Comprehensive Plan
of the City of Estacada, Oregon

Comprehensive Plan Adopted: April 10, 1980
Periodic Review Acknowledgement: December 14, 1993
Codification & Revisions: June 14, 1994
Goal 9 Amended: July 13, 2009 and December 10, 2012
Goal 10 Amended: December 10, 2012
Goal 12 Amended: December 10, 2012
Updates & Incorporation of Active Transportation Plan: September 10, 2018
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INTRODUCTION

The City of Estacada Comprehensive Plan (the Plan) is the community-supported strategy for managing land use and development in our city consistent with its history, resources, needs, priorities, and vision. This plan has been formally amended on several occasions since it was first adopted in 1980, most recently in 2018.

In addition to being a requirement of the State of Oregon, the Plan helps the City meet the needs of the Estacada community by:

1. Analyzing the strengths and weaknesses of Estacada, as well as its opportunities and potential challenges;
2. Anticipating changes in demography, economics, development patterns, and the consequences of various land use decisions;
3. Determining the priorities of residents, developers, business operators, visitors, and other stakeholders; and
4. Setting goals and policies that enable the City to manage development consistent with those priorities.

The Plan has 12 chapters, each of which address a certain aspect of land use or development. Several chapters, including Chapters 5, 7, 9, and 10, contain component plans that provide guidance on more specific functions; those component plans are adopted by reference and are part of the overall Comprehensive Plan.
CHAPTER 1

Citizen Involvement

Citizen Participation Activities

The goal of a citizen involvement program is to ensure the opportunity for citizens residing in Estacada and the planning area to be involved in all phases of the planning process.

The Estacada Planning Commission functions as the Citizen Advisory Committee (CAC). The CAC, through the consultant, prepared a questionnaire, which was sent with city water billings to about 750 households. About 25 percent of the questionnaires were completed and returned. Copies of the questionnaire are included in Appendix A. The survey results are summarized in the section entitled “Feedback on Questionnaire 1.”

A second questionnaire produced a considerably smaller response than the first, with the only general conclusion drawn being that there was no strong objection to the study progress and results so far.

Newspaper coverage of planning meetings was given by the Clackamas County News. This coverage included publishing early drafts of the comprehensive plan. The comprehensive plan draft summary tabloid was published to be available for meetings and hearings. It was sent to the public at request.

Feedback on Questionnaire 1

The first citizen questionnaire asked questions concerning the future size of Estacada, the adequacy of land area available for different uses, the distribution of city services, and the influence of the Land Conservation and Development Commission goals in the planning process.

Responses were separated into two groups—people living inside the City of Estacada limits and people living outside the limits—to determine if any significant difference in opinions exists. Very little difference was observed except on a few questions. The following overview of the results is based on total response, both inside and outside the city, and any significant differences in the responses are noted.

One of the most significant results of the questionnaire was the large majority (80 percent) of Estacada people who felt Estacada’s population should not become larger than 5,000. This also happens to be the upper limit of the sewage plant capacity. Almost two-thirds of the people felt there wasn’t enough land for residential, commercial, or industrial uses. Additionally, two-thirds of the people responding felt city services (water, sewer etc.) should be extended to areas outside the city limits, provided that the recipient paid a higher user rate to compensate for not paying the city property taxes that built and support the service.
About one-third of the responses indicated a need for major repaving and increased maintenance of streets in the city. A large majority (65 percent) felt the city should not expand into new areas of service.

Ninety-six percent of those responding felt Estacada depends significantly on Portland and other employment center for jobs, but people were almost evenly divided on whether Estacada should continue this dependence in the future. There was no large mandate on what kind of employment opportunities ought to be available in Estacada in the future, but the largest percentage (40 percent) preferred light industrial, and commercial uses garnered 28 percent. Road maintenance was identified as the largest weakness in the city services drawing 60 percent of the tally.

Mobile homes have become a large segment of the housing market nationwide, and their presence around Estacada is typical of rural areas everywhere. This is because their initial cost is lower than conventional “stick built” homes, and their location doesn’t require a building permit. The State of Oregon currently administers two building codes: one for mobile homes and another for stick built. The question of whether mobile homes can be located on city lots is answered by the legality of the zoning ordinances depending on what construction standard is cited. Sixty percent of the people responding felt mobile homes should be allowed on city lots, but many people added comments like “provided they meet the building code,” and “provided they are attached to foundations.”

On the question of the city planting more street trees and exercising more design control, 77 percent of the people felt this was a good idea.

The large majority of people answering the questionnaire were:

1. From Estacada 75 percent
2. Working 74 percent (16 percent retired)
3. Working in Estacada 78 percent (of those working, 15 percent work in Portland)
4. Driving 0-5 miles to work 70 percent (22 percent travel 20-30 miles)
5. Shopping in Estacada 68 percent
6. Buying area cars in Estacada 76 percent
7. Getting auto service in Estacada 76 percent
8. Seeking medical and dental care elsewhere 62 percent
9. Seeking entertainment elsewhere 62 percent

On the question of how the Land Conservation and Development Commission goals should influence Estacada’s planning, the following results show pretty uniform agreement with these planning guidelines:

1. Preserve farmland 90 percent
2. Conserve forestland 90 percent
3. Conserve open space and protect natural and scenic resources

4. Maintain and improve the quality of the air, water and land resources

5. Protect life and property from natural disasters and hazards

6. Satisfy the recreational needs of the citizens of the state and visitors

7. Diversify and improve the economy of the state

8. Plan and develop a timely, orderly, and efficient arrangement of public services to serve as a framework for urban and rural development

9. Provide and encourage a safe, convenient, and economic transportation system

10. Conserve energy

11. Coordinate land-use plans with other agencies

The responses average an 82 percent agreement with these goals. This seems to say that the state's mandated goals are probably reasonable guidelines for planning purposes.

The differences of opinion between people in the city and those outside the city were generally that the Estacadians felt more strongly about most issues. That is, 80 percent of Estacadians agreed that a 5,000 or less population was desirable while 77 percent of people from outside Estacada felt the same. These kinds of differences are negligible.

**Findings of Fact**

1. The Citizen Advisory Committee conducted an extensive Citizen Involvement Program during the plan development stage with additional citizen involvement during the plan adoption implantation phases.

2. The City approved an urban growth boundary and policy agreement with Clackamas County, which outlines procedures to be followed by both the city and county for changing the urban growth boundary and revising the plan.

3. Responsibility to review the Citizen Involvement Program is delegated to the Planning Commission, acting as the Citizen Advisory Committee. The Citizen Advisory Committee is charged with the responsibility of monitoring the Citizen Involvement Program to ensure that the objectives and goals of the program are met.
Procedures

1. The plan, after adoption, will be reviewed by the Planning Commission and City Council at the same time as the State mandated periodic review to determine its applicability in light of changes, development, expansion and new statutes and statewide land use goals.

2. The Planning Commission and City Council may, as they deem necessary, annually amend the plan or cause such additional studies and research to be completed to change and support the plan.

3. Considerations may also be given at the time of this periodic review schedule by the city to privately sponsored amendments of the plan. Such privately sponsored amendments shall be supported by documentation of the LCDC goals and inventories, with finding and conclusions for such proposals.

4. Both city and privately sponsored proposals may suggest changes in either the policy texts or the plan map, or both.

5. All proposed amendments to the plan shall be subject to public hearing by the Planning Commission and City Council. In the case of a proposed change in the map, all property owners within 300 feet of the requested change shall be notified of the hearing date.
CHAPTER 2
Agency Coordination

A draft copy of the Estacada Comprehensive Plan will be sent to the following local agencies and organizations for review and comment before the plan is submitted to LCDC for acknowledgement.

Clackamas County Planning Department

Estacada School District No 108

State agency review should involve the following:

Department of Economic Development
Department of Environmental Quality
Department of Fish and Wildlife
Department of Land Conservation and Development
Department of Oregon State Police
Department of Transportation (ODOT)
Office of Historic Preservation
Department of Geology and Mineral Resources
Department of Energy

Concurrent with review by state agencies, these agencies and organizations will also have the opportunity to review and comment:

Portland Metropolitan Area Boundary Commission

Port of Portland

1,000 Friends of Oregon

Tri Met
CHAPTER 3
Agricultural Lands

Goal
Preserve and maintain agricultural lands.

Objectives
1. Inventory lands to determine their suitability for inclusion within the urban growth boundary for agricultural uses.

2. Encourage the Clackamas County Planning Commission and Board of Commissioners to preserve agricultural uses in the area immediately surrounding the urban growth boundary.

Existing Conditions
Forty acres is generally accepted as a minimum lot area that can support a farm. Fescue crops grown in the area generally require several hundred acres.

Class I-IV soils are considered the most valuable for agricultural use. Soil classification from SCS soils maps and interpretive material were mapped. A Clackamas County Tax Assessor's map was used to relate parcel size to soil classification. The results of this inventory of Class I-IV soils for the area outside the current city limits, but inside the urban growth boundary, are shown in Table -1.
Table 1

Agricultural Suitability of Soils by Parcel
Estacada Future Growth Area

<table>
<thead>
<tr>
<th>No. of Parcels</th>
<th>Size</th>
<th>Total Area</th>
<th>% of Area</th>
<th>% of No. of Parcels</th>
<th>Amt. of Class I-IV Soils in ea. Parcel</th>
<th>Total Class I-IV Soil Acreage</th>
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<tbody>
<tr>
<td>2</td>
<td>90+ ac</td>
<td>180 ac</td>
<td>9%</td>
<td>1%</td>
<td>20 ac</td>
<td>40</td>
</tr>
<tr>
<td>4</td>
<td>50-89 ac</td>
<td>200 ac</td>
<td>10%</td>
<td>2%</td>
<td>16 ac</td>
<td>64</td>
</tr>
<tr>
<td>5</td>
<td>40-49 ac</td>
<td>200 ac</td>
<td>10%</td>
<td>3%</td>
<td>12 ac</td>
<td>60</td>
</tr>
<tr>
<td>5</td>
<td>30-39 ac</td>
<td>150 ac</td>
<td>8%</td>
<td>3%</td>
<td>10-12 ac</td>
<td>55</td>
</tr>
<tr>
<td>7</td>
<td>20-29 ac</td>
<td>140 ac</td>
<td>7%</td>
<td>4%</td>
<td>8-10 ac</td>
<td>56</td>
</tr>
<tr>
<td>21</td>
<td>10-19 ac</td>
<td>210 ac</td>
<td>11%</td>
<td>12%</td>
<td>5-10 ac</td>
<td>140</td>
</tr>
<tr>
<td>150</td>
<td>Less than 10 ac</td>
<td>890 ac</td>
<td>45%</td>
<td>75%</td>
<td>0-5 ac</td>
<td>57</td>
</tr>
<tr>
<td>TOTALS</td>
<td></td>
<td>1,970 ac</td>
<td>100%</td>
<td>100%</td>
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Figure 1 shows the approximate locations of soils of varying suitability for agricultural use. Areas noted “good” on the map have up to 50 percent of their detailed soil mappings occupied by Class I-IV soils; areas noted “fair” have 35-40 percent of their detailed soil mappings occupied by Class I-IV soils and areas noted “poor” have less than 35 percent of their areas occupied by detailed soils units of Class I-IV soils. See Figure 1
Findings of Fact

1. Only 1 percent of the parcels in the area between the city limits and the urban growth boundary contain Class I-IV soils in 20-acres contiguous units. (Two parcels out of a total of 194).

2. Of parcels containing Class I-IV soils, 95 percent are already developed. Only nine of the 194 are undeveloped.

3. The bulk of the Class I-IV soils parcels are at the outer limits of the urban growth boundary, and rely on county enforcement of large-lot zoning to preserve the larger existing lots. These outer properties will be the last to develop within the urban growth boundary (UGB) due to their remoteness from public facilities. County regulations and enforcement are adequate to preserve the Class I-IV soils of 20-acres sizes through large lot zoning. (Only two parcels in these soils categories, or nine percent of the unincorporated part of the UGB area, can be preserved with this technique by the county.)

4. Forty-five percent of the area is already partitioned into parcels less than 10 acres.

5. There are no Class I-IV soils that can be preserved by the city through large lot zoning.

6. No major negative environmental, economic, social, or energy consequences will result from the urbanization of Class I-IV soils. Most of these areas are already committed to urban use because of existing development density, adjacent or surrounding development patterns, or small lot size.

7. Regardless of which direction Estacada expands, Class I-IV soils will be required for urban uses.

8. The agricultural lands goal does not apply within city limits or within the adopted urban growth boundary. It is more desirable to develop Class I-IV soils within the urban growth boundary over a period of time than to allow similar, more remote rural lands to urbanize. Justification for inclusion of agricultural land within the urban growth boundary is included in the Urbanization section of this plan.

