Willow Creek Special Area Study
Eugene City Council

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I. INTRODUCTION

The Eugene-Springfield Metropolitan Area General Plan (February 1982) updated and replaced the 1990 General Plan adopted in 1972. The Metro Plan sets forth broad policy directions which guide public decisions concerning development of the area. While the Metro Plan is a basic land use policy document for the area, it provides the basis for more detailed studies and plans (such as this Willow Creek Special Area Study). In all cases, the Metro Plan is the guiding document. Refinement plans, and special area studies must either be consistent with direction established in the General Plan or a process for its amendment must be initiated.

This study is in several sections as noted on the preceding Table of Contents. The first section lists the summary of the study and policies being recommended. Each individual policy is followed by a brief discussion of the policy. Additional background information for the policies, as well as further discussion of the land use alternatives and elements of the Willow Creek Basin, are found in the latter sections of the Study. Policies are adopted by the City Council as guidance for decision-making related to the Plan area. City programs, actions, and decisions, such as zone changes, traffic pattern changes, and capital improvements, will be evaluated on the basis of their ability to implement these policies as well as other adopted City goals and policies. Because they are adopted by the Council as the City's guide for action, policies are the most important statements in the Study.

As in other planning efforts in Oregon, this Special Area Study responds to Statewide Planning Goals established by the Land Conservation and Development Commission (LCDC). In response to Goal 2, Land Use Planning, coordination in development of this Study has occurred through referral of drafts for comments to appropriate governmental agencies including the Department of Land Conservation and Development. Although Statewide goals 1 through 14 are applicable to this Study, goals 5 (Open Space), 8 (Recreational Needs), 9 (Economy), 10 (Housing), 11 (Public Facilities and Services) and 14 (Urbanization) are particularly salient. While LCDC goals are dealt with in the policy section of this Study, pertinent Goals are also discussed in other sections of the Study as follows:
During the 1970s, two basic planning concepts were established in Eugene that directly affect future development of the Willow Creek Basin:

1) The western and southwestern portions of the metropolitan area were established as the primary growth areas for Eugene for at least the remainder of this century. The Metropolitan Area General Plan reinforces this policy direction by identifying the Willow Creek Basin as an important development area for Eugene.

2) The concept of development nodes was established in the mid-1970s. Development nodes are meant to provide facilities for living, working, recreation, and commerce within one general area. The development node concept is especially critical in responding to adopted policies pertaining to compact urban growth, efficient use of public services, and maximum efficiency from the area's transportation system. This concept was first established through the Goodpasture Island Study (June, 1975), and further refined in the Coburg-Crescent Special Area Study (July, 1981). Recognizing the value of the concept, the Metro Plan calls for nodal development patterns in the Willow Creek Basin. Because of its location in the southwestern portion of the metropolitan area, the Basin is a logical continuation of the physical, economic and social growth of the city of Eugene.

Direction to develop the Willow Creek Special Area Study was given by the Eugene Planning Commission on February 22, 1982 through approval in concept of a draft work program. Actual staff work on the special area study began in early March.
The study area for the Willow Creek Special Area Study is shown on Map A. The purpose of the Special Area Study is to establish more specific policy direction and land-use arrangements in the southwestern portion of the metropolitan area -- the Willow Creek Basin.

The Willow Creek Basin is important for the future development of the community because:

1. It is in proximity (approximately 10 minutes driving) to Mahlon Sweet Field, the regional airport for the southern Willamette Valley;

2. It is within 15 minutes driving time of downtown Eugene;

3. It contains large undeveloped parcels, which will provide flexibility for future development as it occurs in the Basin;

4. It has interesting and varied topographical and environmental features providing a unique setting, which will be attractive to new business; and

5. It provides an opportunity for the community to encourage development while meeting goals pertaining to compact urban growth and transportation.

II. SUMMARY AND POLICIES

In order to facilitate public discussion, two alternative land use arrangements were proposed as part of the draft study. The first alternative, a high intensity employment alternative, anticipated siting of intensive employment activities in the center of the Basin. This alternative involved an amendment to the Metropolitan Plan. The second alternative focused on residential development, with emphasis on low, medium and high-density residential land-use. This alternative did not involve amendments to the Metro Plan. Both alternatives were considered to be consistent with land-use policies established for the City of Eugene over the last twenty years.

This land-use configuration:

1. Emphasizes the need for extension of sanitary sewer service in the west Eugene area, especially to the Willow Creek Basin.

2. Emphasizes the need for east-west transportation corridors as called for in the Eugene-Springfield Area 2000 Transportation Plan (T-2000), and recognizes that construction of the 6th/7th Avenue Extension and four-lane widening improvements to 6th-7th avenues east of Garfield Street identified in that document will be critical in responding to this need.

3. Identifies the need for improvements to Beltline Road, such as widening of this facility between Willow Creek Basin and its intersection with the new 6th-7th Avenue Extension.
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3. Identifies the need for improvements to Beltline Road, such as widening of this facility between Willow Creek Basin and its intersection with the new 6th-7th Avenue Extension.
4. Preserves critical wetlands in the Basin through density transfer mechanisms.

5. Anticipates fire protection to be provided through Station #10 (existing) which must be re-staffed and upgraded from a rapid attack facility to substation status.

6. Assumes police protection to be provided through the current central dispatch system.

7. Identifies the need to provide a new arterial facility from the intersection of Beltline Road which might extend south along the general alignment of Willow Creek Road to the urban growth boundary.

8. Provides land-use arrangements which can emphasize pedestrian, bicycling, transit and paratransit modes of transportation.


10. Provides for major public activities, including an elementary school, community center and park, day care facilities, and incubator industrial activities to be located within one general area of the Basin called a "public resource node".

11. Requires provision of a key level of urban services as defined in the Metropolitan Plan as part of annexation and development proposals.

Policies

The following policies reflect direction established by broad planning documents such as the Eugene-Springfield Metropolitan Area General Plan, Eugene's 1974 Community Goals and Policies Document, and T-2000. They are intended to provide guidance for public decision making in the Willow Creek Basin area and to be used in conjunction with other applicable policies found in the Statewide Goals and Guidelines, Metropolitan Area General Plan, and Eugene's 1974 Community Goals and Policies document.

A. Land Use

Policies pertaining to land use are consistent with related policies developed in the City over a number of years. They are directed at supporting the nodal development concept which involves concentrations of employment, housing and commercial activities. This has become an integral part of Eugene's implementation of the compact urban growth form -- a basic goal for the entire metropolitan area. These policies also reflect the balance between environmental and development issues in the Willow Creek Basin.

1. The City of Eugene shall actively seek annexation of the land designated special-light and light-medium industrial in the Willow Creek Special Area Study.
This policy is consistent with other policies in the Metropolitan Plan which provide for annexation of industrial land in conjunction with an approved capital improvement program that outlines provision of sanitary sewer service to an area. The Metro Plan policy also provides for interim sanitary sewer service through acceptable (to both the city and developer) facilities, such as sewage lagoons, when a permanent servicing plan has been established through an adopted capital improvement program. Adoption of the City's capital improvement program for FY 1982-83, which identifies the West Eugene Trunk as Eugene's highest priority for capital improvements, helps fulfill this policy direction. Finally, the Metro Plan contains policy language (policy #23, Page III-B-6 - Aug. 1980 Metro Plan- and policies #18, Page 26 and 19, Page 6 - 1982 Plan Amendments) which support an aggressive annexation program and servicing of designated industrial lands in order to have a sufficient supply of "development ready" land. In addition, this policy responds to Eugene's own economic diversification efforts as outlined in "Eugene's Economic Diversification Program," Sept. 23, 1981, which identifies industrial siting as one strategy to improve the economic conditions of the community.

2. Except as specially provided in Policy E-3, annexation of commercial and residential land shall be deferred at least until sanitary sewer service is available to the area and other Eugene annexation requirements are met.

This reflects further policy direction established in the Metropolitan Plan to annex commercial or residential land only upon availability of a key range of urban services (including sanitary sewers), and to maintain a 6 - to 10 - year supply of developable land in all categories.

3. Map E reflects land-use arrangements for the Willow Creek Basin and shall become one basis for future implementation through zoning or other applicable land use measures.

The approved land-use map reflects a variety of policies within this special study and other approved policy documents such as the Community Goals and Policies and the Metro Plan.

4. The City of Eugene shall apply its planned unit development (PUD), cluster subdivision or site review procedures (as appropriate) in the Willow Creek Basin in at least three cases:

a. Properties with elevation and slope, soil and geologic conditions which fit criteria identified in Eugene's South Hills Study for applying PUD procedures;

b. Properties in or adjacent to designated natural areas will be developed under either PUD or site review procedures, depending on the scale and complexity of the project; and

c. Properties along natural stream courses will be developed under either PUD or site review procedures depending on the scale and complexity of the project.
On properties with slopes and elevations which fit criteria to apply planned unit development procedures outlined in the South Hills Study, the PUD procedures shall include direction to: 1) minimize the effects of development on visual assets; 2) cluster development away from potential and identified problem soils, slopes and geologic conditions; and 3) maximize retention of existing vegetation. On properties in or adjacent to designated natural areas, the PUD procedures should include direction to: 1) transfer residential densities from natural resource areas to buildable portions of tax lots; 2) control storm drainage (quantity and quality) consequences on the natural area; and 3) use buffering techniques such as vegetative landscape barriers, or fencing, to protect the natural resource values of the site. On properties bordering stream courses, the PUD, cluster subdivision or site review procedures shall include direction for retention of natural vegetation, and buffering of the stream courses from development. This policy recognizes that under Eugene's planned unit development regulations, a variety of structure types and other neighborhood uses such as "neighborhood commercial" are allowed in any residential area.

