

Statewide Planning Goal 3: Agricultural Lands, and Goal 4: Forest Lands, are not part of the Lake Oswego Comprehensive Plan because the City and its Urban Services Boundary (USB) are within the Portland Metropolitan Area Urban Growth Boundary. There are no lands designated for agriculture or forest uses within the City.

COMPREHENSIVE PLAN FORMAT

DEFINITIONS AND OBLIGATIONS OF GOALS, POLICIES AND RECOMMENDED ACTION MEASURES

Goals, policies and recommended action measures identify the intent of the City to accomplish certain results. The different types of plan statements vary in specificity. Usually, goals are the most general, and policies and recommended action measures are the most specific. The City's obligations under these statements vary according to the type of statement.

The goals and policies are intended to relate to one another. The goals are followed by supportive policies. The goals and policies in turn are supported by recommended action measures. However, each plan statement can stand alone, either as a goal or policy which are obligations the City wishes to assume, or as a recommended action measure which is a recommendation to achieve a desired end, but does not signify an obligation.

The Comprehensive Plan is the general guide for the City in matters relating to land use. However, a number of other factors should be recognized:

1. The Plan is not the only document which establishes City policies and planning activities. For example, the City must conform to the Municipal Code, state and federal regulations, and intergovernmental agreements. To the extent possible, these requirements are referenced in the Plan.

Introduction

- 2. If a project or process is not addressed by the Plan statements, the City may still take appropriate action to address it. However, if necessary, the Plan should be amended in this circumstance.
- 3. Although the goals and policies do not specifically address disaster situations (washed out roads, fire, broken utility lines, etc.), the City's responsibility in areas of safety and public health may occasionally require emergency actions which would otherwise require adherence to specific permit requirements and findings of plan compliance.

I. GOAL

Definition - A general statement indicating a desired end, or the direction the City will follow to achieve that end.

Obligation - The City cannot take action which violates a goal statement unless:

- 1. Action is being taken which clearly supports another goal.
- 2. There are findings indicating the goal being supported takes precedence (in the particular case) over another.

II. POLICY

Definition - A statement identifying Lake Oswego's position and a definitive course of action. Policies are more specific than goals. They often identify the City's position in regard to implementing goals. However, they are not the only actions the City can take to accomplish goals.

Obligation - The City must follow relevant policy statements when amending the Comprehensive Plan, or developing other plans or ordinances which affect land use such as public facility plans, and zoning and development standards or show cause why the Comprehensive Plan should be amended consistent with the Statewide Land Use Goals. Such an amendment must take place following prescribed procedures prior to taking an action that would otherwise violate a Plan policy. However, in the instance where specific plan policies appear to be conflicting, the City shall seek solutions which maximize each applicable policy objective within the overall context of the Comprehensive Plan and Statewide Goals. As part of this balancing and weighing process, the City shall consider whether the policy contains mandatory language (e.g., shall, require) or more discretionary language (e.g., may, encourage).

III. RECOMMENDED ACTION MEASURES

Definition - A statement which outlines a specific City project or standard, which if executed, would implement goals and policies. Recommended action measures also refer to specific projects, standards, or courses of action the City desires other jurisdictions to take in regard to specific issues. These statements also define the relationship the City desires to have with other jurisdictions and agencies in implementing Comprehensive Plan goals and policies.

Obligation - Completion of projects, adoption of standards, or the creation of certain relationships or agreements with other jurisdictions and agencies, will depend on a number of factors such as citizen priorities, finances, staff availability, etc.

Introduction

The City should periodically review recommended action measures to determine which are a priority to be accomplished in view of current circumstances, community needs and the City's goal and policy obligations.

These statements are suggestions to future City decision-makers as ways to implement the goals and policies. The listing of recommended action measures in the plan does not obligate the City to accomplish them. Neither do recommended action measures impose obligations on applicants who request amendments or changes to the Comprehensive Plan.

The list of recommended action measures is not exclusive. It may be added to or amended as conditions warrant.

Goal 1: Citizen Involvement



The City shall:

- a. Create opportunities for every interested citizen to be involved in all phases of the planning process to ensure that their concerns are heard;
- b. Encourage broadly based public participation including all geographic areas and diverse interests; and,
- c. Ensure regular and ongoing two-way communication between citizens and City elected and appointed officials.

Goal 1: Citizen Involvement

BACKGROUND

Statewide Planning Goal 1: Citizen Involvement

"To develop a citizen involvement program that insures the opportunity for citizens to be involved in all phases of the planning process."

The Comprehensive Plan represents the interests of all the citizens of Lake Oswego. The City is fortunate to have an active citizenry which cares about the community enough to become involved in all aspects of the planning process. The original Comprehensive Plan was developed over a four year period with substantial citizen involvement, extensive research and thorough review and hearing by public officials. The City's Citizen Involvement Program established nine citizen task forces to study issues and recommend policies for the Plan. A neighborhood association program was established as part of the process and 10 neighborhood associations were formed over that time period. Goals and policies were adopted in July of 1978. Acknowledgment by the Land Conservation and Development Commission occurred in 1984. At that time, seven boards and commissions also existed as advisory bodies to the City Council.

The first update of the Plan occurred in 1993. The Lake Oswego Comprehensive Plan Review Committee (LOCPRC) was created to review policy recommendations and to oversee the process. The LOCPRC reviewed new background information or changes in community preferences to see whether any policy changes needed to be made. A citizen involvement program was developed to ensure maximum participation in this process.

In 1993, Lake Oswego had 15 active, recognized neighborhood associations. In addition, 11 boards and commissions provide additional opportunities for citizen involvement in the planning process. Since 1984, the City has added an Arts Commission, East End Development Committee, Historic Review Board and a Natural Resources Commission to advise City Council on a variety of issues.

Summary of Major Issues

The following issues were identified and addressed through the 1993 update of the Comprehensive Plan:

- Rearranging the Plan so that it is easier to use;
- Reinforcing the concepts of "two-way communication" between citizens and policy makers and "receiving feedback from policy makers";

Goal 1 Citizen Involvement

Goal 1: Citizen Involvement

- Increasing compliance with Goal 1 by requiring Commission for Citizen Involvement members to be selected based on a wide variety of interests and geographic areas;
- Stating a need to make a resource commitment to citizen involvement; and,
- Introducing the concept of gearing the level of citizen involvement to the level of a planning effort.

GOALS, POLICIES AND RECOMMENDED ACTION MEASURES

GOAL

The City shall:

- a. Create opportunities for every interested citizen to be involved in all phases of the planning process to ensure that their concerns are heard;
- b. Encourage broadly based public participation including all geographic areas and diverse interests; and,
- c. Ensure regular and ongoing two-way communication between citizens and City elected and appointed officials.

POLICIES

- 1. Provide opportunities for citizen participation in preparing and revising local land use plans and ordinances.
- 2. Provide citizen involvement opportunities that are appropriate to the scale of a given planning effort. Large area plans, affecting a large portion of community residents and groups require citizen involvement opportunities of a broader scope than that required for more limited land use decisions.
- 3. Provide for and encourage formation of neighborhood organizations. These organizations, when recognized under the criteria outlined in the Citizen Involvement Guidelines, may:

1-2 LAKE OSWEGO COMPREHENSIVE PLAN

Goal 1 Citizen Involvement

Goal 1: Citizen Involvement

- a. Recommend neighborhood boundaries.
- b. Make policy and implementation recommendations on issues affecting its neighborhood.
- c. Engage in planning activities for its neighborhood and participate in community-wide planning issues.
- 4. Encourage citizens to participate through their neighborhood without excluding participation as individuals or through other groups.
- 5. Seek citizen input through service organizations, interest groups and individuals, as well as through neighborhood associations.
- 6. Establish and maintain a Commission for Citizen Involvement (CCI) to assist City Council in developing and maintaining a program to promote and enhance Citizen Involvement in land use planning and periodically evaluate that program. The CCI shall be broadly representative of geographic areas and interests, and members shall be selected by an open, well publicized process.
- 7. Clearly state the mechanism through which citizens will receive a response from City policy-makers, at the outset of the citizen involvement program.
- 8. Actively implement these Comprehensive Plan goals and policies and the Citizen Involvement Guidelines through the provision of adequate human, financial and informational resources.
- 9. Ensure that technical information necessary to make policy decisions is readily available in a simplified, understandable form.
- 10. Provide opportunities for citizens to be involved in the planning process, including data collection, plan preparation, adoption, implementation, evaluation and revision.
- 11. Appoint special purpose advisory bodies to aid in the development and implementation of detailed programs to carry out Comprehensive Plan elements.

Goal 1: Citizen Involvement

RECOMMENDED ACTION MEASURES

- Make available copies of all technical information, planning documents and staff reports, through the City Planning Department, the City Library, on a public access computer bulletin board and other locations, as appropriate.
- ii. Keep the public informed of opportunities for involvement in land use planning using a range of available media including newspaper notices, mailings, the City newsletter, television and meetings.
- iii. Provide for recognition of exceptional civic efforts.
- iv. Encourage student involvement in City government through working with the School District in developing curriculum.
- v. Provide opportunities for citizens to post information of civic interest in public buildings, as resources permit.
- vi. Utilize a variety of methods to provide citizens with information about land use issues and to get information from citizens about their policy preferences including:

WAYS TO GET INFORMATION FROM THE PUBLIC:

- Holding widely advertised public hearings in accessible meeting rooms.
- Using statistically valid surveys.
- Providing a "public comment" period at all public meetings to allow citizens to speak on topics not already specified in the agenda.
- Publicizing comments, ideas and recommendations obtained at community meetings and through the planning process.
- Holding meetings prior to the development of land use plans to solicit community preferences.

WAYS TO GIVE INFORMATION TO THE PUBLIC:

- Posting notices about important meetings or events in the newspaper, on a public access computer bulletin board, in conspicuous places where people frequent; such as supermarkets, post offices, library, City Hall, etc., and at affected properties.
- Producing summaries of important documents that are long or complex.
- Producing flyers or booklets describing hearing processes, such as how to provide testimony, the Oregon comprehensive land use planning system, etc.

1-4 LAKE OSWEGO COMPREHENSIVE PLAN

Goal 1 Citizen Involvement

Goal 1: Citizen Involvement

- Making the Comprehensive Plan, Zoning Ordinance, Development Code and other planning documents readily available.
- Maintaining a City newsletter.
- Using neighborhood newsletters as a vehicle to get information out.
- Providing a Speakers Bureau consisting of planners, local officials or others willing to speak to neighborhood associations, civic clubs and classes about planning issues and other City issues.
- Holding community meetings on topics of current interest in proximity to the topic of interest.
- Holding informational meetings in advance of public hearings to enable affected persons to understand proposals and to prepare for testimony.
- Utilizing existing communication vehicles (such as water bill mailings) to inform residents of issues.
- Providing realtors and welcoming organizations with information on how to get involved in order to inform new residents.
- vii. Establish citizen advisory boards and ad-hoc committees to advise staff, the Development Review Commssion, the Planning Commission, and City Council and other boards and commissions regarding City services and issues. These groups could include but would not be limited to, natural and historic resources, the arts, public library, traffic management and transportation, and parks and recreation services.

☐ Goal 1: Citizen Involvement

- Notes -

■ Section 2, Community Design and Aesthetics

Lake Oswego Main Fire Station



The City shall maintain and enhance the appearance and design quality of Lake Oswego.

■ Section 1, Land Use Policies and Regulations



Lake Oswego shall ensure that:

- a. The City's land use planning process and policy framework serve as a basis for all decisions and actions related to the use of land and;
- b. Land use regulations, actions, and related plans are consistent with, and implement the Comprehensive Plan.

Section 1, Land Use Policies and Regulations

BACKGROUND

Statewide Planning Goal 2: Land Use Planning

"To establish a land use planning process and policy framework as a basis for all decisions and actions related to the use of land and to assure an adequate factual basis for such decisions and actions."

Statewide Planning Goal 2 requires city, county, state and federal agency and special district plans* and actions related to land use to be consistent with the comprehensive plans* of cities and counties, and with regional plans adopted under ORS Chapter 268 (Metropolitan Service Districts).

Further, the goal requires land use plans to include identification of issues and problems, inventories, and other factual information for each applicable statewide planning goal. Evaluation of alternative courses of action and ultimate policy choices shall take into account consideration of social, economic, energy and environmental needs.

Specific implementation measures* shall be developed consistent with and adequate to carry out the Plan. Further, comprehensive plans and implementation measures shall be coordinated* with the plans of other affected governmental units.*

All adopted land use plans and implementing measures shall be periodically reviewed and revised to address changing public policies and circumstances.

Lake Oswego's quality of life and unique character depends, to a great extent, upon the character of development and the City's ability to provide needed and desired services. The Comprehensive Plan and implementing regulations are important tools to accomplish these objectives.

This element of the Plan establishes the planning process and regulatory basis for land use actions by the City. Land Use Planning goals, policies, and recommended action measures emphasize that all land use actions, regulations and codes shall be consistent with and implement the Comprehensive Plan. To this end, the following six broad policy issues are addressed by this element of the Comprehensive Plan:

- 1. All development shall conform to applicable land use regulations and City codes;
- 2. All development shall be adequately served by the full range of public facilities and services;
- 3. Development shall occur at densities appropriate to the scale and character of Lake Oswego's neighborhoods and shall provide for preservation of open spaces and natural resources;
- 4. City-wide, natural resources shall be protected and open space shall be provided concurrent with development;

Section 1, Land Use Policies and Regulations

- 5. Specific criteria shall be observed when considering amendments to the Comprehensive Plan; and,
- 6. The Plan shall be periodically reviewed and updated.

The legislative and regulatory context of land use planning in Lake Oswego has changed substantially since the first Comprehensive Plan was adopted in 1978. The City has amended or adopted new land use regulations and codes necessary to implement much of the initial Plan. There have also been many state legislative mandates in the last 16 years. The City has amended its zoning and development regulations extensively to comply with these new laws.

One of the most significant legislative changes which directly affects the Comprehensive Plan was ORS 197.628: Periodic Review, and its implementing Administrative Rules, OAR 660, Divisions 19 and 25. The Periodic Review Rule requires jurisdictions to review and update their plans on a periodic basis to address changing conditions and new laws. Concurrent with Periodic Review, cities and counties are required to show that adequate opportunities are provided for industrial and commercial development consistent with community need (OAR 660, Division 9). Lake Oswego adopted a Public Facility Plan (PFP) in 1997 [PA 1-97]. The applicable portions of the PFP and its subsequent updates are incorporated by reference into the Comprehensive Plan. The PFP shows how key public facilities can be provided to meet anticipated need per OAR 660, Division 11.

Lake Oswego's Periodic Review was accepted as complete and in conformance with relevant rules in December, 1993 by the Department of Land Conservation and Development (DLCD). The City also complies with the Metropolitan Housing Rule (OAR 660, Division 7). The Housing Rule requires Lake Oswego and other Portland Metropolitan Area cities to provide the opportunity for overall housing densities at a minimum of 10 units per acre and at a 50/50 multi-family/single family housing mix. In the future, Metro Regional Framework Plans and Functional Plans may require Lake Oswego and other communities to provide for greater housing densities in appropriate areas, such as the downtown commercial district and along identified major transit corridors, as a means to ensure a compact urban form in the Portland Metropolitan Area. Policies for industrial and commercial development, housing, and public facilities are also addressed within Comprehensive Plan chapters pertaining to Goal 9: Economic Development, Goal 11: Public Facilities and Services, Goal 12: Transportation, and Goal 10: Housing.

The character of Lake Oswego has changed since the Plan was first adopted. The community is now experiencing much less development than occurred in the past. This is because most of the developable land in the City has been built upon. Future development will likely consist of small land partitionings, infill, and redevelopment. There is some potential for larger scale development to occur within the unincorporated portion of the City's Urban Services Boundary. However, these areas must first annex to the City before required public facilities and services can be extended.

Section 1, Land Use Policies and Regulations

Summary of Major Issues

The following are some of the issues, changed circumstances and conditions which were considered in the update of this element of the Comprehensive Plan.

- Lake Oswego has either amended or adopted land use regulations and codes necessary to implement relevant portions of the 1978 Comprehensive Plan. The City also complies with state land use laws and administrative rules.
- Lake Oswego completed Comprehensive Plan Periodic Review and Update in December, 1993 as required by state statutes and administrative rules.
- As of 1994, Lake Oswego was mostly developed. Future development within the current City limits will likely consist of small land partitionings, infill and redevelopment.

GOALS, POLICIES AND RECOMMENDED ACTION MEASURES

GOAL

Lake Oswego shall ensure that:

- a. The City's land use planning processes and policy framework serve as a basis for all decisions and actions related to the use of land; and,
- b. The City's land use regulations, actions, and related plans are consistent with, and implement the Comprehensive Plan.

Section 1, Land Use Policies and Regulations

POLICIES

- 1. Require development to be adequately served by the full range of public facilities and services including: water, sanitary sewer, transportation facilities, fire and police protection, parks, open space, and recreation facilities, surface water management and storm drainage facilities, and schools. Services shall be available or committed prior to approval of development.
- 2. Ensure that required public facilities and services are constructed concurrently with development. System Development Charges (SDCs)* and other fees shall be imposed to adequately compensate the City for impacts on other public facilities and services.
- 3. Require development to conform to all applicable City land use regulations and codes.
- 4. Require land use regulations to:
 - a. Ensure the provision of park and open space lands, and protection of natural resources;
 - b. Promote compatibility between development and existing and desired neighborhood character;
 - c. Provide for the implementation of adopted neighborhood plans;
 - d. Provide for necessary public facilities and services;
 - e. Protect life and property from natural hazards;
 - f. Ensure architectural and site design quality; and,
 - g. Reduce dependency on the automobile on a per-capita basis.
- 5. Maintain residential neighborhoods at existing zone and plan density designations, except where:
 - a. Changes to higher residential density designations are necessary to be consistent with development on the subject property at the time of this policy's adoption; or,
 - b. An applicant demonstrates that a proposed zone/plan density change complies with the following criteria: [PA 4-97/ZC 3-97-1239; 10/21/97]
 - i. If the property is subject to an adopted neighborhood plan, the applicant shall comply with any special zone/plan density change criteria that may be required by the neighborhood plan; and
 - ii. The applicant shall comply with all Comprehensive Plan Policies and Goals applicable to zone/plan density changes. Such applicable Goals and Policies include, but are not limited to the following:

2.1-4 LAKE OSWEGO COMPREHENSIVE PLAN

Section 1, Land Use Policies and Regulations

- A. A proposed plan/map density change shall not allow development that would exceed the capacity of planned public facilities and services [Goal 2, Section 1, Policy 11; Goal 2 Section 1 Policy 14(b)] and shall be appropriately related to the capacity of such public facilities, especially residential streets [Goal 10, Policy 6];
- B. A proposed plan/map density change shall be appropriately located in relation to the functional classification of the access streets [Goal 2, Section 1 Policy 14(a)];
- C. Density changes shall be consistent with adjacent land uses or can be made compatible through the ability to buffer, screen and blend dissimilar land uses [Goal 2, Section 1, Policy 14(c)];
- D. A proposed plan/map density change shall address the effect of the change on overall land supply and shall comply with the Metro Housing Rule (OAR 666-07-000) [Goal 2, Section 1 Policy 14(d)];
- E. The applicant shall demonstrate a public need for the proposed plan/map density change and that the proposed change will best meet the need when compared to alternatives [Goal 2, Section 1 Policy 14(e)];
- F. The applicant shall demonstrate that the proposed density is appropriate for the location given public facilities, natural resources and hazards, road or transit access and proximity to commercial areas and employment concentrations [Goal 7, Policy 2; Goal 10, Policies 1 and 3];
- G. A plan/map residential density change to high density (R-0, R-2 and R-3) shall be located within walking distance to bus lines or transit centers [Goal 10, Policy 8] and, where feasible, shall be located within close proximity to employment opportunities, shopping, parks and transit [Goal 10, Policy 11]; and
- H. The applicant shall demonstrate that development allowed by the proposed zone/map residential density change will be compatible with the surrounding neighborhood, or can be made compatible pursuant to development review of an individual application pursuant to the criteria contained in the Zoning and Development Codes and Development Standards.

Section 1, Land Use Policies and Regulations

- 6. Require dedication or reservation of park lands or open space as part of all major development. The City may, at its discretion, require construction and dedication of recreation facilities when justified by the impacts of proposed development.
- 7. Ensure that land use regulations have sufficient flexibility to allow developers and the City to propose measures to:
 - a. Adapt development to unique and difficult site conditions;
 - b. Preserve open space and natural resources; and,
 - c. Avoid negative impacts on surrounding properties.
- 8. Ensure that development and implementation of the City's land use regulations and Comprehensive Plan minimize pressures to expand the Portland Metropolitan Urban Growth Boundary.
- 9. Require preservation of significant inventoried and identified natural resources as conditions of approval for all development.
- 10. Allow development at the maximum designated density when it is shown that:
 - a. Adequate public facilities and services can be provided;
 - b. Negative impacts can be resolved; and,
 - c. The development is in compliance with all applicable land use regulations.
- 11. Require that residential densities and allowed land uses within the Lake Oswego Urban Services Boundary not exceed the capacity of planned public facilities and services.
- 12. Allow development of permitted uses on legally created non-conforming lots subject to all applicable land use regulations.
- 13. Allow for legalization of previously created illegal lots and opportunity to develop these parcels, provided:
 - a. Development occurs pursuant to applicable land use regulations; and,
 - b. Negative impacts are prevented on the surrounding residential neighborhood.
- 14. Ensure that amendments to the Comprehensive Plan and Zoning Map are subject to specific locational criteria and other standards, including:
 - a. Location in relation to arterial or collector streets;
 - b. Capacity of public facilities and services;

2.1-6 LAKE OSWEGO COMPREHENSIVE PLAN

Section 1, Land Use Policies and Regulations

- c. Consistency with adjacent land use patterns or ability to buffer, screen and blend dissimilar land uses;
- d. Conformance with Comprehensive Plan goals and policies, applicable and adopted neighborhood plans and applicable land use regulations;
- e. Effect on overall land supply, and the Metro Housing Rule (OAR 660-07-000);
- f. Demonstration of public need for the change and that the proposed amendment will best meet identified public need versus other available alternatives; and,
- g. Other criteria determined necessary to ensure conformance with the Comprehensive Plan.
- 15. Review and update the Comprehensive Plan periodically, to ensure it:
 - a. Remains current and responsive to community needs;
 - b. Contains reliable information and provides dependable policy direction; and,
 - c. Conforms to applicable state law, administrative rules, and Metro requirements.
- 16. Upon determination it is in the public interest, legislative amendment to the Comprehensive Plan text and map may be initiated only by the Planning Commission or City Council. Any interested person may request that the Planning Commission or City Council initiate a legislative amendment to the Plan text or map.
- 17. Allow quasi-judicial Comprehensive Plan Amendments to be submitted at any time.
- 18. Develop and adopt specific Neighborhood Plans and implementing measures consistent with the Comprehensive Plan as the means to enhance neighborhood livability and achieve desired neighborhood character. A Neighborhood Association may request the Planning Commission and City Council to initiate Neighborhood Plan Map and text amendments at any time, without fee, upon finding that the proposed changes are in the public's interest and consistent with the Comprehensive Plan.
- 19. Review commercial, industrial, institutional and high density residential development to ensure the quality of building and site design, and overall appearance.
- 20. Allow major development to be designed and submitted for land use approval as planned unit developments to preserve open space, natural resources, and provide amenities.
- 21. Allow increased density and clustering of buildings on suitable portions of land proposed for development to preserve natural resources and open space.
- 22. Provide opportunities for mixed use commercial and residential development within commercial zones.

Section 1, Land Use Policies and Regulations

- 23. Coordinate the development and amendment of City plans and actions related to land use with other county, state, Metro, federal agency and special district plans.
- 24. Comprehensively evaluate proposed land use actions to determine the full range of potential negative impacts and require applicants to provide appropriate solutions prior to approval.
- 25. Require developers to bear the burden of proof to demonstrate how proposed land use actions are consistent with the Comprehensive Plan and applicable codes and land use regulations.
- 26. Require developers, prior to application for permits, to discuss development proposals with neighborhood groups, residents and City staff.
- 27. Require new residential development of four or more units to address all of the following design criteria:
 - a. Preservation of required open space and natural resources;
 - b. Provision of a street system which provides efficient connection to higher order streets and major activity centers;
 - c. Development of transit opportunities appropriate to the scale and character of the development;
 - d. Development of a safe and convenient pedestrian and bicycle circulation system;
 - e. Management of surface water and storm drainage consistent with the City's Surface Water Management Plan;
 - f. Assurance of privacy and quiet for future residents and abutting properties;
 - g. Energy conservation measures such as energy efficient design and solar access, and the preservation of trees and the planting of new trees to provide summer cooling;
 - h. Buffering and screening from adjacent uses and streets;
 - i. Building placement and locational relationships;
 - j. Provision of adequate emergency vehicle access; and,
 - k. Reduction of dependency on the automobile on a per-capita basis.
- 28. Maintain a Development Review Commission and Planning Commission to review quasi-judicial and legislative land use matters and, when necessary, make recommendations to the City Council.

Section 1, Land Use Policies and Regulations

RECOMMENDED ACTION MEASURES

- i. Develop a Public Facilities Plan* and an implementing Capital Improvement Program* to coordinate and guide the location, financing and timing of new public facilities.
- ii. Encourage Clackamas County to grant land use planning and development authority to the City for lands within the unincorporated Urban Services Boundary.
- iii. Coordinate review of new development proposals with the Lake Oswego School District to determine impacts on the local school system.
- iv. Prioritize public facility plan projects as follows:
 - a. Correction of system deficiencies necessary to ensure public safety;
 - b. Protection of the community's investment in existing infrastructure;
 - c. Provision of service to allow new development within the City limits, except when paid for by the developer; and,
 - d. Provision of service necessary for annexation of unincorporated areas, except when paid for by those desiring the service.
- v. Planning for new public facilities and services shall consider:
 - a. The costs and benefits of expansion and whether costs can be equitably allocated to those creating demand;
 - b. The financial capacity of the City;
 - c. Environmental impacts of facility construction;
 - d. Need to accommodate future land uses and population growth; and,
 - e. Coordination with other required public facilities and services.
- vi. When allowed, density bonuses shall not:
 - a. Exceed 25% of the allowed zoning density on the development site;
 - b. Cause the capacity of public facilities and services to be exceeded; or,
 - c. Result in the loss of required open space and natural resources.
- vii. Establish engineering, planning, inspection and other fees and charges which are reasonably related to the administrative costs required to review and monitor development.
- viii. Periodically review and update system development charges and other development related fees to ensure equitable compensation to the City for impacts on public facilities and services.

Section 1, Land Use Policies and Regulations

- ix. Undertake periodic review and update of the Lake Oswego Comprehensive Plan every four to seven years.
- x. Evaluate the following concurrent with each periodic review or major revision of the Plan:
 - a. Consistency among the Plan, implementing City regulations, adopted neighborhood plans, state and federal law and administrative rules, and Metro requirements;
 - b. Past and ongoing City actions to determine if the intent of the Plan is being achieved; and,
 - c. Reliability and timeliness of Plan information.
- xi. Prioritize recommended action measures, and Public Facility Plan and Capital Improvement Program projects to implement desired Plan goals and policies.
- xii. Work with responsible federal, state, and regional agencies to acquire information relevant to the City's land use planning program as it becomes available.
- xiii. Encourage Clackamas County to participate in the development and implementation of neighborhood planning programs for areas within the unincorporated portion of the Urban Services Boundary.
- xiv. Encourage all development to utilize innovative site and building design.
- xv. Require all applications for major development to include an analysis of the development site and surrounding area which identifies:
 - a. Natural characteristics, features and potential hazards;
 - b. Topography;
 - c. Land use and transportation characteristics;
 - d. Availability and capacity of public facilities and services;
 - e. Existing structures and historic features; and,
 - f. Other factors determined necessary.
- xvi. Provide adequate resources and personnel to:
 - a. Implement the Comprehensive Plan;
 - b. Monitor changing conditions which could affect City land use policy; and,
 - c. Conduct periodic review and update of the Plan.

■ Section 1, Land Use Policies and Regulations

■ Section 1, Land Use Policies and Regulations

- Notes -

Goal 5: Open Spaces, Historic & Natural Areas

☐ Section 1, Fish and Wildlife Habitat

Lily Bay (Frog Pond)



Lake Oswego shall preserve and restore environments which provide fish and wildlife habitat.

Section 2, Community Design and Aesthetics

BACKGROUND

Statewide Planning Goal 2: Land Use Planning

"To establish a land use planning process and policy framework as a basis for all decisions and actions related to the use of land and to assure an adequate factual basis for such decisions and actions."

This element of the Comprehensive Plan is intended to ensure that Lake Oswego has the ability to enact and implement regulations and standards to govern appearance and design quality of development. This is significant because community aesthetics and design quality are important to Lake Oswego in many ways. The overall image that a community projects to others is strongly based on its appearance. In residential areas, appearance directly affects property values, neighborhood stability and residents' sense of well being. Commercial areas have a vital stake in their aesthetic quality. A pleasant and comfortable shopping environment attracts customers and encourages them to stay and thus affects the economic health of the community.

GOALS, POLICIES AND RECOMMENDED ACTION MEASURES

GOAL

The City shall maintain and enhance the appearance and design quality of Lake Oswego.

POLICIES

- 1. Enact and maintain regulations and standards which require:
 - a. New development to enhance the existing built environment in terms of size, scale, bulk, color, materials and architectural design;
 - b. Landscaping;
 - c. Buffering and screening between differing land uses; and,
 - d. Measures to foster a safe and interesting transit and pedestrian environment.

■ Section 2, Community Design and Aesthetics

- 2. Require developers to submit site and building plans for all proposed new development which show building, site and landscape designs for all development phases.
- 3. Enact and maintain sign regulations to prevent adverse visual impacts on the community.
- 4. Ensure that both public and private development enhance the aesthetic quality of the community.
- 5. Establish and enforce regulations to abate unsightly conditions and other nuisance situations.

RECOMMENDED ACTION MEASURES

- i. Periodically review and update regulations to address issues of community appearance and public nuisances.
- ii. Encourage developers to utilize qualified design professionals to enhance the visual quality of development.
- iii. Develop design standards and guidelines to improve community appearance.
- iv. Work with Neighborhood Associations to develop neighborhood design standards and guidelines as part of Neighborhood Plans.

Section 1, Fish and Wildlife Habitat

BACKGROUND

Statewide Planning Goal 5: Open Spaces, Scenic and Historic Areas, and Natural Resources

"To conserve open space and protect natural and scenic resources."

Statewide Planning Goal 5 requires communities to provide programs that will 1) ensure open space; 2) protect scenic and historic areas and natural resources for future generations; and 3) promote healthy and visually attractive environments in harmony with the natural landscape character. Goal 5 also requires communities to inventory Goal 5 resources, including fish and wildlife areas and habitats. The inventory is required to include a description of the location, quality and quantity of these resources, and an identification of conflicting uses. Where no conflicting uses have been identified, resources shall be managed so as to preserve their original character. Where conflicting uses have been identified, the economic, social, environmental and energy (ESEE) consequences shall be determined and programs developed to achieve the goal.

A variety of environments exist in Lake Oswego which provide fish and wildlife habitat. These areas include remnants of native woodlands, open fields, wetlands and waterbodies such as Oswego Lake, the Willamette River and numerous year-round and intermittent streams. Mature landscapes and trees within developed areas are also valuable to several wildlife species. Furthermore, properly managed private property, including residential lots, can provide valuable nesting, food and cover.

Two natural resource inventories for the Lake Oswego planning area have been conducted over the past 18 years. The 1975 LOPRI (Lake Oswego Physical Resources Inventory) was conducted by community volunteers. It provided much of the information needed to develop the natural resource element of the 1978 Comprehensive Plan. In 1992 a new natural resources inventory was developed by an environmental consulting firm. It consisted of more location-specific data than the 1975 inventory, and specifically; rates the quality of water resources such as wetlands, streams and lakes according to their wildlife habitat values.

The following summarizes the major findings and recommendations of the 1992 Natural Resources Inventory:

- Water is critical to all wildlife species, and should be the basis of establishing a comprehensive network of open spaces to host wildlife. Water must be of good quality and be accessible.
- The habitat immediately adjacent to water resources should be protected to provide food, cover, and shelter for wildlife.

Section 1, Fish and Wildlife Habitat

- Linkages between various habitats to ensure safe passage to food, water, nesting, and cover is critical for wildlife survival.
- There has been a decline in certain wildlife habitat types within the Lake Oswego planning area. Areas
 of oak/ash wetlands, open agricultural fields which assist migratory birds, and forested slopes, have
 been lost due to development.
- Improper management of public and private lands, such as removal of native vegetation, planting of
 invasive flora, and use of herbicides and pesticides have contributed to the decline of wildlife populations.
- Urban open spaces do not maintain their quality without active management. There has been a serious
 invasion of nuisance plants which have degraded the quality of wildlife habitat in many open spaces
 within the City. Blackberries and English ivy have eliminated native ground cover over large areas of
 stream corridors in the planning area, and purple loosestrife is a problem in wetlands.
- Most streams have been degraded by erosion, tree cutting and removal of undergrowth vegetation and
 course changes resulting from construction, especially sanitary sewers. Illegal dumping in wetlands and
 along streams has also degraded these resources. Stormwater-borne chemicals used in landscape
 maintenance and agriculture, and petroleum residues from streets and parking lots also have negative
 impacts on Lake Oswego's stream corridors.

The following four major recommendations were made by the 1992 Lake Oswego Natural Resources Inventory.

- 1. Wetlands and water resources should be protected and enhanced by using buffers, removing invasive plants, planting native vegetation and providing stream corridor setbacks that leave steep, forested banks intact.
- 2. Trees and tree groves should be preserved. The remaining large forested stands should be protected from fragmentation, and forested areas on steep slopes should remain undeveloped as they are one of the last refuges for wildlife.
- 3. Linkages between uplands and wetland/water resources should be created and protected where already existing to provide wildlife travel corridors. Urban deer populations and other wildlife species, require safe passages to access food, water, and cover.
- 4. New City policies, ordinances and zoning and development standards are required to protect natural resources.

5.1-2 LAKE OSWEGO COMPREHENSIVE PLAN

Section 1, Fish and Wildlife Habitat

Summary of Major Issues

The following are some of the issues and changed circumstances and conditions which were considered in the update of this element of the Comprehensive Plan.

- A new location-specific natural resources inventory was conducted in 1992.
- A decline in wildlife habitat has occurred since the Comprehensive Plan was first adopted as a result of urban development; lack of proper management of urban open spaces; restriction of access to a variety of habitats; tree cutting and fragmentation of forested areas; and, degradation of stream corridors.

GOALS, POLICIES, AND RECOMMENDED ACTION MEASURES

GOAL

Lake Oswego shall preserve and restore environments which provide fish and wildlife habitat.

POLICIES

- 1. Preserve and restore natural resources and lands which are important to fish and wildlife habitat including:
 - a. Wetlands, water bodies, stream corridors and associated vegetation;
 - b. The Willamette Greenway and the Urban Service Boundary's (USB) floodplains and floodways;
 - c. Surfacewater and groundwater quality;
 - d. Tree cover and understory vegetation, including downed trees and nesting snags; and,
 - e. Upland areas, especially forested hillsides.
- 2. Protect rare, threatened, and endangered fish and wildlife species and their associated habitats.
- 3. Preserve and restore fish and wildlife habitat through:

■ Section 1, Fish and Wildlife Habitat

- a. Land and habitat management practices on public and private lands; and,
- b. Providing linkages to various habitats for access and safe passage of wildlife to food, water, nesting and cover.
- 4. Require developers to preserve and restore inventoried and identified fish and wildlife habitat through:
 - a. Site design and development standards and construction methods;
 - b. Preservation of habitat associated with floodways and floodplains and their meandering channels;
 - c. Protection, restoration and buffering of wetlands, stream corridors, water bodies; and,
 - d. Protection and restoration of upland habitat, especially forested hillsides.
- 5. Require the preservation or establishment and ongoing maintenance of vegetated buffer areas when development occurs on property adjacent to stream corridors and wetlands.
- 6. Preserve and restore native plant communities to provide wildlife food, cover and nesting opportunities.
- 7. Provide public education to promote preservation and enhancement of fish and wildlife habitat.
- 8. Utilize a systems-wide management approach to preserve, restore and manage fish and wildlife habitat.
- 9. Ensure linkage among wildlife habitat areas as a key component of the Lake Oswego parks, open space and surface water management systems.
- 10. The City shall emphasize protection rather than mitigation of fish and wildlife habitat functions and values.

RECOMMENDED ACTION MEASURES

- i. Provide for a combination of incentives and regulatory measures to influence development to preserve and restore fish and wildlife habitat.
- ii. Provide for fish and wildlife habitat through measures such as:

5.1-4 LAKE OSWEGO COMPREHENSIVE PLAN

Section 1, Fish and Wildlife Habitat

- a. Preservation and reestablishment of wetlands and waterbodies and native plant communities; and,
- b. Maintenance practices and landscaping to provide food, nesting and cover.
- iii. Participate with state and federal agencies and private groups to protect rare and endangered species identified within the Urban Services Boundary.
- iv. Develop a connected open space network within the Lake Oswego Urban Services Boundary which:
 - a. Provides fish and wildlife habitat in conjunction with passive recreation opportunities, and;
 - b. Connects to open space lands in surrounding jurisdictions.
- v. Preserve sensitive and critical wildlife habitat through methods such as special development regulations, land acquisition, purchase of development rights, land trades, transfer of development rights, etc.
- vi. Implement a systems-wide management approach to protect, restore and manage fish and wildlife habitat which:
 - a. Monitors the health of the area's fish and wildlife habitat through periodic surveys and inventories;
 - b. Determines those responsible for public and private open space maintenance and restoration activities;
 - c. Sustains a program to remove invasive plant species;
 - d. Coordinates with conservation groups, other agencies, and jurisdictions; and,
 - e. Provides public education and awareness of habitat issues.
- vii. Encourage fences to be designed and built so as not to restrict wildlife access to habitat and waterbodies.
- viii. Cooperate with the Oregon State Parks Division, conservation groups and other jurisdictions and agencies to enhance the unique fish and wildlife habitat values of the Willamette River Greenway.
- ix. Encourage Metro and Clackamas County to identify and protect fish and wildlife habitat in areas outside the Urban Growth Boundary and adjacent to Lake Oswego, especially in the Stafford Area.

■ Section 1, Fish and Wildlife Habitat

- x. Provide ongoing funding to implement fish and wildlife habitat and open space acquisition and management programs.
- xi. Establish environmental overlay zones to protect significant wildlife habitat areas.
- xii. Encourage schools and local organizations to provide public education opportunities regarding preservation and improvement of wildlife habitat within northwest ecosystems.

Goal 5: Open Spaces, Historic & Natural Areas

☐ Section 2, Vegetation

View From Iron Mountain Cliffs



The City shall protect and restore the community's wooded character and vegetation resources.

Section 2, Vegetation

BACKGROUND

Statewide Planning Goal 5: Open Spaces, Scenic and Historic Areas, and Natural Resources

"To conserve open space and protect natural and scenic resources."

Statewide Planning Goal 5 requires communities to provide programs that will: 1) ensure open space; 2) protect scenic and historic areas and natural resources for future generations; and 3) promote healthy and visually attractive environments in harmony with the natural landscape character. Goal 5 requires communities to inventory Goal 5 resources, including ecologically significant natural areas, of which vegetation is an important element. The inventory is required to include a description of the location, quality and quantity of these resources, and an identification of conflicting uses. Where no conflicting uses have been identified, resources must be managed so as to preserve their original character. Where conflicting uses have been identified, the economic, social, environmental and energy (ESEE)* consequences shall be determined and programs developed to achieve the goal.

Vegetation is an integral part of Lake Oswego's environment. It is valuable for its aesthetic qualities and contribution to air and water quality, wildlife habitat, shade, and erosion control. Vegetation resources also support recreational opportunities and contribute substantially to Lake Oswego's distinctive character.

Much of the native vegetation in Lake Oswego's Urban Services Boundary (USB) has been displaced, first by agriculture and logging, and more recently, by urban development. Also, competition from introduced species such as English ivy, reed canary grass, and blackberries has made it difficult for native plant communities to reestablish themselves. However, many areas of environmentally significant vegetation still remain within the USB. These natural resource sites include vegetation in and around Oswego Lake, the Willamette River, wetlands, stream corridors and native tree groves. In addition, Lake Oswego has many outstanding non-native trees and ornamental plant materials.

Some of Lake Oswego's vegetation resources have been inventoried by two studies: the 1975 Lake Oswego Physical Resources Inventory (LOPRI), and the Lake Oswego Natural Resources Inventory, completed in 1992. The 1992 study described and evaluated tree groves, and the natural values and functions of vegetation within wetlands and stream corridors as follows:

■ Section 2, Vegetation

- Tree Groves: Tree groves within Lake Oswego's Urban Services Boundary include coniferous, and mixed deciduous/coniferous stands of trees. The area's remaining forested areas and tree groves are located mostly on steep hillsides, dry rocky bluffs, in or near wetlands and along streams. Tree groves are valuable wildlife habitat, recreation and aesthetic resources. In addition, forested areas improve air quality, provide wildlife habitat, shade and stabilize steep slopes.
- Wetlands: The Lake Oswego area has both emergent wetlands, where grasses are the dominant plant
 community, and forested wetlands, which are dominated by trees and woody vegetation. Vegetation
 is essential for wetlands to perform the important natural functions of storm water storage, improvement of water quality, erosion control, ground water recharge and the provision of fish and wildlife
 habitat.
- Stream Corridors: Stream corridors are located throughout the Lake Oswego Area. Vegetation
 within stream corridors lessens downstream flooding and benefits water quality by slowing runoff and
 preventing erosion. Also, stream corridors provide vegetated corridors necessary for wildlife habitat
 and travel.

The Lake Oswego Tree Cutting Ordinance (LOC 55) regulates the removal of trees. In addition, the City's land use regulations also provide some protection for individual trees and tree groves and vegetation within stream corridors, wetlands, floodplains, hillsides and the Willamette Greenway. Further, conditions of approval can be applied through the development review process to preserve significant vegetation. Lake Oswego's regulations also require the preservation of certain rare plant species.

Landscaping and tree plantings on private and public property enhance the aesthetic character of Lake Oswego and also provide other benefits such as shade, wildlife habitat and buffering and screening among different types of land uses. Landscaping is required by the City's development standards for all major development. Also, the City's erosion control and hillside protection standards require the use of vegetation as a means to control soil erosion.

Summary of Major Issues

The following are some of the issues, changed circumstances and conditions which were considered in the update of this element of the Comprehensive Plan.

- The 1975 Lake Oswego Physical Resources Inventory (LOPRI) was updated in 1992 by the Lake Oswego Natural Resources Inventory.
- There has been an overall loss of native vegetation in Lake Oswego since the 1975 LOPRI.

5.2-2 LAKE OSWEGO COMPREHENSIVE PLAN

Section 2, Vegetation

Lake Oswego's development regulations provide for varying levels of protection for vegetation. Landscaping is required to be installed as part of all major development.

GOALS, POLICIES AND RECOMMENDED ACTION MEASURES

GOAL

The City shall protect and restore the community's wooded character and vegetation resources.

POLICIES

- 1. Protect, restore and maintain existing vegetation which has environmental, wildlife habitat and aesthetic qualities, including tree groves and forested hillsides and vegetation associated with wetlands, stream corridors and riparian areas.
- 2. Protect, restore and maintain native plant communities, including identified threatened plant species.
- 3. Require developers to maximize the preservation of trees and to maintain and enhance the cohesive quality of tree groves through:
 - a. Site design and construction methods; and,
 - b. Open space dedication of areas which contain these resources.
- 4. Require the protection of significant or historic individual trees pursuant to a heritage tree protection program.
- 5. Ensure vegetation is maintained, protected and restored through:
 - a. Regulation of tree removal;
 - b. Conditions of development approval;
 - c. Monitoring of development to ensure compliance with the City's regulations and conditions of development approval; and,
 - d. Enforcement of regulations.

Section 2, Vegetation

- 6. Require landscaping for all development other than individual single family dwellings and duplexes to:
 - a. Visually enhance development projects;
 - b. Provide buffering and screening between differing land uses;
 - c. Reduce surface water runoff, improve water quality and maintain soil stability;
 - d. Provide wildlife habitat; and,
 - e. Reduce energy use by using vegetation for shade and windbreaks.
- 7. Require the establishment and maintenance of landscaped areas in all new parking lots and expansion of existing lots, to provide shade and visual amenity. Parking lot landscaping shall emphasize:
 - a. The planting of broad spreading trees for shade and to mitigate the negative visual and environmental impacts of parking lots; and,
 - b. Effective screening and buffering between parking lots and adjacent uses.
- 8. Require tree planting for all development other than individual single family homes and duplexes, unless landscape standards are met by existing vegetation. When required, trees shall be planted along the street and throughout the development site.
- 9. Allow innovative site and building design including the clustering of buildings to preserve trees and other vegetation.
- 10. Ensure the continued maintenance of vegetation required pursuant to development approval, within landscaped and common areas.
- 11. Design and construct public works projects to preserve existing vegetation to the extent practical.
- 12. Protect and enhance vegetation resources within rights-of-way and other public lands through measures such as:
 - a. Regulations to protect public trees;
 - b. The provision of adequate right-of-way to ensure sufficient space for tree planting; and,
 - c. An ongoing planting and maintenance program for trees and other vegetation in public rights-of-way, open spaces and parks.
- 13. Preserve natural resource sites, through public acquisition and other methods such as conservation easements, to permanently limit development.

5.2-4 LAKE OSWEGO COMPREHENSIVE PLAN

Section 2, Vegetation

14. The City shall emphasize protection rather than mitigation of the functions and values of vegetation.

RECOMMENDED ACTION MEASURES

- i. Maintain a database of overall tree cover, threatened plant species, tree groves and significant individual trees within Lake Oswego's Urban Services Boundary.
- ii. Support neighborhood and community efforts to reestablish native plant communities, especially on hillsides, and in wetlands and stream corridors.
- iii. Provide information to the general public and developers regarding:
 - a. Tree maintenance and preservation;
 - b. Landscape design and the appropriate use of plant materials;
 - c. Protection of trees and other vegetation during construction;
 - d. Native plant materials that are low maintenance, drought tolerant and which enhance wildlife habitat; and,
 - e. The value that vegetation resources lend to both private property and the community.
- iv. Encourage Clackamas County to protect tree groves and other significant vegetation within the unincorporated portion of the USB, and to require landscaping and tree planting for all development other than individual single-family homes and duplexes within the area.
- v. Promote landscapes on public lands which are low-maintenance, drought-tolerant, require minimal chemical application and which support wildlife habitat.
- vi. Encourage neighborhood associations, schools and service clubs to participate in community improvement activities such as tree planting and natural area rehabilitation projects.
- vii. Encourage private property owners to protect and restore vegetation resources through measures such as:
 - a. Improvement and maintenance of existing landscapes, including replanting when vegetation is removed;
 - b. Tree planting on the grounds of institutions such as schools and churches; and,
 - c. A voluntary protection program, such as a "Heritage Tree Program" for significant trees.

■ Section 2, Vegetation

- viii. Encourage the use of native plant materials on both public and private property.
- ix. Establish regulations which prevent the use of destructive and nuisance plant materials such as English ivy as part of required landscaping.

Goal 5: Open Spaces, Historic & Natural Areas

☐ Section 3, Wetlands

Bryant Woods Nature Park



The City shall protect, maintain, enhance and restore wetlands.

Section 3, Wetlands

BACKGROUND

Statewide Planning Goal 5: Open Spaces, Scenic and Historic Areas, and Natural Resources

"To conserve open space and protect natural and scenic resources."

Wetlands* are an important part of Lake Oswego's environment. They are valuable for many reasons including storm water storage, erosion control, water quality enhancement, ground water recharge and fish and wildlife habitat. Also, wetlands contribute to the community's aesthetic quality and provide opportunities for recreation and education.

Many of the wetlands within Lake Oswego's Urban Services Boundary (USB) have been lost or significantly degraded by development. In the past, development activities have filled and drained wetlands, removed vegetation and interrupted or diverted water flows. However, wetlands still exist within the City's USB.

Lake Oswego's wetlands have been inventoried by two studies: the 1975 Lake Oswego Physical Resources Inventory (LOPRI) and the Lake Oswego Natural Resources Inventory, completed in 1992. The 1992 study described three different types of wetland sites within the USB as follows:

- Emergent Wetlands: The dominant plant communities in these wetlands are rushes, sedges and grasses. Although many of these wetlands often appear to be dry grassy meadows in the summer, they are wet in the winter and early spring. They often serve as significant habitat for migrating and wintering waterfowl. They often function as temporary storage areas for runoff and traps for sediment, nutrients and pollution carried by storm water.
- Forested Wetlands: These wetlands are seasonally flooded and located in low lying areas, near springs or seeps or adjacent to stream corridors. The typical plant community consists of a multi-layered canopy of cottonwoods, oaks, ashes, willow and a complex understory shrub community. This multi-layered canopy provides cover, food, nesting and perching sites for wildlife. Forested wetlands also provide flood storage and water quality enhancement by filtering sediment and nutrients from storm water.
- Ponds: These resources consist of natural ponds, abandoned quarries, and ponds created for storm water detention and agricultural uses. Ponds provide a year-round water source for wildlife including waterfowl. Their value as wildlife habitat increases when they are located adjacent to upland wildlife habitat. When ponds are adjacent or within stream corridors they may slow storm water runoff and alleviate flooding in downstream areas. Also ponds can serve to enhance water quality by trapping and filtering sediment, nutrients and pollutants.

Section 3, Wetlands

Wetlands are regulated at the federal, state and local levels under the 1977 Clean Water Act (CWA), which is administered by the Environmental Protection Agency in conjunction with the U.S. Army Corps of Engineers (COE). The objective of the CWA is to restore and maintain the physical and biological integrity of the nation's waters, including wetlands. Filling and dredging of jurisdictional wetlands is prohibited without a permit from the COE. "Jurisdictional" wetlands occur in any instance where the three indicators of wetlands are present, including hydric soils that exhibit distinct characteristics of soils that have been fully inundated, vegetation typically adapted for life in saturated soils (hydrophytic vegetation), and saturation by surface water or ground water at a sufficient duration to support hydrophytic vegetation.

In Oregon, the Division of State Lands (DSL) regulates wetlands and issues permits in conjunction with the COE. However, regulatory authority of these agencies pertains only to dredging and filling, with only limited oversight over other activities such as draining and clearing vegetation. In Oregon, the Oregon Revised Statutes, ORS 837, the Wetland Protection Act, requires cities to notify DSL of development activities for wetlands on National Wetland Inventory maps. ORS 196 regulates removal and fill activities in waters of the state, including all natural waterways, rivers, lakes, ponds and wetlands. Only activities that propose removal, filling or alteration of more than 50 cubic yards of material from a wetland require a permit from the state.

Oregon Administrative Rules for Oregon Statewide Planning Goal 5 allow jurisdictions to develop wetland protection programs specific to their communities. Local jurisdictions may provide expanded protection to wetlands beyond what state agencies have authority over. For instance, a jurisdiction may control vegetation clearing and draining and may require buffer areas when a wetland is developed.

Oregon Statewide Planning Goal 5 requires communities to inventory Goal 5 resources, including ecologically significant natural areas, of which wetlands are an important element. The inventory is required to include a description of the location, quality and quantity of these resources and an identification of conflicting uses. Where no conflicting uses have been identified, resources must be managed so as to preserve their original character. Where conflicting uses have been identified, the economic, social, environmental and energy (ESEE)* consequences shall be determined and programs developed to provide an appropriate level of protection.

Wetlands are protected pursuant to the City's Sensitive Lands Program.

Section 3, Wetlands

Summary of Major Issues

The following are some of the issues, changed circumstances and conditions which were considered in the update of this element of the Comprehensive Plan.

- The 1975 Lake Oswego Physical Resources Inventory (LOPRI) was updated in 1992 by the Lake Oswego Natural Resources Inventory. An ESEE analysis of wetlands identified in the Natural Resources Inventory was conducted in 1994.
- Many of the wetlands within Lake Oswego's USB have been lost or significantly degraded by development.
- Development activities which could impact wetlands are regulated at the federal, state, and local levels. Statewide Planning Goal 5 allows jurisdictions to protect additional wetlands and apply more stringent regulations subject to the (ESEE) process.

GOALS, POLICIES AND RECOMMENDED ACTION MEASURES

GOAL

The City shall protect, maintain, enhance and restore wetlands.

POLICIES

- 1. Protect, maintain, enhance, and restore the natural functions and values* of wetlands including enhancement of water quality, flood protection, fish and wildlife habitat, open space and natural areas.
- 2. Designate wetlands within a Resource Protection District overlay zone on the Comprehensive Plan Land Use Map.
- 3. Enact and enforce standards and ordinances which regulate development, including filling and grading, within delineated wetlands, wetland buffer* areas and buffer edges. These regulations shall require:

Section 3, Wetlands

- a. Preservation of the natural functions and values of wetlands;
- b. No net loss of the total inventoried area of wetlands within Lake Oswego;
- c. That wetlands which are designated as "distinctive natural areas," are forested or which contain rare or endangered plant or animal species, shall have the highest level of protection; and,
- d. Preservation of wetlands, wetland buffer areas and buffer edges through dedication, deed restrictions, covenants and other means as a condition of development on properties containing such features.
- 4. Require activities which use wetlands to be compatible with the preservation of wetland functions and values. These activities include uses such as public and private recreation, surface water management and flood control.
- 5. Require the review of any development proposal that could impact a wetland with the appropriate local, state and federal agencies.
- 6. Require all public and private development, including fill, removal and grading, proposed within or adjacent to wetlands to:
 - a. Incorporate and maintain wetland features, functions and values in the project design, such as ponds, streams, marshes, wetland vegetation, and fish and wildlife habitat;
 - b. Preserve non-invasive vegetation and provide and maintain buffer areas around wetlands; and.
 - Prevent the placement of contaminants or discharge of water pollutants into wetlands or buffer areas.
- 7. Allow development density on parcels containing wetlands to be transferred to other portions of the development site when wetlands and the required buffer areas are permanently dedicated as open space.
- 8. Allow innovative site and building design, including the clustering of buildings to preserve wetlands.
- 9. The City shall emphasize protection rather than mitigation of the functions and values of wetlands.

Section 3, Wetlands

RECOMMENDED ACTION MEASURES

- i. Utilize wetlands as part of the City's Surface Water Management Program to enhance water quality, recharge groundwater and retain surface runoff.
- ii. Encourage Clackamas County to protect wetlands within the unincorporated portion of the Lake Oswego Urban Services Boundary (USB).
- iii. Develop and maintain an inventory of wetlands and their respective natural resource functions and values within Lake Oswego's Urban Services Boundary.
- iv. Support community efforts to restore and maintain wetlands.
- v. Preserve wetlands and other natural resource sites through public acquisition, conservation easements and other methods which permanently limit development.
- vi. Provide information to the general public and developers regarding the importance of wetlands to the community and ways in which they can be protected and restored.
- vii. Discourage activities and uses within the Urban Services Boundary which could harm wetlands, such as those whose effects could result in:
 - a. Interruption or diversion of water flows;
 - b. Discharge of water pollutants or contaminants, including sediment, into wetlands or buffer areas; and,
 - Negative impacts on adjacent natural systems such as forested areas, wildlife habitat and stream corridors.

☐ Section 3, Wetlands

- Notes -

Goal 5: Open Spaces, Historic & Natural Areas

☐ Section 4, Stream Corridors

Ball Creek



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

Section 4, Stream Corridors

BACKGROUND

Statewide Planning Goal 5: Open Spaces, Scenic and Historic Areas, and Natural Resources

"To conserve open space and protect natural and scenic resources."

Statewide Planning Goal 5 requires communities to provide programs that will: 1) ensure open space; 2) protect scenic and historic areas and natural resources for future generations; and 3) promote healthy and visually attractive environments in harmony with the natural landscape character. Goal 5 requires communities to inventory natural resources, including streams. The inventory is required to include a description of the location, quality and quantity of these resources, and an identification of conflicting uses. Where no conflicting uses have been identified, resources must be managed so as to preserve their original character. Where conflicting uses have been identified, the economic, social, environmental and energy (ESEE)* consequences shall be determined and programs developed to achieve the goal.

Lake Oswego has a complex geography with many steep, wooded hillsides and streams that flow from the higher areas into the Tualatin River, Oswego Lake and the Willamette River. The community has grown around its streams, which course through residential and commercial areas. In the older areas of the community, most streams have been placed in pipes and culverts below the surface. In more recent developments, most streams are in open channels and are often within protected open space areas. Current planning practices discourage channelization because streams left in an open, natural state can be utilized for effective, economical water conveyance and water quality management.

A stream corridor is the stream channel and adjacent stream banks formed by erosion and water flow over time. Streams were initially identified and described in the 1975 Lake Oswego Physical Resources Inventory (LOPRI) and selected streams were also included in the 1992 Natural Resources Inventory. There are 28 major stream corridor drainage basins within Lake Oswego's Urban Services Boundary (USB), according to the 1992 Surface Water Management Plan. Streams can be seasonal or year-round, and sometimes run below the surface or into canals that feed Oswego Lake. Stream corridors provide many valuable functions in the community. They are essential components of Lake Oswego's surface water management system because they convey and store storm water and help control flooding. Streams also provide habitat and travel corridors for wildlife, and are valued by residents for their open space and aesthetic aspects. They are often found in conjunction with other natural areas such as wetlands and tree groves.

Stream corridors and their associated riparian* vegetation are especially sensitive natural areas that are susceptible to environmental degradation. Many stream corridors in Lake Oswego are naturally unstable and prone to erosion due to steep banks, the inherent characteristics of soils which occur in these areas and the constant action of the water. Erosion and loss of water quality can be exacerbated by removal of vegetation,

Section 4, Stream Corridors

polluted storm runoff and development practices such as diversions of streams from their natural banks and water impoundment. These practices are discouraged by the Oregon Department of Fish and Wildlife (ODFW) and the Division of State Lands (DSL).

A combination of methods is used by the City to prevent and remedy stream degradation problems, including building setbacks, application of development standards and enforcement of regulations. Physical improvements are also made to deteriorated streams through the Surface Water Management Program. The City's Resource Protection District overlay zone and Development Standards recognize the importance of stream corridors and establish measures to control erosion hazards, preserve natural features, protect water quality and limit adjacent land uses. There are Development Standards for Erosion Control, Major and Minor Drainage, and Hillside Protection. The Steam Corridor standards most directly address stream protection, and require a 25 foot buffer zone and a building setback. [ZC 1-95-1204 Revised; 5/20/97]

Streams in Lake Oswego are also subject to water quality regulations under the federal Clean Water Act (CWA), administered by the Oregon Department of Environmental Quality (DEQ). In 1990, the DEQ found that the Tualatin river basin did not meet Federal and State water quality standards, and determined it to be "water quality limited." (See also Goal 6, Water Quality). As a result, the City adopted the Lake Oswego Surface Water Management Plan (SWMP) and new Erosion Control Standards in 1992. The SWMP guides efforts to improve water quality, including stream corridor protection, enhancement and rehabilitation as essential components of surface water management.