Options

To protect agricultural land from encroachment for urban uses, it can be placed in an agricultural zoning classification. The city can consider recommending less restrictive zoning on a case-by-case basis.
Policies

1. Urban density development will be discouraged in identified agricultural areas until all other available lands within the urban growth boundary have been utilized.

2. Estacada will work with Clackamas County to ensure orderly growth and redevelopment in the rural residential areas between the city limits and the urban growth boundary. A Dual Interest Area Agreement (Appendix D) between the City of Estacada and Clackamas County shall be obtained to govern city/county cooperation in this regard.

3. The city will not permit subdivisions and partitions that would make redevelopment at urban density economically infeasible at a later date.

4. The city will consider proposals for land division only if plans for efficient redivision of the land at a later date are also presented. The City will review the redevelopment plans for location of structures before issuing building permits.

Implementation

Zoning review will be undertaken in Clackamas County to establish a zoning pattern designed to implement plan polices. Estacada will participate in this review and encourage zoning designations consistent with the intent of Goal 3. In addition, the Planning Commission and City Council will participate in an ongoing basis in land-use decisions affecting the area between the city limits and the urban growth boundary.
CHAPTER 4
Forest Lands

Goal
Preserve and maintain forest lands.

Objectives
1. Inventory lands to determine their suitability for inclusion within the urban growth boundary for forestry uses.
2. Encourage conservation of forested lands necessary for watershed protection and maintenance of wildlife and fisheries habitat.
3. Encourage replanting and development siting to retain as much forested land as possible.

Existing Conditions
There are about 885 forested acres within the UGB of which 65 acres are inside the city limits. Figure 2 shows forested land in the Estacada area. These areas were field inspected to determine the dominant classification of trees, their general age, and their value as a wildlife habitat or as a watershed and erosion control.

None of the forested areas serve as a wildlife habitat for endangered species, although unprotected species are present as indicated in Appendix B. There are insufficient forage areas to sustain the game required to support endangered predators (almost all endangered species in Oregon are predators).

Forested areas (particularly those with evergreen varieties) protect sloped areas from erosion, provide aesthetic beauty and provide a source of oxygen replenishment in close proximity to urban development.

As with farmland, there are no large acreages (20-40 acres) of contiguous property that contain forestlands. Historically this is due to the fact that the larger tracts are open ground and were logged many years ago for farming. The sloped areas, because they are higher and have better draining soils, have been used for rural home sites; therefore, smaller parcel sizes have resulted.
Findings of Fact

1. None of the parcels in the area contain forested contiguous areas 20 acres in size or larger.

2. The potentially commercial valued trees are on properties already developed for other uses not likely to become timber management areas.

3. Soils suitable for tree production are in parcels too small to support economically sound nurseries, and many of these areas are already developed for other uses.

4. Ninety-five percent of the wooded parcels are already developed.

5. Forest lands make up 35 percent of the urban growth boundary area.

6. Of forested areas inside the urban growth boundary, only 7 percent are inside the present city limits.

7. Preservation of the existing soil area classified as suitable for forest production will not significantly add to or enhance the forest production capacity in the area. The area is too small in comparison to other surrounding viable forest production areas.

8. The forest lands goal does not apply within city limits or within an adopted urban growth boundary. It is more desirable to develop forested lands within the urban growth boundary over a period of time than to allow similar, more remote rural lands to urbanize.

Options

The following techniques are available to conserve forest lands:

1. Establish large lot size zoning to prevent further divisions. Divisions create smaller lot sizes not capable of sustaining commercial timber practices or wildlife and watershed resources. This technique would also conserve watershed and wildlife areas that may exist.

2. Establish zoning restrictions that prohibit or restrict cutting of trees regardless of lot size. This technique would be extremely difficult to enforce for a jurisdiction the size of Estacada.
Policies

1. The city will encourage replanting and retention of native species.

2. The city will encourage retention of forested lands to preserve wildlife areas, and recreation opportunities, and aesthetic values.

3. The city will support the county’s land use designation within the UGB (but outside the city limits) and believes they adequately protect forest lands from premature development.

Implementation

1. The city will implement the design review ordinance which requires the integration of existing vegetation into subdivision proposals.

2. The city will consider erosion control measures in all development proposals. The city has adopted Chapter 70 of the uniform Building Code which sets forth regulations to control excavation, grading, and earthwork construction, including erosion control and drainage requirements.
Chapter 5

Natural, Cultural, and Recreational Resources and Open Spaces

Goals

1. Conserve open space and protect natural and cultural resources.
2. Satisfy the recreational needs of citizens of Estacada and state, and visitors.

Objectives

1. Identify open spaces, scenic and historic areas, and natural resources that should be protected from urban development.
2. Ensure adequate open space to meet the needs of Estacada residents.
3. Provide an adequate amount of park land for local use and variety of recreation facilities to meet the needs of all age groups.

Existing Conditions

Open Space

By virtue of Estacada’s rural setting and adjoining park lands, residents enjoy more open space than the majority of Portland-area residents.

As a measure of open space, the following criteria were used:

1. Slope - Areas below 10 percent slope were considered essentially flat, which can later assist in determining field game and active recreational suitability. Areas of 10 percent slope or greater were used as a separate group, which may later assist in determining passive recreation area suitability.

2. Vegetation – Areas with significant tree cover were distinguished from open fields or developed areas. This information was drawn essentially from the Forestland map. This criterion reinforces the potential-use category described above, under Slope.

3. Ownership/Size – Parcels of 5 acres or larger were mapped as one group of areas, and parcels of less than 5 acres mapped as another. Five acres was selected because it represents the minimum parcel size that can be acquired and developed reasonably as a neighborhood park. Additionally, as parcel size decreases, the cost of public acquisition for public park increases and park desirability decreases. The 5-acre distinction is a commonly accepted benchmark.
From these criteria the eight recreational land classifications in Table-2 were derived. Land to which the classifications apply is mapped in Figure 3. Classifications B, D, F and H tend to be more suitable for recreation, in that order. Classification H is more suitable for active recreation and field games, and the other classifications represent as more passive recreation.

### Table 2

**Open Space Classifications**

<table>
<thead>
<tr>
<th>Class</th>
<th>Slope</th>
<th>Vegetation</th>
<th>Ownership/Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>10% or greater</td>
<td>Tree Cover</td>
<td>Less than 5 acres</td>
</tr>
<tr>
<td>B</td>
<td>10% or greater</td>
<td>Tree Cover</td>
<td>Greater than 5 acres</td>
</tr>
<tr>
<td>C</td>
<td>10% or greater</td>
<td>Open Field or Developed</td>
<td>Less than 5 acres</td>
</tr>
<tr>
<td>D</td>
<td>10% or greater</td>
<td>Open Field or Developed</td>
<td>Greater than 5 acres</td>
</tr>
<tr>
<td>E</td>
<td>0.7% max</td>
<td>Tree Cover</td>
<td>Less than 5 acres</td>
</tr>
<tr>
<td>F</td>
<td>0.7% max</td>
<td>Tree Cover</td>
<td>Greater than 5 acres</td>
</tr>
<tr>
<td>G</td>
<td>0.7% max</td>
<td>Open Field or Developed</td>
<td>Less than 5 acres</td>
</tr>
<tr>
<td>H</td>
<td>0.7% max</td>
<td>Open Field or Developed</td>
<td>Greater than 5 acres</td>
</tr>
</tbody>
</table>

These eight groups or classifications are dispersed throughout the study in the area in varying amounts (2 to 53 percent) with category H being the dominant type. Table 3 summarizes their distribution.
Table 3
Open Space Suitability

<table>
<thead>
<tr>
<th>Classification</th>
<th>Acres</th>
<th>% of Total Area</th>
<th>Potential for Public Park</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>114</td>
<td>3%</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>624</td>
<td>14%</td>
<td>4\textsuperscript{th} Priority</td>
</tr>
<tr>
<td>C</td>
<td>106</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>290</td>
<td>7%</td>
<td>3\textsuperscript{rd} Priority</td>
</tr>
<tr>
<td>E</td>
<td>77</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>418</td>
<td>10%</td>
<td>2\textsuperscript{nd} Priority</td>
</tr>
<tr>
<td>G</td>
<td>370</td>
<td>9%</td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>2232</td>
<td>53%</td>
<td>1\textsuperscript{st} Priority</td>
</tr>
<tr>
<td>Total in Study Area</td>
<td>4231</td>
<td>100%</td>
<td>84% of the area</td>
</tr>
</tbody>
</table>

About 84 percent of the area shown in Figure 3 is suitable for recreational use. Most of the incorporated area of the city is classified as G, less than five acres in size, with no contiguous forested area, and with slopes generally less than 10 percent.

**Mineral and Aggregate Resources**

There are no commercially valuable minerals in the Estacada area, according to state geologists. Although Clackamas County has valuable aggregate resources, there are no sand or gravel quarries operating within the urban growth boundary. A gravel company is located on the west side of the Clackamas River near River Mill Dam.

“The Oregon Department of Geology and Mineral Industries publication entitled Rock Material Resources of Clackamas, Columbia, Multnomah, and Washington Counties, Oregon, identifies resources site 72a within the urban growth boundary of the city. Subsequent investigations have determined the site is an exhausted quarry site owned by Oregon State Highway Department and used for gravel storage. The site has been planned for industrial use.”
Energy Resources

There are no unique energy sources within the UGB area. Non-renewable resources investigated include:

1. Gas – no known deposits
2. Oil – no known deposits
3. Geothermal – no known resources

Solar energy and wind energy are renewable sources that, with continued technological improvement, can reduce the need for fossil fuel and hydro-electrical power.

Ecologically Significant Areas

There are significant populations of hawks, owls, songbirds, small mammals, and numerous other non-game species within the urban growth boundary. Farmlands within the urban growth boundary are important wildlife habitat. The species they support are shown in Appendix B. Most of these lands are not classed as critical or unique habitat, however.

The most sensitive habitat is located along waterways. The Clackamas River is considered one of the top three anadromous fisheries in the Willamette River system. The U.S. Fish and Wildlife Service operates a hatchery for salmonid species on Eagle Creek, a tributary of the Clackamas. Eagle Creek joins the Clackamas River approximately 5.6 miles below the Estacada outfall. The river is also an important trout fishery and supports sensitive waterfowl species.

Vegetation along the small creek passing by the high school and along Currin Creek also provides cover for wildlife.

“The Oregon Revised Statutes Chapter 390.825 (7) identifies the Clackamas River as a wild and Scenic River from River Mill Dam down to Carver, approximately 12 miles. There is approximately ¼ mile of this river frontage within the urban growth boundary. This land is owned by PGE and leased to the City for park purposes. The land is designated open space on the City’s plan map. Further, Clackamas County zoning ordinance, section 704 provides adequate protection in accord with state statutes.”

Scenic and Historic Sites and Buildings

Historical highlights and the origin of the name Estacada are included in Appendix C. Estacada currently has no listings on the National Register of Historic Places or the Statewide Inventory of Historic Properties. The closest historic sites of local (and possible statewide) importance are: 1) the Baker Log Cabin at Carver; 2) the Church of the Nazarene (now Garfield Community Church), 4 miles east of the City; 3) the Feldenheimer Ferry site; and 4) the Foster (Philip) farm site in Eagle Creek. No buildings of historic or architectural note have been identified within the urban growth boundary.

There are no specifically designated scenic sites within the city or the urban growth boundary. There are several access points to the Clackamas River at Estacada. However, these are primarily for fishing and river use.
Historical & Cultural Resources

Estacada will participate with Clackamas County in an exhaustive, county-wide survey to identify historic and cultural resources. Estacada’s participation will be limited to the area within its UGB. This study is tentatively scheduled to occur between July 1990 and June 1991.

Recreational Trails

The old railroad right-of-way paralleling Highway 224 has been identified by the Oregon State Parks System Plan for use as a future bikeway.

Park and Recreational Facilities

Parks

1. Barton – Six miles northwest of Estacada on the Clackamas River. Day-use facilities include picnic areas and a boat ramp. Activities include swimming and fishing from boat and shore. Overnight facilities have fireplaces and electrical hookups.

2. Eagle Fern – Three miles north of Estacada on Eagle Creek. Covered group facilities and picnic sites, and nature trails within park boundaries. Activities include fishing and hiking.

3. City of Estacada – The City currently leases a large park from Portland General Electric for a term of more than 20 years. The only restriction on this lease is the agreement that the city will not annex this property.

   This is the site of the Estacada Timber Festival each year. There is no stadium or grandstand, although there is an amphitheater of sorts. The park also has several day-use picnic and cooking facilities. The city plans to improve day-use facilities as funding becomes available. The area of the park is approximately 20 acres.