B. Transportation

Transportation policies for the Willow Creek area reflect the major development potential of the Basin. Current estimates suggest that, if the Basin were fully developed as anticipated in the approved land-use configurations, over twice as many employees could work in the Basin as are currently employed in downtown Eugene. The transportation policies also support broad policy direction established in the area-wide transportation plan by emphasizing bicycling, walking, paratransit and transit as modes of transportation which shall be supported in development of the Basin. Finally, analysis suggests that approximately 1/3 of the trips generated from dwelling units in the study area might terminate within the study area. These trip-making characteristics reflect the nodal development concept and are supported by transportation policies in the Willow Creek Special Area Study.

1. The City of Eugene shall seek amendment to the T-2000 Plan to add an arterial generally following the alignment of Willow Creek Road, north from the urban growth boundary to intersect with 18th Avenue, then extending north to intersect West 11th Avenue at Beltline Road.

Improved access is important to development of the Willow Creek Basin. This can best be achieved through development of a new arterial, which can provide direct access from Beltline Road south, terminating at the urban growth boundary. The arterial should most appropriately intersect with West 18th Avenue at Willow Creek Road in order to utilize the existing right-of-way of Willow Creek Road south to the urban growth boundary, but alignment of this arterial will be considered through the T-2000 Transportation Plan process and detailed engineering analysis. This facility would enhance traffic movement to high intensity activity areas such as the proposed commercial development at the northern edge of the Basin. The transit transfer station called for in T-2000 for the southwestern portion of the City should be considered as an integral part of this facility. Although the specific location and operation of the
transit station should await further discussion of the arterial facility, it could appropriately be considered at a major activity point, such as the commercial area at the northern edge of the Basin.

2. Through appropriate mechanisms, proposed developments shall be encouraged to respond to an overall transit, bicycle, and pedestrian system for the Willow Creek Basin.

Development of these modes of transportation is a critical part of implementing the nodal concept of the Metropolitan Area General Plan. Pedestrian and bicycle linkages to major arterials, especially through residential areas, can facilitate use of alternative modes of transportation.

3. Bicycle facilities will be designed to connect with other major routes outside the Willow Creek Basin, in order to provide residents and employees with this transportation option for daily and recreational travel needs.

4. Major employment and commercial center proposals shall plan for convenient, covered on-site bicycle parking as an integral part of a parking program.

Policies in T-2000, the Metro Plan, and Community Goals and Policies emphasize the use of alternative modes of transportation. Provision of convenient on-site bicycle parking facilities has been shown to be a critical element in achieving implementation of these policies.

5. Through appropriate mechanisms, proposed developments shall be encouraged to provide adequate transit access.

T-2000 policies indicate that major employment, commercial, or residential concentrations should include adequate transit transfer areas which allow convenient loading and unloading of passengers and minimum disruption of other vehicular flow.

6. The City of Eugene shall work with major employers to establish and implement ongoing paratransit programs.

Paratransit has been identified as one means of achieving locally adopted transportation goals. The City of Eugene has worked to implement paratransit programs with existing major employment centers in the community and this effort should be extended to include any new employment concentrations occurring in the Willow Creek Basin.

7. Development proposals within the urban growth boundary shall be reviewed to ensure adequate access to the adjacent properties within the urban reserve area.

This recognizes the need to plan a current transportation system which can effectively be expanded to serve the entire Willow Creek Basin. This system should be flexible enough to accommodate development phasing and, where feasible, minimize disruption to existing parcels.
8. A carefully planned collector street system providing access from residential, commercial, and industrial areas to arterial streets shall be developed for the Willow Creek Basin.

Policies in T-2000 call for the use of innovative traffic engineering techniques as an alternative to major street construction whenever possible to provide adequate capacity on major streets and to minimize through traffic on residential streets. Access to collector and arterial streets should be carefully controlled to maximize traffic carrying capacity.

C. Off-Site Public Facilities

Development of the Willow Creek Basin is based on development of several regional public facilities which will actually occur outside the study area. These policies are intended to set public direction for implementation of these facilities.

1. As its highest capital improvement priority, Eugene will seek funding which will allow extension of the first phase of a major sanitary sewer trunk line in west Eugene to the Willow Creek Basin by the end of 1984. Efforts shall be made to complete the final phase of the trunk line five to ten years later.

The West Eugene Trunk Line is critical to economic diversification efforts and logical growth of the City. The City’s Planning Commission and Council have identified the West Eugene Trunk Line as the highest priority for capital improvements. This facility is critical for timely and logical development of the Willow Creek Basin. Funding mechanisms must be identified and implemented as soon as possible in order to complete this facility in a timely manner.

2. The City of Eugene shall actively seek to encourage the State of Oregon and other appropriate governmental bodies to implement the 6th/7th Highway improvement as soon as possible.

This facility was identified in the area-wide transportation plan as a critical new element in the metropolitan area street and highway network. Preliminary analysis conducted as part of this study indicates that with urbanization of the Willow Creek Basin the 6th/7th Extension will become more important. Besides providing for daily transportation needs, it will become an important social and psychological link between the Willow Creek area and the rest of the City.

3. Analysis shall be conducted and appropriate measures taken to deal with urban level storm run-off from the Willow Creek Basin.

Experience shows that increased urbanization will result in the necessity to improve storm run-off facilities. In this case, the existing Amazon Channel will become part of the major storm run-off system for the Basin. A thorough analysis shall indicate if ultimate urbanization of the Willow Creek Basin will result in capacity or flow problems, and if so, what remedial actions are necessary. Implementation measures should attempt to balance protection of bottomland in the Basin from storm run-off against the need for
maintenance of appropriate moisture levels (both quantity and quality) for vegetation in the natural area.

4. The City of Eugene shall review the implications of and, if appropriate, adopt an ordinance requiring installation of sprinkler systems in all major buildings in the City.

Sprinkler systems are an accepted first level fire-defense measure which, while offering protection to life and property, also assist in maximizing existing public investment in fire protection systems, thereby reducing the requirement for continued public investment in these types of facilities.

5. The City of Eugene shall maintain sufficient staffing and equipment capability to provide adequate fire fighting response time to the Willow Creek Basin.

Currently, this can be achieved most efficiently by re-staffing Fire Station #10 (Bailey Hill and Warren Streets), and as urbanization occurs, upgrading it from satellite to substation status, and housing a pumper truck at the station.

D. On-Site Public Facilities

As outlined in the Metro Plan, a series of minimum level key urban services are critical prerequisites to residential and commercial development of the Basin. This policy suggests that some of these services should be clustered in a public resource node within the Basin itself.

1. The City of Eugene shall explore the possibility of acquiring land for a community resource node that may eventually consist of a community park and center, an elementary school, day care facilities and an incubator industrial park which would provide start-up space for small light industrial activities.

The community resource node concept is intended to maximize public investment by providing land for facilities which can be shared by various public, quasi-public, and appropriate private activities. Under this concept, Eugene would acquire land for the public resource node and make it available to various users including appropriate social service agencies. Ultimately, siting of the elementary school facility must be approved by the School Board of District 4J, taking into account location of other existing schools, attendance boundaries and other pertinent factors. In any event, the proposed future acquisition of this property should not be used to stop development plans when other appropriate public criteria have been satisfied. The public resource node on the Plan Diagram is merely meant to schematically demonstrate this concept. It is not meant to be site specific.

2. The City of Eugene shall investigate new methods of financing capital projects required for development of the Willow Creek Basin.

As development occurs in the Willow Creek Basin, public financing of capital projects will be required. While these
capital improvements will occur over a long period of time, identification of the appropriate revenue mechanisms to provide the required financing can occur in the near future. Through the Council Revenue and Resources Committee, these mechanisms might be put in place in time for the City's FY 1983-84 Budget. Examples of mechanisms which could be employed by Eugene might include continued use of general fund sources, earmarking new tax revenues generated from new construction in the Basin for construction of capital projects in the Basin, or special systems development charges applied to new construction in the Basin and earmarked for construction of public capital improvements in Willow Creek. The Revenue and Resource Committee should also investigate funding for capital projects which could be generated in new relationships with cooperating public jurisdictions and the private sector as well as the City of Eugene.

E. Environmental

Eugene has a strong tradition of balancing environmental and development needs. Eugene's South Hills Study is a good example of public policy intended to achieve this balance. Development that has occurred in the south hills of the City reflects the fact that environmental and development needs can be blended successfully. The following policies pertaining to environmental issues are intended to continue that balance in the Willow Creek Basin.