Summary of Major Issues

The following are some of the issues, changed circumstances and conditions which were considered in the update of this element of the Comprehensive Plan.

- The Tualatin River drainage basin and Oswego Lake have been designated as "water quality limited" by the Oregon Department of Environmental Quality (DEQ).
- Degradation of stream corridors is caused by erosion, polluted storm runoff, removal of native vegetation and other problems related to urbanization.
- The Lake Oswego Surface Water Management Plan has been adopted.
- State and federal agencies discourage diversion and impoundment of streams as unsound environmental practices.

Section 4, Stream Corridors

- Placement of public utilities, such as water and sewer lines, in stream corridors can result in infiltration and environmental disruption.
- The City has adopted Zoning and Development Standards for Erosion Control, Hillside Protection, Drainage and Sensitive Lands. [ZC 1-95-1204 Revised; 5/20/97]

GOALS, POLICIES AND RECOMMENDED ACTION MEASURES

GOAL

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

POLICIES

- 1. Protect, maintain, enhance and restore the functions and values of stream corridors, including maintenance of water quality, storm and flood water conveyance, fish and wildlife habitat, open space and aesthetic values.
- 2. Identify stream corridors within the USB and designate stream corridors with Resource Protection overlay zones on the Comprehensive Plan Land Use Map. [ZC 1-95-1204 Revised; 5/20/97]
- 3. The City shall emphasize protection rather than mitigation of stream corridor functions and values.
- 4. Enact and enforce standards and ordinances which regulate development, including filling and grading, within delineated stream corridors, stream corridor buffer* areas, and buffer edges*. These regulations shall require:
 - a. Preservation of the functions and values of stream corridors;
 - b. No net loss of the total inventoried area of stream corridors within Lake Oswego;
 - c. That stream corridors which are designated as "distinctive natural areas," or which contain rare or endangered plant or animal species shall have the highest level of protection; and,

Section 4, Stream Corridors

- d. Preservation of stream corridors, stream corridor buffer areas and buffer edges through dedication, deed restrictions, covenants and other means as a condition of development approval for properties containing such features.
- Require activities which use stream corridors to be compatible with the preservation of stream corridor functions and values. These activities include uses such as private development, public and private recreation, surface water management and flood control.
- 6. Require the review of any development proposal that could impact stream corridors with the appropriate local, state and federal agencies.
- 7. Require all development proposed within or adjacent to stream corridors to:
 - a. Incorporate and maintain stream corridor features, functions and values in the project design such as stream banks, riparian* vegetation, and fish and wildlife habitat; and,
 - b. Dedicate land or easements to preserve stream corridors and adjacent riparian areas.
- 8. Allow development density on parcels containing stream corridors to be transferred to other portions of the development site when stream corridors and the required buffer areas are permanently dedicated as open space.
- 9. Allow innovative site and building design, including the clustering of buildings to preserve stream corridors.
- 10. Prohibit diversion or impoundment of streams from their natural channels, except where:
 - a. Diversion would return a stream to its original location; or,
 - b. A stream channel occupies all or most of a legally created lot; or,
 - c. An impoundment is designed to reduce flooding or improve water quality.
- 11. Restore and enhance the environmental quality of streams.
- 12. Design and construct public works projects to preserve existing stream banks and adjacent riparian vegetation.
- 13. The City shall emphasize protection rather than mitigation of the functions and values of stream corridors.

5.4-4 LAKE OSWEGO COMPREHENSIVE PLAN

Section 4, Stream Corridors

RECOMMENDED ACTION MEASURES

- i. Use streams as part of the City's Surface Water Management Program to enhance water quality and control.
- ii. Develop and maintain a database of stream corridors and their respective functions and values within Lake Oswego's Urban Services Boundary, and periodically update, through the Goal 5 ESEE* inventory process.
- iii. Preserve environmentally sensitive stream corridor sites through public acquisition, dedication, conservation easements and other methods which permanently limit development.
- iv. Prohibit activities and uses within stream corridors, buffer areas and buffer edges, which could harm stream corridors, such as those whose effects could result in:
 - a. Interruption or diversion of water flows;
 - b. Discharge of pollutants or contaminants, including sediment, into stream corridors or buffer areas; and,
 - Negative impacts on adjacent natural systems such as forested areas, wildlife habitat and wetlands.
- v. Prohibit development in stream corridors, except:
 - a. For public storm drainage, water and sanitary sewer facilities; and,
 - b. Where site size and configuration prohibits all reasonable and economic use of the property.

The above public facilities may only be permitted within stream corridors when other locations have been evaluated, and it is shown that no other practical alternative exists. Stream corridor crossings by public or private utilities or roads may be permitted where disruption is minimized and mitigation measures are taken to compensate for any reductions in stream corridor functions and values resulting from the crossing.

- vi. Prevent the placement of contaminants or discharge of pollutants into stream corridors or buffer areas.
- vii. Minimize negative impacts from development on the functions and values of stream corridors.

Section 4, Stream Corridors

- viii. Avoid negative impacts such as flooding and siltation on stream corridor areas both upstream and downstream of development sites. If negative impacts are found, require the responsible party to mitigate for any damage found.
- ix. Limit fences and other obstacles that would impede wildlife travel along stream corridors, and cause localized flooding due to debris accumulation.
- x. Regulate excavation, stockpiling of soil, grading, cutting and earthwork construction within the vicinity of stream corridors.
- xi. Require Erosion Control Plans as a condition of development approval to prevent increases in surface water runoff, erosion and siltation that can damage stream corridors.
- xii. Establish clearly defined Development Standards which require a buffer area and an additional building setback adjacent to stream banks.
- xiii. Monitor development adjacent to stream corridors to ensure compliance with the City's regulations and conditions of development approval.
- xiv. Support community efforts to restore, maintain and enhance stream corridors.
- xv. Restore and enhance the environmental quality of streams currently beneath pavement or in culverts by returning them to their natural, above-ground state where appropriate.
- xvi. Provide information to the general public and developers regarding the location and importance of stream corridors and ways in which they can be protected and restored.
- xvii. Encourage appropriate jurisdictions to protect stream corridors and adjacent riparian corridors within the unincorporated portion of the Lake Oswego Urban Services Boundary (USB).
- xviii. Coordinate with state and federal agencies and private organizations in stream restoration and water quality improvement efforts.

Goal 5: Open Spaces, Historic & Natural Areas

☐ Section 5, Sensitive Lands

Forested Wetlands Near Carman Drive



The City shall protect, enhance, and maintain the wooded character and natural features of Lake Oswego that are sensitive lands prized by residents.

Section 5, Sensitive Lands

BACKGROUND

Statewide Planning Goal 5: Open Spaces, Scenic and Historic Areas, and Natural Resources

"To conserve open space and protect natural and scenic resources."

Statewide Planning Goal 5 requires communities to provide programs that will 1) ensure open space; 2) protect scenic and historic areas and natural resources for future generations; and 3) promote healthy and visually attractive environments in harmony with the natural landscape character. Goal 5 requires communities to inventory these natural resources. The inventory is required to include a description of the location, quality and quantity of these resources, and an identification of conflicting uses. Where no conflicting uses have been identified, resources must be managed so as to preserve their original character. Where conflicting uses have been identified, the economic, social, environmental and energy (ESEE)* consequences shall be determined and programs developed to achieve the goal. [ZC 1-95-1204 Revised; 5/20/97]

The Comprehensive Plan originally identified 85 Distinctive Natural Areas*. DNA's included a broad range of resource types from tree groves and streams to individual trees and plant specimens.

Distinctive Natural areas were originally identified in the 1975 Lake Oswego Physical Resources Inventory (LOPRI). All of the LOPRI-nominated sites were designated as Distinctive Natural Areas on the resulting DNA Comprehensive Plan map. The inventory was part of a broader effort to adopt the City's first Comprehensive Plan under Goal 5 of the Statewide Land Use Goals. [ZC 1-95-1204 Revised; 5/20/97]

In the years following 1976, the LOPRI data was used to create policies and development standards to protect open spaces and natural resources. The inventory was also used to identify initial priority sites for public acquisition as open space. Five DNA sites identified for public acquisition in the Comprehensive Plan have been purchased by the City or otherwise protected, including land on Iron Mountain, the "Frog Pond" at Village on the Lake (private) the Hallinan Woods, the South Shore Natural Area, and a large section of Kruse Oaks in the Westlake area. [ZC 1-95-1204 Revised; 5/20/97]

Under Goal 5, local jurisdictions are required to inventory and provide protection programs for a variety of natural resources, including:

- Land needed or desirable for open space;
- Fish and wildlife areas and habitats;
- Ecologically and scientifically significant natural areas;

■ Section 5, Sensitive Lands

- Outstanding scenic views and sites; and,
- Water areas, wetlands, watersheds and groundwater resources.

All of the above-listed resources must be evaluated and mapped on a site-specific basis through the Goal 5 Environmental, Social, Energy and Economic (ESEE) analysis and a conflicting use analysis. If no conflicting uses are identified, the resource must be managed to preserve its original character. If conflicting uses are found, programs must be developed to resolve the conflicts and one of three alternatives applied:

- a. Preserve the resource site;
- b. Fully allow the conflicting use [the use(s) allowed by the zone]; or,
- c. Specifically limit the conflicting use [the use(s) allowed by the zone].

The ESEE and conflicting use analysis was begun in 1991/92 by an environmental consulting firm with an inventory update of wetlands, stream corridors and tree groves. The ESEE analysis of the sites that were inventoried was begun by a planning consultant in 1994. The results were used to assist the City in determining the boundaries and relative values of DNA sites inventoried in 1975 and to develop appropriate regulations and protection programs for listed DNA's and new significant resources discovered through the inventory.

In 1996 and 1997, this new information was used to develop a new "sensitive lands program". This new program replaces the Distinctive Natural Area/Protection Open Space protection program with a more clear and objective protection program, to better identify, describe and rank significant natural areas, and to more clearly resolve the conflicts between preservation and development on a site containing significant natural resources. It is designed to improve protection for wetlands, stream corridors and tree groves, by designating such resources with Resource Protection (RP) District and Resource Conservation (RC) District overlay zones. [ZC 1-95-1204 Revised; 5/20/97]

Summary of Major Issues

The following are some of the issues, changed circumstances and conditions which were considered in the update of this element of the Comprehensive Plan:

Statewide land use Goal 5 requires site specific mapping and an ESEE analysis for distinctive natural areas. The Goal 5 process must be used to protect new sites as additional distinctive features are brought to the City's attention and as endangered species are identified. [ZC 1-95-1204 Revised; 5/20/97]

■ Section 5, Sensitive Lands

- The Endangered Species Act requires protection of sensitive, threatened and endangered species. Some species of plants and animals in the USB may fall within these categories.
- Under Goal 5, the highest valued natural resources within Lake Oswego's USB, such as wetlands and stream corridors, may merit full preservation when there are no conflicting uses identified. Other natural areas such as tree groves may merit a more limited level of protection. [ZC 1-95-1204 Revised; 5/20/97]

GOALS, POLICIES, AND RECOMMENDED ACTION MEASURES

GOAL

The City shall protect, enhance and maintain the wooded character and natural features of Lake Oswego that are prized by residents. [ZC 1-95-1204 Revised; 5/20/97]

POLICIES

- 1. Protect, enhance, maintain and restore the functions and values* of existing and future wetlands, stream corridors, tree groves and other sensitive nature areas, such as:
 - a. Water and air quality enhancement;
 - b. Fish and wildlife habitat;
 - c. Community identity benefits*;
 - d. Open space, passive recreation, and visual enjoyment; and,
 - e. Public protection from natural hazards, such as areas subject to flooding, geological instability, or high erosion potential.
- 2. Designate the specific locations of significant Goal 5 resources through development of a Sensitive Lands Atlas and special overlay zone designations.
- 3. Supplement the Sensitive Lands Atlas, pursuant to Statewide Planning Goal 5, as additional distinctive features are brought to the City's attention and as sensitive, threatened or endangered species are identified.

Section 5, Sensitive Lands

- 4. The City shall emphasize protection rather than mitigation of the functions and values of sensitive lands areas.
- 5. Enact and maintain regulations and standards which require:
 - a. Preservation of the functions and values of sensitive lands;
 - b. No net loss* in the quantity or volume of wetland or stream corridor functions or values when development is allowed within such resource, buffer or edge. Such development shall only be allowed after an alternatives analysis and a finding that a development cannot practicably be placed entirely outside of the resource and its buffer and edge areas;
 - c. Preservation of the most significant resources (i.e. no loss of area, functions, or values);
 - d. Protection of sensitive lands designated as RC or RP;
 - e. Establishment and maintenance of buffer and edge areas; and,
 - f. Establishment of wider buffer areas around the most significant sensitive lands.
- 6. Allow development density on parcels containing sensitive lands overlay zones to be transferred to other portions of the development site.
- 7. Allow innovative site and building design, including the clustering of buildings to preserve sensitive lands.
- 8. Require activities within sensitive lands overlay zones to be compatible with the preservation of resource functions and values. These activities include uses such as public and private development, public and private recreation, surface water management and flood control.
- 9. Require all development proposed within or adjacent to sensitive lands to:
 - a. Incorporate and maintain sensitive lands resource features, functions and values in the project design;
 - b. Preserve vegetation and provide and maintain buffer areas;
 - c. Prevent the placement of contaminants or discharge of water pollutants or sediments into sensitive lands and their buffer areas; and,
 - d. Restore and enhance disturbed sensitive lands with restoration landscaping to match the plant community of the resource.

Section 5, Sensitive Lands

RECOMMENDED ACTION MEASURES

- Identify and protect sensitive lands through imposition of overlay zones designed to protect the functions and values of such lands. Provide a process for protecting new or newly discovered sensitive lands.
- ii. Preserve sensitive lands that are found to have the highest levels of significance through a variety of means, including: fee simple acquisition, gifts, long-term leases, life estates, purchase of development rights, scenic or conservation easements and other similar methods.
- iii. Create development standards that provide specific protection measures for sensitive lands. Such standards should allow appropriate variances, density transfers and/or clustering of structures to protect valued features.
- iv. Provide information to the general public and developers regarding the importance of sensitive lands to the community and ways in which they can be protected and restored.
- v. Make public the location of sensitive lands in order to call attention to the need for public stewardship and protection.
- vi. Support the efforts of community groups to enhance and maintain public and private sensitive lands, and to encourage volunteer participation and stewardship of such lands within the USB.
- vii. Use a natural resources advisory body* to prioritize sensitive lands sites, and to assist Council in protecting such lands by acquisition, easements and management.
- viii. Coordinate with the Oregon Department of Parks and Recreation and other responsible jurisdictions, agencies and groups to preserve and enhance sensitive lands which benefit Lake Oswego citizens, such as Tryon Creek State Park and the Willamette Greenway.
- ix. Utilize the methodology established in the April 4, 1997, Resource Areas Report and ESEE Analysis for determining the significance of particular sensitive lands.

☐ Section 5, Sensitive Lands

- Notes -

Goal 5: Open Spaces, Historic & Natural Areas

☐ Section 6, Open Space

Cooks Butte



The City shall protect, enhance, maintain, and expand a network of open space areas and scenic resources within and adjacent to the Urban Service Boundary.

Section 6, Open Space

BACKGROUND

Statewide Planning Goal 5: Open Spaces, Scenic and Historic Areas, and Natural Resources

"To conserve open space and protect natural and scenic resources."

Lake Oswego's character and identity are closely tied to its natural assets and scenic resources. Such resources include Oswego Lake, the Willamette and Tualatin Rivers, streams, steep wooded slopes, and areas of undisturbed natural vegetation and associated wildlife habitat. Open space includes diverse elements such as wildlife preserves, scenic views, parks, wetlands, stream corridors, ball fields and golf courses. Open space serves several important functions:

Protection of wildlife areas, such as stream corridors, tree groves and wetlands.

Aesthetic character for the urban environment, including natural features such as rows of trees, wooded hillsides and scenic views.

Land for active recreational use, such as ball fields and play grounds. Land for passive recreational use*, such as wildlife viewing and nature walks.

Public welfare and safety, such as flood protection, erosion control and filtering of surface water.

Economic benefits, such as enhanced property values due to the presence of large trees, views, or other natural features.

Lake Oswego's open space is comprised of parks, natural areas* and private lands. Open space may be grouped into two broad categories: 1) natural open space*; and, 2) developed open space* as follows:

Natural Open Space*

Natural open space consists of natural areas* that may be publicly or privately owned as follows. Natural open space typically includes such areas as stream corridors, wetlands, tree groves and steep slopes.

A. Public Open Space*: Public open space is property that is publicly owned and designated as "Open Space" on the Comprehensive Plan Map; or, property that has been dedicated to the public, designated as a public open space tract or protected through a conservation easement or similar mechanism.

■ Section 6, Open Space

Public open space is land that is to remain in a natural condition for the purpose of providing a scenic, aesthetic appearance, protecting natural systems, providing passive recreational uses or maintaining natural vegetation.

B. Private open space (natural areas): Privately owned open space also contributes to the community's identity or sense of openness where natural or formally landscaped open areas are visible to the public, even though access is limited to members or land owners. The Oswego Country Club, Oswego Lake, and the Hunt Club are examples of private open spaces. Private open space may also be protected within residential and commercial developments through legal instruments such as private open space tracts and conservation easements.

Developed Open Space

Developed open space includes both public parks and private open space that is formally landscaped. It includes such areas as ball fields, play grounds, neighborhood pocket parks, tot lots, picnic facilities, accessory buildings, paved areas, lawns and similar uses.

- **A. Parks:** A park is a publicly owned area that is intended primarily for recreational uses or park purposes, and is designated as "Park" on the Comprehensive Plan Map. Specific parks policies are found in the Parks and Recreation policies of the Comprehensive Plan.
- **B. Private landscaped areas:** Privately-owned open space includes areas such as golf courses and cemeteries. It also includes private open space tracts and common areas within subdivisions. Private open space is intended to be used by members or residents only within a private development or subdivision.

Both natural and developed open space are integral components of the community's open space system.

Open space and natural areas are important to Lake Oswego residents, as evidenced since the mid-1970s. In 1975, numerous community volunteers participated in the first natural resources inventory, called the Lake Oswego Physical Resources Inventory (LOPRI). The inventory data was used to create policies and development standards to protect open spaces and natural resources.

Open space has also been designated and purchased by the City over time. In 1978 the Springbrook Park Charter Amendment was passed, setting aside a large tract of land as public open space. Since the original Comprehensive Plan was approved in 1978, five of six areas identified for public acquisition have been purchased by the City or otherwise protected, including land on Iron Mountain, the "Frog Pond" at Village on the Lake (private), the Hallinan Woods, the South Shore Natural Area and a large section of Kruse Oaks in the Westlake area. Other areas within Lake Oswego's open space system include a wetland area south of Childs Road, the River Run park site on the Tualatin River and the Beth Ryan Nature Preserve (owned by the Lake

5.6-2 LAKE OSWEGO COMPREHENSIVE PLAN

Section 6, Open Space

Oswego Land Trust). Many of the City's public parks also contain natural open space, such as the wetlands in Waluga Park and the Willamette River Greenway in George Rogers Park and Roehr Park. [ZC 1-95-1204 Revised; 5/20/97]

As Lake Oswego's population has increased, housing has replaced many previously undeveloped lands. The need for preserving more open spaces has become an ever increasing concern for residents. This was demonstrated by voter approval of a \$12 million bond issue in 1990 to fund the purchase of park and open space lands and to develop pathways. Most of the open space bond fund was depleted by 1994. It is expected that a high demand will continue for undeveloped residential lots, many of which contain natural areas, as Lake Oswego approaches a fully developed state. While substantial progress has been made toward acquiring open spaces, a need still exists for additional land.

Larger open space lands (20+ acres) abut the City limits to the south of Lake Oswego. These areas represent an opportunity for the City, neighboring jurisdictions, and responsible agencies to preserve open space and to provide open space buffers as a transition between neighborhoods and communities far in advance of development pressure.

Summary of Major Issues

The following are some of the issues, changed circumstances and conditions which were considered in the update of this element of the Comprehensive Plan:

- Open space serves many important functions in Lake Oswego
- Both developed and natural open spaces are integral components of the community's open space system.
- Much of Lake Oswego has been developed, but opportunities still exist to preserve and acquire sensitive natural areas as open spaces. Undeveloped lands abutting the City Limits present an opportunity to preserve and acquire future open space and buffer areas.

■ Section 6, Open Space

GOALS, POLICIES AND RECOMMENDED ACTION MEASURES

GOAL

The City shall protect, enhance, maintain and expand a network of open space* areas and scenic resources within and adjacent to the Urban Services Boundary.

POLICIES

- 1. Establish an open space network within and adjacent to the Urban Services Boundary (USB) which:
 - a. Preserves natural areas* in an intact or relatively undisturbed state;
 - Provides for maintenance of scenic resources and distinctive aesthetic qualities such as views of Mount Hood, Oswego Lake, the Willamette River, the Tualatin Valley and forested ridge lines;
 - c. Preserves areas valued for community identity benefits* such as stands of trees and rock outcroppings;
 - d. Protects the public from natural hazards, such as areas subject to flooding, geological instability or high erosion potential;
 - e. Provides buffers between incompatible uses;
 - f. Preserves fish and wildlife habitat; and,
 - g. Provides land which meets the open space and recreation needs of the community.
- 2. Preserve open space through dedication, deed restrictions, covenants, or other methods as conditions of development approval which, when possible, shall be consistent with the City's parks, open space and pathways plans.
- 3. Promote an open space network that:
 - a. Maintains the existing tree canopy;
 - b. Provides aesthetic and visual relief from urban development;
 - c. Provides opportunities for pedestrian and bicycle linkage; and,
 - d. Preserves essential natural systems*.
- 4. The City shall emphasize protection rather than mitigation of open space functions and values.

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Section 6, Open Space

- 5. Manage publicly-owned, natural open space areas to control access and to maintain a balance of protected natural areas and areas open to the public.
- 6. Provide regulations such as the Sensitive Lands program and the Open Space Development Standard to preserve natural resources, including essential natural systems, lands containing natural hazards and unique natural areas valued for scientific, educational, recreational, scenic resource and community identity benefits*. Development will be allowed when compatible with natural systems that are present. [ZC 1-95-1204 Revised; 5/20/97]
- 7. Require a higher level of protection where all or a portion of a resource is designated within an RP or RC Zone (see Sensitive Lands Policies). [ZC 1-95-1204 Revised; 5/20/97]
- 8. Establish community open space buffers and protected view corridors between Lake Oswego and adjacent communities, for the purpose of defining the edge of the urban area and preserving the open, rural character of lands outside of the city.
- 9. Consider the following resources eligible for protection: [ZC 1-95-1204 Revised; 5/20/97]
 - a. Stream corridors and natural drainage ways;
 - b. Flood plains;
 - c. Willamette River Greenway;
 - d. The Tualatin River corridor;
 - e. Wetlands;
 - f. Oswego Lake, its bays and its canals;
 - g. Tree groves;
 - h. Forested ridge lines;
 - i. View points;
 - j. Steep slopes;
 - k. Weak foundation soils;
 - l. High ground water areas;
 - m. Areas of geologic hazard (unstable soils); and,
 - n. Scenic resources.

RECOMMENDED ACTION MEASURES

 Develop a comprehensive open space plan, in coordination with the Metropolitan Greenspaces Plan, to inventory and protect open space and to provide a connected open space network. The open space plan should utilize the City's open space, parks and pathways to provide linkages among open spaces.

Section 6, Open Space

- ii. Develop an open space management program for public and private open space areas to include:
 - a. An inventory and evaluation of maintenance needs;
 - b. Monitoring to ensure continued environmental health and benefit; and,
 - c. Enforcement of conditions of development approvals.
- iii. Preserve open space through measures such as acquisition of land, purchase of development rights and conservation easements to preserve open spaces, buffer areas and views within the unincorporated Urban Services Boundary and on adjacent County lands outside of the Urban Growth Boundary.
- iv. Use a variety of means for a continuing program of open space protection within the City, including fee simple acquisition, gifts, long-term leases, life estates, scenic or conservation easements and other similar methods.
- v. Use a natural resources advisory body* to advise Council on methods of open space acquisition, open space acquisition priorities and the designation and management of Public Open Space.
- vi. Support the efforts of community groups to enhance and maintain public and private open spaces and to encourage volunteer participation and stewardship of open space land within the City.
- vii. Coordinate with the development of a regional greenspaces system in the Portland Metropolitan area, including an open space buffer for Lake Oswego and adjacent communities in lands just outside the Urban Growth Boundary.
- viii. Coordinate with appropriate jurisdictions to manage development to preserve the open space and rural qualities of the Stafford Area.
- ix. Coordinate with the efforts of the Oregon Department of Parks and Recreation and other responsible jurisdictions, agencies and groups to enhance adjacent public open spaces, such as Tryon Creek State Park and the Willamette Greenway, which benefit Lake Oswego citizens.
- x. Coordinate with appropriate jurisdictions and citizen groups to preserve open space lands within and adjacent to the USB.

■ Section 6, Open Space

xi. Develop ordinances and standards to protect view corridors within the Urban Services Boundary for scenic resources, including views of Mount Hood, Oswego Lake, the Willamette River, the Tualatin Valley and other views valued by the community.

■ Section 6, Open Space

- Notes -

Goal 5: Open Spaces, Historic & Natural Areas

☐ Section 7, Oswego Lake

Oswego Lake



The City shall protect the natural resource, energy, aesthetic, and recreation values of Oswego Lake.

Section 7, Oswego Lake

BACKGROUND

Statewide Planning Goal 5: Open Spaces, Scenic and Historic Areas, and Natural Resources

"To conserve open space and protect natural and scenic resources."

Oswego Lake is the City's largest natural feature and its geographic center. The main portion of the Lake covers 385 acres (USGS), with an additional 7 acres in West Bay and 28 acres in Lakewood Bay. The Lake is 3.5 miles long. The Lake, a reservoir, is privately owned and managed by Lake Oswego Corporation, commonly known as "The Lake Corporation." The Corporation has owned and maintained the Lake since 1942.

Rolling hills, steep hillsides and rocky bluffs surround Oswego Lake, with elevations ranging from 98 feet on the Lake to 970 feet on Mt. Sylvania to the north. The surrounding hills are bisected by many streams that direct surface water into Oswego Lake, the most notable of which is Springbrook Creek. The Tualatin River is a major source of water for the Lake, and enters through the Oswego Canal.

Before the pioneer settlement period in the 1860s, Oswego Lake was a natural, smaller body of water, fed by streams and springs. It was called Waluga Lake by the Clackamas Indians, meaning "wild swan." Early settlers called it "Sucker Lake" for a type of whitefish that may have dwelled in its warm waters. The Lake was renamed "Oswego Lake," after the turn of the century, by the owner of the Oregon Iron & Steel Company, to promote surrounding residential real estate development as a supplement to the Lake's primary use as a reservoir.

The Lake has commercial and industrial functions important to the culture of the community. The Oswego Canal was dug between the Lake and the Tualatin River to increase water flow and raise the reservoir's level. The Lake was used for a short time on a trial basis to transport people and goods between the Willamette and Tualatin Rivers, via ferry boat across the Lake and horse drawn railroad cars along the canal's bank. Lake waters that flow into Oswego Creek were used to operate the Durham sawmill when Oswego was first settled. Much more significantly, the increased flow was used to operate first iron and then steel foundries operated by Oregon Iron & Steel Company. A hydroelectric power generating plant was built on Oswego Creek in 1909, and the Corporation continues to operate this plant today, selling surplus power to PGE. A spillover dam was completed in 1921 that raised the Lake and greatly increased its size, creating Blue Heron Bay and West Bay on the west end and Lakewood Bay on the east end.

■ Section 7, Oswego Lake

Oswego Lake was initially described in the 1975 Lake Oswego Physical Resources Inventory (LOPRI), and was also included in the 1992 Natural Resources Inventory. Its natural features have been highly modified, first by logging in the late 1800s and later by residential development, which cleared much of the original forest that surrounded the Lake. Today, homes with formal lawns stretching to the Lake's edge and waterfront seawalls and docks are interspersed among second growth and ornamental trees. Shoreline development, including seawalls, docks and boathouses, is strictly controlled by the Corporation.

There are a few remaining undeveloped natural areas surrounding the Lake at the mouths of streams, and forested areas on steep slopes. A few natural riparian* areas and small pockets of wetlands remain along the streams which enter the Lake. These natural edges are important for wildlife nesting, food and shelter. The remaining forest is typically Douglas fir on the north-facing slopes and oak/madrone and fir on the south-facing rocky bluffs. These remaining forested areas provide perch sites for birds of prey such as osprey and heron. The Lake is also an important habitat for resident and migratory waterfowl including dabblers, diving ducks, Canada geese and great blue heron. Fish species in the Lake include bass, catfish, bluegill, carp, crappie and yellow ring tail perch. [ZC 1-95-1204 Revised; 5/20/97]

In addition to its natural resource values, Oswego Lake is a multiple-use facility that serves the community in a variety of roles. It is a hydroelectric reservoir at the center of a 7,400 acre drainage basin. The Lake receives the majority of its water from the Tualatin River via a canal and also surface water from tributary streams, storm drain outfalls and surface runoff. Also, there are several city sanitary sewer interceptors below the Lake's normal surface water elevation that have been constructed at an engineered grade to convey sewage to the Tryon Creek Sewage Treatment Plant.

The Lake offers shoreline recreation opportunities to specific residents at the Lake Grove Swim Park and the Lake Oswego Swim Park. A new City Park at Lakewood Bay offers visual access, but not physical access, to the Lake. Oswego Lake is heavily used for water-related recreation by lakeside residents and others with Lake easements* recognized by the Corporation. The Lake is also valued by residents for its open space and aesthetic aspects and for its historical and cultural importance. Residents consider the Lake to be a vital part of Lake Oswego's identity, and a natural resource valuable to the community.

The multiple roles of the Lake can cause conflict. Silt caused by erosion and nutrients from lawn fertilizers can diminish water quality, and construction by private owners on lakeside lots has eliminated most public view points. Improperly functioning septic systems immediately adjacent to the Lake or tributary streams adversely impact water quality. The reservoir's level is lowered from time to time by the Corporation to maintain its hydroelectric facilities. During these periods, the Corporation may dredge sediments, private landowners may maintain seawalls, boathouses and docks and the City has scheduled maintenance of public sanitary sewer interceptors. Periodically, a lowering of the Lake to greater depths is requested by the City for major maintenance of public sanitary sewer interceptors. The lowering of the Lake temporarily affects small areas of fish and wildlife habitat.

Section 7, Oswego Lake

The Corporation has ongoing programs to maintain and improve the Lake's water quality. It has an aquatic vegetation inspection and control program, a water quality management program and monitors activities on the Lake on a regular basis. The Corporation has commissioned studies of the Lake to address problems caused by high phosphate levels, macrophytes and sediments. It prepares a Water Quality Management Plan each year to preserve the beneficial uses of the Lake. The plan includes preventive actions, water treatments, sediment removal and continuous sampling. The Corporation is very attentive to the potential of invasion by non-native vegetation. In the opinion of the Corporation, the sedimentation of the Lake over time creates the greatest hazard to its use as a hydroelectric reservoir, its recreational uses and its fish and wildlife habitat. Removal of these sediments is required from time to time.

The City's Development Standards and procedures recognize the importance of the Corporation's efforts to maintain the Lake and establish measures to control erosion hazards, preserve natural features, protect water quality and regulate adjacent land uses. Relevant Development Standards include Stream Corridors, Erosion Control, Flood Plain, Drainage, Parks and Open Space, Tree Cutting and Hillside Protection. In addition, there are zoning regulations related to Oswego Lake, including the Cabana (WR) Zone and Supplementary Standards. The Cabana Zone is limited to the north side of Lakewood Bay. It permits single family residential or cluster developments on pilings. The Supplementary Standards of the Development Code require a 25 foot building setback from the shore of the Lake except seawalls, boathouses, docks and other improvements as approved by the Corporation.

In addition to City development regulations, Oswego Lake is subject to State and Federal regulations. The perimeter of the Lake is in the 100-year flood plain regulated by FEMA (Federal Emergency Management Agency). The State considers the waters of Oswego Lake to be "waters of the State," and subject to certain water quality regulations under the Federal Clean Water Act (CWA), administered by the Oregon Department of Environmental Quality (DEQ). In 1990, the DEQ found that the Tualatin River basin and Oswego Lake Basin did not meet Federal and State quality standards and determined them to be "water quality limited"* because of higher than allowable levels of phosphorus and other pollutants. The Lake's characterization arises from the condition of its tributaries and other sources of inflow. (See also Goal 6, Water Quality.) As a result, the City adopted the Lake Oswego Surface Water Management Plan (SWMP) and new Erosion Control Standards in 1992. The SWMP guides efforts to improve water quality, including rehabilitation of streams that drain into the Lake and public education programs.

■ Section 7, Oswego Lake

Summary of Major Issues

The following are some of the issues, changed circumstances and conditions which were considered in the update of this element of the Comprehensive Plan.

- Oswego Lake has multiple uses and values, including electrical power generation, reservoir storage capacity, surface water storage, single family residences, water recreation, aesthetic values and scenic views, habitat for fish and wildlife and social values.
- The Lake Oswego Surface Water Management Plan has been adopted by the City, in cooperation with the Corporation's water quality management program.
- The City has adopted erosion control standards and other regulations which are intended to help protect the natural resource and scenic values of Oswego Lake.
- The Tualatin River drainage basin and Oswego Lake have been designated as "water quality limited" by the Oregon Department of Environmental Quality (DEQ). The Lake's condition follows from the condition of its tributaries and other sources of inflows.

GOALS, POLICIES AND RECOMMENDED ACTION MEASURES

GOAL

The City shall protect the natural resource, energy, aesthetic and recreation values of Oswego Lake.

POLICIES

- 1. Cooperate with the Lake Oswego Corporation to protect the natural resource, energy, aesthetic and recreation values of Oswego Lake.
- 2. Establish significant public viewpoints to assure that residents of the community can identify with and enjoy Oswego Lake.

5.7-4 LAKE OSWEGO COMPREHENSIVE PLAN

Section 7, Oswego Lake

- 3. Identify wetlands, mouths of streams and tree groves on the shores and hillsides surrounding Oswego Lake and protect them with a sensitive lands overlay on the Comprehensive Plan Land Use Map. Regulate development and other activities in ways which provide protection of these resources and ensure the smooth functioning of the reservoir and removal of silt. [ZC 1-95-1204 Revised; 5/20/97]
- 4. Provide and support programs that improve the water quality of Oswego Lake. This could include silt prevention and silt removal programs in streams and storm water inflows where sediment buildups have the potential to limit beneficial uses.
- 5. Require all development proposed within or adjacent to Oswego Lake to:
 - a. Minimize negative impacts on upland vegetation, slopes, fish and wildlife habitat, wetlands, stream corridors and scenic views, while allowing reasonable recreational use by landowners;
 - b. Incorporate and maintain natural features, functions and values in the project design such as tree groves, steep slopes, riparian* vegetation, scenic views and habitat for fish and wildlife;
 - c. Prevent damage caused by upstream erosion and siltation; and,
 - d. Prevent the placement of pollutants or contaminants, including sediments, into the Lake and its tributaries.
- 6. Allow development density on parcels containing natural resources associated with Oswego Lake to be transferred to other portions of the development site when steep slopes, tree groves, or wetlands are permanently protected as open space.
- 7. Allow innovative site and building design, including the clustering of buildings to preserve natural features associated with Oswego Lake.
- 8. Work with the Lake Oswego School District to preserve its rights to the existing swimming easement in the Lake Grove Area Swim Park.
- 9. Design, construct and operate public works projects to preserve natural features of the Lake and to preserve the water quality of the Lake.
- 10. Cooperate with the Corporation to safeguard the hydroelectric potential of the Lake as an energy source.

■ Section 7, Oswego Lake

RECOMMENDED ACTION MEASURES

- i. Coordinate with DEQ and other State and Federal Agencies, and cooperate with the Corporation to enhance the water quality of the Lake through the City's Surface Water Management Program.
- ii. Cooperate with DEQ and the Tualatin Basin Designated Management Agencies to enhance the water quality of the Tualatin River and other tributaries of Oswego Lake.
- iii. Provide information to the general public and developers regarding the location and importance of resources associated with the Lake, and ways in which they can be protected and restored.
- iv. Support efforts to prevent and remove sedimentation from Oswego Lake.
- v. Explore alternatives for City-requested deep lake draining, such as the use of divers and video cameras to do inspections and conduct major maintenance of City sewer lines within the Lake.
- vi. Consider adoption of regulations designed to protect Oswego Lake from damage caused by upstream erosion, siltation and other pollutants.
- vii. Explore ways to remove sanitary sewer lines from Oswego Lake.

Goal 5: Open Spaces, Historic & Natural Areas

☐ Section 8, Historic and Cultural Resources

Lake Grove Anglers Club House designed by Edward J. Green



The City shall preserve the historical, archaeological, and cultural resources of the community.

Section 8, Historic and Cultural Resources

BACKGROUND

Statewide Planning Goal 5: Open Spaces, Scenic and Historic Areas, and Natural Resources

"To conserve open space and protect natural and scenic resources, including historic areas, sites, structures and objects."

Statewide Planning Goal 5 requires communities to provide programs that will: 1) ensure open space; 2) protect scenic, historic and natural resources for future generations; and 3) promote healthy and attractive environments in harmony with the natural landscape character. Goal 5 also requires communities to inventory historic and cultural resources. The inventory describes the location, quality and quantity of these resources, and identifies conflicting uses. Where no conflicting uses are identified, resources must be managed so as to preserve their original character. Where conflicting uses are identified, the economic, social, environmental and energy (ESEE)* consequences must be determined and programs developed to achieve the goal.

Lake Oswego has a rich history reaching back hundreds of years. The area was first occupied by Native Americans many centuries prior to the arrival of the first settlers. Settlement began with the first donation land claim filed in 1850 in the area of the Old Town Neighborhood. In the years that followed, Lake Oswego went through many changes. For about a quarter of a century, beginning in 1865, iron ore was mined and smelted in Lake Oswego. In the ensuing years, up to the advent of automobile travel, Oswego Lake was a vacation haven for Portland residents.

The cultural resources* which exist in the City today reflect these chapters in the community's history as well as other historical themes, such as transportation, agriculture and government, which are woven into the tapestry of Lake Oswego's historical and architectural development. From simple worker cottages to elegant lakefront dwellings, and from the historic Peg Tree, the site of early town meetings, to the imposing stone chimney stack of the first iron smelter on the west coast, Lake Oswego's cultural and historic resources play an important part in shaping the character of the community today.

Statewide Planning Goal 5 and its implementing rule, OAR 660-16 were adopted in 1981 by the Land Conservation and Development Commission. The legislation and administrative rule outline the required process for identification and protection of historic resources in Oregon. The City began the process of inventorying historic sites and structures in 1976 with the City's Physical Resources Inventory (LOPRI).

■ Section 8, Historic and Cultural Resources

LOPRI identified forty-seven sites or structures of historic and cultural significance. Seven of these sites were determined to have enough information to be placed in the Comprehensive Plan, but at that time, no protection program was developed for these resources.

In 1988, the City began a comprehensive inventory, identification of conflicting land uses* and development of a program to protect significant historic resources. The City was assisted by volunteers who photographed, mapped and inventoried sites. Property owners and citizens were invited to share information on proposed sites. Also, several events, workshops and town hall meetings were held during the process.

Nearly 200 structures and sites were identified and researched. Of these, 93 were found to have sufficient historical, architectural or environmental significance to be afforded protection. In 1990, the City adopted a Historic Preservation Ordinance and a list of sites to which it applies (later reduced to 89 sites). The Ordinance governs designations of Historic Landmarks*, major alterations*, removals and demolition. It also creates a Historic Review Commission. In 1994, the Ordinance was revised to clearly establish the Historic Review Commission as the prime authority to review alterations to historic sites and structures. Revisions also included more objective review standards, provisions for property division and allowance for flexibility in various zoning regulations.

For many years, owners of property on the National Register of Historic Places have been eligible to request a 15 year freeze of property taxes under the Oregon special assessment program. The special assessment program has been an important incentive for rehabilitation of national Landmark buildings. The 1993 Oregon Legislature did not renew the assessment program for National Historic Register properties, and the program became unavailable as of January, 1994. Lake Oswego has eight properties listed on the National Register which will continue to receive the special assessment until their 15 years have expired. However, no new sites can be added to the special assessment program unless the legislation is reactivated.

The 1993 Oregon Legislature adopted legislation which requires protection of archaeological resources* on public lands and an excavation permit from the State. Native American remains are strongly protected in the new legislation. In Lake Oswego, Native American archaeological resources are known to exist in Old Town, and may also be located on sites along the Willamette and Tualatin Rivers, and on Cooks Butte.

Summary of Major Issues

The following are some of the issues, changed circumstances and conditions which were considered in the update of this element of the Comprehensive Plan.

■ Section 8, Historic and Cultural Resources

- The City updated the original 1976 Lake Oswego Physical Resources Inventory in 1988 and conducted the required ESEE Analysis to be in compliance with the Goal 5 Administrative Rules.
- The Lake Oswego Historic Preservation Ordinance was adopted in 1990 and revised in 1994.
- Archaeological sites on public lands are protected.

GOALS, POLICIES AND RECOMMENDED ACTION MEASURES

GOAL

The City shall preserve the historical, archaeological and cultural resources of the community.

POLICIES

- 1. Preserve and enhance Lake Oswego's historic resources through the identification, restoration and protection of structures, sites, objects and districts of historic and cultural value within the City.
- Designate as Landmarks*, those structures, sites and objects which possess historic significance pursuant to Statewide Land Use Planning Goal 5. Ensure that all National Register properties are inventoried and placed on the City's Landmarks list.
- 3. Enact and enforce standards and ordinances which protect historic and archaeological resources* by:
 - a. Reviewing Landmark and district designations;
 - b. Requiring that major alterations* and other land use actions not diminish the significance of a historic resource; and.
 - c. Reviewing relocation and demolition requests.
- 4. Utilize a historic resources advisory body* to implement Lake Oswego's historic preservation program.

■ Section 8, Historic and Cultural Resources

5. Ensure archaeological resources on City-owned lands are surveyed and adequately protected prior to developing park and open space lands and conducting public works projects.

RECOMMENDED ACTION MEASURES

- i. Strengthen the economy of the City by enhancing historic and cultural resources* for tourists, visitors and residents.
- ii. Encourage public knowledge, understanding and appreciation of the City's history and culture through measures such as educational workshops and events, signage and publications.
- iii. Encourage the use of publicly owned historic sites and structures for community-wide benefits such as social gatherings, education and recreation, where appropriate.
- iv. Update the Lake Oswego Historic Landmarks List periodically and ensure that all National Register properties are inventoried and placed on the City's Landmarks List and on the Comprehensive Plan Map. Coordinate inventory, evaluation and designation of historic and cultural resources with the State Historic Preservation Office, local property owners, friends' groups, Clackamas County and other interested parties.
- v. Compile, and continue to expand and refine, a record of the community's social and historic heritage through measures such as the development of a data base with written information, photography, maps and survey information. Inventory and provide archival storage for written, photographic, audiovisual and sound recordings of historic importance.
- vi. Promote maintenance and/or rehabilitation of older homes within residential areas.
- vii. Provide information on private and public sources of funding available for use by property owners in the renovation and maintenance of historic structures.
- viii. Encourage neighborhood associations to propose potential historic or cultural resource sites for evaluation through the neighborhood planning program.
- ix. Encourage "adaptive reuse" of Landmarks as an alternative to the structure's original use, if preservation can be assured.

Section 8, Historic and Cultural Resources

- x. Determine an appropriate system of signage to recognize designated Landmarks on publicly owned properties. Explore a program to provide plaques for privately owned Landmarks, to be placed on a voluntary basis. Cooperate with state and local historic societies in signage of historic sites and buildings.
- xi. Inform citizens and property owners of the historic significance of Landmarks through dissemination of information on history, architecture, historic preservation, renovation, rehabilitation and reuse.
- xii. Periodically evaluate the economic impact of a historic designation on the property owner and on the enhancement and preservation of historic resources.

■ Section 8, Historic and Cultural Resources

-Notes-

☐ Section 1, Air Resources Quality



Reduce air pollution and improve air quality in Lake Oswego and the Portland Metropolitan Area.

Section 1, Air Resources Quality

BACKGROUND

Statewide Planning Goal 6: Air, Water and Land Resources Quality

"To maintain and improve the quality of the air, water and land resources of the state."

Statewide Planning Goal 6 requires communities to develop plans and implementing measures so that waste and process discharges from existing and future development do not threaten to violate, nor violate, applicable state or federal environmental statutes, rules and standards. With respect to the air, water and land resources of the applicable air sheds and river basins described or included in state environmental quality statutes, rules, standards and implementation plans, such discharges shall not 1) exceed the carrying capacity of such resources, considering long range needs; 2) degrade such resources; or, 3) threaten the availability of such resources.

Air pollution is both a regional and local problem. Lake Oswego and the rest of the Portland Metropolitan Region are part of the Willamette Valley air-shed which is influenced by the topography and climate of the Willamette Valley basin and the concentration of human activities in the metro area which emit air contaminants. Air pollutants which affect Lake Oswego and the rest of the Metropolitan area originate from three broad categories: 1) point sources which emit large volumes of pollutants from specific locations such as industrial sites; 2) area sources which discharge small levels of pollutants from numerous sites, such as woodstoves, garden equipment, solvents and backyard burning; and;, 3) mobile sources, which are predominately automobiles.

Under the authority of the Federal Clean Air Act, the Environmental Protection Agency (EPA) has established national ambient air quality standards for six classes of pollutants: ozone, carbon monoxide, nitrogen oxides, sulfur dioxide, fine particulate matter and lead. The Oregon Department of Environmental Quality (DEQ) is responsible for monitoring and enforcing these standards and is also responsible for monitoring and regulating pollutants which are either known or probable human carcinogens. DEQ has a coordinated review system to enable local jurisdictions to review air discharge permits to determine compliance with local plans and ordinances.

The Willamette Valley is prone to prolonged periods of poor ventilation because physical and climatic conditions retard the dispersal of air pollutants. The Coast Range and Cascade Mountains confine air movement, and westerly winds are not generally strong enough to disperse pollution eastward. In the winter, surface cold air creates temperature inversions that reduce air mixing near ground level, resulting in high concentrations of carbon monoxide. Pollution problems also occur in the summer and early fall when winds are light and variable, coinciding with high concentrations of suspended particulates and ozone.

Section 1, Air Resources Quality

The air-shed in the Portland Metropolitan Region is a finite resource. Air pollution is growing in the region due to increased vehicle use, growing industrial activity, and increases in the number of area sources associated with a growing population. The region was designated by DEQ in 1991 as not meeting Federal Clean Air Act standards for ground level ozone and carbon monoxide. These pollutants are produced primarily by automobile emissions. Unless increasing air pollution is brought under control within the next five to ten years, mandated control programs will be enforced by the Department of Environmental Quality. In addition to environmental well-being, uncontrolled air pollution would significantly impact the region's economy.

The region's existing and future anticipated air quality problems are being addressed in the following ways.

- Planning for the regional transportation system is required by DEQ to conform to air quality standards.
 Prior to the construction of new roads, the impacts that additional automobile travel will have on the regional air-shed's "emission's budget" must be evaluated. Mass transit alternative travel modes are being promoted to reduce congestion and dependency on the private automobile.
- Mandatory motor vehicle emission tests are required for all automobiles less than twenty years old.
- The Oregon Transportation Planning Rule (OAR 660-12) requires vehicle miles traveled (VMT) to be maintained to the year 2005 and reduced by 10% by 2015. Also, jurisdictions are obliged to amend land use regulations to encourage alternative transportation modes; such as bicycling, walking and transit by November, 1993.
- The 1992-93 Oregon Legislature adopted legislation which enacted ORS 468 A.363 which will implement the following:
 - a. Emission standards for the sale of new gasoline powered lawn and garden equipment;
 - b. Improvements in the Portland area vehicle inspection program including more extensive testing and expanded boundaries;
 - c. Maximum parking space limits for new construction to result in a reduction of less vehicle trips;
 - d. Elimination of the 20 year old vehicle rolling emissions exception;
 - e. Bicycle, pedestrian and transit friendly land use patterns; and,
 - f. A mandatory employer trip reduction program whereby employers with more than fifty employees would be required to submit plans for reducing commute trips.

Section 1, Air Resources Quality

Summary of Major Issues

The following are some of the issues and changed circumstances and conditions which were considered in the update of this element of the Comprehensive Plan.

- The Portland Metropolitan Region was declared a non-attainment area for ground level ozone and carbon monoxide in 1991.
- Anticipated growth in population and traffic is expected to cause the region to exceed the ozone standard after the mid 1990's unless further measures are taken to reduce emissions.
- Air quality is a complex regional problem which must be addressed by the region's governments, business community and individual citizens.
- The Oregon Legislature adopted a number of specific measures to reduce air pollution in the region.

GOALS, POLICIES AND RECOMMENDED ACTION MEASURES

GOAL

Reduce air pollution and improve air quality in Lake Oswego and the Portland Metropolitan Area.

POLICIES

- 1. Cooperate with federal, state and regional agencies to meet the air quality standards of the Federal Clean Air Act.
- 2. Ensure commercial and industrial developments comply with all required state and federal air quality regulations and mitigate the impacts of air pollution through design and abatement measures.
- 3. Preserve and enhance the City's open space and natural resources to sustain their positive contribution to air quality.

Section 1, Air Resources Quality

- 4. Increase the opportunity to use alternative transportation as a means to reduce air pollution by:
 - a. Requiring safe and comfortable pedestrian and bicycle pathways as part of all new street construction projects, where feasible;
 - b. Ensuring new street projects accommodate existing and future transit requirements;
 - c. Requiring the design of new development to be supportive of pedestrian, transit and bicycle users;
 - d. Requiring payment of a systems development charge to be applied to the City's pedestrian and bicycle path system;
 - e. Providing appropriate pedestrian and bicycle facilities as part of new park projects; and,
 - f. Maintaining an ongoing program to build and maintain pedestrian and bicycle paths.
- 5. Encourage land use patterns which, while reducing dependency on the automobile, are also compatible with existing neighborhoods.
- 6. Reduce air pollution associated with municipal operations.
- 7. Reduce congestion and delay on major streets to lessen localized pollution impacts of automobile travel through methods such as signal timing, access management, intersection improvements, etc.

RECOMMENDED ACTION MEASURES

- i. Reduce the local effects of air pollution by requiring commercial and industrial development to undertake measures such as:
 - a. Locating discharge sources where impacts can be minimized;
 - b. Utilizing state of the art abatement equipment and processing technology; and,
 - c. Planting trees and other plant materials on the development site.
- ii. Ensure that industrial and commercial development with the potential for air pollution is reviewed by the Department of Environmental Quality to determine impacts on local and regional air quality.
- iii. Implement measures to reduce air pollution associated with City operations, such as utilizing lesser or non-polluting fuels in city vehicles, replacing chlorinated fluorocarbons in air conditioners and limiting the application of chemicals as part of grounds maintenance activities.

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Section 1, Air Resources Quality

- iv. Work with Metro and DEQ to provide information on regional air shed characteristics and air quality regulations to new and expanding industry.
- v. Promote public education to communicate ways that individual action can reduce air pollution, such as limiting use of automobiles, wood burning stoves and fireplaces, outboard motors and gasoline powered lawn and garden equipment.
- vi. Reduce air pollution by decreasing the need for vehicle trips through:
 - a. Promoting pedestrian, bike and transit friendly land uses, including high density mixed use developments that are compatible with existing neighborhoods;
 - b. Implementing the Oregon Transportation Planning Rule;
 - c. Establishing limits on the number of new parking spaces within commercial and industrial zones;
 - d. Providing opportunities to utilize alternative transportation modes; and,
 - e. Encouraging employers, including the City of Lake Oswego, to implement programs to reduce single occupant trips to and from work.
- vii. Encourage the preservation and planting of trees to improve air quality.

■ Section 1, Air Resources Quality

-Notes-

☐ Section 2, Water Resources Quality



The City shall reduce water pollution, enhance water quality and protect natural drainage systems.

Section 2, Water Resources Quality

BACKGROUND

Statewide Planning Goal 6: Air, Water and Land Resources Quality

"To maintain and improve the quality of the air, water and land resources of the state."

The City of Lake Oswego surrounds Oswego Lake and lies in the eastern portion of the Tualatin Valley, approximately eight miles south of Portland. There are three major drainage basins within Lake Oswego's Urban Services Boundary: Oswego Lake, Tualatin River and the Willamette River. All surface water runoff in Lake Oswego eventually finds its way to the Willamette River, the Tualatin River, or Oswego Lake. Each drainage basin is a complex system of topography, vegetation and hydrology. Water flows through these drainage basins via a network of interconnected creeks and streams. Thus water pollution anywhere in a drainage basin can not only affect the nearest stream, but also all other downstream waters and sometimes groundwater.

As Lake Oswego has grown, natural surfaces that used to absorb surface water have been covered over with streets, parking lots and buildings. Excess rainwater, often carrying pollutants from these impervious surfaces, flows directly into storm drains and ditches. This creates high water levels which result in flooding, stream bank erosion, sedimentation and damage to wildlife and vegetation habitat. In addition, water pollution can come from many other sources such as sewage treatment plants, industry, agriculture and chemicals used to maintain lawns and landscaped areas.

The Oswego Lake and Tualatin River drainages are "water quality limited" based on standards set by the Oregon Department of Environmental Quality. A "water quality limited" stream is one which will not meet water quality standards even after conventional secondary wastewater treatment and application of effluent limits for industrial sources. Pollutants which affect these water bodies include varying amounts of excessive nutrients, sediments, fecal coliform bacteria, copper and other metals, household and industrial chemicals, oil and grease.

To comply with the Federal Clean Water Act, the Oregon Environmental Quality Commission, (EQC) established strict new water quality standards in 1990 aimed at reducing pollution. In particular, the EQC set limits for the amount of phosphorus that may be discharged from surface water runoff into both the Tualatin River and Oswego Lake. These limits are called Total Maximum Daily Loads (TMDLs). Like other communities in the area, Lake Oswego has been given a specific Load Allocation - the maximum amount it can discharge into either basin.

Section 2, Water Resources Quality

Lake Oswego, is also required to meet the requirements of the National Pollutant Discharge Elimination System (NPDES) requirements. This is a program authorized by the Federal Clean Water Act to control a broad range of pollutants originating from both point and non-point sources. Lake Oswego, Clackamas County and the Unified Sewerage Agency are undertaking a joint effort to comply with NPDES requirements within the Urban Services Boundary.

In March, 1991 Lake Oswego and Clackamas County retained a consulting firm to prepare a Surface Water Management (SWM) Plan for the major drainages within the City's Urban Services Boundary. The SWM Plan serves as the primary document to guide enhancement of water quality within the City's USB. In addition to areas incorporated within the City, the study included portions of the City of Rivergrove and unincorporated Clackamas County. The SWM Plan consists of four parts: 1) Public Awareness and Involvement; 2) Flood Control Management; 3) Water Quality Management; and, 4) Implementation. The Surface Water Management Plan also serves to meet the drainage related public facility plan requirements pursuant to Oregon Administrative Rules (OAR) 660-11-010.

A Surface Water Management (SWM) Committee composed of elected and appointed officials, citizens and staff was formed to monitor and assist in the surface water management planning effort. This group also coordinated a public involvement process. The SWM Committee developed the following community objectives for Lake Oswego's Surface Water Management Program which have been incorporated into the following Comprehensive Plan Water Quality Goals, Policies and Recommended Action Measures.

- Create opportunities for citizen participation and awareness.
- Promote using natural systems rather than closed pipe to convey runoff.
- Prevent pollution from getting into runoff.
- Allocate costs in an equitable manner to all who would benefit from improvements.
- Cooperate with other affected communities and agencies.

Summary Of Major Issues

The following are some of the issues and changed circumstances and conditions which were considered in the update of this element of the Comprehensive Plan.

- Lake Oswego is required to comply with National Pollutant Discharge Elimination System (NPDES) surface water regulations.
- Water bodies within the Tualatin River and Oswego Lake drainages have been designated as being "water quality limited" by the Oregon Department of Environmental Quality (DEQ).

Section 2, Water Resources Quality

- Oregon Environmental Quality Commission (EQC) established Total Maximum Daily Loads (TMDLs) for phosphorus entering the Tualatin River and Oswego Lake drainages.
- Lake Oswego, Clackamas County and Rivergrove have completed the "Lake Oswego Surface Water Management Plan" which is intended to guide efforts to:
 - a. Control the quality of urban runoff to the Tualatin River and Oswego Lake drainage basins;
 - b. Provide a capital improvement program to implement a surface water management program; and,
 - c. Serve as the drainage related public facility plan pursuant to Oregon Administrative Rules (OAR) 660-11-010.

GOALS, POLICIES, AND RECOMMENDED ACTION MEASURES

GOAL

The City shall:

- a. Reduce water pollution and ensure that future land use activities protect and enhance area water quality, and;
- b. Protect and enhance the functions and values of the natural ground and surface water drainage systems.

POLICIES

- 1. Protect the natural surface water drainage systems and enhance water quality by treating and controlling run-off and pollution at the source.
- 2. Favor the use of the natural drainage system and other non-structural methods to treat, convey and dispose of run-off.
- 3. Lake Oswego's management of surface water shall:

Section 2, Water Resources Quality

- Restore, protect and enhance water quality and the physical and biological integrity of rivers, lakes and stream corridors and their associated environmental values including natural vegetation, fish and wildlife habitats;
- b. Promote public safety and minimize damage to public and private property by surface water run-off; and,
- c. Educate and involve the community in opportunities to restore, protect and enhance water quality.
- 4. Fund surface water management programs in a manner which allocates costs based upon the impact a development has upon the surface water management system.
- 5. Require all development to:
 - a. Comply with applicable local, state and federal water quality and erosion control standards; and.
 - b. Implement measures to minimize run-off from the development site during and after construction.
- 6. Develop and implement intergovernmental agreements with local, regional, state and federal agencies to implement measures to minimize the quantity of pollutants entering ground and surface waters from both point and non-point sources.
- 7. Facilitate the extension of the City's sanitary sewer systems to areas within the Urban Services Boundary where failing septic systems are contaminating ground and surface waters, provided:
 - a. Those properties benefiting from sewer extension pay their commensurate share of the cost of service; and,
 - b. Annexation occurs prior to any property receiving service.
- 8. Improve the water quality of Oswego Lake by working with DEQ, Oswego Lake Corporation and area residents and businesses within the Lake's drainage basin to implement water quality programs and projects.
- 9. Restore the environmental functions and values of stream corridors as a means to enhance water quality.