4. McIver Park – Located west of the City on the south side of the Clackamas River. Day-use facilities include 50 picnic spaces, electric cooking units, and bath houses with toilets. Activities include swimming, hiking and fishing.

5. Metzler – Five miles south of Estacada on Clear Creek. Day use facilities include baseball diamonds, playground equipment, and picnic areas. Activities include fishing, swimming, and overnight camping.

6. River Mill – One Mile west of Estacada on the south side of the Clackamas River. Day-use facilities include a boat ramp, community kitchen, and flush toilets. Activities include boating, fishing and picnicking.
**Athletic Facilities**

Estacada’s schools provide the principal athletic facilities in the city. Athletic fields total approximately 64 acres.

The high school has approximately 40 acres of athletic fields, which includes a baseball field, track, four tennis courts, three football and two soccer fields, and a gymnasium with regulation basketball court.

The junior high school has approximately 4 acres of athletic fields, including four tennis courts, one gymnasium with basketball court, one soccer field and one football field for practice.

The middle school has 17 acres of playfields, with two baseball fields, a multi-purpose room with baskets and playground equipment.

The primary school has 3 acres of playfields, with playground equipment and a multipurpose room with baskets.

**Recreation Needs**

A commonly employed guideline proposes that 10 percent of the land area within a city should be devoted to park and recreation lands and open space. Applying the 10 percent criterion to the land area within the UGB (2,583 acres) yields an identified need of 260 acres. Subtracting from this amount the current supply of approximately 64 acres of developed recreation lands and 197 acres of sloped and undevelopable lands yields a surplus of 1 acre.

Table 4 shows the specific park and facilities needs for Estacada in the year 2000. Most of Estacada’s present recreation needs are served by facilities owned by the school district. It is expected that as Estacada’s school age population grows, the district will construct additional facilities that will serve the general population as well. As facilities are constructed, however, the amount of open playfield area not available to the public will be reduced.

Estacada currently has no designated foot or bicycle trails within the city. There are numerous rural and pristine wild areas nearby, and state and county parks are within driving distance, but school facilities are currently the only open space available for recreational use accessible by foot.

The city has no neighborhood parks at present, and, given the scale of the city, has little need of them since school facilities are nearby. As the city grows, however, additional open space will have to be dedicated for public recreational use.

Wetland areas, as defined in the City Code, have been identified with the Urban Growth Boundary of Estacada. These areas are identified in the Comprehensive Plan, Wetland Map. Specific criteria for development of wetland areas will be adopted in order to protect these areas to the greatest reasonable extent.
## Projection of Facility Needs

**City of Estacada, OR**

<table>
<thead>
<tr>
<th>Facility</th>
<th>Standard</th>
<th>1979 Supply</th>
<th>1979 Need</th>
<th>1979 Surplus (Deficit)</th>
<th>Year 2000 Need</th>
<th>Year 2000 Projected Surplus (Deficit)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Playground/Playfield</td>
<td>1-1/4 acres/1,000 pop.</td>
<td>64 acres</td>
<td>2 acres</td>
<td>62 acres</td>
<td>11 acres</td>
<td>53 acres</td>
</tr>
<tr>
<td>Neighborhood Park</td>
<td>5 acres/1,000 pop.</td>
<td>0 acres</td>
<td>8.5 acres</td>
<td>(8.5 acres)</td>
<td>45 acres</td>
<td>(45 acres)</td>
</tr>
<tr>
<td>Swimming Pools</td>
<td>1 Pool/10,000 pop.</td>
<td>0 pools</td>
<td>1 pool</td>
<td>(1 pool)</td>
<td>1 pool</td>
<td>(1 pool)</td>
</tr>
<tr>
<td>Tennis Courts</td>
<td>1 court/2,000-2,500 pop.</td>
<td>8 courts</td>
<td>1 court</td>
<td>7 courts</td>
<td>4 courts</td>
<td>4 courts</td>
</tr>
<tr>
<td>Ballfields</td>
<td>1 field/1,200 pop.</td>
<td>10 fields</td>
<td>1 field</td>
<td>9 fields</td>
<td>7 fields</td>
<td>3 fields</td>
</tr>
<tr>
<td>All-Purpose Courts</td>
<td>1 court/2,500 pop.</td>
<td>2 courts</td>
<td>1 court</td>
<td>1 court</td>
<td>4 courts</td>
<td>(2 courts)</td>
</tr>
<tr>
<td>Basketball Courts</td>
<td>1 court/500 pop.</td>
<td>2 courts</td>
<td>4 courts</td>
<td>(2 courts)</td>
<td>18 courts</td>
<td>(16 courts)</td>
</tr>
</tbody>
</table>

CH2M Hill, Computations, 1979
*per capita standards not available
Findings of Fact

1. If existing farmland is to be maintained as open space, it will have to be preserved through special zoning provisions.

2. There are no commercially valuable mineral or aggregate resources within the urban growth boundary.

3. There are no significant historical sites or objects within the study area that would be affected by the comprehensive plan.

4. As Estacada grows, development along streams and rivers will reduce habitat.

5. Prominent fish and wildlife habitats with riparian vegetation run along the drainage corridors. As Estacada develops, this habitat along streams and rivers will be reduced unless protected.

6. There is an osprey nest outside the urban growth boundary near River Mill Dam. Although this nest is outside the city’s jurisdiction, the urban growth boundary does overlap with the Clackamas River Scenic Waterway. This portion of the waterway will need special zoning to protect it from development.

7. As continued residential development occurs, Estacada will need to acquire and dedicate neighborhood parks.

8. Most of Estacada’s open space needs can be met through preservation of the surrounding farm and forest land.

9. The school district owns several acres of vacant land contiguous to the school properties. The utility-owned park near the dam is less than 2 miles from the city limits. McIver State Park is less than 1 mile from the city limits.

10. Wetland areas have been identified in the Estacada area by the U.S. Fish and Wildlife Service. City staff has reviewed these areas and has identified significant wetland areas shown in the Wetlands Map, Figure 4.
Policies

1. Preserve open space through public acquisition, as funds permit, and encourage preservation of open space in private development.

2. Preserve agricultural land use within the urban growth boundary until land is needed for development.

3. Examine any publicly owned surplus land including street rights-of-way for potential open space use.

4. Encourage multiple-use of existing open spaces when the potential uses are compatible.

5. Preserve the wildlife habitat along the Clackamas River as permanent open space to protect fish, wildlife, and vegetation.

6. Protect watershed from uses that inhibit high quality water production.

7. Continue to exercise concern for historical values in the future, and require documentation of specific sites and objects of historical significance as the future need may arise at time of development proposal.

8. Require developers to dedicate a portion of new subdivisions for parks with facilities open to the public.

9. When possible, acquire and develop vacant lots as “tot lots.”

10. The city will request in writing that Clackamas County take the necessary steps to protect those wetland areas identified on the Wetlands map located within the Estacada Urban Growth Boundary, but outside the city limits.

11. The City shall complete the Goal 5 process for Wetlands (OAR 660, Div. 16) when adequate information providing the location, quality and quantity of potentially “significant” Goal 5 wetlands resource sites is available.
Implementation

1. The city will observe restrictions on the land use of the Clackamas River Scenic Waterway as required by the state.

2. Zoning and preferential assessments within the urban growth boundary but outside the city limits are subject to Clackamas County regulations. The city will work with Clackamas County to ensure implementation of these regulations. Implementation of these policies will be pursued through a land use management strategy to be developed by the city and county for the area between the city limits and the urban growth boundary.

3. The city will amend its subdivision ordinances to require dedication of public park lands in new housing development.

4. Other policies will be implemented through interpretation of the zoning and subdivision ordinances in day-to-day, land-use decisions.

5. Adopt an implementing ordinance to protect and control development of areas identified as significant wetland areas on the Estacada Comprehensive Plan, Wetlands map, Figure 4.

6. Pursuant to OAR 660-16-000 (5) (b), the City shall designate the wetlands and riparian habitat areas identified on the National Wetlands Inventory (NWI) as potential resource sites and rely on state and federal permits for proposed development on the sites.
CHAPTER 6
Environmental Quality and Land Use Hazards

Goals

1. Maintain and improve the quality of the area’s air, water, and land resources.

2. Protect life and property from natural disasters and hazards.

Objectives

1. Inventory known hazard areas.

2. Ensure that appropriate protective measures are taken to prevent potential damage in hazard areas.

Existing Conditions

Air Quality

The Estacada area has virtually no air quality problems, except those caused by emissions from local mills. Estacada is east of the Portland Air Quality Maintenance Area. There are point sources in the study area that would cause the standards to be exceeded. The quality of air in Estacada is primarily dependant on the success of air quality control in the Portland area. The study area’s location has the benefit of not being downstream from the Portland problem, but this major urban area is still the prime source of pollution.

The nearest air quality monitoring station is in the City of Sandy, approximately 10 miles northwest. The station monitors the concentration of suspended particulates (dust, ash, etc). Suspended particulates are the only type of pollutant potentially reaching high levels of concentration in the Sandy area, as well as in Estacada. The Department of Environmental Quality has set a primary standard of 75 micrograms per cubic meter as an indication of excessive particulate concentration. During the 8-year period ending in 1977, the Sandy monitoring station recorded a maximum annual geometric mean particulate concentration of 51.4 micrograms per cubic meter.

General Geology

The subsurface strata of the planning area consists of several formations that all have similar materials. The materials are principally cobble and boulder gravels with a sandy silt matrix. The rocks have varying degrees of consolidation. Stratigraphically, the young units are founds as terraces cut into the older rocks. Small amounts of recent alluvium are found in the bed of the Clackamas River. Structurally, the units have low dip angles, and no faults are mapped within 5
miles. Geologic formations composed of this type of material traditionally will yield only small amounts of ground water. These small amounts frequently are not enough for domestic use.

**Topography**

The facilities planning area rises in a series of steps from the Clackamas River to the east and northwest. The city’s commercial core occupies a plateau about 70 to 90 feet above the river. Lying from the northwest to southeast across the city is a second bluff, above 50 feet high. The plateau above is occupied by a residential development and the school facilities complex. Roughly paralleling the city’s eastern limit is the third topographic break, an approximately 250-foot rise to the planning area boundary. The rise ultimately peaks at 1,160 feet, 1-1/2 miles beyond the planning area boundary. Elevations within the planning area range from 380 feet at the Clackamas River to 800 feet along the eastern boundary. Figure 5 illustrates the topography and other physical features of the facilities planning area.

The topography of the area protects the city from unusual or extreme wind conditions common to areas in the Columbia Gorge region. There are no unusual wind conditions in the area.
TOPOGRAPHY AND PHYSICAL FEATURES

FIGURE 5
Soils

Planning area soils are distributed among five general soil associations. Surface soils are generally silty loam in the eastern, northern and northwestern portions of the planning area and gravelly in the western and southwestern portions. The substrate soil is silty clay loam in all areas except the western and southwestern, where it is gravelly soil. Natural drainage is moderately good to good for the entire planning area, except the northwestern portions, where relatively impermeable soils lie over a shallow water table. All but the most steeply sloped area are generally suitable for urban, agricultural, or open space uses. Urban development using septic tank sewage disposal systems faces severe natural limitations in the northwestern portion and steeply sloped parts of the planning area.

All but the most steeply sloped areas are generally suitable for urban, agricultural, or open space uses. Figure 6 shows the distribution of soil associations in the planning area. Table 5 summarizes the characteristics and use suitabilities of the soil associations.

Surface Water Resources and Quality

The Clackamas River has its origins in the high Cascade Mountains. Figure 7 shows the location and extent of the Clackamas River basin. Hydroelectric facility development in the middle and upper reaches, consisting of a series of dams and storage reservoirs, has created conditions advantageous to water temperature stratification and the growth of algae. Hydroelectric operations also cause wide daily fluctuation in stream flow in response to peak periods of electricity demand. Runoff from timber harvest areas in the upper basin is a major contributor to the river’s silt and debris loading.