1. Eugene shall cooperate with Lane County to protect forested slopes between the city limits and the ridgeline.

   The majority of the hillside area above the 500-foot contour elevation is forested and provides an important scenic resource, wildlife habitat, and vegetative cover. These hillside areas pose special development problems, but because they are primarily within land designated urban reserve in the Metro Plan, cooperative efforts between the City and County are important to protect these forested slopes.

2. Acquisition, transfer of development rights, public easements and dedication to the public are mechanisms which shall be used to protect a continuous corridor along the entire length of the Basin ridgeline, including properties above the 800-foot elevation contour. The same mechanisms shall be employed to pursue protection of an interconnecting environmental/recreational/storm drainage system throughout the Basin.

   These corridors represent important community resources for wildlife habitat and recreational activities (see Map G).

3. In order to facilitate agreements for protection and public management of the Willow Creek wetlands area, the City of Eugene will initiate annexation of the wetlands area and contiguously owned buildable properties provided the three affected property owners agree to such action. In the short term, a non-urban zoning classification, such as AG Agriculture and Grazing District, shall be applied to these properties until appropriate conditions have been met to provide for urban development.
Acceleration of the annexation process for these properties will facilitate agreement between the property owners and the The Nature Conservancy. Buildable portions of these properties are not currently served by public services, especially sanitary sewers. As public services are made available to the Basin and compliance with other city and metropolitan-wide policies occurs, properties will be rezoned to a residential zoning district with application of a planned unit development suffix (see Policy A - 4).

III. CITIZEN PARTICIPATION

As in all public decisions in Eugene, development of the Willow Creek Special Area Study has involved citizen participation. The involvement program has occurred through five separate methods:

1. Some of the major property owners in the Willow Creek Basin were contacted through their representatives. At least 60% of the part of the Basin within the urban growth boundary is owned by five individual (or groups of) property owners. These property owners were contacted as part of the Planning Commission's initiation of the project and reviewed staff work during development of concepts for recommendation to the Planning Commission.

2. Other property owners and residents were contacted on an individual basis. The remainder of the Basin is owned by about 260 individual property owners. Early in the development of the staff recommendations, each property owner was contacted by mail to apprise them of the Planning Commission's action in initiating the study, and to inform them that staff was available at any time to meet with individuals or small groups to discuss ideas or issues. A copy of the Planning Commission's adopted work program for this study was also forwarded as part of this mailing.

3. The Eugene Planning Commission is a citizen group that will deal with major aspects of future development particularly in the Willow Creek Basin area. Most of the land within the study area remains undeveloped. This condition is substantially different from most other refinement planning areas in Eugene which contain high levels of urban development. Because the Willow Creek Basin represents one of the major growth areas of the City (into the 21st century) and because it is currently sparsely populated, the Planning Commission itself must play the role of citizen advocate for future generations of Eugeneans. This involves balancing the Commission's role as a policy developer with one which assesses (as much as possible) the needs and desires of the citizens living or working in the Willow Creek Basin during the 21st century.

4. The Metropolitan Area Plan Advisory Committee (MAPAC), a citizen involvement body for metropolitan wide planning, has received continuous status reports and updates concerning development of this Study. This provided a metropolitan-wide perspective on public policy development for the Willow Creek Basin.

5. Citizen involvement in development of the Basin will continue after adoption of this special study. Eugene's citizen involvement program provides for citizen participation and
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discussion with the Planning Commission and ultimately the Mayor and Council at various steps of the public decision-making process. For instance, subsequent to adoption of this special area study, annexation and zoning will occur on an incremental basis. Public hearings on each annexation/zone change will be held. Affected property owners and residents will receive notification of the hearings by mail. As development of the Basin proceeds and infrastructure such as streets and sewers is installed, further notification and public hearings will occur. However, development of the Willow Creek Special Area Study is the first step in the public's participation in development of the Basin and will set the direction within which future decisions occur.

On April 8, 1982, the Eugene Citizen Involvement Committee reviewed the proposed citizen involvement techniques and approved in concept these methods to gain citizen input into development of the special study. As a result of its public hearing and Commission discussion, the Planning Commission, on June 14, 1982, voted unanimously to forward the draft (with some modifications) to the City Council for adoption. The Council also held a public hearing on the Commission's recommendation and on July 21, 1982 voted unanimously to adopt the Willow Creek Special Area Study as recommended by the Commission and further modified by the City Council.

IV. WILLOW CREEK

A. Metropolitan Area General Plan

Map B shows the urban growth boundary adopted as part of the Metropolitan Plan (February 1982) and land identified in the Metropolitan Plan as urban reserve. Urban reserve lands are defined as:

...rural areas located beyond the urban growth boundary but not needed to satisfy urban demands associated with a population of 293,700 (projected for the year 2000). These areas have been identified, based on current trends and policies, as areas for urban development beyond the planning period. Certain public utilities, services, and facilities, particularly water, sanitary sewers, and storm sewers, can be provided to areas designated urban reserve most economically following extension from areas within the urban growth boundary because of topographic features. Designating these areas at this time will assist in the preparation of capital improvement programs that extend beyond the planning period of this (the General) Plan.

The Metro Plan anticipates the Willow Creek Basin as a significant:

1. Employment center with industrial and commercial activities occurring, ultimately employing about 9,000 employees; and

2. Residential area with residential development occurring in low, medium and high density residential areas and containing a possible 11,200 units within the adopted urban growth boundary.

B. Current Study Area Conditions
discussion with the Planning Commission and ultimately the Mayor and Council at various steps of the public decision-making process. For instance, subsequent to adoption of this special area study, annexation and zoning will occur on an incremental basis. Public hearings on each annexation/zone change will be held. Affected property owners and residents will receive notification of the hearings by mail. As development of the Basin proceeds and infrastructure such as streets and sewers is installed, further notification and public hearings will occur. However, development of the Willow Creek Special Area Study is the first step in the public's participation in development of the Basin and will set the direction within which future decisions occur.

On April 8, 1982, the Eugene Citizen Involvement Committee reviewed the proposed citizen involvement techniques and approved in concept these methods to gain citizen input into development of the special study. As a result of its public hearing and Commission discussion, the Planning Commission, on June 14, 1982, voted unanimously to forward the draft (with some modifications) to the City Council for adoption. The Council also held a public hearing on the Commission's recommendation and on July 21, 1982 voted unanimously to adopt the Willow Creek Special Area Study as recommended by the Commission and further modified by the City Council.

IV. WILLOW CREEK

A. Metropolitan Area General Plan

Map B shows the urban growth boundary adopted as part of the Metropolitan Plan (February 1982) and land identified in the Metropolitan Plan as urban reserve. Urban reserve lands are defined as:

...rural areas located beyond the urban growth boundary but not needed to satisfy urban demands associated with a population of 293,700 (projected for the year 2000). These areas have been identified, based on current trends and policies, as areas for urban development beyond the planning period. Certain public utilities, services, and facilities, particularly water, sanitary sewers, and storm sewers, can be provided to areas designated urban reserve most economically following extension from areas within the urban growth boundary because of topographic features. Designating these areas at this time will assist in the preparation of capital improvement programs that extend beyond the planning period of this (the General) Plan.

The Metro Plan anticipates the Willow Creek Basin as a significant:

1. Employment center with industrial and commercial activities occurring, ultimately employing about 9,000 employees; and

2. Residential area with residential development occurring in low, medium and high density residential areas and containing a possible 11,200 units within the adopted urban growth boundary.

B. Current Study Area Conditions
The Willow Creek Basin is outside the City, and the majority of land is undeveloped. Table 1 shows the amount of land within the urban growth boundary and within the urban reserve category by existing land use.

<table>
<thead>
<tr>
<th>Land-Use</th>
<th>Within Urban Growth Boundary</th>
<th>Within Urban Reserve</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undeveloped</td>
<td>1275</td>
<td>1305</td>
<td>2580</td>
</tr>
<tr>
<td>Single Family</td>
<td>162-102 Units</td>
<td>221-95 Units</td>
<td>383-197 Units</td>
</tr>
<tr>
<td>Other Residential</td>
<td>24</td>
<td>17</td>
<td>41</td>
</tr>
<tr>
<td>Commercial/Industrial</td>
<td>88</td>
<td>0</td>
<td>88</td>
</tr>
<tr>
<td>Roads</td>
<td>72</td>
<td>70</td>
<td>142</td>
</tr>
<tr>
<td>Cemetery</td>
<td>81</td>
<td>0</td>
<td>81</td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
<td>10</td>
<td>14</td>
</tr>
<tr>
<td>TOTAL</td>
<td>1707(Ac)</td>
<td>1622(Ac)</td>
<td>3329(Ac)</td>
</tr>
</tbody>
</table>

Source: Lane County Geographic Data System, Lane Council of Governments, January 1980

The large amount of undeveloped land provides a unique opportunity to create policy guidance for this newly developing area of the City. As noted above, the urban reserve area is programmed to provide developable land beyond the projected 293,700 population anticipated in the Metropolitan Area General Plan by about the year 2000.