Section 2, Water Resources Quality

RECOMMENDED ACTION MEASURES

- i. Develop joint policies and inter-governmental agreements with surrounding jurisdictions and appropriate state agencies to protect surface and ground water resources within and adjacent to the Urban Services Boundary.
- ii. Work closely with adjoining counties and jurisdictions to:
 - Monitor development impacts on surface and groundwater resources in adjoining unincorporated areas to ensure compliance with state requirements and that no "down-stream" pollution impacts occur within the Lake Oswego Urban Services Boundary;
 - b. Ensure that septic tanks and other potential contaminant sources do not result in groundwater or aquifer contamination within the USB; and,
 - c. Comply with National Pollutant Discharge Elimination System (NPDES) surface water regulations.
- iii. Work with the Department of Environmental Quality and surrounding jurisdictions to ensure those streams that flow through the City, and all other water bodies, maintain high levels of water quality. Develop joint programs to acquire better water quality data for these resources.
- iv. Carefully monitor the condition of the sewer interceptor located in Oswego Lake to ensure that it does not contribute to pollution problems.
- v. Implement programs to protect riparian areas and stream corridors and enhance water quality such as:
 - a. Acquisition of property and conservation easements;
 - b. Ongoing efforts to re-vegetate degraded stream banks and install appropriate erosion control; and,
 - c. Development standards which require measures such as setbacks, erosion control, revegetation and preservation of natural vegetation.
- vi. Work with DEQ to ensure the efficient use of public funds in meeting the coordinated requirements of the NPDES and Environmental Quality Commission Rules for the Tualatin basin.
- vii. Maintain an accurate inventory of stream corridors and their respective environmental conditions as a basis from which to restore their contribution to water quality.

■ Section 2, Water Resources Quality

- viii. Coordinate with the plans of local, state, regional, and federal agencies to contain and clean up hazardous waste spills or sites that either contaminate or have the potential to contaminate water resources.
- ix. Integrate management and operation activities associated with water quality and drainage control requirements for all rivers, lakes, streams, and wetlands within the City watershed.
- x. Work with surrounding jurisdictions and the Oregon Department of Environmental Quality (DEQ) and the Environmental Quality Commission (EQC) to comply with EQC rules for the Tualatin basin.

☐ Section 4, Sound Quality



Reduce noise levels in Lake Oswego and maintain the quiet character of the community in which people can converse, relax, play, and sleep without interference from noise.

Section 4, Sound Quality

BACKGROUND

Statewide Planning Goal 6: Air, Water and Land Resources Quality

"To maintain and improve the quality of the air, water and land resources of the state."

A quiet environment contributes significantly to Lake Oswego's quality of life. However, like most cities, Lake Oswego has many noise sources and significant potential for future noise problems exists. Transportation is the most significant source of continuous noise. This includes noise generated by traffic along major roadways and railroads which run through the City. Additional noise problems can result from industrial and commercial activity including manufacturing processes, heating, ventilation and air conditioning equipment, and communication devices such as whistles, buzzers and pagers. The quiet environment of residential neighborhoods can also be affected by occasional noise caused by sources such as electric and gas engine power tools, barking dogs, car and house alarms, audio equipment and construction activity.

There are limits as to what can be done to eliminate existing noise situations such as those caused by transportation. Prevention of future problems depends upon separating noise generating activities from noise sensitive uses, and other measures such as limiting noise emissions and emphasizing noise insulation techniques in new construction. Communities can work to prevent noise problems from occurring, especially in residential neighborhoods, through public education. However, enforcement of noise ordinances is the principal method cities use to address noise disruptions when they do occur in residential neighborhoods.

The City's Municipal Code regulates loud and disturbing noise as a nuisance. These regulations are enforced by the police department and code enforcement officers. There is no ongoing noise monitoring and problems are dealt with on a complaint basis.

Currently, Lake Oswego's development standards for buildings and landscaping require mitigation of noise impacts on interior occupied spaces and adjacent property. The City has no regulations which establish maximum allowable decibel or sound levels.

The Oregon Department of Environmental Quality enforces laws and regulations relating to noise pursuant to Oregon Laws and Administrative Rules (ORS 467 and OAR 340-035-000 et.seq) for new and existing industrial development, transportation facilities and other activities which can generate problem amounts of noise. However, DEQ does not have an active noise enforcement program. Because of budget constraints, the agency responds to noise problems on a complaint basis only.

■ Section 4, Sound Quality

Noise problems are very hard to solve after an area is developed. Consequently, DEQ encourages local governments to evaluate potential noise problems as part of planning and zoning decisions. Therefore, Lake Oswego has a responsibility to review development applications in regard to noise impacts. Development standards can also regulate the siting of noise generating activities adjacent to sensitive areas such as residential neighborhoods, schools, hospitals, parks, natural areas and open spaces. Conversely, noise impacts should be adequately mitigated by noise sensitive development when such development is located adjacent to noise producing activities.

Summary Of Major Issues

The following are some of the issues, changed circumstances and conditions which were considered in the update of this element of the Comprehensive Plan.

- Transportation represents the most significant source of continuous noise within Lake Oswego.
- Occasionally, the quiet environment of residential neighborhoods is disturbed by electric and gas engine power tools, barking dogs, audio equipment, car and house alarms, and construction activity.
- Local jurisdictions have the primary responsibility for regulating noise and preventing noise problems. DEQ does not take an active role in monitoring and enforcing noise regulations.

GOALS, POLICIES, AND RECOMMENDED ACTION MEASURES

GOAL

Reduce noise levels in Lake Oswego and maintain the quiet character of the community in which people can converse, relax, play and sleep without interference from noise.

POLICIES

1. Protect and maintain the quiet character of those areas of the community unaffected by major noise sources.

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■ Section 4, Sound Quality

- 2. Ensure development complies with state and local noise regulations.
- 3. Prevent noise problems through zoning regulations, development standards and ordinances that prescribe fines and other penalties for violations.
- 4. Evaluate the noise potential of proposed development and separate noise-sensitive and noise-producing land uses.
- 5. Locate, design and buffer land uses which generate noise such as major transportation facilities, industrial development and active recreation areas to protect existing and future noise sensitive land uses.
- 6. Require noise mitigating construction and site design measures for noise sensitive development that would be impacted by existing or future noise producing land uses.
- 7. Minimize noise impacts on residential neighborhoods, public open spaces, recreation and natural areas.

RECOMMENDED ACTION MEASURES

- i. Coordinate with area jurisdictions and state and local agencies to minimize noise impacts of existing and future transportation facilities and other noise-producing land uses.
- ii. Adopt development standards which require review of the potential noise impacts of new development, including roads and the need for commensurate mitigating measures such as:
 - a. Building setbacks;
 - b. Berms, sound walls and extensive landscaping;
 - c. Site design measures such as using parking, storage areas and buildings which generate little or no noise to separate noise sources from surrounding land uses;
 - d. Sound insulation and state of the art mechanical and processing equipment which generate little or no noise;
 - e. Measures recommended by DEQ or a qualified noise consultant and financial agreements to ensure required noise reduction measures are installed;
 - f. Increased rights-of-way for major arterials and berming, sound walls, sunken roadways, and planting of large shrubs and trees; and,
 - g. Traffic management measures to discourage through traffic from using local residential streets.

■ Section 4, Sound Quality

- iii. Regulate hours of construction activity to minimize the noise impacts on the surrounding area.
- iv. Minimize the noise impacts in residential areas by electric and gas engine power tools, barking dogs, audio equipment, house and car alarms, etc., through effective noise ordinances, enforcement and community education.

■ Section 1, Flood Hazards

Tualatin River



The City shall protect life and property from flood hazards.

Section 1, Flood Hazards

BACKGROUND

Statewide Planning Goal 7: Areas Subject To Natural Disasters And Hazards

"To protect life and property from natural disasters and hazards"

Statewide Planning Goal 7 requires development subject to damage or loss of life not to be planned or located in known areas of natural disasters and hazards without appropriate safeguards. Plans are to be based on an inventory of known areas of natural disaster and hazards, including flooding, erosion, landslides, earthquakes, weak foundation soils or other hazards which may be unique to local or regional areas.

Because of Lake Oswego's topography, flooding* does not represent as significant a hazard as it does for other communities in the Willamette Valley. However, waters from a 100 year flood* would inundate lands adjacent to major water bodies in the area, which include the Willamette and Tualatin Rivers; Oswego Lake, its bays and canals and Springbrook Creek. A flood of this magnitude would also pose hazards to properties immediately abutting smaller streams such as Lost Dog Creek and the southern tributary to Tryon Creek.

Within these areas, flooding is a significant natural hazard. Its effects range from inconvenience to the potential for loss of life and property. Development and other activities within the floodplain, such as filling and vegetation removal, can make flooding worse by decreasing the area available for storage and conveyance of floodwaters. When this occurs, floodwaters are displaced onto lands previously not subject to flooding and the velocity of floodwaters is often increased. Also, buildings and bridges within the floodplain can function as dams during flooding and cause greater upstream inundation. The removal of vegetation along river and stream banks and in the floodplain also reduces the floodplain's storage capacity and increases soil erosion.

The annual flood season in the Willamette Valley extends from October to April. The greatest potential for flooding occurs during December and January when water-laden soils and streams can no longer convey runoff from heavy winter rains.

A 100 year flood, which is also called the "base flood,"* has a one percent chance of occurring in any one year. The floodplain* is divided into the floodway* and the floodway fringe* (Figure 6). The floodway is defined as the channel and adjacent land areas which are the minimum needed for the passage of floodwaters so that upstream flood elevations are not increased. Floodplain management regulations require preservation of an adequate floodway area to discharge the waters of a 100 year flood without cumulatively increasing the water surface elevation by more than one foot. The floodway fringe is the area bordering, but outside, the floodway. The floodway fringe is subject to flooding but does not contribute appreciably to the passage of flood flows.

■ Section 1, Flood Hazards

The Federal Emergency Management Agency (FEMA) provides Lake Oswego with mapped floodplain information which identifies flood plain elevations and areas subject to flooding. The most recent FEMA floodplain study was completed in 1987.

Lake Oswego participates in the National Flood Insurance Program which is administered by FEMA. Flood-plain insurance studies are used by FEMA to assess risks of developing in the floodplain and to establish flood insurance rates. Other federal, state and local sources are used to estimate the floodplain's location if an area subject to flooding has not been mapped by FEMA. The Flood Insurance Program enables property owners to obtain federally subsidized flood insurance. The program also makes an area eligible for disaster relief if extensive area-wide flooding ever occurs. Participation in the program by local jurisdictions requires the adoption of land use controls meeting FEMA standards. In response, the City adopted Development Standard 17, "Floodplains" in 1988. The Floodplains Standard applies to all development within flood hazard areas.

Summary of Major Issues

The following are some of the issues and changed circumstances and conditions which were considered in the 1993 update of this element of the Comprehensive Plan.

- The Federal Emergency Management Agency (FEMA) updated floodplain information for lands within the City of Lake Oswego Urban Services Boundary in 1987.
- The City adopted "The 1987 Flood Insurance Study for the City of Lake Oswego, Oregon," and; Development Standard 17, "Floodplains" in 1988.

GOALS POLICIES AND RECOMMENDED ACTION MEASURES

GOAL

The City shall protect life and property from flood hazards.

☐ Section 1, Flood Hazards

POLICES

- 1. Continue to participate in the National Flood Insurance Program* and comply with all Federal Emergency Management Agency (FEMA)* standards.
- 2. Limit new development in the FEMA-regulated floodway, including filling and removal of earth, to the following uses provided there is no increase in base-year flood levels.*
 - a. Public and private open space and recreational uses;
 - b. Water-dependent structures* such as docks, piers, bridges, and floating marinas; and,
 - c. Public facilities including unpaved roads and private access ways.
- 3. Review development proposals, including public facilities, filling and grading, within areas subject to flooding to ensure:
 - a. Conformance with FEMA and other regulatory agencies;
 - b. Reasonable protection of public facilities;
 - c. The flow, velocity and elevation of flood waters are not changed so as to endanger other property;
 - d. Natural systems such as fish and wildlife habitat, vegetation, wetlands and stream corridors are protected; and,
 - e. Other problems associated with flooding such as ponding, poor drainage, high water tables and unstable soils are addressed.
- 4. Protect, restore and maintain the natural systems of floodplains including riparian vegetation, wooded areas, wetlands and fish and wildlife habitat.
- 5. Allow development density within the flood fringe to be transferred to higher portions of the development site.
- 6. Designate floodplains as Protection Open Space*.
- 7. Prohibit the storage of hazardous substances* within the floodplain.
- 8. Ensure that filling in the flood fringe is conducted in accordance with City and applicable state and federal regulations, and is the minimum necessary for development to conform with FEMA standards.
- 9. Protect, restore and maintain watercourses* within the floodplain.

■ Section 1, Flood Hazards

10. Require new or replacement water and sanitary sewer systems within the floodplain, constructed to prevent infiltration of floodwaters and discharge of untreated waste water during flooding.

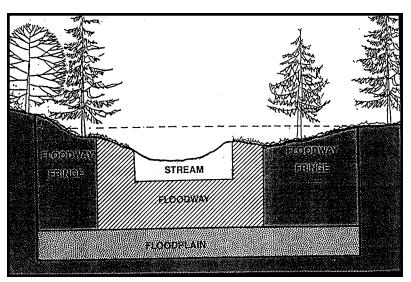
RECOMMENDED ACTION MEASURES

- i. Maintain current floodplain information for the Lake Oswego Urban Services Boundary and make it easily available to the public.
- ii. Coordinate with the Army Corps of Engineers, Federal Emergency Management Agency and other responsible state, regional and local agencies regarding:
 - a. Periodic review and update of floodplain information;
 - b. Review of major development which could have flood impacts across jurisdictional boundaries; and.
 - c. Emergency operations planning necessary to protect life and property during a major flood.
- iii. Encourage acquisition within the flood plain, of property and easements, as designated by the Lake Oswego Surface Water Management Plan, for conveyance and storage of floodwaters and for natural open space and passive recreation uses.
- iv. Encourage Clackamas County not to approve on-site sewage treatment systems within the unincorporated Urban Services Boundary which would be impaired during flooding and which could contaminate floodwaters.
- v. Utilize other federal, state and local sources to estimate the floodplain's location if an area suspected to be subject to flooding has not been mapped by FEMA. If these sources are not available, the required information shall be provided by the developer.
- vi. Encourage uses within the floodplain which do not require protection by dams, dikes or levees such as parks, open space areas, wetlands, and storm water detention facilities.
- vii. Establish development regulations and standards to protect and restore watercourses within the floodplain which require:
 - a. Buffers between development and water courses;
 - b. Maintenance and restoration of natural vegetation;
 - c. Erosion control and protection of water quality, and;

7.1-4 LAKE OSWEGO COMPREHENSIVE PLAN

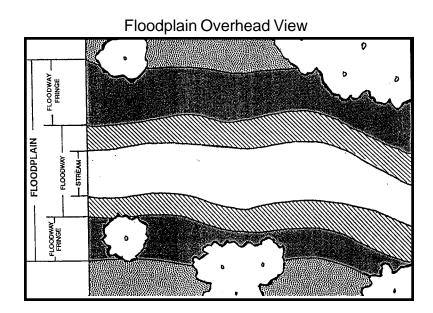
■ Section 1, Flood Hazards

d. Implementation of other measures necessary to maintain the water carrying capacity of water-courses and preserve their natural functions.



Floodplain Cross Section

Figure 6



■ Section 1, Flood Hazards

- Notes -

☐ Section 2, Earthquake Hazards

Lake Oswego Community Emergency Response Team (CERT) participates in disaster training.



The City shall protect life and property from earthquake hazards.

Section 2, Earthquake Hazards

BACKGROUND

Statewide Planning Goal 7: Areas Subject To Natural Disasters And Hazards

"To protect life and property from natural disasters and hazards."

Statewide Planning Goal 7 prohibits planning or locating developments subject to damage or loss of life in known areas of natural disasters and hazards without appropriate safeguards. Plans are to be based on an inventory of known areas of natural disaster and hazards, including flooding, erosion, landslides, earthquakes, weak foundation soils or other hazards which may be unique to local or regional areas.

Until just a few years ago, Oregon was unaware of the seriousness of the earthquake threat in the state. Recent scientific studies and search for evidence of past seismic activity have proven that the state may be more vulnerable than previously suspected. In addition, Oregon experienced an earthquake of 5.6 on the Richter scale in March, 1993. The area within Lake Oswego's Urban Service Boundary has experienced seismic activity in historic times, making it a seismically active area.

In 1991 the Oregon Seismic Safety Policy Advisory Commission researched actions to address earthquake risk in Oregon. This Commission concluded that additional research and assessments of seismic hazards are needed to develop informed policy decisions for land use planning, structural codes and emergency response to earthquakes. Current seismic hazard assessment data was deemed to be inadequate to guide preparation for earthquake events. Recently, seismic risk maps for Oregon's Structural Code have been upgraded from seismic zone 2B to zone 3, which requires an increased level of design for structures built in western Oregon. This is in recognition of recent geologic evidence which is causing an increased emphasis to be placed on building flexibility.

The scientific understanding of earthquake hazards in Oregon, although incomplete, continues to advance. In 1994, the State of Oregon Department of Geology and Mineral Industries (DOGAMI) collected data to construct a Relative Earthquake Hazard Map of the Lake Oswego Quadrangle. This map will be based on a detailed mapping of the area's geology and specialized geophysical and geotechnical measurements and will categorize areas into one of four relative hazard categories from greatest hazard to least hazard. It will not provide information with regard to the probability of damage occurring. Rather, it will show that when an area is shaken by an earthquake, the damage is more likely to occur or be more severe in the higher hazard areas. This type of relative hazard determination will be useful in developing hazard mitigation policies such as in emergency response plans, directing efforts for strengthening or replacing older and weaker buildings in areas of greatest hazard effects or determining the location of future urban expansion or intensified development. Metro is also developing model code language for the region to assist cities in regulating earthquake hazards.

■ Section 2, Earthquake Hazards

In 1993, the City completed an interim "Earthquake Plan" as part of its Emergency Operations Plan and Annexes document. The Earthquake Plan provides the basic framework to guide City departments in their efforts to mitigate, prepare for, respond to and recover from a major earthquake. This Plan will enable the City leadership to influence the ease and timeliness with which daily life resumes in the aftermath of a disaster.

The City's previous Comprehensive Plan contained no policies regarding earthquake hazards.

Summary of Major Issues

The following are some of the issues and changed circumstances and conditions which were considered in the update of this element of the Comprehensive Plan:

- The Oregon Structural Code was updated in 1993, upgrading the level of structural design to that required by Zone 3, for western Oregon.
- The Oregon Seismic Safety Policy Advisory Commission concluded in its 1992 report that additional research and assessments of seismic hazards are needed to develop informed policy decisions for land use planning in response to earthquake hazards.
- In 1993 The City of Lake Oswego completed its "earthquake annex" to add to its Emergency Operation Plan. This plan outlines the City's disaster response and recovery plan for earthquake events.
- DOGAMI mapped faults and areas of seismic activity in Oregon in 1993.

Section 2, Earthquake Hazards

GOALS, POLICIES AND RECOMMENDED ACTION MEASURES

GOAL

The city shall protect life and property from earthquake hazards.

POLICIES

- 1. Cooperate with the DOGAMI in the delineation of areas of relatively greater hazard due to potential damage from earthquakes.
- 2. Enact regulations governing the location of structures and land uses, as new seismic information becomes available.
- 3. Coordinate adequate earthquake emergency response with the Federal Emergency Management Agency, Clackamas County Emergency Operations and other appropriate government agencies.
- 4. Require compliance with the current edition of the Oregon Structural Specialty Code regarding building design for earthquake resistance.
- 5. Provide education and public awareness of earthquake risks and public safety.

RECOMMENDED ACTION MEASURES

- i. Review and modify the City's Emergency Operations Plan as necessary to achieve a reduction in loss of life, personal injury and property damage in the event of an earthquake.
- ii. Integrate earthquake safety planning into all City operations.
- iii. Maintain and provide current earthquake information and Oregon Structural Specialty Code seismic requirements to developers and other interested citizens.

Section 2, Earthquake Hazards

- iv. Assess potential seismic influences, damage potential and possible corrective actions to City sewer and water systems, bridges and other City facilities
- v. Use DOGAMI's inventory of relative earthquake hazards in the Lake Oswego area to determine areas that will likely experience the greatest effects from any earthquake. This information can be used in refining the Emergency Operations Plan and determining relative damage potential of various locations.
- vi. Supply information brochures on earthquake preparedness, to residents, schools and civic groups and make brochures available at the Library.

☐ Section 3, Landslides, Erosion and Unstable Soils



The City shall protect life and property, from hazards associated with landslides, soil erosion and unstable soils.

Section 3, Landslides, Erosion and Unstable Soils

BACKGROUND

Statewide Planning Goal 7: Areas Subject To Natural Disasters And Hazards

"To protect life and property from natural disasters and hazards."

Statewide Planning Goal 7 prohibits planning or locating developments subject to damage or loss of life in known areas of natural disasters and hazards without appropriate safeguards. Plans are to be based on an inventory of known areas of natural disaster and hazards, including flooding, erosion*, landslides, earthquakes, weak foundations soils or other hazards which may be unique to local or regional areas.

Landslides and soil erosion hazards exist within the Lake Oswego Urban Service Boundary because of the presence of hilly terrain, steep ridges and ravines underlain by unstable geology and overlain by soils which have low carrying capacity for structures. The slope and soil of a hillside are generally balanced with the amount of precipitation, vegetative cover and the underlying geology. However, hillsides are constantly in motion, due to gravity and the effects of weathering and erosion. Any time the load on a susceptible hillside is increased or the stabilizing vegetation altered, erosion or landslide can occur. These disturbances can also increase surface water runoff and affect water quality through erosion and siltation.

Developments in these hazard areas can frequently result in private and public costs, either for repairs to structures, roads or other facilities or for protective measures to prevent future damage. Development in areas of landslides is also more expensive than development in flatter, more stable terrain. Sewer and water lines and roads may also require special engineering in these sensitive areas.

Landslide and soil erosion hazards can be reduced or eliminated by regulating development to ensure slopes prone to severe landslides are not destabilized. Especially important is regulating development in areas where landslides have actually occurred and where severe landslide hazards exist. When development is allowed on slopes, it must be carefully engineered and sensitively placed. Retaining existing vegetation, employing on-site erosion prevention methods during construction and replacing vegetation can moderate landslide and erosion problems.

LOC 16.005, Hillside Protection and LOC 15.005, Erosion Control Standards, regulate development on steep slopes and all development in relation to potential for erosion problems. In addition, the City's land use regulations provide protection for stream corridors, vegetation, and Distinctive Natural Areas often associated with hillsides, ravines and ridge lines. Known potential severe landslide areas are described and mapped in the Engineering Geology Chapter of the Lake Oswego Physical Resources Inventory (LOPRI), March, 1976, on file at City Hall.

Section 3, Landslides, Erosion and Unstable Soils

Soils with low strength have been identified by LOPRI - Engineering Geology Section and Soil Conservation Service Soils Survey, Lake Oswego, as Weak Foundation Soils having low strength. Soils which hold a moderate to severe soil weakness warning have also been identified.

The result of placing structures on unstable soils is overall settlement, differential settlement, or soil creep out from under foundations, which results in damage to structures not designed to accommodate the movement or seasonal shrink and swell. Weak soils on slopes can move down slope (soil creep).

Weak foundation soils constitute a hazard only where the weakness is unknown or when foundation design is not addressed to the condition. Engineering solutions are possible to accommodate the development problems associated with unstable soils. In addition, these lands can be left in open space, or structures clustered on stronger soils to prevent possible expense and property loss associated with these hazards. Development Standard 13.005, Weak Foundation Soils, regulates development on unstable soils, requires a soils report describing the nature of the soils and the adequacy of the soils to support intended structures and requires corrective measures, if necessary.

Summary of Major Issues

The following are some of the issues and changed circumstances and conditions which were considered in the update of this element of the Comprehensive Plan.

- LOC 15.005, Erosion Control, was adopted in 1993 to minimize the amount of sediment and other pollutants reaching the surface water management system.
- LOC 16.005, Hillside Protection Standard was adopted in 1992 and revised in 1993 to prevent hazards associated with building on steep slopes.
- LOC 13.005, Weak Foundation Soils was adopted in 1986, to identify in more detail and to minimize hazards associated with development in areas with unstable soils.

Section 3, Landslides, Erosion and Unstable Soils

GOALS, POLICIES AND RECOMMENDED ACTION MEASURES

GOAL

The City shall protect life and property, from hazards associated with landslides, soil erosion and unstable soils.

POLICIES

- 1. Identify areas within the Lake Oswego Urban Services Boundary with a potential for soil erosion hazard, landslide hazard and unstable soils, including the degree of potential hazard.
- 2. Regulate density and intensity of land use in areas with the potential for unstable soils, known or potential landslide hazards and soil erosion hazard areas, in accord with the degree of hazard.
- 3. Enact and maintain regulations and standards which require:
 - a. Appropriate engineering and site development measures to prevent damage from hazards associated with erosion, landslides and unstable soils;
 - b. Protection and restoration of natural and topographic features such as ridge lines and vegetation to preserve slope and soil stability;
 - c. Open space preservation of slopes which cannot be developed because of severe landslide and erosion hazard;
 - d. Protection of natural resources associated with steep slopes such as stream corridors, trees and other vegetation and wildlife habitat; and,
 - e. Erosion control measures.
- 4. Control erosion at its source through minimizing the disturbance of existing vegetation.
- 5. Require property owners to include erosion and drainage control measures in site planning, during and after development, to prevent increases in surface water runoff, erosion and siltation.
- Require that land identified with a potential for high erosion hazard will be maintained in open space, unless appropriate evidence demonstrates that engineering can effectively overcome soil and slope limitations.

■ Section 3, Landslides, Erosion and Unstable Soils

- 7. Allow development density proposed on steep slopes and on lands with unstable soils to be transferred to stable portions of the site when these areas are preserved as open space.
- 8. Allow innovative site and building design, including the clustering of buildings, to avoid development in hazard areas and encourage steep slopes to be used for open space uses.
- 9. Ensure that public facilities and services are planned to be located in non-hazard areas, where possible. When hazard areas are unavoidable, ensure that public facilities and services are designed to withstand movement of soil and rock.
- 10. Require the review of any development proposal by the appropriate local, state and federal agencies.

RECOMMENDED ACTION MEASURES

- i. Minimize ground disturbance during construction by retaining natural vegetation and topographic features such as natural drainage swales, rock outcroppings and ridge lines, to the greatest extent possible, and by using measures to minimize runoff during development and after construction.
- ii. Require expected surface water runoff for all development to be controlled on site, where practical, in order to protect property, stream channels and stream corridors from present and future runoff and sedimentation.
- iii. Promote slope and soil stability and use of the natural drainage system in areas of landslide potential, by retaining areas of existing vegetation to the greatest extent possible.
- iv. Maintain a current inventory of landslide and unstable soil hazards.
- v. Reduce soil erosion problems by inspecting construction site controls, responding to complaints and providing enforcement.
- vi. Reduce intensity of development from that permitted by the zoning code or previous development approval, if necessary, to eliminate or reduce an erosion, landslide or unstable soil hazard.
- vii. Create a public awareness program to educate developers and the general public regarding the importance of erosion control, the City's erosion control program, and ways in which they can promote erosion control.

7.3-4 LAKE OSWEGO COMPREHENSIVE PLAN



The City shall plan, acquire, develop and maintain a system of park, open space and recreation facilities, both active and passive, that is attractive, safe, functional, available to all segments of the population and serves diverse current and long range community needs.

Goal 8: Parks and Recreation

BACKGROUND

Statewide Planning Goal 8: Recreational Needs

"To satisfy the recreational needs of the citizens of the state and visitors and, where appropriate, to provide for the siting of necessary recreational facilities including destination resorts."

Statewide Planning Goal 8 instructs communities to plan for meeting recreational needs in coordination with private enterprise, in appropriate proportions and of a quality and in a quantity consistent with the availability of resources to meet the requirements. Cities are to coordinate with state, federal and regional agencies' plans.

The basis of the Lake Oswego Parks and Recreation system is the provision of diverse recreation opportunities and experiences for all residents of the City. City parks and recreation services provide essential active, passive, social and cultural opportunities for a broad spectrum of residents. As Lake Oswego's population grows and land becomes more densely developed, careful planning for parks, open space and recreational services becomes increasingly critical in maintaining adequate opportunities.

Over the years residents have supported high quality parks and recreation programs through an ongoing serial levy. Since the original Comprehensive Plan was adopted in 1978, the City's inventory of park land and facilities has grown from 241 acres to 320 acres in 1993. In addition, the City operates the Adult Community Center which provides for many of the needs of Lake Oswego's older adult community. The City also operates an 18 hole par 3 golf course. Lake Oswego's recreation program offerings include extensive team sports, educational and cultural activities. Lake Oswego residents also passed a \$12 million bond measure in 1990 for park acquisition and pathway development. These investments in the City's park and recreation system represent a rich legacy of varied park lands and recreation programs which are tied to the community's image and character. Protecting this investment through park renovation and maintenance is important to Lake Oswegans.

A 1990 survey of Lake Oswegans indicated that residents' top ranked activities include watching television or videos, reading, walking, exercise/aerobics, gardening, jogging or running, attending sports events, driving for pleasure, swimming and nature walks. This survey also indicated that the recreation facilities or activities residents felt were most needed in Lake Oswego include bike and pedestrian pathways, a pool facility, sports/playing fields, a regulation golf course, river/lake development and access points, tennis courts, multi-use recreation facilities and interpretive natural areas. Suggestions for improving Lake Oswego's park and recreation services included developing a pathway system, constructing a swim facility, improving publicity and promotion of parks and recreation programs and services and improvement of safety, cleanliness and recreation access to recreation facilities. Over 80% of survey respondents rated the City's recreation programs offered as "excellent" or "good".

Goal 8: Parks and Recreation

Summary of Major Issues

The following are some of the issues and changed circumstances and conditions which were considered in the update of this element of the Comprehensive Plan.

- Creating a policy context to describe the City's commitment to recreational programs.
- Acknowledging pathways for their recreational value, as linkages to parks and to improve accessibility.
- Ensuring that purchased or donated park lands are usable and satisfy park and recreation needs.
- Coordinating with private and school recreation providers to provide optimum usage of facilities.

GOALS, POLICIES AND RECOMMENDED ACTION MEASURES

GOAL

The City shall plan, acquire, develop and maintain a system of park, open space and recreation facilities, both active and passive, that is attractive, safe, functional, available to all segments of the population and serves diverse current and long range community needs.

POLICIES

- 1. Plan for park and recreation facilities which:
 - a. Provide for active and passive recreational opportunities;
 - b. Educate and entertain the public through interpretive and recreational programs;
 - c. Promote enjoyment of the cultural arts; and,
 - d. Enhance the environmental quality of the City.

Goal 8: Parks and Recreation

- 2. Identify and acquire lands which satisfy current and/or long-range community recreation needs in terms of size and usability for planned activities and facilities.
- 3. Coordinate park planning, acquisition and development with affected neighborhoods and with other community projects and programs.
- 4. Distribute park and recreation opportunities by type throughout the City as land availability allows.
- 5. Ensure a long-range balance is maintained between land acquisition and facility development efforts to:
 - a. Avoid the irrevocable loss of land suitable for park and recreation uses;
 - b. Minimize future land acquisition costs; and,
 - c. Provide for the activity needs and preferences of the community.
- 6. Require developers to pay their equitable share of future park acquisition and development costs.
- 7. Plan and develop a system of pathways which can connect open space and park facilities with neighborhoods.
- 8. Develop parks that:
 - a. Are compatible with adjacent land uses, by using setbacks and effective buffering and screening to minimize impacts of intensive uses such as traffic, parking, bright lights and noise;
 - b. Do not generate traffic which exceeds the design capacity of adjacent streets at off peak hours and, where feasible, do not utilize local residential streets to accommodate traffic generated by intensive uses; and,
 - c. Are, where possible, accessible by a variety of transportation modes including transit, bicycling and walking.
- 9. Maintain parks and facilities in a manner which will prolong the life of capital assets, reduce operational costs, assure safe and accessible use, improve park design and conserve resources.
- 10. Provide accessibility to all park users, according to applicable state and federal laws.

Goal 8: Parks and Recreation

- 11. Develop major neighborhood park and play field facilities in conjunction with schools, wherever possible.
- 12. Preserve and enhance distinctive natural areas which are located on park lands.
- 13. Integrate open space, pathways and view corridors, with park land and facilities.
- 14. Inform and involve the citizens of Lake Oswego in the development and operation of the Parks and Recreation system and in evaluating the effectiveness of parks and recreation activities.
- 15. Enhance the quality of life in the community by providing recreation programs that are creative, productive and responsive to the needs of the public, including those who have special needs such as the elderly, disabled and disadvantaged.
- 16. Give City residents priority in pricing and scheduling City sponsored activities.
- 17. Coordinate with state, federal, regional and other local jurisdictions and with local "friends" groups in the planning and implementation of parks and recreation policies and programs.
- 18. Coordinate and cooperate with school districts and other organizations to meet park and recreation needs of the City and the region and to assure optimum efficient use of all parks and recreation facilities and resources.
- 19. Ensure the opportunity for Lake Oswego residents to have access to parks and recreation facilities and programs regardless of income.

RECOMMENDED ACTION MEASURES

- i. Secure adequate financial support to develop and implement the Parks Acquisition Program in accordance with defined priorities.
- ii. Utilize the Capital Improvements Plan and the Parks and Recreation Master Plan to develop land acquisition and facility development priorities.
- iii. Encourage the development of other recreational facilities which are consistent with community recreation objectives and needs.
- iv. Encourage multi-use of public and other recreation facilities.

8-4 LAKE OSWEGO COMPREHENSIVE PLAN

Goal 8: Parks and Recreation

- v. Provide interpretive programs for natural areas to increase the community's appreciation and understanding of natural areas.
- vi. Emphasize park development and maintenance practices which utilize low maintenance and droughttolerant plant materials which enhance the aesthetic quality and wildlife habitat value of parks, natural areas and open spaces.
- vii. Maintain a parks and recreation advisory body to advise City Council of parks acquisition and development, park design and facilities, recreation programs and priorities and citizen involvement for parks and recreation planning and implementation.
- viii. Seek citizen input in park and recreation planning through surveys, meetings or other appropriate methods.
- ix. Offer a variety of recreation programs and activities which are economically and physically accessible to Lake Oswego residents including those with special needs.
- x. Give scheduling priority to City-sponsored recreation programs and activities which use City facilities.
- xi. Coordinate and cooperate with other jurisdictions and public and private agencies to acquire and develop parks and provide recreation programs.
- xii. Schedule recreation programs at convenient times for maximum participation by residents.

☐ Goal 8: Parks and Recreation

-Notes-

Goal 9: Economic Development

Kruse Woods Office Building



The City shall provide for economic development opportunities which enhance the prosperity and livability of the community.

Goal 9: Economic Development

BACKGROUND

Statewide Planning Goal 9: Economic Development

"To provide adequate opportunities throughout the state for a variety of economic activities vital to the health, welfare and prosperity of Oregon's citizens."

Statewide Planning Goal 9 requires that comprehensive plans address the economic health and vitality of the state and provide opportunities in the local community for economic activity. To meet the requirements of Goal 9, cities and counties must analyze economic patterns, including strengths and weaknesses, based upon state and national trends. Policies for economic development opportunities must be addressed in the plan. Further, cities and counties must provide for an adequate supply of sites for industrial and commercial development, and that land must be appropriately located and zoned for the intended uses.

Statewide Planning Goal 9 recommends that communities take into account the availability of public facilities and services needed for future commercial and industrial development as well as the carrying capacity of air, land and water resources. The Goal also places a priority on the vitality of existing businesses as a means of strengthening the local economy.

Lake Oswego's economy is an integral part of the economy of the Portland Metropolitan Area. The City's economy, like that of the region, is influenced by state, national and increasingly, global economic factors.

Many of the state and national trends, as well as other economic factors affecting Lake Oswego, were documented in 1988 as part of the City's compliance with State Periodic Review* requirements. This information is contained in a study entitled, "An Analysis of Commercial and Industrial Land Use and Employment in Lake Oswego, Oregon," August 1988. This analysis was updated in 1994 as part of the City's review and update of the Comprehensive Plan.

Lake Oswego's economic vitality is influenced by many factors, including:

- Livability of the City, especially the quality of the City's residential areas and the availability of housing.
- The type, quality and cost of city and other public services.
- The quality of Lake Oswego's schools and the educational level of its residents.
- The presence of businesses to serve the needs of local area residents and other business, and to provide jobs for those residing in the community.

Population Growth and Characteristics

The U.S. Census Bureau listed Lake Oswego's 1990 population at 30,576. This represented an increase of 33.7% over the 1980 Census figure of 22,686. By 1993, the population had reached 32,555. Metro projects that by 2010 the City's population will be about 45,374. Much of this growth will take place through annexation within the City's unincorporated Urban Services Boundary.

Lake Oswego is distinguished in the State of Oregon and Clackamas County by the level of education and income of its residents. Lake Oswego's educational levels are considerably above both Oregon and Clackamas County: As of the 1990 Census, over half (50.9%) of the City's population 18 years of age and older, had a college degree, as compared with 18.8% and 21.6% for Oregon and Clackamas County, respectively.

A high educational attainment level is one reason Lake Oswego's median household income exceeds Oregon's and Clackamas County's. The City's 1989 median household income, from the 1990 U.S. Census, was \$51,499. This compares with \$27,250 for the State of Oregon and \$35,419 for Clackamas County.

There are also some differences in how Lake Oswego residents are employed versus others in the Metro region and the state. According to the 1990 Census, Lake Oswego had a higher percentage of residents employed within professional and managerial occupations compared to the state and Clackamas County. The City had significantly lower proportions of residents employed in manufacturing and retail trade, and significantly higher proportions of residents employed in finance, insurance and real estate.

Business and Employment Characteristics

In the ten year period from 1984 to 1994, Lake Oswego had a 115% increase in the total number of businesses licensed by the City, with an 87% increase of persons employed in those businesses. This indicates that business development and jobs have both grown faster than population for almost the same ten year period.

Businesses in Lake Oswego tend to be small and have gotten somewhat smaller over the past ten years. In 1984 the average business, excluding home occupations, had 4.29 employees. This decreased to 3.78 by 1994. These changes are most likely due to two phenomena which have become widespread in the United States during the past decade - downsizing and technological change. Perhaps, partly as a result of these factors, the number of home occupations rose from 270 in 1984 to 633 in 1994, a 134% increase. Home occupations now represent about 10% of all those employed in city-licensed businesses.

The 1990 census indicated that more than half, 16,631 persons, of Lake Oswego's total population of 32,555 were employed. Like most suburban communities, considerable commuting takes place to and from Lake Oswego for employment purposes. However, Lake Oswego has a considerable local employment base. The census and data derived from City business licenses indicates that approximately 7,400 people are employed within the City.

Industrial growth in the Lake Oswego area has been far exceeded by commercial and office development. Comparatively, it is a smaller part of Lake Oswego's overall job base.

Commercial Land Uses

In 1994 there were about 540 acres of commercial and industrial land within Lake Oswego's Urban Services Boundary. Most of this land has been developed. There are approximately 40 acres of vacant commercial land within the unincorporated portion of the City's Urban Services Boundary, mostly within the Kruse Way/ Centerpointe Business District. Within the City limits, there are an additional 27 acres of vacant commercial and seven acres of vacant industrial land. All of the above vacant sites are small parcels ranging in size from .25 to 5.0 acres. In addition, it is estimated that there are about 40 acres of underutilized* commercial land within the City that offer opportunities for more intense development.

The characteristics of Lake Oswego's six commercial business and two light industrial districts are summarized as follows:

1. Kruse Way/Centerpointe Business District

With the exception of the recession of 1980-83, Lake Oswego and proximate areas of western Clackamas County experienced significant economic development in the form of new office and retail space during the 1980s and early 1990s. The Kruse Way/Centerpointe area east of Highway 217 and I-5 (Figure 7), became a premier location for new corporate office buildings and supportive uses such as hotels, restaurants and other services. This area not only provides the opportunity for Lake Oswego residents to work closer to home but also serves as a major employment center in the southwestern Portland Metropolitan Area.

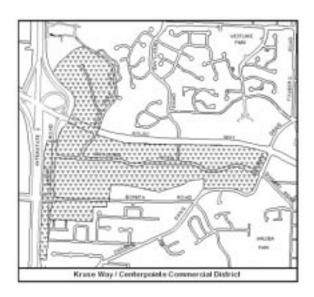


Figure 7

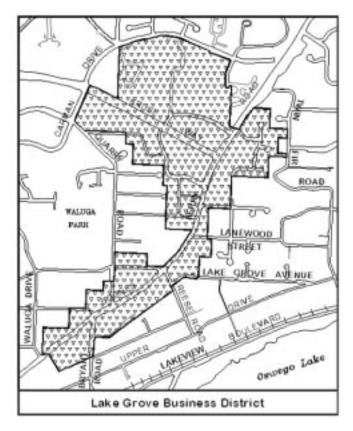
The 1990 census estimates that there are more than 4,000 jobs located in the Kruse Way/Centerpointe area. Two to three million square feet of development potential remains in this business district.

Land use designations for the Kruse Way/Centerpointe Business District fall within three categories: Highway Commercial*, Office Campus* and Campus Research and Development.*

Much of the Kruse Way portion of this area is in the unincorporated portion of Lake Oswego's Urban Services Boundary. Pursuant to the 1988 "Settlement and Annexation Agreement" among major property owners, Unified Sewerage Agency and the City, the area was developed as part of Clackamas County. The Agreement requires annexation of Kruse Way properties to Lake Oswego upon building occupancy.

2. Lake Grove and Downtown Business Districts

Within Lake Oswego there are ample opportunities for residents to shop for both durable* and non-durable goods* within the Lake Grove (Figure 8), and Downtown General Commercial* (Figure 9), Business Districts.



Lake Oswego's other General Commercial area is the Lake Grove Business District located in the western portion of the City along Boones Ferry Road, south of Kruse Way. The original Lake Grove area was the center of a rural community, and has since grown and expanded both north and south along Boones Ferry Road. Businesses in this area are primarily of a community or neighborhood scale. Some limited office development has also occurred. In addition, the Lake Grove Grade School and a post office are located within, or in close proximity to the Lake Grove Business District.

Figure 8

The Downtown business district was once the focal point of the community. Today, the district is the location of City Hall, main post office, main fire station and other municipal services. In the past, it also served as the community's center for commercial shopping, banking and entertainment. State Highway 43, a major north/south connection between Interstate 205, West Linn, Lake Oswego and Portland serves the area and also provides a major connection to several of Lake Oswego's major streets. The Lake Oswego Redevelopment Agency (LORA) and the Lake Oswego Urban Renewal District were formed in the late 1980s to develop ways to revitalize the Downtown business district. This allowed tax increment financing to be used as a tool to fund redevelopment* efforts to alleviate conditions of blight and underutilization of valuable urban land. The East End Redevelopment District encompasses about 150 acres, consisting of Lake Oswego's traditional downtown commercial core, commercial areas fronting Oregon Highway 43 and a large mixed use office and multi-family development along the Willamette River.

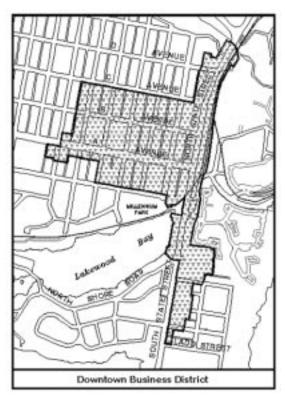


Figure 9

3. Jean Road Commercial District

The Jean Road Business District consists of approximately 4.45 acres of General Commercial land located on the south side of the intersection of Boones Ferry Road and Jean Road (Figure 10). Special conditions have been imposed on the site to ensure that development creates an aesthetically pleasing entry into Lake Oswego.



Figure 10

4. Grimm's Corner, Rosewood, Mountain Park Districts

Grimm's Corner is a neighborhood commercial district located at the intersection of McVey Street and South Shore Boulevard (Figure 11). A variety of neighborhood commercial uses have developed



over the years, including a grocery store, take-out restaurants, a nursery and garden supply business and a bowling alley. Grimm's Corner is surrounded by residential uses, however a National Guard Armory and fire station are located nearby.

Unless resolved, traffic problems associated with the intersection and alignment of South Shore Boulevard and McVey pose significant development problems for this commercial district.

Figure 11

5. Rosewood

The Rosewood Business District is a small neighborhood commercial center located in the southwestern portion of the City, at the intersection of Jean and Pilkington Roads (Figure 12). That portion on the west side of Pilkington is in the City limits; the east side is still in unincorporated Clackamas County. The land in the City was developed fairly recently, while that in the county was developed in the 1950s. The area is surrounded by multi-family residential on the north and east; single family on the south, and by commercial and industrial uses on the west.



Figure 12

6. Mountain Park Districts

Several neighborhood commercial centers were planned as part of the Mountain Park Planned Unit Development to provide for a range of retail, personal services, restaurant and cultural activities (Figure 13). Limited office development also provides for professional business and financial services, institutional and other uses. The scope of commercial development in Mountain Park has been considerably scaled back from what was originally envisioned when the project was approved. A considerable portion of what was intended as commercial land has been developed for residential uses.



Figure 13

The most significant commercial site in the Mountain Park area is the Oswego Town Square site. This development is located at the intersection of Monroe Parkway and Boones Ferry. The site is completely developed and offers convenience shopping along with some specialized retail stores which have a community wide draw. Other small neighborhood commercial sites in Mountain Park are located at the intersections of Kerr Parkway and Hidalgo Street and Jefferson Parkway and Mt. Jefferson Terrace. Also there are two small sites which accommodate office commercial uses at the intersections of Jefferson Parkway and Kingsgate and Carman Drive and Touchstone.

7. Industrial Land Uses

Lake Oswego has no heavy industry. The Lake Grove industrial park is at the southern end of Boones Ferry Road and east of I-5 (Figure 14).



Figure 14

The industrial park accommodates several light industrial businesses. These firms consist of technical/professional offices, warehousing and distribution and printing.

The Willamette River industrial area (Figure 15), accommodates uses such as the Tryon Creek Sewage Treatment Plant, a Portland General Electric substation, wood products storage area, tree service, and automobile repair. This area diminished considerably in size when a cement plant was removed in the late 1980s to make way for Oswego Pointe, a large mixed use office-commercial and high density housing project. This industrial area is generally located between the Willamette River, Highway 43, the northern City limits and Oswego Pointe.

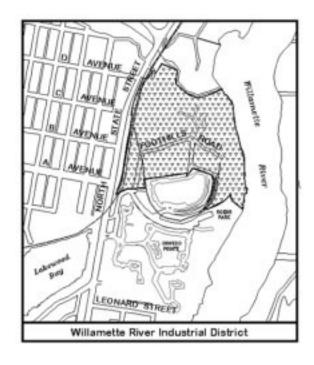


Figure 15

Summary of Major Issues

Following are some of the issues and changed circumstances and conditions that were considered in the update of this element of the Comprehensive Plan.

- Lake Oswego's business and employment growth has occurred more rapidly than population growth in the past ten years.
- Lake Oswego's businesses have become smaller in terms of numbers of employees. Home occupations are becoming a larger source of business growth.
- Lake Oswego residents are highly educated and for that reason are a source of managerial and professional employment in the community and region.
- Most of the City's commercial and industrial lands have been developed.
- Opportunities exist for redevelopment of commercial and industrial lands.
- Commercial and office employment have grown much faster than manufacturing employment.

- Quality of life in Lake Oswego contributes significantly to the City's economic health and vitality.
- Significant redevelopment has occurred in the Downtown business district through the East End Redevelopment District.

GOALS, POLICIES AND RECOMMENDED ACTION MEASURES

GOAL

The City shall provide for economic development opportunities which enhance the prosperity and livability of the community.

POLICIES

- 1. Designate adequate commercial and industrial land to:
 - a. Supply goods and services to the population within Lake Oswego's Urban Services Boundary;*
 - b. Provide close-to-home employment opportunities; and,
 - c. Maintain and improve the health of the local economy.
- 2. Applications for a Zoning Map/Comprehensive Plan Map amendment to change the designation of an area from residential to commercial or industrial shall be governed by the following procedures and criteria: [PA 5-97/ZC 4-97-1259; 5/5/98]
 - a. No application shall be accepted during the neighborhood planning process for the affected neighborhood or neighborhoods or for two years after the date of the City Council's approval of a Neighborhood Association's application to begin the planning process, whichever is less.
 - i. For the purposes of this policy, "affected neighborhood" means the recognized Neighborhood Association or Community Planning organization in which the property proposed to be rezoned is located. If the subject property is located in two or more neighborhoods, all neighborhoods in which a portion of the subject property is located shall be considered affected neighborhoods. If the subject property is located in one neighborhood but the rezone is requested to expand an existing commercial or industrial use located in another neighborhood, both neighborhoods shall be considered affected neighborhoods.

- ii. For the purposes of this policy, "neighborhood planning process" means the period of time from the City Council's decision to approve a Neighborhood Association's application to begin the planning process until the Neighborhood Plan is adopted and in effect. If there is more than one affected neighborhood, and both neighborhoods are in the neighborhood planning process, the two-year deadline period shall run from the latest application approval date.
- b. In order to obtain approval, the applicant shall demonstrate compliance with the polices and standards of an adopted Neighborhood Plan of an affected neighborhood. If more than one neighborhood plan is applicable and the policies conflict, the conflicting policies shall be balanced as provided in the Introduction to the Comprehensive Plan.
- c. In addition to compliance with any applicable neighborhood planning policies as provided in subsection (b), the applicant shall demonstrate compliance with all Comprehensive Plan Goals and Policies applicable to industrial and/or commercial plan/zone map amendments. Such applicable Goals and Policies include, but are not limited to, the following:
 - i. Location in relation to arterial or collector streets; consistency with adjacent land use patterns or ability to buffer, screen and blend dissimilar land uses. [Goal 2, Land Use Planning, Section 1, Land Use Policies and Regulations, Policy 14];
 - ii. Capacity of public facilities and services. [Goal 2, Land Use Planning, Section 1, Land Use Policies and Regulations, Policy 14];
 - iii. Encourage land use patterns which reduce dependency on the automobile but which are also compatible with existing neighborhoods. [Goal 6, Air, Water and Land Resources Quality, Section 1, Air Resources Quality];
 - iv. Separate noise sensitive and noise-producing land uses; minimize noise impacts on surrounding properties and protect and maintain the quiet character of those areas of the community unaffected by major noise sources, and locate, design and buffer noise producing land uses to protect noise sensitive land uses. [Goal 6, Air, Water and Land Resources Quality, Section 4, Sound Quality, Policies 1, 4, and 5];

- v. Regulate the type and intensity of land uses within areas subject to natural disasters and hazards. [Goal 7, Areas Subject to Natural Disasters and Hazards, Section 1, Flooding; Section 2, Earthquake Hazards; and Section 3, Landslides, Erosion and Unstable Soils, Policy 2];
- vi. Prevent expansion of "strip commercial development" [Goal 9, Economic Development, Policy 8];
- vii. Ensure neighborhood commercial * areas are conveniently located and minimize the need for automobile travel. [Goal 9, Economic Development, Policy 9(a.)];
- viii Designate the Downtown and Lake Grove Commercial Districts as the primary centers of general commercial activity in Lake Oswego. [Goal 9, Economic Development, Policy 10];
- ix. Limit commercial development in the Lake Grove Business District to that which is intended to accommodate neighborhood and community needs* for goods and services. [Goal 9, Economic Development, Policy 16];
- x. Regional draw* businesses other than those providing specialized services and unique goods* shall not be located in the Downtown and Lake Grove Business Districts. [Goal 9, Economic Development, Policy 17];
- xi. Limit commercial development in the Grimm's Corner and Rosewood Business Districts to that which is intended to accommodate the frequently recurring needs* of the surrounding neighborhoods. [Goal 9, Economic Development, Policy 18];
- xii. Limit development within the commercial districts associated with the Mountain Park Planned Unit Development to that which serves the frequently recurring needs of Mountain Park residents, except; in those locations where site conditions, such as parcel size and direct access to the major street system, allow businesses to provide for community needs and to offer specialized goods and unique services. [Goal 9, Economic Development, Policy 19];
- xiii. Allow commercial and residential uses within the Centerpointe and Kruse Way Business District at densities, which support mass transit and which, take advantage of the regional transportation system. These activities may include:

- a. Employee intensive businesses such as major regional office complexes, high density housing, and associated services and retail commercial uses, and;
- Commercial activities, which meet the needs of the traveling public and other highway, oriented retail uses which require access to a large market area. [Goal 9, Economic Development, Policy 20];
- xiv. Do not allow regional, or larger, shopping centers* within the Centerpointe and Kruse Way Business District. [Goal 9, Economic Development, Policy 21].
- xv. The full range of public facilities and services shall be available to serve development allowed by a Plan/Zone Map amendment. [Goal 2, Land Use Planning, Section 1, Land Use Policies and Regulations, Policy 1];
- xvi. Proposed Plan/Zone Map amendments shall be evaluated to determine their effect on the overall land supply and compliance with the Metro Housing Rule (OAR 660-07-000). [Goal 2, Land Use Planning, Policy 14(d)];
- xvii. Demonstration of public need for the change and that the proposed amendment will best meet identified public need versus other available alternatives. [Goal 2, Land Use Planning, Policy 14(f)];
- xviii. A proposed increase in land use intensity shall be accompanied by a detailed traffic analysis which finds that existing streets and intersections both on and off-site will accommodate the projected traffic increases, or; necessary improvements can be constructed which are in conformance with the Comprehensive Plan Transportation Map. [Goal 12: Transportation, Sub-Goal 4: Land Use and Transportation Relationships, Policy 4];
- xix. Commercial and industrial parking shall not intrude into adjacent residential neighborhoods. [Goal 10: Transportation, Sub-Goal 4: Land Use and Transportation Relationships, Policy 4];
- xx. The applicant shall demonstrate that development allowed by the proposed Plan/Zone map amendment will: be compatible with surrounding residential neighborhoods; preserve natural resources; protect water quality; provide for protection from natural hazards; and provide for efficient transportation and land use relationships including the accommodation of alternative transportation modes or that these criteria can be accomplished pursuant to the criteria contained in the Zoning and Development Code;

- xxi. The applicant shall demonstrate consistency with Metro's Urban Growth Functional Plan and compliance with the Oregon Transportation Planning Rule (Chapter 660, Division 12).
- 3. Require new commercial and industrial development to:
 - a. Provide the full range of required public facilities and services and pay commensurate system development charges;
 - b. Mitigate adverse impacts such as noise, traffic and visual aesthetics, on adjacent land uses through methods such as buffering, screening, parking controls, height, bulk and scale limits;
 - c. Comply with design and aesthetic standards to ensure compatibility with surrounding land uses and Lake Oswego's overall community character;
 - d. Participate in the development of a street system which provides efficient connection to higher order streets and to other activity centers;
 - e. Develop transit opportunities appropriate to the scale and character of the project;
 - f. Provide for a safe and convenient pedestrian and bicycle circulation system to and within the development;
 - g. Provide adequate, but not excessive parking for customers and employees; and,
 - h. Preserve natural resources and provide required open space.
- 4. Require unified site plans* for all new industrial and commercial development which show:
 - a. Projects at full development including identification of all phases;
 - b. The locational, design and transportation relationships of proposed development with the rest of the business district and with surrounding land uses;
 - c. Measures necessary to mitigate adverse impacts on the transportation system and on adjacent land uses; and.
 - d. Design compatibility with surrounding land uses in regard to elements such as scale, bulk, materials, colors and landscaping.
- 5. Allow home occupations* subject to regulations that ensure compatibility with the surrounding residential neighbors.
- 6. Support redevelopment of existing vacant and underutilized industrial and commercial lands rather than designating additional lands for these purposes.
- 7. Ensure access to commercial and industrial development is taken from the major collector or arterial street system except when public safety requires access to be provided from other streets.

Goal 9: Economic Development

- 8. Prevent further expansion of "strip commercial development" and encourage redevelopment of existing strip commercial areas to become more attractive and oriented toward pedestrians and transit.
- 9. Ensure neighborhood commercial* areas are:
 - a. Conveniently located and minimize the need for automobile travel;
 - b. Developed at a scale and in character with the area to be served; and,
 - c. Consistent with applicable and adopted Neighborhood Plans.
- 10. Designate the Downtown and Lake Grove Commercial Districts as the primary centers of general commercial* activity in Lake Oswego.
- 11. Require new commercial development, where possible, to develop joint street access, parking facilities, and pedestrian connections with other businesses to reduce land area requirements, traffic congestion, parking and safety problems.
- 12. Place new utilities, and where possible existing utilities, within commercial and industrial districts, underground.
- 13. Direct commercial and through traffic, other than that generated from adjacent neighborhoods, away from local residential streets.
- 14. Ensure all industrial and commercial uses comply with local, state and federal environmental standards.
- 15. Require all commercial and manufacturing operations, except those approved as a temporary use, including warehousing and storage, to be conducted either within enclosed buildings or screened from public view.
- 16. Limit commercial development in the Lake Grove Business District to that which is intended to accommodate neighborhood and community needs* for goods and services.
- 17. Allow mixed use development within the Downtown and the Lake Grove Business Districts to provide opportunities for commercial, entertainment, professional, cultural, public, and residential activities. Regional draw* business other than those providing specialized services and unique goods,* shall not be located in these districts.
- 18. Limit commercial development in the Grimm's Corner and Rosewood Business Districts to that which is intended to accommodate the frequently recurring needs* of the surrounding neighborhoods.

Goal 9: Economic Development

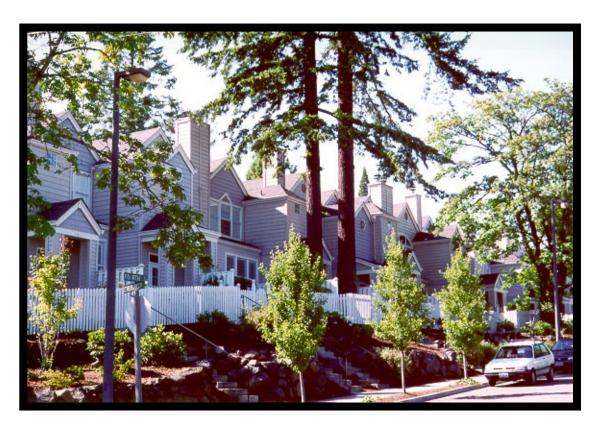
- 19. Limit development within the commercial districts associated with the Mountain Park Planned Unit Development to that which serves the frequently recurring needs of Mountain Park residents, except; in those locations where site conditions, such as parcel size and direct access to the major street system, allow businesses to provide for community needs and to offer specialized goods and unique services.
- 20. Allow commercial and residential uses within the Centerpointe and Kruse Way Business District at densities which support mass transit and which take advantage of the regional transportation system. These activities may include:
 - a. Employee-intensive businesses such as major regional office complexes, high density housing, and associated services and retail commercial uses; and,
 - b. Commercial activities which meet the needs of the traveling public and other highway oriented retail uses which require access to a large market area.
- 21. Do not allow regional or larger, shopping centers* within the Centerpointe and Kruse Way Business District.
- 22. Ensure that urban design and beautification projects in the Downtown Business District do not force through traffic to utilize local streets.