---

1. A soil association is a group of soils that are geographically associated in a repeating pattern on the landscape and consists of one or more major soils and at least one minor soil.
Table 5

Estacada Area Soil Associations and Soil Characteristics

Soil Association

<table>
<thead>
<tr>
<th>Ref. No</th>
<th>Name</th>
<th>Composition</th>
<th>Depth (in)</th>
<th>Natural Drainage</th>
<th>Major Use Suitability*</th>
<th>Slope (%)</th>
<th>Erosion Hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Briedwell</td>
<td>Gravelly over bedrock</td>
<td>20-40</td>
<td>Good</td>
<td>IC, DC, P, H, R, W</td>
<td>0-12</td>
<td>Slight to moderate</td>
</tr>
<tr>
<td>7</td>
<td>Concord</td>
<td>Silt loam over silty clay over bedrock</td>
<td>60+</td>
<td>Poor (1 foot to water table)</td>
<td>Same</td>
<td>0-7</td>
<td>Slight</td>
</tr>
<tr>
<td>9</td>
<td>Jory-Cazadero</td>
<td>Silt loam over silty clay loam over weathered gravel</td>
<td>40+</td>
<td>Good</td>
<td>DC, P, H, T, W, R, (T, R, W, WS, IN steeper areas)</td>
<td>12-50</td>
<td>Moderate to high</td>
</tr>
<tr>
<td>10</td>
<td>Cazadero-Saum</td>
<td>Silt loam over silty clay loam over bedrock</td>
<td>60+</td>
<td>Good</td>
<td>IC, DC, P, H, R, W</td>
<td>0-12</td>
<td>Slight to moderate</td>
</tr>
<tr>
<td>12</td>
<td>Bornstedt</td>
<td>Silt loam over silty clay loam over bedrock</td>
<td>60+</td>
<td>Moderately Good (2-3 feet to water table)</td>
<td>IC, DC, P, H</td>
<td>0-12</td>
<td>Slight to moderate</td>
</tr>
</tbody>
</table>

*Source: U.S. Department of Agriculture, Soil Conservation Service, General Soil Map, Clackamas County, Oregon March 1970

IC = Irrigated Crops, DC = Dryland Crops, P = Pasture, H = Homesite, R = Recreation, W = Wildlife, T = Timber, WS = Water Supply
SLOPES

FIGURE 8
Land Resources and Quality

Land quality is generally affected in the region by landfills and agricultural wastes and residues. There are no landfills in the study area and domestic solid waste is disposed of in the Oregon City area. Agricultural wastes as a source of land pollution are relatively low because agriculture in the area is limited in scope and no extensive farming is currently practiced. Crops in the area require fewer chemicals and less fertilizer than most. There are no point sources of land pollution such as aluminum smelting (sodium fluoride pollution), which can adversely affect land quality.

Hazards

Slide Hazards

Soil classifications combined with slopes were used to determine areas subject to some degree of slide hazard. These areas (shown in Figures 8 & 9) are not necessarily of such hazardous condition that all forms of development need to be withheld from them. They represent sufficient degree of hazard to require special design consideration if development does take place. These areas also have the potential of increasing hazard in the future if additional urbanization removes native vegetation and increases runoff. This increased probability needs to be considered in establishing any design standards for development.

Earthquakes

There are no seismic fault areas or low velocity zones known to exist in the study area. None of the geological formations common to such seismic structures are present in the area, and there is no record of seismic activity beyond the Uniform Building Code Zone 2 classification for the area.

Airport Clear Zones

The airport in the northeast portion of the study area is aligned on a north-south orientation along the contours of the sloping topography in that neighborhood. The clear zone, as established by Federal standards, is shown in Figure 9. The approach angle associated with this clear zone is 20:1.

Ground Water

There are no major ground water problems in the area.
Stream Flooding

The major floodway, the Clackamas River, is well delineated and adequately protected by the extremely steep topography abutting it. Flooding of the town, therefore, is not a potential hazard. The floodway data was obtained from the State Water Resources Board and recorded in Figure 9. The floodway area represents the 100-year flood, which for planning purposes is generally accepted as the maximum flood condition. The dam on the western edge of the study area ensures that this floodway cannot be exceeded because the area west of the dam constitutes a large flood plain. The elevation of the top of the dam is lower that the area outside of the river, and the immediate edge, which is on the north side, is a steep bank.

Three minor creeks traverse the study area; while none of them possesses sufficient volume to constitute a major flood hazard, consideration needs to be given to future increased runoff from the hard-surfaced areas associated with suburban development.

Noise

Excessive noise is not a problem in Estacada. The Crown Zellerbach lumber mill is the single, notable noise source in the area. It does not create a noise problem, however, by virtue of the location of process structures overlooking Highway 224, away from residences.

Potential future noise sources are the Estacada Industrial Park, potential industrial development north of the industrial park and west of Highway 224, and the general aviation airport which may developed on the landing strip sites in the northwest corner of the UGB area.

Noise is not expected to become a problem. The industrial development will be separated from residential development by buffer area built into the southern margin of the industrial park and Highway 224 corridor. When the airport is developed, special regulations will be written to assure that noise-sensitive development (residential uses) does not occur where noise would create a problem. These areas will be identified in the airport master plan.

Although the private airport has been included in the urban growth boundary, the city has no authority to address potential airport noise problems. The city will support Clackamas County and the Department of Transportation in dealing with any potential problems.
Findings of Fact

1. Control of auto emissions is an effective measure to enhance air quality since 60 percent of all air pollution is auto related. These measures, however, are controlled at the state and regional level. The State Department of Environmental Quality has an active program to monitor auto emissions, and the control standards are increasingly stringent.

2. Portland commuter trips are currently relatively small, since only about 15 percent of Estacada’s working population commutes there.

3. There are no outstanding or dramatic hazards in the area.

4. The major floodway is adequately protected.

5. The existing Uniform Building Code is adequate to protect life and property from seismic and wind conditions in the area.

6. Noise will not become a problem.

Policies

1. Prohibit landfills in sensitive areas. Encourage landfills in areas subject to urbanization that can benefit from increased elevation without negatively affecting ground water resources.

2. Require all storm drainage from new development to be served by siphon-type catch basins to reduce oil residue from roads.

3. Support the county’s policy of prohibiting future industrial development within 1,000 feet of the Clackamas River to reduce or eliminate potential industrial related pollution.

4. Prohibit location of industrial uses that would establish major point air pollution sources.

5. Require all new development to be connected to the sanitary sewer system and continue to improve effluent quality.

6. The city will ensure that development will not exceed the carrying capacity of the land, water or air resources of the area.

7. The clear zone on each end of the airport runway will be protected by restricting building and development within those areas in accordance with Federal Aviation Administration regulations.

8. The city will control development in areas of natural hazard to adequately ensure the safety and protection of life and property.

9. The city will require site-specific information from applicants seeking approval to develop known hazard areas.
10. Adopt land use regulations, as necessary, to prevent noise-sensitive development in airport related, high-noise areas.

11. New development shall not be approved where such development will violate noise standards adopted by the Department of Environmental Quality, DEQ.

12. The city will require compliance with state and federal environmental standards.

**Implementation**

Flood plain and slide hazard zone districts and airport area development regulations will be added to the zoning ordinances to regulate development in areas of natural hazard.
CHAPTER 7

Economic Development

The City’s economic development policies are those outlined in the separate 2009 Economic Opportunity Analysis (EOA) as amended, and in the City’s 2011 Downtown and Riverside Area Plan, both of which are adopted here as part of the City’s overall Comprehensive Plan by reference.
CHAPTER 8

Housing

Goal

Provide for Estacada’s year 2000 housing needs within its urban growth boundary.

Objectives

1. Ensure the provision of a variety of housing types and at price or rent levels reflecting the projected housing needs.
2. Provide sufficient land to house the projected population.
3. Ensure a future development pattern which protects residential areas from incompatible land uses.
4. Allow mixed-use development, with housing developed above or in conjunction with Downtown commercial uses to broaden the range of housing options available, to conserve energy, and to reduce reliance on the automobile.

Existing Conditions

Issues and Problems

Estacada’s growth rate will be relatively high through the end of this century: this growth is attributable to city dwellers seeking a more rural or small-town environment. The city’s proximity to extensive outdoor recreation areas, hoped for expansion of the local economy (especially tourist-related business), and a continuing but less important function as a Portland bedroom community will contribute to the future demand for higher cost housing units (usually single-family, detached). Expansion of the local economy will also contribute to an increasing number of lower income households.

The apparent need for new housing in the area is complicated by the lack of developable land in large parcels or scattered infill sites within the existing city limits. Land outside the existing city limits will be required to accommodate nearly all of the future housing development. This implies the need to identify suitable residential building sites and provide for the orderly conversion of rural land to urban use.

An aging stock of modest housing units occupies a large portion of the existing city area. With varying degrees of rehabilitation, these units can be maintained indefinitely. Maintaining these units is imperative since they constitute virtually all the moderately priced housing units in the area. With a vacancy rate of about 1 percent, Estacada cannot afford to lose any of these units. No lower cost housing is currently being built in the Estacada area.

The need for additional housing affordable to lower and middle income households has been documented for both the Portland metropolitan area and the City of Estacada (1) Estacada has...
indicated a willingness to accept its fair share of the Portland metropolitan area low-and moderate-income housing need by supporting the Portland area Housing Opportunities Program (HOP) for publicly assisted housing (see Appendix E).

Since there is no counterpart to the HOP of unassisted housing and no existing allocation or regional unassisted housing need, Estacada has attempted (see Table 10) to determine its fair share of future multi-family and lower cost housing.

**Existing Housing**

A survey taken in August 1979 by the Portland General Electric Company and a survey taken by CH2M Hill in October 1979 indicated the existing housing stock composition for the area enclosed by the urban growth boundary. This composition is shown in Table 10. This table was updated by city staff in January, 1981.

**Table 10**

<table>
<thead>
<tr>
<th>Unit Type</th>
<th>In-City</th>
<th>Urban Growth Boundary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Family</td>
<td>420</td>
<td>251 (including mobile homes)</td>
</tr>
<tr>
<td>Multi Family</td>
<td>93</td>
<td>0</td>
</tr>
<tr>
<td>Mobile Homes</td>
<td>60</td>
<td>0</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>573</strong></td>
<td><strong>251</strong></td>
</tr>
</tbody>
</table>


Portland General Electric data also shows the following vacancy rates by housing unit type for the City of Estacada and the Estacada zip code (97023) area:
Table 11
Housing Vacancy Rates

<table>
<thead>
<tr>
<th>Unit Type</th>
<th>Estacada</th>
<th>Zip Code Area (97023)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Family</td>
<td>2.85</td>
<td>4.62</td>
</tr>
<tr>
<td>Multi Family</td>
<td>8.6</td>
<td>7.14</td>
</tr>
<tr>
<td>Mobile Home</td>
<td>8.33</td>
<td>7.64</td>
</tr>
</tbody>
</table>

Based on 1976 data from the Clackamas County Planning Department, about 30 percent of Estacada’s housing units were built before 1940 and about 19 percent since 1970. In the last 10 years, housing starts have averaged about 21 units per year. This breaks down to sixteen single-family units (76 percent) and five multi-family units (24 percent) per year on the average. Residential demolitions total two or three units annually (Oregon Department of Commerce, 1979).

Residential structures are generally in fair to good condition. However, the 1970 Census reported that 16 percent of housing units in the Estacada area (Census Tract 242) showed significant deterioration. This is a moderately high rate for Clackamas County, where the country average is 7 percent. The greatest incidence of deteriorated housing in the area is found in the old residential subdivision on the plateau just north of downtown Estacada. Most of these houses could be rehabilitated.

Census data for 1970 reported the median value of housing in Estacada as $11,100. Building permit summaries for 1977, 1978, and through July 1979 (Oregon Department of Commerce Housing Division) show the (including land) is about $50,000 to $54,000.

Buildable Land

The term "buildable land" refers to land in urban and urbanizable areas that is suitable, available, and necessary for residential and other urban uses. Factors indicating suitability, availability, and necessity include the following:

- Topographic and soil conditions
- Flood plain location, ground and surface water conditions, seismic and other potentially hazardous conditions
- Compatibility of surrounding land uses
- Access to public facilities and services
- Owner intentions
- Need versus land supply
Buildable vacant land within the city consists of school district property (30 acres); and about 50 acres of mostly wooded, hillside, low-density residential land in a 20 acre parcel and a 30 acre parcel. There are six acres of undeveloped, single-family residential land between the high school, and the Crown Zellerbach mill and property. Field surveys by city staff in January, 1981 indicate there are 31 vacant building lots in the single family residential zone and 3 sites totaling 2.33 acres of vacant land in the multi-family residential zone. There is only 4.36 acres of commercial lands remaining vacant within the city. A 20-unit, single-family house subdivision is under construction in the northeast corner of the city and a 60-unit mobile home park is being developed in the southeast section. Both of these developments are occurring on land recently annexed.