Existing physical conditions in the Willow Creek Basin are discussed in the Environmental Section of this Study.

V. CURRENT/FUTURE URBAN SERVICES

Urban levels of service delivery need to be programmed so that timely development of the Willow Creek Basin can occur. Six major types of urban services are critical to development of the basin in a timely and logical manner.

A. Schools

The Willow Creek Basin is within the service area of School District 4J. Both the School District and the City of Eugene have a long history of cooperation in policy and facility planning. The existence of Churchill High, Kennedy Junior High, and Bailey Hill Elementary schools immediately east of the Basin (see Map A) reflects that cooperation. This cooperative philosophy can carry over to efficient development of public educational facilities in the Basin.
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<td>Cemetery</td>
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<td>0</td>
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</tr>
<tr>
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<td>10</td>
<td>14</td>
</tr>
<tr>
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<td>1707</td>
<td>1622</td>
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Churchill High School is currently at 87% capacity and Kennedy Junior High is operating at 106%. Bailey Hill Elementary School is currently operating at 89% of capacity and next year, under the middle school concept, is anticipated to operate at about 79% capacity.

Existing policies pertaining to maintenance of inventories of developable residential land and current development trends and natural building cycles indicate total short-term development of the residential portion of the Willow Creek Basin is very unlikely. Instead, development will most likely occur on a phased basis over the next twenty years. Based on data shown in Table 2 analyzed by School District 4J staff, one elementary school facility will be required as part of the long-term residential development of the Willow Creek Basin. Additional elementary school capacity may be available in Bailey Hill School as maturation changes the neighborhood characteristics of the existing population in that area. The School District staff indicates that as residential development initially occurs school boundary adjustments will be used to balance enrollment in existing schools.

B. Sanitary Sewers

Currently, wastewater disposal in the Willow Creek Basin is handled through individual septic tanks. Adopted policies direct that urban levels of residential and commercial development are contingent upon extension of sanitary sewer service through annexation. Five points are salient to the discussion of extension of sewer service to the Willow Creek Basin:

1. The major sanitary sewer trunk system to service the Willow Creek Basin will also provide service to other lands in the west Eugene drainage basin. Eugene will provide sewer service to the Basin through construction of the major trunk system and connection of this system to the regional treatment facility.

2. Ultimately, capacity in the major trunk system will be provided to service the entire Willow Creek Basin including the urban reserve area.

3. Provision of ultimate capacity of the major trunk system may happen in a phased manner depending upon funding mechanisms.

4. The highest priority of the City is to provide sanitary sewer service to lands within the adopted urban growth boundary. Provision of service to property within the urban reserve area is of secondary importance at this time and, in any case, will not occur until those properties are included within an urban growth boundary through amendment or update to the Metro Plan.
5. All trunks and lateral sewer systems except the major trunk system, will be designed and constructed to their ultimate capacity. Their construction may be phased depending upon annexation and actual development.

Generally the City of Eugene's current policy on financing of sanitary sewers is as follows: (1) the cost of construction of any sewer lines 8" or less in diameter is borne by the abutting property owner; (2) the cost of sewer lines 10" or greater in diameter is usually shared by the City and the abutting property owners, with the property owners paying an amount equivalent to (1) above and the City paying the balance of the cost; and (3) in addition to the direct cost for sewer lines, the city levies incrementally as the site develops, a special trunk sewer levy at the rate of $0.005 (current rate) per square foot or $217.80 per acre, which is used for development of major trunk sewer lines. This rate may be increased in the future. Also a portion of the City's Systems Development Tax is earmarked for major sewer line construction.

C. Fire

The City of Eugene provides fire protection for the Willow Creek Basin through contractual arrangement with the Zumwalt Fire District. The City Fire Department responds to all calls within the Willow Creek study area as follows: first alarm response comes from Station #4 at Broadway and McKinley and Station #8 on Bernzten Road; second alarm response comes from Station #2 at First and Jackson and Station #1 at 7th and Pearl (City Hall).

The Fire Department indicates that adequate response to the Willow Creek Basin can occur on a first alarm basis from Station #10 located at Bailey Hill and Warren St. However, due to decreased funding, this station will be closed during FY 1982-83. Through three specific actions, Station #10 can be made to adequately serve future development occurring within the part of the Willow Creek Basin within the urban growth boundary:

1. Re-staff Station #10. This will be necessary in order to provide staffing for adequate fire protection.

2. Upgrade Station #10 from satellite to substation status. While Station #10 was built as a satellite station to house rapid attack equipment, it can be reconfigured to substation status. Urbanization of the Willow Creek Basin will make this upgrade necessary. Required modifications involve additions to dormitory facilities and enlargements to the garage door area so that larger equipment can be housed within the facility.

3. House a pumper truck at Station #10. The Fire Department indicates that the development foreseen in this study could be adequately served for the next fifteen years with the availability of a pumper truck for first alarm from Station #10.
While these actions can accommodate minimum fire defense needs for the Willow Creek area, two additional actions are critical for acceptable long-term fire defense for the Willow Creek Basin:

1. Installation of sprinklers in major buildings is an accepted first level fire-defense method in most major U.S. cities. While this defense mechanism has been accepted in concept in Eugene, it has not been codified. The fire department indicates that a supervised sprinkling system can: (a) provide invaluable early warning to fire officials; (b) provide a good first defense against loss of life and property; and (c) pay for itself in approximately ten years (current estimates) because of reduced insurance rates. Notably, sprinkling systems also maximize the capacity of public fire prevention systems, thereby reducing the requirement for continued public investment in these types of facilities.

2. While Station #10 will serve the short-term needs of the Willow Creek Basin, plans should be established to service the urban reserve area as urban development occurs there. At this time it appears that a facility sited on the westerly edge of the current urban growth boundary might best serve that portion of the Willow Creek Basin now in urban reserve status, as well as the industrial land north of West 11th Ave.

D. Police

Police protection is currently provided by the Lane County Sheriff's Department. As urbanization occurs, higher levels of police protection will be mandatory. This increased level of service will be provided by the Eugene Police Department in conjunction with annexations occurring in the Willow Creek area. The Police Department indicates that adequate response time to the area can be provided through the existing central dispatch system, and, at this time, it appears that urbanization of the Willow Creek area will not require establishment of a precinct system for police protection in western and southwestern Eugene.

E. Electrical/Water

Electrical service to the Basin is currently provided by the Eugene Water and Electric Board (EWEB) and Lane Electric Cooperative. Map C shows the current service boundaries for the two utilities in the Willow Creek Basin.

Electric utility boundaries for Lane Electric Cooperative are established by the State Public Utility Commissioner. EWEB has no set boundaries, but is not able to serve within the defined service areas of other utilities. However, boundary adjustments can be made with the mutual consent of both utilities. As this area develops, precise utility boundaries will have to be determined and electrical services provided accordingly.
MAP C
ELECTRIC SERVICE AREAS

LANE ELECTRIC COOP
MAP D
RIGHT OF WAY WIDTHS

28% is 50' ROW
72% is 60' ROW

29% is 40' ROW
41% is 50' ROW
30% is 60' ROW

60 ROW

78% is 60' ROW
13% is 70' ROW
3% is 70-80' ROW
6% is 90' ROW

-23-
Water for the Basin is currently provided through on-site wells scattered throughout the area. Twenty-inch water mains presently exist on 11th Avenue and Bertelsen Road. As this area is annexed to the City of Eugene, water will be provided by EWEB. According to EWEB policy, all water extensions shall be paid by the developer.

F. Roads

Map D shows the existing road system in the Willow Creek Basin with existing right-of-way widths basically reflecting County standards. Because Willow Creek has only recently been included within the metropolitan area urban growth boundary, past transportation planning, i.e. T-2000 has not programmed urban level street improvements for the area. Required street improvements are discussed further under the Transportation Section (Section IX) of this Study.

VI. OPEN SPACE AND RECREATION AREAS

As urbanization of the Basin occurs, public decisions will be required concerning provision of open space areas. The undeveloped nature of the Basin provides the opportunity to develop policy direction which can affect these future decisions. Much of the preliminary work required to develop these policies has been completed in the draft Parks Master Plan for Eugene. While that document will receive public review and adoption during 1982, the background work involved in its preparation is reflected in the provisions for open space in the Willow Creek Special Area Study.

Two types of open space considerations are necessary in the Willow Creek Basin -- active open space areas, (e.g., ball fields, and community gardens,) and passive open space, (e.g., nature trails). Both are critical parts of the urban environment.

A. Active Recreation Areas

Eugene has a strong tradition of providing a network of active open space areas throughout the city. These include regional facilities such as Skinner Butte and Amazon parks, as well as facilities serving a more localized need, such as Monroe Park or Bond Lane Park. Currently, the active recreation areas closest to the Basin are located at the Churchill High/Kennedy Jr. High complex about one mile east and Petersen Park about two miles to the north. The current draft of the Parks Master Plan correctly identifies the need to ultimately provide a major active recreational area located in the center of the Willow Creek Basin. The parks plan also identifies four locations for neighborhood facilities (about five acres each) sited throughout the Willow Creek area. However, based on subsequent analysis, the Parks Department feels that two modifications to the draft Parks Plan might be appropriate.