RECOMMENDED ACTION MEASURES

- i. Work with Tri-Met to increase the level and quality of transit service to Lake Oswego's commercial and industrial districts.
- ii. Recognize that education is vital to the social and economic well-being of the citizens of Lake Oswego and the region.
- iii. Encourage other uses, in addition to traditional industrial activities within Lake Oswego's industrial districts as a means to increase employment opportunities within the City.
- iv. Work with the Lake Oswego Chamber of Commerce and other local business groups to promote discussion concerning land use and other regulations which could affect area businesses.

Goal 9: Economic Development

- v. Coordinate with state and regional economic development agencies and groups to identify developments and trends which could affect Lake Oswego such as:
 - a. Major public facility projects that have interjurisdictional consequences;
 - b. Metro, state and federal programs, regulations, and plans; and,
 - c. Investment and locational decisions by major employers.
- vi. Recognize and promote community events as having potential for positive economic impacts and as important for community identity.
- vii. Encourage a mix of commercial, residential, entertainment, cultural and public land uses within the City's general commercial districts to enhance the vitality of these areas.
- viii. Ensure that parking standards for commercial and industrial land uses do not conflict with regional objectives of reducing automobile use and promoting transportation alternatives.
- ix. Develop and periodically update specific land use and transportation plans and implementing design and development standards for each of Lake Oswego's business and industrial districts.
- x. Work with owners and tenants of existing industrial and commercial areas and adjacent neighborhoods to develop specific area plans for these districts to address:
 - a. Existing and future public facility and services needs and transportation requirements;
 - b. Design quality and appearance of industrial uses;
 - c. Mitigation of impacts on surrounding uses; and,
 - d. Protection of natural resources.
- xi. Encourage public uses of the Willamette River as part of Downtown business district redevelopment efforts.
- xii. Work with Tri-Met, Metro and other responsible agencies to develop a rail and bus service between Portland and Lake Oswego.
- xiii. Define the City's role in regulating parking facilities in Lake Oswego's commercial business districts.
- xiv. Encourage agreements among property owners, the City, and adjacent neighborhoods as a means to control business district parking encroachment into adjacent residential areas.



The City shall:

- a. Provide the opportunity for a variety of housing types in locations and environments to provide an adequate supply of safe, sanitary, energy efficient housing at price and rent levels appropriate to the varied financial capabilities of present and future City residents;
- b. Protect the character of existing neighborhoods, and;
- c. Provide for needed housing while protecting environmentally sensitive areas, using land and public facilities as efficiently as possible, and facilitating greater use of alternative transportation modes.

Goal 10: Housing

BACKGROUND

Statewide Planning Goal 10: Housing

"To provide for the housing needs of citizens of the State."

In the Portland metropolitan area, the role of local governments in providing housing opportunities is governed by the requirements of Statewide Planning Goal 10 and the "Metropolitan Housing Rule" (OAR-660-7-000-060). This rule sets a requirement for Lake Oswego and other Portland metropolitan communities to provide for the opportunity for a minimum of 10 dwelling units per acre on vacant, buildable land and the opportunity for 50%/50% mix of single family and multifamily or attached housing. These requirements became effective in 1981 and the City has met them since Plan acknowledgment in 1984. When the Comprehensive Plan was acknowledged in 1984 the City provided the opportunity for 10.2 dwelling units per acre on vacant, buildable land*. By 1992, the opportunity for 10.5 units per acre had been achieved. In the future, Metro Regional Framework Plans and Functional Plans may require Lake Oswego and other communities to provide for greater housing densities in appropriate areas, such as the Downtown Business District and along major transit corridors, as a means to minimize pressure to expand the Portland Metropolitan Area Urban Growth Boundary.

Of the 5,444 housing units constructed in Lake Oswego between 1980 and 1992, 57% were single family and 43% were multifamily or attached, representing movement toward the overall goal of a 50%/50% opportunity for single family and multifamily units. When a jurisdiction can meet its density and mix goals, the Housing Rule indicates that it has also satisfied the price range and rent level criteria for needed housing as set forth in Oregon Law.

During the formation of the original Comprehensive Plan, a citizen task force and the neighborhood associations studied residential and housing issues. Residential density designations were based on consideration of physical conditions of available land, capacity of public facilities, availability or potential for transit service, density of existing development, parcel sizes, estimated market demand, projected needs and provision of a mix of housing types and costs. Since most of the City, (approximately 80%) is and will continue to be residential in use, housing, neighborhood quality, traffic, public facilities, land use compatibility, etc., will also continue to be important issues in the City.

In the development of the original plan, many policies were included instructing the City to develop implementation measures to carry out Plan policies. Many of those directives had been accomplished by the time this Comprehensive Plan update had been initiated, such as review criteria for development proposals and appropriate development standards. Also, state law passed in 1991 (ORS 197.195) required all comprehensive plan standards affecting certain types of land use decisions to be included in land use regulations.

☐ Goal 10: Housing

The number of housing units in the city of Lake Oswego grew by 45%, from 9,048 to 13,123, between 1980 and 1990. Lake Oswego's Urban Service Boundary contained approximately 14,300 housing units in 1990 and, according to Metro estimates, will have approximately 20,653 units and a population of approximately 49,000 by 2010.

In a 1991 Community Attitude Survey, Lake Oswego residents gave top marks to Lake Oswego as a place to live. Eight out of every ten people rate Lake Oswego's "livability" as a 9 or better (on a scale of 1-10). The environment, natural beauty, setting, schools and a small town atmosphere, were all primary reasons why people enjoyed living in Lake Oswego.

In regard to housing quality, Lake Oswego is fortunate to have a supply of fairly new, well maintained housing. Over 60% of all housing units have been constructed since 1970. Less than one tenth of one percent (.1%) were lacking plumbing or kitchen facilities in 1990 (1990 Census). A 1981 study of housing structural conditions indicated that only .4% of units surveyed were of a substandard condition.

Lake Oswego has relatively high median income, housing value and rents when compared to the rest of Oregon. In 1990, median rent in Lake Oswego was \$573 per month compared to \$344 for Oregon. In Oregon, median owner occupied housing value was \$67,000 in 1990. Median value in Lake Oswego was more than double that, at \$142,600.

In 1992, Lake Oswego adopted Zoning Ordinance criteria for allowing manufactured homes on individual lots. This was in response to 1991 legislation (ORS 197.303-370) requiring jurisdictions to allow this type of housing under the same review process as a site-built dwelling. There are other means available in Lake Oswego to increase housing opportunities and choice, such as allowing secondary dwelling units in conjunction with a single family dwelling, or encouraging planned unit developments and clustering of units, waiving fees for low income projects, and maintaining zoning designations consistent with the Metropolitan Housing Rule.

The National Affordable Housing Act of 1990 requires localities to develop a five-year Comprehensive Housing Affordability Strategy (CHAS)* to be eligible for direct U.S. Housing and Urban Development (HUD)* housing assistance and Community Development Block Grants (CDBG). Clackamas County administers these programs for the Lake Oswego area and the rest of Clackamas County, and developed the countywide CHAS. One of the findings of the CHAS study is that 22% of Lake Oswego residents are low or very low income.

The CHAS addresses two main groups: 1) Those with very low income, and those who spend more than 30% of their income on housing (and earn less than 50% of median income) and 2) those groups with special housing needs such as the homeless, mentally or physically handicapped or elderly. The County's priorities for housing assistance over the next 5 years include very low income renter households, particularly families and

Goal 10: Housing

single-person households. Strategies include use of funds to rehabilitate rental units, increase the supply of group homes for homeless, youth and victims of domestic violence, medical needs populations and the farm worker population, and for rehabilitating plumbing, electrical and heating systems in substandard housing units.

Summary of Major Issues

Following are some of the issues and changed circumstances and conditions that were considered in the update of this element of the Comprehensive Plan.

- Many of the directives in the Housing Element of the original Plan have been accomplished and are now contained in the Zoning Ordinance, Development Code and other standards.
- With adoption of the Clackamas County CHAS, there may be opportunities for Lake Oswego to acknowledge housing for special needs groups and to enter into agreements with the County to enlist their assistance in providing for affordable housing and in monitoring affordable housing arrangements.

GOALS, POLICIES AND RECOMMENDED ACTION MEASURES

GOAL

The City shall:

- a. Provide the opportunity for a variety of housing types in locations and environments to provide an adequate supply of safe, sanitary, energy efficient housing at price and rent levels appropriate to the varied financial capabilities of present and future city residents;
- b. Protect the character of existing neighborhoods; and,
- c. Provide for needed housing while protecting environmentally sensitive areas, using land and public facilities as efficiently as possible, and facilitating greater use of alternative transportation modes.

☐ Goal 10: Housing

POLICIES

- 1. Maintain the following residential land use designations and locational criteria which support the above goal:
 - a. Low Density Residential

Density Classification	Minimum Square Feet of
	Area per Unit
R-15	15,000 sq. ft.
R-10	10,000 sq. ft.
R-7.5	7,500 sq. ft

Low Density is intended for areas:

- i. Which are currently developed at low density;
- ii. Where transportation routes are primarily limited to collectors and local streets;
- iii. Where public services are adequate but development constraints may exist; and,
- iv. Where sensitivity to the natural environment or the existence of natural hazards indicates a reduced density.
- b. Medium and High Density Residential [PA 1-96/ZC 1-96-1187; 12/17/96]

Density Classification	Minimum Square Feet of Area per Unit
R-6	6,000 Sq. ft.
R-5	5,000 Sq. ft.
R-3	3,375 Sq. ft.
R-2 and R-0	(FAR) Maximum

Medium and high density residential areas may be designated in areas:

- i. Which are currently developed at medium and high density;
- ii. Where there are public services and few development constraints; and,
- ii. Near arterials or major collector and transit service, and particularly for high density residential, areas in close proximity to commercial areas and/or employment concentrations.

Goal 10: Housing

- 2. Require design review to determine the actual number of units permitted on a development site through an inventory of site conditions which demonstrates how proposed development is compatible with the site, surrounding uses, other Plan policies and capacity of public facilities.
- 3. Assure that residential densities are appropriately related to site conditions, including slopes, potential hazards and natural features.
- 4. Require mitigation of adverse impacts such as noise, traffic and visual aesthetics, on differing, adjacent land uses through site and building design.
- 5. Require mitigation of adverse impacts such as traffic noise, degraded air quality and congestion, on all residential development along freeways, major and minor arterials and major collectors, through site and building design and other measures.
- 6. Assure that residential density is appropriately related to the capacity of public facilities, especially residential streets. Developments shall not generate traffic exceeding the capacity of adjacent streets or intersections. (Also see Transportation Chapter, Goal 1, Policy 1, Goal 4 and Figure 16.)
- 7. Provide for safe, comfortable, visually attractive streets in new developments.
- 8. Link housing density and location to reduce automobile travel by locating high density residential (R-0, R-2 and R-3) and mixed use developments within walking distance of bus lines or transit centers, and preferably clustered so as to avoid strip development. [PA 1-96/ZC 1-96-1187; 12/17/96]
- 9. Encourage energy efficient site and building design, and use of renewable building materials.
- 10. Provide for an interconnected street system to encourage pedestrian, bicycle and transit travel and to reduce vehicle miles traveled to local destinations thus reducing energy use, pollution and congestion.
- 11. Place higher density residential, employment and shopping opportunities and public facilities, such as transit and parks, within close proximity where feasible.
- 12. Assure an orderly transition from one residential density to another through design and development standards such as landscaping, buffering and screening.
- 13. Provide for the active involvement of neighborhood residents and property owners in decisions affecting their neighborhood.

☐ Goal 10: Housing

- 14. Provide a wide range of housing types to meet the needs of various lifestyles and family types.
- 15. Provide low to moderate cost housing opportunities to meet Lake Oswego's fair share of local and regional housing needs including single family, multifamily, manufactured housing, special use housing and residential care facilities.
- 16. Assure equal access to housing for all.
- 17. Support public and private actions which increase housing choices and reduce housing construction costs.
- 18. Actively participate with Metro and Clackamas County in formulating and carrying out the Comprehensive Housing Affordability Strategy.
- 19. Allow special use housing for elderly, including frail elderly, persons with medical disabilities, disabled families and other special needs populations identified in the Clackamas County Comprehensive Housing Affordability Strategy, in all zones in proportion to the local share of regional need.
- 20. Maintain a cooperation agreement with Clackamas County authorizing provision of rent supplement assistance within the City and enter into agreements with the County Housing Authority* to control rents in assisted units, if opportunities arise.

RECOMMENDED ACTION MEASURES

- i. Encourage primary access to a collector or arterial street for R-0, R-3, and R-5 developments.
- ii. Require developers to be responsible for their proportionate share of costs of providing required public facilities and services including recreation facilities and park land.
- iii. Comprehensively evaluate all major developments to adequately analyze site design, solar access, building placement, significant features, factors relating to surrounding uses, pedestrian and traffic circulation, drainage and energy conservation, plus any special protections needed to mitigate any adverse impacts of increased density.

Goal 10: Housing

- iv. Encourage site and building design considerations for developments which are proposed adjacent to differing land uses which include use of building materials for noise reduction, visual screening through use of increased setbacks, building bulk and height modulation, building placement or landscaping and analysis of traffic patterns.
- v. Encourage site and building design considerations for residential developments proposed adjacent to major streets which include noise mitigation through the use of appropriate building materials, land-scaping, sound deadening structures, appropriate setbacks or other measures to assure a quality living environment.
- vi. Design residential streets to accommodate residential speeds and volumes, to reduce noise levels, increase land use efficiency and reduce impervious surface.
- vii. Preserve natural features, avoid hazard areas and reduce development costs by allowing new development to:
 - a. Cluster units:
 - b. Utilize flexible lot sizes;
 - c. Construct a variety of housing types; and,
 - d. Transfer density to more suitable areas of a site.
- viii. Actively pursue an effective enforcement program to enforce the City's zoning, development, tree and sign standards as a means of maintaining and enhancing livability.
- ix. Monitor and regulate home occupation* activity to prevent adverse impacts on residential areas caused by incompatible activities or appearance problems.
- x. Utilize screening and buffering, setbacks, landscaping and modulation of building bulk between different residential densities within neighborhoods to reduce the potential for conflicts such as noise and visual encroachment.
- xi. Require increased setbacks for residential uses along Boones Ferry and Kruse Way and require trees and other vegetation which will provide a compatible living environment.
- xii. Promote the planting and maintenance of street trees and other landscaping in residential areas, and require walkways, where appropriate, to provide for pedestrian comfort and safety.
- xiii. Consider traffic management devices and other traffic management techniques for established residential areas which have experienced decreased safety and increased traffic volumes over the years which exceed those recommended in the Transportation Element of the Comprehensive Plan.

☐ Goal 10: Housing

- xiv. Allow secondary (accessory) dwelling units* to provide opportunities for affordable rental units, offset housing costs for the primary unit or act as transitional housing without changing the character and quality of single family areas.
- xv. Cooperate with the Clackamas County Housing Authority in locating sites suitable for special use housing. Provide density bonuses, where and when appropriate, to encourage special use housing.
- xvi. Establish an agreement with Clackamas County to allow the development of federally assisted low-to moderate cost housing units.
- xvii. Encourage Clackamas County to utilize federally funded Community Development Block Grants for provision of housing assistance and housing rehabilitation for which individual Lake Oswego residents could be eligible.
- xviii. Encourage elimination of barriers which limit housing choice for the handicapped.
- xix. Encourage innovative housing construction technologies which decrease development costs.
- xx. Encourage and assist the continuing maintenance of existing residential properties for safety, sanitation and structural integrity.
- xxi. Encourage neighborhood cleanup and maintenance of the exterior of dwellings and landscaping.
- xxii. Encourage home occupations and develop regulations requiring home occupations to be compatible with the character of residential neighborhoods.

□ Section 1, Public Safety Police and Fire Protection



The City shall ensure a high level of public safety through the provision of police and fire protection and emergency preparedness services.

Section 1, Public Safety Police and Fire Protection

BACKGROUND

Statewide Planning Goal 11: Public Facilities and Services

"To plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development."

Police services within the Lake Oswego Urban Services Boundary are provided by the City of Lake Oswego Police Department, the Multnomah and Clackamas County Sheriffs' Departments, Oregon State Police and neighboring and regional law enforcement agencies. Also, the Police Department has non-sworn personnel within its Community Services Division who provide support services and enforce the City's municipal code.

In addition to the city limits, the City's Police Department will cover areas within a limited distance outside the City in cases of emergency until county or state law enforcement arrives. City police will also provide back-up to other law enforcement agencies when requested. The County Sheriffs' Departments and State Police will also answer calls inside the City limits. Their enforcement power is limited to matters of state law inside the City and they do not enforce City ordinances.

The Lake Oswego Police Department has several divisions which provide special law enforcement and public safety services. These include patrol, canine section, traffic enforcement, community traffic safety, detective, special investigations and community services units.

Lake Oswego operates the E-911* communications center (LOCOM). LOCOM provides emergency communications service to approximately 55,000 people within the general area of Lake Oswego, West Linn and Dunthorpe.

The Lake Oswego Fire Department provides fire protection for all areas within the City limits and contracts to provide services to three special service districts — Lake Grove, Riverdale-Dunthorpe and Alto Park fire districts. Other fire districts providing fire service within the City's Urban Service Boundary include Tualatin Fire District and Rosemont Fire District.

Fire Department services include fire safety code inspection and enforcement, fire prevention and suppression, public education and information. Emergency medical and ambulance service is provided by both the City of Lake Oswego and a private company. The private service operates through a franchise agreement with the City.

Section 1, Public Safety Police and Fire Protection

In 1992, Lake Oswego adopted the City of Lake Oswego Emergency Operations Plan. The Fire Department has primary responsibility for administering the plan. It implements LOC 12.800 (Emergency Code) by providing the basic framework to guide City departments in their efforts to mitigate, prepare for, respond to, and recover from, any major emergency or disaster which may affect all or parts of the City. Six major emergency categories are addressed by the plan including hazardous materials accidents, mass casualties, wildfires, earthquakes, severe weather and structural fires.

Summary Of Major Issues

The following are some of the issues, changed circumstances and conditions which were considered in the update of this element of the Comprehensive Plan.

- Lake Oswego has primary responsibility for public safety services within the city limits. However, a high degree of cooperation and coordination occurs with other area agencies and jurisdictions.
- The City provides fire protection services to several fire districts within the Urban Services Boundary.
- Lake Oswego operates the E-911 (LOCOM) Emergency Communications Center which serves the Lake Oswego, West Linn and Dunthorpe areas.
- The City of Lake Oswego Emergency Operations Plan was adopted in 1992.
- Emergency medical and ambulance service is provided by the fire department and by a franchised provider.

GOALS, POLICIES AND RECOMMENDED ACTION MEASURES

GOAL

The City shall ensure a high level of public safety through the provision of police and fire protection and emergency preparedness services.

11.1-2 LAKE OSWEGO COMPREHENSIVE PLAN

Section 1, Public Safety Police and Fire Protection

POLICIES

- 1. Ensure fire and police personnel can respond to public safety needs as quickly and efficiently as possible through:
 - a. Provision of personnel, facilities, equipment and communication resources; and,
 - b. Agreements with other agencies and jurisdictions to provide automatic and mutual aid* when needed.
- 2. Require adequate police and fire protection to be considered for all development. Particular attention shall be given to:
 - a. Fire hydrant locations and sufficient fire flows;
 - b. Street layout and site design features that ensure emergency vehicle access and building identification;
 - c. Building security; and,
 - d. Exterior lighting and landscape design.
- 3. Require all home occupations to comply with the Uniform Fire Code.
- 4. Ensure adequate police and fire protection can be provided to newly annexed areas.
- 5. Require new streets to be of high structural quality, sufficient width and adequately maintained to ensure emergency vehicle and service equipment access.
- 6. Maintain agreements with existing service districts for fire protection services outside the City provided:
 - a. Such actions are consistent with the City's Public Facility Plan and Comprehensive Plan goals and policies pertaining to public facilities and services and urbanization;
 - b. Adequate resources exist to provide these services; and,
 - c. These arrangements are in the City's financial interests.
- 7. Participate in automatic and mutual aid agreements among fire districts and departments provided such agreements ensure equal and reciprocal benefits and enhance the City's ability to provide fire protection throughout the City.
- 8. The Fire Department shall have the goal of reaching the location of fire alarms within the City within eight minutes or less.

Section 1, Public Safety Police and Fire Protection

- 9. The Police Department shall have the goal of reaching the location of emergency calls for protection of life and property within a maximum time of five minutes.
- 10. Lessen the possibility of wildfires and their potential for destruction through public education, development review, emergency planning and maintenance of fire-fighting resources.
- 11. Maintain a Lake Oswego Emergency Operations Plan and provide sufficient resources to respond to emergencies including mass casualty incidents* wildfires, earthquakes, severe weather, major structural fires and hazardous materials accidents.
- 12. Require all development to meet fire code requirements.

RECOMMENDED ACTION MEASURES

- i. Emphasize primary prevention techniques to prevent loss due to fire and crime such as:
 - a. Public education programs;
 - b. Neighborhood watch and block programs;
 - c. Voluntary alarm hook ups; and,
 - d. Enforcement of the building, fire and municipal codes.
- ii. Ensure that appropriate public safety services can be made available to new development through coordination between the Fire and Police Departments, developers and recognized neighborhood associations.
- iii. Provide public information and education regarding ways to protect life and property from disasters such as earthquakes, wildfires and hazardous material releases.
- iv. Recognize the special public safety needs of Lake Oswego's elderly, young and socially disadvantaged. Provide primary prevention services to these groups, such as:
 - a. Traffic safety and drug education;
 - b. Home fire and crime proofing information;
 - c. Support for Neighborhood Watch and block programs; and,
 - d. Personal safety education.

■ Section 1, Public Safety Police and Fire Protection

- v. Increase traffic safety through:
 - a. Review of planning and engineering proposals to ensure safe road design;
 - b. Active bicycle, pedestrian, speed and safety belt enforcement; and,
 - c. Maintenance of an active community traffic safety program.
- vi. Coordinate with other jurisdictions, public safety agencies and recognized neighborhood associations to ensure:
 - a. Compatibility of equipment and communications;
 - b. Emergency support can be provided when needed;
 - c. Sharing of resources to address multi-jurisdictional investigation and enforcement issues; and,
 - d. Effective implementation of the Lake Oswego Emergency Operations Plan.
- vii. Encourage water providers within the Urban Services Boundary to provide sufficient water storage and pressure to provide adequate fire flows.

■ Section 1, Public Safety Police and Fire Protection

- Notes -

□ Section 5, Administrative and Government Services, Energy, Communications, and Schools

Lake Oswego City Hall



The City shall ensure the availability of administrative and general government services and shall coordinate with efforts of others to provide schools, energy and communication services.

☐ Section 2, Storm Water Management

Biofiltration Swale In Lake Grove



The City shall reduce storm water problems which cause flooding, erosion, and water quality problems.

Section 3, Water Treatment and Delivery

BACKGROUND

Statewide Planning Goal 11: Public Facilities and Services

"To plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development."

Lake Oswego adopted a Public Facility Plan (PFP) in 1997 [PA 1-97] which identifies needed water treatment and delivery facilities per OAR 660, Division 11. The applicable parts of the PFP and its subsequent updates are incorporated by reference into the Comprehensive Plan.

Lake Oswego's municipal water supply is obtained from the Clackamas River. The City's water intake and pump station are located on the North Bank of the Clackamas River in Gladstone. The City has two water right permits for Clackamas River water with priority dates of March 14, 1967 and July 5, 1975. The earlier, more senior permit, is for 50 cubic feet per second (cfs) or 32 million gallons per day (mgd). The 1975 permit is for nine cfs or 5.8 mgd. A third permit exists for 6 cfs (3.9 mgd) from the Willamette River with a priority date of July 5, 1975. The State of Oregon's minimum stream flow requirement* for the Clackamas River takes precedence over the 9 cfs permit but not the earlier 50 cfs permit. The Willamette River source would require construction of a new water intake facility.

Stream flow records indicate the likelihood of enough water being in the Clackamas River during a drought year for the City to divert its full 50 cfs water right. However, under these conditions the more junior 9 cfs right probably could not be used to augment the more senior water right. The City's ability to use water from the lower Clackamas River is limited to the 1967 and 1975 water rights. Additional water cannot be acquired from the lower Clackamas because the state will no longer issue water right permits on this portion of the river.

Water is pumped from the Clackamas River intake via a 27 inch diameter pipeline to the City's water treatment plant directly north of Mary S. Young State Park in West Linn. The treatment plant currently has the ability to deliver 16.1 million gallons per day (mgd) of finished water* to the City's distribution system.

Lake Oswego's finished water meets quality standards for the 83 possible contaminants* listed by the Federal Environmental Protection Agency. However, new federal and state rules are expected to be enacted by 1996 which will require improvements to the treatment facility to remove by-products of water disinfection, giardia cysts and related micro-organisms and to dispose of sludge resulting from the water treatment process.

Section 3, Water Treatment and Delivery

The water treatment plant is connected to the City's distribution system by a 24 inch diameter transmission line. The water distribution network consists of approximately 210 miles of transmission and distribution mains. Changes in topography and Oswego Lake, which divides the City into two parts, require ten distinct pressure zones (water service zones). Within these zones, there are thirteen storage reservoirs with a total storage capacity of 15.5 million gallons (mg). The water distribution system also includes nine pump stations.

Ongoing maintenance and improvement of the water distribution system is required to provide adequate fire protection and domestic water service. There is a need in the next five to seven years to replace several thousand feet of deteriorated and undersized waterlines, construct at least three new water storage reservoirs and build new pump stations. Over the long term, population growth will make it necessary to increase the capacity of the water intake, treatment, monitoring and transmission facilities.

Lake Oswego sells water to other users, with the Southeast Washington County Joint Water Agency being the largest customer (the Joint Water Agency was previously known as the Tigard Water District). Currently, the agency purchases about approximately 45 percent of the City's annual production of finished water. Lake Oswego consumes about 53 percent, with the remainder going to other users, such as the Lake Grove Water District. The Water Master Plan estimates that if the City continues to sell water to the Joint Water Agency, the system would have to serve 100,000 people by the year 2012; 54,000 in the Lake Oswego USB and 46,000 in the Joint Water Agency service area. This would require the capacities of the water intake, treatment and distribution systems to be increased to deliver a maximum day demand of 36.7 million gallons per day compared to a current capacity of 16.1 mgd. On the other hand, the Lake Oswego Water Master Plan estimates the maximum daily demand would be about 19.8 mgd if Lake Oswego did not serve the Joint Water Agency. In 1988, the Water Master Plan estimated Lake Oswego's water system served approximately 53,500 persons, of which 28,200 were in the City's water service area.

There are six water providers within Lake Oswego's Urban Services Boundary (USB). They include Rivergrove, Lake Grove, Skylands, Glenmorrie, Palatine and Southwood Park water purveyors. They acquire water from either the City of Portland, ground water wells, the City of Lake Oswego or from a combination of these sources. Lake Oswego's Comprehensive Plan and Urban Growth Management Agreement with Clackamas County designates the City as the ultimate provider of water service within the Urban Services Boundary. Because of this, the City and the other water providers need to work together to define the future roles each will play in providing water and how and when transfer of service will occur.

An adequate future supply of high quality and reasonably priced drinking water is a regional concern. The historic abundance, high quality and low cost of water in the region has resulted in the establishment of 65 entities in the Portland Metropolitan Region that supply and/or distribute water through

11.3-2 LAKE OSWEGO COMPREHENSIVE PLAN

Section 3, Water Treatment and Delivery

separate systems. Today, the region is faced with increasing population growth, regulation of water use and higher costs to provide water. Despite the size of the region, only a handful of developed water sources supply the Portland metropolitan area. These include the Bull Run Watershed, the Clackamas and Trask Rivers and groundwater from alluvial sand and gravel and basalt aquifers. Because Lake Oswego derives its water from the Clackamas River, it is important that the City participate in regional planning efforts to project future demand and develop sound, innovative water management strategies to meet both current and long term needs of the region. To this end, Lake Oswego, and a number of other water providers, have joined resources to develop a Regional Water Supply Plan. It is anticipated the plan will be completed by 1997.

Summary of Major Issues

The following are some of the issues and changed circumstances and conditions which were considered in the 1993 update of the Comprehensive Plan.

- The Lake Oswego Water System Master Plan was completed in 1988.
- The capacities of the water intake, treatment plant and distribution systems are adequate to accommodate the current needs of Lake Oswego's service area. However, improvements to the water system are needed to address projected demand. The most substantial and expensive improvements are needed if Lake Oswego continues to sell water to meet the growing needs of the Southeast Washington County Joint Water Agency.
- Improvements are needed to the City's water transmission, storage and distribution systems to provide needed fire flows and adequate pressure in many parts of the community.
- Several water providers operate within the Urban Services Boundary. This situation requires Lake Oswego and the providers to work together to define future roles.
- An adequate future supply of high quality water and reasonably priced drinking water is an issue of regional concern for the Portland Metropolitan Area.

Section 3, Water Treatment and Delivery

GOALS, POLICIES, AND RECOMMENDED ACTION MEASURES

GOAL

The City shall ensure a reliable and adequate supply of high quality water to meet the existing and future needs of Lake Oswego.

POLICIES

- 1. Provide a sufficient supply of high quality water at adequate pressure to meet consumption and fire flow projections and emergency storage needs.
- 2. Ensure that Lake Oswego's water system is self supporting.
- 3. Ensure the quality of treated water meets or exceeds all state and federal standards.
- 4. Provide public fire hydrants with adequate flows and pressures necessary to afford fire protection to the City's residents, businesses and institutions.
- 5. Safeguard and enhance the Clackamas River watershed* as the City's primary water source, through coordinated efforts with other water users. The preservation of water quality shall be paramount.
- 6. Protect Lake Oswego's water rights on the Clackamas and Willamette Rivers.
- 7. Require developers to:
 - a. Provide water service to meet domestic needs and fire flow requirements to all new development;
 - b. Install all required public fire hydrants;
 - c. Pay a systems development charge and other costs associated with extending service; and,
 - d. Extend adequately sized water lines with sufficient pressure to the boundaries of the subject property where future extension of water service is anticipated or required.
- 8. Require unobstructed access to all public water lines and easements.

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Section 3, Water Treatment and Delivery

- 9. Require all development in Lake Oswego to connect to the municipal water system unless the City and a water provider agree that adequate service can be provided more practically by the provider's facilities.
- 10. Ensure that water utility revenues are adequate to meet the operating and maintenance costs of the water system and to fund required capital projects.
- 11. Recognize that the City is the ultimate provider of water service within the Urban Services Boundary.
- 12. Require water providers and property owners outside the City to pay a systems development charge and a reimbursement fee prior to connecting to the City system.

RECOMMENDED ACTION MEASURES

- i. Water storage facilities shall be designed and constructed, where practical, to minimize scale, bulk, and visual impacts on adjacent uses through methods such as setbacks, landscape screening, below grade construction and use of appropriate colors and materials.
- ii. Work with other water providers within the Portland Metropolitan Area to ensure the Lake Oswego water service area and the region have an adequate future supply of high quality and reasonably priced drinking water.
- iii. Ensure the costs of extending water lines and construction of other, related improvements accrue to those who benefit through measures such as:
 - a. Connection fees based on the number of residential units or commercial or industrial equivalents;
 - b. Methods to pay for needed line over-sizing and looping; and,
 - c. Payment of a systems development charge.
- iv. Ensure water storage and distribution facilities are adequately maintained to ensure a reliable supply at adequate flows and pressure, protect water quality and minimize water loss.
- v. Reduce water consumption and water loss through effective conservation programs, the application of new technologies and ongoing maintenance and replacement of deteriorated lines.

Section 3, Water Treatment and Delivery

- vi. Prepare a water system public facility plan and capital improvement program to prioritize extension and replacement of water lines, expansion of intake, treatment and storage capacity and other needed improvements.
- vii. Develop agreements with other water providers which:
 - a. Define short and long term service provision roles for the City and other service providers;
 - b. Specify the terms and conditions of withdrawal of territory from other service providers and the transition of capital facility ownership and administration to the City;
 - c. Provide for coordination of plans and programs between the City and other service; and,
 - d. Ensure services are provided consistent with the City's adopted Public Facility Plan.
- viii. Where practical, require property owners to eliminate private ground water wells in Lake Oswego as drinking water sources and require all development served by private wells to connect to the City's water system.

□ Section 4, Wastewater Collection and Treatment





Lake Oswego shall provide an adequate and efficient wastewater collection and treatment system within the Urban Services Boundary which:

- a. Meets the present and future needs of Lake Oswego residents and businesses, and;
- b. Complies with federal, state and local clean water requirements, and;
- c. Is self supporting.

Section 4, Wastewater Collection and Treatment

BACKGROUND

Statewide Planning Goal 11: Public Facilities and Services

"To plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development."

Lake Oswego adopted a Public Facility Plan (PFP) in 1997 [PA 1-97] which identifies needed wastewater collection and treatment facilities per OAR 660, Division 11. The applicable parts of the PFP and its subsequent updates are incorporated by reference into the Comprehensive Plan.

Urban and rural development shall be guided and supported by types and levels of urban and rural public facilities and services appropriate for, but limited to the needs and requirements of the urban, urbanizable and rural areas to be served. A provision for key facilities shall be included in each plan. Each jurisdiction shall develop and adopt a public facility plan for areas within an urban growth boundary containing a population greater than 2,500 persons.

"Timely, orderly and efficient arrangement" — refers to a system or plan that coordinates the type, locations and delivery of public facilities and services in a manner that best supports the existing and proposed land uses.

"Urban Facilities and Services" refers to key facilities and to appropriate types and levels of at least the following: police protection, sanitary facilities, storm drainage facilities, planning, zoning and subdivision control, health services, recreation facilities and services, energy and communication services and community governmental services.

Lake Oswego abandoned its municipal waste water treatment plant in 1964 and connected the municipal sewer collection system to the City of Portland's Tryon Creek Treatment Plant. This was necessary to meet the requirements of the Federal Water Quality Act of 1965 which required a minimum of secondary treatment before effluent could be discharged into the Willamette River. The Act and associated federal and state funding for treatment plants significantly reduced pollution of the Willamette River and other Oregon waterways.

The Tryon Creek Treatment Plant operates under a waste discharge permit from the Oregon Department of Environmental Quality. Treated effluent is discharged into the Willamette River. Sludge is trucked to the City of Portland Columbia Boulevard Wastewater Treatment Plant for further processing and ultimate disposal.

11.4-1

Section 4, Wastewater Collection and Treatment

The Tryon Creek Treatment Plant underwent a major renovation in 1976 to increase treatment capacity and to provide more complete secondary treatment of wastewater pursuant to Oregon Department of Environmental Quality Requirements. The plant is now designed for an average dry weather flow (ADWF) of 8.3 million gallons per day (mgd). The ADWF in 1988 was 6.34 mgd which was about 76 percent of capacity. In wet weather situations the plant has the capacity to treat hourly peak flows of 35 mgd for short periods of time. Recorded peak flows to the facility ranged from 13.5 to 28.2 mgd in a six year period from 1982 to 1987. Because of population growth in the service area, treatment plant expansion is expected to be needed before 2000. It is estimated that plant capacity of about 14 mgd average dry weather flow will be needed by the year 2010.

The City has an intergovernmental agreement with the City of Portland to treat sewage at the Tryon Creek Plant. Currently, about 55% of total flow to the plant comes from the Lake Oswego sewer service area. Lake Oswego pays Portland a proportionate share for the cost and operation of the Tryon Creek Plant.

Lake Oswego also has an intergovernmental agreement with the Unified Sewerage Agency of Washington County (USA) to treat wastewater originating in the western portion of the City's Urban Service Boundary (USB) at USA's Durham treatment plant. Area served by USA includes portions of Mountain Park and Westlake. Portions of the unincorporated USB along I-5, Kruse Way and in the Lake Grove area are also served by USA.

By the year 2000, DEQ discharge requirements will likely become more stringent. Willamette River water quality may have a significant impact on the discharge requirements with which the Tryon Creek and Durham Treatment Plants must comply. If the Willamette River is determined to be "water quality limited," total maximum daily loads (TMDL) could be imposed by DEQ for limiting parameters such as ammonia, phosphorus or bio-chemical oxygen demand (BOD).

A multi-jurisdictional study was initiated in 1992 to evaluate long term efficiency and cost effectiveness of sewage treatment in the Kellogg, Oak Lodge, Tryon Creek and Tri-Cities (KOLTT) service
areas. The Kellogg facility serves the City of Milwaukie, Clackamas Service District #1 and portions of
Gladstone. The Oak Lodge Plant serves the unincorporated Oak Lodge Sanitary Sewer District and
portions of Gladstone, and the Tri-Cities facility treats sewage from West Linn, Oregon City and
Gladstone. Each treatment plant has different capacities, service demands, financing and governance
structures. The study will be completed by 1995 and will address the following question: "Should the
existing treatment plants be maintained and expanded or be replaced with a new facility configuration
as a means to enhance cost effectiveness and service efficiency." If a new service configuration, such
as consolidation of two or more treatment facilities is chosen, it is unlikely to be implemented before
2010.

Section 4, Wastewater Collection and Treatment

The Federal Clean Water Act required the creation of a Regional Wastewater Management Plan for the Portland area. This is a Metro responsibility which was first adopted by the Metro Council in 1980. The Plan is reviewed on an annual basis as part of Metro's continuing "208" Water Quality Program. The Clean Water Act requires that the Regional Plan accurately identify regional water quality management problems and their solutions, both short and long term. The Regional Plan must also delineate water quality management service areas for collection, transmission and treatment of wastewater. Lake Oswego has been designated under the Regional Plan as having responsibility for sewage treatment, transmission and collection system operation for the area contained within the City's Urban Services Boundary except for small areas sewered by USA. Local jurisdictions are required to coordinate their plans with Metro and the Regional Plan to qualify for federal funds for water quality programs.

Lake Oswego's sewer collection system consists of more than 170 miles of sanitary sewer line and provides service to more than 5,000 acres of residential, commercial and industrial properties within the City limits. Another approximately 1,200 acres within the City's Urban Services Boundary and the City of Rivergrove may ultimately be served by the City's sewer collection and transmission system. This would require an estimated 54 miles of collection system extensions. Almost all of the developed property outside the City, except for those served by USA and Dunthorpe-Riverdale Sanitary Sewer Districts, are on septic tanks. In most cases, these are small lots with inadequate replacement area. Septic tank failures have occurred and this has made it necessary for property owners to either connect to a public sewer system or construct expensive sand filter systems.

Infiltration and Inflow (I/I)* of storm and ground water poses a significant problem by burdening the collection system with excess water. Currently, the volume of I/I of storm water into the collection system during a major storm is between five and six times the sanitary flow volume. The City could reduce significant costs of constructing new major lines by reducing I/I which would prolong the life of sewer system and decrease operating expenses. Furthermore, infiltration and inflow must be reduced for continued conformance with regulatory requirements. Also, Lake Oswego's sewage treatment agreement with the City of Portland stipulates that the City shall work toward reducing I/I to maximize the design capacity of the Tryon Creek Treatment Plant.

One means of ensuring adequate treatment capacity for future domestic sewage is to minimize the strength of industrial wastes discharged to the sewer system. Lake Oswego has adopted an ordinance which requires pretreatment of all industrial wastes which could affect the operation of sanitary sewer system. This program is required by DEQ and Lake Oswego's intergovernmental agreement with Portland for sewage treatment.

Lake Oswego's varying topography often makes it very expensive, difficult and sometimes impossible to provide conventional gravity sewer service. The City Council in 1992 approved the use of Septic Tank Effluent Pumping (STEP) pressure sewer systems in certain situations. The STEP system can be an effective alternative to conventional gravity systems when properly maintained and installed. This

■ Section 4, Wastewater Collection and Treatment

system consists of a buried tank for settling and digesting wastewater solids, together with a pumped system to convey liquid to the gravity system. The construction of any pressure system requires approval by DEQ and supervision by the City engineer. Piecemeal installation is strongly discouraged, except for isolated and special case circumstances, such as on an interim basis until anticipated permanent facilities become available.

Summary of Major Issues

The following are some of the issues and changed circumstances and conditions which were considered in the 1993 update of this element of the Comprehensive Plan.

- The Tryon Creek Treatment Plan underwent major renovation in 1976 to meet DEQ discharge requirements and to increase capacity. Flows from Portland and Lake Oswego use about 76% of the plant's capacity.
- By the year 2000 discharge requirements may become more stringent requiring additional improvements to the Tryon Creek Treatment Plant.
- Economic and efficiency considerations may cause significant treatment plant reconfiguration in those areas served by the Kellogg, Oak Lodge, Tryon Creek and Tri-cities plants by the year 2000.
- Oregon law and administrative rules require sanitary sewage treatment and collection to be included as part of an overall public facility plan.
- Infiltration and inflow of storm and groundwater water poses a significant problem by exceeding the collection system capacity.
- Lake Oswego has adopted an ordinance requiring pretreatment of industrial wastes before discharge into the sanitary sewer system.
- Metro has been designated as responsible for the Section 208 Wastewater Management Plan.
- Lake Oswego has approved the use Septic Tank Effluent Pumping Systems (STEP) in certain situations when gravity sewers can not be provided.
- The 1968 Lake Oswego Sanitary Sewer Master Plan was updated in 1987.

11.4-4 LAKE OSWEGO COMPREHENSIVE PLAN

Section 4, Wastewater Collection and Treatment

GOALS, POLICIES AND RECOMMENDED ACTION MEASURES

GOAL

Lake Oswego shall provide an adequate and efficient wastewater collection and treatment system within the Urban Services Boundary which:

- a. Meets the present and future needs of Lake Oswego residents and businesses;
- b. Complies with federal, state and local clean water requirements; and,
- c. Is self supporting.

POLICIES

- 1. Require developers to:
 - a. Provide adequate sanitary sewers to all new development; and,
 - b. Pay an equitable portion of costs associated with extending service.
- 2. Require all new and existing development within the City to connect to the City's sanitary sewer system and pay a system development charge.
- 3. Prohibit the repair or replacement of septic tank systems within the City unless it is not feasible to connect to the City sewer system.
- 4. Control and reduce infiltration and inflow of storm and ground water to the sanitary sewer system.
- 5. Prioritize the extension of sanitary sewer service as follows:
 - a. Declared health hazard areas within the Urban Services Boundary;
 - b. Property within the City limits; and
 - c. Other incorporated cities under contractual arrangement where sufficient capacity exists to provide service.
- 6. Allow the use of Septic Tank Effluent Pumping (STEP) Systems in those areas and situations where conventional gravity sewer systems are not practical.

Section 4, Wastewater Collection and Treatment

- 7. Require pretreatment of wastes which could harm the wastewater treatment system or use excessive treatment capacity.
- 8. Prohibit the construction of structures which would prevent access to public sewer lines and easements.
- 9. Ensure that sewer utility revenues are adequate to meet the operating and maintenance costs of the sewer collection and treatment system and to fund required capital projects.
- 10. Operate wastewater treatment and collection facilities to meet or exceed federal, state and local standards.
- 11. Coordinate the City's water quality programs and expansion of the City's wastewater collection and treatment facilities and programs with:
 - a. The 208 Regional Wastewater Management Plan;
 - b. State, federal and regional programs and statutory requirements; and,
 - c. The plans of other area jurisdictions and service districts.

RECOMMENDED ACTION MEASURES

- i. Work with the City of Portland and the Unified Sewerage Agency of Washington County (USA) to ensure that the Tryon Creek and Durham Wastewater Treatment Plants maintain adequate capacity to ultimately serve lands within the Lake Oswego Urban Services Boundary.
- ii. Cooperate with Metro and other jurisdictions to identify efficient, economic and environmentally sound long term regional wastewater collection and treatment options.
- iii. Ensure the costs of extending sanitary sewers accrue to those who benefit through such measures as:
 - a. Connection fees based on the number of residential units or commercial or industrial equivalents;
 - b. Methods to pay for needed line over-sizing; and,
 - c. Payment of a systems development charge.
- iv. Maintain intergovernmental agreements with the City of Portland and USA to treat Lake Oswego's sanitary sewage at the Durham and Tryon Creek Treatment Plants which:

11.4-6 LAKE OSWEGO COMPREHENSIVE PLAN

■ Section 4, Wastewater Collection and Treatment

- a. Are financially equitable;
- b. Ensure the availability of adequate capacity to handle flows from the City of Lake Oswego;
- c. Ensure that treatment and discharge complies with all state and federal clean water rules; and,
- d. Provide for close cooperation and coordination in matters which may affect the City of Lake Oswego.
- v. Encourage water conservation to reduce the amount of wastewater discharged into the City's sanitary sewer system.
- vi. Maintain and improve the existing sanitary sewer collection and treatment system through preventive maintenance and ongoing evaluation.
- vii. Encourage Clackamas County to advise property owners seeking new septic system or repair permits within the Urban Services Boundary that they may be required to connect to the City's system when they are annexed to the City even if there are no documented problems with the existing system.
- viii. Encourage Clackamas County to stop issuing new septic tank permits where there has been a pattern of recorded system failures or documented aquifer pollution.
- ix. Require new sanitary sewers to be constructed using methods and materials which prevent infiltration and inflow.
- x. Request Clackamas County to inform the City of septic failures and requests for repair within the Urban Services Boundary.

■ Section 4, Wastewater Collection and Treatment

- Notes -

□ Section 5, Administrative and Government Services, Energy, Communications, and Schools

BACKGROUND

Statewide Planning Goal 11: Public Facilities and Services

"To plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development."

Other public facilities and services in addition to sewer, water, transportation and surface water management are important to the well being of Lake Oswego's citizens. The impacts of land use actions can be significant on these "other" facilities and services, which include administrative and general government services, energy and communications and schools.

Administrative and General Government Services

The City of Lake Oswego provides administrative and general government services essential for providing public facilities and services and for conducting the business of municipal government. These services are provided by 11 City departments and divisions including the City Manager's Office, and Departments of Finance, Fire, Human Resources, Library, Maintenance Services, Municipal Court, Planning and Development, Police, Public Works, and Parks and Recreation. While some of these departments are not directly involved in land use planning, their ability to provide services is affected by growth and development. Therefore, it is important that impacts on administration and general government be considered when evaluating land use actions.

Energy and Communication

Several utilities provide energy and communication services to residents and business owners within Lake Oswego's Urban Services Boundary (USB). Portland General Electric provides electricity and Northwest Natural Gas provides natural gas to homes and businesses. US West and General Telephone Company Northwest provide telephone services. TCI and Columbia Cable Television provide cable television and music and data links to a variety of information bases.

Energy and communication services are essential to the community. The City of Lake Oswego coordinates all development applications and public works projects with utilities to ensure service can be provided and to avoid conflicts with existing and future public facilities and services.

Section 5, Administrative and Government Services, Energy, Communications, and Schools

Schools

Public education within the Urban Services Boundary is provided by the Lake Oswego School District. The district operates nine elementary schools, two junior high and two senior high schools. In addition to the public schools, five other private schools are located within the USB. These are: Marylhurst College; Christie School, a non-profit residential school for children with special needs; Touchstone School, a primary grade school and preschool, Our Lady of the Lake Catholic School, and the West Side Christian School.

Public school enrollment has increased commensurate with development activity. In 1994 the District had a total enrollment of about 6,902 students compared to 5,579 students in 1984, an increase of about 24 percent. However, in the foreseeable future it is unlikely the district will experience the enrollment gains that occurred from the mid to 1980s to early 1990s. This is due primarily to the lack of buildable land within the Lake Oswego USB as compared to other cities within the Portland Metropolitan Area. School District growth projections range from a low of 6,897 to a high of 7,806 students by the year 2000. It is expected that growth in the number of students will be evenly distributed within the primary, junior high and high school levels.

The Lake Oswego School District estimates it has the capacity to accommodate 700 additional students at the elementary level, 350 students in existing junior high facilities and 500 students in existing high schools. The District does not own undeveloped lands large enough to build new school facilities.

The 1993 State Legislature adopted SB 908 which was codified as ORS 195.110 which requires cities, counties and schools districts in "high growth areas" to develop school facility plans. "High growth" is defined as any district which "has an enrollment of over 5,000 students and had an increase in student enrollment of six percent or more during the three most recent school years. The purpose of the legislation is to include schools as part of a city or county's land use planning responsibilities; provide standards to guide such efforts; and identify the respective roles and responsibilities of school district, cities and counties.

The Lake Oswego School District had a total enrollment growth rate in excess of 6 percent during the period 1991 through 1994. During this time the District grew from 6,516 to 6,902 students.

While the required facility plans are to be initiated by the City or County within which the district is located, the intent is for them to be cooperatively prepared. The resultant facility plan is to be adopted as an element of the jurisdiction's comprehensive plan and must meet all of the requirements of the state's land use laws.

Section 5, Administrative and Government Services, Energy, Communications, and Schools

Among other things, a school district which undertakes the facility planning effort must assess the capacity of its facilities to handle additional growth based upon "objective criteria" adopted by the school board prior to the assessment. A participating district must also assess improvements needed to bring existing schools up to the minimum standards and also evaluate alternatives to construction of new schools or remodeling.

The accessibility to education and its quality contributes to Lake Oswego's quality of life. The City and the school district can cooperate in many ways, including coordination of land use actions and joint development of the required school facility plan to ensure continued quality of the school system.

Summary of Major Issues

The following are some of the issues and changed circumstances and conditions which were considered in the update of this element of the Comprehensive Plan:

- Other public facilities and services, including administrative and general government services, energy and communication, and schools are important to the well being of Lake Oswego's citizens and are often affected by land use decisions.
- Coordination of the provision and installation of energy and communication services is necessary for economy and efficiency and to avoid unnecessary disruption of service.
- Student enrollment in the Lake Oswego School District has grown about 24 percent from 1984
 94 and approximately 10 percent during the period from 1991 94.
- State law requires "high growth" school districts and jurisdictions within which they are located to develop a school facilities plan as part of the Public Facilities Plan.

GOALS, POLICIES AND RECOMMENDED ACTION MEASURES

GOAL

The City shall ensure the availability of administrative and general government services and shall coordinate with efforts of others to provide schools, energy and communication services.

□ Section 5, Administrative and Government Services, Energy, Communications, and Schools

POLICIES

- 1. Ensure administrative and general government services are adequate to support the delivery of public facilities and services to the community.
- 2. Require energy and communication utilities to be provided to all development.
- 3. Require developers to establish, and ensure the preservation of easements necessary to provide energy and communication services.
- 4. Require new energy and communication utilities to be placed underground where practical.
- 5. Review all residential development proposals for potential impacts on the school system including the adequacy of existing schools and the need for new facilities.
- 6. Require safe and accessible transportation routes to schools.

RECOMMENDED ACTION MEASURES

- i. Provide adequate financial support for administrative and general government services.
- ii. Coordinate all public facility and capital improvement planning efforts and public works projects with area utilities to promote the orderly and efficient provision of services and to avoid conflicts and service disruptions.
- iii. Encourage local utilities to place existing utilities underground.
- iv. Coordinate the review of new development applications with local area utilities to ensure orderly and efficient provision of services.
- v. Encourage the Lake Oswego School District to develop a schools facility plan in coordination with the City's public facility plan.
- vi. Work with the school district to ensure safe access to schools through methods such as:
 - a. Pedestrian and bicycle paths and routes;
 - b. Traffic safety and management measures; and,
 - c. Traffic patrol and enforcement.

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Section 5, Administrative and Government Services,
Energy, Communications, and Schools

vii. Coordinate the review of the Capital Improvement Program, Public Facility Plan, Comprehensive Plan amendments and relevant land use proposals with the school district.

 □ Section 5, Administrative and Government Services, Energy, Communications, and Schools

- Notes -



The City shall develop a street system to address the mobility needs of residents for all modes of transportation.

■ Goal 12: Transportation

BACKGROUND

Statewide Planning Goal 12: Transportation

"To provide and encourage a safe, convenient and economic transportation system."

Statewide Planning Goal 12 requires cities and counties to develop a transportation plan which considers all modes of travel including mass transit, air, water, pipeline, rail, highway, bicycle and pedestrian which is based on an inventory of local, regional and state needs, considers the differences in social consequences that would result from using differing combinations of transportation modes and avoids principal reliance upon any one mode of transportation.

In 1990, the City Council appointed a 24-member, ad hoc Transportation Committee to review and update the Transportation Chapter of the Comprehensive Plan. In general, the changes proposed by this Committee were as a result of new legislation and changes in community preferences that had occurred since the Plan adoption in 1978.

In December 1992, the new Transportation Chapter was adopted. It includes policies reflecting the changes outlined in the Transportation Rule (TPR), (OAR 660-12, 1991) which is the major new legislation adopted since the Plan was acknowledged by Department of Land Conservation (DLCD) in 1982. The policy basis for the rule is that if cities are to accommodate urban growth, residents will have to drive less so that roadway capacity, which is economically and environmentally costly, will not have to be increased. To accomplish this, communities are to provide opportunities for residents to use alternative transportation, including walking, bicycling and transit. This will be accomplished through reduced parking, better pedestrian and bicycle connections and through provisions of amenities for alternative transportation users.

The Transportation Committee was also charged with developing a Neighborhood Traffic Management Program to manage traffic to insure the safe and orderly movement of all modes of transportation and to preserve the quiet and privacy of residential neighborhoods. This program is in response to the public's desire to control automobile traffic volumes, speeds and to increase safety in neighborhoods. Another change made during the 1992 update include a policy requiring a truck circulation plan for Lake Oswego to reduce noise and pollution in residential areas.

Another element of the Transportation Chapter is a Streets Public Facilities Plan. The state administrative rules for public facilities planning (Goal 11) requires communities to provide a list of short, mid and long range projects that it foresees for all modes of transportation, estimated costs of these projects, approximate locations and possible funding sources. The City fulfills these requirements for the streets element of the Transportation Plan and will provide the Public Facilities element for other modes of

☐ Goal 12: Transportation

transportation as soon as the City's Transportation System Plan (TSP) is completed. The Goal 12 Rule requires each jurisdiction to complete a TSP for transportation facilities that are planned, developed, operated and maintained in a coordinated manner to supply continuity of movement between modes and geographic areas.

During this update of the Plan, the Transportation Committee also recommended extensive changes to Functional Street Classifications. The Committee initially developed three overall objectives for the Plan. These included: 1) reduce the through traffic on neighborhood streets, 2) concentrate traffic on major streets and 3) maintain the character and livability of the community. The Committee refined the previous "Arterial" category to Major and Minor Arterials and the pervious "Collector" category into Major and Neighborhood Collectors. Many streets which were collector streets were also reclassified as "local streets".

In 1997, the City adopted additional policies and projects to bring the City into greater compliance with the TPR. These changes provided more emphasis on a balanced transportation system by:

- Emphasizing pedestrian and bicycle connections and projects;
- More closely relating street function to the character of surrounding land uses;
- Emphasizing local street connectivity and traffic calming;
- Reducing required Level of Service on the Major street system from "D" to "E";
- Emphasizing transit as a viable alternative to the single-occupant vehicle in the City's highest density housing and employment areas.

Lake Oswego's challenge for transportation in the ensuing years will be similar to that of the rest of the Metropolitan region: to manage ever increasing automobile traffic with increasingly scarce financial resources and to maintain neighborhood livability in the face of increasing traffic.

Summary of Major Issues

The following are some of the issues, changed circumstances and conditions which were considered in the update of this element of the Comprehensive Plan.

The Transportation Rule, adopted in 1991, requires cities and counties to develop a Transportation System Plan (TSP) which maintains vehicle miles traveled for 10 years following adoption of the TSP, a 10% reduction within 20 years of the TSP and a 20% reduction within 30 years. TSPs will also specify measurable objectives for increasing the modal share of non-auto trips, an increase in the average auto occupancy and a decrease in the number or length of automobile trips per capita due to demand management programs, rearranging of land uses or other means.

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- A neighborhood traffic management program began in the City in 1993 with the purpose of reducing through-traffic in neighborhoods and increasing safety.
- The City's Transportation Public Facilities Plan calls for the following projects to be completed by 2017 to address capacity needs. State gas tax revenues are declining. The City's funds available for capacity improvements are also decreasing annually due to the decrease in vacant, developable land and hence the decrease in collected Systems Development Charges which could be used for capacity related improvements.

System	1-10 Yrs.	11-20 Yrs.	Total
Roadway	61,042,000	11,675,000	72,717,000
Pedestrian	3,121,000	4,892,700	8,013,700
Bike	1,484,700	1,299,500	2,784,200
Transit	7,610,000	6,000,000	13,610,000
Total	73,257,700	23,867,200	97,124,900

GOALS, POLICIES AND RECOMMENDED ACTION MEASURES

GOAL 1: MAJOR STREETS SYSTEM

Lake Oswego shall develop a major street system consisting of major and minor arterials and major collectors, which will have minimal impact on the City's air quality, address the mobility needs of residents for all modes of travel and promote energy conservation (See Figures 16 & 17).

POLICIES

- 1. The arterial and major collector street network shall be designed and maintained to service level "E" during peak hours. The design of the roadway system shall also take into consideration:
 - a. Balancing roadway size and scale with the need to provide efficient and safe transportation for all modes of travel, including bike, pedestrian and transit,

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- b. Giving preference to transportation projects that increase the efficiency, safety, design capacity or level of service of a transportation facility, without increasing corridor width; and
- c. Preserving community aesthetics by considering existing topography and vegetation.
- 2. Direct access onto major streets shall be controlled and consolidated over time through the development review process and the implementation of major street projects. In particular, access to state highways shall be reviewed subject to the regulations of the Oregon Department of Transportation and the City of Lake Oswego. Where regulations conflict, the more restrictive requirements shall apply.
- 3. The major streets system shall consist of freeways, major and minor arterials and major collectors as described in Figures 16 & 17. The maximum number of lanes for major streets within the Lake Oswego Urban Services Boundary shall be as follows:
 - a. Freeways four to eight lanes.
 - b. Major arterials three to five lanes.
 - c. Minor arterials two to four lanes.
 - d. Major collectors two lanes.
- 4. Where residential neighborhoods are bisected by existing major streets, the impacts of traffic—noise, safety, aesthetics and air quality—shall be minimized by the following actions:
 - a. Where feasible, traffic generated by new development, shall be routed to other available major streets that are not within or adjacent to residential uses.
 - b. Ensure that traffic generated by new land uses does not exceed the design capacity of the street system, or adversely affect adjoining neighborhoods.
 - c. Provision of safe and efficient bicycle and pedestrian improvements to connect residential areas to other areas of the community.
 - d. Measures to physically re-orient residential areas away from major streets. This may include installation of major landscape elements such as landscaped buffers and tree plantings, and the development of neighborhood activity centers such as public open spaces, parks and community centers.
 - e. New commercial uses and neighborhood activity centers such as parks, schools and community centers shall provide direct, convenient access to and from adjacent residential areas to facilitate walking, bicycling and short auto trips. Measures shall be implemented to ensure that such routes do not attract or serve traffic from outside the neighborhood.