Table 12 presents the buildable lands inventory for city limits area. A total of 72.16 acres, including the above-mentioned 56 acres are free of physical constraints to future development.
### Table 12

**Buildable Lands**  
**Estacada City Limits**

<table>
<thead>
<tr>
<th>Total Acres in City Limits Less (Acres)</th>
<th>Developed</th>
<th>Vacant</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Slide Hazard Area</td>
<td>0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Flood Plain, Seismic Hazard</td>
<td>0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Developed Lands</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Residential Single Family</td>
<td>216.69</td>
<td>48.70</td>
<td>265.39</td>
</tr>
<tr>
<td>b. Residential Multi Family</td>
<td>12.76</td>
<td>2.33</td>
<td>15.09</td>
</tr>
<tr>
<td>c. Commercial</td>
<td>51.76</td>
<td>4.36</td>
<td>56.12</td>
</tr>
<tr>
<td>d. Industrial</td>
<td>82.60</td>
<td></td>
<td>82.60</td>
</tr>
<tr>
<td>e. Public</td>
<td>244.00</td>
<td>16.80</td>
<td>260.80</td>
</tr>
<tr>
<td>f. Semi-Public</td>
<td>23.00</td>
<td>0.00</td>
<td>23.00</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>630.81</strong></td>
<td><strong>72.19</strong></td>
<td><strong>703.00</strong></td>
</tr>
</tbody>
</table>

Sources: CH2M Hill and City of Estacada, 1980, Revised by City of Estacada, 1981
**Analysis of Housing Need**

**Population Projection**

Estacada’s 1979 population was estimated to be 1,750 \(^1\). The 1970 and 1978 populations were 1,164 \(^2\) and 1,640 \(^3\) respectively. From 1970 to 1979, the city’s average annual growth rate was approximately 4.6 percent.

By the year 2000, the city’s population was projected to be 8,350. This projection is based on disaggregation of Clackamas County growth as projected by the CRAG 208 Plan (CRAG, 1977). It assumes that growth outside the Northwest Urban area of the County will concentrate in the Sandy, Estacada, Molalla, and Canby areas due to the County-imposed development restrictions outside of urban areas.

This growth rate, 8.12%, no longer appears to be appropriate due to the decision by the Port of Portland to place the regional reliever airport in Mulino rather than Estacada. The existing average annual growth rate from 1970 to 1979 was 4.6%.

Current comprehensive planning by Clackamas County will limit population growth in the rural portions of the three census tracts surrounding Estacada (235, 236, and 242) to about 3,000. The Center for Population Research and Census has projected a 12,143-person growth to the year 2000 for these census tracts.

Since Estacada is the only urban area in the immediate vicinity of these census tracts, a substantial portion of the 9,143-person projected growth balance will probably locate in the Estacada urban area.

On that basis the year 2000 Estacada urban area population projection of 7,242 reflects an anticipated 5.3% annual growth rate. This is slightly higher than the existing growth rate and is based upon an estimated total existing urban area population of 2,578. This figure was estimated by multiplying the number of dwelling units in the urban area (251) by the current household size (3.3), for a total of 828 persons and the existing city population.

As noted above and in the Economy section, the city favors employment growth and intends to pursue opportunities aggressively. While the city is currently at the outer fringe of development in the metropolitan area further growth in closer in areas will inevitably make Estacada a more desirable place to locate businesses and residences. Also since the county will be fostering small city economic growth and discouraging rural development, growth which in the past would have been scattered throughout the county will in the future be concentrated in urban areas. This will make urban areas like Estacada more viable economically, and may make it feasible to extend rapid transit to satellite cities like Estacada, thus making them viable residential areas for people who must commute to downtown employment.

\(^1\), \(^3\) Center for Population Research and census
\(^2\) 1970 Census

Also, it is important to note that economic growth in Estacada may be heavily influenced by the availability of services. Demand for industrial land in Clackamas County is very high, but the amount with services currently available is limited. Industries needing serviced, reasonably priced property will find Estacada an immediate and practical alternative.
Holding Capacity of the Existing City

There are 48.70 net buildable acres of single family residential land within the city limits. Assuming development occurs on lots averaging 10,000 square feet (the city’s existing residential development has taken place on lots averaging more than 13,000 square feet), a total of 195 single family dwellings can be added to the city’s housing supply. There are 2.33 net acres of multi-family residential land remaining in the city. At a density of 11 units per acre a total of 26 new multi-family dwelling units can be added to the city bringing the total number of dwelling units to 794. With a housing vacancy rate of 4 percent (32 units) and a reduction of the city’s average household size from 3.05 to 2.7 persons (1) (75 units), the year 2000 holding capacity of the existing city is 1855.

Projected Housing Unit and Land Acreage Needs for the Total UGB Area

The total number of new dwelling units needed to accommodate the projected UGB area population growth to the year 2000 of 4,559 will equal the sum of the following:

- The number of additional dwelling units needed to accommodate the present (1979) UGB area population now in households averaging 3.3 persons, but projected to average 2.7 persons—56 dwelling units.
- The number of dwelling units needed to accommodate the projected population increase of 4,559 at 2.7 persons per household—1,689 dwelling units.
- The number of dwelling units needed to maintain a 4 percent housing vacancy rate at the year 2000—70 dwelling units.

If dwellings lost to fire or demolished because of physical obsolescence are replaced one-for-one, the total number of new, non-replacement dwelling units needed within the UGB by the year 2000 is 1,815.

Single-family dwellings presently account for 88 percent of the UGB area housing stock. To achieve a year 2000 housing mix objective of 76 percent single family units and 24 percent multi-family units, 71 percent of the units (1,445) built over the 20 year period must be single-family and 29 percent (593) multi-family.

Assuming single-family units are built four per acre (roughly 10,000 square foot lots on the average), the projected new units will require 322 acres. When added to the 134 acres presently occupied by single-family dwellings within the UGB, the minimum year 2000 single-family unit acreage low density residential on Table 19) should be 456. A total of 474 acres has been designated on the plan map.

(1) Estimate of county-wide average household size by the year 2000 being used by the Clackamas County Planning Department reflecting national trend of declining household size.

Assisted Housing Need

There are no statistics on assisted housing need in Estacada. The City’s share of Clackamas County’s assisted housing need will be substituted.

The County’s assisted housing need is presented in the Area wide Housing Opportunity Plan for the Portland Metropolitan Area (Metro, 1979).
Based on Estacada’s percentage of the County’s projected year 2000 population (2.3 percent) and the goals of the above plan, it should provide a total of 140 assisted housing units over the 21-year period 1979-2000 of which 70 are suitable for the elderly and handicapped, 56 are for smaller families, and 14 are for larger families.

**Economics of Local Housing Need**

Since 1976, a net of about 20 housing units per year has been absorbed by the Estacada housing market. The newly built single-family houses, generally costing $50,000 or more are affordable to households with gross annual incomes in excess of $27,000. Continuing development of the local business community, the attractiveness of Estacada’s small rural city to some urban dwellers (including retirees), and its proximity to major outdoor recreation areas assures an expanding demand for higher cost single-family housing.

A high demand for low income elderly housing also exists. Two developments housing a total of 110 to 150 persons have been proposed. A local realtor has pointed out that the total existing need for elderly housing may be twice the capacity of these housing project proposals. (1) Estacada’s elderly comprise 7.4 percent of the population – a slightly lower percentage than the 9.4 percent for Clackamas County. (2) The 1970 Census reported that 14.6 percent of Estacada’s elderly had incomes below the poverty level.

Further evidence of the need for lower cost housing in Estacada is indicated by the following characteristics:

- The Department of Housing and Urban Development defines a low-income household eligible for assisted housing as a household whose income is less than 81 percent of the total area median household income. Eighty percent of the Portland metropolitan area median household income is $8,000. Approximately 32 percent of all Estacada households and 24 percent of Clackamas County households earn less than this amount annually. (3)
- The median value of an existing house in Estacada was $11,000 in 1970. (3)
- About 26 percent of Estacada households paid more than one-fourth of their gross annual income for housing. (4)
  1) Personal communication with Estacada Senior Service Center personnel, September, 1979.
  2) Clackamas County Planning Department, 1977.
  3) Clackamas County Planning Department, 1977
  4) 1970 Census
- About 64 percent of Estacada households earn less than $15,000 annually. (2) A household earning $15,000 annually can afford a house costing $27,500 and monthly payments or rent of $312.00. In 1979 dollars, $32,000 is equivalent to a $15,000 household income in 1970; and a house valued at $27,500 in 1970 would be worth about $54,000 in 1979 (Bureau of Economic Analysis, 1979, *Monthly Labor Review*).
- Nearly 12 percent of Estacada housing units were classified as overcrowded compared with 5 percent for the county. (1)
Policies

1. Encourage a construction mix of about 76 percent single-family and 24 percent multi-family housing units to maintain residential diversity.

2. Encourage future multi-family housing development in the flatland area north of the high school athletic field to Hinman Road, and north of the Crown Zellerbach property to River Mill Road.

3. Support the Housing Opportunities Program (HOP) for the Portland region (Appendix E), and provide for a fair share of the low-cost housing needed in Clackamas County.

4. Encourage moderate lot sizes for future single family housing development.

5. New residential development will occur in accordance with the policies for urbanization stated in the “Urbanization Element“, Goal 14.

6. Mobile homes meeting zoning ordinance criteria for single-family residences shall be encouraged as a source of lower cost, single-family housing.

7. The city will zone areas annexed in accordance with the plan map land-use designations.

8. Amend its Development Code, pursuant to the Downtown and Riverside Area Plan, to promote a range of housing opportunities for a 24-hour/7-day-a-week Downtown. Such opportunities should include housing in upper stories of Downtown commercial and civic buildings and new infill housing adjacent to the Clackamas River.

9. The Downtown Urban Renewal Agency, through public-private partnerships, should encourage the adaptive reuse of upper stories of buildings for housing, particularly in the Downtown where transit and social services are more readily available.

10. The Downtown Urban Renewal Agency, through grant programs, should encourage the restoration of affordable housing stock.

1) Personal communication with Estacada Senior Service Center personnel, September, 1979.

2) Clackamas County Planning Department, 1977.

Implementation

1. The city will enforce the Zoning Ordinance.

2. The city will work with developers to encourage housing cost reducing measures such as smaller lot sizes, common wall construction and expeditious permit processing.
CHAPTER 9
Public Facilities and Services

Goal

Provide orderly and efficient public facilities and services to adequately meet the needs of Estacada residents.

Objectives

1. Ensure the safety of Estacada residents through adequate police and fire protection.

2. Protect the general health of local residents by providing adequate storm sewerage, sewage treatment, solid waste disposal and water facilities.

3. Provide sufficient land for school facilities.

4. Implement a capital improvements program for streets, connected sidewalks, protected crossings (e.g. crosswalks, beacons, signal devices), bicycle facilities (e.g. dedicated bicycle lanes/parking), shared use paths/trails, off-street improvements, and street signs consistent with the goals and policies of the City’s Transportation System Plan, Downtown and Riverside Area Plan, Street Tree Design Plan, and Active Transportation Plan.

Existing Conditions

Fire Protection

The Estacada Rural Fire District serves both rural areas and lands within the urban growth boundary. Personnel include three professional fire fighters, a chief and secretary, and 45 volunteers. The district is authorized to conduct firefighting training classes. Twenty-two of the volunteers have emergency medical training.

Equipment is relatively new and up-to-date. The district is completing construction of a new substation, and is building a new tanker. Estacada has a class 5 fire insurance rating.

Three sites have been purchased for future service expansion. The district plans to build a new substation in the next 5 years in the Springwater-McIver Park area, outside the urban growth boundary.

Police Protection

The Estacada area is patrolled by Clackamas County Sheriff’s Office based in a substation at the Estacada City Hall and dispatched from Oregon City.
Although ten officers are based in the Estacada office, only five actually patrol the Estacada area. Due to budget problems, the Clackamas County Sheriff's Office is operating with about half the patrolmen it needs. Three years ago, the county force was cut back by 20 positions with no additions since. Meanwhile, the county population has continued to grow. Patrol coverage is at a much lower level than it should be.

**Schools**

Current school facilities are indicated in Table 13. The primary and junior high school are over capacity. The school district has, however purchased additional land for school expansions. Additional classrooms can also be added to existing buildings to accommodate future student requirements.