1. The draft Parks Plan suggests that a major active recreational facility be located on the eastern edge of the Basin near the intersection of 18th Avenue and Bailey Hill Road. While this location would be central to short-
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2. As noted above, the draft Parks Plan suggests the need for four neighborhood parks within the Willow Creek Basin. After reviewing the two proposed land-use alternatives developed as part of this document (see section on proposed land-use), the Parks Department feels that a fifth neighborhood park site should ultimately be provided. This should be located at the southeastern edge of that portion of the Basin within the urban growth boundary. This site will provide active recreational facilities for residents in the low density area surrounding the wetlands area and future residential development occurring within the urban reserve.

B. Passive Recreation Areas

The Willow Creek Basin has the potential of providing passive recreational areas near intensive urban development. These areas will complement the active open space program discussed above. Specifically, the wetlands area and the ridgeline system (see Section VIII, Environmental Issues) will be critical in providing a passive recreational program. At this time, a decision has been made to maintain the wetlands area in its natural condition, by providing access only through a walking/bicycling system which will run through the wetlands area. By a connection with 18th Avenue, this path will become an integral part of the overall recreation/transportation system of the Basin.

VII. FUTURE LAND-USE ARRANGEMENTS

The Willow Creek Basin provides the community with a unique opportunity to set public policy prior to development of the area. Because the Basin is substantially undeveloped, policy direction can be established at this time that will guide short-range and long-range development of the area and set in motion mechanisms required to build public facilities which will serve future residents, employers, and employees in the Basin.

Development of the Metropolitan Plan was the first step in establishing public policy for this area. The Metro Plan developed generalized guidelines for the area by allocating various land-use activities to the Basin. The plan diagram, adopted as part of this Special Study, is intended to conceptually identify land-use arrangements in the Basin which would ultimately be implemented by other more specific public actions. For instance: 1) the public resource node on the plan diagram is shown schematically to demonstrate the intent of the concept and is not meant to be site specific; 2) neighborhood commercial facilities may be
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located in residential areas as part of the process of urbanization; and 3) zoning and other implementation techniques will be used to specifically define land-use arrangements suggested by the plan diagram.

A. General Land-Use

Based on existing policies, two potential land-use arrangements were considered.

1. Alternative #1

Under this alternative land use in the Willow Creek Basin would be arranged to reflect:

- A major special light industrial site for activities involving manufacture of high-technology products, located in the center of the Basin, taking advantage of the gently rolling terrain in this area;

- Designation of land for light-medium industrial activities at the northern edge of the Basin;

- Medium-and-high density residential development clustered in proximity to the employment centers in Willow Creek to encourage the use of alternative modes of transportation.

- Location of commercial activities at the northern edge of the Basin in proximity to light-medium industrial activities.

Alternative #1 maximizes the nodal development concept by creating an environment which fosters neighborhood identity, but provides for logical and continuous development of the City. It reflects the direction established in the Metro Plan and responds to the nodal development concept by anticipating that areas of high intensity employment would ultimately occur in the Basin. Finally, Alternative #1 responds to policy 22, page III-B-6 of the Metro Plan which calls for continued evaluation of other sites for potential light-medium and special-light industrial sites. Alternative #1 sufficiently modifies the Metro Plan to require an amendment to that document.

2. Alternative #2

This alternative closely parallels arrangements generally proposed for the Basin in the Metro Plan. Under Alternative #2:

- A special light industrial site would be located toward the northern edge of the Basin with direct access to West 11th Avenue and Beltline Road.

- Greater emphasis would be placed on residential development than in Alternative #1.

- Commercial facilities would be located at the northern edge of the Basin in proximity to industrial sites with direct access to West 11th Avenue and Beltline Road. Because of its proximity to these industrial sites in the Basin, the commercial land would
potentially supplement activities occurring on industrial land at the northern end of Willow Creek.

Alternative #2 supports the nodal concept in the Metro Plan by emphasizing residential development in the Basin. Alternative #2 merely refines land use arrangements in the Metro Plan and will not require an amendment to that document.

3. Summary of Action

Both the Planning Commission and Council conducted public hearings on the draft Willow Creek Study. Testimony presented at the public hearings strongly supported the direction established in Alternative #1. Both bodies based their deliberations on 1) established public policy; 2) testimony presented at both the Planning Commission and Council public hearings; and 3) data and information presented as background information to the draft study.

As a result of its public hearing and Commission discussion on June 14, 1982, the Planning Commission voted unanimously to forward the draft (with some modifications) to the Council for adoption. The commission included the land-use configuration generally described in Alternative #1 in its recommendation.

On July 21, 1982, the Council unanimously adopted the Willow Creek Special Area Study, incorporating in that adoption the land-use configurations generally described in Alternative #1 and shown on Map E.

Table 2 shows the approximate area (in acres) devoted to the various land-uses anticipated in the Willow Creek Basin.

B. Public Resource Node

Both alternatives contain a proposal to establish a public resource node within the interior of the Willow Creek Basin. This is intended to provide land for an elementary school, a community center, major active recreational areas (e.g. ballfields), incubator high technology facilities (a start-up space), and day care facilities. While these types of facilities are generally available within the community, this proposal conceives them being clustered in one area and located in proximity to other high-intensity land uses in the Basin. Under this proposal, the City would investigate the implications, and, if appropriate, implement a land acquisition program for the public resource node. Ultimately, the City could control all land within the public resource area and through contractual arrangements provide land for various facilities including an elementary school. Ultimately, however, the School Board must decide on siting of the school. Other users, including small high technology firms, could utilize the land through lease arrangements with the City. If, as in other parts of the City, a change in demands for certain facilities occurs conversion to other public uses might be appropriate. Overall, the premise of the public resource center concept is to minimize public investment through sharing of facilities. While this is not a new concept in Eugene, the proposal is the next logical evolutionary step in this idea for the community.
MAP E

1 Commercial
2 Special Light Industrial
3 Light-Medium Industrial
4 High Density Residential
5 Medium Density Residential
6 Low Density Residential
7 Open Space
8 Natural Area

••••• Public Resource Node
C. Environmental Land Use

Under both alternatives, the Willow Creek wetlands are identified as a natural area. A more detailed discussion of the environmental importance of this portion of the basin is contained in Section VIII, Environmental Issues, in this study. However, it is important to note that while the wetlands area is shown as a natural area, the properties are currently under private ownership. As a result of the Land Conservation and Development Commission's (LCDC's) acknowledgement requirements for the Metro Plan, a process was established to address and resolve potential conflicts between future development and maintenance of the environmentally sensitive area. While the LCDC set the stage for this effort, it was through the work of the property owners and The Nature Conservancy (a non-profit environmental organization) that specific resolution of this potential conflict occurred. The process for preservation of these sensitive lands is as follows:

1. The City of Eugene will annex and concurrently rezone to AGT (Agricultural, Grazing and Timber District), or a similar non-urban zoning classification, the environmentally sensitive areas and less critical buildable lands under common ownership and adjacent to the natural area;

2. As the buildable portions of the lands are needed for urban development, and services (including sanitary sewers) are made available, rezoning to a residential district and application of the PUD suffix will occur.

3. Through "density transfer" provisions of the current planned unit development regulations, transfer of density from the environmentally critical area to the buildable areas of these properties will occur.

This process responds to Policy 22, Page III-A-6 of the Metro Plan which calls for economic incentives, "such as density bonuses for builders and developers who provide amenities or specialized housing that benefit the metro area..."

At this time, The Nature Conservancy is negotiating access and management rights through a direct lease arrangement. As part of this process, the Conservancy will determine the exact area to be managed for future public use through a detailed land survey. This survey will then specifically designate the protected area and designate that portion of the wetlands which will not experience urban development. Prior to annexation and development approval, the lease will provide interim protection for environmentally sensitive areas. However, ultimate protection of the wetlands will result from ownership by the Conservancy (or some other public body) and planned unit development approval with density transfer from the sensitive areas. If long term maintenance and management of this area is provided by the City of Eugene, this action could have budgetary impacts which are not currently programmed.

While the planned unit development process provides a density transfer mechanism, actual development on the buildable part of these properties will also be directed by other factors such as: 1) conditions of an approved planned unit development application, e.g., building
placement, amenities; 2) the market for certain types of housing, which can only accurately be assessed at the time of development; and 3) building envelopes and siting, which in part are controlled by the market as well as conditions of approval of a planned unit development.

Table 2
Willow Creek Basin
Special Study Allocations
(In Approximate Acres)

<table>
<thead>
<tr>
<th>Plan Designation</th>
<th>Acres</th>
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<tr>
<td>Low-Density Residential</td>
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<td>Medium-Density Residential</td>
<td>320</td>
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<tr>
<td>High-Density Residential</td>
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<tr>
<td>Special Light Industrial</td>
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<tr>
<td>Light-Medium Industrial</td>
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</tr>
<tr>
<td>Commercial</td>
<td>75</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
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</table>

Data in Table 2 excludes: 1) the area of existing roads; 2) the cemetery at the northern edge of the Basin; and 3) area for land designated urban reserve.