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- 5. The City shall require the mitigation of negative impacts upon pedestrian and bicycle mobility, noise levels, safety, aesthetics and air quality when new residential development is located adjacent to major streets.
- 6. The City shall consider the movement of freight within the City when:
 - a. Conducting multi-modal transportation studies,
 - b. Developing truck routing plans, and;
 - c. Developing freight loading and parking strategies.
- 7. Streets designated as Regional Streets on the Regional Transportation Plan, shall be designed with consideration of the following when reconstruction or retrofitting occurs:
 - a. Promoting community livability by balancing all modes of transportation,
 - b. Relating the street to the function and character of surrounding land uses;
 - c. Controlling access to improve safety, function and appearance of streets and adjacent land uses.

RECOMMENDED ACTION MEASURES - MAJOR STREETS SYSTEM

- i. Develop access criteria for the major streets system which utilize the following principles:
 - a. Direct access to the major and minor arterial system is restricted except from existing platted lots, which may be allowed access when there is no feasible alternative. Feasible alternatives may include easements through adjacent properties to existing Residential or Neighborhood Collector Streets or shared access to the Major Street System.
 - b. Whenever possible, properties shall develop access to major and minor arterials from frontage roads or side streets as opposed to direct access to a major street. Major arterials may be allowed to intersect every 1,000 feet, and minor arterials every 600 feet, subject to an approved street plan.
 - c. Controlled access may be allowed, subject to review, from major traffic generators, (e.g., shopping centers). When conditions warrant, common access at property lines shall be required to reduce the number of access points onto state highways and other major streets.
 - d. Increased building setbacks shall be required when it is determined that frontage roads, and/or combined access points are required.
 - e. Direct access to major collectors is discouraged except when there is no practical access from local streets or neighborhood collectors.

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- f. To reduce travel on major streets, encourage travel connections between adjacent developments.
- g. Require consolidation and closure of driveways onto the major streets system over time if access spacing guidelines in Figure 16 are exceeded and when implementing major street capital projects.
- ii. The Metro publication "Creating Livable Streets" will be a resource for street design for those streets shown as "Regional" on the Regional Transportation Plan.
- iii. Develop specific types of traffic calming measures to be applied to Major Collector Streets for the purposes of improving safety and aesthetics while maintaining mobility. Criteria for selection of streets on which to apply traffic calming measures should also be developed.

GOAL 2: INTER-GOVERNMENTAL COORDINATION

Lake Oswego's transportation system shall be planned, developed and operated in a coordinated manner with other state, regional and local transportation providers.

POLICIES

- 1. Lake Oswego shall develop a Comprehensive Transportation System (TSP) in conjunction with Clackamas County and adjacent counties where appropriate, the State of Oregon, Tri-Met and Metro for the area within the City's Urban Services Boundary. The Comprehensive Transportation System Plan shall:
 - a. Be consistent with land use designations identified within the Lake Oswego Comprehensive Plan.
 - b. Identify the location of arterial and collector streets, bicycle paths and pedestrian ways and public transit facilities.
 - c. Identify the major street construction projects required to accommodate anticipated development and to address public safety issues.
 - d. Propose funding mechanisms and related policies necessary to implement identified projects.
 - e. Describe public transportation services and identify service inadequacies.

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- 2. The City shall coordinate transportation and land use planning efforts with federal, state and regional agencies, local jurisdictions and Tri-Met to make sure that:
 - a. The requirements of the various transportation modes are coordinated, and that conflicts between land use, operational characteristics and safety issues are minimized.
 - b. Effective notification and coordination occurs between affected agencies regarding the transportation impacts of proposed development within or adjacent to the Urban Service Boundary.
 - c. An effective citizen involvement program is implemented, including public notice and hearings if the development of transportation projects involves land use decisions or adversely impacts the existing transportation system or surrounding neighborhoods.
- 3. The City shall work with Metro, Tri-Met, ODOT and Clackamas County to develop interim benchmarks for measuring progress towards transportation goals and policies over the planning period.

RECOMMENDED ACTION MEASURES — INTER-GOVERNMENTAL COORDINATION

- i. Work with Metro, Tri-Met and other appropriate agencies to investigate the feasibility of passenger transport on the Willamette River.
- iii. Develop joint agreements with Clackamas, Multnomah and Washington counties that specify the methods whereby:
 - a. The City and counties can bring to the other's attention transportation conditions and circumstances which adversely impact other jurisdictions.
 - b. Discussion and/or negotiation can take place to resolve the adverse situation.

GOAL 3: NEIGHBORHOOD COLLECTORS AND LOCAL RESIDENTIAL STREETS

Lake Oswego shall develop a system of neighborhood collectors and local residential streets which preserves the quiet, privacy and safety of neighborhood living and which has adequate, but not excessive capacity, necessary to accommodate planned land uses. (See Figures 16 and 17).

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POLICIES

- 1. The primary function of local residential streets and neighborhood collectors is to serve the circulation and access needs of residents adjacent to and abutting these streets. Neighborhood collectors will serve to channel local traffic to the major streets system. Through traffic (auto trips which have neither trip end within the neighborhood association boundary) on these streets shall be discouraged.
- 2. The City shall, in conjunction with the neighborhood association, plan for, develop and maintain a local residential street system at a service level and scale which:
 - a. Recognizes the need for safety for all modes of travel,
 - b. Recognizes the multi-use functions of neighborhood streets for walking, bicycling and social interaction, and which preserves the privacy, quiet and safety of neighborhood living,
 - c. Provides for safe access to abutting land; and,
 - d. Allows adequate and safe circulation from residential properties to the major streets system and neighborhood activity centers.
- 3. The City shall designate as local residential streets all streets not identified as major streets or neighborhood collectors in the Lake Oswego Comprehensive Transportation System Plan.
- 4. The City shall utilize flexible design criteria and construction standards for local residential street and neighborhood collector improvement projects. Design criteria shall be consistent with the adopted neighborhood plan. In particular these standards shall promote:
 - a. Street development which is compatible with the physical and social characteristics of each neighborhood to promote neighborhood identity and beauty.
 - b. The minimum scale of improvements necessary to provide adequate, but not excessive capacity, required to safely handle automobile traffic generated by planned land uses.
 - c. Solutions to storm water problems and surface water management issues.
 - d. The safety and utility of pedestrians, bicyclists, transit users and motorists.
- 5. The City shall ensure that new development which will use new and existing neighborhood collectors and local residential streets is compatible with these street's function and character. Development approval of new land uses shall ensure that:
 - a. The quiet residential quality of neighborhood streets is fostered and maintained.

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- b. Street improvements required to serve new land uses are designed in accordance with the adopted neighborhood plan and to the minimum necessary scale.
- 6. The City and neighborhood associations shall jointly plan for the use of public rights-of-ways in residential neighborhoods. Uses within rights-of-way shall be supportive of the multi-use function of neighborhood streets and may include:
 - a. Pedestrian paths and bikeways.
 - b. Vehicular related uses as on-street parking, transit facilities and driveways.
 - c. Urban design, public utility, safety and beautification elements such as street trees, public seating, street lights, wheelchair ramps and sidewalk extensions.
- 7. Develop a truck circulation ordinance to reduce congestion, conflicts with residential neighborhoods and to decrease noise and air pollution.
- 8. Manage traffic on Neighborhood Collectors and Local Streets according to the policies established in this chapter. Traffic calming measures should be used where feasible to encourage non-local traffic to use streets with higher functional classifications and should not significantly divert traffic to other nearby streets of the same or lower classification.
- 9. Ensure that connectivity of local streets is achieved in order to:
 - a. reduce excessive trip lengths;
 - b. efficiently and safely accommodate emergency fire and medical vehicles;
 - c. promote the use of alternative modes of travel;
 - d. ensure even dispersal of local traffic; and
 - e. provide local street circulation patterns that provide connections to and from activity centers such as schools, commercial areas, parks and employment centers.

RECOMMENDED ACTION MEASURES — NEIGHBORHOOD COLLECTORS AND LOCAL RESIDENTIAL STREETS

- i. Promote low traffic volumes on residential streets. Traffic volumes less than 1,200 ADT are desirable.
- ii. Develop criteria for installation of traffic calming devices based on incremental changes in traffic volume and other factors, including traffic safety.

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GOAL 4: LAND USE AND TRANSPORTATION RELATIONSHIPS

Amendments to land use designations, densities, and design standards within the Lake Oswego Comprehensive Plan shall be reviewed to ensure that traffic generation does not exceed the present design capacity and function of the planned transportation system.

POLICIES

- 1. The City shall use the following criteria when reviewing proposals for new street development or for improvements to the existing system:
 - a. The service level and scale of new street improvements are appropriate to the land use or area to be served.
 - b. Surface water management considerations are adequately addressed.
 - c. The character of surrounding residential neighborhoods as defined by the adopted neighborhood plan is preserved. When improvements are made to major streets that are adjacent to, or bisect, residential areas, measures shall be taken to mitigate noise, aesthetic and safety impacts and discourage cut-through traffic on adjacent residential streets.
 - d. The project's impacts upon the natural and human-made surroundings are clearly defined. This includes consideration of topography, hydrology, distinctive natural areas, vegetation, and surrounding land uses. The commitment to mitigate impacts shall occur in the project planning stages through the application of specific design techniques.
- 2. The costs of mitigation of the negative impacts (reduced safety and aesthetics, increased noise, reduced bicycle and pedestrian mobility), resulting from street improvements needed to serve a specific development, shall be paid for by the developer of the property. When street projects are needed to improve the capacity, operation and safety of the street system as a whole, the mitigation of negative impacts shall be paid for by the City and/or appropriate funding agencies.
- 3. The City shall provide for an ongoing transportation planning program to:
 - a. Monitor changes in the area's transportation network, and ensure that traffic counts and other transportation planning information are kept current and usable for planning purposes.

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- b. Develop and maintain a transportation facility planning effort, which identifies and prioritizes projects for implementation.
- c. Develop and implement measures to change travel behavior to improve performance of existing transportation facilities and reduce the need for additional road capacity.
- d. Periodically review the City's land use ordinances to encourage development that reduces dependence on single-occupancy private automobiles, while encouraging the use of mass transit, bicycles and pedestrian movement.
- 4. The City shall require that a proposed increase in land use intensity be accompanied by a detailed traffic analysis, using current information, which finds that existing streets and intersections both on and off site will accommodate the projected traffic increases, or; necessary improvements can be constructed which are in conformance with the Comprehensive Plan Transportation Map. Mitigation of negative impacts (noise, aesthetics, safety, bicycle and pedestrian mobility) shall be paid for by the developer of the property.
- 5. A change in the functional classification of any road or street in the Urban Services Boundary or the development of any new arterial or collector, shall require an amendment to the Lake Oswego Comprehensive Transportation System Plan.
- 6. The City shall require dedication of right-of-way for transportation facilities as a condition of development approval where:
 - a. The abutting transportation facilities do not include sufficient right-of-way to comply with the Comprehensive Plan Transportation Policies, standards and street classification or with transportation facility design standards adopted by the City Council; and
 - b. The proposed development will result in increased use of or greater impact on the abutting transportation facilities.
- 7. Allow property owners to realize tax benefits when right-of-way, not required as a condition of development approval, is dedicated for roadways, pedestrian and bicycle paths.
- 8. Lake Oswego shall develop and maintain an up-to-date transportation system development charge which shall prevent existing residents from subsidizing the cost of any new development. Transportation SDC's shall be applied directly to projects which implement the Lake Oswego Transportation System Plan.
- 9. The City shall, for all development projects, evaluate the adequacy of all transportation modes, to, from, and within the development site.

The City shall ensure that:

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- a. The design and location of driveways provides for safe and efficient property access and does not interfere with the safe flow of traffic or degrade the design capacity and adjacent streets; and
- b. Alternative transportation modes have been provided for, such as public transit, bicycling and walking.
- 10. The City shall require new development, through building and site design measures, to address the needs of the disabled and those who utilize alternative transportation modes such as van and car-pools, bicycles, public transit and walking.
- 11. The City's transportation planning efforts shall consider and promote energy conservation and enhancement of air quality.
- 12. The City shall oppose construction of a new Willamette River Bridge that allows automobile traffic within the Lake Oswego Urban Services Boundary because of negative impacts on:
 - a. Regional jobs-housing balance by providing a direct automobile commute option to the Washington County job market;
 - b. The capacity and safety of the City's road system including, State Street, "A" Avenue, Country Club Road, Boones Ferry Road and Kruse Way;
 - c. The destination status of the Lake Oswego Town Center and its future development potential by providing for regional travel through the community;
 - d. Air quality and the Willamette River and its Greenway, and;
 - e. The general character and livability of the City due to visual blight, increased noise, air pollution, decreased traffic safety and the potential for traffic dispersion onto local residential streets.
- 13. The City shall, in conjunction with the neighborhoods, promote the safe and convenient use of walking and bicycling as viable transportation alternatives by:
 - a. Developing and implementing a local bicycle and pedestrian circulation plan as part of the Comprehensive Transportation System Plan.
 - b. Working with the neighborhood associations to ensure that pedestrian and bicycle ways are compatible with neighborhood character.
 - c. Developing a system of off-street recreational pathways which also provide alternative routes to major activity centers.
 - d. Coordinating with other jurisdictions to promote the development of regional and intercity pathways.
 - e. Providing for an ongoing City-wide sidewalk and pathway construction and maintenance program.

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14. Require building and parking placement for new development to be supportive of pedestrian, bicycle and transit users. Facilities supportive to these transportation modes shall also be required (e.g., bike racks, bus shelters, benches, etc.)

RECOMMENDED ACTION MEASURES - LAND USE AND TRANSPORTATION RELATIONSHIPS

- i. Develop and maintain a pavement management program to protect and enhance the City's investment in its street system.
- ii. Develop a Lake Oswego Transportation Capital Improvement Plan which prioritizes projects for implementation that address the City's short range (five year) transportation needs.
- iii. Streets in industrial and commercial areas shall be developed according to standards which accommodate the special transportation needs of these uses.
- iv. Review street standards and special street setback standards to see if they are appropriate to implement the policies of this chapter.
- v. Conduct a planning and design process for the Town Center and Main Street portion of Boones Ferry Road, to be completed prior to the construction of any transportation projects affecting roadway width, median treatments, bicycle facilities, etc.

GOAL 5: TRANSPORTATION DEMAND MANAGEMENT

Lake Oswego shall develop strategies and implement programs that reduce the number of automobiles traveling in Lake Oswego, especially during peak morning and evening traffic hours.

POLICIES

1. Work with ODOT, Metro, Tri-Met and Clackamas County to develop travel demand management programs to maintain the total number of vehicle miles traveled per-capita in the City at current levels to the year 2005 and to reduce current vehicle miles traveled by 10% by the year 2015.

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- 2. Support the Department of Environmental Quality (DEQ) Employee Commute Options (ECO) goals for trip reductions.
- 3. Increase the attractiveness of alternative transportation through mixed use development in areas consistent with the Region 2040 Plan.

RECOMMENDED ACTION MEASURES – TRANSPORTATION DEMAND MANAGEMENT

- i. Educate and inform employers regarding Tri-Met's demand management programs such as transit subsidies, carpool matching, vanpool subsidy programs, bikes on transit, emergency ride home and development assistance for employer based transportation plans for Employee Commute Option compliance. Promotional information will be included in business license renewal packets for businesses with 25 or more employees.
- ii. Encourage the installation of bike racks, preferred parking spaces for car-poolers, and building placement for new development that encourages pedestrian, bicycle and transit use.
- iii. Annually inform Tri-Met of all businesses in the City with 50 or more employees, so that Tri-Met can contact them regarding demand management programs and services.
- iv. Educate and inform neighborhoods about Tri-Met's transportation demand management programs such as carpool matching, bikes on transit and accessing transit trip planning information.
- v. The City shall require businesses within the City's highest density employment areas, such as the Kruse Way Corridor, to develop Transportation Management Associations (TMAs). The City shall support these TMAs.
- vi. Provide encourage incentive programs which allow commercial, institutional and industrial developments to substitute parking requirements if pedestrian and bicycle amenities, transit facilities, and ride-share programs are developed and maintained.
- vii. Encourage volunteers to assist in the planning and construction of pedestrian and bicycle pathways.

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GOAL 6: WALKING

The City shall provide a continuous citywide network of safe and convenient walkways that promotes walking as a mode of travel for short trips.

POLICIES

- 1. Integrate pedestrian access needs into planning, design, construction and maintenance of all transportation projects.
- 2. Improve access to and use of the public transportation system through pedestrian improvements and changes in land use patterns.
- 3. Connect local walkways to activity centers such as schools, employment areas, parks, commercial areas, and transit centers and corridors.
- 4. The City shall make the pedestrian environment safe, convenient, attractive and accessible for all users through:
 - a. Planning and developing a network of continuous sidewalks, pathways, and crossing improvements that are accessible per the requirements of the Americans with Disabilities Act (ADA),
 - b. Providing adequate and safe street crossing opportunities for pedestrians, and
 - c. Improving street amenities (e.g., landscaping, pedestrian-scale street lighting, benches and shelters) for pedestrians, particularly near transit centers, town centers, main streets, employment centers, and transit corridors serving the primary transit network.
- 5. Involve citizens in the pedestrian facility planning process as well as in facility design.
- 6. The City shall ensure that planned bike and pedestrian paths are not obstructed as the result of new land development.
- 7. The City shall require developers to provide pathway connections from new development projects to the existing bicycle and pedestrian system.

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8. The City shall work to preserve existing railroad rights-of-ways and other easements to maintain opportunities for future mass transit, bike and pedestrian paths.

RECOMMENDED ACTION MEASURES - WALKING

- i. Improve pedestrian amenities (e.g., landscaping, pedestrian street lighting, benches and shelters) in town centers, main streets, employment centers and transit corridors.
- ii. Develop criteria for prioritizing projects on the Pedestrian Facilities Plan, based on priorities including service to activity centers, potential for high pedestrian usage, eliminating gaps in the existing system, improving pedestrian safety and providing geographic equity in pathway provision. Criteria may be revised in conjunction with the five-year Capital Improvement Plan process for consistency with community goals.
- iii. Design pedestrian facilities to be compatible with neighborhood character and to minimize environmental impacts, consistent with public safety and user needs.
- iv. Participate with the Lake Oswego School District and other public agencies to provide bicycle and pedestrian safety instruction.
- v. Coordinate bike and pathway planning and development with ODOT, Metro, Clackamas, Multnomah and Washington Counties and other local jurisdictions.

GOAL 7: BICYCLING

The City shall provide a network of safe and convenient bikeways integrated with other transportation modes to increase modal share of bicycle transportation for all trip purposes.

POLICIES

- 1. Integrate bicycle access needs into planning, design, construction and maintenance of all transportation projects.
- 2. Connect local bicycle facilities for bicyclists to ride to local and regional destinations, activity centers, connections to other transportation modes and the regional bicycle network.

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- 3. Maintain existing and future bicycle facilities to encourage use.
- 4. Require, as appropriate, and encourage the placement of bicycle lockers and bicycle racks at major destinations and activity centers. Encourage covered bicycle parking whenever possible.
- 5. The City shall work to preserve existing railroad rights-of-ways and other easements to maintain opportunities for future mass transit, bike and pedestrian paths.

RECOMMENDED ACTION MEASURES - BICYCLING

- i. Pursue regional funding sources for bicycle routes identified on the Regional Transportation Plan within Lake Oswego's Urban Service Boundary,
- ii. Keep bikeways free of debris and in good repair,
- iii. Promote bicycle safety and encourage bicyclists and motorists to share the road through educational programs,
- iv. In general, plan bicycle routes along Arterials and Major Collectors and design bicycle facilities that take into consideration:
 - a. neighborhood character;
 - b. safety for other modes of travel;
 - c. the need for on-street parking;
 - d. topographic conditions;
 - e. street speed and volume;
 - f. ability to gain additional right-of-way due to placement of existing buildings or existence of sensitive lands; and
 - g. using alternative parallel routes within one-quarter mile of an Arterial or Major Collector where these constraints exist, as long as the parallel bike way provides an equally convenient route to local destinations.
- v. Ensure that secure bicycle storage facilities such as bicycle racks and other park and lock accommodations are provided at major destination points including recreation areas and commercial and employment centers.
- vi. Ensure that bicycle safety laws are implemented and enforced.

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- vii. Work with surrounding jurisdictions and ODOT to develop direct bicycle commuting routes between Lake Oswego and other communities.
- viii. Implement a bicycle license fee, with proceeds contributing to funding bicycle facilities.

GOAL 8: TRANSIT SYSTEM

The City shall encourage transit ridership by working with Metro, Tri-Met, and ODOT to develop a transit system which is fast, comfortable, accessible and economical through development of land use patterns, development design standards and street and pedestrian/bikeway improvements which support transit.

POLICIES

- 1. Transit shall be a viable alternative to the single-occupant automobile in the City's highest density employment and housing areas. The City shall develop, in conjunction with Tri-Met, a network of transit routes to connect these areas with Main Streets, Town Centers, Employment Centers, downtown Portland and major transit and transfer stations.
 - Areas not directly served by transit shall be served with park and ride lots, which shall be located to provide convenient auto access to regional trunk route service.
- 2. Develop transit centers in Town Centers and Employment Centers where there is a need for transfer points between bus lines and local shuttle services or transit trunk routes. Transit centers will be conveniently located for all modes of transportation, in particular pedestrian, bike and transit.
- 3. The City will work with Tri-Met to ensure that the needs of the community's transportation disadvantaged are met by making transportation services more accessible.
- 4. The City will work with Tri-Met to determine appropriate locations and design of bus turnout lanes to enhance transit usage and public safety and to promote the smooth flow of traffic.
- 5. The City shall work with Tri-Met to ensure that the potential for transit to meet transportation needs is addressed in compliance with the Transportation Planning Rule.

12-18 LAKE OSWEGO COMPREHENSIVE PLAN

Goal 12: Transportation

6. The City shall work to preserve existing railroad rights-of-ways and other easements to maintain opportunities for future mass transit, bike and pedestrian paths.

RECOMMENDED ACTION MEASURES - TRANSIT

- i. The City shall work to preserve existing railroad rights-of-ways and other easements to maintain opportunities for future mass transit and bike and pedestrian paths.
- ii. The City shall pursue capital/operating assistance from Tri-Met and/or other public or private transit providers as needed to provide adequate transit service.
- iii. Work with Tri-Met to identify additional opportunities for park and ride facilities and shelters in Lake Oswego.
- iv. Support efforts to develop greater inter-city public transit options.
- v. Preserve the Willamette Shore Rail line for high capacity transportation opportunities or opportunities to share the right-of-way, if feasible, with high capacity transit and other modes of travel, such as pedestrian and bicycle.
- vi. Coordinate with Metro, Tri-Met, Multnomah County, Clackamas County, the City of Portland and other regional partners in the planning and design of high capacity transit on the Willamette Shore Rail line to ensure:
 - a. Adequate access to the regional transportation system;
 - b. Adequate termini facilities; and
 - c. Adequate access to the line for all modes of travel.

GOAL 9: COMMERCIAL RAIL AND WATER TRANSPORT

Lake Oswego shall work with commercial rail and water transportation providers and associated regulatory agencies to ensure their activities are safe and compatible with the City's transportation system.

Goal 12: Transportation

POLICIES

- 1. Lake Oswego shall ensure that the development of marine oriented land uses and transportation facilities along the Willamette River are coordinated with the appropriate governmental agencies and those businesses who currently use the river for transport.
- 2. The City shall coordinate future transportation planning and roadway improvements with rail service providers and the Public Utilities Commission to ensure the installation of efficient and safe crossings.
- 3. The City shall, through the Public Utilities Commission, ensure that rail traffic does not impede the smooth and safe flow of bicycle, pedestrian and vehicular traffic.

GOAL 10: CITIZEN INVOLVEMENT

Lake Oswego shall ensure that opportunities are provided for citizen involvement in decisions affecting the City's transportation system.

POLICIES

1. Public involvement opportunities shall be provided for all major transportation projects.

GOAL 11: PARKING

Adequate on-site parking and loading facilities shall be provided for all land uses.

POLICIES

1. The City shall develop and maintain parking regulations that require off-street employee and customer parking and loading facilities be provided on-site and commensurate with the size and relative needs of each new development, balanced with the need to reduce auto trips, encourage alternative transportation and retain the natural drainage system.

12-20 LAKE OSWEGO COMPREHENSIVE PLAN

Goal 12: Transportation

- 2. When commercial, industrial or institutional uses are changed or intensified, customer and employee parking shall be adjusted commensurately.
- 3. Commercial and industrial parking shall not intrude into adjacent residential neighborhoods. The impacts on adjacent residential areas of new commercial and industrial parking facilities or increases in the size of existing lots shall be reduced through buffering and screening.
- 4. The City, through the neighborhood associations, shall develop residential area parking guidelines to maintain the safety, character and utility of residential streets.
- 5. Require off-street parking in commercial, industrial, and high density residential areas to be at the sides or rear of buildings where practical, with buildings oriented to the street in a manner which is convenient to pedestrians, bicyclists and transit riders.

RECOMMENDED ACTION MEASURES - PARKING

- i. Monitor and evaluate the number and sizes of parking spaces required for various types of land uses and amend development regulations.
- ii. Provide redevelopment opportunities for parking lots when they are no longer needed for automobile parking.
- iii. Where possible, provide for the minimum of impervious area by utilizing durable and dust-free alternatives to traditional asphalt and concrete paving when developing new streets and parking lots. Utilize the natural drainage system where practical.
- iv Where appropriate and practical, mitigate the visual and aesthetic impacts of parking by encouraging:
 - a. Buildings and parking to be oriented to the street in a manner that is convenient to pedestrians and transit users; and,
 - b. Landscaping, buffering and screening.
- v. Through the Neighborhood Traffic Management Program, address on-street parking problems within residential neighborhoods that are caused by adjacent commercial and institutional land uses.

Lanes # ot; 2-4* 4-8* 3-5* 2** 2** a 1,200 or less 20,000+30,000+Volume 7,500 -25,000 Traffic 1,500 - 10,000 1,000 - 3,000 Min. Access Spacing Guidelines 2-3 miles 1,000 ft. 600 ft. 100 ft. None 50 ft. allowed to intersect every 1,000 feet and minor arterials every 600 feet, subject to allowed access when there is no feasible access is subject to review and approval arterial system is restricted except from None. Access to freeway is limited to interchanges. neighborhood collectors. Requests for Direct access to the major and minor subject to review, from major traffic discouraged except when there is no practical access from local streets or existing platted lots, which may be alternative. Major arterials may be Direct access to major collectors is Controlled access may be allowed, generators, e.g., shopping centers. Access to each lot permitted. Access to each lot permitted. Direct Land Guidelines an approved street plan Generally Prohibited*** Parking Generally Prohibited Prohibited Permitted Permitted Limited Speed Limit 25-40 25-30 25-45 30-45 55 25 Rd. (North of Country Club) Country Club) Rd. (South of Lakeview and Country Club "A" Avenue Hwy. 43 Wembley Pk. South Shore Glen Eagles North Shore "D" and "E" Boones Fry. Ferwilliger Boones Fry. Kruse Way Kerr Pkwy. Bryant Rd. Glenhaven Examples Chandler) Greentree Iron Mtn. (between Overlook Atwater Laurel I-5 I-205 Counties and other parts of the region; and between major urban areas within different parts of the city. Intended to street is not intended to serve through traffic. Provides access to abutting properties Intended to provide for trips between Clackamas, Washington, Multnomah areas and to augment access to major Intended to channel traffic from local streets and/or minor collectors to the neighborhoods by channeling traffic within and between community suband serves the local access needs of serve as the primary route for travel collector can also provide access to primary routes for major areas of Serves multi-neighborhood areas. to the major collector and arterial Connects cities in the Metro area. They are intended to serve as the neighborhood land uses. A local collector is not intended to serve urban activity and to access the nter-urban connectors between arterial street system. A major street system. A neighborhood arterial and freeway systems. Provides direct access to abutting properties. Primary Function reeway system. the Metro regior hrough traffic Neighborhood Collectors Classification Local Streets/ Residential Collectors Freeways Arterials Arterials Minor Major Major

*Includes turn refuge lanes or acceleration lanes.

**Turn refuge lanes may be allowed subject to review and approval.

***On street parking may be appropriate in pedestrian oriented commercial areas.

These are general characteristics of each street classification. Actual classification is based on a review of the function and characteristics of all aspects of a roadway. (1) NOTE:

Comp_Pln/Update 2000/Goal 12 - Figure 16

FUNCTIONAL CLASSIFICATION SYSTEM General Characteristics (1)

FIGURE 16

FIGURE 17 STREET CLASSIFICATIONS

Freeways (30,000+ volume, 4-8* lanes): Major Collector (1,500-10,000 volume, 2** lanes)

[continued]:

I-5 I-217

Westlake/Fosberg/Lesser "B", between State and 5th

Major Arterials (20,000+ volume, 3-5* lanes): 65th Street, McEwan Road (between 65th and I-5)

5th between A and B Avenues

Kruse Way

Boones Ferry Road (I-5 to Country Club)

Country Club Road
"A" Avenue

State Street

Minor Arterials (7,500-25,000 volume, 2-4* lanes):

Kerr Parkway

Boones Ferry Road (North of Country Club)

Terwilliger Blvd.

McVey (South Shore to State Street)

Rosemont Rd. Stafford Road

Major Collector (1,500-10,000 volume, 2** lanes):

Bangy Road (Bonita to Kruse Way)

Bonita Road Botticelli/Fosberg Bryant Road

Carman Drive (I-5 to Fosberg)

Chandler Road (between Iron Mtn. And 10th)

Childs Road

Fosberg Road (between Melrose and Carman and between

Melrose and Jefferson Parkway)

Iron Mtn. Blvd. (between Chandler & Upper Drive/Lakeview

3lvd.)

Jean Road and Jean Way

Jefferson Pkwy./Lesser Road

Lakeview Blvd. (between South Shore & Bryant)

McNary Parkway Meadows Road Melrose Street

Monroe Parkway

Pilkington Road South Shore Blvd. Neighborhood Collector (1,000-3,000 volume, 2 lanes):***

Boca Ratan Bergis Road

Cardinal/Wren/Cedar

Carman Drive (between Fosberg & Touchstone)

Cornell Avenue

Crestline Drive (between Greenbluff & Skylands)
Glenmorrie Drive (between Greenbluff and Hwy 43)

Goodall Road (Country Club to 19th Avenue)

Greenbluff Drive Greentree Road

Hallinan St./Cherry Lane

Iron Mtn. Blvd. (between Country Club and Chandler)

Knaus Road Lake Forest Blvd. Lake Grove Avenue

Lakeview (between South Shore & Iron Mtn., and between

Bryant & 65th)

Laurel (between Hallinan and Cornell)
Oakridge (between Boones Ferry & Quarry)

Overlook Drive Parkview Drive Quarry Road Reese Road Royce Way

Skylands (between Crestline & Upper Cherry Lane)

Timberline Drive

Treetop Lane/Fernwood Drive

Twin Fir Road

Upper Drive (from Bryant Road to Iron Mtn. Blvd.)

Waluga/Firwood

Washington Court (between Lake Forest Blvd. and Boones

Ferry Road) Wembley Park Road

Westview Drive (between Tamaway Drive and South Shore)

^{*}Includes turn refuge lanes or acceleration lanes.

^{**}Turn refuge lanes may be allowed subject to review and approval.

^{***}On-street parking may be appropriate in pedestrian oriented commercial areas.

☐ Goal 12: Transportation

Please See Figure 18

☐ Goal 12: Transportation

Figure 19

Pυ	Public Facilities Plan: Transportation Improvement Program 1-10 Years					
Map#	Location	Description	Estimated Cost (1997\$)*	Potential Funding Source		
	S	treets and Roadways				
T-1	State Street/Terwilliger Blvd.	NB left turn lane, realign Terwilliger approach, traffic signal	\$550,000	S,SDC		
T-2	Bryant Road/Lakeview Drive	Turn lanes, upgrade traffic signal	\$200,000	SDC		
T-3	Country Club Road/C Ave /Iron Mtn. Blvd.	Intersection improvements	\$450,000	SDC		
T-4	Boones Ferry Road-Kruse Way to Madrona Street	Widen to 5 lanes** including bike lanes and adequate sidewalks	\$2,657,000	SDC		
T-5	Bryant Road, Lakeview to Boones Ferry	Widen to three lanes	\$1,100,000	SDC		
T-6	Boones Ferry Road/Kruse Way (98-99 Budget)	Second NB left turn lane	\$295,000	SDC, C		
T-7	Boones Ferry Road/Bryant Rd.	Add split signal timing, replace loops	\$25,000	SDC		
T-8	Bryant Road/Upper Drive	Traffic signal	\$120,000	SDC		
T-9	State Street (Hwy. 43)/North Shore Road	Intersection improvements	\$100,000	SDC,S		
T-10	State Street (Hwy. 43)/McVey Avenue	NB/SD left turn lanes, upgrade traffic signal. Widen bridge.	\$1,300,000	SDC,S		
T-11	A Avenue - State Street to 3rd Avenue	Road reconstruction, streetscape improvements	\$3,100,000	LORA, SDC		
T-12	Jean Road/Pilkington	Left turn lanes; traffic signal	\$200,000	SDC		
T-13	McVey Avenue/Cornell Street	Left tutn lane on McVey, traffic signal	\$250,000	SDC		
T-14	McVey Avenue/Erickson St. (98-99 Budget)	Left turn lane on McVey	\$150,000	SDC		
T-15	Kruse Way - Kruse Oaks Blvd. to Bangy Rd. (98-99-Budget) tes cotst for this project at \$7/	Signal interconnect 0,000. Ordinance 2188 did not specify associated costs or potenti	\$25,000	SDC,C		
T-16	Kruse Way - Bangy Rd. to Kruse Oaks Blvd.	Widen roadway to 6 lanes as part of 1-5/ 217 interchange improvements	\$1,000,000	SDC,S		
T-17	Stafford Road/Overlook Dr.	Left turn lanes, traffic signal	\$280,000	SDC		
T-18	Kerr Parkway/Touchstone Dr.	Northbound left turn lane, traffic signal GOAL	12 ^{\$55} q,pp)A	NSPORTA	TION	
T-19	Childs Road Bridge (98-99 Budget)	Reconstruct/widen bridge with pedestrian/bike	\$315,000	C, S		
		facilities	\$35,000	SDC		
T-20	Intersection of I-5, 217 and Kruse Way	Reconstruction of interchange to provide for free	\$48,000,000	S		

flowing north and south bound movements and

Figure 19

Map#	Location	Description	Estimated Cost (1997\$)*	Potential Funding Source
	F	Pedestrian Facilities		
P-1	Jean Road, between Jean Way and Pilkington	Sidewalk, one side	\$60,000	SDC, NLFS
P-2	Kerr Pkwy, between PCC/One Jefferson Pkwy.	Sidewalk, south side	\$74,000	SDC, C (Mult./ Clack),
P-3	Greentree Road, Fernwood to Westview	Shoulder pathway	\$25,000	SDC, NLFS
P-4	10th Street, between A/E	Pathway, one side	\$44,000	SDC, NLFS
P-5	Wembley Park Road (98-99 Budget; Used Parks & Rec Funds)	6' pathway	\$225,000	SDC, NLFS
P-6	Carman, between Kruse and Fosberg	Sidewalk, east side	\$40,000	SDC, NLFS
P-7	Daniel Way	Sidewalk (Included in Street Improvement Project T-55)		SDC, NLFS
P-8	Lakeview between Twin Fir/Iron Mtn.	Pathway	\$166,000	SDC, NLFS
P-9	Country Club, Boones FyWembley P.	Sidewalk, south side	\$75,000	SDC, NLFS
P-10	Melrose, between Peters and Fosberg	Sidewalk, north side	\$21,000	SDC, NLFS
P-11	Hwy. 43, between Public Storage and Briarwood	Sidewalk, east side from Tryon Creek to Briarwood	\$19,000	SDC, NLFS
P-12	Lakeview Blvd. between Bryant & 65th	Pathway, one side	\$268,000	SDC, NLFS
P-13	Upper Drive between Reese/Bryant	6' pathway	\$130,000	SDC, NLFS
P-14	Boones Ferry between 17755 and 17355	Sidewalk, north side	\$60,000	SDC, NLFS
P-15	Kerr Pkwy, between One Jefferson Pkwy. and Touchstone	Sidewalk, north side	\$49,000	SDC, NLFS
P-16	4th between E/F; G Ave, Between 4th and ACC	Sidewalk on west side 4th, north side G	\$6,000	SDC, NLFS
P-17	Old River Rd.	Pathway, one side	\$400,000	SDC, NLFS
P-18 a)	Treetop/Fernwood, between Greentree/Overlook	Sidewalk	\$56,000	SDC, NLFS
P-18 b)	Greentree Ave. between Greentree Rd. and Fernwoood Dr. and Fernwood Dr. between Mapleleaf and Greentree Ave.	Pathway, one side	\$64,000	SDC, NLFS
P-19	Twin Fir	Pathway, one side	\$370,000	SDC, NLFS
P-20	Lake Grove Avenue	Pathway, one side		SDC, NLFS
P-21	Pilkington, between Boones Ferry and Willow Lane	Sidewalk on one side	\$66,000	SDC, NLFS
P-22	Quarry Road - Carman Road to Boones Ferry Road	Bike lanes, sidewalk on east side	\$585,000	SDC, NLFS
P-23	Kerr Road, north side , between Touchstone and McNary	Multi-use path, north side	\$255,000	SDC, NLFS
	Subtotal		\$3,121,000	

Figure 19

Public Facilities Plan: Transportation Improvement Program 1-10 Years						
Map#	Location	Description	Estimated Cost (1997\$)*	Potential Funding Source		
Bicycle Facilities						
*B-1	Country Club/A/4th/B between State and Iron Mtn.	Bike lanes	\$1,500	SDC,NLFS		
*B-2	McVey, between Oswego Creek and State Street	Bike lanes	\$500	SDC,NLFS		
B-3	Kerr Parkway, between Stephenson and Boones Ferry	Bike lanes	\$600,000	SDC,NLFS		
B-4	Jean Road/Jean Way, between Boones Ferry and Bryant	Bike lanes (B.F. to Pilkington portion completed)	\$64,000	SDC, NLFS		
B-5	Boones Ferry, between Kruse Way and Madrona	4)		SDC, NLFS		
B-6	Stafford Road, Overlook to South Shore	Bike lanes	\$140,000	SDC, NLFS		
*B-7	Melrose, between Fosberg and Westlake	Bike lanes	\$700	SDC, NLFS		
B-8	Quarry Rd.	Bike lanes (Cost included in project P-23)		SDC, NLFS		
B-9	Boones Ferry, between Country Club and Mtn Park Town Center	Bike lanes	\$60,000	SDC, NLFS		
B-10	Pilkington, between Boones Fy. and Childs	Bike lanes	\$280,000	SDC, NLFS		
B-11	Firwood between Waluga/Boones Ferry	Bike lanes	\$62,000	SDC, NLFS		
B-12	Oakridge Road, between Quarry and Boones Ferry	Bike lanes	\$26,000	SDC, NLFS		
B-13	South Shore, between Westview and Lakeview	Shared Roadway	\$75,000	SDC, NLFS		
B-14	South Shore between Greentree and McVey	Shared Roadway	\$25,000	SDC, NLFS		
B-15	Willamette Shore Bike Corridor	Study to determine cost/feasibility of	\$135,000	Metro		
	Feasibility Study	using Willamette Shore right-of-way as	\$7,500	Portland		
		a bicycle corridor	\$7,500	SDC		
	Subtotal		\$1,484,700			
*Incidenta	al, striping only					

Figure 19

Map#	Location	Description	Estimated Cost (1997\$)*	Potential Funding Source
		Transit		
TR-1	Willamette Shores Trolley	Track/trestle rehabilitation	\$600,000	J
TR-2	#41 Boones Ferry Route (Barbur Transit Center-Tualatin)	15 min. service - days, 30 min. service - eves	\$1,250,000 (Capital) \$5,760,000 (Operating - 10 years)	F,S,SDC, NLFS Tri-M
	Subtotal		\$7,610,000	
	11-20 Year Total, All Projects		\$23,867,200	
	1-10 Year Total, All Projects	T	\$73,257,700	
	Total, All Project		\$97,124,900	
*Improvements	pending Boones Ferry Planning and De	esign project		
Note: Projects i	n City and County jurisdiction will proce	eed with financial participation by h	ooth parties	
Note: Projects i oadway and tra	n City and County jurisdiction will processit facilities costs reflect construction,	eed with financial participation by tright-of-way costs with construction	poth parties on costs at a 40-50% contin	ngency
oadway and tra	nsit facilities costs reflect construction, Funding Sources:	eed with financial participation by tright-of-way costs with construction	poth parties on costs at a 40-50% contin	ngency
oadway and train	resit facilities costs reflect construction, Funding Sources: Clackamas County	eed with financial participation by tright-of-way costs with construction	poth parties on costs at a 40-50% contin	ngency
oadway and trai	Funding Sources: Clackamas County City of Portland	eed with financial participation by tright-of-way costs with construction	poth parties on costs at a 40-50% contin	ngency
C CP F	Funding Sources: Clackamas County City of Portland Federal Funds - ISTEA	eed with financial participation by tright-of-way costs with construction	poth parties on costs at a 40-50% contin	ngency
C CP F J	Funding Sources: Clackamas County City of Portland Federal Funds - ISTEA Jefferson Rail Consortium	eed with financial participation by bright-of-way costs with construction	poth parties on costs at a 40-50% contin	ngency
C CP F	Funding Sources: Clackamas County City of Portland Federal Funds - ISTEA	right-of-way costs with construction	poth parties on costs at a 40-50% contin	ngency
C CP F J LID	Funding Sources: Clackamas County City of Portland Federal Funds - ISTEA Jefferson Rail Consortium Local Improvement District Lake Oswego Redevelopment	right-of-way costs with construction	poth parties on costs at a 40-50% contin	ngency
C CP F J LID LORA	Funding Sources: Clackamas County City of Portland Federal Funds - ISTEA Jefferson Rail Consortium Local Improvement District Lake Oswego Redevelopment Agency	(GO bonds, local gas tax, etc.) (State Highway Fund, Special Public works Fund, State vehicle registration fees, gas tax, revenue	poth parties on costs at a 40-50% contin	ngency
C CP F J LID LORA NLFS	Funding Sources: Clackamas County City of Portland Federal Funds - ISTEA Jefferson Rail Consortium Local Improvement District Lake Oswego Redevelopment Agency New Local Funding Source	(GO bonds, local gas tax, etc.) (State Highway Fund, Special Public works Fund, State vehicle registration	poth parties on costs at a 40-50% contin	ngency
C CP F J LID LORA NLFS S	Funding Sources: Clackamas County City of Portland Federal Funds - ISTEA Jefferson Rail Consortium Local Improvement District Lake Oswego Redevelopment Agency New Local Funding Source State of Oregon	(GO bonds, local gas tax, etc.) (State Highway Fund, Special Public works Fund, State vehicle registration fees, gas tax, revenue	poth parties on costs at a 40-50% contin	ngency
C CP F J LID LORA NLFS S	Funding Sources: Clackamas County City of Portland Federal Funds - ISTEA Jefferson Rail Consortium Local Improvement District Lake Oswego Redevelopment Agency New Local Funding Source State of Oregon System Development Charge	(GO bonds, local gas tax, etc.) (State Highway Fund, Special Public works Fund, State vehicle registration fees, gas tax, revenue	poth parties on costs at a 40-50% contin	ngency

Figure 19

Public Facilities Plan: Transportation Improvement Program 11-20 Years Potential							
Map#	Location	Description	Estimated Cost (1997\$)*	Funding Source			
Streets and Roadways							
T-25	State Street/Cherry Lane	Left turn lane, improve approach to Hwy 43	\$820,000	SDC, S			
T-26	Meadows Road-Bangy Road to Carman Drive	Widen to 4 lanes	\$1,500,000	SDC, C, S			
T-27	"A" Avenue - State Street to 8th Street	Signal interconnect	\$150,000	F,S,SDC,			
T-28	Jean Road/Bryant Road	Left turn lanes, traffic signal	\$200,000	SDC			
T-29	Childs Road/Bryant Road	Left turn lanes, traffic signal	\$200,000	SDC			
T-30	Kruse Way/Kruse Oaks Drive (98-99 Budget)	NB approach lane on Kruse Oaks, add bus pull-out	\$150,000	SDC, C, S			
T-31	Bryant Road/Cardinal Avenue	Upgrade approach to Bryant	\$60,000	SDC			
T-32	Meadows Road/Bangy Road	Addition of a NB through lane on Bangy Road, SD left turn lane on Bangy Road	\$325,000	SDC,C, S			
T-33	State Street (Hwy 43)/Glenmorrie Drive	Left turn lane	\$100,000	SDC,C, S			
T-34	Bangy Road - Kruse Way to Bonita Road	Widen to 4 lanes, pavement overlay, bike lanes	\$1,000,000	SDC			
T-35	Kruse Way/Westlake Drive/Kruse Woods	Right turn lane on westbound Kruse Way	\$140,000	SDC, C			
T-36	Boones Ferry Road/ Country Club/Kerr Parkway	Develop right turn lane on Kerr Pkwy approach	\$110,000	SDC			
T-37	Carman Drive/Kruse Way	Add left turn lanes on Carman, right turn lanes on Kruse. Signal modification	\$375,000	F,S,SDC			
T-38	Kruse Way/Mercantile Drive/Daniel Way	WB and EB right turn lane	\$116,000	SDC,C			
T-39	Country Club Road/ A Avenue/10th Street	Traffic signal	\$200,000	SDC			
T-40	State Street (Hwy 43)/"B" Avenue	SB right turn lane	\$350,000	SDC,S			
T-41	Carman Drive/Lake Forest Blvd.	WB left turn lane	\$150,000	SDC, C			
T-42	Boones Ferry Road - 65th to Bryant Road	Signal interconnect	\$210,000	SDC			
T-43	Carman Drive/Parkview Drive/Fosberg	Traffic signal, channelization	\$250,000	SDC			
T-44	Knaus Road/Boones Ferry Road	Left turn lanes, channelize	\$275,000	SDC			
T-45	Bangy Road/Bonita Road	Traffic signal, signal interconnect, second SB left turn lane on Bangy	\$325,000	SDC,C			

Figure 19

Pub	Public Facilities Plan: Transportation Improvement Program 11-20 Years						
Map#	Location	Description	Estimated Cost (1997\$)*	Potential Funding Source			
	Streets and Roadways						
T-46	Carman Drive/Meadows	Traffic signal; additional left turn lanes	\$1,065,000	SDC, C			
	Road/Quarry Road	NB, SB and WB; additional through right turn lane					
T-47	Kerr Parkway/ McNary Parkway (lower intersection)	Left turn lanes, traffic signal	\$364,000	SDC			
T-48	South Shore Blvd./Westview Drive	Left turn lane, retaining wall	\$100,000	SDC			
T-49	Stafford Road/Golf Course Road	NB left turn lane on Stafford	\$100,000	SDC			
T-50	Stafford Road/Sunnyhill Drive	NB left turn lane on Stafford	\$100,000	SDC			
T-51	Meadows Road/Kruse Oaks Drive	Traffic signal, additional SB right turn lane, WB right turn lane on Meadows Road	\$320,000	SDC,C			
T-52	Stafford Road/Bergis Road	Left turn lane on SB Stafford Road	\$200,000	SDC			
T-53	South Shore Blvd./Fernwood Street	Left turn lane	\$50,000	SDC			
T-54	Meadows Road/Kruse Woods Drive	Traffic signal, SB left turn lane on Kruse Woods Drive	\$260,000	SDC,C			
T-55	Carman Drive/Burma Road	Realign Burma Road approach, add left turn lanes	\$200,000	SDC			
T-56	Parker/Carman	Add turn lanes	\$150,000	SDC, C			
T-57	Carman Drive/Bonita Road	Left turn lanes, traffic signal	\$400,000	SDC, C			
T-58	Childs Road/Pilkington Road	Left turn lanes	\$200,000	SDC, C			
T-59	Knaus Road/Goodall Road	Channelization improvement	\$60,000	SDC, C			
T-60	Laurel Street, Dyer Street to Hallinan Street	Construct embankment, widen roadway to City Standards	\$600,000	SDC			
T-61	Traffic Calming - Daniel Way	Widen roadway north of Safeco Insurance to City Standards	\$300,000	NLFS			
	Subtotal	j	\$11,475,000				
T-62	Traffic Calming - Locations to be determined	Speed bumps, curb extensions, traffic circles, etc. (not mapped)	\$200,000	S,SDC,NLFS			
	Subtotal		\$11,675,000				

Figure 19

Map#	Location	Description	Estimated Cost (1997\$)*	Potential Funding Source		
	Pedestrian Facilities					
P-24	Washington Court - Lake Forest to Boones	Add sidewalk on one side between Lake	\$14,000	SDC, NLFS		
	Ferry Road	Forest and Boones Ferry Road				
P-25	Firwood between Waluga/Boones Ferry	Sidewalk, one side	\$31,000	SDC, NLFS		
P-26	Carman Drive - Waluga Drive to Quarry Road	Pathway one side	\$140,000	F,S,SDC, NLFS		
P-27	Carman Drive, between Waluga and I-5	Sidewalks and bike lanes on both sides	\$290,000	SDC, NLFS,		
P-28	Lanewood/Douglas Circle, Twin Fir to Boones Ferry	Pathway, one side	\$200,000			
P-29	Monroe Parkway	Sidewalk, north side	\$26,000	SDC, NLFS		
P-30	Bryant Road, between Lakeview Blvd. and Jean Road	-	\$120,000			
P-31	Knaus Road	Pathway, one side	\$480,000	SDC, NLFS		
P-32	Lake Forest Blvd., Washington Court to Carman	Sidewalk, one side	\$33,000			
P-33	McNary Parkway between Jefferson Parkway and Churchill Downs	Sidewalk, south side	\$38,000	SDC, NLFS		
P-34	Meadows Road	Sidewalk on south side	\$89,000	SDC, NLFS		
P-35	Laurel Street, Hallinan to Cornell	Sidewalk on one side	\$45,000	SDC, NLFS		
P-36	Bonita, between Carman and existing sidewalk	Sidewalks	\$32,600	SDC, NLFS		
P-37	Boca Ratan	Sidewalk on one side	\$40,000	SDC, NLFS		
P-38	Cornell, Laurel to Bergis	Sidewalk, one side	\$200,000	SDC, NLFS		
P-39	Childs Rd, between Indian Springs and Bryant	Pathway on north side	\$200,000	NLFS		
P-40	Bryant between Lakeview/Boones Ferry	Sidewalk on west side	\$85,000	SDC, NLFS		
P-41	Fosberg Rd, between Carman and Melrose	Sidewalk on west side	\$35,000	SDC, NLFS		
P-42	Cherry Lane	Sidewalk on one side, between State and Hallinan	\$55,300	SDC, NLFS		
P-43	Bryant, between Westridge and Childs	Pathway, east side	\$72,000	SDC, NLFS		
P-44	Redleaf, Tualata, Centerwood (connects Centerwood sidewalk to Pilkington/ Rivergrove school)	Sidewalk, one side	\$40,000	SDC, NLFS		
P-45	Botticelli	Sidewalk on north side	\$95,000	SDC, NLFS		
P-46	Westlake Drive	Pathway on west side	\$125,000			
P-47	Timberline	Pathway, one side	\$130,000			
P-48	Fir Ridge Road (between Wembly and Twin Fir)	Sidewalk, one side	\$8,800			
P-49	Willamette River Greenway George Rogers Park to Oswego Pointe	Multi-use pathway	\$110,000	SDC, NLFS		

Figure 19

Public Facilities Plan: Transportation Improvement Program 11-20 Years				
Map #	Location	Description	Estimated Cost (1997\$)*	Potential Funding Source
		Pedestrian Facilities		
P-50	Willamette River Greenway, between Roeher Park and Tryon Creek, connecting to Terwilliger multi-use path	Multi-use pathway	\$300,000	SDC, NLFS
P-51	Bryant Rd, between Cardinal/Sara Hill Rd.	Sidewalk/pathway	\$20,500	SDC, NLFS
P-52	Goodall Road, between Knaus and Country Club	Pathway, one side	\$246,000	SDC, NLFS
P-53	South Shore Blvd. (except Westview to Blue Heron)	Pathway on south side	\$600,000	SDC, NLFS
P-54	South Shore Blvd., Westview to Blue Heron	Pathway on south side	\$50,000	SDC, NLFS
P-55	Hallinan Street	Pathway, one side	\$69,000	SDC, NLFS
P-56	Kerr Parkway, Boones Ferry to McNary	Pathway, east side	\$60,000	SDC, NLFS
P-57	Kelok, Cardinal to South Shore	Pathway, one side	\$50,000	SDC, NLFS
P-58	Pilkington, between Jean Rd. and Childs	Sidewalk, one side	\$300,000	SDC, NLFS C
P-59	McEwan Between 65th and Pilkington	Sidewalk, one side	\$52,500	SDC, NLFS
P-60	Glenmorrie Dr.	Pathway, one side	\$100,000	SDC, NLFS
P-61	Jefferson Parkway between Kingsgate and Kerr	Sidewalk, one side	\$105,000	SDC, NLFS
P-62	Jean Rd. between Pilkington and Bryant	Sidewalk, one side	\$70,000	SDC, NLFS
P-63	Waluga Dr. between Parkhill and Carman	Pathway, east side	\$40,000	SDC, NLFS
P-64	Waluga Dr. between Oakridge and Firwood	Pathway, both sides	\$80,000	SDC, NLFS
P-65	Fosberg Rd. between Southwood Park and Melrose	Sidewalk, west side	\$15,000	SDC, NLFS
	Subtotal		\$4,892,700	

Figure 19

Public Facilities Plan: Transportation Improvement Program 11-20 Years						
Map#	Location	Description	Estimated Cost (1997\$)*	Potential Funding Source		
Bicycle Facilities						
B-16	Bryant Road, between Childs and Boones Ferry	Bike lanes	\$232,000	SDC,NLFS		
*B-17	Botticelli	Bike lanes	\$1,500	SDC,NLFS		
B-18	Childs Road, between 65th and 35th Place	Bike lanes	\$310,000	SDC,NLFS		
B-19	Fosberg/Carman, between Kruse Way and Melrose	Bike lanes	\$107,000	SDC,NLFS		
B-20	Bonita, between Carman and Bangy	Bike lanes	\$231,000	SDC, NLFS		
B-21	Iron Mtn., between Fairway and Chandler, south side	Bike lane, south side	\$68,000	SDC, NLFS		
B-22	South Shore Blvd. Between Westview and Greentree	Bike lanes	\$350,000	SDC,NLFS		
**	Fernwood Drive between South shore/Treetop	Shared roadway, local	\$ -	SDC, NLFS		
**	Lake Grove Avenue	Shared roadway, local	\$ -	SDC, NLFS		
**	Westview between South Shore and Royce	Shared roadway, local	\$ -	SDC, NLFS		
**	Knaus, between Timberline and Boones Ferry	Shared roadway, local	\$ -	SDC, NLFS		
**	Lake Forest Blvd./Washington Ct . between Carman and Boones Ferry	Shared roadway, local	\$ -	SDC, NLFS		
	Subtotal		\$1,299,500			
* Incidenta	l, striping only					
	eriteria for Local Shared Roadway - no ii	mprovments needed				

Figure 19

Public Facilities Plan: Transportation Improvement Program 11-20 Years					
Map#	Location	Description	Estimated Cost (1997\$)*	Potential Funding Source	
		Transit			
TR-3	Kruse Woods Transit Center		\$3,000,000	F, S, SDC, NLFS Tri-Me	
TR-4	Downtown Lake Oswego - East of State Street	Park and Ride/relocated transit center	\$3,000,000	F, S, SDC, NLFS Tri-Me	
	Subtotal		\$6,000,000		
	11-20 Year Total, All Projects		\$23,867,200		
	1-10 Year Total, All Projects		\$73,257,700		
	Tatal All David of		607 124 000		
	Total, All Project	1	\$97,124,900		
	Funding Sources:				
C	Clackamas County				
CP F	City of Portland Federal Funds - ISTEA				
<u>г</u> Ј	Jefferson Rail Consortium				
LID	Local Improvement District				
LORA	Lake Oswego Redevelopment Agency				
NLFS	New Local Funding Source	(GO bonds, local gas tax, etc.)			
S	State of Oregon	(State Highway Fund, Special Public works Fund, State vehicle registration fees, gas tax, revenue sharing)			
SDC	System Development Charge				
TM	Tri-Met				



The City shall conserve energy.

Goal 13: Energy Conservation

BACKGROUND

Statewide Planning Goal 13: Energy Conservation

"Land and uses developed on the land shall be managed and controlled so as to maximize the conservation of all forms of energy, based on sound economic principles."

In 1976, Goal 13: Energy Conservation, was added to the Statewide Planning Goals. In the 1970's it became evident that the energy picture for the United States was changing. For well over a quarter century, most Americans enjoyed the luxury of plentiful and inexpensive energy. When energy was cheap and easy to come by, cities were developed with little regard for energy consumption, in terms of travel patterns, use of renewable resources and energy efficient building materials and methods. As the availability of energy decreased and costs increased, the realization that resources were not in everlasting supply became evident.

Cities have not traditionally played a major and direct role in the development of new energy supplies. However, a city government uses or controls energy in many ways and can develop policies and development regulations to promote energy conservation, which has become the energy resource of "first choice" by the region. With a limited supply of energy available, and demand continuing to increase, conservation actions can postpone costly development of new power generation. Establishment of energy efficient programs is also less expensive than building new power plants and avoids negative environmental impacts.

Over the last 15, years energy efficient improvements to buildings, appliances, vehicles, and equipment retrofitting have already reduced energy consumption by 1/3 nationwide. The continuation of this trend is vital when considering the serious consequences of energy consumption, including smog, deforestation, acid rain, river pollution from coal mining waste, oil spills, and global warming.