**Table 13**

**Estacada Schools**

<table>
<thead>
<tr>
<th></th>
<th>Senior High</th>
<th>Junior High</th>
<th>Middle School</th>
<th>Primary School</th>
<th>Eagle Creek School</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Location</strong></td>
<td>350 NE 7th</td>
<td>500 NE Main</td>
<td>850 NE Broadway</td>
<td>250 NE Main</td>
<td>HWY 211</td>
</tr>
<tr>
<td><strong>Grades</strong></td>
<td>9 - 12</td>
<td>7 - 8</td>
<td>4 - 6</td>
<td>1 – 4</td>
<td>1 – 5</td>
</tr>
<tr>
<td><strong>Teachers</strong></td>
<td>49</td>
<td>24</td>
<td>21</td>
<td>32</td>
<td>13</td>
</tr>
<tr>
<td><strong>1978 Enrollment</strong></td>
<td>901</td>
<td>416</td>
<td>416</td>
<td>533</td>
<td>234</td>
</tr>
<tr>
<td><strong>Teacher/Pupil Ratio</strong></td>
<td>1:18.3</td>
<td>1:17.3</td>
<td>1:19.3</td>
<td>1:16.6</td>
<td>1:18</td>
</tr>
<tr>
<td><strong>Size of Site</strong></td>
<td>55.4 acres</td>
<td>5.7</td>
<td>22.9</td>
<td>5.7</td>
<td>?</td>
</tr>
<tr>
<td><strong>Outdoor Playfields</strong></td>
<td>40 acres</td>
<td>4</td>
<td>17</td>
<td>3</td>
<td>?</td>
</tr>
<tr>
<td><strong>Capacity</strong></td>
<td>952</td>
<td>411</td>
<td>446</td>
<td>514</td>
<td>216</td>
</tr>
</tbody>
</table>

*Includes special education instructors

Source: Estacada School District

**Waste Disposal and Treatment Facilities**

All major units in the sewage treatment plant were constructed in 1932. Most of the units are still structurally sound, although the associated machinery is reaching the end of its design life. The existing facility does not meet Oregon Department of Environmental Quality standards for several months out of the year. All the major treatment units operate without standby capabilities. The sewage treatment plant will not be able to meet future water quality standards, and rehabilitation and modification of existing treatment units is necessary. Figure 11 shows the wastewater interceptor system.

A facilities plan for the wastewater interceptor and treatment facilities is currently under review by the Department of Environmental Quality. The facilities plan proposes actions to reduce excessive infiltration and inflow in the existing sewer lines, and improve treatment processes at the treatment plant to bring the effluent discharge into compliance with discharge
permit requirements. Routes are proposed for future interceptors to serve development in the area between the present city limits and the urban growth boundary (Figure 11).

Although the treatment plant will require expansion, the present site is sufficient to handle treatment works for a population of over 9000.

The city disposes of solid wastes at the Rossman Sanitary Landfill operated by Clackamas County. This landfill is located outside the urban growth boundary.

**Water Treatment Plant**

The city’s water treatment plant has a capacity of 1.0 million gallons per day. The city currently has water rights for drawing 2.6 million gallons per day.

The present treatment capacity will serve approximately 2,050 people, based on the current pattern of usage. The commercial and school use averages about 65 percent of present flow, with Crown Zellerbach alone using about 32 percent.

An expansion of the present plant will probably be necessary within 5 years, based on present consumption. An expansion will require that the city obtain additional water rights. With no additional large commercial or industrial users, an additional 1.0 million-gallon-per-day capacity could serve an additional 3,500 people. The new population capacity will then be 5,500.

Beyond this population of 5,500, the city will have to obtain additional property for plant expansion.

Figure 12 illustrates existing major water system elements and additional elements to serve the urban growth boundary area as proposed in the 1972 Water System Study (CH2M Hill).
"WASTEWATER INTERCEPTORS AND SEWAGE TREATMENT PLANT"

**FIGURE 11**
Findings of Fact

1. The present City Hall, Fire District, and Sheriff’s Office substation are in good repair and are adequate to meet present and foreseeable demands.
2. The wastewater treatment plant is performing marginally and is nearing the end of its design life. Excessive infiltration and inflow overloads the system, and future permit standards will be more stringent. The city has prepared a facilities plan and is waiting funding to begin improving the existing treatment plant. The present site can serve a population of about 9,000.
3. The city has a relatively new water treatment plant capable of producing 1 million gallons of purified water. The city is already experiencing spot shortages, however, and will have to expand the plant in the next 5 years.
4. The city disposes of solid wastes at the Rossman Sanitary Landfill, outside the urban growth boundary.
5. No new school sites are expected to be required between now and the year 2000.
6. The city has a master storm drainage plan (CH2M Hill, 1972, Master Street and Drainage Plan).

Policies

1. The city will develop a capital improvements plan and program that anticipates and finances future growth needs.
2. With approval of affected citizens, the city will improve the sewerage treatment systems and extend it to service all land within the city.
3. With the approval of affected citizens, the city will improve school, city administration, fire protection, police protection, and library facilities.
4. The city will consider the requirements of the Americans with Disabilities Act, as well as the needs of people with disabilities and those with limited mobility, in the design of all public improvements, including sidewalks, curbing, parking, crossings, trails, transit shelters, connections to transit services, and on-site circulation improvements.
5. The city will extend the usable life of the existing water treatment plant through peak-hour restrictions and industrial scheduling if capital improvement bond measures fail.
6. Implement a system development fee to provide a revenue source for sewer and water system improvements.
7. The city will coordinate solid waste planning with Clackamas County.
Implementation

1. Services will be provided to all lands within the city limits and the urban growth boundary they are annexed to the city.

2. The city will work with the county in cooperatively adopting zoning within the urban growth boundary.

3. The city will implement its water treatment and wastewater facilities plan and revise as necessary to accommodate population growth. The city will consider expansion of the water treatment plant as the present plant reaches full capacity. As the present site reaches production capacity, the city will consider expansion of facilities on adjacent properties.

4. The city will prepare, adopt, and implement a capital improvements program.
CHAPTER 10
Transportation

Goal

Provide and encourage a safe, convenient, aesthetic, and economical transportation system that meets the needs of all residents.

Objectives

1. Provide good local access and circulation.
2. Move traffic quickly and safely.
3. Preserve the aesthetic quality of the community.
4. Ensure pedestrian and bicyclist safety.
5. Encourage walking, bicycling, carpooling, and bus ridership.
6. Discourage through-traffic from using residential streets.

Component Plans

Development of the City’s transportation system and the City’s regulation of land uses affecting that system are guided by three component transportation-related plans adopted by reference in to this larger Comprehensive Plan and included in the appendices for reference. Those component plans are:

1. Estacada Transportation System Plan (first adopted 2007, amended 2011 with Downtown and Riverside Area Plan and 2018 Active Transportation Plan)
2. Estacada Active Transportation Plan (2018)
3. Street Tree Master Plan (2016)

Overall Transportation Policies

In addition to the specific policies outlined in Chapter 11’s component plans included in the appendices (the Transportation System Plan, Active Transportation Plan, and Street Tree Master Plan), the City shall follow these overall transportation policies:

1. Off-street parking will be required in new commercial and industrial developments in conformance with the standards set forth in the zoning ordinance. Such parking shall propose minimal barriers to walking, biking, and taking public transit and shall be designed and maintained to be visually attractive.
2. The City will continue assisting the elderly and disabled through special transportation programs, as resources allow.

3. The City will attempt to identify sources of funding for transportation studies that will: a) project future parking needs; b) examine accident patterns and determine if changes in signs, signals, or traffic control devices would improve safety; c) place traffic control devices to evaluate the efficiency of vehicular traffic; and d) evaluate opportunities to improve public health, tourism, and economic development with transportation system improvements.

4. The City will cooperate with Tri-Met in establishing transportation facilities for both local and commuter travel, as well as for visitors (tourists) to the Estacada area and for local residents seeking to access recreational destinations.

5. The City will promote and develop pedestrian and bike routes to accommodate trips made to reach places of employment and recreation, to access public and social services, and to visit local businesses.

6. The City will discourage drive-in uses in preference to walk-in uses.

7. The City shall work with ODOT, PGE, Clackamas County, and/or any other partnering agency or organization to maintain and enhance the Downtown and Riverside areas for all modes of transportation (pedestrians, bicyclists, motorists, transit, and freight), as applicable, consistent with Estacada Downtown and Riverside Area Plan.

8. Within the Downtown and Riverside areas, the design and development of future transportation projects shall conform to Chapter 5: Circulation and Parking and Chapter 6: Streetscape and Open Space Design of the Estacada Downtown and Riverside Area Plan, as well as to adopted policies that encourage biking and the shared use of transportation facilities by various modes of transportation, shall guide the design development of transportation projects.

9. The City will consider public health and recommendations by public health professionals when developing its transportation system.

10. Development and implementation of active transportation measures (pedestrian and bicycle amenities, transit facilities, etc.) shall include public outreach and education.
Chapter 11

Energy

Goal

Conserve energy resources and encourage use of reusable energy resources.

Objectives

1. Encourage energy conservation through sound land use and transportation policies.

2. Encourage energy conservation through weatherization of new and existing residential and commercial structures.

Existing Conditions

Renewable resources include sun, wind, water, and agricultural and domestic wastes. The capacity of these resources to produce usable energy is difficult to determine. It is unlikely that a community the size of Estacada could sustain the technical capacity to ascertain their potential.

Some solar study had been done by the region indicating an average of 314 Langleys per day fall on a square foot of land area in the CRAG region. This converts to about 478 megawatts per square mile or 3.69 BTU per square foot. Current technology is available but is primarily being used for recreational heating and luxury class home heating because of the large initial capital investment required to purchase these emerging systems. Unfortunately, the economic system discourages the use of such new technologies in favor of the lowest initial cost possible even though this means the consumer is penalized for the long-range costs of excessive energy consumption. In today’s economy, the actual purchase price is relatively unimportant for the consumer who bases the value of an expenditure on the terms available over the length of the credit purchase. Solar devices will continue to increase in popularity as non-renewable energy resources continue to increase in cost.

Wind is the other renewable energy source that is currently receiving research and publicity for future development. To date, small wind generators have value only where no other source is economically available. The cost of energy (dollars per kilowatt) from these small individual generators is considerably higher than projected increased rates for the foreseeable future. (See page 96, “Hayden Island Comprehensive Plan,” December 1975.) The capacity of other renewable resources is not pertinent since none exist in the area and their capacity to produce usable energy is beyond the technical ability of the city to determine.

Tables 15 and 16 illustrate energy use in Estacada. Encouraging energy conservation is the most effective means for achieving the energy goal. There are three approaches that can be applied to increase conservation: 1) public information programs; 2) incentive programs; and 3) enforcement programs.
**Table 15**

**Electricity Usage, 1978**

<table>
<thead>
<tr>
<th>Type of Use</th>
<th>Number of Accounts</th>
<th>Kilowatt Hours (kwh)</th>
<th>Dollars Charged</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>549</td>
<td>8,560,000</td>
<td>$225,296</td>
</tr>
<tr>
<td>General Commercial</td>
<td>137</td>
<td>10,300,000</td>
<td>$229,150</td>
</tr>
<tr>
<td>Residential Outside Lighting</td>
<td>18</td>
<td>60,000</td>
<td>$3,358</td>
</tr>
<tr>
<td>Commercial Outside Lighting</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Public Outside Lighting (city street lights, school)</td>
<td>4</td>
<td>158,000</td>
<td>$8,232</td>
</tr>
<tr>
<td>Industrial</td>
<td>1</td>
<td>6,900,000</td>
<td>$131,101</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>709</strong></td>
<td><strong>25,978,000</strong></td>
<td><strong>$597,137</strong></td>
</tr>
</tbody>
</table>

Source: Portland General Electric Company

**Table 16**

**Estacada Energy Use**

<table>
<thead>
<tr>
<th></th>
<th>Electricity (Million kwh) per year</th>
<th>Natural Gas</th>
<th>Fuel Oil (thousands of gallons per year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Space Heat</td>
<td>2.61</td>
<td>N/A</td>
<td>513.53</td>
</tr>
<tr>
<td>Hot Water</td>
<td>2.18</td>
<td>N/A</td>
<td>0</td>
</tr>
<tr>
<td>Cooking</td>
<td>0.51</td>
<td>N/A</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>1.94</td>
<td>N/A</td>
<td>0</td>
</tr>
<tr>
<td>B.H.</td>
<td>7.24</td>
<td>N/A</td>
<td>513.53</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><em>(24.67)</em></td>
<td><em>(N/A)</em></td>
<td><em>(70.86)</em></td>
</tr>
</tbody>
</table>

*(billion BTU/year)

Source: “CRAG Region Energy Analysis, Report 2,” June 1977
Public Information Programs

Public information programs are more likely to produce sustained energy savings than appeals to volunteerism. One way to inform and educate consumers is to initiate a program similar to the county agent system of the U.S. Department of Agriculture. Recent legislation has mandated that investor owned utilities provide the consumer with information on energy conservation and weatherization.

Incentive Programs

Incentive policies can include monetary rewards in the form of tax credits, low-interest loans, and subsidies.

Portland General Electric offers free inspection service and weatherization service for Estacada homes heated with electricity. Weatherizing single-family residences can be financed with no-interest lien against the property that is paid off when the property is sold. Multifamily residences are eligible for low-interest loans.

Oil burning customers can weatherize with low interest loans administered by their local supplier or the Oil Heat Institute. The state also administers low-interest loans for home heated with various fuels.

Enforcement Programs

Mandatory regulations could be imposed by a local government to require energy conservation. While some of these regulations could be enforced by minimal additional policing effort, others as recycling, might be very difficult to enforce.