Table 3 compares the potential for future residential and employment development in the Basin.
Table 3

Residential and Employment Potential
Willow Creek Basin Special Study

<table>
<thead>
<tr>
<th>Land Use</th>
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<td>Low-density</td>
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<tr>
<td>Medium-Density</td>
<td>3500</td>
</tr>
<tr>
<td>High-Density</td>
<td>2000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>8350</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Employees</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial</td>
<td>5700</td>
</tr>
<tr>
<td>Special Light Ind.</td>
<td>6300</td>
</tr>
<tr>
<td>Light-Medium Ind.</td>
<td>5550</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>17550</strong></td>
</tr>
</tbody>
</table>

(1) Note: Numbers in Table 3 are merely estimates and actual numbers of dwelling units and levels of employment may be higher or lower depending on specific development plans.

A total of seven special light industrial sites (about 885 gross acres total) are designated in the Metro Plan. Those seven sites were not designated to meet projected employment demand; they were designated to respond to goals regarding diversification of the local economy. A number of sites were designated to meet two objectives: (1) allocation of sites to meet the cities of Springfield and Eugene needs; and (2) allocation of sites in various sizes, configurations, and locations to allow choice among several sites by potential special light industrial firms. Criteria used for selecting the seven sites in the Metro Plan include: (1) large scale - in excess of 50 acres; (2) five or fewer ownerships; (3) good access to transportation facilities - especially highways; (4) buffered from detracting surrounding urban uses; (5) campus-like atmosphere; and (6) the ability to extend services to the site.

Originally the Metro Plan designated a special light industrial site at the northern edge of the Basin near West 11th Avenue.

1. Size - The approximately 230 acre special light industrial site in the approved study is in one ownership and can provide siting potential for a major user. The special light industrial site in Alternative #2 is split by Willow Creek Road into approximately sixteen separate parcels possibly rendering it less desirable by a potential major firm.
2. Access - While land at the northern edge of the Basin currently has access to a major arterial (West 11th Avenue), upon extension of the proposed arterial facility south from Beltline Road, the access to the special light industrial site adopted as part of the study would be superior.

3. Surrounding Uses - The topography of the site provides natural buffering from existing transitional heavy industrial uses to the north.

4. Campus-Like Environment - Some firms do prefer gently rolling topographical conditions. The site contains this type of condition. In addition, it provides opportunities for unobstructed views to the scenic forested hills to the south, and the natural wetlands area to the east.

In addition to the points noted above, the Willow Creek Study provides a residential land use arrangement which responds more efficiently to goals and policies of the community pertaining to balanced land use and compact urban growth. This occurs through clustering of the multiple family land uses around the major service and employment centers, i.e., commercial and industrial land uses.

VIII. ENVIRONMENTAL ISSUES

This section summarizes a more extensive environmental analysis conducted by Lane Council of Governments for the Willow Creek Study. The results of the detailed work are on file at the Eugene Planning Department Office.

The Study area consists of two drainage areas (the Willow Creek and Greenhill subbasins) which flow north into the Amazon drainage system, which in turn empties into the Long Tom River through Fern Ridge Reservoir. The northern portion of the Willow Creek Basin below the 500-foot level is generally flat or gently sloped and unforested. The southern and western hillside slopes of the Basin above the 500-foot elevation are forested. The undeveloped nature of the Basin provides the opportunity to achieve a balance between the need for future urban development in this area and protection of the many existing environmental resources. The ultimate result of this balancing can be an attractive urban environment.

A. Soils

Map F shows soil classifications for the Willow Creek Basin and Appendix A identifies those classifications. The soil mapping technique and soil constraint model used in updating the Metro Plan were also used for this Study (for more details see the Metro Plan "Natural Assets and Constraints" working paper, LCOG, April, 1978). In certain circumstances soil conditions may affect development considerations. Because the combination of factors affecting soil suitability and because design solutions to various soil conditions are complex and vary on a case-by-case basis, and because soil mapping is generalized, on-site analysis is required to identify development limitations, appropriate design solutions, and possible building prohibition areas.
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MAP F
WILLOW CREEK SOILS

- - Ridgeline

110A Soil map symbol
(refer to accompanying table, Appendix A)
On a broad scale, soils in the Willow Creek Basin do present conditions which suggest case-by-case analysis is appropriate at the building permit state. On the flat bottomlands (0 - 5% slope), the soils consist of generally poorly-drained silty-clay materials overlying old alluvial materials. These soils have moderate to high shrink-swell potential and are susceptible to storm run off problems. On the hillsides (10 - 40% slope), factors such as high shrink-swell potential and low bearing strength combined with steep slopes and shallow depth to bedrock pose special concerns for development.

B. Slopes

Within the urban growth boundary, slope conditions are generally flat (0 - 5%) or gentle (less than 10%). The major exception to this condition occurs on the ridge which extends southwest of the cemetery on a northeast-southwest axis where moderate slopes of 10 - 20% occur. Consequently, slope conditions within the urban growth boundary present little difficulty in achieving urban levels of development anticipated by the Metro Plan or suggested in this Study.

On the hillsides within the urban reserve area, slopes are steeper. Slopes are generally 10 - 30% in the Willow Creek subbasin and 40 - 50% some places on Murray Hill and Bailey Hill. As urban development occurs on lands designated urban reserve, special development, design and construction considerations should appropriately be applied as required in Chapter 70, Excavation and Grading, Uniform Building Code, 1979.

C. Agriculture

The Willow Creek Basin contains some of the least productive agricultural soils in the metropolitan area. They generally consist of Class III and IV rated agricultural soils with isolated pockets of Class II soil on the flatland and Class VI soils in the upper portions of the Basin (see Map F). During the update of the Metropolitan Plan, the relatively low degree of potential agricultural productivity in the Basin was compared with other areas having greater agricultural productivity. For this reason, among others, the Basin was identified as a major growth area of the City.

D. Forests

Forests in the Study area are confined largely to streamsides and hillsides. Douglas fir and Douglas fir associations constitute the majority of general forest cover types with some oak, and hardwood forests on the hillsides and moisture-tolerant species, such as Oregon ash, present along the stream courses.

Within the urban growth boundary, some forest cover exists on the ridge southwest of the cemetery and extensive riparian vegetation borders the major branches of Willow Creek. Outside the Willamette and McKenzie River floodplains, the streamside and wetland forests in the Willow Creek subbasin represent the most extensive remaining riparian areas in the Metropolitan area.

However, the majority of the forested lands and the existing stands of commercial forest, lie outside the urban growth boundary on hillsides.
within the area designated as urban reserve in the Metro Plan. While forest harvesting practices within the City of Eugene are governed by Eugene's tree cutting ordinance, similar measures do not apply outside Eugene's city limits or in the urban reserve area. Mechanisms similar to the Eugene tree cutting ordinance should appropriately be instituted in the urban reserve areas to afford long-term protection of this natural resource and prevent degradation of the watershed.

E. Hydrology

Urbanization of the Willow Creek Basin could result in two potential hydrological problems, both related to stormwater run off. The first area of concern relates to potential effects of storm runoff on private property. Poor soil permeability and standing water above ground level during wet seasons are both indicators of potential hydrological problems which could be expected, particularly in the larger Willow Creek subbasin, as natural vegetation is removed and replaced with impervious surfaces, such as roofs or streets. Storm runoff problems are potentially greatest downstream from the point where the southern and western branches of Willow Creek converge near West 18th Avenue.

The second area of concern relates to the effect of changes in water flow conditions on the rare plant species located in the Willow Creek wetland area.

Detailed impacts of storm run off on property and the wetlands are not currently known. A baseline hydrological study should occur in the natural area and monitoring of changes in run off conditions should continue as urbanization takes place on land adjacent to and upstream of the natural area. Appropriate streamwater controls could be applied if monitoring indicates potential alteration of water requirements for the rare plants in the natural area. Over the next few years, as urbanization of the Basin occurs, efforts can be made to more precisely estimate these impacts and provide engineering solutions to these potential runoff problems.

F. Plants and Wildlife

While no known threatened or endangered animal species exist within the Basin, a wide variety of wildlife habitat supporting a broad range of wildlife species exists.

At least three rare plants (including the Aster curtis) do exist in the wet natural resource area of the Basin (see Map G). This significant rare plant area is one of the few known remaining sites within Oregon where conditions have preserved remnants of this Willamette Valley prairie-type plant life which once covered much of the valley. Protection of this plant life is important.

In order to achieve the dual goals of providing an area for future urban development and protecting this sensitive natural area, a balance must be found between land actually set aside for protection and land devoted to future urban development. This is particularly significant in this case because all of the wetland properties are privately owned, and no public resources are currently available to purchase them in their entirety. However, through joint efforts of the property owners and
ENVIRONMENTAL ASSETS
MAP G

PROTECTION AREAS

Willow Creek Natural Area
Stream courses
Ridgetop (above 800' elev.)
Forested areas

URBAN GROWTH BOUNDARY
NATURAL CORRIDORS

-39-
Nature Conservancy, methods have been identified to preserve the most sensitive natural areas and allow development through density transfer to adjacent lands (see environmental discussion under the Land Use Section of this Study). In addition to this particularly sensitive area, protection of ridgelines and stream courses are of importance in relation to urban wildlife management in the Basin (see Map G).