Recycling as a method of reducing energy has also increased since 1976 when the initial comprehensive planning effort was undertaken. The region's Solid Waste Management Plan emphasizes reducing, reusing, recycling and recovering energy from waste, before landfilling.

Significant investments in conservation have been made by publicly owned utilities as the result of state and federal regulations. However, electrical utilities in Oregon forecast a 2.0% per year increase in electricity use between 1993 and 2012. Many programs and incentives are available through the state and local utilities, such as tax credits, free energy audits and energy efficient shower heads. In 1992, a drought year, the City of Lake Oswego distributed more than 2000 energy efficient shower heads as part of an effort to promote water conservation.

■ Goal 13: Energy Conservation

Switching to renewable resources, like the power of the sun and wind, utilizes unlimited energy supplies. One way in which the City has encouraged this was by adopting a solar access ordinance in 1988. This ordinance ensures that land is divided so that structures can be oriented to maximize solar access and allows a property owner to apply for a permit to protect solar features, such as windows, greenhouses and solar panels, from being shaded by future vegetation.

The Energy Information Administration (EIA) estimates that transportation accounts for 63% of all oil nationally consumed. The ODOE projects that total miles driven will increase 60% in Oregon by the year 2010. Statewide Planning Goal 12: Transportation, and its supporting administrative rule OAR 660-12-(000-070) adopted in 1991, requires jurisdictions to reduce vehicle miles traveled by 10% by the year 2015. The Transportation Chapter of the Comprehensive Plan proposes that the City accomplish this through promoting efficient transportation systems, mixed use development, encouraging alternatives to auto trips, and making the design of new development more amenable to users of alternative transportation such as carpooling, walking, bicycling and transit.

The City of Lake Oswego has also made a commitment to energy conservation through investment in conservation and changing operational procedures to date. City Hall, which was constructed in 1985, utilized the latest energy-conserving building materials and heating and cooling systems. The City has also conducted energy audits on several buildings to determine where energy consumption can be reduced. The City also performs some functions at the Water Treatment Plant at night or during other non-peak hours, for which it receives a lower power rate. Filling reservoirs and operating pumps at these off-peak times helps spread energy loads throughout the day and helps reduce the need for new energy resources. Also, the local electric utility is gradually phasing out mercury vapor street lights and converting them to sodium vapor, which requires only half the energy used for mercury vapor. To assure future decisions regarding energy conservation are made in cost effective manner, a baseline accounting of current energy usage in the City would be useful. A baseline accounting could assist in determining priorities for efficiency improvements, the potential cost effectiveness of various measures and in evaluating the savings and calculating a payback period for conservation measures.

Housing construction materials and design is another area in which energy conservation has increased since the initial comprehensive planning effort in 1976. The Oregon legislature adopted the Oregon Residential Energy Code in 1991. This code requires buildings to be designed according to a performance calculation for energy conservation. Lake Oswego implements and enforces this Energy Code through building permit review. The new code is projected to cut energy used for heating by 30 to 40 percent over the past code.

Goal 13: Energy Conservation

Summary of Major Issues

The following are some of the issues and changed circumstances and conditions which were considered in the update of this element of the Comprehensive Plan

- The Oregon Residential Energy Code was adopted in 1991. It has impacted building practices through stricter regulation and required performance standards and will play a significant role in energy conservation now and in the future.
- Energy conservation and efficiency can be recognized and utilized as an energy resource.
- Transportation systems and land use patterns are directly linked to energy conservation goals and have the potential to impact energy use.
- Energy production and use can impact the environment. When choosing policies, these costs must be considered.
- Awareness of solid waste management reduction, reuse, recycling and recovery of resources as a way to conserve energy has increased and programs have been put in place to encourage these activities.
- Establishing a baseline energy accounting and an acceptable payback period would assist the City in making decisions regarding energy efficiency.

GOALS, POLICIES AND RECOMMENDED ACTION MEASURES

GOAL

The City shall conserve energy.

POLICIES

- 1. Reduce the City's overall energy consumption.
- 2. Promote the use of renewable energy sources.

■ Goal 13: Energy Conservation

- 3. Reduce energy consumption related to transportation by promoting a reduction in vehicle miles traveled through the use of alternative transportation.
- 4. Require energy-efficient land use and circulation patterns through mixed use development, promoting high density developments near transit and major employment and shopping opportunities, and design of developments to encourage alternative transportation.
- 5. Promote energy efficiency through site planning for all types of development including residential subdivisions, multi-family, commercial and industrial projects.
- 6. Require solar orientation for subdivision and partition layout, encourage planned unit developments and clustering, encourage appropriate landscape materials to reduce solar impact in the summer, minimize winter heat loss and buffer against prevailing wind sources.
- 7. Protect solar access to use natural heating and lighting opportunities.
- 8. Implement and enforce state energy codes through the building permit review process.

RECOMMENDED ACTION MEASURES

- i. Establish an acceptable payback period for energy saving measures in municipally-owned buildings and facilities.
- ii. Reduce residential energy consumption through informing the public on how to conserve energy.
- iii. Support energy conservation measures by encouraging citizens to participate in available non-profit, county and utility programs such as:
 - a. Energy audits;
 - b. Home weatherization;
 - c. Wrapping water heaters; and,
 - d. Use of energy efficient shower heads.
- iv. Consider the energy consequences in decisions regarding the construction, delivery and siting of urban services.

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Goal 13: Energy Conservation

- v. Compile basic data on the sources, uses and costs of energy within the City to establish a baseline for energy-efficiency improvements and cost-effectiveness measures. Include information on energy use in City buildings, City vehicle fleets, City utilities, City equipment, vehicle flows on City streets, City regulated development and building and recycling, salvage and use of recycled materials.
- vi. Coordinate with federal, state and regional agencies to promote energy conservation.
- vii. Encourage concentrated developments of mixed uses in order to reduce auto trip length, encourage alternative transportation and to encourage the utilization of centralized heating systems.
- viii. Site public buildings close to one another wherever possible, to promote reduction of auto trips and encourage shared use of facilities.
- ix. Encourage transportation systems and programs designed to minimize energy consumption and reduce vehicle miles traveled through:
 - a. Ride sharing;
 - b. Employer development of ride sharing commuter programs;
 - c. Granting parking priority to ride share autos or vans;
 - d. Promoting pedestrian and bicycle travel by providing adequately surfaced, sidewalks, sloped curb crossings and bicycle racks;
 - e. Connecting bike paths and sidewalks to schools, parks, commercial and employment areas; and,
 - f. Requiring pedestrian and bicycle crossties between cul-de-sac and interblock cuts to reduce travel distances.
- x. Require trees in parking lots to provide a shade canopy to decrease exposure to heat radiated from these surfaces.
- xi. Promote tree planting as a way to reduce summer cooling loads and air pollution.
- xii. Work with Tri-Met to provide commuter information and education, more efficient transportation, better schedules, mini-buses, coordinate locations for shelters and planning for park and ride stations.
- xiii. Cooperate with Metro and Tri-Met to preserve railroad rights of way for future use.

■ Goal 13: Energy Conservation

- xiv. Encourage higher density residential developments near arterials, public transit routes, commercial areas and employment centers, where consistent with other Comprehensive Plan policies.
- xv. Encourage transportation fuel efficiency through traffic light synchronization.
- xvi. Promote energy efficient site design through the design review and subdivision process by such means as:
 - a. Permitting zero lot line siting and common wall construction;
 - b. Flexible setback requirements;
 - c. landscaping opportunities and sensitivity to the site's natural features;
 - d. Encouraging clustering of units to reduce the total amount of street and utility line footage and maximize usable open space; and,
 - e. Permitting the siting of residences on lots to provide solar exposure.
- xvii. Conserve transportation energy and prevent traffic congestion by discouraging the development of drive-through businesses.
- xviii. Take a leadership role in promoting energy conservation by seeking energy efficiencies in municipal building construction and operations, including:
 - a. Design, commissioning, operation, maintenance, renovation and landscaping of City buildings;
 - b. City vehicle usage;
 - c. City utilities including water pumping and street lighting; and,
 - d. City equipment usage including office equipment, heavy equipment and power tools.
- xix. Develop an energy conservation program for City activities and property, including assessment of vehicle energy use and an energy audit of City buildings.
- xx. Cooperate with the Lake Oswego Corporation to assure that the hydroelectric potential of Oswego Lake is preserved and utilized.
- xxi. Continue to support both City and intergovernmental efforts in the recycling of office materials and curbside recycling.

Metropolitan Urban Growth Boundary & Management Of The Lake Oswego Urban Services Boundary



The City shall, in conjunction with adjacent jurisdictions and Metro, control urban sprawl and enhance livability by managing growth in an orderly and efficient manner to establish stable and predictable land use patterns.

Goal 14: Urbanization

BACKGROUND

Statewide Planning Goal 14: Urbanization

"To provide for an orderly and efficient transition from rural to urban land use."

Urban growth boundaries shall be established to identify and separate urbanizable land from rural land. Establishment and change of the boundaries shall be based upon consideration of the following factors:

- 1. Demonstrated need to accommodate long range population growth requirements consistent with LCDC goals;
- 2. Need for housing, employment opportunities and livability;
- 3. Orderly and economic provision for public facilities and services;
- 4. Maximum efficiency of land uses within and on the fringe of the existing urban area;
- 5. Environmental, energy, economic and social consequences;
- 6. Retention of agricultural land as defined, with Class I being the highest priority for retention and Class VI the lowest priority; and,
- 7. Compatibility of the proposed urban uses with nearby agricultural activities.

Lake Oswego has grown from 19,400 to 33,145 people between 1975 and 1995. This growth was anticipated and planned for by the Comprehensive Plan and public facilities plans. The residents of Lake Oswego have financed the facilities necessary to provide high quality urban services in anticipation of serving the growth that will occur inside the 1996 Urban Services Boundary.

The Portland metropolitan urban growth boundary (UGB) forms the southern boundary of Lake Oswego and is identical with the City's urban services boundary in this area. The UGB defines the limit of urban development and Lake Oswego's sense of open space and community character is strongly influenced by the distinction created between the urban and rural landscapes.

The urban growth boundary is one of the primary tools Oregon's land use planning program has used to control sprawl, preserve valuable resource lands, and promote the coordinated and logical provision of public facilities and services. UGB's are intended to provide sufficient buildable lands to accommodate urban growth for a minimum twenty year planning period. Within the Portland metropolitan area, Metro has the responsibility for establishing and managing the regional urban growth boundary. Pursuant to ORS 268.390 Metro is charged with "Adopt(ing) an urban growth boundary....in compliance with applicable goals adopted under ORS Chapters 195, 196 and 197".

The task of developing the Portland Metropolitan Area UGB was initiated in 1976 when Metro's predecessor, Columbia River Association of Governments (CRAG) adopted a "land use framework element" for establishing urban, rural, and natural resource designations for all land in Washington, Clackamas and Multnomah Counties. Four years later, in 1980 the Metro urban growth boundary was adopted by the Metro Council and acknowledged by the Land Conservation and Development Commission (LCDC) as being in compliance with the Statewide Planning Goals.

In 1987, as part of its urban growth management responsibility, Metro received notice from the Department of Land Conservation and Development to conduct periodic review of the urban growth boundary. Through this process, Metro determined that there was sufficient buildable land within the urban growth boundary to accommodate urban land supply needs beyond the year 2010.

Concurrent with periodic review of the urban growth boundary, Metro adopted the Regional Urban Growth Goals (RUGGOs) in 1991. Development of the RUGGOs were required pursuant to ORS 268.380 (1) which states, "A district council shall: (1) Adopt land use planning goals and objectives for the district consistent with goals adopted under ORS 197.005 to 197.465." The RUGGOs have a regional scope. They are intended to provide a policy framework for Metro's management of the urban growth boundary and for coordination of Metro functional plans with that effort and each other.

In 1991 Metro initiated the 2040 Growth Concept. This process was intended to identify the approximate amount of land needed to accommodate the population and employment growth, and commensurate urban services for a 50 year period.

The City of Lake Oswego actively participated in the development of the Metro 2040 Concept Plan from 1991 to 1996. The City provided leadership in coordinating the establishment of the North Stafford Area Policy Task Force as well its ongoing activities from 1992 through 1995. The Task Force was formed to coordinate local government and affected citizens groups' involvement in planning for the North Stafford Area and participation in the Metro 2040 planning process. In December 1993, the Task Force unanimously adopted a Joint Position Statement regarding the impact of urbanization on public facilities, the environment, and the quality of life in the area and the adjoining cities of West Linn, Lake Oswego, and Tualatin.

The Task Force concluded that the Stafford Area should not be urbanized. The Task Force also found that the future land use pattern of the Stafford area should be comprehensively planned to:

- preserve the air, water, and land resource quality of the area, and
- provide safe and efficient transportation consistent with the area's needs, and
- ensure that future development is consistent with the capacity of existing public facilities and services, and
- preserve the rural character and open space values of the area.

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Goal 14: Urbanization

In addition, they agreed that it was important to establish criteria to evaluate any future Urban Growth Boundary Expansion.

This joint position statement represented the collective view of the cities of Lake Oswego, West Linn, Tualatin, Clackamas County, the West Linn - Wilsonville School District and most residents of the North Stafford area. The City of Lake Oswego and its Task Force partners have participated in the numerous Metro meetings and hearings regarding the 2040 Growth Concept and RUGGO's held in 1994, 1995, and 1996.

The City of Lake Oswego has supported the 2040 Concept Plan which is intended to result in a more compact urban form. This will require that each city in the region use its land efficiently to accommodate increased densities and prevent urban sprawl. The City Council and Planning Commission have directed that the Comprehensive Plan, Zoning Ordinance and Development Code be amended to implement the 2040 Plan.

However, despite the City of Lake Oswego's consistent opposition to the expansion of the UGB and urbanization of the North Stafford Area, the Metro Council designated 2,056 acres in the North Stafford area as urban reserve study areas on March 6, 1997. Metro Council's action raises the possibility that the City of Lake Oswego will be expected to provide urban services to approximately 1,200 of those acres. This would have profound consequences on Lake Oswego's fiscal resources and livability. Therefore, it is in the City's best interest to develop policies regarding how growth will be financed, and to develop a growth management program and implementing measures that will maintain the City's quality of life.

Summary Of Major Issues

The following are some of the issues and changed circumstances and conditions which were considered in the 1997 update of this element of the Comprehensive Plan. (PA 3-97-1244; 1/6/98)

- 1. The City and School District have constructed the basic facilities needed to serve the ultimate population anticipated for the 1996 Urban Service Boundary. The City and School District have been preempted by state law from charging new development for the costs of providing additional school capacity or police, fire and library facilities.
- Increases in the Systems Development Charges will reduce the public subsidy of City services for the limited growth which can occur within the current Urban Service Boundary.

- 3. On March 6, 1997, the Metro Council designated 2,056 acres in the North Stafford area as urban reserve study areas. Metro Council's action raises the possibility that the City of Lake Oswego will be expected to provide urban services to approximately 1,200 of those acres.
- 4. Growth outside the current Urban Service Boundary will require substantial expansion of the capacity of the City's utility and transportation systems and school facilities.
- 5. Full cost recovery impact fees will need to be established for any growth outside the Urban Service Boundary or current residents will again be required to pay for the cost of such growth.
- 6. Growth outside the current Urban Service Boundary will also create additional demand on existing City and School District services and thereby reduce the quality of life for existing residents.
- 7. Unless new growth that occurs outside the 1996 USB is required to mitigate its adverse impact on current levels of urban services and the natural environment, the City's quality of life will be diminished by that growth.
- 8. It is not in the interests of the citizens of Lake Oswego to subsidize the extension of City services to provide for development on urban reserves south of the 1996 City limits.
- 9. Subsequent to adoption of the Lake Oswego Comprehensive Plan in 1978, the Metro urban growth boundary was acknowledged by the Department of Land Conservation and Development.
- 10. Certain land use planning and coordination responsibilities have been granted by state statute to the Metropolitan Service District, including the development of Regional Urban Growth Goals (RUGGOs).
- 11. Specific urban growth boundary amendment procedures have been adopted by the Metro Council and acknowledged by LCDC.

☐ Goal 14: Urbanization

GOALS, POLICIES AND RECOMMENDED ACTION MEASURES

GOAL

Lake Oswego shall ensure that the rate, amount, type, location and cost of population growth and development within or outside of the Urban Service Boundary will not diminish the quality of life the City has presently attained.

POLICIES

- 1. The City will not expand the existing Urban Service Boundary*(USB) and will resist efforts to require expansion, except in those areas designated as Tier I Urban Reserves as of February 1998.
- 2. If the City is required to expand the Urban Service Boundary*, new development will be required to pay the full cost of extending urban services*.
- 3. The cost of serving development within the current Urban Service Boundary shall be equitably allocated* to implement adopted public facilities plans.
- 4. The City's quality of life as defined by adopted objective indicators shall not be reduced by new development*.
- 5. Support the Metropolitan Area Urban Growth Boundary as a means to:
 - a. Reduce urban sprawl and ensure the development of an efficient and compact urban growth form.
 - b. Provide a clear distinction between urban and rural lands, and;
 - c. Ensure the opportunity for appropriate urban infill and redevelopment.
 - d. Control costs and public subsidization of development associated with the unnecessary extension and provision of public facilities and services, and;
 - e Ensure the maximum efficiency of lands within the Urban Growth Boundary existing at the time of this policy's adoption.

- 6. Support the Metro Regional Urban Growth Goals and Objectives (RUGGOs) as the framework for the region's growth management program when it can be found that the policies are implemented in a manner to ensure a compact and efficient urban growth form.
- 7. The City shall work to minimize the expansion of the Urban Growth Boundary by:
 - a. Providing opportunities to achieve and maintain a compact urban form and targeting public investments to reinforce a compact urban form.
 - b. Protecting existing Inner Neighborhoods* by focusing future commercial and medium to high residential growth in and in close proximity to Town Centers* and Main Streets* and along Transit Corridors* that contain commercial, high density residential or mixed use development.
 - c. Maintaining livability within the Urban Growth Boundary by providing housing choices with good access to jobs, preserving the natural environment, maintaining and improving access to natural areas, open space and parks, developing a balanced transportation system, which is less dependent on the private automobile and maximizing the efficiency of public facilities and services.
- 8. The City shall recognize the following Design Types within the Lake Oswego Urban Services Boundary: Town Centers, Employment Areas*, Transit Corridors, Main Streets and Inner Neighborhoods. Locations of these Design Types are shown in Figures 26 29.
- 9. Utilize the Planning Commission to develop a formal position for recommendation to the City Council for UGB amendments which could affect Lake Oswego and to provide an opportunity for public input.
- 10. The Urban Services Boundary (Comprehensive Plan Map) is Lake Oswego's ultimate growth area within which the City shall be the eventual provider of the full range of urban services. The location of the USB is generally described as follows:
 - a. On the west, the I-5 Freeway from the Tualatin River to the Multnomah County line, excluding areas within the Tualatin City limits.
 - b. On the north, the Multnomah/Clackamas County line and the present Lake Oswego City limits which lie north of the Clackamas County line, from I-5 to the Willamette River.
 - c. On the east, the Willamette River from the Multnomah/Clackamas County line to the present City limits.

- d. On the south, the area within the present (1993) Portland Metropolitan Urban Growth Boundary from the West Linn City limits to the Oswego Canal and then north of the Tualatin River west to Interstate 5, excluding land within the Cities of Tualatin and Rivergrove.
- 11. Unincorporated property shall be required to annex prior to the receipt of City sanitary sewer service. City water service to unincorporated property shall require prior annexation or execution of a consent for future annexation. In no case will a consent for future annexation be accepted where immediate annexation is feasible.
- 12. Lake Oswego shall initiate island annexations to:
 - a. Create logical City boundaries;
 - b. Provide economic and efficient provision of City services to existing and proposed development within the subject area, and to adjacent land; and,
 - c. Equitably distribute costs for those city services enjoyed by residents of island areas.
- 13. Ensure that annexation of new territory or expansion of Lake Oswego's Urban Service's Boundary does not:
 - a. Detract from the City's ability to provide services to existing City residents; and,
 - b. Result in property owners paying for urban services which do not benefit their property.
- 14. Prior to the annexation of non-island properties, the City shall ensure urban services are available and adequate to serve the subject property or will be made available in a timely manner by the City or a developer, commensurate with the scale of the proposed development. Urban Services consist of water, sanitary sewer, surface water management, police and fire protection, parks, and transportation including; streets, transit, pedestrian and bicycle facilities.
- 15. The City shall, to the extent permitted by law, enter into and maintain intergovernmental agreements with any provider of sanitary sewer or water service within the Urban Services Boundary, to require annexation agreements for unincorporated lands which require either service.
- 16. Lake Oswego may enter into intergovernmental agreements to extend sanitary sewer, water, surface water management and other services to other cities outside the USB, and continue or enter into new agreements with existing service districts to provide public safety services and domestic water provided:
 - a. These arrangements are in the City's financial interests;
 - b. Adequate capacity exists to provide services;

- c. The quality and quantity of services to existing and future City residents are not diminished; and,
- d. Such actions are consistent with the City's Public Facility Plan and Comprehensive Plan goals and policies pertaining to public facilities and services and urbanization.
- 17. Lake Oswego shall enter into and maintain an Urban Growth Management Agreement with Clackamas County for lands within the Urban Services Boundary to:
 - a. Promote compatibility of land use, neighborhood character and public facilities when territory is annexed to Lake Oswego;
 - b. Preserve neighborhood character and livability through a coordinated City and County planning program;
 - c. Ensure high standards of urban design compatible with the surrounding community;
 - d. Provide certainty and predictability through consistent development standards and policies:
 - e. Protect and enhance natural resources;
 - f. Ensure the provision of public facilities and services is consistent with the City's Public Facility Plans;
 - g. Promote orderly annexation of territory;
 - h. Clearly define responsibility of the City, County, special districts, and franchise holders (e.g. cable, gas, electric power, solid waste) in providing services and managing growth within the Dual Interest Area;
 - i. Foster cooperation among all parties involved in land use planning and service delivery;
 - j. Obtain timely decisions pertaining to land use and service delivery issues; and,
 - k. Achieve fair and equitable financing for public facilities and services needed to accommodate development.
- 18. Lake Oswego shall be responsible for development, coordination and implementation of the Public Facility Plan (PFP) for lands within the Urban Services Boundary to ensure predictable and logical provision of urban services to lands within the USB.
- 19. Lake Oswego shall enter into and maintain intergovernmental agreements with service districts operating within the Urban Services Boundary. These agreements shall:
 - a. Define short and long term service provision roles of the city and service districts;
 - b. Specify the terms and conditions of withdrawal of territory from service districts and the transition of capital facility ownership and administration to the City;
 - c. Provide for coordination of plans and programs between the city and service districts; and,
 - d. Ensure services are provided consistent with the City's adopted Public Facility Plan.

☐ Goal 14: Urbanization

- 20. Lake Oswego shall require annexation, prior to review of development permits, of unincorporated property proposed for development which requires City sewer or water facilities.
- 21. The City shall oppose the formation of any new service district within the Urban Services Boundary.
- 22. The City will support expansion of an existing service district's boundaries of only if:
 - a. It can be shown that it is the only feasible way to provide a particular service. City services, rather than district services shall be provided when they are, or can be made available and are adequate:
 - b. The provision of service is consistent with the City's Public Facility Plan and Comprehensive Plan goals and policies;
 - c. Annexation agreements are recorded for the property receiving service, to the extent permitted by law, that provides for non-remonstrance to annexation; and,
 - d. The service district can maintain an adequate level of service over both the short and long term.

RECOMMENDED ACTION MEASURES

- i. Update System Development Charge rates and annually adjust rates to reflect increases in construction costs.
- ii. Actively seek changes in state legislation to allow the collection of system Development Charge's for schools, fire stations, law enforcement facilities, and libraries.
- iii. Develop and adopt Quality of Life Indicators*.
- iv. Incorporate Quality of Life Indicators into development regulations as criteria for determining the impacts of future development on the community.
- v. Develop urbanization plans for land use and facilities in any urban reserve areas designated by Metro.
- vi. Establish System Development Charge rates for urban reserve areas to recover the full cost of providing urban services.

- vii. Explore the feasibility of adopting measures to ensure that the incremental costs of operating and maintaining urban services in any urban reserve area are fully assessed to that area.
- viii. Encourage Metro to work with affected jurisdictions and property owners prior to expansion of the Urban Growth Boundary to develop specific land use plans for these areas which ensure:
 - a. An efficient and compact urban form;
 - b. Preservation of open space and other natural resources;
 - c. That all urban level public facilities and services will be made available concurrent with development; and,
 - d. That negative impacts will not accrue to neighboring communities.
- ix. Develop design and zoning standards for development within Design Type areas that:
 - a. Promote compact urban form,
 - b. Are compatible with surrounding development
 - c. Ensure pedestrian scale design, and;
 - d. Encourage transit usage in order to reduce auto dependence.
- x. Implement a neighborhood planning program in coordination with Clackamas County to include portions of the Urban Services Boundary (USB).
- xi. Encourage the City, County and service districts to adopt compatible facility design standards.
- xii. Coordinate the development and implementation of the City's Capital Improvement Plan with Clackamas County, service districts and other service providers within the USB.
- xiii. Monitor and implement the Kruse Way Settlement and Annexation Agreement to ensure annexation of eligible property occurs as specified.
- xiv. Within the Urban Services Boundary encourage Clackamas County to:
 - a. Apply relevant policies from the Lake Oswego Comprehensive Plan;
 - b. Review development, using City standards and review procedures;
 - c. Share in the responsibility of providing park facilities; and,
 - d. Apply System Development Charges derived from development to projects which directly benefit the area.

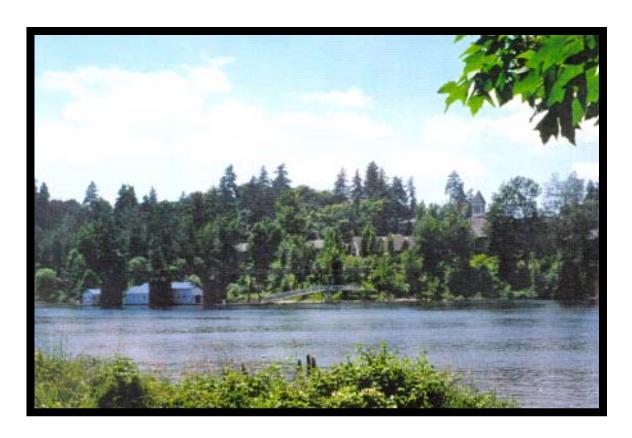
- xv. Work cooperatively with Clackamas County on regional planning issues, including the designation of urban reserve areas or amendments to the Portland Metropolitan Urban Growth Boundary, which may affect the interests of either jurisdiction.
- xvi. Provide public information to explain the benefits associated with being within the City limits.
- xvii. Encourage developed properties within the unincorporated portion of the Urban Services Boundary to annex to Lake Oswego.
- xviii. Encourage Clackamas County to require legislative and quasi-judicial Plan amendments within the Dual Interest Area to be consistent with the nearest or most similar City Comprehensive Plan designation.
- xix. Recognize that public service districts may continue to operate within the Urban Services Boundary until:
 - a. An entire district, or portions thereof, are annexed by the City and subsequently withdrawn from district; or,
 - b. Other arrangements are made for the assumption of district responsibilities by the City pursuant to intergovernmental agreement.

Goal 14 Urbanization

☐ Goal 14: Urbanization

- Notes -

View of Lake Oswego Water Sports Center On The Willamette River



The City shall protect, conserve, enhance and maintain the natural, scenic, historic, economic, and recreational qualities of the Willamette River Greenway.

Goal 15: Willamette River Greenway

BACKGROUND

Statewide Planning Goal 15: Willamette River Greenway

"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 Willamette River Greenway is a valuable natural asset of the City of Lake Oswego and the State of Oregon. The first suggestion that the Willamette River be somehow protected from becoming a heavily developed urban corridor, was broached in the late 1960's. Several bills relating to the protection of the River were enacted by the State Legislature. The Willamette River Greenway was finally created in 1973 with the enactment of House Bill 2497 (ORS 390.310-368). Statewide Planning Goal 15, Willamette River Greenway, sets forth the overall framework within which state and local governments carry out protection and enhancement of the Greenway, including its natural, scenic, historical, agricultural, economic and recreational qualities. The Greenway boundary includes all lands within 150' of ordinary low water.

The City received Land Conservation and Development approval of its Greenway goals and policies and Zoning Code Greenway Management Overlay in 1984. Goal 15 requires localities to adopt Greenway boundaries, specify uses permitted within those boundaries, indicate areas of potential acquisition along the Greenway and adopt provisions, by ordinance, requiring a compatibility review permit for any intensification, change of use or development within the Greenway boundaries. The City's Greenway Management Overlay provides design review procedures for any of these activities in the Greenway.

One of the features of the Greenway law, is that the Oregon Department of Transportation, State Parks Division, may determine sites appropriate for purchase. The State has identified a nine acre natural feature with scenic, natural, and recreational qualities for future acquisition at the confluence of the Willamette River and Tryon Creek. This property is currently within Clackamas County and within the City's Urban Service Boundary. Since this property is adjacent to Tryon Creek State Park, it has potential for connecting public land with a recreational trail that would reach the Willamette River.

On the Lake Oswego Comprehensive Plan Map, Greenway boundaries are 150 feet from ordinary low water (see Comprehensive Plan Map), except where they widen to include Roehr Park and George Rogers Park, which are City owned properties. In Lake Oswego, the largest portion of the Greenway contains residential uses. Commercial, recreation and public uses, such as the Tryon Creek Sewage Treatment Plant, are also present.

■ Goal 15: Willamette River Greenway

Beginning in 1993, the City participated in the Willamette River Corridor Coordination Plan. This project will result in a coordinated, regional vision and management plan for the River between the Multnomah/Clackamas County line and the Willamette Falls dam, and is scheduled for completion in 1994-95.

Summary Of Major Issues

The following are some of the issues, changed circumstances and conditions which were considered in the update of this chapter of the Comprehensive Plan:

- The City participated in the Willamette River Corridor Plan wherein several jurisdictions developed a coordinated, regional vision for the portion of the river lying within the Clackamas County urban area.
- Since the Willamette River Greenway was created in 1973, there has been a recognition that limiting water pollutants through surface water management is important for the health of the Willamette River and its tributaries. In 1991, the City adopted a Surface Water Management Plan to enhance water quality within the City's USB. This chapter recognizes this with the inclusion of surface water policies.

GOALS, POLICES AND RECOMMENDED ACTION MEASURES

GOAL

The City shall protect, conserve, enhance and maintain the natural, scenic, historic, economic, and recreational qualities of the Willamette River Greenway.

POLICIES

Designate the Willamette Greenway Boundary on the City's Comprehensive Plan Map, consistent with the location established by the Oregon Land Conservation and Development Commission.

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■ Goal 15: Willamette River Greenway

- 2. Require non-water related and non-water dependent structures to be set back from the Willamette River.
- 3. Manage lands within and adjacent to the Greenway to protect and restore natural vegetation.
- 4. Protect, enhance, and restore the fish and wildlife habitat values of the Willamette River and the Greenway.
- 5. Minimize the visual impact of development on the Willamette River and the Greenway through measures such as setbacks, height restrictions, building materials and color choices and land-scape screening.
- 6. Protect the water quality of the Willamette River by:
 - a. Regulating development to prevent pollutants and soil erosion from entering the River;
 - b. Ensuring discharge practices conform to state and federal standards, and other requirements; and,
 - c. Protecting and enhancing the natural functions and values of the ground and surface water systems which drain into the River.
- 7. Preserve significant view corridors to the Willamette River.
- 8. When appropriate, require dedication of public access easements within the Greenway and to the Willamette River, as part of the development review and approval process.
- 9. Designate the Willamette Greenway as Protection Open Space.

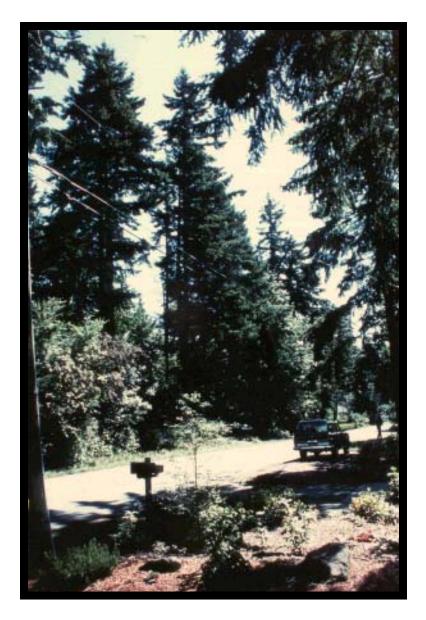
RECOMMENDED ACTION MEASURES

- i. The Willamette River Greenway Boundary shall include the potential nine acre acquisition site identified by the Oregon State Parks and Recreation Department at the confluence of the Willamette River and Tryon Creek.
- ii. Coordinate Greenway planning activities with Clackamas County, the Oregon State Parks and Recreation Department and other responsible jurisdictions and governmental agencies.
- iii. Acquire land and easements to protect the Greenway's natural resources and provide for continuous public access along, and to, the River.

☐ Goal 15: Willamette River Greenway

- iv. Maintain public safety and protect public and private property from vandalism and trespass along the Greenway.
- v. Coordinate with other involved agencies and jurisdictions and users of the Willamette River to promote safe public use of the River and Willamette Greenway in compliance with local and state goals, policies and regulations.
- vi. Protect, enhance and restore natural vegetation along the Willamette River.
- vii. Identify significant view corridors to the Willamette River Greenway and develop standards to protect them.

■ Lake Grove Neighborhood



A defining feature of the Lake Grove Neighborhood is its namesake -the tree canopy that predominates throughout the area.

Lake Grove Neighborhood

BACKGROUND

This is the first time Lake Grove has developed a Neighborhood Plan specific to the area contained within its neighborhood association boundaries (Figure 21). It was developed over a period of two years by the Lake Grove Neighborhood Plan Steering Committee and involved substantial research, review and discussion. The Neighborhood Plan has been incorporated into the City's Comprehensive Plan by legislative amendment. It augments city wide land use goals and policies in regard to land use issues within the boundaries of the Lake Grove Neighborhood Association.

Development of the Lake Grove Neighborhood Plan involved the careful consideration of many different factors and issues to make the best decisions for the neighborhood for the short and long term. The goals and policies of the Neighborhood Plan and those of the Citywide Comprehensive Plan are intended to guide future land use decisions in the neighborhood. This Plan is intended for use by all those who have concerns with land use actions in the neighborhood, including local officials, persons with development interests, state, regional and federal agencies, neighborhood and community groups, and citizens of all interests.

Because the Neighborhood Plan is part of the Citywide Comprehensive Plan it is required to be in conformance with the City Plan, Statewide Planning Goals and the Metro Regional Framework Plan, which is also enabled by state statute. The Neighborhood Plan, prior to public hearings for adoption, was reviewed by both the City of Lake Oswego and the Department of Land Conservation and Development as to whether its meets these tests. Future changes are also evaluated as to consistency with the city, state and regional goals and policies.

The Lake Grove Plan consists of six goal and policy chapters as follows:

Goal 1: Citizen Involvement

Goal 5: Open Spaces, Scenic and Historic Resources and Natural Resources

Goal 9: Economic Development/Commercial Lands

Goal 10: Housing/Residential Lands Goal 11: Public Facilities and Services

Goal 12: Transportation

These chapters are numbered and structured to be consistent with the City's Comprehensive Plan and statewide planning goals. Also, terms and phrases marked with an * asterisk are defined in a definition section.

Lake Grove Neighborhood

It is important for both the Lake Grove Neighborhood Pan and the Lake Oswego Comprehensive Plan to be responsive to changing conditions and circumstances. Because the Neighborhood Plan is part of the citywide Plan its update is required as part of periodic review of the Comprehensive Plan to address changed and unanticipated circumstances which occur over time.

Also, because the Lake Grove Plan is intended to "comprehensively address" land use policy issues in the neighborhood, and the neighborhood is part of the City as a whole, there are no parts of either the City's Comprehensive Plan or the Lake Grove Neighborhood Plan which can be considered separately from other parts. All Plan goals and policies are intended to be supportive of one another. However, when using the Neighborhood Plan to make decisions and conflicts arise between goals and policies, the City has an obligation to make findings, which indicate why the goal or policy being supported takes precedence over those which are found to be in conflict. This involves a decision-making process on the part of the City, which balances and weighs the applicability and merits of both the Neighborhood Plan's and Comprehensive Plan's many goals and policies against one another.

The City's Comprehensive Plan and its Neighborhood Plan elements occupy center stage for directing Lake Oswego's future. However, other planning activities and documents are also important. Other plans such as the Park and Recreation Master Plan, Transportation System Plan, the various public facility plans, and the Capital Improvement Plan are important to consider when making land use decisions. However, any portion of these plans and any related action dealing with land use must be consistent with the policy direction of the Comprehensive Plan and its Neighborhood Plan Chapters.

The Neighborhood Plan elements of the Comprehensive Plan and the Zoning and Development Codes are intended to mutually support one another. The Plans do not contain specific standards for development. Instead they provide the policy basis for specific standards and procedures of the Zoning and Development Code which are used to review new development and modifications to existing development. However, the Plans are applicable to legislative decisions such as Plan and Zone Map amendments and certain other land use actions, which must address applicable Plan goals and policies. These include actions such as conditional uses and text changes to the City's zoning and development codes."

Summary of Major Issues: Goal 1 - Citizen Involvement

The Lake Grove Neighborhood Plan Chapter on Citizen Involvement recognizes that the neighborhood is composed of both residential and commercial areas, which have specific needs and interests. The Plan's Citizen Involvement goal and policies stress the need to involve all residents and businesses in all phases of land use planning. Furthermore communication within the neighborhood and to the City regarding significant issues must reflect the diversity of interests of those who live, work and do business in the neighborhood.

Lake Grove Neighborhood

The chapter also recognizes the essential need to communicate and coordinate issues with the other neighborhood associations and County Planning Organizations (Rural Lake Grove Neighborhood) which border the Lake Grove Neighborhood.

The Plan stresses that the City's current notification process does not provide adequate notice of impending land use issues. In some cases the current 300-foot notice does not notify all those who may be affected by a development proposal. The Neighborhood Plan Steering Committee felt that it was important to reach a threshold number of notified property owners to provide a greater opportunity for participation in land use matters. Therefore the Steering Committee crafted Goal 1, Policy 3, which states:

"When minor* or major development* is proposed, require that the closest fifty property owners* be notified when less than fifty are contained within the required 300 foot notification boundary*."

Furthermore, the Plan directs in Policies 4 and 5 that City staff, take a proactive and visible role in communicating development issues to the neighborhood. Policy 5 directs that City staff notify both the Neighborhood Association Board and the Lake Oswego West/Lake Grove Business Association as soon as land use applications are accepted as complete. Many land use issues applications and resultant staff reports involve an analysis of many complex issues such as traffic, public facilities, surface water quality, natural resources protection and neighborhood compatibility. The Neighborhood Planning Steering Committee felt that it is important for the neighborhood to have as much time as possible to review these issues and prepare comment because of past experience of not having enough time to do so. Therefore, the policy also directs the City to provide an opportunity for the Neighborhood Association Board to meet with staff at least seven days prior to the required 10-day availability of the staff report to discuss land use applications and staff's preliminary analysis.

Policy 6 ensures that pre-application meetings between applicants and the neighborhood are meaningful and that concerns and issues are accurately communicated. Policy 6 as presented below proposes specific ways by which this should happen:

"Ensure that pre-application neighborhood meetings* between those proposing land use applications and the neighborhood result in the attendees' concerns and issues being accurately communicated by requiring:

- a. The applicant to agree with the Neighborhood Association chair upon a mutually convenient meeting date, time and place;
- b. Written minutes to be taken and the meetings audio taped. The applicant shall mail minutes to the attendees and the Lake Grove Neighborhood Chair or designate the control of the contr

Lake Grove Neighborhood

nee. A reasonable time, of not less than seven days and not more than 21 days, following mailing, shall be provided for the chair or designee in consultation with the attendees, to review and make written comment on the minutes. Also, the applicant shall make copies of the audio tapes conveniently available for neighborhood review within one week after the meeting and prior to development application to the City.

c. Meeting audio tapes, written minutes, and any associated written comments by the neighborhood chair or designee be provided to the City at the time of application submittal."

GOALS AND POLICIES

GOAL 1: CITIZEN INVOLVEMENT

- 1. Ensure that all residents and business owners in the Lake Grove Neighborhood have the opportunity to be involved in all phases of the land use planning process.
- 2. Ensure that communication within the neighborhood and to the City regarding-issues of both neighborhood and citywide significance reflects the diversity of interests of those who live, work, and do business in the neighborhood.

POLICIES

- 1. Ensure that coordination occurs between Lake Grove Neighborhood Association, other neighborhoods and County Planning Organizations (CPOs)* in regard to land use, public facility planning and construction, and other matters which have impacts on neighborhood residents and business owners across neighborhood boundaries.
- 2. Provide timely information *and notice so that both neighborhood residents and business owners have the opportunity to participate in land use and public facility planning decisions and other issues of significance to the neighborhood and City.

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Lake Grove Neighborhood

- 3. When minor* or major development* is proposed, require that the closest fifty property owners* be notified when less than fifty are contained within the required 300 foot notification boundary*.
- 4. Provide business owners and residents a copy of the adopted Lake Grove Neighborhood Plan to ensure they have the opportunity to become knowledgeable of the plan's content and applicability.
- 5. Ensure the neighborhood has adequate opportunity to understand and develop effective comment and testimony on land use applications by:
 - a. Notifying the Neighborhood Association Board and the Lake Oswego West /Lake Grove Business Association as soon as land use applications are accepted as complete, and;
 - b. Providing the Association Board an opportunity to meet with City staff at least seven days prior to the *required availability of the staff report to discuss, for information purposes only, the application and staff's analysis of the proposal. The applicant shall receive prior notice of any meeting and be given an opportunity to attend.
- 6. Ensure that pre-application neighborhood meetings* between those proposing land use applications and the neighborhood result in the attendees' concerns and issues being accurately communicated by requiring:
 - a. The applicant to agree with the Neighborhood Association chair upon a mutually convenient meeting date, time and place.
 - b. Written minutes to be taken and the meetings audio taped. The applicant shall mail minutes to the attendees and the Lake Grove Neighborhood Chair or designee. A reasonable time, of not less than seven days and not more than 21 days, following mailing, shall be provided for the chair or designee in consultation with the attendees, to review and make written comment on the minutes. Also, the applicant shall make copies of the audio tapes conveniently available for neighborhood review within one week after the meeting and prior to development application to the City.
 - c. Meeting audio tapes, written minutes, and any associated written comments by the neighborhood chair or designee be provided to the City at the time of application submittal.

■ Lake Grove Neighborhood

RECOMMENDED ACTION MEASURES

- i. Support the activities of the Lake Oswego Neighborhood Association Coalition* (LONAC) as the means to communicate issues and provide opportunities for discussion among the City's various neighborhoods.
- ii. Encourage the Lake Oswego West/Lake Grove Business Association to develop and distribute information to area residents about shopping, entertainment and service opportunities provided by the Lake Grove Neighborhood Commercial District.
- iii. Encourage the City to work in partnership with the Lake Grove Neighborhood Association and Lake Oswego West/Lake Grove Business Association to assure public notice, information and communication procedures are in place to prepare for possible public safety events such as fire and law enforcement incidents, inclement weather and other emergencies and natural and manmade disasters.
- iv. Encourage elected and appointed City officials to periodically meet with Lake Grove Neighborhood Association to ensure its opinions and needs are communicated directly to the City.
- v. Encourage neighborhood residents and business owners to make a personal commitment to neighborhood safety and social quality by taking interest in the well being of their neighbors.
- vi. Encourage neighborhood residents and business owners to work together toward betterment of their neighborhood.

Summary of Major Issues - Goal 5: Open Spaces, Scenic And Historic Resources And Natural Resources

A defining feature of the Lake Grove Neighborhood is its namesake - the tree canopy that predominates throughout the area. Eighty-two percent of the 223 persons who responded to the neighborhood survey conducted by the Neighborhood Planning Steering Committee in 1995 responded affirmatively that policies should be established to protect trees and other natural resources.

A major focus of the Plan's Goal 5 chapter is preservation of and enhancement of the tree canopy. Furthermore, the Plan recognizes the benefits of the City's Sensitive Lands Protection Program and stresses protection of the neighborhood's stream corridors, tree groves and wetlands as designated by the City's ESEE analysis. The Plan also recognizes the benefits of the City's Open Space Standard and emphasizes in Goal 5, Policy 2 the need to take specific action to preserve and maintain open space.

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Lake Grove Neighborhood

The Goal 5 Chapter identifies specific policy action to provide a greater level of tree protection and enhancement of the neighborhood tree grove. Policy 3 proposes to amend the LOC Chapter 55 as follows:

Require(ing) all tree cutting applications be subject to a Type II Permit* pursuant to the Lake Oswego Tree Code (LOC Chapter 55) when it is proposed to remove evergreen trees thirty feet and taller and deciduous trees with a diameter of 10" or greater and a height of 30 feet or more In instances where trees proposed for removal are obviously dead* or represent an obvious immediate hazard*, application fees for the Type II permit shall be waived.

This policy also proposes that the City amend its Development Standard to ensure that:

Developers maximize the preservation of trees to maintain and enhance the cohesive quality of existing tree groves, and require, when new development is proposed, open space dedication* of the land on which there are significant trees.

Policies 4 through 10 also emphasize tree protection. In summary these policies state:

- Require, when practicable*, tree planting for all new development including single family homes;
- That the development review process emphasize protection of significant trees rather than allowing removal and subsequent mitigation through replanting;
- Provide property owners the opportunity to preserve trees through participation in a City adopted Heritage Tree Protection Program*;
- Protect and enhance significant trees within the public right-of-way and on other public lands, and;
- Monitor the Neighborhood's tree canopy over time through a city-maintained data collection and inventory system.

Springbrook Creek is the neighborhood's primary stream corridor and policies 11, 12 and 13 address protection of this natural resource. The Neighborhood Plan Steering Committee stressed that it is particularly important to protect the stream corridor and adjoining properties from erosion and sedimentation, which could result from upstream development. Furthermore, these policies address the need to protect the stream corridor and adjoining property from damage if any portion of Springbrook Creek sewer interceptor should fail.

■ Lake Grove Neighborhood

The Chapter's Recommended Action Measures (RAMs) identify several sites in the neighborhood that have local historic and cultural significance. Also, the RAMs identify several sites as candidates for landscaping and beautification.

GOAL 5: OPEN SPACES, SCENIC AND HISTORIC RESOURCES AND NATURAL RESOURCES

Preserve Lake Grove Neighborhood's natural resources and wooded character.

POLICIES

- 1. Preserve Lake Grove Neighborhood's stream corridors, tree groves*, and wetlands* as designated by the City's Goal 5: ESEE Inventory* (Figure 22).
- 2. Require preservation and maintenance of open space reserves* consistent with conditions of development approval including:
 - a. Preventing the removal of trees and non-invasive vegetation* except as provided by the Lake Oswego Tree Code (LOC 55);
 - b. Removing invasive vegetation* and replanting with native plant species where appropriate;
 - c. Preventing the dumping of garbage and yard debris in open space areas through enforcement of nuisance provisions Lake Oswego Code (LOC 34.08.490); and
 - d. Not allowing the encroachment of structures, yards, landscaping or other private improvements.
- 3. Preserve and where possible enhance the Lake Grove Neighborhood tree canopy by:
 - a. Requiring all tree cutting applications be subject to a Type II Permit* pursuant to the Lake Oswego Tree Code (LOC Chapter 55) when it is proposed to remove evergreen trees thirty feet and taller and deciduous trees with a diameter of 10" or greater and a

LGNA-8 LAKE OSWEGO COMPREHENSIVE PLAN

Lake Grove Neighborhood

height of 30 feet or more. In instances where trees proposed for removal are obviously dead* or represent an obvious immediate hazard*, application fees for the Type II permit shall be waived.

- b. Requiring developers to maximize the preservation of trees to maintain and enhance the cohesive quality* of existing tree groves.
- c. Requiring, when new development is proposed, protection of significant existing trees by including these resources as part of an open space reserve area*."
- d. Enforcing the Lake Oswego Tree Code (LOC Chapter 55).
- 4. When practicable*, require landscaping and planting of trees which grow to a significant size for all new development*. Tree planting, including species selection and location shall take into account solar access requirements *of LOC Chapter 57.
- 5. The development review process shall emphasize protection of significant trees rather than allowing removal and subsequent mitigation through replanting.
- 6. Provide property owners the opportunity to preserve trees through participation in a City adopted Heritage Tree Protection Program*.
- 7. Protect and enhance significant trees within the public right-of-way and on other public lands by:
 - a. Adopting standards and regulations to protect public trees, and;
 - b. Ensuring maintenance of adequate public right-of-way to plant trees, out of the area needed for the travel surface, that are known to grow to a significant size.
- 8. Ensure public works projects in the Lake Grove Neighborhood are designed, implemented, and maintained to protect trees, significant vegetation and other natural resources.
- 9. When trees are removed in the Lake Grove Neighborhood in violation of the Lake Oswego Tree Code (LOC Chapter 55) ensure that:
 - a. Tree planting which is required for mitigation occurs within the neighborhood's boundaries, and;
 - b. Any fines paid into the City's tree fund are used to also plant trees within the neighborhood.

■ Lake Grove Neighborhood

- 10. Monitor the condition of the Lake Grove Neighborhood's tree canopy over time, including the identification and progression of disease such as laminated root rot, through a City maintained data collection and inventory system.*
- 11. Restore the natural resource functions and values* of Springbrook Creek and the other City inventoried stream corridors, wetlands and tree groves in the Lake Grove Neighborhood.
- 12. Require storm drainage and water quality management measures* and facilities for all new development within and outside Lake Grove Neighborhood to reduce the impacts of flooding, erosion, sedimentation and other effects of increased water run-off on neighborhood properties and natural resources."
- 13. Protect, through periodic monitoring and maintenance of the Springbrook sewer interceptor, the Springbrook Stream Corridor and adjacent properties from damage that could occur if any portion of the sewer interceptor could fail.
- 14. Allow property owners to conduct restoration activities within stream corridors, wetlands and tree groves without the dedication of conservation easements when these efforts are undertaken at their own expense.

RECOMMENDED ACTION MEASURES

- i. Implement a Lake Oswego Community Forestry Program which:
 - a. Provides for an ongoing planting and maintenance program for trees and other vegetation in public rights-of-way, natural areas, open spaces and parks, and;
 - b. Provides information regarding tree care to the general public.
- ii. Involve the City, neighborhood residents, property owners, and citizen groups, such as the Wetlands Conservancy and the Lake Oswego Land Trust to develop a common vision and action program to restore the natural functions and values of Lake Grove Neighborhood's tree groves, stream corridors and wetlands.
- iii. Encourage property owners and citizen groups to landscape with native plants along stream corridors and adjacent to wetland buffer areas.

Lake Grove Neighborhood

- iv. Encourage the identification of historically significant buildings and features in the Lake Grove Neighborhood. These important sites include but are not limited to:
 - a. Carl House (Old Postmasters House) at 15110 Boones Ferry Road;
 - b. The Home of Oregon's first woman attorney at 4124 Sunset Drive;
 - c. Community Hall Plaque at 16211 Reese Road;
 - d. Anne Shannon Monroe, the Lake Grove Neighborhood author's home at 16600 Bryant Road.
- v. Work with the City to determine an appropriate public or quasi-public use for the old fire station located at 16400 Bryant Road.
- vi. Encourage the dedication of conservation easements* to protect natural resources and open space.
- vii. Develop and maintain landscaped entry features and focal points within the Lake Grove Neighborhood at the following locations:
 - a. Along Lower Boones Ferry Road between Madrona Street and the Railroad tracks;
 - b. At the northwest corner of the intersection of Lower Boones Ferry Road and Upper Drive:
 - c. At the intersection of Upper Drive, Lakeview Boulevard and Iron Mountain Boulevard and on City owned property at the southeast corner of the intersection of Lakeview and Iron Mountain Boulevard;
 - d. Within the Boones Ferry Road right-of-way between Twin Fir Road and Spring Lane and:
 - e. On public open-space property located between tax lots 15110 and 15400 (21E-8BA);
 - f. On City owned land at the intersection of Lake Grove Avenue and Upper Drive.
- viii. Foster continued community support for tree protection in the Lake Grove Neighborhood by encouraging City staff to provide prompt and reasonable determination of citizens' tree removal needs.

■ Lake Grove Neighborhood

Summary of Major Issues - Goal 9: Economic Development/Commercial Lands

The Lake Grove Commercial District is a significant and defining part of the neighborhood. Business and residential property owners realize that a positive relationship is essential to further the interests of both. Therefore, the emphasis of the Goal 9: Economic Development/Commercial Lands Chapter is, per its Goal to:

Promote policies and actions which support the viability of the Lake Grove Commercial District and its ability to provide goods and services to area residents and businesses in an innovative manner compatible with the character of surrounding residential neighborhoods.

This goal is proposed to be accomplished by specific actions embodied in the following policies which are intended to ensure future transportation improvements are multi-modal in nature and result in a safe and efficient transit and pedestrian environment. Particularly important to the area businesses and the residential neighborhood is the ability of Boones Ferry Road to provide for safe access to area businesses, while maintaining the character and function of the adjacent local street system. The goal and policies for the Economic Development/Commercial Lands Chapter are also intended to ensure:

- Opportunities for mixed use development (residential/commercial) within the business district;
- That the design quality of the business district is enhanced by enacting specific land use and design regulations;
- Future commercial development protects trees and other natural resources, especially mature Douglas Firs;
- Tree planting and quality landscaping occurs whenever possible, and
- Compatibility is enhanced between the business district and the residential neighborhood through enactment and enforcement of land use regulations which address issues such as outdoor lighting, buffering and screening, and abatement of nuisance situations. In this context, the Neighborhood Plan Steering Committee stressed that it is important not to allow new drive-in or drive-through food service windows.

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It is important to stress that both business and residential representatives on the Steering Committee agreed that it was appropriate to establish a boundary beyond which the Lake Grove Commercial District would not expand into the residential portion of the neighborhood. This Boundary is specifically outlined in Goal 9, Policy 10.

GOAL 9: ECONOMIC DEVELOPMENT/COMMERCIAL LANDS

Promote policies and actions which support the viability of the Lake Grove Commercial District and its ability to provide goods and services to area residents and businesses in an innovative manner compatible with the character of surrounding residential neighborhoods.

POLICIES

- 1. Ensure that future improvements to Boones Ferry Road maintain or improve safe access to area businesses for the automobile, transit, pedestrians and bicyclists, while maintaining the function and character of adjacent neighborhood collectors and local residential streets.
- 2. Minimize the number of driveway access points to Boones Ferry Road through use of wide consolidated driveways of sufficient width to allow simultaneous ingress and egress.
- 3. Provide opportunities for mixed-use development to occur in the Lake Grove Commercial District whereby multi-story buildings would accommodate businesses on the ground floor and residential units above.
- 4. Do not allow new drive-in or drive-through food service windows in the Lake Grove Business District.
- 5. Ensure the design quality of future development in the Lake Grove Commercial District by enacting land use and design regulations which enhance the district's existing built environment and positive design qualities and which also provide the opportunity for a variety of architectural design, and building types and sizes, including variations in setbacks, height, bulk and scale, which are consistent with these characteristics.

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- 6. New commercial development shall protect existing natural resources, including significant vegetation, to the extent possible through implementation of approved protection plans. Significant vegetation which is removed, including trees, and especially mature Douglas Firs, shall be replaced consistent with approved landscape plans. New trees shall be installed whenever possible along streets, pedestrian ways, building setbacks and within public places.
- 7. New commercial and multi-family development shall provide landscape buffering and screening between differing land uses to enhance aesthetic quality and mitigate visual and operational impacts.
- 8. Ensure that the design of new commercial development and required public improvements contribute to the development of a safe and efficient transit and pedestrian environment within the Lake Grove Commercial District.
- 9. Ensure that land use regulations foster compatibility between new and existing commercial and multi-family development and with surrounding residential neighborhoods through measures such as:
 - i. Outdoor lighting controls;
 - ii. Separating noise sources from adjacent noise sensitive uses;
 - iii. Containment and screening of trash collection areas;
 - iv. Utilizing setbacks, buffering and screening to mitigate the visual and operational impacts of outdoor storage areas and other outdoor activities;
 - v. Enforcement of prior conditions of development approval per LOC 48.02.055 48.02.075
- 10. Prevent and abate nuisance situations, such as excess noise, unconfined garbage and light spillover, through enforcement of the nuisance provisions of the Lake Oswego Code (LOC 34.08.000 34.11.599).
- 11. Do not expand the eastern/southeastern boundary of the Lake Grove Commercial District as shown by Figure 23 and generally described as running from the City limits existing at the time of this policy's adoption, beginning at the southeast corner of 16480 Lower Boones Ferry Road (TL 2600-21E7DD) and ending at the southerly right-of-way boundary of Spring Lane, which corresponds to the northern boundary of (TL 300-21E8BA).
- 12. Control and license home businesses within the residential zones of the Lake Grove Neighborhood to ensure they will not increase traffic and noise or disrupt in any other way the livability of the residential area.

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RECOMMENDED ACTION MEASURES

- i. Develop and implement a study of the Lake Grove Commercial District to identify ways in which commercial growth can be accommodated in ways compatible with the surrounding residential neighborhoods and the capacity of the area's transportation systems.
- ii. Work with the Lake Oswego West/Lake Grove Business Association and area neighborhood associations to develop a plan for Boones Ferry Road, which will address:
 - a. Safety and vehicular and pedestrian access to area businesses and adjacent residential neighborhoods;
 - b. Future auto capacity needs of the roadway;
 - c. Enhancement of the pedestrian environment;
 - d. Transit, and;
 - e. Streetscape character and aesthetics.
- iii. Encourage intra-city transit connections between the Lake Grove Commercial District and other business districts and employment centers and with the City's residential neighborhoods.
- iv. Work with area neighborhood associations, property owners, and other interested parties to develop a land use plan for the area on both sides of Boones Ferry Road between Madrona Street and the Railroad Tracks to identity the potential for future high density residential and office commercial land uses.
- v. Metro should work within the policy framework established by the Lake Grove Neighborhood Plan to ensure application of its Main Street concept to the Lake Grove Commercial District is consistent with the Plan's goals and policies.

Summary of Major Issues - Goal 10: Housing/Residential Land Use

The intent of this chapter is to "preserve the livability and aesthetic quality of Lake Grove's residential neighborhoods." The policies developed by Lake Grove Neighborhood Plan Steering Committee propose to accomplish this goal by stating that:

The existing housing stock is to be preserved and low-density single family uses shall be the predominant land use in the neighborhood.