The Potential Conservation Measures Appropriate to Estacada

Residential Sector

In new residential construction, energy could be conserved by: 1) using higher levels of ceiling, wall and floor insulation and installing double-glazed windows and vapor barriers; 2) siting homes to take advantage of natural sunlight; 3) landscaping yards to reduce the energy needed for heating and cooling; 4) clustering housing to make use of common wall construction, reduce travel distances, and reduce street construction and maintenance costs; and 5) increasing use of solar space and water heating systems.

Commercial

Measures aimed at reducing energy consumption in Estacada’s commercial sector would include: 1) reducing ventilation and lighting levels in commercial buildings; 2) moderating thermostat settings; 3) adding wall and roof insulation and double pane windows to existing buildings; and 4) using heat conserving features in new commercial construction (more insulation, fewer windows, efficient ventilation and lighting systems, etc.).
Transportation

The primary means for conserving energy in Estacada’s transportation sector would be through a reduction in the number and length of automobile trips.

This could be accomplished by: 1) implementing a car pool or commuter bus program as the need is shown; 2) providing bike and pedestrian paths between residential and employment centers as funds become available; and 3) encouraging development of mixed-used high density, residential/commercial areas.

Findings of Fact

1. River Mill Dam has a generating capacity of 23,000 kilowatts. There is little opportunity to increase capacity, and land condemned for reserve generation has greater value for its scenic and recreational character. Water resources in the area are developed to capacity, and their future redevelopment is outside the city’s control. Scenic river designations make their redevelopment unlikely.

2. The state of Oregon has adopted energy legislation aimed at the residential sector. It focuses on conservation through weatherization and encourages the use of alternative energy sources through various incentives.

3. Energy saving in the commercial sector is expected as the increasing cost of energy encourages more efficient use, as mandatory and voluntary standards for energy use are set, and as reliance of the commercial users on renewable or more-available energy sources increases.

4. Cogeneration, or the production of electricity via additional steam from oil and gas burners, does not seem viable for any of the existing industries in Estacada.

5. There is a potential for significant energy savings in the implementation of a commuter bus and carpooling program between Estacada and Portland.

Policies

1. The city will increase the energy efficiency of the city operations where possible and encourage organization of car pools and commuter bus programs.

2. The city will encourage the use of solar heating systems, landscaping, and common wall construction as a means to reduce energy needs for heating and cooling in new construction.

3. The city will continue to require new construction to meet new state standards for weatherization and energy conservation.
4. Convenience commercial development outside the commercial core area will be considered as a means to reduce the length and number of automobile trips.

5. The city will encourage establishment of a bike and pedestrian path system that connects residential area with employment centers as need is shown and as funds become available.

**Implementation**

1. Energy policies will be implemented through revisions in the zoning and subdivision ordinances. Height, bulk, and setback requirements will be revised to allow buildings to be sited to take advantage of solar energy as well as vegetation for screening.
2. The Uniform Building and Specialty Codes will be enforced to meet new state weatherization standards.
3. They city will cooperate with Tri-Met to encourage carpooling and will establish park-and-ride stations.
Chapter 12

Urbanization

Goal

Provide sufficient land to accommodate growth to the year 2000 and provide for the orderly development of this land.

Objectives

1. Project urban land needs for the period 1980 to 2000.

2. Establish an area adequate to accommodate projected 20-year urban development needs.

3. Establish policies to govern conversion of rural land to urban use.

4. Establish the means for coordination of land-use decision-making between the city and Clackamas County.

Existing Conditions

Issues and Problems

The City of Estacada is an urban entity in a relatively isolated location, 15 miles from southeast of Oregon City and 30 miles from downtown Portland, as shown in Figure 14. Directly to the east are the Cascade Mountain foothills and extensive forested areas containing vast outdoor recreational opportunities.

These locational characteristics combine to make Estacada a very attractive alternative for urbanities seeking a small town, rural, and recreation-oriented living environment. The past population growth and projected future growth statistics presented in Table 17 illustrate the expected growth trend.
At present, Estacada contains 51.03 net acres of land suitable for additional residential growth. Approximately 221 housing units can be accommodated. All additional future growth must occur outside the existing city limits.

Rural lands surround Estacada. Vacant (some forested) tracts of land predominate, with interspersed parcels of agricultural and rural residential use, generally 5 acres in size. Rural land must be converted to urban use to accommodate Estacada’s projected growth. An orderly and efficient conversion process is needed to prevent urban sprawl.

**Projected Land Use**

Future growth of the population implies expansion of land areas for residential, commercial, industrial, public, recreational and semi-public uses for its support. Table 18 summarizes the existing and projected land-use acreages for the UGB (Figure 15).

### Table 17

**Population**

**Average Annual**

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
<th>Growth Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>1,164 (a)</td>
<td></td>
</tr>
<tr>
<td>1978</td>
<td>1,160 (b)</td>
<td>4.4</td>
</tr>
<tr>
<td>1979</td>
<td>1,750 (b)</td>
<td>6.7</td>
</tr>
<tr>
<td>200</td>
<td>7,242 (C)</td>
<td>5.3</td>
</tr>
</tbody>
</table>
### Table 18

**Urban Growth Boundary**  
**Land Use Zone Acreages**

<table>
<thead>
<tr>
<th>Zone</th>
<th>Developed</th>
<th>Undeveloped</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single-Family Residential</td>
<td>134</td>
<td>340</td>
<td>474</td>
</tr>
<tr>
<td>Multi-Family Residential</td>
<td>0</td>
<td>90</td>
<td>90</td>
</tr>
<tr>
<td>Commercial</td>
<td>0</td>
<td>95</td>
<td>95</td>
</tr>
<tr>
<td>Industrial</td>
<td>0</td>
<td>352</td>
<td>352</td>
</tr>
<tr>
<td>Public</td>
<td>1</td>
<td>350</td>
<td>391</td>
</tr>
<tr>
<td>Semi-Public</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Airport</td>
<td>110</td>
<td>0</td>
<td>110</td>
</tr>
<tr>
<td>Hazard</td>
<td>0</td>
<td>197</td>
<td>197</td>
</tr>
</tbody>
</table>

**TOTAL**  
285  
1,424  
1,709

**Total UGB Acreage**

<table>
<thead>
<tr>
<th>Zone</th>
<th>Developed</th>
<th>Undeveloped</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Family Residential</td>
<td>350.69 (a)</td>
<td>421.7</td>
<td>772.39</td>
</tr>
<tr>
<td>Multi-Family Residential</td>
<td>12.76 (b)</td>
<td>92.33</td>
<td>105.09</td>
</tr>
<tr>
<td>Commercial</td>
<td>51.76</td>
<td>64.36</td>
<td>116.12</td>
</tr>
<tr>
<td>Industrial</td>
<td>82.6</td>
<td>302</td>
<td>384.6</td>
</tr>
<tr>
<td>Public</td>
<td>285.00 (c)</td>
<td>560.8</td>
<td>845.8</td>
</tr>
<tr>
<td>Semi-Public</td>
<td>23.00</td>
<td>58</td>
<td>81</td>
</tr>
<tr>
<td>Airport</td>
<td>110</td>
<td>40</td>
<td>150</td>
</tr>
<tr>
<td>Hazard</td>
<td>0 (e)</td>
<td>197</td>
<td>197</td>
</tr>
</tbody>
</table>

**TOTALS**  
915.81  
1,736.19  
2,652.00


Notes:  
(a) includes single-family detached house sites and mobile homes on standard lots averaging 10,000 sq. ft.  
(b) Primarily duplexes.  
(c) Includes City Hall, schools, parks and streets estimated to occupy 30 percent of UGB area by year 2000.  
(d) Churches, other institutions.  
(e) See Figure 8.
As can be seen in Table 18, the land within the UGB is just sufficient to accommodate the projected land needs. A small amount of land is projected to be vacant at the end of the planning period. Many other plans, including Metro’s, include high land vacancy factors in order to allow the free working of the land market. The Estacada plan is based on the assumption that there will be sufficient vacant land within the UGB for the next decade or so to assure that the land development market can work freely; if after that time the UGB is filling up at the rate now projected, the city will consider expanding the UGB, with county and LCDC concurrence, in order to provide a larger vacancy factor by the year 2000.

Table 18 and the following discussions indicate the rationale for the various land use requirements.

The Comprehensive Plan Map depicts the proposed location and acreage of each zone. The following is a discussion of each land use zone and rationale for its designation.

**Residential Infill**

**Existing Development**

The table indicates 134 acres are developed for single-family residences. This acreage was derived by reviewing the single-family ownership pattern within the Urban Growth Boundary. Of the single-family dwellings, 38% are situated on small, one acre or less, tracts, and are not readily re-dividable. 38% of the 251 single-family units equates to 95.38 acres. The remainder, or 62% if the 251 units, 155 units, are on larger tracts and readily re-dividable at four units per acre; therefore, a total of 39 acres are considered developed. These two acreages are then totaled to yield 134 acres of single-family residential development. Through this method, the Infill Factor with the Urban Growth Boundary has been considered.

**Housing Mix Assumptions and Future Development**

The Housing Element of the Plan has justified an additional 1,815 dwelling units within the Urban Growth Boundary and 221 in the City by the year 2000. The plan indicates a desired mix of 76% single-family dwellings and 24% multiple-family dwellings in the City and Urban Growth Boundary by the year 2000. To achieve this, because of the low ratio of multiple-family dwellings to single-family dwellings that presently exists, approximately 11%, the ratio must be much greater over the next 20 years. The actual differential is 71% single-family dwellings and 29% multiple-family dwellings. This was derived as follows:

| Total Existing Units City and UGB | 824 |
| Urban Growth Boundary             | 1,815 |
| City                             | 221  |
| Total Projected                  | 2,036 |
| Year 2000 Total                  | 2,860 |
Multiple-Family Residential

The desired mix is 76% single-family, 24% multiple-family. This equates to 2,174 single family dwellings, 686 multiple-family dwellings. As there are presently 93 multiple-family dwellings in the city, this figure is subtracted from the 686 to yield 593 new multiple-family units. Therefore, in the City and Urban Growth Boundary, 593 of the proposed 2,036 new dwelling units, or 29%, must be multiple units.

Multiple-family dwellings include duplexes, triplexes, fourplexes, and apartments. The City anticipates at least 50% of the new units will be two to four unit developments, placed on small lots, 50% of 593 units is 296 units. The Zoning Ordinance allows 7.62 units per acre in the smaller multiple-family developments, therefore, a total of 38.85 acres will be required for this type of development. The remaining 296 units are anticipated to be larger apartment complexes. This type of development is allowed at a greater density of 11 units per acre. Therefore, an additional 27 acres will be required, bringing the total of multiple-family acreage needed to 66 acres.

Single-Family Residential

There are 1,815 units anticipated within the Urban Growth Boundary of which 71% will be single-family dwellings, or 1,289. Although the Zoning Ordinance allows a net density of 5.81 units per acre, it is anticipated maximum development will not be achieved. The City assumes the average density will be closer to four units per acre, slightly higher than the existing density of the present City. At four units per acre, a total of 322 acres will be required in the Urban Growth Boundary to meet the absolute need for future single-family residential housing. Single-family residential lands designated on the Plan Map total 340 acres. It is anticipated 30% of the single-family units will be mobile homes; therefore, 545 units can be expected. This will require an approximate 136 acres. A total of 238 acres has been established for mobile homes in two zones. The two zones also allow multiple-family development anticipated to require 66 acres.

Commercial Land

The plan designates an additional 95 acres of commercial land within the Urban Growth Boundary. As pointed out earlier in the plan, the existing city limits contains only 4.36 acres of underdeveloped commercial land. The city is presently near the economic threshold (population 2000) of attracting additional commercial facilities, including medical services that have been lacking in the city. The city has indicated a need to expand the tourist facilities available within the city. The U.S. Forest Service office of Estacada, in the last year issued 17,000 woodcutting permits, which was the most issued by a U.S. Forest Service office in the nation. The city can capitalize on the through traffic by providing additional lands for commercial activities. Further, the city serves as a regional center for the Estacada School District which encompasses 750 square miles and provides 2,500 students to the Estacada Schools. The additional commercial lands will provide the opportunity for further economic growth that is at present all but halted.

There are no existing commercial land uses within the Urban Growth Boundary other than home occupations. The plan map designates 95 acres along the main highway corridors within the Urban Growth Boundary. This acreage is already divided into small, 10 acre or less, tracts...
although not developed. The city receives regular inquiries from commercial activities seeking highway frontage for potential development.

**Industrial Lands**

Industrial land designation has been raised from 302 acres which was the original CH2M plan map area designated to 352 acres. The additional acreage takes in large tracts along the main transportation corridors to provide greater flexibility to the city in attracting new developments. Recent industrial surveys have shown the need for large tracts of land for major industrial clients. The city is actively seeking to attract such clients. A recent survey by the Metropolitan Service District indicated a need for industrial tracts 40 to 50 acres and larger.