G. Scenic Resources

The forested hillsides and south ridgeline of the Study area are prominent scenic features for the entire community. For instance, people entering Eugene from Mahlon Sweet Airport via Green Hill Road or Beltline Road often obtain their first impression of Eugene's hills from Willow Creek's forested hillsides. As with the entire South Hills area of the City, the hillsides in the study area are an extremely important component of the visual image of the City. In addition, vegetation along stream courses, and open space areas, such as the cemetery at the northern edge of the Basin, provide scenic and open space opportunities from within the Basin. As urbanization occurs, these scenic resources will increase in importance and should prove to be extremely attractive to potential industrial employers and to residents of the Basin.

H. Geology

There are four basic geologic units in the study area. The bottomlands are underlain by old alluvial deposits, and the hillsides are underlain by marine deposited sandstone and shale (Eugene Formation), a mixture of volcanic materials (Fisher Formation), and basaltic flows (Little Butte Volcanic Series).

One known fault exists in the study area along a contact between the Eugene and Fisher formations. There is no evidence of recent activity along this fault, and there is no appreciable concern about potential movement. However, more detailed geologic study is required to determine possible effects, if any, on future development.

IX. TRANSPORTATION

In order to assess the potential impact on the transportation system of both Alternatives #1 and #2, a simplified transportation model was run for both land-use scenarios. This model assumed certain land-use configurations and development densities for both the Willow Creek Basin and the remainder of the metropolitan area and assigned daily trips between Willow Creek and other employment and residential areas throughout the community. In order to more accurately assess the impact of development in the Willow Creek Basin, potential industrial development immediately north of the Basin was included in the analysis.

A. Assumptions

Table 4 shows the trip rate assumptions used in the transportation analysis.
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A. Assumptions

Table 4 shows the trip rate assumptions used in the transportation analysis.
### Table 4
**Daily Trip Rate Assumptions**
Willow Creek Special Area Study

<table>
<thead>
<tr>
<th>Land-Use</th>
<th>Trips</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>10 Per Dwelling Unit</td>
</tr>
<tr>
<td>Special Light Ind.</td>
<td>4 Per Employee</td>
</tr>
<tr>
<td>Light-Medium Ind.</td>
<td>4 Per Employee</td>
</tr>
<tr>
<td>Heavy Ind.</td>
<td>2 Per Employee</td>
</tr>
<tr>
<td>Commercial - Retail</td>
<td>20 Per Employee</td>
</tr>
<tr>
<td>Commercial - Service</td>
<td>4 Per Employee</td>
</tr>
</tbody>
</table>

Source: Lane Council of Governments, Willow Creek Special Area Study - Transportation Analysis, April 1982

In conducting this analysis, the following transportation system additions were also assumed:

1. The 6th/7th Extension facility (see Eugene-Springfield Area 2000 Transportation Plan - T-2000) was assumed to exist, connecting with West 11th Avenue in the vicinity of Oak Hill Road.

2. An arterial facility was assumed to exist extending from the intersection of Beltline Road and West 11th Avenue south to 18th Avenue and then generally following the alignment of Willow Creek Road south, terminating at the urban growth boundary (see Map E).

Finally, all land in the Willow Creek Basin and inside the urban growth boundary was assumed to be fully developed. This is significant because, under the adopted land-use arrangement, the numbers of employees in the Basin could ultimately be twice the number of workers currently employed in downtown Eugene, while under Alternative #2, the number of employees in the Basin could approximately equal the number of employees in downtown.

**B. Transportation Analysis Conclusions**

Based on the assumptions outlined above, the following conclusions can be reached from the transportation analysis conducted for the Willow Creek Special Area Study:

1. Land-use in Alternative #1 would result in greater levels of employment, while Alternative #2 would provide area for more housing. The overall number of daily trips resulting from full development under either alternative would be about the same. However, peak hour congestion would be more affected by employment at industrial sites in Alternative #1 than in Alternative #2, because of the larger number of industrial employees under this scenario. Changes in working hours could mitigate this problem under Alternative #1.
2. Approximately 1/3 of the trips generated from dwelling units in the study area will terminate within the study area. This reflects the importance of the nodal development concept, demonstrating the public advantage of locating residential, employment, and commercial activities in proximity to each other.

3. Land development patterns and street layout, transit routings, and bicycle routes will have an important influence on traffic patterns between places of residence and employment centers in the study area. An extension of Terry Street south of West 11th Avenue, for example, would help improve access to the 6th/7th Avenue Extension for residential traffic and traffic associated with the special light industrial site in Alternative #1. Lack of good access to the 6th/7th Extension would most likely result in more traffic congestion on West 11th and West 18th avenues. An internal street network emphasizing well-defined collectors and specific connections to arterials would mitigate through traffic problems on residential streets, while maintaining traffic capacity on arterials by reducing congestion.

4. Both land-use alternatives reinforce the need for the 6th/7th Extension. The intensity of development under both alternatives makes the 6th-7th Avenue Extension very critical in achieving the industrial development in west Eugene envisioned in the Metro Plan.

5. Both land-use alternatives have potential major impacts on existing roads in the immediate vicinity of the Basin. Beltline Road, West 11th Avenue, and West 18th Avenue can be expected to carry significantly greater traffic loads than anticipated in T-2000 as a result of ultimate development of the entire Willow Creek Basin. Although the 6th/7th Extension and Beltline Road would carry the bulk of traffic to and from the Willow Creek Basin, particularly for more distant metropolitan area trips, 18th Avenue would most likely be the route of choice for trips to and from south and southwest Eugene. For trips to the Willow Creek Basin, 18th Avenue will gather trips from collectors and other arterial streets in the southern portion of the City. The impact on intersection capacity and the timing of improvement should be considered as part of the update to the T-2000 Plan.

6. Under both alternatives, the commercial land-use in the Basin will be a significant attractor of trips. Careful planning of access points to the commercial area can help protect the capacity of new and existing roads serving the commercial development.

7. The nodal development concept offers significant opportunities to achieve community objectives concerning the use of transit. While T-2000 is the document which designates major transit stations, intense development anticipated under both Alternatives #1 and #2 appears to support the siting of a major transit station in the Willow Creek Basin as part of the urbanization process. This could be located at a major activity
point, such as the commercial area at the northern edge of the Basin.

8. Intensive concentrations of employment, proposed under both alternatives, suggest paratransit programs and employee-oriented peak-hour-only bus service offered by Lane Transit District could be successfully used in the Willow Creek Basin.
X. FINANCING

Development of the Willow Creek Basin represents the equivalent of construction of a new city. At ultimate development, the Basin could provide homes for about 20,000 people and places of employment for about 17,500 employees. This represents a city with a population roughly equivalent to the cities of Milwaukee, Hillsboro or Albany (1980 populations) and employment approximately equal to the cities of Albany and Millersburg combined. These comparisons suggest that costs of providing services to the entire Basin can appropriately be reviewed in the context of capital costs required to develop a new medium size city in Oregon. Information obtained from the Bureau of Governmental Research at the University of Oregon indicates that the total estimated value of the fixed assets inventory for the City of Hillsboro, 1981 population of 28,650, is roughly $32.5 million. This excludes costs for schools, electrical distribution systems, and transit facilities. Significantly, this estimate is generally based on acquisition costs and not replacement costs. It can be estimated that actual replacement costs could double the total value of the fixed asset inventory, i.e., replacement cost could be about $65 million. Table 5 indicates that costs for delivery of services to the Basin (excluding schools, electrical distribution systems and transit facilities) are currently estimated to be about $26.5 - $28.5 million (1982 dollars).

A. Estimated Service Costs

Table 5 shows estimated costs by component and service which will ultimately be involved in providing service to the Willow Creek Basin.
Table 5  
Costs For Services In  
Willow Creek  
(1982 $000s)

<table>
<thead>
<tr>
<th>Component</th>
<th>School</th>
<th>Sewers</th>
<th>Service</th>
<th>Parks</th>
<th>Transp</th>
<th>Fire</th>
<th>Elec/Water</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary</td>
<td>5000-7000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Storm</td>
<td>1100</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sanitary</td>
<td>2400</td>
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<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Pub Resource Node</td>
<td>1250-1500</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Neighborhood Park</td>
<td>625-750</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community Center</td>
<td>2000-3000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Streets</td>
<td>11500</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transit Sta</td>
<td>600-700</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equip/Remodel</td>
<td>350-400</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electricity</td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Transmission</td>
<td>8130</td>
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<td></td>
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<tr>
<td>Water</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Transmission</td>
<td>5475</td>
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<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Park Development</td>
<td>2000-2500</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

These estimates reflect a broad overview of potential public service delivery requirements based on preliminary layout and design concepts which may change in the context of specific development proposals. The estimates in Table 5 indicate that the total costs of providing a full range of services to the Basin, at full-development, could be approximately $40 - $44 million (in 1982 dollars). Data in Table 5 does not include costs for facilities outside the Basin which will be needed to serve the area at full development.
These data suggest that, based on estimated replacement value of the fixed asset inventory of the City of Hillsboro, delivery of services to the Basin may be 40 percent of the cost of delivering comparable services in the City of Hillsboro, i.e., the estimated costs of services for the Basin (excluding schools, electrical distribution system and transit facilities) are $26.5 - $28.5 million compared to an estimated $65 million for replacement of similar services to the City of Hillsboro. This reflects the fact that many existing facilities in Eugene can be used to meet the public service needs of the Basin. For instance, the regional treatment center and fire and police dispatch facilities are in-place and available for use by the residents and businesses in the Basin. Other savings, such as the use of existing Fire Station #10 (immediately to the east of the Basin) contribute to the savings in public expenditures for capital projects needed to service the Basin. This demonstrates that the nodal development approach to urbanization, in the context of an already developed City, can be a cost-effective method of dealing with required public expenditures for capital projects.