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- Deterioration and/or demolition of existing single family homes on lands zoned for single-family residential uses are not to be used as reasons for plan and zone amendments to commercial or industrial uses or to higher residential densities than allowed by the current zone.
- Design compatibility standards are to be used to ensure all new residential development, including substantial remodeling, contributes to the positive design character of the neighborhood.
- Preservation of the character of existing non-urban local streets is important including, the nongrid street pattern and preservation of trees within rights-of-way and on adjacent property which provide tree canopy and shade.
- Infill development and secondary housing units may be allowed, including flag lots, subject to specific design and development standards to ensure design compatibility.
- An appropriate mix of high-density housing and office commercial land uses should be allowed on both sides of Boones Ferry Road between Madrona Street and the Railroad tracks subject to very specific, design and engineering criteria.

The Goal 10, Housing/Residential Land Use Chapter also addresses issues and problems caused by nuisances, non-compliant home occupations and storage of vehicles, boats and equipment within the public right-of-way. This chapter contains the same policy as in Economic Development/Commercial Lands Chapter, Goal 9 that specifically demarcates the boundary between the commercial and residential portions of the neighborhood.

GOAL 10: HOUSING/RESIDENTIAL LAND USE

Preserve the livability and aesthetic character of Lake Grove's Residential Neighborhoods.

POLICIES

- 1. Ensure that the scale and character of neighborhood collectors and local streets, which provide access to and within Lake Grove's residential neighborhoods are appropriate to the area served. Especially important are:
 - a. Preservation of trees within street rights-of-way and on adjacent properties to provide tree canopy* and shade;

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- b. The non-urban design character of local streets including:
 - i. "Skinny Streets"* where warranted by traffic, safety and access conditions;
 - ii. No curbs, gutters and sidewalks where alternative storm drainage and safe pedestrian movement can be accommodated by pathways* and walkways* and the natural drainage system*, and;
 - iii. Area for adequate on street parking for residents and their guests which can also provide for safe pedestrian travel;
- c. The safety and convenience of pedestrians and bicyclists, and;
- d. Access by emergency vehicles and school buses.
- 2. Ensure that undeveloped street right-of- way*, not needed for the travel surface, remains available for street trees, on-street parking and pedestrian use and is not prevented from being utilized for these and other public uses by private encroachments such as landscape improvements and storage of vehicles, boats and equipment.
- 3. Allow new development on new and existing residential lots* within the Lake Grove Neighborhood subject to specific design and development standards which ensure compatibility of resulting development with neighborhood design character. These standards shall require:
 - a. Flag lots*, excluding the access way, be the same size as required by the existing zone;
 - b. Adequate, but not excessive, vehicular access width to ensure efficient utilization of land;
 - c. Building design standards and orientation, setback, lot coverage, and buffer requirements to ensure design compatibility with existing residences and other surrounding land uses:
 - d. Demonstration that infill development will not preclude future development options on the parent parcel or on adjoining lands;
 - e. Buffering and adequate separation of new buildings from existing residences;
 - f. That any division of land to provide for infill development will result in 80% of the maximum allowed density* allowed on a parcel by the applicable zone designation.

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- 4. Do not allow deterioration and/or demolition of existing single family homes on lands zoned for single-family residential uses as a reason for plan and zone amendments to commercial or industrial uses or to higher residential densities than allowed by the current zone.
- 5. Allow development of an appropriate mix of high-density housing and office commercial uses on lands within the West Lake Grove Design District subject to an adopted land use plan for the area, which ensures that:
 - a. The area proposed for rezoning is comprised of assemblages of property that are large enough to be developed under unified development plans*; allow efficient transportation access and internal circulation and provide for buffering and screening from adjacent residential neighborhoods;
 - b. The size and configuration of the area to be rezoned not compromise the cohesiveness* of adjacent residential neighborhoods;
 - c. Driveway access to Boones Ferry Road be minimized through use of wide consolidated driveways sufficiently wide to allow simultaneous ingress and egress;
 - d. Future development is designed to discourage cut-through traffic* in surrounding residential neighborhoods;
 - e. Traffic generated by future development is directed immediately to Boones Ferry Road by traffic management devices* and street and driveway design;
 - f. New development in the area creates an aesthetic entry* to the Lake Grove Neighborhood which includes site and building design elements, such as:
 - i. A variety of architecturally designed structures of high design quality; in scale with the site; in proportion to similar buildings in the Lake Grove Commercial District and which utilize a pleasing variety of materials, colors, finishes and textures;
 - ii. Conservation of mature Douglas Fir trees* and other significant trees to retain the "landmark" status* imparted by these resources;
 - iii. Orientation of building-entrances to the street and screening and buffering of the subject properties from adjacent residential neighborhoods;

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- iv. High quality, designed landscapes involving plant materials which will grow to significant size and impart seasonal color and interest;
- g. Existing canopy trees are protected to the extent possible.
- 6. Ensure all new residential development, including secondary dwellings* and homes being substantially remodeled* contributes to the positive design character and qualities of Lake Grove's existing residential neighborhoods. This shall be accomplished through the application of design compatibility standards, which include:
 - a. Height, bulk, and lot coverage standards to ensure new residential development does not conflict with the predominant scale and design characteristics of the neighborhood.
 - b. Minimizing the impact of the automobile on the development site through residential design and development standards, which prescribe measures such as garage location, size of paved areas, driveway size and location, etc.
 - c. Appropriate setbacks, buffering and screening between existing and proposed development.
 - d. Preservation of existing mature canopy trees and other significant trees* and other land-scape features* to the extent practicable.
- 7. Prevent and abate nuisance situations* such as excess noise, abandoned or non-operational vehicles, dangerous buildings*, and accumulation of refuse through enforcement of the nuisance provisions of the Lake Oswego Code (LOC 34.08.000 34.11.599).
- 8. Ensure home occupations* do not conduct business activities which cause adverse impacts on residential neighborhoods such as outside storage, excessive traffic, inappropriate hours of operation noise, etc.
- 9. Require those who store boats, recreational vehicles, equipment and automobiles under repair on the street to remove them from the public right-of-way through enforcement of Lake Oswego Uniform Traffic Code (LOC Chapter 32).
- 10. Maintain the non-grid street pattern in the Lake Grove Neighborhood to preserve the peaceful and quiet feel of the neighborhood.
- 11. Do not expand the eastern/southeastern boundary of the Lake Grove Commercial District as shown by Figure 23 and generally described as running from the City limits existing at the time

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of this policy's adoption, beginning at the southeast corner of 16480 Lower Boones Ferry Road (TL 2600-21E7DD) and ending at the southerly right-of-way boundary of Spring Lane, which corresponds to the northern boundary of (TL 300-21E8BA).

12. Allow secondary dwelling units only when one unit is owner occupied.

RECOMMENDED ACTION MEASURES

- i. Identify and correct intersections and streets which restrict access by emergency vehicles and school buses.
- ii. Encourage the upgrading and remodeling of existing residential structures rather than demolition and new construction.
- iii. Encourage owners who store recreational vehicles, construction equipment and non-operational automobiles in front yards to relocate them away from public view.
- iv. Encourage those who propose to construct two story homes and larger to meet with neighbor-hood residents prior to acquisition of building permits to promote compatibility in terms of building design and scale with surrounding homes.
- v. Promote public safety and a sense of visual and social connection throughout the neighborhood by:
 - a. Discouraging the planting of hedges and other plant materials which substantially screens residences from view, and
 - b. Encouraging property owners to cutback overgrown vegetation*.
- vi. Where appropriate on local streets allow alternative surface treatments and design for sidewalks*, pathways* and walkways* such as gravel or other permeable, non-paved surfaces.
- vii. Strongly encourage voluntarily protection of the neighborhood's mature tree canopy and other significant trees through property owner participation in a "Heritage Tree Program".
- viii. Correct intersection sight-distance problems* on local residential streets as soon as they become apparent.

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Summary of Major Issues - Goal 11: Public Facilities and Services Police and Fire Protection, Surface Water Management, Water Treatment and Delivery, Sanitary Sewer, Private Utilities and Schools

The Neighborhood Plan's Goal 11: Public Facilities and Services Chapter recognizes that the City of Lake Oswego Comprehensive Plan contains numerous policies which are applicable to the community as a whole. In view that the City wide Plan is generally sufficient, this element of the Neighborhood Plan was developed to apply to the Lake Grove Neighborhood's specific conditions, character and needs. The Plan Chapter addresses Police and Fire Protection, Storm Water and Surface Water Management, Water Treatment and Delivery, and Private Utilities and Schools. The common emphasis of the Goals and Policies is to ensure that the Lake Grove Neighborhood is provided with high quality, responsive and environmentally sound public facilities and services.

The Plan Chapter lists, and proposes implementation of specific projects derived from the City's Public Facility and Capital Improvement Plans. It also proposes other projects identified by the neighborhood. Most significant of these specific neighborhood projects is localized flooding caused by an inadequate storm drainage system.

The City of Lake Oswego Comprehensive Plan contains numerous policies in the Goal 11: Public Facilities and Services Chapter, which apply to the Lake Grove Neighborhood and the rest of the Community. The following policies have been developed to be specific to Lake Grove neighborhood's specific conditions, character and needs. They are intended to be supportive and complementary to the other Comprehensive Plan policies, which apply citywide.

The Lake Grove Neighborhood has identified a range of specific public facility issues and projects that pertain specifically to the neighborhood. These are summarized in the attached, "Lake Grove Neighborhood - Public Facility Projects and shown on Figure 24." These specific projects are subject to periodic review and revision when the City's Public Facility Plan* and Capital Improvement Plan* are updated.

GOALS, POLICIES AND RECOMMENDED ACTION MEASURES - GOAL 11: PUBLIC FACILITIES AND SERVICES

GOAL: POLICE AND FIRE PROTECTION

Provide Lake Grove neighborhood residents and businesses a high level* of police, fire protection and emergency preparedness services.

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GOAL: STORM WATER AND SURFACE WATER MANAGEMENT

In the Lake Grove Neighborhood, reduce, and where possible eliminate, flooding, soil erosion, standing water in the public right-of-way, and water pollution associated with storm water runoff.

POLICIES

- 1. Implement the drainage, pollutant reduction and stream rehabilitation projects identified in the Lake Oswego Public Facility Plan (PFP), Capital Improvement Plan (CIP), and other projects identified by the neighborhood, to address local drainage and water pollution issues.
- 2. Reduce the accumulation of sediments in Lake Grove Neighborhood's stream corridors and wetlands through an aggressive catch basin cleaning and street-sweeping program.
- 3. Ensure pathways, road repair and construction projects do not contribute to localized flooding by maintaining positive drainage and concurrently constructing required drainage facilities.

GOAL: WATER TREAMENT AND DELIVERY

Ensure Lake Grove neighborhood residents and businesses receive a reliable and adequate supply of high quality domestic water to meet consumption and fire flow requirements.

POLICIES

- 1. Implement the pipeline, water treatment and storage improvements identified in the Lake Oswego Public Facilities Plan (PFP) and Capital Improvement Program (CIP) and other projects identified by the neighborhood, necessary to ensure a reliable and adequate supply of water to Lake Grove Neighborhood residents and businesses.
- 2. Ensure that future construction or repair of water transmission lines in the Lake Grove Neighborhood minimizes the impact on developed property and utilizes the public right-of-way whenever possible.

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GOAL: SANITARY SEWER

Ensure Lake Grove Neighborhood residents and businesses, which are within the City limits, receive environmentally safe and reliable sanitary sewer service.

POLICIES

- 1. Implement the sanitary sewer improvements identified in the Lake Oswego Public Facilities Plan (PFP) and Capital Improvements Program (CIP) necessary to ensure maintenance of a reliable and environmentally sound sanitary sewer system in the Lake Grove Neighborhood.
- 2. Ensure that future construction of sanitary sewer lines in the Lake Grove Neighborhood minimizes impact on developed property and utilizes the public right-of-way whenever possible.

GOAL: PRIVATE UTILITIES AND SCHOOLS

Ensure private utilities provide reliable, high quality service to Lake Grove neighborhood and that neighborhood families are assured of close-to-home educational opportunities for their children.

POLICIES

- 1. Require underground utilities, where practical, throughout the neighborhood as public improvements are planned and implemented.
- 2. Enhance the reliability and quality of electrical and communication services to the neighborhood by working directly with utility companies, the City and Public Utility Commission.

RECOMMENDED ACTION MEASURES

i. Encourage the City of Lake Oswego to work with other jurisdictions to promote legislation, which would allow the collection of System Development Charges (SDCs) for school facilities.

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- ii. Work with the City and the School district to ensure safe access to public schools through the construction of pathways, traffic-controlled crosswalks, safe bus waiting areas and planning and implementation of logical bus routes.
- iii. Encourage the Lake Oswego School District to accommodate students within their elementary school attendance boundaries.
- iv. Work with utility providers to ensure that they have adequate emergency preparedness and response plans.
- v. Encourage the City of Lake Oswego to work with utility companies during franchise negotiations to develop a plan to underground utilities in the Lake Grove Neighborhood.
- vi. Encourage the responsible public power company to properly maintain and repair streetlights.

LAKE GROVE NEIGHBORHOOD PUBLIC FACILITY PROJECTS

The following public facility projects are identified within the City's 20-Year Public Facility Plan (PFP) and Five-Year Capital Improvement Program (CIP). In addition, the Lake Grove Neighborhood has identified specific projects, which it desires to see addressed. The funded CIP projects are priority projects, which are intended to be implemented over a five-year period. PFP projects, which have not been included in the CIP, are proposed to be implemented over a longer time frame – up to twenty years. Neighborhoods have an ongoing opportunity to influence the type and timing of public facility projects proposed in their neighborhoods by participating in the CIP and PFP updates. Update of the CIP corresponds to the budget process, and includes several opportunities for neighborhood involvement at public meetings and at Planning Commission and City Council public hearings.

SANITARY SEWER

PFP Project SS-1 - East Mountain Park Drainage Basin Flow Monitoring

A substantial portion of the Lake Grove Neighborhood is within this sewer drainage basin. The sewer system in this area is relatively old compared to other parts of Lake Oswego. It is important to monitor the system's condition and undertake needed repairs prior to problems developing. When repairs become necessary, they usually consist of line and manhole rehabilitation, reconnections of service laterals, elimination of cross-connections between sanitary sewers and the surface water system with the objective of reducing infiltration and inflow* problems.

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If actual sewer line rehabilitation is needed in this area, it will be scheduled as part of the CIP update. No cost has been assigned since this is an on-going and budgeted maintenance function.

PFP Projects SS-2 - East Mountain Park Sanitary Sewer Trunk Upgrade

The portion of this project within the Lake Grove Neighborhood is located within public easements between Boones Way and Boones Ferry Road north of Red Cedar Way; at the east end of Brookside Road and, within Lakeview Boulevard and Springbrook Court.

The City of Lake Oswego Sewer Utility Model has indicated the need for continuing monitoring of this interceptor line because it may be too small for projected flows. Flow monitoring will continue to evaluate the situation and determine if and when actual problems may occur. Excessive flows can lead to premature pipe and joint wear and manhole surcharging. The City's continued infiltration and inflow (I&I)* projects are one way to substantial reduce the flows entering this line. If the I&I program is successful upgrade of the sanitary sewer line may not be necessary. If reduction in I&I does not occur to satisfactory levels it may be necessary to replace existing sewer mains with larger diameter pipe.

This project was scheduled in the CIP for 1997 and 1998 and has been put on hold to determine its actual need as described above. Its estimated 1997 cost was \$236,000.

PFP Project SS -3 and SS-4 -Upper Drive Sanitary Sewer Extension

This project proposed to extend sewers outside the City limits within the Lake Grove Neighborhood to about 37 properties within both the City limits and unincorporated Urban Services Boundary which are currently served by septic tanks. These properties are located generally between Bryant Drive and Boones Ferry Road.

Many septic tanks and drain-fields in this area may be beyond their viable design life and there may not be adequate replacement area on existing lots. The project would have been initially been funded by the City Sewer Extension Program*. Connection to sewer would have occurred as septic tank systems failed or on a voluntary basis. The cost would have been about \$10,250 dollars per dwelling unit equivalent. In this instance, because the cost for connection is based on a citywide average it is less than if the sewer was extended without the benefit of the City's participation. However, a majority of residents expressed their opposition to project because it would bring the prospect of new development to the area and in their view change the neighborhood character. Furthermore, these properties would be required to annex to the City prior to the receipt of sewer. Due to opposition to the project the City has decided not proceed with funding it in the near future.

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This project was originally identified in the CIP for implementation in 1999/2000 and would have cost about \$310,000.

STORM WATER AND SURFACE WATER MANGEMENT

Localized Flooding and Standing Water in the Public Right of Way

The Lake Grove Neighborhood has identified a number of localized flooding problems which represent potential damage and safety problems and are inconvenient for neighborhood residents. These are also identified on Figure 25 and are summarized below.

Standing water is problem on the length of Sunset Drive between Reese and Bryant Roads and on Upper Drive between Bryant and Boones Ferry Road. In addition, standing water also tends to occur at the following locations throughout the neighborhood:

- > 3200 Upper Drive;
- ➤ 3565 Upper Drive;
- ➤ At the stop sign at the corner of Lanewood and Douglas Circle;
- > 15867 Twin Fir Road:
- ➤ 3718 Lake Grove Avenue:
- ➤ 4839 Upper Drive;
- > 16112 and 16251 Reese Road:
- > 16054 Reese Road, and
- > At the intersection of Reese Road and Upper Drive.
- > 3200 Upper Drive, and
- > 3355 Upper Drive

The above localized flooding problems are candidates for the CIP "Small Works" projects. These are minor projects, which are less than \$25,000 in cost and include construction of catch basins, manholes and short reaches of storm drainage pipe. These projects are typically constructed with larger utility projects or several smaller projects are constructed as part of one construction contract.

PFP Project SW 1 – Bryant/Lakeview Storm Drainage Improvements

This project proposes to replace and relocate existing undersized storm lines with much larger, 21 inch diameter pipe, beginning at Bryant Road and the railroad crossing to about 420 feet south. It will reduce flooding and resultant property damage. It will also provide the City with access for line cleaning and other maintenance tasks. This project is also identified in the CIP for implementation in 1999/2000 and is anticipated cost is \$93,000.

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PFP projects SW2, SW 3: Springbrook Creek Crossings at Twin Fir (upper and lower crossings) and at Brookside

These projects will protect existing infrastructure and reduce flooding damage to adjacent properties. Although, flooding does not occur on an annual basis, the drainage system at these locations is undersized. Significant flooding does occur during large infrequent storms. The project will replace existing undersized culvert pipe with box culverts. It is scheduled for 1998 and is projected to cost \$393,000.

PFP Project SW 4: Culvert inlet replacement in the vicinity of Mercantile Drive and Kruse Way and replacement of culvert across Boones Ferry Road to Springbrook Creek

This project originated as part of the City's Surface Water Management Plan and proposes to increase the capacity of culverts which cross Kruse Way and Mercantile Drive to the Mercantile detention basin. It also proposes to install a new, larger culvert under Boones Ferry Road, which discharges into Springbrook Creek. The necessity for the project has yet to be determined and will depend on surface water flow monitoring. It is anticipated that little development will occur upstream and that today's flows, which are adequately handled by the existing system, will not increase substantially. The need for this project will continue to be monitored.

WATER

PFP Project WA 1 Seismic Retrofit of Existing and Finished Water Transmission Lines

This project is proposed Citywide to install isolation valves on major water transmission lines to allow water to be turned off in the event of an earthquake. It is scheduled in the CIP for 2000/2001 and is budgeted for \$400,000.

PFP Project WA2 - New Finished Water Main to Waluga Reservoir

This is a long term project intended to construct a new finished water main to the Waluga Reservoir when and if the City Water Treatment Plan is expanded. Within the Lake Grove Neighborhood it is identified to follow Iron Mountain Boulevard and connect to Brookside and follow Red Cedar Way to Douglas Way. The need for this project will continue to be monitored.

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PFP Project WA3 - Waluga Reservoir Seismic Retrofit

This is a long-term project, which would retrofit the Waluga Reservoir for earthquake protection. The project is significant for the Lake Grove neighborhood is within the Waluga Reservoir pressure zone.*

Summary of Major Issues - Goal 12: Transportation

The Lake Grove Neighborhood Plan Transportation Goals and Policies emphasize that the neighborhood's transportation system is an integral element of the character and design quality of the neighborhood. The direction of the chapter is to:

- Improve safety of all transportation modes;
- * Maintain the aesthetic quality, privacy and quiet of residential areas;
- Provide for adequate traffic movement and access within residential and business areas appropriate to the aesthetic character, transportation, and safety needs of each area, and;
- Provide practicable pedestrian, transit, parking and bicycling opportunities.

The Plan's goal and policies propose to maintain the small-scale "country lane" character of the Lake Grove neighborhood's local residential streets and neighborhood collectors and ensure that improvements to the major street system accommodate through traffic to prevent its diversion onto the local system. The Neighborhood Plan Steering Committee was also very specific that traffic management devices were appropriate to prevent speeding and cut-through traffic on local streets. On local streets, the Steering Committee desires to:

- Utilize flexible design standards and innovative surface water management solutions to ensure pavement width and street design is appropriate for the function of the street and needs of the area served;
- Not require the dedication of unnecessary right-of-way or construction of standard full width, curbed and guttered urban streets as a condition of residential development approval; and
- Ensure the opportunity for safe on-street public parking on graveled shoulders.

The Plan also proposes standards for bicycle and pedestrian facilities in the neighborhood by stating that walking and biking should be accommodated on at least one side of all neighborhood collectors and selected local streets and on both sides of arterial and collectors. Furthermore it stressed that greater access to transit services is necessary. In particular, the neighborhood seeks to realize the potential of commuter rail. However, the plan policy in this regard seeks to reinforce the positive and mitigate the potential negative impacts of future rail travel though the neighborhood.

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The ability of Boones Ferry Road to accommodate future traffic and provide needed access to area businesses is an important element of this Plan Chapter. Recommended Action Measures stress the need to develop a specific transportation study for the Commercial District focusing on Boones Ferry Road and affected local streets. Also, the RAMs support greater transit access and improved facilities on Boones Ferry Road; a Lake Grove Neighborhood Transportation Management Association; coordination of transportation issues with other nearby Metro designated Regional and Town Centers, and development of a parking strategy for the Lake Grove Commercial District.

GOAL, POLICIES AND RECOMMENDED ACTION MEASURES

GOAL 12: TRANSPORTATION

Ensure that the transportation system in the Lake Grove Neighborhood enhances neighborhood character and quality by:

- a. Improving safety of all transportation modes;
- b. Maintaining the aesthetic quality, privacy and quiet of residential areas;
- c. Providing for adequate traffic movement and access within residential and business areas appropriate to the aesthetic character, transportation, and safety needs of each area, and;
- d. Providing practicable pedestrian, transit, parking and bicycling opportunities.

POLICIES

- 1. Maintain the small scale "country lane" character of Lake Grove Neighborhood's local residential streets and neighborhood collectors by:
 - a. Utilizing flexible design standards and innovative surface water management solutions to ensure pavement width and street design is appropriate for the function of the street and needs of the area served.
 - b. Not requiring the dedication of unnecessary right-of-way or construction of standard full width, curbed and guttered urban streets as a condition of residential development approval.
 - c. Ensuring the opportunity for safe on-street public parking on graveled shoulders.
- 2. Where appropriate, utilize traffic management devices to prevent speeding and discourage cutthrough traffic on local residential streets and neighborhood collectors.

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- 3. Construct improvements on Bryant Road, Boones Ferry Road and Kruse Way to ensure their ability to function as major streets and to prevent traffic diversion onto neighborhood collectors and local residential streets.
- 4. Do not widen Boones Ferry Road for automobile travel lanes or related improvements which would have negative impacts on adjacent commercial land uses such as removal of buildings, pedestrian facilities or parking. Future transportation improvements shall be executed as part of a comprehensive transportation study of Boones Ferry Road to balance automobile access with the need to maintain existing land use patterns and develop a comfortable and safe pedestrian shopping environment.
- 5. Ensure the ability to walk and bike safely throughout the neighborhood by providing, where practicable, bicycle and pedestrian facilities:
 - a. On, at the minimum, one side of all neighborhood collectors and other selected local streets, and:
 - b. On both sides of major streets (arterials and major collectors).
- 6. Provide neighborhood residents, business owners, employees and customers greater access to public transit service.
- 7. Reinforce the positive and mitigate the potentially negative impacts of the future use of the existing railroad right-of-way (old Red Electric Railroad) as a commuter rail facility on the Lake Grove Neighborhood, including but not limited to:
 - a. Providing access opportunities, such as station stops and park and rides in locations and in a manner which would be compatible with residential neighborhoods and accessible to businesses;
 - b. Developing the railroad right-of-way in a manner which ensures the safe and efficient operation of commuter rail but which also contributes to the aesthetic and visual quality of the neighborhood;
 - c. Developing the railroad right-of-way in a manner which ensures the safe and efficient operation of commuter rail but which also contributes to the aesthetic and visual quality of the neighborhood; and
 - d. Ensuring rail operation is compatible with safe and efficient traffic operations on all City streets.
- 8. Where practicable require that new development develop shared access to Boones Ferry Road through use of wide consolidated driveways of sufficient width to allow simultaneous ingress and egress and shared parking facilities.

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RECOMMENDED ACTION MEASURES

- i. Work with Tri-Met to provide neighborhood residents, business owners, employees and customers greater access to transit service by:
 - a. Instituting flexible routes and provide local circulator service to residential areas;
 - b. Providing frequent transit service to and from the Lake Grove Commercial District, Downtown Lake Oswego and Kruse Way Employment Centers;
 - c. Increasing frequency of fixed Bus Routes along Boones Ferry Road; and;
 - d. Improving the comfort and safety of transit waiting areas.
- ii. Develop, within two years of the Neighborhood Plan's adoption, a detailed, project and area specific, transportation study for the Lake Grove Commercial District to identify future projects and programs necessary to address the full range of current and future transportation issues.
- iii. Support the development of a Transportation Management Association (TMA) among Lake Grove area businesses to encourage measures to reduce single occupant automobile use such as:
 - a. Subsidization of transit options such as local circulator buses;
 - b. Car and van-pools for employees; and
 - c. Incentives for employees and customers who utilize alternative transit options.
- iv. Ensure discussion of transportation issues involves other Regional Centers, Town Centers and Employment Centers that have direct transportation connections with the Lake Grove Commercial District such as Downtown Tualatin, Tigard, Washington Square, Kruse Way and Downtown Lake Oswego.
- v. Develop site specific solutions to ensure safe and comfortable bike and pedestrian use of the entire length of Boones Ferry Road.
- vi. Work with area public schools and churches to minimize parking impacts on neighborhood streets.
- vii. Develop a parking strategy for the Lake Grove Commercial District to:
 - 1. Ensure safe customer access to area businesses;
 - 2. Maximize the efficiency of lands available for parking; and

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- 3. Minimize impacts on residential neighborhoods through measures which include but are not limited to:
 - A. Restriction of parking on Lanewood Street from Boones Ferry Road to Douglas Circle; and
 - B. Restriction of parking on Reese Road, on its west side, from Boones Ferry Road to Upper Drive.

LAKE GROVE NEIGHBORHOOD PLAN DEFINITIONS

Terms and phrases which are marked by an asterisk *in the above text are defined below

300 Foot Notification Boundary: This term refers to owners of property who are provided notice pursuant to LOC 49.40.805 and 49.44.920 prior to decision on major or minor development applications. Owners of property within 300 feet of the entire contiguous site for which the application is made receive notice. The property owner list is be compiled from the most recent property tax assessment roll. Notice shall also be sent to any recognized neighborhood association whose boundaries include the site. The Planning Director shall certify that such notice was given.

Aesthetic Entry (to the Lake Grove Neighborhood): For the purpose of implementing LGNP Goal 10, Policy 6 (f), this term refers to the requirement to continue an attractive and visually interesting transition sequence from the City of Tualatin to the City of Lake Oswego and continue and expand upon the design requirements of the Boones Ferry Jean Road Site, [LOC 48.10.315 (13) and the Jean Way Site [LOC 48.10.315] (14). The development of an aesthetic entry to the Lake Grove Neighborhood shall include:

The development of a variety of architecturally designed structures of high design quality; in scale with the site; in proportion to similar buildings in the Lake Grove Commercial District and which utilize a pleasing variety of materials, colors, finishes and textures;

- a. Conservation of mature Douglas Fir trees and other significant trees to retain the "landmark" status* imparted by these resources;
- b. Orientation of building-entrances to the street and screening and buffering of the subject properties from adjacent residential neighborhoods
- c. High quality, professionally designed landscapes involving plant materials which will grow to significant size and impart seasonal color and interest;
- d. Preservation of existing canopy trees are protected to the extent possible, and
- e. Other special site and building design consideration such as undergrounding of utilities, special signage requirements, special setbacks to Boones Ferry Road, etc.

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Capital Improvement Plan (CIP): The City of Lake Oswego's Capital Improvement Plan (CIP) is a five-year planning programming, and financing plan for protecting the City's investment in its infrastructure and for constructing new facilities to meet increased service demands. Each year, Lake Oswego's CIP is updated and presents a prioritized schedule of major public improvements that will be implemented within a five year period and their possible sources of funding.

City Sewer Extension Program: This program has been established by City Ordinance (Ord. 2010) and incorporated into LOC Chapter 40, Improvement Procedure. It is intended to facilitate the extension of sanitary sewer service to the unsewered areas of the City limits and unincorporated Urban Service Boundary. The program allows the City to coordinate street overlays with the extension of sanitary sewer service; construct projects that serve an entire area and avoid piecemeal construction, and extend service to areas with failing septic systems.

Under this program, the City provides the initial funding for extension of the main sewer line. Connection to the sanitary sewer system is required when a property owner's septic system failed or at the owners request. The City recovers its initial cost by imposing a line charge to property owners at the time of connection. This cost is determined by the number of connections possible for the property.

Closest fifty property owners (for notification purposes): The intent of the Lake Grove Neighborhood Plan, Goal 1, Policy 3 is to provide for fifty property owners to receive notice of development applications which propose minor or major developments. When less than fifty persons are contained within the required 300 foot notification area as defined below, the closest property owners from the subject property shall receive notice until the sum of those to be notified equals fifty.

Cohesiveness (of residential neighborhoods): This term, for the purpose of implementing LGNP Goal 10, Policy 6 (b), is defined as the physical continuity of residential land uses unbroken by intervening commercial land uses or major streets (major collectors, and arterials).

Cohesive Quality of Tree Groves: For, the purpose of implementing LGNP Goal 5: Policy 3(b) this term is defined as the closely contiguous and often-times interweaved tree canopy which forms a visual and biological unit pursuant to the definition of "tree grove" below. A cohesive tree grove also serves to protect individual trees within said grove from storm damage by virtue of its ability to withstand high winds more so than individual trees.

Conservation Easements: The granting of conservation easements is made possible by LOC Chapter 59 which establishes a process to encourage the voluntary retention and protection of the natural, scenic and open space values of the community by private property owners through donation or dedication of easements to the City or other non-profit or governmental organization whose purpose is to protect these resources.

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County Planning Organizations (CPOs): County Planning Organizations (CPOs) are comparable to the City of Lake Oswego Neighborhood Association and are chartered by Clackamas County. There are three CPOs in the Lake Oswego Urban Services Boundary and adjacent to the City limits. They are the Rosewood, Forest Highlands, and Rural Lake Grove CPOs. The Rural Lake Grove CPO shares a boundary with the Lake Grove Neighborhood Association.

Cut-Through Traffic: Cut-through traffic is through traffic or auto trips, which have neither trip end nor beginning within the neighborhood association boundary. Pursuant to Lake Oswego Comprehensive Plan, Goal 12, Sub-Goal 1, cut-through traffic is discouraged on residential streets and neighborhood collectors.

Dangerous and Unsafe Buildings: These are buildings or structures that regulated pursuant to the City of Lake Oswego Building Code [LOC Chapter 45] which are structurally unsafe or not provided with adequate egress, or which constitute a fire hazard or are otherwise dangerous to human life. The Building Code pursuant to LOC 45.09.060 declares any use of these structures which constitute a hazard to safety, health, or public welfare by reason of inadequate maintenance, dilapidation, obsolescence, fire hazard, disaster damage or abandonment as an unsafe use. Also declared unsafe are parapet walls, cornices, spires, towers, tanks, statuary and other appendages or structural members which are supported by, attached to, or part of a building and which are in a deteriorated condition or otherwise unable to sustain design loads specified in the lake Oswego Building Code. Dangerous and Unsafe Buildings may be abated by the City of Lake Oswego.

Flag Lots: A flag lot is a lot located behind another lot that has normal street frontage and where access is provided to the rear lot via a narrow "flag pole" (i.e. driveway), or where access is provided via an easement. There are two distinct parts of a flag lot; the flag, which comprises the actual building site, located behind another lot, and the pole, which, provides access from the street to the flag. A flag lot results from the division of a large lot with the required area and depth for two lots, but which has insufficient width to locate both lots on the street frontage. The creation of flag lots are subject to specific criteria within LOC 48.19 to enhance compatibility with the surrounding residential neighborhood.

Goal 5 ESEE Natural Resources Inventory: The Economic, Social, Environmental and Energy Analysis (ESEE) is defined by LOC 48.02.015 and is required pursuant to Statewide Planning Goal to regulate natural resources with the purpose of ensuring their protection. The purpose of the ESEE analysis is to balance the relative value of an inventoried natural resource against conflicting uses and thereby determine an appropriate level of protection through land use regulations. The ESSE Analysis forms the factual basis for the Lake Oswego Sensitive Lands Program (LOC Article 48.17) and was used initially to designate properties for protection. The City's ESEE Analysis is available as the Lake Oswego Resource Areas Report and ESEE Analysis, dated April 1, 1997, as revised July 15, 1997.

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Heritage Tree Protection Program: The Heritage Tree refers to City Ordinance No. 2159 which is intended to recognize, foster appreciation of and provide for the voluntary protection of "Heritage Trees." A Heritage Tree(s) is a tree or stand of trees stand of trees of landmark importance due to age, size, species, horticultural quality or historic importance.

High level of police, fire protection and emergency preparedness services: For the purposes of the LGNP, this term is described as:

- a. The ability of the Lake Oswego Fire Department to reach the location of fire alarms within the City within eight minutes or less, and;
- b. The ability of the Police Department to reach the location of emergency calls for protection of life and property within a maximum time of five minutes.

Home Occupations: home occupations are defined by LOC 49.02.015 as a lawful use conducted in a residential zoning or on the premises of a dwelling unit, said use being secondary to the use of the dwelling for dwelling purposes. Home occupations are regulated by LOC 48.20.545, which states: A home occupation may be conducted where allowed by other provisions of this chapter if the following conditions are continuously complied with:

- a. The use does not alter the residential character of the neighborhood nor infringe upon the right of residents in the vicinity to the peaceful enjoyment of the neighborhood.
- b. A current and valid business license is maintained.
- c. No employees other than family members who reside at the dwelling.
- d. No outside storage of goods or materials other than vegetation.
- e. No more than 25% of the dwelling is devoted to non-residential use. (Ord. No. 1851, Sec. 1; 11-16-82.)

Hydrologic Characteristics: Physical features that affect stream flow capacity, rates of channel erosion and patterns of sedimentation including but not limited to stream alignment, cross section and profile, roughness or channel and banks and drainage patterns.

Infiltration and Inflow (I &I): This term is used to describe extraneous components of wastewater flow. Infiltration occurs when groundwater leaks into the sanitary sewer through defects such as cracked or broken pipes, poor joints or dilapidated manholes. Inflow occurs when storm runoff flows directly into the sanitary sewer system at storm sewer cross connections, roof and foundation drains, catchbasins and faulty or submerged manholes.

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Invasive Vegetation: This term is defined by the Lake Oswego Development Code, LOC 48, as vegetation that displaces or dominates the natural plant communities such as Himalayan blackberry English ivy, reed canary grass, scotch broom, etc. A list of such plants is maintained on file at the Lake Oswego Department of Planning and Development.

Lake Oswego Neighborhood Association Coalition (LONAC): LONAC is an organization composed of representatives of the Lake Oswego's Neighborhoods not charted by the City which serves as a forum to discuss and represent the common interests of the community.

Landmark Status (pertains to mature trees especially Douglas Firs): The landmark status of mature Douglas Fir trees refers to their visual preeminence within the landscape and their contribution to the identity and aesthetic quality of the neighborhood. These trees represent significant landmarks because they contribute to a sense of special identity and character.

Mature Douglas Fir Trees: These are trees that have obtained a height of 70 feet.

80% of Maximum Allowed Density: 80 % of maximum allowed density is established requires development of the number of allowed residential units to be at least 80% of the "net density" allowed by the underlying zone.

Minor and Major Development: Minor Development is defined by Section 49.20.110 of the Lake Oswego Development Code and is a development, which requires a permit from the City that requires a more discretionary level of review than a ministerial decision which is defined in LOC 49.20.105. Minor Developments are initially decided by the Planning Director subject to notice, the opportunity to request a hearing and appeal as provided by LOC 49.40.800 to LOC 49.40.820. Minor development is also intended to include decisions defined as "limited land use decisions" pursuant to ORS 197.020 (12).

Minor Development includes:

- 1. Construction of new single family detached dwellings, zero lot line or duplex dwellings or accessory structures or exterior remodeling of a structure containing a non-conforming use that requires a building permit, in the DD (Design District) zone.
- 2. Construction or exterior modification of a single-family structure or a structure accessory to a single family use which:
 - a. Does not qualify as a ministerial decision pursuant to LOC (49.20.105(2)(b)(I) through (xi);
 - b. Requires one or more Class 1 Zoning Code or Class I Development Code variances; or

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- c. Involves a determination by the Planning Director that a use not expressly permitted in the zone may be allowed pursuant to the considerations contained in LOC 48.02.095. In such case, the required notice shall include a description of the proposed use and the reasons for the Planning Director's determination.
- d. Involves an improvement to an existing park or school facility that will increase the capacity of the park or school facility, generate additional traffic, or generate significant additional noise or other negative impact on the surrounding neighborhood.
- 3. Secondary dwelling units.
- 4. Construction of a structure other than a single family dwelling or accessory structure, or an exterior modification of such a structure which does not qualify as a ministerial development pursuant to LOC 49.20.105(2)(c).
- 5. Lot line adjustments which require one or more Class 1 Zoning Code or Class I Development Code Variances or which would increase allowable density on the site.
- 6. Partitions, including partitions which require one or more Class 1 Zoning Code or Class I Development Code Variances.
- 7. Subdivisions, including subdivisions which require one or more Class 1 Zoning Code or Class I Development Code Variances.
- 8. Review of development phases subject to an Overall Development Plan and Schedule (ODPS).
- 9. A change of use from one permitted use to another that requires additional parking pursuant to LODS Chapter (7).

Major Development includes:

- 1. A Major Development is a development, which requires a permit from the City involving the greatest level of review.
- 2. "Major Development" includes:
 - a. Construction or exterior modification of a permitted use, a permitted accessory structure or an prior approved conditional use in the zone in which the property is located which requires one or more Class 2 Zoning Code or Class II Development Code variances.

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- b. Lot line adjustments which require one or more Class 2 Zoning Code or Class II Development Code Variances.
- c. Partitions which require one or more Class 2 Zoning Code or Class II Development Code Variances.
- d. Subdivisions which require one or more Class 2 Zoning Code or Class II Development Code Variances.
- e. Conditional uses.
- f. Planned Developments (PD).
- g. Any development defined as major development pursuant to this section, which is proposed to be phased pursuant to adoption of an Overall Development Plan and Schedule (ODPS).
- h. Any development which requires a Comprehensive Plan or Development or Zoning Code map or text amendment.
- 3. A Major Development is subject to public notice, hearing and opportunity for appeal as described in LOC 49.44 to 49.46. (Ord. No. 2088, Enacted, 03/03/94).

Natural Drainage System: This term refers to the open and vegetated drainage channels and the surface water treatment facilities which comprises the great majority of Lake Oswego's storm water conveyance system.

Natural Resource Functions and Values: For the purpose of implementing LGNP Goal 5, Policy 5, natural resource functions and values are defined in LOC 48.02.015 as the benefits provided by natural resources. The benefits may be physical, environmental, aesthetic, scenic, educational, or some other non-physical function or a combination of these. For example, the functions and values of a wetland can include its ability to provide storm water detention for "x" units of water draining "y" acres and its ability to provide food and shelter for "z" varieties of migrating waterfowl. In addition, an unusual native species of plant and a natural resource area could be of educational, heritage or scientific value. Most natural resources have multiple functions and values. For example Stream Corridors, Tree Groves and wetlands share some or all of the following beneficial characteristics:

- a. Wildlife and plant habitat protection
- b. Protection of sensitive, threatened or endangered species
- c. Erosion control
- d. Flood and storm water storage
- e. Water quality enhancement
- f. Ground water recharge
- g. Open space, passive recreation, and visual enjoyment
- h. Cultural, social, educational and research values.

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New Development: For the purpose of implementing LGNP, Policy 4, "new development" is intended to include the following:

- a. Construction of new single-family home or installation of a manufactured approved through a ministerial process per LOC 49.22.210;
- b. Construction of a new street or major repair or improvement to an existing street;
- c. Construction or alteration of any public or private utility that visually impacts and/or removes existing vegetation;
- d. Construction of new parking lots or expansion of parking lots by more than four spaces;
- e. Site development and construction of any new land use approved either through the minor or major development process per LOC 49.20.110, Minor Development and 49.20.115, Major Development.

New and Existing Residential Lots: For the purposes of implementing LGNP, Goal 10, Policy 4, new and existing residential lots are defined as:

- a. Vacant existing lots of record and lots created by partition or subdivision;
- b. Flag lots as defined above, and;
- c. Vacant lots within residential zones created by the demolition of existing structures.

Nuisance Situations: Nuisances are broadly defined as anything which interferes with, annoys or disturbs the free use of one's property or which renders its ordinary use or physical occupation uncomfortable. This definition extends to everything that endangers life or health, gives offense to the senses, violates the laws of decency, or obstructs the reasonable and comfortable use of property. Nuisances also refer to wrongs arising from an unreasonable or unlawful use of property to the discomfort, annoyance, inconvenience or damage of another. This usually involves continuous or recurrent acts.

A public nuisance is further defined by LOC 34.08.400 as:

- a. Any condition or use of property which causes or tends to cause detriment or injury to the public health, safety, welfare;
- b. Any condition specified in LOC 34.10.500 to 34.12.600; or
- c. Any condition defined as a nuisance by any Lake Oswego Code provision. (Ord. No 1856, Sec. 1; 12-28-82.)

Obviously Dead Trees: Pursuant to LOC Chapter 55 a dead tree is one which is "lifeless." For the purposes of LGN Plan Goal 5, Policy 3 an obviously dead tree is one which visually exhibits lifeless characteristics such as a complete lack of viable foliage and buds, brittle and dead wood, and no reasonable prognosis of recovery.

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Obvious Immediate Hazard: Pursuant to LOC Chapter 55, and for the purposes of LGN Plan (Goal 5, Policy 3(a)) trees which pose an obvious immediate hazard are ones which clearly present a public safety hazard or a foreseeable danger of property damage to an existing structure and such a hazard or danger cannot be reasonably alleviated by treatment or pruning.

Open Space Reserve Area: This term as used by LGN Plan Goal 5, Policy 2, refers to the City's requirement pursuant to the LOC 8.05 "Park and Open Space" for all major residential development and office campus development to provide open space or parkland approved by the City in an aggregate amount equal to at least 20 percent of the gross land area of the development. Commercial and industrial development shall provide open space or parkland to at least 15 percent of the gross land area of the development. Open space per LOC 8.005 is defined as land to remain in natural condition for the purpose of providing a scenic, aesthetic appearance; protecting natural processes; providing passive recreational uses or maintaining natural vegetation. Open space land shall be permanently reserved by common ownership among the owners of a development, dedication to the public, or by other appropriate means.

Overgrown Vegetation: For the purpose of LGNP, Goal 10, RAM v. overgrown vegetation is that which completely screens from view the primary residence from the street.

Pathways, Walkways, and Sidewalks: For the purpose of LGNP, Goal 10, Policy 2, walkways are defined as paved or graveled pedestrian ways within the public right-of-way usually at the same grade with an adjacent street. Pathways may be also separated from the street by an intervening landscaped strip. Pathways are multi-purpose-paved areas intended to accommodate both pedestrians and bicyclists. They may be also adjacent and at the same grade as the street or separated by a landscaped strip. Pathways and walkways are contrasted to urban sidewalks, which are typically constructed in conjunction with curbs, gutters and a piped storm drainage system.

Plant Communities and Wildlife Habitat: The association of tress, shrubs, ground cover and aquatic plants that affects the hydrologic characteristics of a stream corridor, reduces runoff turbidity, provides shade which reduces thermal pollution, filters out nutrients carried by runoff, protects stream corridor soils and slopes from erosion, and provides habitat for fish, wildlife and aquatic organisms.

- a. Soils with potential for Severe Erosion. Soils within stream corridors tend to be very erosion prone by nature.
- b. Ravines and Steep Slopes: Lake Oswego's stream corridors frequently include ravines and steep slopes.
- c. Associated Aquatic Elements. Floodplains and wetlands may be adjacent to or associated with the stream.
- d. Stream Corridor Functions and Values: The beneficial characteristics of stream corridors, including but not limited to:

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- Protection of wildlife habitat and travel corridors;
- Protection of riparian vegetation;
- Erosion Control;
- Flood and storm water control:
- Water quality enhancement;
- Open Space, passive recreation and visual enjoyment, and;
- * Cultural, social, education and research values.
- e. Swale: A swale is a depression, sometimes swampy, in the midst of generally level land that conducts surface water.

Pre-application Neighborhood Meetings: This term refers to LOC 49.36.705, which requires neighborhood contact by a person proposing a land use action for certain land use applications. The LOC requires that prior to submittal of an application for a partition, subdivision or a major development, the applicant shall contact and discuss the proposed development with any affected neighborhood as provided in this section. The Planning Director may require neighborhood contact pursuant to this Section prior to the filing of an application for any other development permit if the Director deems neighborhood contact to be beneficial.

The purpose of neighborhood contact is to identify potential issues or conflicts regarding a proposed application so that they may be addressed prior to filing of an application. This contact is intended to result in a better application and to expedite and lessen the expense of the review process by avoiding needless delays, appeals, remands or denials. The City expects an applicant to take the reasonable concerns and recommendations of the neighborhood into consideration when preparing an application. The City expects the neighborhood association to work with the applicant to provide such input.

Public Facility Plan (PFP): The City's PFP identifies the major facilities and capacity improvements to city infrastructure that are necessary to support land uses allowed by the Comprehensive Plan. These facilities include water, sanitary sewer, storm drainage and surface water management, and major transportation improvements. The PFP is used in conjunction with the CIP as described above to coordinate, program and phase public facility funding decisions.

PFPs are required by Statewide Planning Goal 11, Public Facilities and Services for all cities with populations greater than 2,500 to ensure that cities plan and develop timely, orderly and efficient arrangements of public facilities and services to serve as the basis of urban development.

Required Availability of the Staff Report: This term refers to the requirement of LOC 44.44.915 which, states that the land use staff report prepared by staff shall be completed and be available for public inspection at no cost at least ten days prior to the date of the public hearing. (Ord. No. 2088, Enacted, 03/03/94)

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The staff report shall contain an analysis of the applicable criteria and the evidence in the record. Based upon this review, the Planning Director shall recommend approval, approval with conditions, denial, or continuance of the application.

Secondary Dwellings: A secondary dwelling unit, either attached or separate, may be located on a lot already containing a dwelling unit which complies with LOC 48.20.547 [LOC 48.02.015]. These standards are as follows:

A secondary dwelling unit may be allowed in conjunction with a single-family dwelling by conversion of existing space, by means of an addition, or as an accessory structure on the same lot with an existing dwelling, when the following conditions are met:

- a. The site is large enough to allow one off-street parking space for the secondary unit in addition to the required parking for the primary dwelling.
- b. Public services are to serve both dwelling units.
- c. The number of occupants is limited to no more than two persons in the secondary unit.
- d. The unit does not exceed one bedroom and an area of 800 square feet, or a total FAR of 0.4 for all buildings. No more than one additional unit is allowed.
- e. The unit is in conformance with the site development requirements of the underlying zone and LOC Chapter 45.
- f. The following minimum area standards shall be met: a)1 person 250 square feet; b) 2 persons 500 square feet.
- g. One unit shall be occupied by the property owner.

Sight Distance Problems (pertains to streets): Sight distance problems occur when vegetation or other materials obstruct the view of drivers, pedestrians or bicyclists at street intersections.

Significant Trees and other Landscape Features: Significant trees in the Lake Grove Neighborhood are those evergreen trees 30 feet and taller and deciduous trees with a diameter of 10" or greater and a height of 30 feet or more.

Skinny Streets: In the context of the LGNP "skinny streets" are those which are developed to a minimum driving width necessary to provide required access to adjacent residential land uses and to allow for emergency vehicle access. In some instances this may allow for the construction of "queuing" streets which are intended for two-way traffic, but are comprised of a single traffic lane and a parking lane on one or both sides of the street. When two vehicles meet, one of the vehicles must yield by pulling over into a vacant segment of the adjacent parking lane.

Solar Access Needs and Requirements: For the purpose of implementing LGNP Goal 5, Policy 4, this term refers to solar access as defined and regulated by LOC Chapter 57, Solar Access.

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Stream Corridors: A stream corridor is an area of land that includes a stream and a set of natural features generally associated with the stream. These natural features include, stream channels, flood plains, wetlands, riparian vegetation, associated vegetation, steep slopes, and habitat features [LOC 48.02.015].

Street Right-of-Way: A street right-of-way consists of publicly owned land on which there exists, or on which it is intended to construct, a public street and other public transportation improvements.

Substantially Remodeled: Exterior renovation or expansion of an existing residence that results in, a) an increase in the existing building foot-print of 10% or more; b) an increase or decrease in building height of 10% or more feet, and c) the construction of any new accessory structure which requires a building permit.

Storm Drainage and Water Quality Management Measures: In reference to LGNP Goal 5, Policy 12, "storm drainage and water quality management measures" are structural and non-structural practices associated with new development or any significant disturbance of soil necessary to:

- a. Maintain surface water quality by preventing measurable erosion or otherwise limit soil erosion and sediment transport to less than one (1) ton per acre per year;
- b. Control other pollutants from entering the surface water system, and;
- c. Control the quantity and duration of storm water discharged into the surface water system following major storm events.

Regulations and standards for erosion control are addressed by LOC 52.02.010. Lake Oswego Drainage Standards are addressed by 11.005 and 12.005 for Major and Minor Development.

Timely Information (citizen involvement and notification purposes): The intent of this term as used in LGNP Goal 1, Policy 2 is to emphasize the need for clear and prompt communication with the neighborhood as soon as significant issues are raised such as land use applications, or major public facility issues. This requires the City and Neighborhood to maintain a positive relationship and open avenues of communication.

Town Houses: This term refers to single-family dwellings, which are attached by a common wall or with a party wall separating the dwelling units. These dwellings have primary ground-floor access to the outside.

Traffic Management Devices: For the purpose of implementing LGNP Goal 10, Policy 6 (e), traffic management devices are defined as apparatus installed or constructed to regulate the flow of traffic not subject to the standards of the MUTCD, including speed humps, curb extensions, traffic circles, traffic diverters and street closures [LOC 32.02.10].

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Tree Canopy: In the context of the Lake Grove Neighborhood Plan, the tree canopy is the three-dimensional aesthetic quality imparted to the neighborhood by the existence of large numbers of existing large trees whose crowns may or may not interweave. The Lake Grove Neighborhood tree canopy is the predominant natural feature common to the neighborhood, whose preservation and enhancement is essential to the neighborhood's identity. The tree canopy may or may not have an associated understory.

Tree Canopy Data Collection System: Pursuant to LGNP Goal 5, Policy 10, and a tree canopy data collection system is a systematic and empirical analysis of the area of Lake Grove covered by the tree canopy The system is intended to be maintained over-time with a reference to a base year to determine the tree canopy loss or gain in the neighborhood. These systems are typically based on a chronological analysis of aerial photography.

Tree Grove(s): A tree grove is defined by LOC 48.02.015 and is a stand of three or more trees (of the same species or a mixture) which form a visual and biological unit, including the area between the forest floor and the canopy, including skyline trees, and including any understory vegetation existing within the canopied area. A stand of trees must be at least 15' in height and must have a contiguous crown width of at least 120 feet to qualify as a tree grove.

- a. Associated Tree Grove: A tree grove that is contiguous with the boundaries of a designated stream corridor or wetland and contributes to the resource value of the riparian area by extending and operating in conjunction with the habitat of the riparian area and providing flood control and water quality enhancement. Such tree groves are located within the buffer areas of a wetland or stream corridor but may extend beyond the buffer.
- b. Isolated Tree Grove: A grove of trees that is not associated with a stream corridor or wetland as described as above.
- c. Upland (or upland forests): The non-riparian portions of tree groves lying outside of stream corridor.

Type II Permit: For the purpose of implementing Goal 5, Policy 3, the definition and requirements of a Type II Permit are as provided by LOC Chapter 55, 55.02.050 through 55.02.085.

Unified Development Plan: A unified development plan is a detailed concept plan to be adhered to by the applicant/developer, which shows:

- a. A project at full development including identification of all phases;
- b. The locational, design, and transportation relationships of the proposed development with surrounding land uses;
- c. Measures and improvements necessary to mitigate adverse impacts of the project on the transportation system, and;

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d. Design compatibility with surrounding land uses such as building, scale, height and bulk, materials, colors, and landscaping.

Waluga Reservoir Pressure Zone: This is the geographic area served by the Waluga Reservoir. Pressure zones are typically engineered where the minimum water pressure is 40 lbs./sq. inch and the maximum pressure is 80 lbs./sq. inch.

Wetland(s): A wetland is defined by LOC 48.02.015 and is an area that is inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soil conditions, commonly known as hydrophytic vegetation. Wetlands generally include but are not limited to swamps, marshes, bogs, and similar areas. An Isolated Wetland: A wetland that is not linked or connected to an adjacent stream corridor, wetland or tree grove, or other wooded area.

Wetland Functions and Values: The beneficial characteristics of wetlands, including but not limited to:

- a. Wildlife and plant habitat protection
- b. Protection of sensitive, threatened or endangered species
- c. Erosion control
- d. Flood and storm water storage
- e. Water quality enhancement
- f. Ground water recharge
- g. Open space, passive recreation, and visual enjoyment
- h. Cultural, social, educational and research values].

When Practicable (related to requiring tree planting and landscaping): For the purposes of implementing LGNP Goal 5, Policy 4 "when practicable" refers a test of reasonableness and practicality when requiring landscaping and planting of trees for all new development. Factors to be considered include, the scale of the development such as a new single family residence versus a new office commercial development; cost, existing or preserved landscaping, and for new single-family residences, area available on the site for tree planting and landscaping.

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- Notes -

■ Lakewood Bay Bluff Area

Lakewood Bay



Development of the Lakewood Bay Bluff Area shall emphasize residential use as the primary use in the area with commercial uses being subordinate uses.

Provision of visual access to Lakewood Bay and/or pedestrian access to view decks, plazas or paths shall be included in any design for the Lakewood Bay Bluff Area.

■ Lakewood Bay Bluff Area

The area bounded by the west edge of Third Street, the northern right-of-way line of Evergreen Road, a line drawn east from Evergreen to the east right-of-way on First Street, generally south to the railroad tracks following lot lines and along the north side of the railroad tracks west to the southerly extension of the west right-of-way line of Third Street is the Lakewood Bay Bluff Area. With the exception of the one property on Evergreen (Tax Map 2 1E 10AA, Tax Lots 200, 201), the entire area is developed in apartment complexes.

GOALS

- 1. Development or redevelopment of the Lakewood Bluff Area shall emphasize residential use as the primary use in the area with commercial uses being subordinate uses. (PA 06-86-01-382, 10/17/86)
- 2. Provision of visual access to Lakewood Bay and/or of pedestrian access to view decks, plazas or paths oriented to the bay and open to the public, shall be included in any design for the Lakewood Bay Bluff Area. There is no intent to allow public access to the water of Lakewood Bay. (PA 06-86-01-382 10/17/86)

POLICIES

- 1. Designate Lakewood Bay Bluff as mixed use R-0/GC area.
- 2. Provide incentives to developers which will encourage the design of public spaces oriented to the bay. Incentives may include: increased density compatible with other Comprehensive Plan policies or the waiver of fees or charges.
- 3. There shall be substantial residential component in any development proposal or ODPS for the area.
- 4. To protect views, and in return for the provision of public access, transfer of density rights to adjacent property within the Lakewood Bay Bluff Area will be allowed. (PA 06-86-01-382 10/17/86)

■ Lakewood Bay Bluff Area

- Notes -

■ Marylhurst Area

Marylhurst (View From Highway 43)



Marylhurst will continue to provide for housing, education, religious and community service needs of the region, while preserving and enhancing natural resources and aesthetic quality.

Marylhurst Area

BACKGROUND

The three institutions of Marylhurst Education Center, Christie School and Convent of the Holy Names, all commonly known as the "Marylhurst Campus", occupy a site on Pacific Highway of approximately 183.3 acres. The campus has been partially developed with buildings in the eastern portions near River Road. These buildings have historically housed educational, religious, and charitable service facilities, residence halls and other related support services such as the cafeteria, sewage treatment plant, parking areas and recreation facilities. In recent times the Education Center has also utilized its available space for other governmental and nonprofit services. The campus has become the location for a wide range of education, cultural, social and governmental activities.

The three institutions jointly still have well over a hundred acres of vacant land with the possibility for substantial development. The continued vitality of the institutions partially depends upon their ability to use their campus to expand and provide new services, such as the recently constructed Christie Center for emotionally handicapped children, and the residents of Lake Oswego, West Linn and the many people who benefit from their experiences at Marylhurst, have a strong interest in its future success.

Expansion also raises several of the same opportunities and issues which were addressed for other land uses in the City, especially traffic and circulation, site design, and open space.

The Marylhurst policies are summarized from a report, "Marylhurst, An Annexation and Plan" of May 1, 1979 which was prepared by the Marylhurst institutions.

GOALS AND POLICIES

GOAL 1: COMMUNITY AREA AND REGIONAL RELATIONSHIP

Marylhurst will continue to provide for housing, education, religious and community service needs of the region.

GOAL 2: NATURAL RESOURCES AND ENVIRONMENT

The geophysical assets (trees, Willamette River, drainage courses, land contours and scenic views) will be preserved and enhanced. Appropriate environmental controls will be developed to preserve fragile terrain and to protect against all types of pollution.

Marylhurst Area

GOAL 3: POPULATION DENSITIES AND GROWTH

Future growth and population density will be controlled in a manner that will enhance and preserve the qualities of the campus, the surrounding neighborhood and the City.