1. The small cities Industrial Development Study (Port of Portland) identifies specific problems with attracting targeted industries to the Estacada area. The study analyzes characteristics and needs of target industrial firms, and recommends that the city “increase the number and variety of industrial sites in the area.” The study is adopted as support document for the Estacada Plan by this reference.

2. Estacada seeks to provide a broad range of land options to attract companies seeking sites in the area, including a variety of sizes and locations. There are currently 82.6 acres of developed industrial land in the city. Based on population projections of 7,242 and in order to continue/increase the current ratio of 17% population/industrial employees in Estacada, it is recommended that 341.82 acres of developable industrial land be provided within the Urban Growth Boundary. A total of 352 acres has been designated.

3. The Estacada plan encourages industrial growth by designating a variety of industrial parcels, located on the northwest edge of the city and Urban Growth Boundary as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. West of Highway 224</td>
<td>132</td>
</tr>
<tr>
<td>2. East of Highway 224</td>
<td>90</td>
</tr>
<tr>
<td>3. South of Duus Rd. with Frontage on Eagle Creek Rd.</td>
<td>130</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>352 acres</strong></td>
</tr>
</tbody>
</table>

1 Oregon Manufactured Housing Association, August, 1983
Public Lands

Public lands, in the form of street rights-of-ways, highways, future schools and public utility services derived by utilizing a factor of percentage of the land to be developed. These lands do not show as a block of land other than proposed park development on the Comprehensive Plan Map. To derive the public lands acreage, the following methodology was used:

The Urban Growth Boundary is 1,709 acres. The following items were subtracted from the total Urban Growth Boundary acreage: 69 acre park, 197 acres hazard areas, and 41 acres public land already developed. A factor of 20% has been applied to yield a total of 280 acres anticipated to be needed for public lands. To this figure, the park development shown on the Plan Map near the River Mill Dam, 69 acres, was added to yield 350 acres of public lands. The 20% factor is considerably lower than the factor previously used in the Plan but it is considered more realistic for future development.

Airport

The airport ownership was reviewed and found to be slightly less than the owner indicated. A total of 110 acres are involved in the airport ownership. A special zoning ordinance category will be provided to allow airport related development, such as hangers, warehouses, and other activities, when this area is annexed to the city. Until that time, the Clackamas Zoning Ordinance will control any development proposed.

Hazard Areas

Hazard areas are not shown on the Plan Map because of difficulty in depicting them. The original acreage was determined by CH2M-Hill. A review of excess slope (20% +) or drainage basins are considered to be unbuildable. The Uniform Building Code, Chapter 40, will preclude the development of these lands without having to designate them on the Plan Map. A review of the Plan Map shows many creek drainages throughout the planning area. To accurately depict the actual hazard areas on the Plan Map would be an expensive and exhaustive undertaking. Each site would have to be considered on an individual basis, making the cost prohibitive. This would be unnecessary as it will be done as building permits are requested.

The Zoning Ordinance will be modified to require a site plan be submitted for metes and bounds tracts prior to the issuance of a building permit. The site plan will show slopes in excess of 20%, drainage ways, street elevations and any other potential hazards. In this manner, the burden is upon the applicant. Subdivided lots will be reviewed during the subdivision process.

Health Hazard Area

There is a small area south of the city limits and south of the Clackamas River which contains substantial development, including a U.S. Forest Service Installation. The area is bounded on the north by the Clackamas River, the south by Highway 211, and on north by Poplar Road. The area contains approximately 46 acres and 36 dwelling units. This developed area has been historically served with domestic water by a transmission main serving the cities of Oregon City and West Linn. The utility is known as the South Fork Water Board and is comprised of members of the two city councils. Long-range plans are to abandon the upper portions of this water main (see Appendix F). Therefore, several residents and the Forest
Service have asked the City of Estacada for water service at that time. For these reasons, the area has been included in the City's Urban Growth Boundary.

**Policies**

1. Establish an urban growth boundary (UGB) around the City of Estacada as shown in Figure 14. The UGB shall enclose a land area sufficient to contain the city's urban land needs to the year 2000. The city shall determine the land-use pattern within this area.

   A Dual Interest Area Agreement between the City of Estacada and Clackamas County is contained in appendix D. The agreement establishes a relationship between the two entities governing use of rural land within the UGB-land outside the Estacada city limit but inside the UGB.

2. Study the economic, governmental, and social relationships between Estacada and areas beyond the UGB. The Dual Interest Area Agreement between the City of Estacada and Clackamas County (Appendix D) established the procedure whereby the County will coordinate land use decisions affecting the unincorporated area within the UGB.

3. The urban growth boundary shall be adopted by the City Council.

4. New urban development may only occur concurrent with or following provision of the development site with public streets, water and sewer services, drainage facilities (as necessary), fire and police protection. And other public services as provided for in the policies governing public facilities and services.

5. The City of Estacada plans to provide public facilities and services within the UGB area.

6. Recreational uses will be encouraged within the UGB in accordance with policies 1 through 5 above and those for recreational needs.

7. Commercial and industrial uses will be encouraged within the UGB in accordance with policies 1 through 5 above and in the Economy Element, Goal 9.

8. Residential uses will be encouraged within the UGB in accordance with the policies 1 through 5 above and in the Housing Element, Goal 10.

9. All existing uses in any district that are in conflict with the uses sited on the plan are allowed to continue as nonconforming uses.

10. All uses in any district (except single-family residential use on lots of 7,500 square feet or larger) are subject to site plan review.

11. Clustering (i.e., planned grouping of building and condensed lot sizes) shall be encouraged in all districts to preserve the open character of the area, topography, tree
cover, and possible water courses and shall be required as condition of approval to achieve conventional 7,500 square-foot lotting or higher densities.

12. Annexation will be permitted in accordance with the “Annexation Regulations” (Estacada Code, Section 10.700).

Upon annexation, the land shall be designated a zone that complies with the Estacada Comprehensive Plan.

13. Rural land use within the UGB will be governed by the Dual Interest Area Agreement between the City of Estacada and Clackamas County (Appendix D). The City will support the County’s land use designations within the UGB.

These designations will restrict development to an average, 10-acre lot size, with 5 acres as the smallest allowable lot size. The city believes these designations protect this land from premature conversion and assure that urban development will take place in an orderly and timely fashion.

14. The Estacada Comprehensive Plan will comply with the land-use goals and objectives of Clackamas County and the Land Conservation and Development Commission of the State of Oregon. Evidence of compliance will be contained in Appendix F.

15. The policies of the Estacada Comprehensive Plan will be implemented by the Estacada Code, Chapter 10 Amended, Subdivision Regulations (Section 10.700) and Zoning Regulations (Section 10.200).
Urban Growth Boundary Establishment

Findings of Fact

1. The housing, economic and urbanization elements have demonstrated the need for the establishment of an urban growth boundary containing approximately 1,684 undeveloped acres surrounding the present city limits. These elements have demonstrated the following facts:

   a. The present city has only 51 acres of undeveloped residential land, giving the city a holding capacity of 1,855 population.

   b. The present city’s commercial area has only 4.36 acres remaining.

   c. The present city’s industrial area has been committed to development. The projects are underway.

   d. The city projects an additional 4,559 population by the year 2000 within the urban growth boundary.

   e. A total of 2,652 acres at a minimum will be required to hold that population.

   f. The city desires to add to its commercial capabilities by providing areas for medical, retail and tourist facilities.

   g. The city desires additional industrial growth and, as evidenced by the rapid occupancy of its industrial park, is actively seeking further clients.

   h. The city has a great deal of land committed to public facilities. Future growth will require additional lands to be committed to public use.

2. The plan has demonstrated in various elements the following facts:

   a. The projected growth rate, 5.3% will result in a population of 7,242 by the year 2000.

   b. Approximately 1,815 new dwelling units will be required to house the additional population.

   c. The additional population will create the need for additional employment opportunities. The city responded to that need by designating additional commercial and industrial areas.

   d. The city has determined the existing level of public facilities and services must be maintained as population increases to maintain the livability of the city.

   e. The city has adopted a policy to require compliance with state and federal environmental standards to assure livability of the area.
3. The public facilities element, the implementing ordinances and the dual interest agreement with Clackamas County demonstrate the following facts:

a. The city has the capability to provide the necessary public facilities for the additional population.

b. The city constantly reviews its facilities via consultant studies and has developed several specific master plans, including water, sewage treatment, street and storm water drainage plans.

c. The dual interest agreement with Clackamas County provides the city’s comprehensive plan designation will not become effective until annexation occurs.

d. The city’s subdivision ordinance requires a variety of public improvements be provided with each development at the developer’s cost.

4. The plan and implementing ordinances demonstrate that maximum efficiency of land uses will be realized within and on the fringe of the existing urban area.

a. The Dual Interest Agreement requires annexation to effectuate the city’s comprehensive plan for the area.

b. The city requires annexation for the provision of urban services, except in health hazard situations.

c. The city has designated a more efficient lot size, 7,500 square feet, as the standard for single-family dwellings. This is considerably less than the 13,000 square foot average of the existing community.

d. The outer edges of the urban growth boundary have been established utilizing known physical boundaries to avoid confusion as to its location. Where possible, county roads, and other existing physical features, i.e., the Clackamas River, were utilized. In other cases, specific property lines were utilized. This accounts for a slight increase in residential lands beyond the projected need. The logical placement of the boundaries outweighs the need to be numerically perfect in land acreage designated. The locational factors concerning the urban growth boundary will provide a greater ease of plan administration by various governmental units as times passes.

5. The various plan elements have addressed the environmental, energy, economic and social consequences of establishing the urban growth boundary in its designated location. The facts are:

a. A city has the capability to provide the necessary environmental services to serve the anticipated population of 7,242.

b. The city is committed to requiring compliance with state and federal environmental standards.

c. The annexation requirement for the provision of urban services will eliminate disorderly and energy inefficient provision of services. Only contiguous properties are eligible for annexation.
d. The establishment of the urban growth boundary will gradually provide a more energy efficient community by preventing urban development at ever increasing distances from the city.

e. The establishment of the urban growth boundary will allow additional economic opportunities within the area. The gradual concentration of population will also result in attracting additional professionals desired within the community. This includes doctors, dentists and others.

f. As the urban growth boundary area begins to be developed, a stronger sense of community will prevail. This will tend to strengthen the social fabric of the area.

6. The plan demonstrates that consideration was given to the retention of agricultural lands, Class I-IV soils, and makes the following findings:

a. Only 1 percent of the parcels in the area between the city limits and the urban growth boundary contain Class I-IV soils in 20 acre contiguous units. (Two parcels out of a total or 194.)

b. Of parcels containing Class I-IV soils, 95 percent are already developed. Only nine of the 194 parcels are undeveloped.

c. The bulk of class I-IV soils parcels are at the outer limits of the urban growth boundary, and rely on country enforcement of large-lot size zoning to preserve the larger existing lots. These outer properties will be the last to develop within the urban growth boundary (UGB) due to their remoteness from public facilities. County regulations and enforcement are adequate to preserve the Class I-IV soils of 20-acre sizes through large-lot zoning. (Only two parcels in these soils categories, or nine percent of the unincorporated part of the UGB area, can be preserved with this technique by the county).

d. Forty-five percent of the area is already partitioned into parcels less than 10 acres.

e. There are no Class I-IV soils that can be preserved by the city through large lot zoning.

f. No major negative environmental, economic, social or energy consequences will result from the urbanization of Class I-IV soils. Most of these areas are already committed to urban use because of existing development density, adjacent or surrounding development patterns, or small lot size.

g. Regardless of which direction Estacada expands, Class I-IV soils will be required for urban use.

h. The agricultural lands goal does not apply within the city limits or within the adopted urban growth boundary. It is more desirable to develop Class I-IV soils within the urban growth boundary over a period of time than to allow similar, more remote rural lands to urbanize. Justification for inclusions of agricultural land within the urban growth boundary is included in the Urbanization section of this plan.
7. The plan and Dual Interest Agreement provides the process by which rural lands within the established urban growth boundary may be committed to urban uses as the need occurs. From the plan and Dual Interest Agreement, the following findings concerning compatibility of urban uses with adjacent agricultural lands can be determined:

a. The Clackamas County plan and zoning ordinance remain in effect until annexation occurs, thus insuring the slow transition from rural to urban uses within the urban growth boundary.

b. There are no intensive agricultural activities within or adjacent to the urban growth boundary.

c. Only nine percent of the urban growth boundary area contains ownerships of 20 acres of larger.

d. The city, because of the annexation rule, encourages “infill” of existing city lands prior to development of the urban growth boundary area.
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