B. Revenue

Table 5, does not identify sources of funds for development of the Basin, but the potential exists for funding participation by other agencies besides the City of Eugene. However, as in all other newly developing areas of the City, Eugene will be required to provide a substantial share of the funds needed to construct the infrastructure outlined in Table 5. There are currently two basic directions open to the City to provide a long-term funding mechanism for these facilities:

1. The City could rely on the general fund to provide the majority of revenue sources needed to construct capital facilities in the Basin.

2. The City could institute a mechanism which earmarks new tax revenues generated from new construction in the Basin for construction of capital facilities.

3. The City could institute a special systems development charge for application to new construction in the Basin, with the intent of using these funds for development of public capital improvements in Willow Creek.
APPENDIX A
WILLOW CREEK SOILS INFORMATION

The accompanying soil type map and corresponding table provide information on soils in the study area.

The soil map symbol (for example, 100A) indicated on the map corresponds to a soil listed in the table. The table contains the following information:

<table>
<thead>
<tr>
<th>Map Symbol</th>
<th>This symbol is based on the U.S. Soil Conservation Service (U.S.S.C.S.) system of soils mapping and labeling.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soil Name</td>
<td>Soil names are based on the U.S.S.C.S. system for identifying and organizing soil groups, depending on soil characteristics.</td>
</tr>
<tr>
<td>Slope</td>
<td>In some instances, the same soil may exhibit different properties at different degrees of slope. For example, the Steiwer silty loam soils exhibit different agricultural characteristics which vary with slope (430B = Class III at 3-12 percent slope, 431C = Class IV at 12-20 percent slope, and 432E = Class VI at 20-50 percent slope)</td>
</tr>
<tr>
<td>Agricultural Soil Capability Class</td>
<td>This rating (Class I highest, Class VIII lowest) is given each soil by the U.S.S.C.S., and this rating is referred to in LCDC's definition of agricultural land in Goal 3.</td>
</tr>
<tr>
<td>Forest Site Index</td>
<td>This rating is provided for some soil types by U.S.S.C.S. The site index is an indication of potential productivity and is based on the average total height of the dominant tree species (Douglas fir) in a stand 100 years old.</td>
</tr>
</tbody>
</table>
| Cubic Foot Site Class | The Forest Site Index rating was converted to a more accepted measure of the productivity potential of a soil for tree
Development Rating

This rating is based on U.S.S.C.S. interpretation of several development suitability factors:

1. Dwelling unit construction
2. Road construction
3. Underground utility installation
4. Water runoff potential

Those soils with a 5 rating have the most severe development limitations.

For more data on the soils information, refer to:

## WILLOW CREEK SOILS INFORMATION

<table>
<thead>
<tr>
<th>MAP SYMBOL</th>
<th>SOIL NAME</th>
<th>SLOPE</th>
<th>AGRICULTURAL SOIL CAPABILITY CLASS</th>
<th>FOREST SITE INDEX</th>
<th>CUBIC FOOT CLASS</th>
<th>DEVELOPMENT RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>100A</td>
<td>Waldo (silty clay loam)</td>
<td></td>
<td>III</td>
<td>-</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>110A</td>
<td>Natroy (silty clay loam)</td>
<td></td>
<td>IV</td>
<td>-</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>120A</td>
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* Agricultural Soil Capability Class and Douglas Fir Site Index from U.S. Soil Conservation Service OR Soils -1 Forms (OR-1s).


SG:bp/METRO2

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-51-
RESOLUTION NO. 3699

A RESOLUTION ADOPTING THE WILLOW CREEK SPECIAL AREA STUDY AND AMENDING THE EUGENE-SPRINGFIELD METROPOLITAN AREA GENERAL PLAN.

The City Council of the City of Eugene finds that:

1. The Eugene-Springfield Metropolitan Area General Plan established a portion of the Willow Creek Basin as an important growth area of the community and included a portion of the Basin within the urban growth boundary of the Metropolitan Plan.

2. As part of the Metropolitan Plan process a variety of land uses were identified as appropriate within the Basin as urban development occurred.

3. In February, 1982, the Planning Commission directed that work be initiated on a Special Area Study in the Willow Creek Basin in order to establish public policy direction prior to development proposals for the Basin.

4. As part of the development of this Special Area Study a citizen involvement process was established by the Eugene Citizen Involvement Committee. The citizen involvement process included: dialogue with major land owners in the Basin; a May 25, 1982 meeting held with residents and property owners of the Basin at Bailey Hill elementary school, attended by about 50 interested individuals; discussions and comments by interested parties through individual meetings; distribution of about 650 copies of the draft Study (May 1982) to property owners, residents, and interested governmental agencies; and consultation with the Metropolitan Area Plan Advisory Committee regarding the Special Area Study.

5. The draft Study contained a series of policy statements and two alternative land-use configurations appropriate for the Willow Creek Basin. All of the policies are consistent with direction established by the Metropolitan General Plan. Alternative 1 of the two land-use arrangements reflected an employment intensive scenario which could be appropriate for the Basin. Alternative 2 reflected a focus on residential development in the Basin. Because Alternative 1 provided for substantial modifications to the Metropolitan General Plan, it requires an amendment to that document. Alternative 2 does not require such an amendment. Both alternatives contained a variety of land uses which were consistent with broad goals and policies established by the Metropolitan Plan, the 1974 Community Goals and Policies document, and the Eugene-Springfield Area Transportation 2000 Plan (T-2000).

6. On June 8, 1982 the Planning Commission conducted its public hearing on the Willow Creek Special Area Study. About 12
individuals presented testimony to the Commission at this hearing. The majority of the testimony supported the Study and generally favored Alternative 1 - the employment intensive land-use alternative.

7. The Commission continued its deliberation on the Study at its meeting of June 14, 1982. At that time, based on testimony it received at the public hearing, its own discussion, and the background and supporting materials, including Statewide Goal and local plan consistency analysis (Exhibit A), and justification for amendment to the Metropolitan Plan (Exhibit B), the Commission unanimously voted to forward the following recommendations to the City Council:

   a. Adopt the Willow Creek Special Area Study with Alternative 1;

   b. Initiate amendment procedures to the Metropolitan Plan following the process outlined in Chapter IV of that document; and

   c. Make a series of changes to the draft document.

8. The City Council initiated the Plan amendment procedure as prescribed in Chapter IV of the Plan document, on June 16, 1982.

9. On July 12, 1982, the City Council conducted its own public hearing of the Planning Commission's recommendations. This hearing addressed the Willow Creek Special Area Study and possible amendment to the Metropolitan Plan.

Now, therefore, based on the above findings and actions,

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF EUGENE, a Municipal Corporation of the State of Oregon, as follows:

Section 1. The policies set forth in the Willow Creek Special Area Study are hereby adopted as a refinement to the Eugene-Springfield Metropolitan Area General Plan for the Willow Creek Basin, and the explanatory text following the policies is recognized as clarifying and explaining the intent of the policies.

Section 2. The Land Use Diagram included as recommended by the Planning Commission is recognized as clarifying and providing further explanation of the intent of the Metropolitan Plan Diagram. To the extent the Special Area Study Land Use Diagram is inconsistent with the Metropolitan Area General Plan Diagram, the General Plan Diagram is hereby amended.

Section 3. The City Council adopts as additional findings, the supporting text, maps, and tables contained in the remainder
of the Willow Creek Special Area Study as recommended by the Planning Commission.

Section 4. The supporting materials concerning consistency with Statewide Goals as set forth in Attachment A, (June 15, 1982 and June 14, 1982 memoranda), attached hereto and incorporated herein by reference, is recognized as providing further analysis, support, and findings for the adoption of this Special Area Study and Amendment of the General Plan Diagram. Attached as further findings in support of these actions is Attachment B, supplementary findings, which are hereby adopted and the July 21, 1982 memorandum from the Planning Department, the findings and policy statements and amendments are likewise adopted.

The foregoing Resolution adopted the 31st day of July, 1982.