GOAL 4: COMMUNITY AND NEIGHBORHOOD IDENTITY

The spirit of local identity will be fostered by encouraging participation in the activities of the larger community, preservation of the character of the campus.

GOAL 5: ASETHETIC QUALITY AND COMMUNITY DESIGN

The character and aesthetic quality of the campus will be preserved and enhanced through sound design of residential, institutional and commercial buildings, facilities, streets and other development.

GOAL 6: OPEN SPACE

An open space plan will be developed and implemented to protect the unique natural areas, provide recreational opportunities and help shape development patterns.

GOAL 7: RESIDENTIAL LAND USE

Residential development will provide a variety of choices to meet the needs of the community, including those with needs for special care, and will preserve the character of neighboring developed areas.

GOAL 8: CAMPUS INSTITUTIONAL LAND USE

The educational, social, cultural and religious activities of Marylhurst will be continued and expanded. Office campus use, as defined in the Comprehensive Plan, will be permitted in Campus Institutional areas.

GOAL 9: TRAFFIC AND CIRCULATION

Traffic generated from the Marylhurst campus will be controlled to maintain adequate access at controlled intersections and efficient internal circulation.

MHA-2 LAKE OSWEGO COMPREHENSIVE PLAN

Marylhurst Area

LAND USE MAP DESIGNATIONS (TO BE ADDED TO LAND USE MAP, NOT TEXT)

- 1. The Marylhurst Education Center, Christie School, and Provincial House areas (sub-areas I, I-A, III) and the open undeveloped land east of the highway (sub areas II, IV) will be designated Campus Institutional.
- 2. The vacant land between Christie School and Old River Road (sub-area III-A) will be designated Residential R-10 (2.9-4.3 units per net acre, or 10,000-14,075 sq. ft. per unit).
- 3. The Marylhurst property immediately west of Pacific Highway (sub area V) will be designated as Residential R-10 (2.9-4.3 units per net acre, or 10,000-14,075 sq. ft. per unit).
- 4. The westernmost portion of the Marylhurst property (sub-area V-A) will be designated Residential R-15 (0-2.9 units per net acre, or 15,000 sq. ft. or more per lot).
- 5. The stream corridors and drainage ways, Willamette River/Old River Road corridors will be designated as open space. (The Old River Road corridor is part of the Willamette River Greenway.) Land between the road and the river will be designated for public access.

See map (Figure 3).

POLICIES

- 1. A mix of uses within the Marylhurst campus will be allowed, including education, cultural, social, government and residential activities.
- 2. The campus-like character of the area will be maintained as much as possible.
- 3. Traffic and access will be controlled to preserve the capacity of Pacific Highway and the intersections at Marylhurst. Proper internal circulation will be provided.
- 4. The Willamette River Greenway will be preserved for scenic and recreational uses.
- 5. Designate the Marylhurst Area for a variety of land uses and establish the specific uses, conditions and design criteria for sub-areas within the campus, to assure proper development.

Marylhurst Area

- 6. Require each sub-area to have a plan for circulation, parking, utilities, and general building placement as a condition of approval for all development other than single-family subdivisions.
- 7. Establish permissible uses, intensities, development criteria and conditions for specific subareas with the campus, in addition to other policies.

a. SUB-AREA I: CAMPUS INSTITUTIONAL

- 1. Allowed uses will include educational, religious, social service, governmental, institutional housing and their supporting services.
- 2. The appearance and character of the present Marylhurst Education Center campus, especially the scale of buildings, parking areas, building locations, materials, open areas and landscaping, will be continued in new development.

b. SUB-AREA I-A: CAMPUS INSTITUTIONAL

- 1. Uses should be located in a major building and no more than two buildings.
- 2. Design of access to the eastern portion of the site must provide for emergency vehicles.
- 3. Development may not occur beyond the top of the bans of the drainage ways. Removal of trees will be minimized as much as possible.
- 4. Access into the site must be designed to be compatible with the existing Education Building, and should be located on the north side.
- 5. Vehicle access or parking in the eastern portion of the site will be discouraged.
- 6. Drainage management must be designed to prevent erosion of the banks of the drainage ways which have a severe potential landslide hazard.

c. SUB-AREA II: CAMPUS INSTITUTIONAL

1. Commercial uses allowed (including Office Campus) must be buffered from Pacific Highway.

MHA-4 LAKE OSWEGO COMPREHENSIVE PLAN

Marylhurst Area

- 2. Structures will be located to maintain open areas which preserve a campus-like setting. The view of St. Anne's Chapel from the southern access drive will be preserved.
- 3. Site design will orient buildings towards views and preserve highway and access road views as much as possible.
- d. SUB-AREA III: CAMPUS INSTITUTIONAL
- e. SUB-AREA III-A: RESIDENTIAL (R-10)
 - 1. Access to Old River Road must be denied to provide a safe intersection, and to minimize disturbance to the wooded slope along the road. If these conditions cannot be met, the area must be provided access from the campus.
 - 2. Residential development will be required to provide street trees. Development must be visually screened from the school and convent.
 - 3. Emergency vehicle access from the campus side must be provided.
 - 4. Changes to topography will be the minimum necessary to develop the property.
- f. SUB-AREA IV: CAMPUS INSTITUTIONAL
 - 1. Allowed uses will be Campus Institutional, including social service institutions and residential care facilities for the physically or mentally handicapped. Agricultural uses may be continued as long as they are compatible with new development.
 - 2. A pedestrian access to Pacific Highway may be located at the north end of the site.
- g. SUB-AREA V AND V-A: RESIDENTIAL (R-10 and R-15, respectively)
 - 1. Allowed uses will be residential (R-10 and R-15), with clustering encouraged.
 - 2. Site design should assure that views to the east are preserved and utilized.
 - 3. A unified site plan for each sub-area, required prior to development, shall include provisions for buffering the adjacent residential areas.

Marylhurst Area

- 4. Interior street rights-of-way shall be dedicated. Street trees will be required.
- 8. Assist Marylhurst in preparing architectural and site design criteria to be utilized as supplements to the Development Review standards for all future development at Marylhurst. The criteria will assure that development is harmonious with the existing campus buildings and landscaping. Criteria at minimum will assure:
 - a. Maintenance of the architectural character of the existing buildings and landscaping.
 - b. Scale, height, bulk, lot placement and building materials in new development which will maintain the open character and be properly related to the existing structures.
 - c. Preservation of scenic vistas to the east.
 - d. New landscaping will complement existing, especially types and placement of trees.
- 9. Ensure that the natural drainage courses are designated as open space. No development will be permitted, except for utilities, drainage management improvements or low-intensity recreational improvements, such as trails.
- 10. Ensure maintenance of a setback along Pacific Highway, which will include a minimum of fifty feet from the right-of-way line, to provide for the planting of trees. The City will assist with providing and planting of the trees, subject to the budgetary process.
- 11. Require buffers between nonresidential campus uses and adjacent residential neighborhoods, including protection of views.
- 12. Require minimum changes in topography. Grading will be limited to that required for foundations, drainage management, parking areas and berms.
- 13. Assure that parking areas are scaled proportionately to the campus buildings and are land-scaped to avoid the appearance of large, unbroken paved areas.
- 14. Strongly encourage residential site design which is clustered and preserves open areas.
- 15. Assure that commercial uses are of a type and size to serve the residents and users of the campus, without drawing a larger market, and are located away from Pacific Highway to avoid any strip development.
- 16. Assure that utility construction will be coordinated with development and will prevent or minimize disruption of the existing buildings, streets, and drainage ways.

MHA-6 LAKE OSWEGO COMPREHENSIVE PLAN

Marylhurst Area

- 17. The City shall (subject to the approval of the Oregon Department of Transportation, whenever applicable):
 - a. Limit access from the campus to Pacific Highway to the two existing access points.
 - b. Limit land uses to the degree necessary to ensure that total vehicle trips generated by campus land uses maintain the capacity of Pacific Highway intersections.
 - i. Prior to new development, a traffic study will be prepared which will determine the projected volumes on Pacific Highway, the capacity available to future development at Marylhurst and improvements necessary to maintain the highway or intersections within Service Level "D".
 - c. Require that Marylhurst pay an equitable share of the cost of improvements to Pacific Highway for additional capacity and signalization required for additional development.
 - d. Actively seek transit improvements and increases in the level of transit use in the Highway 43 Corridor, to reduce vehicle trips entering the State Street Corridor.
 - e. Ensure that internal streets on the east side of Pacific Highway will remain private streets, except for the Residential area (sub area III-A).
 - f. Require that internal access and circulation plans for each sub-area of the campus will be prepared and approved as part of the Development Review for the first new development proposal for the sub-area.
 - g. Require dedication of an additional ten feet of right-of-way on each side of Pacific Highway to widen the total to eight feet.
 - h. Ensure that a minimum setback will be maintained along Pacific Highway at fifty feet from the right-of-way line to preserve the scenic corridor.
 - i. Allow no vehicular access from Old River Road, except to sub-area III-A.
 - j. Assure safe pedestrian and bicycle circulation within the campus area and each subarea. Whenever possible, walkways will be separated from vehicular ways.
- 18. Assure that the area designated as Willamette River Greenway along Old River Road (generally from the river to the top of the steep bank above River Road) is maintained in a natural aesthetic condition.

Marylhurst Area

- a. Structures will not be permitted in the Greenway, except for recreational purposes or utilities.
- b. Recreational improvements will be in scale with the environment. Parking areas, if any, will be minimial.
- c. Trees in the Greenway will be preserved.
- d. No boat ramps will be permitted.
- 19. Designate the area between River Road and the river as Public Open Space, and the banks above the road and the drainage ways as protection Open Space.
 - a. The City will attempt to negotiate an agreement with Marylhurst which will provide for public access and recreational use of the land between River Road and the river. The agreement may be for purchase outright, easement use or other methods mutually agreeable to Marylhurst and the City.
- 20. Ensure that storm water runoff from campus development will be controlled to avoid erosion, sedimentation or damage to the drainage ways.

(June, 1979)

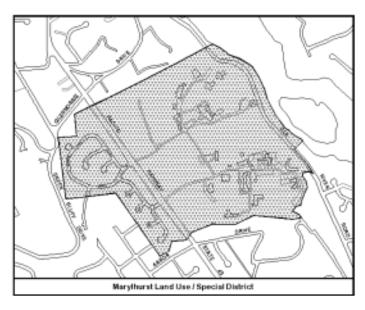


Figure 3

Old Town Design District

Odd Fellows Apartments



Protect single family homes during the transition to higher density;

Facilitate good architectural design and site planning which maintains residential choices;

Assure protection and compatibility of all land uses, and;

Assure that adequate methods are available to carry out the design policies for Old Town's particular needs.

Old Town Design District

BACKGROUND

The Old Town Neighborhood lies between State Street, the Willamette River, Oswego Creek and Leonard Street. Although geographically one of the City's smallest neighborhoods, it is the location of the original town of Oswego, and is the oldest portion of the City. Old Town contains several different types of land uses, including George Rogers Park, multi-family and single family dwellings and an array of shopping provided by two nearby shopping centers, within an area of less than 40 acres. Platted in 1851 by Albert Durham, the streets carry the names of people associated with the early iron industry such as Ladd, Leonard and Wilbur, as well as early settlers, such as Albert Durham, who founded the community.

George Rogers Park is located in the southern portion of the neighborhood. This area was the original site of the iron smelting business which operated in the community in the late 19th and early 20th centuries. A portion of the company's large basalt chimney still stands in the park. Several small dwellings from this era also remain, constructed by the Oregon Iron and Steel Company for its employees. The Odd Fellows Hall at Durham and Church streets also dates back to this early period.

Maintaining the neighborhood's character has been a concern of residents, particularly over the past 20 years. As the area's zoning allows for approximately 20 units per acre, single family homes have gradually been replaced by apartments, duplexes and other types of more dense housing. Often new structures and remodeling have not been compatible in scale, form and massing to the existing housing stock. This has lead the neighborhood to develop Comprehensive Plan policies and design and zoning standards to ensure that the neighborhood's transition to higher density occurs in such a way that the desirable "village" appearance is preserved.

The mix of uses in and near the neighborhood, its proximity to good transit service on State Street and its location near George Rogers Park, make Old Town an attractive place to live. Although residents view these facilities and uses as valuable assets, they at times result in conflicts with residential uses in the neighborhood, primarily with regard to traffic and parking.

Old Town would like to retain its generally narrow streets and few remaining alleys to discourage auto through-traffic and provide opportunities for alternate access to garages. The neighborhood would also like to encourage the use of Durham Street as a walking street by connecting sidewalks, restricting truck usage and maintaining appropriate lighting.

The Old Town of the future will likely posses a higher level of activity due to the increased usage of commercial outlets, a gradual move to higher density and increased park usage. The favorable elements outlined in the preceding paragraph will be integrated to ensure increased walking, rather than

Old Town Design District

driving, within the neighborhood; ensure new structures that complement the existing neighborhood fabric; protect lower density developments from more intense adjacent uses; and minimize the visual impact of garages.

GOALS

- 1. Assure that single family homes are protected during the area's transition to higher density residential use.
- 2. Facilitate good architectural design and site planning which maintains residential choices of unit size, cost and other amenities and supports the economic feasibility of new construction and development.
- 3. Assure protection and compatibility of all land uses, including commercial, residential, park, open space and historic sites.
- 4. Assure that adequate methods, in addition to present City ordinances, are available to carry out the design policies for Old Town's particular needs.
- 5. Designate the Old Town Neighborhood as a "Design District" on the Comprehensive Plan map and guide its development in accord with the following policies. [PA 4-95/ZC 4-95/DA 1-95-1147; 3/19/96]

POLICIES

- 1. Designate Old Town as a Design District and guide its development in accord with the policies in this chapter. (See Figure 4)
- 2. Boundary

The boundaries of the District shall be as shown on the official Lake Oswego Comprehensive Plan map. (See Comprehensive Plan Map) When considering Comprehensive Plan Map Amendments, existing neighborhood character shall be preserved as much as possible.

Old Town Design District

3. Residential Land Use

Generally, and in accordance with the policies of this plan, Old Town shall become higher density land use. However, existing neighborhood character shall be preserved as much as possible.

a. Single Family Housing

Single family housing, while not exclusive of other types of housing, shall have priority. Therefore, single family housing shall be preserved and steps taken to preserve its amenities and value. Where higher density land use is developed, special attention should be given to insuring that it will not adversely affect neighboring single family development.

Single family homes and new development shall be protected from the deteriorating effects of adjacent land uses, including in particular the commercial areas, and any open space areas which may be established. Particular attention shall be given to the effects of traffic, parking, noise, glare, air pollution and appearance of structures.

New single family construction shall be permitted on the existing platted, 5,000 square foot lots or parcels.

b. Multi-Family Residential

Multi-family use shall be permitted when it can be clearly demonstrated that other Old Town policies are being met by the proposal.

Duplexes shall be permitted on the existing platted 5,000 square foot lots. Innovative design shall be encouraged to create duplexes which are compatible and harmonious with adjacent land uses.

c. Residential Design Policy

New residential construction of all types shall be encouraged.

As noted under the Design District policies, all new construction of single family, duplex, zero lot line and multi-family dwellings and exterior modification to a structure housing a non-conforming use that requires a building permit shall be subject to Development Review.

Old Town Design District

Care should be taken to maintain certain existing physical attributes of the neighborhood which contribute to its special character, including but not limited to unusual or special trees, landscaping, buildings and views.

4. Commercial Land Uses

The boundary between R-0 and EC designated land shall be that shown on the official Lake Oswego Comprehensive Plan map.

- a. Any development in the adjacent EC zone shall provide a landscaped buffer to function as a visual and physical barrier between dissimilar uses in the EC and DD zones.
- b. Traffic shall be routed away from residential properties. This may be accomplished by such methods as careful location of access points, traffic routing within the development, and relation of that routing to neighboring residential uses and streets, and installation of any required capital improvements such as left turn lanes. Traffic studies may be required to determine impacts.
- c. Replacement of non-conforming uses with permitted residential uses is strongly encouraged.

5. Streets

Through traffic and circulation will be minimized. The use of Wilbur Street as the principal access to the neighborhood will be encouraged.

a. State Street

Provisions shall be made to make entering and exiting Old Town onto State Street as safe as possible.

b. State Street/McVey/Green Street

This intersection shall be improved to increase safety of turning movements and pedestrian safety on State Street to and from George Rogers Park, as well as to provide access to George Rogers Park for vehicles traveling southbound on State Street.

Old Town Design District

c. Ladd Street

The use of the north side of Ladd Street as a parking area for George Rogers Park should be discouraged, or steps taken to eliminate the inconvenience and disturbance to residences on Ladd Street.

d. Durham Street

The City shall encourage Durham Street to become a safe and pleasant walking street within the neighborhood through the addition of connected, handicapped access sidewalks, restrictions on truck usage, storm drainage improvements as necessary, and appropriate lighting. [PA 3-96/DA 2-96/ZC 1-97-1219; 9/2/97]

6. Historic Sites

Protect the historical or architectural integrity of the Peg Tree (Douglas Fir), Odd Fellows Hall and George Rogers' home, as Local Historic Landmarks.

7. George Rogers Park

Use of the park facilities should not interfere with normal residential uses in the adjacent neighborhood. Design or expansion of the park, which is a City facility serving all City residents, should be carried out with attention to the Old Town area, especially with regard to traffic, parking, noise, glare, visual appearance and behavior of park users. Green Street should be recognized as the primary auto access to George Rogers Park and steps should be taken to encourage auto access to the park on Green Street.

8. Development Review

Consideration shall be given to the relationships between new construction and adjacent land uses as well as to how the proposed development incorporates the desirable "small village' or "historic town" appearance of Old Town as illustrated in its pitched roofs, wood and masonry construction materials and building proportions and massing typical of the Vernacular, Craftsman and Cape Cod styles.

Old Town Design District

9. Parcel Size

Residential single family construction is to be permitted on lots or parcels of 5,000 square feet or more. The Development Review process should take account of the unusually small area of the lots in providing variances which may be requested for new single family uses. 12/28/82

Duplexes are to be permitted on lots or parcels of 5,000 square feet or more.

Except for structures which have been determined by the State or the National Register of Historic Places as being of historic significance, multi-family construction is to be permitted on lots or parcels of a minimum of 15,000 square feet, which would allow seven units. Smaller lots or parcels should be used for duplex or single family. The parcels should be shaped to minimize the number and length of property interfaces between adjacent uses and to assure buffering landscaping can be installed.

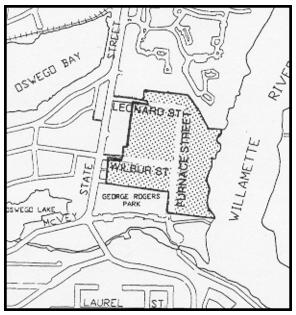
Historic structures may be converted to residential uses. No minimum parcels size shall apply, but the project shall demonstrate compliance with all other applicable zoning requirements and development standards. (PA 1-87-450, 7/9/87)

Illustrative examples of this concept are shown in Figure 5.

10. Willamette River Greenway Access

Encourage the use of Furnace and Leonard Streets as pedestrian and bicycle connections to the existing Greenway trail. This policy is not intended to supersede or weaken Goal 15 (Willamette River Greenway) Policy 8 or Goal 15 RAM iii, which call for acquisition and development of continuous public access along the Greenway, including the Greenway area from Roehr Park to George Rogers Park in Old Town. This policy is intended to protect the privacy and security of existing single-family waterfront residences until such time as the Greenway pathway may be acquired through development to higher density/intensity uses, voluntary donation or purchase. [PA 3-96/DA 2-96/ZC 1-97-1219; 9/2/97]

Old Town Design District



Old Town Design District Figure 4

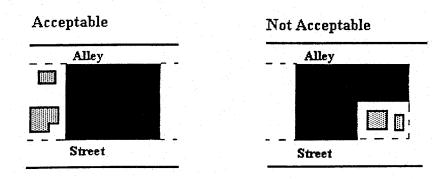


Figure 5

Special District Plans

Old Town Design District

- Notes -

100 Year Flood: (See Base Flood)

Adaptive Reuse: To change a landmark building from its original use to another use. For instance, a train station that is remodeled into a restaurant. This is commonly done to preserve the structure while allowing a contemporary use.

Advisory Body: A board, commission, standing or ad-hoc committee appointed by the City Council to advise it on issues pertaining to land use, natural and historic resources, parks and recreation, traffic, or other matters as prescribed by the Council.

Affected Governmental Units: Those local governments, state and federal agencies and special districts which have programs, land ownerships or responsibilities within the area included in the plan.

Alteration, Minor: An exterior alteration to a historic landmark which changes the appearance or material of the Landmark or contributing resource as it exists and which does not duplicate or restore the affected exterior features and materials as determined from historic photographs, historic period building plans or other evidence of original features or materials.

Alteration, Major: An exterior alteration to a historic landmark which is not a minor alteration.

Alternative Transportation: Transportation modes that provide alternatives to single occupant vehicles (SOV). Examples include mass transit, walking and bicycling.

Archaeological Resource: An archaeological object or site of archaeological significance that is defined as follows:

- a. Archaeological Object: An object that:
 - i. Is at least 50 years old;
 - ii. Comprises the physical record of an indigenous (and subsequent) or other culture found in the state or waters of the state; and
 - iii. Is material remains of past human life or activity that are of archaeological significance including, but not limited to, monuments, symbols, tools, facilities, technological byproducts and dietary by-products.
- b. Site of Archaeological Significance:
 - i. Any archaeological site on, or eligible for inclusion on, the National Register of Historic Places as determined in writing by the State Historic Preservation Officer; or,

- ii. Any archaeological site that has been determined significant in writing by an Indian tribe; or,
- iii. Any archaeological site on the Lake Oswego Landmarks list.

Archaeological Site: A geographic locality, including but not limited to submerged and submersible lands within the state's jurisdiction, that contains archaeological objects and the contextual associations of the archaeological objects with:

- a. Each other; or,
- b. Biotic or geological remains or deposits.

Automatic Aid Agreement: An agreement between Lake Oswego and other cities and fire districts whereby each agrees to respond automatically to certain fire alarms within each other's jurisdiction.

Average Daily Traffic (ADT): The average daily number of automobiles passing a given point on a given street or road.

Base Flood: The flood having a one percent chance of being equaled or exceeded in any given year. The base flood is also known as the 100 year flood.

Bicycle Lane: A bicycle lane is that portion of the roadway designated by a wide stripe (8 inches) and bicycle pavement markings, for the exclusive or preferential use of bicycles. Bike lanes along Boones Ferry, between Jean Road and Upper Drive are an example of this type of bicycle facility. Bike lanes can be marked between on-street parking and the auto travel lane or can be shoulder bikeways designated by a wide stripe.

Buffer Area: An undeveloped natural area adjacent to a wetland or stream corridor DNA or other resource area that helps to enhance the functions and values of the resource, and provides insulation from human disturbances and domestic animals.

Buffer Edge: An area adjacent to the buffer area within which development may occur but within which certain activities are regulated to prevent negative impacts on nearby wetlands or stream corridors.

Buildable Land: Residentially designated vacant and redevelopable land within the Urban Growth Boundary that is not severely constrained by natural hazards, or subject to natural resource protection measures. Publicly owned land is not considered available for residential use. Land with slopes of 25 percent or greater and land within the 100-year floodway is considered unbuildable for purposes of density calculations.

Campus Institutional: Land uses allowed in Campus Institutional areas are all Office Campus uses, including those for educational, religious, social services, governmental agencies, related residential uses and facilities for care of the handicapped or other special care needs, located in a campus setting which preserves a substantial amount of landscaping and open space and the character of existing institutions.

Campus Research and Development (CR&D): A land use designation intended to provide a mix of clean, employee-intensive industries, offices and high density housing with associated services retail commercial uses in locations supportive of mass transit and the regional transportation network.

Capital Improvement Program (CIP): A financial planning tool in which needed improvements to the City's facilities are identified, priced and prioritized. Funding from a variety of sources, including local property taxes and utility fees, is matched with the projects. The City approves the CIP on a periodic basis, and projects are implemented using the CIP as the guiding document.

Community Identity Benefits: Elements of the physical environment that characterize Lake Oswego and are valued for their aesthetic appearance, their environmental values, or their association with the character of a neighborhood or the community. Examples include stands of trees and forested ridgelines, views, rock outcroppings, water features, and individual tree and plant specimens.

Community Needs (for goods and services): These are needs which encompass the range of goods and services desired by the market area defined by Lake Oswego's Urban Services Boundary. These are needs met by the following:

- a. <u>Convenience goods and services.</u> Merchandise that is consumed daily and purchased frequently, such as food and drugs.
- b. <u>Primary goods</u>. Merchandise with a cost, rate of depletion, and frequency of purchase in-between that of convenience goods and secondary shopper's goods. Apparel, shoes and books are examples.
- c. <u>Durable goods</u>. Those goods that are intended to last five years or more such as furniture, appliances, and automobiles. Because of their cost and long life these goods are purchased less frequently than primary goods intended to provide for frequently recurring needs. Consumers typically travel greater distances to shop for durable goods than for other types of goods. These goods are also referred to as secondary goods.

CHAS, Comprehensive Housing Affordability Study: Required by the Cranston-Gonzalez National Affordable Housing Act of 1990. The CHAS is a five-year outlook, including needs assessment, a description of market and inventory conditions, five-year strategies, a one-year plan for use of financial

resources and a monitoring plan. In order for localities to receive or be eligible for direct HUD housing assistance and Community Development Block Grants, a CHAS must be completed. In 1991, Clackamas County completed its first CHAS for 1992-96 for the entire county area.

Comprehensive Plan: Comprehensive Plan is defined in ORS 195.015 as a generalized, coordinated land use map and policy statement of the governing body of a local government that interrelates all functional and natural systems and activities relating to the use of lands, including but not limited to sewer and water systems, transportation systems, educational facilities, recreational facilities, and natural resources and air and water quality management programs. "Comprehensive" means all-inclusive, both in terms of the geographic area covered and functional and natural activities and systems occurring in the area covered by the plan. "General nature" means a summary of policies and proposals in broad categories and does not necessarily indicate specific locations of any activity or use.

Conflicting Land Use: The development or redevelopment planned for a property which may result in demolition, alteration or moving of a Landmark. In the absence of a development proposal, the identified conflicting use is the most intensive use allowed in the zone.

Contaminant: Any physical, chemical, biological or radiological substance in water which makes it unfit for human consumption.

Coordinated: A plan is coordinated when the needs of all levels of governments, semi-public and private agencies and the citizens of Oregon have been considered and accommodated as well as possible.

County Housing Authority: The County agency responsible for administering affordable housing programs.

Cultural Resource: Evidence of an ethnic, religious or social group with distinctive traits, beliefs and social forms.

Dedication: A transfer of property or property rights as a condition of development approval to the City of Lake Oswego for public facilities such as streets, utilities, pathways, sidewalks, surface water management and street trees or for protection of Distinctive Natural Areas, wetlands, stream corridors or other natural features.

Demand Management: Actions designed to alter travel patterns to improve the efficiency of current transportation facilities and reduce the need for additional facilities. Examples include encouraging the use of alternative transportation systems and trip reduction ordinances.

Developed Open Space: Property that contains parks or other formal landscaped areas including ball fields, play grounds, neighborhood pocket parks, tot lots, picnic areas, accessory buildings, paved areas, lawns, formal landscaped areas and similar uses.

Development: Any man-made change to improved or unimproved property, including, but not limited to, construction, installation or alteration of a building or other structure, change of use, land division, establishment or termination of a right of access, storage on the land, grading, clearing, removal or placement of soil, paving, dredging, filling, excavation, drilling or removal of trees.

Dwelling Units per Acre on Vacant Buildable Land: The number of dwelling units allowed on a net buildable acre. A net buildable acre consists of 43,560 square feet of residentially designated, buildable land <u>after excluding</u> present and future rights-of-way, hazard areas, public open spaces and restricted resource protection areas.

Edge Area: An area adjacent to the buffer area within which development may occur but within which certain activities are regulated to prevent negative impacts on nearby resource areas.

Employment Area: An area containing various types of employment and some high density residential, with limited commercial uses. There is one designated employment area in Lake Oswego, which encompasses areas which are designated by the Comprehensive Plan as Highway Commercial, Campus Research and Development, Office Campus, R-0 and some R-3, within the Kruse Way Corridor (Figure26).

Enhanced 911 (E-911): A regional emergency communications system which utilizes the existing phone network linked to a computerized system to locate emergencies and coordinate response in the shortest possible time.

Equitable Allocation: The allocation of the costs of expanding the capacity of public facilities within the Urban Service Boundary proportionate to the demand placed on the public facility by new development and the demand required by existing development.

Erosion: Detachment and movement of soil, rock fragments, mulch, fill or sediment by water, wind, gravity, frost and ice or by development activities.

ESEE: The Economic, Social, Environmental and Energy Analysis required under Statewide Planning Goal 5. The purpose of the ESEE is to inventory natural resource sites and identify their relative resource value for the purpose of determining an appropriate level of protection through land use regulations.

Essential Natural Systems: Natural systems with functions that contribute to flood protection, erosion control or surface water quality, including floodplains, stream corridors, wetlands and other living systems.

FEMA: The Federal Emergency Management Agency is the federal agency that administers the National Flood Insurance Program.

Filling (Fill): A deposit of earth by artificial means.

Finished Water: Water which has been treated, is ready for use and can be safely consumed.

Flood or Flooding: A general and temporary condition of partial or complete inundation of normally dry land areas from the overflow of inland waters or the unusual and rapid accumulation of runoff of surface waters from any source.

Floodway Fringe: The area of the floodplain lying outside the floodway. This is the area, in addition to the floodway, which is inundated by the 100 year or base flood. (See Figure 6)

Floodplain: The area bordering a watercourse subject to flooding. The floodplain includes both the floodway fringe and the floodway. The floodplain is further defined as being flooded by the 100 year flood, also referred to as the base flood. (See Figure 6)

Floodway: The area within the floodplain which includes the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot. (See Figure 6)

Floor Area Ratio (FAR): The ratio of the combined floor area of all stories of a building excluding vent shafts, courtyards, enclosed or covered parking areas, allowable projections, decks, patios, uncovered exit stairs and uncovered, above-grade driveways, to the net buildable area.

Frequent Bus: Frequent Bus provides high frequency local service along major transit routes with frequent stops. This service includes a high level of transit preferential treatments and passenger amenities along the route such as covered bus shelters, curb extensions, reserved bus lanes, lighting, median stations and/or signal preemption. The future line 78, between downtown Lake Oswego and the Tigard Transit Center, via Country Club, Boones Ferry and Meadows Road, and the segment of Line 35 south of downtown Lake Oswego are planned as Frequent Bus lines.

Frequently Recurring Needs (for goods and services): The continuous demand for goods and services that are used on a regular or daily basis such as food, drugs, dry cleaning. etc. These are often referred to as convenience goods and services.

Full Costs of Extending Urban Services: Means the costs of constructing all public improvements needed to serve the development of an urban reserve area including both those facilities that need to be constructed within the area as well as the expansion in capacity of any facilities outside the area that are required either to serve the urban reserve area or to maintain existing levels of service within the City's 1996 Urban Service Boundary. Full Costs also includes the costs of maintaining and operating facilities needed to serve the urban reserve area as well as the operational costs of providing police, fire, parks, library and general governmental services to the area.

Functional Street Classification: A description of a street by its size (in lanes), function and level of service.

Functions and Values: The beneficial characteristics of natural resources including but not limited to:

- a. Water and air quality enhancement.
- b. Fish and wildlife habitat.
- c. Native vegetation preservation.
- d. Community identity and aesthetic benefits.
- e. Neighborhood character enhancement.
- f. Wildlife corridors that provide linkages to other natural areas.
- g. Ground water recharge and storage of flood and storm waters.
- h. Open space and visual enjoyment.
- i. Cultural, social, education and research potential.
- j. Maintenance of scenic resources and distinctive aesthetic qualities such as views of Mount Hood and forested ridge lines.
- k. Public protection from natural hazards, such as flooding, geological instability or high erosion potential.
- 1. Buffering from noise and incompatible uses, and;
- m. Passive recreation and future recreational development opportunities.

General Commercial (GC): A land use designation intended to provide lands for commercial activities supplying a broad range of goods and services to a market area which includes the planning area identified in the Comprehensive Plan. This is the area within the Lake Oswego Urban Services Boundary.

Hazardous Substances: Any substance listed or described in ORS 453, "Hazardous Substances." Hazardous substances are toxic, corrosive, irritants, strong sensitizers, flammable, combustible, or generate pressure through decomposition, heat or other means. Hazardous substances or mixture of substances may cause substantial personal injury or illness during, or as a proximate result of any customary or reasonably foreseeable handling or use.

Highway Commercial (HC): A land use designation intended to provide lands for commercial activities which meet the needs of the traveling public as well as other highway-oriented retail uses which require access to a market area larger than the general commercial zone. This district is not intended for regional shopping centers.

Home Occupation: A lawful occupation, profession, activity or use conducted in a dwelling unit that is clearly incidental and secondary to the use of the dwelling for dwelling purposes.

HUD: U.S. Department of Housing and Urban Development.

Hydrophytic Vegetation: Plant life growing in water or in soil that is at least periodically deficient in oxygen as a result of excessive water content.

Implementation Measures: These are the means used to carry out the plan. These are of two general types: 1) management implementation measures such as ordinances, regulations or project plans, and 2) site or area specific implementation measures such as permits and grants for construction, construction of public facilities or provision of services. The Lake Oswego Comprehensive Plan utilizes the term "Recommended Action Measures."

Infiltration/inflow (I/I): These are the extraneous components of wastewater flow. Infiltration occurs when groundwater leaks into the sanitary sewer through such defects as cracked or broken pipes, poor joints or dilapidated manholes. Inflow occurs when storm runoff flows directly into the sanitary sewer at storm sewer cross connections, roof and foundation drains, catchbasins and faulty or submerged manholes.

Inner Neighborhoods: Inner Neighborhoods are accessible to jobs and neighborhood businesses and typically average (citywide) six dwelling units per acre. All residential areas which do not lie within another Design Type area, in the Lake Oswego Urban Service Boundary, are considered Inner Neighborhoods.

Invasive Plants: Non-native vegetation that displaces or dominates native plant communities, such as Himalayan blackberry, English ivy, reed canary grass, morning glory and scotch broom.

Lake Easement: A conditional right to access Oswego Lake granted by Lake Oswego Corporation to certain designated properties. Lake easements were originally granted by the Oregon Iron and Steel Company, a previous owner of Oswego Lake, when it developed property in the Lake Oswego area.

Landmark: Any site, object or structure, and the property surrounding it, that is designated as a Landmark by the City according to OAR 660-16, as having historic, architectural or environmental significance.

Legislative Comprehensive Plan Amendment: A legislative amendment is a change to the text, including the goals, policies and recommended action measures of the Comprehensive Plan, or to the Plan map, which affects a large number of properties. A legislative amendment is oriented toward affecting land use policy and is broad in scope.

Level of Service (LOS): A level of comfort afforded to drivers as they travel. It is based on the amount of roadway capacity, average delay, and the volume/capacity ratio along an arterial. There are six levels of service: A through F. LOS "A" is the best rating, indicating a smooth flow of traffic. LOS "F" indicates a failure to the system.

Level of Service "D": This level is characterized by fairly substantial delays, such as waiting through two signal cycles to pass through an intersection after stopping. These queues will occasionally clear during the peak hour, but approximately 70% of green lights fail to deliver the waiting queues.

Locational Criteria for Land Uses: The guiding principles and standards for the placement of activities on land. They are derived from the values stated in the Plan goals and policies and are based on the need for compatible relationships between the urban and natural environment and the need for interaction among residents, businesses and institutions.

Low and Very Low Income: The definition of low and very low income is based on regional (Portland Metropolitan Statistical Area) income levels. Low income is defined as earning less than 80% of median income. Very low income is considered as earning less than 50% of regional median income.

Main Streets: Main Streets are business districts that contain areas of higher density land uses, with concentrations of shopping, services and entertainment or restaurants. Multi-famly residential is often located around the Main Street district and may exist on second or third stories above retail or offices. Main Streets are to have high quality transit service and a good pedestrian environment. In Lake Oswego there are two mapped Main Street Areas, Lake Grove (Boones Ferry Road, between Washington Court on the north side of Boones Ferry and the Southern Pacific Railroad right-of-way on the south side of Boones Ferry, and Kruse Way, as specified in Figure 24); and Lake Oswego (A Avenue between State Street and 6th Street, B Avenue between State Street and 1street, between C Avenue and Evergreen Road as specified in Figure 25).

Major Development: A major development is one which requires a permit from the City involving the greatest level of review. "Greatest level of review means" any land use action that is required to go to a public hearing such as planned developments, zoned changes, comprehensive plan amendments, conditional use permits and major variances.

Major Transit Corridors: Roads classified as arterials within the Lake Oswego City limits which are used as transit routes. Major transit corridors consist of Highway 43 (State Street), A Avenue, Country Club Road, Boones Ferry Road and Kruse Way.

Mass Casualty Incident: A mass casualty incident is a single incident resulting in the need for 10 or more patients to be treated by emergency responders. The primary objective is to manage the delivery of patients to the appropriate area hospitals.

Metropolitan Planning Organization (MPO): An organization located within the State of Oregon and designated by the Governor to coordinate transportation planning in an urbanized area. Lake Oswego lies within the MPO governed by Metro.

Minimum Stream Flow: A level of stream flow which is necessary to support aquatic life and to minimize pollution. Use of water under rights and permits with priority dates junior to the ruling date is curtailed when minimum stream flow conditions cannot be met. Use of water under rights and permits with seniority dates senior to the ruling are not affected.

Mitigation: To rectify, repair or compensate for adverse impacts to a natural resource which are caused by development.

Mixed Use Development: The development of a tract of land, building, or structure with a variety of complimentary and integrated uses, such as, but not limited to, residential, office, retail, public or entertainment land uses.

Multi-Use Pathway: A path that is separated from motorized vehicular traffic, is a minimum of 10 feet in width, where possible, and either within the street right-of-way or within an independent right-of-way, for use bicyclists, pedestrians, joggers or other means of non-motorized transportation.

Mutual Aid Agreement: An agreement between Lake Oswego and other cities and fire districts whereby fire fighting resources are dispatched to other jurisdictions upon their request.

National Flood Insurance Program: This program was established by the National Flood Insurance Act of 1968 and is further defined by the Flood Disaster Protection Act of 1973. The Flood Insurance Program established minimum floodplain management requirements which enables communities to receive federally subsidized flood insurance.

Native Plant Communities: Native vegetation adapted to a particular environment or ecosystem which does not displace or dominate other plant communities.

Natural Area: An area of land and/or water that has a predominantly natural character. Natural areas may be pristine or may have been affected by human activity such as vegetation removal, agriculture, grading or drainage. However, these areas either retain significant natural characteristics, or have recovered to the extent that they contribute to the City's natural systems including hydrology, vegetation or wildlife habitat.

Natural Open Space: Property that is public or privately owned and is protected as a natural area by public ownership, legal instrument or regulation. Such areas typically include stream corridors, wetlands, tree groves and steep slopes. When privately owned, natural open space may be protected through legal instruments such as private open space tracts and conservation easements. In the absence of public or private protection, natural open space is protected through regulations as Protection Open Space (see below), and through individual development standards.

Neighborhood Commercial (NC): A land use designation intended to provide land near or within residential areas for commercial activities to provide for the frequently recurring needs of surrounding residential neighborhoods.

Neighborhood Plan: Neighborhood Plans are policy documents which provide specific guidance on matters such as land use, urban design and provision of public facilities for specific neighborhood areas. They are intended to become part of Lake Oswego's Comprehensive Plan. Neighborhood Plan goals, policies, recommended action measures and implementing land use regulations are required to be consistent with, and reinforce Lake Oswego's Comprehensive Plan and Statewide Planning Goals

Net Area Per Unit: The minimum lot area required per dwelling unit, calculated on gross site area, excluding existing and future rights-of-way.

Net Loss: A permanent loss in surface area of a DNA, wetland or other resource area, or a permanent loss in functions or values resulting from development action.

Non-Durable Goods: Goods which have a life of less than five years. Typically these are convenience and secondary goods.

ODOT: Oregon Department of Transportation.

Office Campus (OC): A land use designation intended to provide lands for major concentrations of regionally oriented offices and employment opportunities for a market area larger than the planning area.

Open Space: Natural and developed areas that are largely vacant (free of buildings and paved surfaces) with the potential of becoming a park or natural area. Open space refers to areas of public or privately owned land which are devoted to uses which provide relief from urban development. Open

space includes diverse elements such as the natural landscape, wildlife preserves, bluffs, steep slopes, beaches, playgrounds, wetlands, stream corridors, flood plains, lakes, farm fields, tree groves, ball fields, gardens, formal landscaped areas, golf courses, cemeteries, or even a landscaped back yard.

Operation and Maintenance Costs: The annual costs for personnel, supplies, and equipment necessary to operate and maintain existing public facilities and to provide other governmental services such as police, fire, library, recreation, engineering, planning, finance, legal, and administrative.

Park: Property that is publicly owned and intended primarily for recreational human uses or park purposes. Some parks that are primarily intended for active recreational uses may also include natural areas. Natural areas within parks may be also be designated as Public Open Space on the Comprehensive Plan.

Parking Spaces: Parking and loading in areas planned for industrial, commercial, institutional, residential or public use.

Passive Recreation: Recreation not requiring developed facilities that can be accommodated without change to the area or resource (sometimes called low-intensity recreation).

Periodic Review: A requirement of ORS 197.640 which compels cities and counties to review their comprehensive plans and land use regulations periodically.

Plans: Plans are documents which guide land use decisions, including both comprehensive and single purpose plans of cities, counties, state and federal agencies and special districts.

Preservation (Stream Corridor): Action which ensures that stream corridors are maintained intact and unharmed, and otherwise protected from actions that might degrade their functions and values.

Preservation (Wetland): Ensuring that wetlands are maintained intact and unharmed, and otherwise protected from actions that might degrade their functions and values.

Primary Bus: Primary Bus service operates with maximum frequencies of 15 minutes with conventional stop spacing along the route. Transit preferential treatments and passenger amenities such as covered bus shelters, lighting, signal preemption and curb extensions are appropriate at high ridership locations. The future Line 41, between the Tualatin Park and Ride and the Barbur Transit Center, via Boones Ferry, McNary, Jefferson and Kerr, is planned as Primary Bus line.

Private Open Space: Property that is privately owned and used for open space purposes, such as golf courses and cemeteries. Private open space also includes areas such as such as private open space tracts and common areas within subdivisions or planned developments. Such areas are typically found

within tree groves and stream corridors and often have pathways. Private open space may either be developed open space with formal lawns and landscaping or natural open space. Private open space is intended to be used by members or residents only within a private development or subdivision.

Private Streets: Roadway surface improvements whose primary purpose is to convey traffic and provide vehicle access to a tract of land retained in private ownership by an individual or individuals, an association, a corporation or other legal entity having fee title to that tract of land. Examples of private streets are the major vehicular thoroughfares in shopping malls and office campuses and dead end streets owned and maintained by homeowners associations in condominiums, apartment complexes and single family subdivisions.

Public Facilities Plan: A public facility plan is a support document or documents to a Comprehensive Plan. The public facility plan describes the water, sewer and transportation facilities which are necessary to support the land uses and densities designated in the Plan. Certain elements of the public facility plan shall be adopted as part of the Comprehensive Plan as specified in OAR 660-11-45.

Public Open Space: Property that is publicly owned and designated as "Open Space" on the Comprehensive Plan Map, or; property that has been dedicated to the public, designated as a public open space tract, or protected through a conservation easement or similar mechanism. Public open space is land that is to remain in a natural condition for the purpose of providing a scenic, aesthetic appearance, protecting natural systems, providing passive recreational uses or maintaining natural vegetation.

Public Services: Those services provided by the City of Lake Oswego, Lake Oswego School District, and West-Linn Wilsonville School District that would be needed by development within urban reserve areas including, but not limited to: water, sewer, storm drainage, transportation, parks and open space, library, fire and police protection, and schools.

Public Street: The surface improvements in a designated public right-of-way whose primary purpose is to convey traffic and provide access to abutting properties.

Quality of Life Indicators: Quantitative measurements of the elements of a community's quality of life. Collectively the Indicators measure the extent to which a community has achieved its goals for a livable city. Individually the Indicators can be used to evaluate the impact of future development on the City's quality of life.

Quasi-judicial Plan Amendment: A quasi-judicial Plan amendment applies to a small number of identified properties or is required to effect a particular development permit application.

Redevelopment (of Commercial and Industrial Areas): Development action which increases the value, vitality and aesthetic quality, and commercial and industrial areas.

Regional Draw Businesses: These are businesses which draw customers from not only the Lake Oswego market area, but also from throughout the Portland Metropolitan Area. For the purposes of the Comprehensive Plan a regional draw business shall be any single tenant commercial establishment with a floor area of greater than 35,000 square feet.

Regional Rapid Bus: Regional Rapid Bus provides high frequency, high-speed service along major transit routes with limited stops. This service is a high-quality bus that emulates Light Rail Transit (LRT) service in speed, frequency and comfort. A high level of transit amenities is provided at major transit stops, including schedule information, ticket machines, lighting, benches, covered bus shelters and bicycle parking. The portion of existing Line 35, between Lake Oswego and Portland, is planned as a Regional Rapid Bus line.

Relative Earthquake Hazard Map: A map provided by DOGAMI (Oregon Department of Geology and Mineral Industries), illustrating the areas where earthquakes present the greatest hazard, on average, to least hazard.

Resource Conservation (RC) District: The Resource Conservation (RC) District is an overlay zone designed to protect significant tree groves. A tree grove may be placed within an RC District if the tree grove has:

- a. A HAS ranking of at least 35 in the 1994/95 ESEE study; or
- b. A "high" ranking for scenic values in the study; or
- c. Is adjacent to a stream corridor or wetland that has an RP ranking.

Resource Protection (RP) District: The Resource Protection (RP) District is an overlay zone designed to protect environmentally significant stream corridors and wetlands. The following resources may be placed within the RP District:

- a. Stream corridors and wetlands that have a HAS ranking of 50 or more (defined as "Class I stream corridors and wetlands).
- b. Stream corridors and wetlands that have a HAS ranking of 35-49 or have a "high" ranking for scenic values (defined as "Class II" stream corridors and wetlands).

Riparian: Lands which are adjacent to rivers, streams, lakes, ponds, and other water bodies. They are transitional between aquatic and upland zones, and as such contain elements of both aquatic and terrestrial ecosystems. They have high water tables because of their close proximity to aquatic systems, soils are comprised largely of water-carried sediments, and contain some vegetation that requires free (unbound) water or conditions that are more moist than normal.

Scenic Resources: Elements of the physical environment that are valued for their aesthetic appearance and characterize Lake Oswego, such as trees, steep hillsides, forested ridge lines, rock outcroppings, water features, and views of Mount Hood, Oswego Lake, the Willamette River, and the Tualatin Valley.

Secondary Bus: Secondary Bus service provides coverage and access to higher level transit services. Secondary bus service runs as often as every 30 minutes on weekday. Weekend service is provided as demand warrants.

Secondary (Accessory) Dwelling Unit: A dwelling unit that has been created within, by means of addition to, or as an accessory structure to, a single family dwelling; with separate parking, kitchen and bathing facilities.

Seismically Active Areas: An area which has had earthquakes in historic times.

Sensitive Lands: Lands containing natural resources that have environmental significance within the Lake Oswego planning area (Urban Service Boundary) including wetlands, stream corridors, and tree groves. Such lands are more sensitive or easily damaged by development impacts than non-resource lands.

Sensitive Lands (SL) Atlas: The bound volume of maps on file in the Planning Department showing the boundaries of RP and RC Overlay districts on individual property maps at a scale of 1:200. The SL Atlas is a component of the Comprehensive Plan and Zoning Maps and is created and modified pursuant to the standards and criteria contained in LOC Article 48.17 (Sensitive Lands). The districts shall also be shown on the City-wide Comprehensive Plan and Zoning Maps for convenience, but the more specific boundaries as shown in the Atlas shall control regulation pursuant to LOC Article 48.17.

Settlement and Annexation Agreement: A legal agreement among the City, Unified Sewerage Agency of Washington County (USA) and property owners in the Kruse Way portion of the Lake Oswego's Urban Service Boundary. The agreement area was the result of a court case brought by the property owners to develop Kruse Way in Clackamas County to the County's development standards and be provided water and sewer service by USA and the Lake Grove Water District. Upon occupancy, each development is to annexed to the City. The agreement was entered into in 1988.

Shared Roadway: On shared roadways, bicyclists and motorists share the same travel lanes. There are two variations: 1) a shared roadway is a wider than normal curbside travel lane, on streets with higher volumes and speeds, provided to give extra room for bicycle operation where there is insufficient space for a bicycle lane or shoulder bikeway. An example of a shared roadway is the 14-foot wide curb lanes on State Street. On neighborhood streets with low traffic volumes (3,000 ADT or less) and speeds (25mph or less), wide outside lanes are not necessary for safe conduct of bicycle traffic.

Shopping Centers: For the purposes of the Comprehensive Plan, Shopping Centers are a group of commercial establishments, planned, constructed, and managed as a total entity, with customer parking provided on-site, provision for goods delivery, separated from customer access, aesthetic considerations and protection from the elements, and landscaping and signage in accordance with an approved plan.

Single Occupant Vehicle (SOV) Trip: An auto trip made by a driver with no passenger. Reducing SOV trips and auto trips in general is the goal of encouraging alternative transportation (bicycling, walking, transit) and car pooling programs.

Specialized Services and Unique Goods: Goods and services which cater to a specific or distinctive market and are specifically sought out by clientele within the community and throughout the region. Businesses in this category include establishments which provide uncommon merchandise, high quality eating, entertainment and cultural opportunities, arts and crafts, etc. Professional services, such as medicine, law, finance, etc, are considered to be specialized services and capable of attracting clients from beyond the community.

Stable City: A city which has constructed the basic public facilities needed to serve its present and projected population and which has limited land available for major expansion that would require major expansion of its public facilities to serve the additional growth.

Stream: A natural body of running water flowing continuously or intermittently in a channel on or below the surface of the ground.

Stream Corridor: A stream corridor is an area of land that includes a stream and a set of natural features generally associated with the stream. These natural features include, stream channels, flood plains, wetlands, riparian vegetation, associated vegetation, steep slopes, and habitat features. A stream corridor generally includes the following:

- a. <u>Hydrological Characteristics.</u> Physical features that affect stream flow capacity, rates of channel erosion and patterns of sedimentation including but not limited to stream alignment, cross section and profile, roughness of channel and banks, and drainage patterns.
- b. <u>Plant Communities and Wildlife Habitat.</u> The association of trees, shrubs, ground cover, and aquatic plants that affects the hydrological characteristics of a stream corridor, reduces runoff turbidity, provides shade which lessens thermal pollution, filters out nutrients carried by runoff, protects stream corridors soils and slopes from erosion, and provides habitat for fish, wildlife and aquatic organisms.

- c. <u>Soils with Potential for Severe Erosion.</u> Soils within stream corridors tend to be very erosion-prone by nature. This feature affects channel erosion rates, patterns of sedimentation down-stream, and potential for hazards to property within and adjacent to the stream corridor.
- d. <u>Ravines and Steep Slopes.</u> Lake Oswego stream corridors frequently include ravines and steep slopes.
- e. <u>Associated Aquatic Elements.</u> Floodplains and wetlands may be adjacent to or associated with the stream.

Stream Corridor Functions and Values: The beneficial characteristics of stream corridors, including, but not limited to:

- . Protection of wildlife habitat and travel corridors,
- . Protection of riparian vegetation,
- . Erosion control,
- Flood and storm water control,
- . Water quality enhancement,
- Open space, passive recreation, and visual enjoyment, and;
- . Cultural, social, education and research values.

Strip Commercial Development: Commercial or retail uses, usually one-story high and one store deep, that front on a major street and are oriented towards access by the automobile. Strip commercial development is typically characterized by street frontage parking lots serving individual stores or strips of stores. Strip commercial development differs from central business districts in at least two of the following: 1) there are no provisions for pedestrian access between individual uses; 2) the uses are only one store deep; 3) buildings are arranged linearly rather than clustered; and 4) there is no design integration among individual uses.

System Development Charges (SDC): An SDC is a reimbursement fee, an improvement fee, or a combination thereof, assessed or collected at the time of increased usage of a capital improvement or issuance of a development permit, building permit or connection to the capital improvement. System development includes that portion of a sewer or water connection charge that is greater than the amount necessary to reimburse the governmental unit for its average cost of inspecting and installing connections with water or sewer facilities. An "improvement fee" means a fee for costs associated with capital improvements to be constructed. A "reimbursement fee" means a fee for costs associated with capital improvements already constructed or under construction.



Town Centers: Town Centers may serve a population base of tens of thousands of people. Within these areas the City will encourage good transit services, a pedestrian environment, shopping, services, entertainment, and higher density housing so that residents may have more transportation choices by locating

near these uses and services. There are two areas designated as Town Centers in Lake Oswego: Lake Grove (Figure 24) and Lake Oswego (Figure 25).

Transit Corridors: Within these corridors, development may be continuous, such as along portions of Boones Ferry Road in the Lake Grove area, or organized around major intersections or transit stops with sections of residential development in between, based on appropriate criteria. Transit corridors are to receive frequent, high-quality transit service. There are four transit corridors designated in Lake Oswego: 1) State Street, 2) A Avenue, 3) Boones Ferry Road, between Country Club and I-5 and 4) Kruse Way (See Figure 27). Those segments with solid lines in Figure 27, represent Transit Corridors which contain commercial, high density residential, employment intensive, or mixed use development. The broken lines represent the portions of the Transit Corridor which link the nodes of higher intensity uses described above.

Transit Supportive Uses: Land uses and developments that encourage the use and development of alternative transportation facilities such as rail, bus, car-pooling, bicycle and pedestrian modes.

Transportation Disadvantaged: Those individuals who have difficulty in obtaining transportation because of their age, income, physical or mental disability.

Transportation System Plan (TSP): A plan for one or more transportation facilities that are planned, developed, operated and maintained in a coordinated manner to supply continuity of movement between modes, within and between geographical areas and jurisdictions.

Tree Grove: A stand of three or more trees (of the same species or a mixture) which form a visual and biological unit, including the area between the forest floor and the canopy, including skyline trees, and including any understory vegetation existing within the canopied area. The stand of trees must be at least 15' in height and must have a contiguous crown width of at least 120' to qualify as a tree grove.

Turn Refuge Lane: A turn land which provides for left or right turns away from the vehicle travel lane. A turn refuge lane could be at an intersection of two streets or where other major turning movements are required.

Underutilized (Commercial and Industrial Land): Refers to a methodology used during periodic review of the Comprehensive Plan to comply with OAR 660-09(15)(A) to determine the total number of parcels of vacant or "significantly underutilized" parcels. A parcel is "underutilized" when there is a large difference between the value of improvements on a parcel and the land value. Where land value is significantly greater than the value of the improvements, redevelopment is probably profitable. A detailed description of the methodology is contained in Appendix "A" of the August, 1988 Lake Oswego Periodic Review Order.

Urban Reserve Area: Land designated by Metro outside the 1996 Urban Growth Boundary for future growth.

Urban Services Boundary: Lake Oswego's ultimate growth area, within which the City will be the eventual provider of the full range of urban services.

Urbanization Plan: A comprehensive document including maps and text which specifies the land uses that will be developed in an urban reserve area, the on-site and off-site public facilities that will be required to be constructed to serve the development and maintain current service levels to existing development, and the financial strategy which specifies how the public facilities will be funded and how the ongoing costs of providing public services to the urban reserve area will be funded.

Vehicle Miles Traveled Per Capita (VMT): The number of miles traveled in single person vehicles per person in a specified area during a specified time period.

Walking Distance to a Transit Stop: One-quarter mile from bus stops or one-half mile from light rail stations, according to "Planning and Design for Transit," Tri-County Metropolitan Transportation District of Oregon, March, 1993.

Water Courses: Water courses are ephemeral, intermittent, and perennial drainageways which exhibit defined channels. They also include perennial springs. They may be either the result of natural processes or human-made features such as canals, mill races, and open draingeways which are either historic in nature, or have come to function as natural water courses, thus contributing to the quality of an area's overall natural systems including hydrology, vegetation and wildlife habitat.

Ephemeral means water courses which convey water associated with rainfall events. Intermittent means water courses whose conveyance of water is seasonal in nature. Perennial means water courses which convey water year-round.

Springs means water courses which flow underground, or emanate from the ground.

Water Dependent Structures: Structures necessary for a use or activity which can be carried out only on, in or adjacent to water areas because the use requires access to the waterbody for water-borne transportation, recreation, energy production or source of water.

Water Dependent Uses: 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.



Water Quality Limited: A body of water is said to be water quality limited when it does not meet water quality standards even after conventional secondary wastewater treatment and effluent limits for industrial sources are applied. Pollutants which affect these water bodies include varying amounts of excessive nutrients, sediments, fecal coliform bacteria, copper and other metals, household and industrial chemicals, oil and grease.

Water Related Use: Uses which are not directly dependent upon access to a water body, but which provide goods or services that are directly associated with water-dependent land or water use, and which if not located adjacent to water, would result in a public loss of quality in the goods or services offered. Except as necessary for water-dependent or water-related uses or facilities, residences, parking lots, spoil and dump sites, roads and highways, restaurants, businesses, factories and trailer parks are not generally considered dependent or related to water location needs.

Watershed: The entire land area drained by a stream or system of connected streams from which a water provider acquires raw water for treatment and distribution.

Weak Foundation Soils: Also known as unstable soils. Those soils which may cause overall settlement or differential settlement resulting in damage to structures not designed to accommodate movements. Weak Foundation Soils have one or more of the following characteristics: Low strength, compressibility, high organic material content, high shrink-swell ratio or elasticity or slow percolation and wetness. (The Weak Foundation Soils and Potential Landslide Map is available at City Hall.)

Wetland: An area that is inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soil conditions, commonly known as hydrophytic vegetation. Wetlands generally include but are not limited to swamps, marshes, bogs and area with similar vegetation.

Wetland Functions and Values: The beneficial characteristics of wetlands including but not limited to:

- a. Wildlife and plant habitat protection,
- b. Protection of rare, threatened and endangered species,
- c. Erosion control.
- d. Flood and storm water storage,
- e. Water quality enhancement,
- f. Ground water recharge,
- g. Open space, passive recreation, and visual enjoyment, and;
- h. Cultural, social, education and research values.



Willamette River Greenway: An area along the Willamette River including all lands within 150 feet from the ordinary low water line on each side of the channel of the Willamette River and such other lands considered necessary. Development in the greenway is reviewed for compliance with the natural, scenic, historic and economic qualities of the greenway.

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